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Forest
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APPENDICES

Final Environmental Impact Statement

For the Revised Land Management Plan

Kootenai National Forest



Art by Frank Kujawa

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Appendix A — Cumulative Effects

Cumulative effects are those impacts on the environment that result from the incremental effects of an action when it is added to other past, present, and reasonably foreseeable future actions, regardless of which agency or person undertakes them (see 40 CFR 1508.7.).

Analysis and disclosure of cumulative effects alerts decision-makers and the public to possible environmental implications of interactions among known and likely management programs and activities. A programmatic FEIS, such as this one, considers large areas that encompass a wide array of environmental interactions, not all of which occur on the national forests. Many of these environmental interactions will be most accurately disclosed as cumulative effects in site-specific environmental analyses; they can neither be confidently predicted nor credibly estimated for inclusion in this document. In such cases, these cumulative impacts are discussed to the extent data and information allow. Wherever possible, cumulative impacts of the alternatives have been identified and estimated, even when the impacts are estimated with limited degrees of certainty.

A programmatic document, such as this one, needs to consider compatibility and conflicts with programs plans and institutional arrangements at national, regional, and state levels that have implications to environmental consequences and influence of successful implementation. The following past, present, and reasonably foreseeable programmatic actions have affected, or could affect, the various resources in the Kootenai National Forest (KNF). There is additional discussion of cumulative effects within the various resource area sections of chapter 3 of the FEIS.

Existing Forest Plan, as Amended

The baseline of effects is from the 1987 Land and Resource Management Plan. The effects of this Plan have previously been determined and disclosed in appropriate National Environmental Policy Act (NEPA) documents.

Past Policy Decisions

Forest Service NEPA Procedures

On July 24, 2008, the Agency issued a procedural rule to guide its implementation of the NEPA (36 CFR 220). While the new rule includes some changes, most of the Agency's NEPA procedures were moved to regulation unchanged. No cumulative effects are expected from these actions because these are intended to be procedural requirements that do not cause effects on the human environment.

Idaho Roadless Rule

The Idaho Roadless Rule (36 CFR 294 Subpart C) designated a system of lands called Idaho Roadless Areas. These lands are managed within a spectrum of five management themes: Wild Land Recreation; Primitive; Special Areas of Historic and Tribal Significance; Backcountry/Restoration; and General Forest, Rangeland and Grassland (36 CFR 294.28 (d)). The provisions set forth in this subpart shall take precedence over any inconsistent land management plan component. Land management plan components that are not inconsistent with this subpart will continue to provide guidance for projects and activities within Idaho Roadless

Areas, as shall those related to protection of threatened and endangered species. This subpart does not compel the amendment or revision of any land management plan. (e) The prohibitions and permissions set forth in the subpart are not subject to reconsideration, revision, or rescission in subsequent project decisions or land and resource management plan amendments or revisions undertaken pursuant to 36 CFR part 219.

The National Travel Management Final Rule

In November 2005, the Forest Service published a new travel management rule governing motor vehicle use on national forests and grasslands (36 CFR parts 212, 251, 261, and 295 (travel management)). Under the final rule, each national forest or ranger district designated those roads, trails, and areas open to motor vehicle use by class of vehicle and, if appropriate, by time of year. Motor vehicle use off the designated system is prohibited. Designated routes and areas have been identified on a motor vehicle use map (MVUM). Motor vehicle use outside of designated routes and areas are provided for fire, military, emergency, and law enforcement purposes, and for use under Forest Service permit. Valid existing rights are honored. The rule also maintains the status quo for snowmobile use.

The travel management rule has no effect on fire management, forest management, grazing, transportation systems, mineral and energy development, winter recreation, or land acquisition because it does not affect permits or valid existing rights.

As stated in chapter 3 of the FEIS, none of the alternatives would have a measurable impact on access to NFS lands.

The Roads Policy

In January 2009, new directives (FSM 7700 and FSH 7709) regarding travel management were put into effect to make them consistent with and to facilitate implementation of the agency's final travel management rule. This direction gives managers a scientific analysis process to inform their decision-making. It directs the agency to maintain a safe, environmentally sound road network that is responsive to public needs and affordable to manage but that call for unneeded roads to be considered for decommissioning or conversion to other uses, such as trails.

These final directives consolidate direction for travel planning for both NFS roads and NFS trails in Forest Service Manual (FSM) 7710 and Forest Service Handbook (FSH) 7709.55. The final directives rename roads analysis "travel analysis" and streamline some of its procedural requirements. In addition, for purposes of designating roads, trails, and areas for motor vehicle use, the final directives expand the scope of travel analysis to encompass trails and areas being considered for designation.

National Fire Plan

The National Fire Plan (NFP) was developed in August 2000, following a landmark wildland fire season, with the intent of actively responding to severe wildland fires and their impacts on communities while ensuring sufficient firefighting capacity and safety for the future. The NFP addresses five key points: firefighting, rehabilitation, hazardous fuels reduction, community assistance, and accountability (USDA Forest Service and USDI 2000).

The NFP established an intensive, long-term hazardous fuels reduction program in response to the risks posed by heavy fuels loads; the result of decades of fire suppression activities; sustained drought; and increasing insect, disease, and invasive plant infestations. Hazardous fuels treatments are accomplished using a variety of tools, including prescribed fire, wildland fire use,

mechanical thinning, timber harvest, herbicides, grazing, or combinations of these and other methods. Treatments are being increasingly focused in the expanding wildland urban interface (WUI) areas.

Various sections of chapter 3 of the FEIS, particularly the “Vegetation and Fire/Fuels,” discuss the interaction of the four alternatives with the NFP. A discussion of cumulative effects can be found there as well.

Healthy Forests Initiative

In August 2002, the President issued Healthy Forests: An Initiative for Wildfire Prevention and Stronger Communities. The intent of the initiative is to better protect people and natural resources by lowering the procedural and process hurdles that impede the reduction of hazardous fuels on public land. The initiative includes:

- Improving procedures for developing and implementing fuels treatment and forest restoration projects in priority forests and rangelands;
- Reducing the number of overlapping environmental reviews by combining project analyses and establishing a process for concurrent project clearance by federal agencies;
- Developing guidance for weighing the short-term risk against the long-term benefits of fuel treatment and restoration projects; and
- Developing guidance to ensure consistent NEPA procedures for fuel treatment activities and restoration activities.

One outcome of the Healthy Forests Initiative was the Healthy Forests Restoration Act of 2003 (HFRA).

Various sections of chapter 3 of the FEIS, particularly the "Vegetation and Fire/Fuels Management" sections, discuss the interaction of the four alternatives with the Healthy Forests Initiative. A discussion of cumulative effects can be found there as well.

Healthy Forests Restoration Act of 2003 (P.L. 108-148, HFRA)

The Healthy Forests Restoration Act, approved by Congress in December 2003, applies to the Forest Service and Bureau of Land Management (BLM). The act contains a variety of provisions to expedite hazardous-fuel reduction and forest-restoration projects on specific types of federal land that are at risk of a wildland fire or insect and disease epidemics. The act helps rural communities, States, Tribes, and landowners restore healthy forest and rangeland conditions, on state, tribal, and private lands.

Even though they do not specify outcomes, the direction set forth in these documents (the NFP and HFRA) was considered in the effects analysis. The analysis evaluates the relative ability to treat hazardous fuels primarily within the WUI and municipal watersheds. The prohibitions and permissions for road construction/ reconstruction and timber cutting, sale, or removal influence the ability to treat hazardous fuels.

Timber cutting and associated road-building projections portrayed in the FEIS reflect activities anticipated to be implemented within each of the alternatives, in response to the NFP, Healthy Forests Initiative, and HFRA. Various sections of chapter 3 of the FEIS, particularly "Vegetation and Fire/Fuels Management," discuss the interaction of the four alternatives with the HFRA. A discussion of cumulative effects can be found there as well.

Woody Biomass Utilization Strategy

This 2008 strategy describes how Forest Service programs can better coordinate to improve the use of woody biomass in tandem with forest management activities on both federal and private lands. Although the focus is on the use of woody biomass, the primary broader objective is sustaining healthy and resilient forests that will survive an environment of natural disturbances and threats, including climate change. One of four goals of the strategy is facilitating a reliable and predictable supply of biomass. The strategy does not prescribe any specific outcomes.

Each of the alternatives would result in a different level of biomass being available for use, commensurate with the levels of tree harvest predicted in table 132 (see “Timber” section of the FEIS).

Energy Implementation Plan

The 2001 Forest Service Energy Implementation Plan was written to implement elements of Executive Order 13212, Actions to Expedite Energy Related Projects, also called the National Energy Plan (USDA Forest Service 2001). The National Energy Plan encourages agencies to “...expedite their review of permits and/or take other actions necessary to accelerate the completion of such projects, while maintaining safety, public health, and environmental protections...”

No priority areas were identified in Northwest Montana. The Energy Implementation Plan does not prescribe any specific outcome and is not a programmatic decision. It merely identifies actions that should be taken to respond to the National Energy Plan.

Energy Policy Act of 2005

Recognizing the fundamental importance of the delivery of energy supplies to the Nation’s economic well-being, Congress passed section 368 of the Energy Policy Act of 2005 to require certain federal agencies to designate energy corridors on federal lands in 11 western States, including Montana, and to coordinate with each other to create a cooperative, efficient process for applicants to apply for rights-of-way in such corridors. Congress stated in section 368 that the agencies should incorporate the designated corridors into their respective land use or resource management plans. Congress also directed the agencies to conduct environmental reviews that are required to designate corridors and add the designated corridors to the plans.

As directed by Congress in section 368 of the Energy Policy Act of 2005, the Forest Service participated in preparing a programmatic EIS and issued a ROD (USDA Forest Service 2009) designating energy corridors on land it administers for oil, gas, and hydrogen pipelines and electricity transmission and distribution facilities in 10 contiguous western States and incorporated these designations into affected agency land use plans. This decision did not affect the KNF. Energy corridors not addressed in the programmatic analysis would be subject to a separate environmental analysis.

Forest Service Open Space Conservation Strategy

The Forest Service announced its Open Space Conservation Strategy on December 6, 2007. This strategy establishes goals and priority actions to conserve open space across private and public land and underscores the importance of the conservation of open space to the mission of the Forest Service (USDA Forest Service 2007a).

Each day 6,000 acres of open space are lost in the United States as more people choose to live at the urban fringe and in scenic, rural areas. Between 1982 and 2001, approximately 34 million acres of open space (an area the size of Illinois) were developed. Considering forestlands specifically, more than 10 million acres were converted to houses, buildings, lawns, and pavement between 1982 and 1997, and another 26 million acres of forests are projected to be developed by 2030 (USDA Forest Service 2007a).

Development of open space affects the Agency's ability to manage national forests and grasslands, as well as the ability to help private landowners and communities manage their land to maintain private and public benefits and ecosystem services. At stake is the ability of private and public forests and rangelands to provide clean water, scenic beauty, biodiversity, outdoor recreation, and natural resource based jobs, forest products, and carbon sequestration.

The Open Space Conservation Strategy establishes four priority actions for the Forest Service, which can be broken down into 13 supporting actions:

- Convene partners to identify and protect priority open space.
 - Conduct a rapid science-based assessment of open space change to inform priorities;
 - Convene partners and stakeholders to identify regional priority lands; and
 - Protect regional priority lands through partnerships and mechanisms such as land acquisition and conservation easements.
- Promote national policies and markets to help private landowners conserve open space.
 - Identify where changes in tax and other federal policies could provide economic incentives and remove barriers for open space conservation;
 - Support the development of emerging ecosystem service markets to encourage private investments in open space conservation;
 - Encourage natural-resource-based industries to provide economic incentives for landowners to retain working lands;
 - Support recreation and tourism uses to generate revenue for landowners and communities from open space lands; and
 - Provide and encourage landowner assistance and incentives to help keep working lands working.
- Provide resources and tools to help communities expand and connect open space.
 - Provide urban forestry assistance to communities to enhance and restore open space within cities, suburbs, and towns; and
 - Develop tools to help communities strategically connect open spaces to build a functioning green infrastructure.
- Participate in community growth planning to reduce ecological impacts and wildfire risks.
 - Support and participate in local, regional, and transportation planning to conserve open space and retain ecosystem benefits; and
 - Work with communities to plan for and reduce wildfire risks.

All four of the alternatives considered for the Plan revision are consistent with the actions identified in the Open Space Conservation Strategy. The management approaches of the alternatives include different combinations of active and passive land management.

Recreation Facility Analysis

National forests use the Recreation Facility Analysis to provide the best recreation opportunities in the right places. It is an analysis process (USDA Forest Service 2007b); used nationally, to assist forests in creating a sustainable program that aligns their recreation sites with visitors' desires and use. FSM ID 2310-2003-1 requires facility master plans be developed for all facilities.

Recreation Facility Analysis identifies actions proposed for the short-term and sets the stage for long-term recreation sites planning. The Recreation Facility Analysis goals are to:

- Improve customer satisfaction;
- Provide recreation opportunities consistent with the Forest recreation "niche;"
- Operate and maintain a financially sustainable recreation sites program to accepted quality standards; and
- Eliminate deferred maintenance at recreation sites.

Under each of the four alternatives, decisions on the use of recreation sites and resources would still be made through other forest-level decision making processes. Since the Plan revision will have no effect on the Recreation Facility Analysis, there is no interaction between the two sets of regulations, and no cumulative effects to consider.

The Montana Comprehensive Wildlife Conservation Strategy (2005)

The Montana Comprehensive Wildlife Conservation Strategy (MT FWP 2005) provides a foundation for sustaining Montana's fish and wildlife and the habitats on which they depend. The strategy provides general directions for wildlife conservation and a stimulus to engage partners in conservation of Montana's wildlife resources. The Montana Comprehensive Fish and Wildlife Conservation Strategy is organized into four components. Component I, focus areas, guides attention to specific geographical areas of Montana that are in greatest need of conservation. Component II, community types, identifies habitats along with their related fish and wildlife that are in greatest need of conservation throughout Montana regardless of location. Component III identifies the 60 fish and wildlife species in greatest need of conservation. Component IV provides a list of the species and groups of species that are in greatest need of inventory. Close cooperation between Montana FWP occurred during the revision process. The Montana Comprehensive Wildlife Conservation Strategy, as well as other recent state species management plans, have been reviewed, and where appropriate, considered in the development of the revised Forest Plan.

Non-native Invasive Species

Non-native invasive species are a problem throughout Montana. Several current state and federal activities and authorities address some invasive species, their prevention, and control, namely the Montana Weed Management Plan (Duncan 2008) and the National Strategy and Implementation Plan for Invasive Species Management (USDA Forest Service 2004). Of particular concern is that the presence or spread of invasive species could potentially limit the effectiveness of habitat improvements or efforts to recover species. Roads often provide vectors for spread of invasive species. In general, areas with fewer roads have a lower risk of having invasive species populations established. The Montana and national invasive plans provide guidance to reduce and/or limit the spread of noxious weeds. Overall, these guiding documents would beneficially affect ecological processes, wildlife, fisheries, and roadless characteristics by identifying actions to reduce or limit the spread of noxious weeds.

Executive Order 13514 – Federal Leadership in Environmental, Energy, and Economic Performance

Executive Order 13514 directs each agency to not only develop a sustainability strategy and reduce greenhouse gas emissions but to develop policies and practices to support the Federal Adaptation Strategy. Executive Order 13514 challenges the federal government to set sustainability goals for federal agencies. These goals include the ability to increase energy efficiency; measure, report, and reduce their greenhouse gas emissions from direct and indirect activities; conserve and protect water resources through efficiency, reuse, and storm-water management; eliminate waste, recycle, and prevent pollution; leverage agency acquisitions to foster markets for sustainable technologies and environmentally preferable materials, products, and services; design, construct, maintain, and operate high performance sustainable buildings in sustainable locations; strengthen the vitality and livability of the communities in which federal facilities are located; and inform federal employees about and involve them in the achievement of these goals. In July 2010, the Chief of the Forest Service announced the National Roadmap for responding to climate change and the performance scorecard. The action alternatives for the Plan revision provide sustainable management and use of resources on the Forest.

Executive Order 13443: Facilitation of Hunting Heritage and Wildlife Conservation

In part, Executive Order 13443 directs the Secretaries of Agriculture and the Interior to facilitate the expansion and enhancement of hunting opportunities and the management of game species and their habitats by evaluating the effect of Agency actions on trends in hunting participation and, where appropriate, to address declining trends and implement actions that expand and enhance hunting opportunities for the public. The analysis evaluates the potential effect on wildlife and hunting and shows that the alternatives would not affect the ability to expand or enhance hunting opportunities on NFS lands in Montana.

USDA Forest Service Strategic Plan 2007-2012

This Plan provides the strategic direction that guides the Forest Service in delivering its mission. This Plan addresses the core principles by which the Forest Service works; major issues currently important to natural resources management and to the strategic goals upon which the agency will focus for fiscal years 2007 through 2012. Forest Service programs and budget are aligned with the goals and objectives in this strategic Plan and as well as with the focus areas of the Agency.

The Strategic Plan is a framework strategy under which the revised Plan fits. There are no direct cumulative effects in connection with the Strategic Plan and this FEIS since the Strategic Plan does not lead to any direct action on the ground or compel any policy development or implementation. The revised Plan EIS with its emphasis on vegetation, fire, wildlife, watersheds/aquatics, access and recreation, and integration of science (e.g., climate change) will complement the Strategic Plan.

Reasonably Foreseeable Policy or Programmatic Decisions

Proposed Planning Rule

On February 10, 2011, the USDA Forest Service unveiled its proposed Forest Planning Rule which would establish a new national framework to develop land management plans that protect

water and wildlife and promote vibrant communities. The proposed rule is the result of an open, collaborative rulemaking process that began in December 2009.

This proposed planning rule seeks to conserve our forests for the benefit of water, wildlife, recreation and the economic vitality of our rural communities," said Agriculture Secretary Tom Vilsack. The proposed rule will provide the tools to the Forest Service to make our forests more resilient to many threats, including pests, catastrophic fire and climate change. Healthy forests and economically strong rural communities form a solid foundation as we work to win the future for the next generation."

Publication of the proposed planning rule in the *Federal Register* (February 2011) kicked off a 90-day public comment period, ending May 16. The Forest Service will use comments to develop a final rule.

Highlights of the proposed planning rule include:

- A more effective and efficient framework that would allow adaptive land management planning in the face of climate change and other stressors;
- Increased requirements for public involvement and collaboration throughout all stages of land management planning;
- Improved ability to respond to climate change and other stressors through provisions to restore and maintain healthy and resilient ecosystems;
- Increased protections for water resources and watersheds;
- More effective and proactive requirements to provide for diverse native plant and animal species;
- Provisions to guide the contributions of a National Forest or National Grassland to social and economic sustainability;
- Updated provisions for sustainable land, water, and air-based recreation;
- Requirements to provide for integrated resource management of a range of multiple uses and values including outdoor recreation, range, timber, water, wildlife, wilderness, energy, mining, and ecosystem services; and
- New requirements for a local and landscape-scale monitoring program that are based on the latest science.

The proposed rule would update planning procedures that have been in place since 1982, creating a modern planning process that reflects the latest science and knowledge of how to create and implement effective land management plans. There are no direct cumulative effects in connection with the Proposed Planning Rule and this FEIS since the Proposed Planning Rule would not lead to any direct action on the ground. The revised Plan EIS with its emphasis on vegetation, fire, wildlife, watersheds/aquatics, access and recreation, integration of science (e.g., climate change), and collaborative learning groups/workgroups over the past 10 years complement the proposed Planning Rule.

Federal Land Assistance, Management, and Enhancement (FLAME) Act of 2009

The Federal Land Assistance, Management, and Enhancement (FLAME) Act of 2009 requires the Secretary of Agriculture and the Interior to submit to Congress a report that contains a "cohesive wildfire management strategy." The Wildland Fire Leadership Council, therefore, directed the development of the National Cohesive Wildland Fire Management Strategy

(Cohesive Strategy). The Cohesive Strategy utilizes a collaborative, "from-the-ground-up" approach built through active involvement of all levels of government and non-governmental organizations, as well as the public, to seek national, all-lands solutions to wildland fire management issues.

The Cohesive Strategy will address the nation's wildfire problems by focusing on three key areas:

1. **Restore and Maintain Landscapes** - Landscapes across all jurisdictions are resilient to disturbances in accordance with management objectives.
2. **Fire Adapted Communities** - Human populations and infrastructure can survive a wildland fire. Communities can assess the level of wildfire risk to their communities and share responsibility for mitigating both the threat and the consequences.
3. **Response to Fire** - All jurisdictions participates in making and implementing response decisions.

The National Cohesive Wildland Fire Management Strategy is an ongoing project that is being planned in three phases. Thus far, only the first phase has been completed and it is too early in the planning process of this national strategy to know with much detail or certainty how the strategy may influence programs and activities that occur on the KNF. However, many of the elements that emphasize items in the FLAME Act as well as the cohesive strategy report have already been considered and incorporated into the forest plan components and are discussed in the action alternatives and/or the effects analysis. For example, the three key wildfire problem areas that were noted in the strategy report (i.e., Restore and Maintain Landscapes, Fire Adapted Communities and Response to Fire), are very similar to a number of the Forest Plan revision topics that were identified and used to revise forest plan direction. In addition, a number of other elements in the Flame Act (i.e., using a full range of management responses to wildfires, allocating hazardous fuel reduction funds based on priorities, assessing impacts of climate change on wildfires) were considered in the Forest Plan revision process. Thus, when the national strategy is complete, it is likely that revised Forest Plan direction (which is contained in all the action alternatives) will be consistent with the national strategy. No cumulative effects are anticipated as a result of this national strategy.

Other Reasonably Foreseeable Actions

Cumulative Effects and Consideration on Other Lands

Other lands (lands outside the NFS) include lands owned or managed by: (1) federal agencies other than the Forest Service; (2) state, county, and other agencies; (3) individuals and corporations; and (4) American Indian tribes. The Forest Service does not have authority to regulate any activity or its timing on other lands. However, when an action takes place in national forests, it may cause direct, indirect, or cumulative effects on other lands. Conversely, the actions of others can influence both conditions on the national forests and the course of action taken by the Forest Service in managing the national forests.

Within the analysis area, Lincoln and Flathead counties have the largest percentage of land under federal ownership at 75 and 71 percent respectively. Boundary County has the next largest at 61 percent. Sanders County is 52 percent federally owned with an additional 15 percent under tribal ownership. Bonner County has the least amount of federally owned land, at 44 percent. Figure 49 in the FEIS displays the percent by land ownership for each county.

For all counties, most of the federal ownership is NFS lands. The exception is Flathead County, where a large portion of the federal ownership is National Park Service land. As stated earlier, the KNF administers the largest portion of lands in Lincoln and Sanders counties. NFS lands in Flathead County are predominantly Flathead National Forest while the majority of NFS lands in Bonner and Boundary counties are administered by the IPNF. Approximately one-half of Sanders County NFS lands are administered by the Lolo National Forest.

Appendix B - Description of the Analysis Process

Introduction

The basic analytical framework for the revision of the KNF Forest Plan is prescribed in the NEPA process. A set of alternative scenarios, representing different approaches to the identified needs for change and issues, was simulated over time to provide information to compare and contrast those alternatives in terms of their ability to achieve the desired conditions in cost-effective and least-risk ways. Analyzing the effects of the alternatives included development of the historic range of variability; identification of lands suitable for timber production; evaluation of movement towards vegetation desired condition and timber harvest levels; rangeland capability and suitability; and social and economic analysis.

Development of the Historic Range of Variability (HRV)

Vegetation desired conditions were the result of developing a historic range of variability for vegetation composition, structure, and landscape pattern. As described in the "Vegetation Methodology" section of chapter 3 of the final EIS, the HRV analysis used a wide variety of sources and methods to assess historic conditions.

Vegetation Composition and Structure

The KNF used dominance type and size class to describe vegetation composition and structure. Historic records were reviewed and compared to existing data to develop classes that could be assessed. The historic and existing data had to be cross-walked to a set of common terms and classes for use in the analysis. Because vegetation conditions and responses to disturbance vary by ecological or biophysical setting, the HRV analysis was completed by three biophysical settings for the KNF: warm/dry, warm/moist, and subalpine.

Dominance type classes were defined by reviewing historic and current records to determine which species were/are relatively abundant. The following dominance types by biophysical group were used in defining HRV:

- **Warm/Dry:** Ponderosa pine, Douglas-fir, lodgepole pine, and western larch.
- **Warm/Moist:** Douglas-fir, western larch, grand fir/cedar/western hemlock mix (termed grand fir mix), and white pine.
- **Subalpine:** Lodgepole pine, western (and subalpine) larch, white pine, and spruce-fir mix.

Size class was used as a proxy for describing vegetation structure. Size class can be cross-walked to stand age and structure. Size classes were chosen based on historic and existing data classifications, the ability to crosswalk the data to common classes, and information needed for wildlife habitat modeling. The following size classes were used for each biophysical group and forestwide:

- Seedling/sapling (0-5 inch DBH)
- Small (5-10 inch DBH)
- Medium (10-15 inch DBH)
- Large (>15 inch DBH)

For comparing historic and existing data and for modeling purposes, age classes were developed for each of the size classes. On the KNF, age is generally correlated to size class as follows:

- Seedling/sapling = 0 – 40 years
- Small = 40 – 70 years
- Medium = 70 – 100 years
- Large = 100 plus years

The HRV analysis resulted in a mean value for each dominance type and size class by biophysical group. See table 1 and table 2 for the mean HRV value by biophysical class for dominance type and size class. To complete the HRV analysis, a range was built around the means, based on percentages, using plus or minus 33 percent of the mean. This range around the median (0-33 percent) is consistent with the range used in defining departure from natural fire regime of intensity and frequency (Hann and Bunnell 2001, Hardy et al. 2001, and Schmidt et al. 2002). The resulting HRV is displayed in table 3 and table 4. A weighted average was then calculated for the Forest, resulting in the ranges found in the vegetation desired conditions in the revised Forest Plan.

Table 1. HRV Mean Value for Dominance Type on the KNF

Dominance Type	Warm/Dry (VRUs 1-3) %	Warm/Moist (VRUs 4-6) %	Subalpine (VRUs 7-11) %
PP	32		
DF	8	11	
LP	11		37
WL	49	55	19
GF/C/WH mix		22	
WP		12	5
SF mix			39

Table 2. HRV Mean Value for Size Class on the KNF

Size Class	Warm/Dry (VRUs 1-3)%	Warm/Moist (VRUs 4-6) %	Subalpine (VRUs 7-11)%
Seed/Sap	20	23	25
Small	13	15	15
Medium	11	13	12
Large	56	49	48

Table 3. HRV for Dominance Type for the KNF

	VRUs 1-3		VRUs 4-6		VRUs 7-11		Forestwide	
	Warm/Dry		Warm/Moist		Subalpine		FS Lands	
	Lower Limit	Upper Limit	Lower Limit	Upper Limit	Lower Limit	Upper Limit	Lower Limit	Upper Limit
PP	21	43					5	9

	VRUs 1-3		VRUs 4-6		VRUs 7-11		Forestwide	
	Warm/Dry		Warm/Moist		Subalpine		FS Lands	
	Lower Limit	Upper Limit	Lower Limit	Upper Limit	Lower Limit	Upper Limit	Lower Limit	Upper Limit
DF	5	11	7	15			4	8
LP	7	15			25	49	12	23
WL	33	65	37	73	13	25	26	52
GF/C/WH mix			15	29			5	11
WP			8	16	3	7	4	9
SF mix					26	52	11	21

Table 4. HRV for Size for the KNF

	VRUs 1-3		VRUs 4-6		VRUs 7-11		Forestwide	
	Warm/Dry		Warm/Moist		Subalpine		FS Lands	
	Lower Limit	Upper Limit	Lower Limit	Upper Limit	Lower Limit	Upper Limit	Lower Limit	Upper Limit
Seed/Sap	13	27	15	31	17	33	16	31
Small	9	17	10	20	10	20	10	19
Medium	7	15	9	17	8	16	8	16
Large	38	74	33	65	32	64	34	67

It is important to recognize the limitations of using historic forest inventories to compare historic to current forest conditions. To be meaningful, raw tree data is always summarized into forest categories (such as forest cover type, forest size classes, and forest age classes). Over time, there may be changes both in category definitions, and in methodologies for gathering data and computing category membership. It is necessary to research changes in inventory definitions and methods over time, and important to build crosswalks so that common terms are used across time periods. However, crosswalks are never perfect, and this inevitably results in some noise in the data. Further, hard data across inventory periods may not be available for all items of interest, and to address these items it is necessary to use informed inference from related information.

Because of the inevitable noise in comparing current and historic forest conditions, caution is necessary in how this information is used. We cannot be sure that small differences between current and historic vegetation categories are real, rather than the result of the inevitable noise. On the other hand, even in the face of some noise we can be more confident about large changes from historic to current that are found in some forest categories. We strengthen confidence about findings of changes from historic to current forest conditions when similar changes are found from different studies, or through different methods of historic analysis. The most robust finding about changes from historic conditions occurs when the magnitude of the change is large, and a similar trend is found through a variety of different analysis methods, and through several different studies.

Landscape Pattern

For landscape pattern, past assessments were reviewed and an analysis of existing fragmentation completed. The KNF completed assessments of landscape pattern in developing an assessment of

the Upper Kootenai River Basin and in several watershed assessments. Aerial photos and inventory maps from the mid-1930s were compared with current photos and trends in landscape pattern changes noted. A summary of comparisons between the historic and current forest conditions findings are as follows:

- In general, older forests dominated by large trees (mature and old growth forests) tend to occur in smaller, and more uniformly sized patches; with smaller and more uniformly sized core areas; and higher contrast-weighted edge density (more hard edges); essentially they are more fragmented than historically.
- In general, very young seedling/sapling sized forests tend to occur in smaller and more uniformly sized patches; with smaller and more uniformly sized core areas; they are also more fragmented than historically.
- In general, patches of medium sized forest tends to occur in much larger patches; with more core area, although contrast-weighted edge density has increased somewhat; indicated more hard edges. These medium sized forest patches are less fragmented and create more landscape scale homogeneity than was historically present.

As part of the Forest Plan revision effort, an analysis was conducted using the FRAGSTATS model to assess existing fragmentation for the entire KIPZ. For this analysis, size classes (from the VMP coverage) were grouped into patch classes. Table 5 displays the classification used in completing the FRAGSTATS analysis. Two sets of runs were made with different classifications of size class:

Table 5. Classifications for FRAGSTATS Analysis

Classification 1	
Size Class from Updated VMAP	Patch Class for Analysis
Seedling/sapling, grass/forbs, shrubs, sparsely vegetated (0-5" dbh)	Open
Small (5-10" dbh)	Small
Medium, Large, Very Large (10+")	Medium Large
Water	Background
Classification 2	
Size Class from Updated VMAP	Patch Class for Analysis
Very Large (20+")	Very Large
All other size classes and non-tree vegetation	Other
Water	Background

Resulting polygons were kept to a minimum size of five acres. The polygon coverage was converted to grid using a 30 meter cell size. Runs were made for each GA and for each forest. The following indices from FRAGSTATS were used to assess fragmentation:

- Percent of the landscape in a particular patch class (class metric - PLAND) equals the sum of the areas (m2) of all patches of the corresponding patch type, divided by total landscape area (m2), multiplied by 100 (to convert to a percentage); in other words, PLAND equals the percentage the landscape comprised of the corresponding patch type. Note: total landscape area (A) includes any internal background present.
- Area weighted mean patch area (class metric - AREA_AM) - equals the sum, across all patches of the corresponding patch type, of the corresponding patch metric value multiplied by the proportional abundance of the patch.

- Patch size standard deviation (class metric - AREA_SD) - equals the square root of the sum of the squared deviations of each patch metric value from the mean metric value of the corresponding patch type, divided by the number of patches of the same type; that is, the root mean squared error (deviation from the mean) in the corresponding patch metric. Note: this is the population standard deviation, not the sample standard deviation.
- Contrast-weighted edge density (class and landscape metrics - CWED) - use only with Classification 1. It is the ratio of edge to patch area for each patch class, with each segment of edge weighted based on how much contrast there is in that edge type. The following weights were used:
 - Open to small = 0.5
 - Open to med/large = 1.0
 - Small to med/large = 0.5
- Edge density (class and landscape metrics - ED) - use only with Classification 2. It is the sum of the lengths (m) of all edge segments involving the corresponding patch type, divided by the total landscape area (m²), multiplied by 10,000 (to convert to hectares).
- Landscape shape index (class and landscape metrics - LSI) -compares the amount of edge per unit area for a given patch class to the amount of edge per unit area that would be present if that patch class was one large circular patch. Shape index becomes larger as patches become more irregular in shape, are internally fragmented, or become long skinny strips rather than wide polygons.
- Total core area (class and landscape metrics - TCA) - the amount of core area present within the class or landscape.
- Core area percentage of landscape (class metric - CPLAND) - the percent of the entire landscape that is in core area (interior habitat) of a particular patch class based on a 90m edge width.
- Area weighted mean of core areas (landscape metric - CORE_AM).
- Area weighted mean Euclidean nearest-neighbor (class metric - ENN_AM) - the sum of the distance to the nearest patch of the same type, based on nearest edge-to-edge distance, for each patch in the landscape with a neighbor, divided by the number of patches with a neighbor multiplied by the proportional abundance of the patch type.
- Euclidean nearest-neighbor coefficient of variation (class metric - ENN_CV) - the standard deviation in nearest neighbor distances divided by the mean nearest neighbor distance multiplied by 100.
- Area weighted mean fractal dimension (class metric - FRAC_AM) - two times the logarithm of patch perimeter (m) divided by the logarithm of patch area (m²); the perimeter is adjusted to correct for the raster bias in perimeter divided by the number of patches and multiplied by the proportional abundance of the patch type.
- Interspersion and juxtaposition index (class and landscape metrics - IJI) - the observed interspersion over the maximum possible interspersion for the given number of patch types.
- Clumpiness index (class and landscape metric - CLUMPY) -equals the proportional deviation of the proportion of like adjacencies involving the corresponding class from that expected under a spatially random distribution.

Results of this fragmentation analysis indicate the landscape pattern on the KIPZ in some areas is more fragmented than what probably occurred historically.

Identification of Lands Suitable for Timber Production

The National Forest Management Act (NFMA) directs forests to identify lands which are not suited for timber production. The act states at sec. 6, (k) "the Secretary shall identify lands within the management area which are not suited for timber production, considering physical, economic, and other pertinent factors to the extent feasible, as determined by the Secretary, and shall assure that, except for salvage sales or sales necessitated to protect other multiple-use values, no timber harvesting shall occur on such lands for a period of 10 years."

The assessment of suitable timberlands was accomplished using a geographic information system (GIS). Use of GIS resulted in consistent identification of each step in determining suitability.

The 1982 Rule procedures identify criteria to apply in determining timber suitability, as follows:

- Start with all lands administered by the KNF, using the latest land status data;
- Subtract Non-forested Lands: 219.14(a) (1). These are lands that do not have the potential to support 10 percent or more forest canopy cover. Species, roads, and streams were used to identify these areas;
- Subtract lands that have been withdrawn from timber production: 219.14(a) (4). This includes wilderness and wilderness study areas;
- Subtract lands that have the potential for irreversible resource damage: 219.14(a) (2). Land types and habitat types were used to identify high water table areas or areas prone to mass failure, or sites with poor growing conditions or inadequate response information; and
- Subtract lands that cannot be adequately restocked: 219.12(a) (3). Land types, habitat types, elevation, and species were used to identify harsh, rocky, or dry sites.

The results are *Lands Tentatively Suitable for Timber Production*. These areas are the same for all alternatives.

By alternative, subtract out *Lands Not Appropriate for Timber Production*, composed of:

- **Lands where management objectives limit timber harvest to the point where the management requirements of 219.27 cannot be met: 219.14(c) (2).** This includes areas with wildlife or aquatic management concerns, such as grizzly bear core areas, riparian areas, or old growth. It also includes areas with no administrative use, such as the area surrounding the vermiculite mine near Libby, and areas for fuel breaks (initial attack areas that will not be regenerated). These areas are the same for all alternatives.
- **Lands where the management area (MA) precludes timber production: 219.14(c) (1).** This is based on the management area allocation by alternative. Only MA6 is suitable for timber production and contributes towards the allowable sale quantity (ASQ). Under MA6, timber management is a goal and timber would be managed on a rotation or scheduled basis. Timber harvest may occur on other MAs, but it is not a goal and would not be managed on a rotation basis.
- **Lands that are not cost-efficient in meeting timber production objectives: 219.14(c) (3).** This varies based on the timber market. No lands were removed at this step, but may be removed during project level analysis.

The results are Lands Suitable for Timber Production. All other lands are Not Suitable for Timber Production. Table 6 displays the acres for each step in determining lands suitable for

timber production by alternative. Figures 1 through 4 display the lands suitable for timber production for each alternative.

Table 6. Timber Suitability by Alternative (Acres)

Timber Suitability	Alternative A	Alternative B Modified	Alternative C	Alternative D
National Forest land	2,219,100	2,219,100	2,219,100	2,219,100
Non-forest land	-114,600	-114,600	-114,600	-114,600
Withdrawn lands	-89,000	-89,000	-89,000	-89,000
Irreversible damage potential	-253,000	-253,000	-253,000	-253,000
Restocking not assured	-20,700	-20,700	-20,700	-20,700
Tentatively Suitable	1,711,800	1,711,800	1,711,800	1,711,800
Areas where management objectives limit timber harvest where management requirements cannot be met	-811,100	-811,100	-811,100	-811,100
Areas where Management precludes timber production as an objective	-161,400	-107,000	-146,900	-48,000
Suitable for Timber Production	739,300	793,700	753,800	852,700

Alternative A is the current Plan as amended and implemented. Timber suitability has been updated to reflect Forest Plan amendments and current conditions (see earlier discussion on timber suitability for the 1987 Forest Plan). Acres suitable for timber production are slightly lower in this alternative than found in the action alternatives. This is because MAs under the 1987 Forest Plan were very small, fragmented, and discretely determined timber suitability. The MA allocation of the 1987 Plan combined with amendments and current conditions limits the acres suitable for timber production below those found in the action alternatives.

To better understand the difference in suitability for Alternative A, lands suitable for timber production under Alternative A were compared to Alternative B Modified. It was found Alternative A has approximately 108,000 acres that are not suitable because of its MA allocation, while these acres are suitable under Alternative B Modified. Approximately 50 percent of the MAs not suitable under Alternative A for areas that were suitable under Alternative B Modified include MAs directly associated with timber suitability determination. This includes portions of MA 18 (potential regeneration problems), MA 19 (steep lands), and MA 24 (low productivity areas). The timber suitability analysis for the plan revision did not identify these same areas as having timber suitability concerns. The remaining 50 percent of the MAs not suitable under Alternative A for areas that were suitable under Alternative B Modified were associated with other resource management. This includes portions of MA 10 (big game winter range), MA 3 (semi-primitive motorized recreation), MA 2 (semi-primitive nonmotorized recreation), MA 5 (viewing areas) and MA 8 (recommended wilderness). These were all resources where management direction may have changed under the action alternatives.

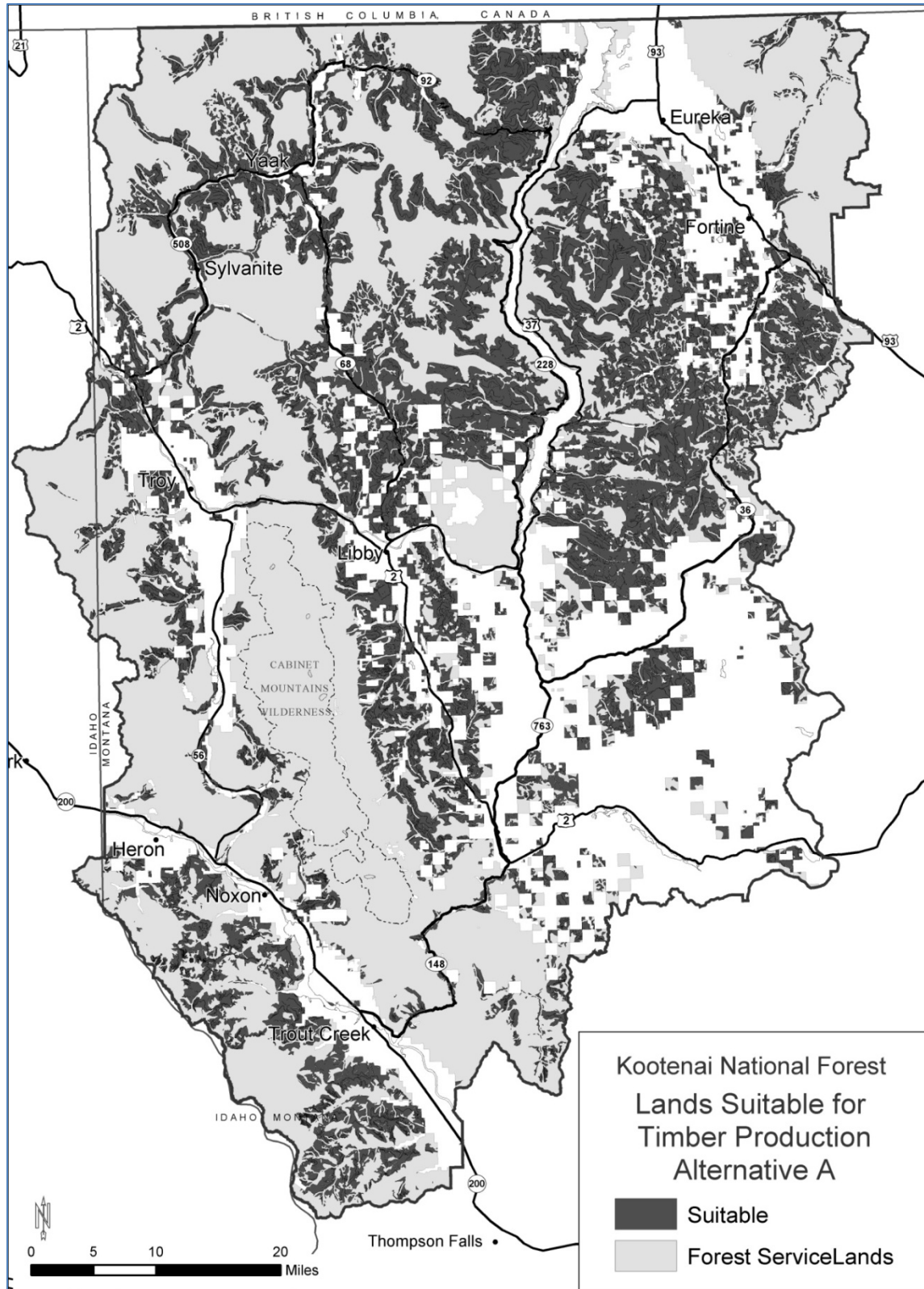


Figure 1. Lands Suitable for Timber Production – Alternative A

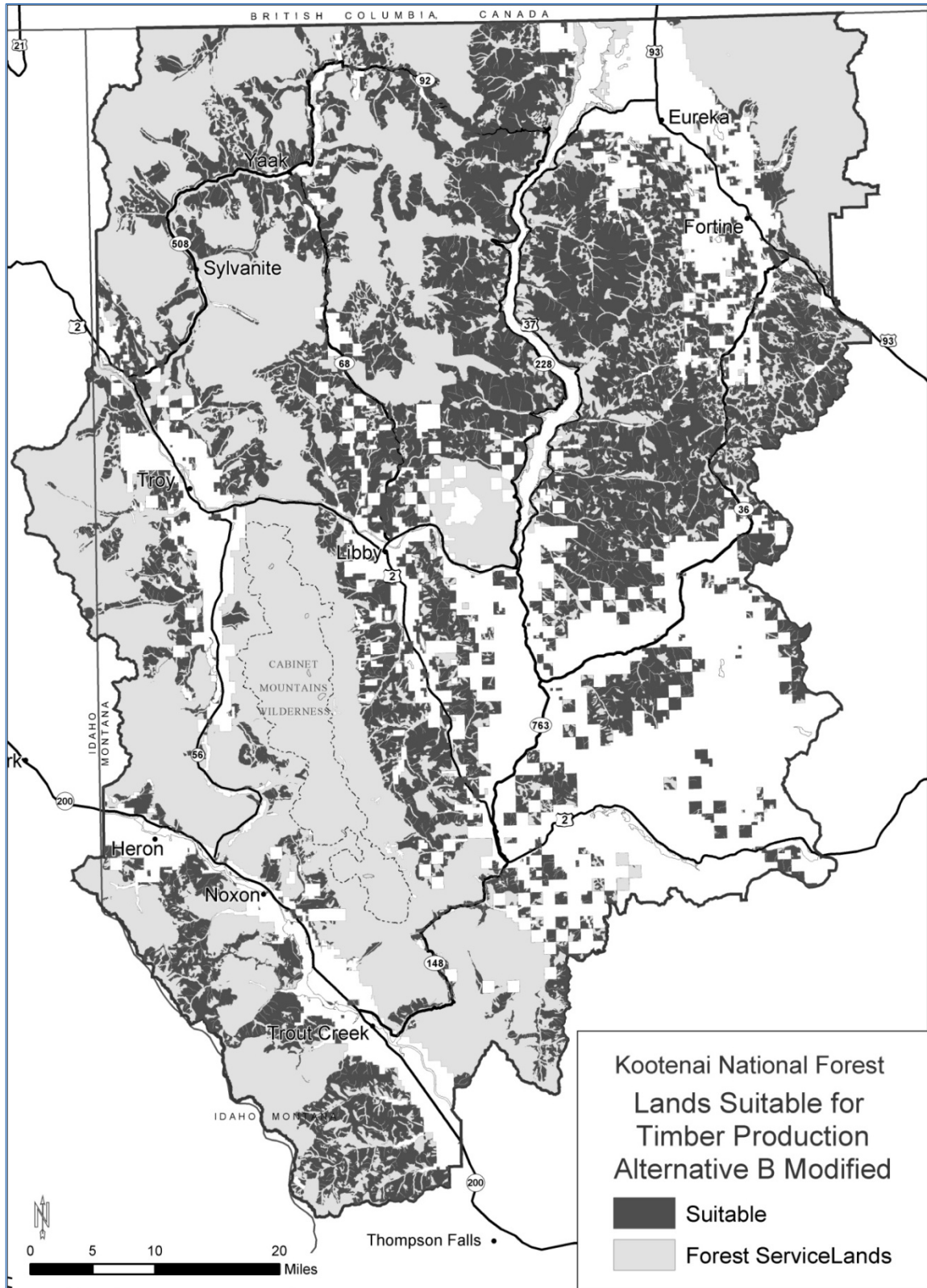


Figure 2. Lands Suitable for Timber Production – Alternative B Modified

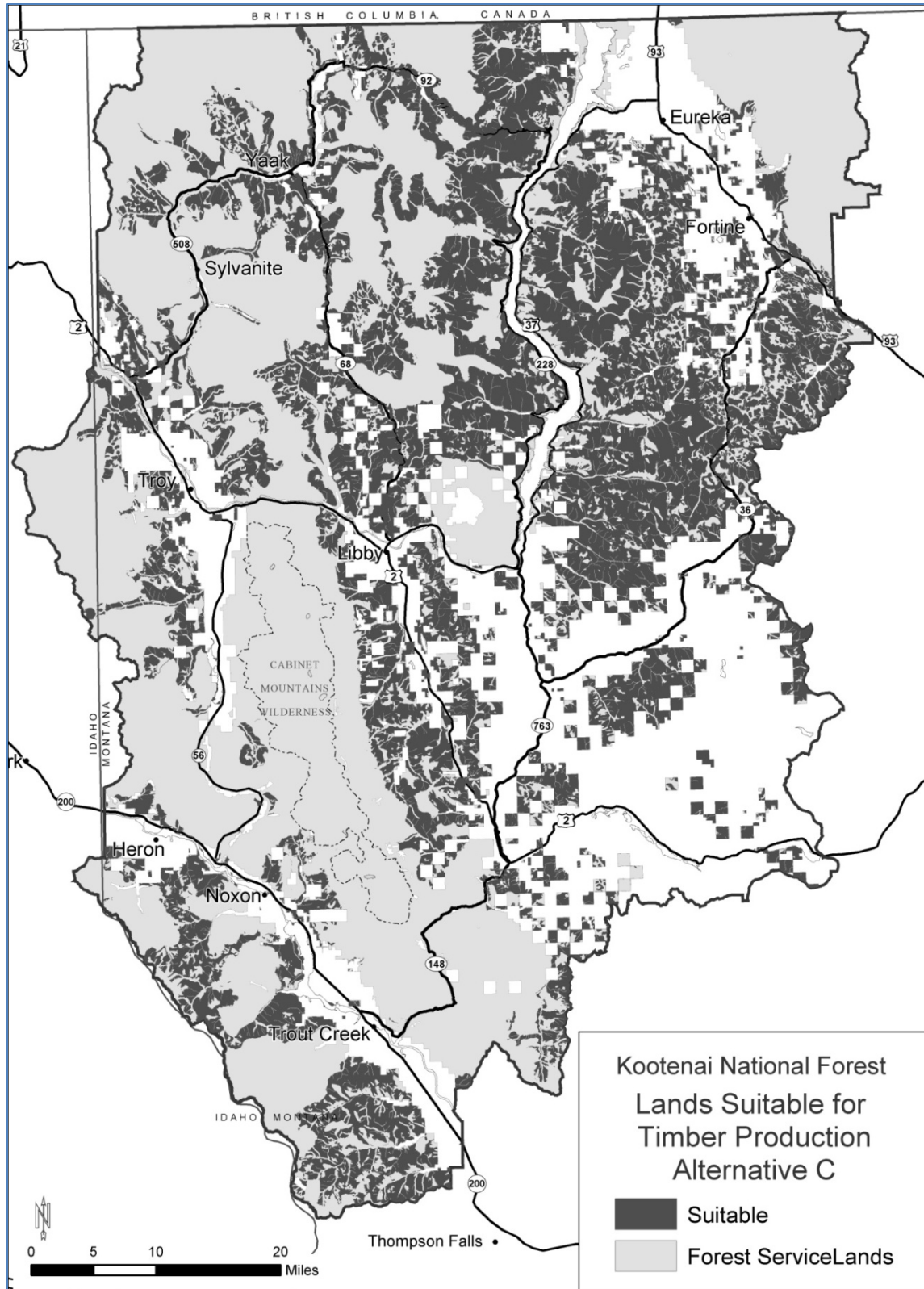


Figure 3. Lands Suitable for Timber Production – Alternative C

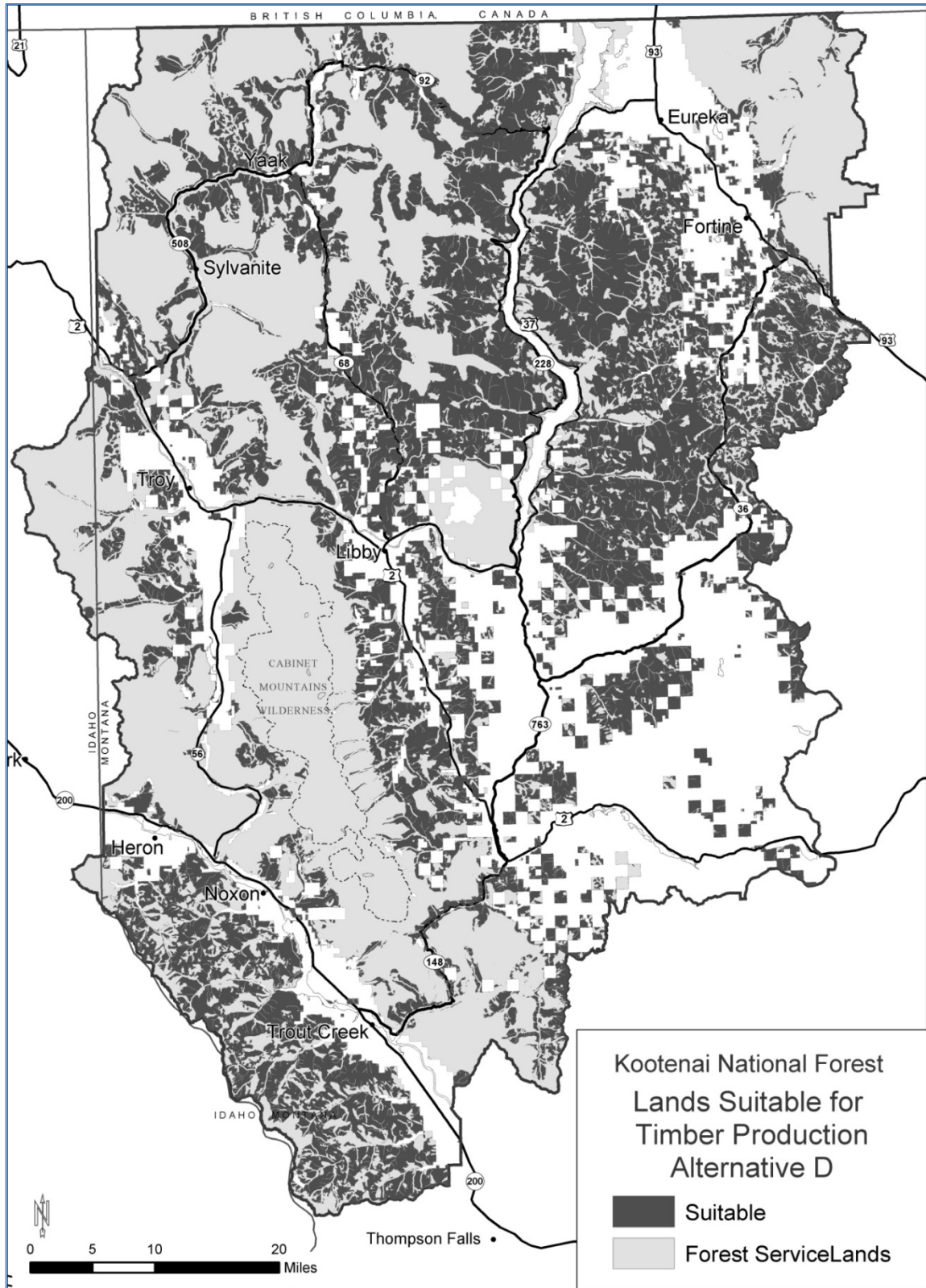


Figure 4. Lands Suitable for Timber Production – Alternative D

Evaluation of Movement towards Vegetation Desired Conditions

The vegetation management strategy for the KNF is to manage the landscape to trend towards vegetation desired condition. The final EIS indicates the KNF has too many acres of the medium size class and not enough acres of small and large size classes. To achieve vegetation desired conditions, some of the medium size class needs to be converted to seedling/sapling and some managed to provide for future old growth. In addition, the Forest Plan desired condition indicates some species are at reduced levels from those desired, including ponderosa pine and white pine. Type conversion of regenerated stands will be used to achieve an increasing composition of these (and other) species. Management to move towards vegetation desired conditions will also provide for conditions that are more in line with historic fire levels. Several analytical tools and models were used to predict changes to vegetation over time and evaluate movement towards vegetation desired conditions.

The vegetation treatment modeling for the Plan was accomplished using the following suite of tools and models:

- **Geographic Information System** – This tool was used to compile vegetation and other data, stratify the land, and summarize conditions. GIS is both an analysis and a display technology, meaning it can be used to both track information and display it in a variety of graphic formats.
- **SIMulating Patterns and Processes at Landscape scaLEs (SIMPPLLE)** – This model was used to provide a means of understanding succession and disturbance activities and to summarize fire behavior.
- **Forest Vegetation Simulation (FVS)** – This forest growth simulation model was used to estimate timber growth and yield.
- **Spectrum** – This model was used to project alternative resource management scenarios and schedule vegetation treatments in response to vegetative desired conditions.

Following is the individual descriptions for each of the above-mentioned tools/models.

Geographic Information System (GIS)

Many summaries and assessments of vegetation condition were developed using GIS. As explained earlier in this appendix, this tool was used in determining timber suitability. This tool was also used to build the acre summaries needed for Spectrum analysis areas and spatial data for the SIMPPLLE model. The spatial existing vegetation information used in completing the SIMPPLLE and Spectrum analysis was generated from the R1 Vegetation Mapping Project (R1-VMP) layer that was developed in 2004. The R1-VMP layer was appended with activity data from the Timber Stand Management Record System (TSMRS), recent wildfires, old growth, and vegetation response units (VRUs). The resulting coverage of existing vegetation was utilized in the SIMPPLLE and Spectrum models and various wildlife habitat GIS models. See the project record for more information on data used in the forest planning process.

SIMPPLLE

SIMPPLLE (SIMulating Patterns and Processes at Landscape scaLEs) is a model that simulates changes in vegetation on landscapes in response to both natural disturbances and management activities. This model was used to determine the amount of fire disturbance expected on the landscape.

Successional pathways were edited for the Forest using the Westside Region One zone as a base (this zone was already developed in SIMPPLLE, based on input from several forest and district silviculturists. See documentation at <http://www.fs.fed.us/rm/missoula/4151/SIMPPLLE/> for more information). Disturbance pathways were those in the Westside Region One zone. A SIMPPLLE area file was built for each geographic area (GA) on the Forest. The existing vegetation layer was the primary data used for describing the landscape in the model, along with information on insect and disease disturbances, owner, and management area.

Simulations using current fire suppression success and fire starts over the last 10 years were run for each GA. Twenty simulations for five decades were made to estimate the amount of acres with fire disturbance. The resulting amount of acres burned is an average of all simulations and decades by species and size class and was used as input to the Spectrum model. This analysis was updated between draft and final EIS to more accurately portray the amount of wildland fire on the landscape. The fire logic was adjusted in the SIMPPLLE model to better reflect suppression efforts and fire spread. Acres of stand replacing fire were then input into the Spectrum model.

Forest Vegetation Simulator (FVS)

Growth and yield tables for the Spectrum model were developed using the FVS. The FVS is a family of forest growth simulation models. The basic FVS model structure has been calibrated to unique geographic areas to produce individual FVS variants. Since its initial development in 1973, it has become a system of highly integrated analytical tools. These tools are based upon a body of scientific knowledge developed from decades of natural resources research. Data from the forest inventory and analysis (FIA) were used in developing the growth and yield tables. The use of FVS on the KNF and the timber prescriptions are documented in the report *Construction of Vegetative Yield Profiles for Forest Plan Revision*, April 2005, by Don Vandendriesche, USDA Forest Service, Forest Management Service Center. The resulting yield tables were used in modeling timber harvest levels in the Spectrum model.

SPECTRUM Model

Vegetation treatments were modeled using Spectrum, a software modeling system designed to assist decision makers in exploring and evaluating multiple resource management choices and objectives. Models constructed with Spectrum apply management actions to landscapes through a time horizon and display resulting outcomes. Management actions are selected to achieve desired goals while complying with all identified management objectives and limitations.

Spectrum makes it possible to display management actions to landscapes at multiple spatial and temporal scales. It is very effective for modeling alternative resource management scenarios in support of strategic and tactical planning. Examples of this include scheduling vegetation manipulation activities to achieve desired conditions; modeling resource effects and interactions within management scenarios; exploring "tradeoffs" between alternative management scenarios; and analyzing minimum habitat requirements to ensure species viability and diversity.

With regard to the alternatives, Spectrum was used to model vegetation treatments on the KNF. Based upon these results, the IDT was able to establish a means of achieving the desired condition for vegetation in conjunction with a schedule of activities. Specifically, the Spectrum model was formulated to provide answers to the following questions:

- What are the vegetative treatments and how should they be scheduled to move us toward the desired condition for vegetation?
- What is the sustainable level of regulated harvest from these treatments?
- How can we reduce fire hazard?
- What is the level of vegetative treatments, with and without budget limitations?
- What is the long-term sustained yield capacity (LTSYC)? What is the allowable sale quantity? What is the predicted volume sold under a constrained budget?
- How does carbon sequestration vary by alternative?

The Spectrum model is comprised of the following components:

- **Planning Horizon** – A specified time frame broken down into periods of an equal number of years. The horizon may be as short or long as desired. Long planning horizons are used to investigate the sustainability of long-term management actions, such as long rotations.
- **Land Stratification and Analysis Units** – The planning area is subdivided into areas that facilitate analyzing land allocation and management scheduling analysis. The subdivision is largely a function of two determinants: (1) how managers want the forest subdivided to answer planning questions, and (2) how specialists need the forest subdivided to estimate resource response to management scenarios.
- **Management Actions and Outputs** – A Spectrum model consists of a set of management actions applied to specific land units. Management actions consist of activities, outputs, treatments, and land conditions.
- **Economic Information** – Basic activity cost and output revenues.
- **Transition Pathways** – The Forest developed pathways to model how vegetation type and size varies over time based on different management actions. These pathways are used to measure movement towards desired conditions.
- **Management Constraints** – These are limits defined to model resource thresholds, relations between and among activities and outputs, policy requirements, or monetary limitations.
- **Objective Function** – Optimization models, such as Spectrum, minimize or maximize an objective function subject to a set of constraints. An objective function is defined in terms of its type (maximize or minimize), discount rate (if applicable), duration, and contributing activities and outputs.

Following is a description of the components of the KNF Spectrum model.

Changes Between Draft and Final EIS

The Spectrum model was edited between draft and final EIS. The major changes were as follows:

- Acres with natural disturbance (stand replacing wildfire) were re-analyzed and changed in the final Spectrum model. This resulted in more acres of disturbance in the FEIS model than was found in the DEIS.

- Constraints for watersheds were adjusted to more accurately reflect management on the ground. In the DEIS, the amount of openings allowed within watersheds varied by watershed condition. In the FEIS, the limit on openings is the same for all watersheds, which better reflects management direction in the revised Forest Plan.
- The goals to move towards vegetation desired condition were applied forestwide, rather than applying different goals for lands suitable for timber production and lands not suitable for timber. This more accurately reflects the desired condition and tools that can be used to move towards this goal.

These updates in the model resulted in revised numbers for ASQ, predicted volume sold, long-term sustained yield capacity, and acres harvested for all alternatives.

Planning Horizon

Spectrum was used to schedule vegetation treatments for the next 25 decades. This extended planning horizon was for modeling a sustainable yield into the future.

Land Stratification and Analysis Units

Land stratification is the process of identifying a set of attributes, or strata, to use in defining the land base. This is done to organize the forest land base into logical subunits that respond similarly to management actions. In Spectrum, each stratum is a layer and combining these layers results in an “analysis area.” Six layers of information are used to describe analysis areas, and while analysis areas are usually homogenous, they are not always contiguous. The attributes used in developing analysis areas are based on the issues to be addressed by the model, differences in resource response, and the reliability of the data.

The six Spectrum land stratification layers identified for the Plan are defined as follows:

Layer 1 — Roadless Status and Helicopter Logging

Layer 2 — Timber Suitability

Layer 3 — Not Used in FEIS – in the DEIS, this layer contained watershed condition (properly functioning, functioning at risk, and not properly functioning). In the DEIS, the constraint on openings within watersheds varied by watershed condition. For the FEIS, the constraint does not vary by watershed condition. This change was made to better reflect forest plan direction.

Layer 4 — Wildlife Condition

Layer 5 — Cover Type

Layer 6 — Size Class

Table 7 defines the classification for each layer, listing the layer’s codes and descriptions. Analysis areas are developed by combining the six layers in GIS and calculating the amount of acreage for each combination that was present.

Table 7. Spectrum Land Stratification

Layer 1 – Roadless Status	Layer 1 Description
IRA	Inventoried Roadless Area or Helicopter logging system required
NOIRA	Not Inventoried Roadless Area
Layer 2 – Timber Suitability	Layer 2 Description
NsuitN	Not Suitable – No mgmt MAs 1a, 1b, 1c, 3a, 4a, 4b, and All not suitable lands
SuitH	Suitable – Timber management Lands suitable for timber production in MA6 and 3b
Layer 4 – Wildlife Condition	Layer 4 Description
Bm cmu	Bear management unit outside griz core (griz core is unsuitable)
Wntrng	Winter range outside of bmu
Lynxhb	Lynx habitat outside bmu and outside winter range
Nowldl	No bear or lynx requirements
Layer 5 – Cover Type	Layer 5 Description
DF wet	Douglas-fir – moist habitat type
DFPP	Douglas-fir/ponderosa pine mix
LP	Lodgepole Pine
GF mix	Grand fir/western redcedar/western hemlock/ white pine
Larch	Western larch
SF mix	Engelmann spruce/subalpine fir/mountain hemlock
Layer 6 – Size Class	Layer 6 Description
Seedsp	Seedling/Sapling (0" to 5")
Small	Small (5" – 10")
Medium	Medium (10" – 15")
Large	Large (15" – 20")
V Large	Very Large (20"+)

Layer 1 – Roadless status was developed using the most recent forest inventoried roadless area (IRA) layer, as documented in the analysis of the management situation (AMS) for the draft Land Management Plan. Potential helicopter logging areas were identified as those areas more than one-half mile from a road.

Layer 2 – Timber Suitability was based on the analysis of lands suitable for timber production.

Layer 4 – Wildlife Condition reflects areas with special management concerns for wildlife. It includes grizzly bear management units outside of core (because core grizzly bear areas are not suitable for timber production), big game winter range, or lynx habitat.

Layer 5 – Cover Type is from the existing vegetation layer, collapsed to the cover types used in the Spectrum model. Cover types for the model were chosen based on classifications used in the vegetation desired condition and for differences in growth and response to management.

Layer 6 – Size Class is from the existing vegetation layer. Size classes for the model were chosen based on classifications used in the vegetation desired condition, existing volume, and growth.

Management Actions and Outputs

The management actions in the model were developed to reflect management areas, standards, and guidelines in the Forest Plan. Silvicultural prescriptions, timing choices, and constraints defined in the model are for modeling purposes only and do not create standards or guidelines for Plan implementation.

Silvicultural prescriptions were defined by cover type and other resource conditions. Table 8 describes the silvicultural prescriptions by cover type. These defined the analysis area management prescriptions. Silvicultural prescriptions were developed to manage vegetation towards desired condition. See the report *Construction of Vegetative Yield Profiles for Forest Plan Revision*, by Don Vandendriesche (2005), for further information on the silvicultural prescriptions.

Table 8. Silvicultural Prescriptions by Cover Type

Cover Type	No Management ¹	Even-Aged Regen Harvest ²	Individual Tree Selection	Group Selection	Prescribed Fire	Natural Disturbance (wildfire) ³
DFPP	yes	yes	yes	yes	yes	yes
DF wet	yes	yes	no	yes	yes	yes
LP	yes	yes	no	no	no	yes
Larch	yes	yes	no	yes	yes	yes
GF mix	yes	yes	no	no	no	yes
SF mix	yes	yes	no	yes	no	yes

1 No management; All analysis areas were given the option of no management

2 Even-aged regeneration harvests with reserves (includes clearcut, seedtree and shelterwood with reserves). Includes commercial thinning where appropriate

3 Stand replacing fire

As described earlier, natural disturbance amounts were determined by the SIMPPLLE model. Acreages for each decade were input by the desired condition class. The acres of natural disturbance (i.e. stand replacing wildfire) were updated between draft and final EIS.

The use of silvicultural prescriptions was also defined by Layer 2 (timber suitability) of the Spectrum model land stratification (refer to table 7) as follows:

- SuitH - All prescriptions in table 8
- NsuitN - Natural disturbance or no management only

Pre-commercial thinning was included in all even-aged regeneration harvest prescriptions except for those in lynx habitat. For lynx habitat, yield tables were built without pre-commercial thinning if the stand was above 4,500 feet and in a cover type other than DFPP.

To meet the Forest Plan standard that does not allow vegetation treatments that may modify existing old growth, all very large size classes were limited to natural disturbance or no

management. The single exception to this was the DFPP cover type, where individual tree selection was allowed in the very large size class.

Several timing choices were also applied to the silvicultural prescriptions. Timing choices are defined by specifying (within the model) the range of ages in which an existing stand and a regenerated stand may be harvested. The earliest point at which a stand could be regeneration harvested was based on culmination of mean annual increment (CMAI). The age at which CMAI is attained was determined by FVS. Existing stands containing medium or large size classes have met CMAI and are ready to harvest at the beginning of the planning horizon. Based on varying constraints and the specified management goals or objectives, the Spectrum model determines the management prescription to apply to an analysis area as well as the timing of the implementation.

Yield tables included the following coefficients:

- Merchantable MCF (thousand cubic feet);
- Merchantable MBF (thousand board feet);
- Diameter of removals and residual volume;
- Fire risk;
- Snags - Delineated by diameter classes of 10 to 20 inches and 20+ inches; and
- Insect risk (composite rating of insect risk).

Carbon sequestration was modeled based on growing-stock volume, the amount of wood products generated, and the acres of forest burned in wildfire. The amount of carbon sequestered in growing-stock volume and contained in wood products came from relationships described in the publication *Methods for Calculating Forest Ecosystem and Harvested Carbon with Standard Estimates for Forest Types of the United States* (Smith et al. 2006). Coefficients were built in the model and total metric tons (tonnes) of carbon calculated. Decay functions were applied to the carbon sequestered in wood products and burned acres.

Costs for Management Activities

Costs were developed for sale preparation and sale administration (combined) reforestation, timber stand improvement, prescribed burning, and road construction and reconstruction. A cost for watershed restoration was also developed to track restoration activities in certain watersheds. Table 9 describes the activity, units, cost, and production coefficient (relationship for incurring the cost based on a particular activity).

Table 9. Costs for the Spectrum Model

Activity	Units	Timing	Cost	Production Coefficient
Sale Prep and Admin ¹	ccf	With harvest	\$62	1 per ccf harvest
Reforestation ²	Acre	With harvest	\$660	1 per acre regen harvest, 0.2 per acre select harv
TSI (pre-commercial thin) ³	Acre	Two decades after regen harv or two decades after selection harv	\$255	0.35 per acre regen harv, 0.2 per acre select harvest
Prescribed Burning ⁴	Acre	Timing for Presc. Burn rx	\$256	1 per acre burned
Road cons/recons ⁵	ccf	With harvest	\$15	1 per ccf harvest

¹ Sources: based on three-year average final budget allocation for FY08 – FY10; includes NEPA, litigation, sale prep, and sale admin; includes NEPA support from WFHF.

² Source: based on three -year average final budget allocation for FY08 – FY10.

³ Source: based on three -year average final budget allocation for FY08 – FY10.

⁴ Sources: based on three -year average final budget allocation for FY08 – FY10.

⁵ Sources: based on unit cost information from WO.

All costs except prescribed burning and road construction/reconstruction are part of the budget constraint (see discussion below on management requirements). The three-year average of actual costs used in developing most of the activity costs did not include any harvest within IRAs or helicopter logging. To reflect these higher unit costs, all activity costs within an IRA or helicopter logging area (Layer 1 code of IRA), except road construction and reconstruction, were increased by 20 percent. This increase was to reflect the increased access and analysis costs for these areas.

Timber Values

Stumpage values for timber were developed by the regional economist and regional timber program budget manager for the Northern Region, USDA Forest Service. Values were delineated by species and logging system. Values were based on the average delivered log price by species for 1989 to 2009. The average delivered log price was reduced by 12 percent to account for profit to loggers. Costs by logging system were then applied to determine average stumpage price by species. Value by species was then cross-walked to Spectrum species groups. Values for tractor and cable logging systems were averaged for the amount of tractor and cable logging that has occurred on the Forest over the past several years. Helicopter logging values were applied to inventoried roadless areas and helicopter logging areas (Layer 1 code of IRA). Table 10 displays the average stumpage value for the model.

Table 10. Stumpage Value by Species and Logging System

Average Stumpage Value for Tractor and Cable Logging Systems (averaged)		
Spectrum Species Strata	Non-saw	Sawtimber
DFPP	\$1.00	\$99.78
DF wet	\$1.00	\$76.66
LP	\$1.00	\$81.19
Larch	\$1.00	\$76.86
GF mix	\$1.00	\$57.01
SF mix	\$1.00	\$71.26

Average Stumpage Value for Helicopter Logging Systems		
Spectrum Species Strata	Non-saw	Sawtimber ¹
DFPP	\$1.00	\$3.00
DF wet	\$1.00	\$3.00
LP	\$1.00	\$3.00
Larch	\$1.00	\$3.00
GF mix	\$1.00	\$3.00
SF mix	\$1.00	\$3.00

¹ Used base rates because sawtimber values are currently negative

Transition Pathways

Pathways were developed to indicate how species and size class would be expected to change over time, given the silvicultural prescription. Pathways for cover types are displayed in table 11 and pathways for size classes in table 12. These pathways were used to model movement towards vegetation desired condition. The treatment designation of “Natural Growth” is the silvicultural prescription equivalent of no management, “Even-aged Harvest” is the silvicultural prescription equivalent of regeneration, and “Uneven-aged Management” is the individual tree and group selection silvicultural prescriptions. Pathways were developed by the silviculturist on the KIPZ interdisciplinary team.

Table 11. Spectrum Cover Type Transition Changes

Treatment	Spectrum Species	Age	Species
Natural Growth	DFPP	Always	DF
	DF wet	0-160	DF
		161+	GF mix
	L	0-90	L
		91-160	DF
		161+	GF mix
	GF mix	Always	GF mix
	LP	0-120	LP
		121+	SF mix
	SF mix	0-350	SF mix
		350+	LP
Even-aged Harvest	DFPP	0-30	DF
		30-70 (PCT)	80% DF, 20% PP
		70-110 (CT)	50% DF, 50% PP
		At regen harvest	100% PP
	DF wet	Same as natural growth until regen, then L	
	L	Always L	
	GF mix	Always GF mix until regen, then WP	
	LP	Always LP	
	SF mix	0-70	Same as natural growth
		70-110 (CT)	25% L, 25% DF, 50% SF mix

Treatment	Spectrum Species	Age	Species
		At regen harvest	50% L, 25% DF, 25% SF mix
Prescribe Burn	DFPP	0-30	DF
		31+	20% PP, 80% DF
	DF wet	0-30	DF
		31+	20% L, 80% DF
	L	Always L	
Uneven-aged Management	DFPP	1st entry	20% PP, 80% DF
		2nd entry	40% PP, 60% DF
		3rd entry	60% PP, 40% DF
		4th entry	80% PP, 20% DF
		5th entry	100% PP
	DF wet	1st entry	20% L, 80% DF
		2nd entry	40% L, 60% DF
		3rd entry	60% L, 40% DF
		4th entry	80% L, 20% DF
		5th entry	100% L
	L	Always L	
	SF mix	1st entry	10% L, 5% DF, 85% SF mix
		2nd entry	20% L, 10% DF, 70% SF mix
		3rd entry	30% L, 15% DF, 55% SF mix
		4th entry	40% L, 20% DF, 40% SF mix
		5th entry	50% L, 25% DF, 25% SF mix

Table 12. Spectrum Size Class Transition Changes

Treatment	Spectrum Species	Age	Size
Natural Growth	DFPP	0-30	SS
		31-80	Small
		81-120	Med
		121-160	Large
		161+	Very Large
		400	Cycle back to SS
	DF wet, GF mix, L	0-30	SS
		31-70	Small
		71-110	Med
		111-150	Large
		151+	Very Large
	DF wet	250	Cycle back to SS
	GF mix	400	Cycle back to SS
	L	350	Cycle back to SS
	LP	0-30	SS
		31-80	Small

Treatment	Spectrum Species	Age	Size
		81-120	Med
		121-180	Large
		181+	Very Large
		200	Cycle back to SS
	SF mix	0-40	SS
		41-80	Small
		81-120	Med
		121-160	Large
		161+	Very Large
		350	Cycle back to SS
Even-aged Harvest	DFPP	0-30	SS
		31-70	Small
		71-100	Med
		101-140	Large
		141+	Very Large
		400	Cycle back to SS
	DF wet	0-20	SS
		21-60	Small
		61-100	Med
		101-140	Large
		141+	Very Large
		250	Cycle back to SS
	GF mix	0-20	SS
		21-60	Small
		61-90	Med
		91-130	Large
		131+	Very Large
		400	Cycle back to SS
	L	0-20	SS
		21-60	Small
		61-90	Med
		91-140	Large
		141+	Very Large
		350	Cycle back to SS
	LP	0-20	SS
		21-70	Small
		71-100	Med
		101-160	Large
		161-200	Very Large
		200	Cycle back to SS
Even-aged Harvest	SF mix	0-30	SS
		31-70	Small

Treatment	Spectrum Species	Age	Size
		71-110	Med
		111-160	Large
		161+	Very Large
		350	Cycle back to SS
Uneven-aged Harvest	DFPP, DF wet, L, SF mix	1st entry	20% SS, 80% Med (or L, VL if entered)
		2nd entry	20% SS, 20% Small, 60% Med (or L, VL if entered)
		3rd entry	20% SS, 20% Small, 20% Med, 40% Large (or VL if entered)
		4th entry	20% SS, 20% Small, 20% Med, 20% Large, 20% Very Large
		All subsequent entries	Continue size class distribution after 4th entry
Prescribed Burn*	DFPP – Seedling/Sapling	Entry 1, age 30	100% SS
		Entry 2, age 60	20% SS, 80% Small
		Entry 3, age 90	20% Small, 80% Med
		Entry 4, age 120	20% Med, 80% Large
		Entry 5, age 150	20% Large, 80% Very Large
		400	Cycle back to SS
	DFPP – Small	Entry 1, age 60	20% SS, 80% Small
		Entry 2, age 90	20% Small, 80% Medium
		Entry 3, age 120	20% Medium, 80% Large
		Entry 4, age 150	20% Large, 80% Very Large
		400	Cycle back to SS
	DFPP – Medium	Entry 1, age 90	100% Medium
		Entry 2, age 120	100% Large
		Entry 3, age 150	100% Very Large
		400	Cycle back to SS
	DFPP – Large	Entry 1, age 120	100% Large
		Entry 2, age 150	100% Very Large
		400	Cycle back to SS
	DFPP – Very Large	Entry 1, age 150	100% Very Large
		400	Cycle back to SS
	DF wet, L – Seedling/Sapling	PCT only until size small/medium – then follow pathway below for small/medium	
	DF wet, L – Small/Medium	Entry 1, age 60	20% SS, 80% Small
		Entry 2, age 120	20% Small, 40% Med, 40% Large
		Entry 3, age 180	20% Med, 40% Large, 40% Very Large
		Entry 4, age 240	20% Large, 80% Very Large
	DF wet	250	Cycle back to SS
	L	350	Cycle back to SS
	DF wet, L – Large	Entry 1, age 120	100% Large

Treatment	Spectrum Species	Age	Size
		Entry 3, age 180	100% Very Large
		Entry 4, age 240	100% Very Large
	DF wet	250	Cycle back to SS
	L	350	Cycle back to SS
	DF wet, L – Very Large	Entry 1, age 240	100% Very Large
	DF wet	250	Cycle back to SS
	L	350	Cycle back to SS

* For prescribed burn, pathways are after burning sequence has been initiated; use natural growth pathways prior to burning sequence

Management Constraints

The following discussion provides a description of the various constraints that were incorporated into the Spectrum model in response to Forest Plan direction, regulations, and as a means of improving the model's ability to simulate actual management of NFS lands. Constraints as defined in the model were for modeling purposes only and do not create limitations for Plan implementation.

Harvest Policy

Harvest policy includes non-declining yield, long-term sustained-yield and ending inventory constraints. These constraints ensure that the timber yield is sustainable and will not decline in any decade.

Budget Constraint

The model included a budget constraint in order to assess effects under current budget levels for timber management and reforestation activities. For the model's planning horizon, the annual budget constraint was \$6,870,000 and included all timber sale activities (timber sale preparation, timber sale administrations, timber stand improvement, and reforestation). The model was run with this constraint to develop the predicted timber volume sold under current budget levels for each alternative. A separate run was made with this constraint released to determine the ASQ and the LTSYC for each alternative independent of budget levels.

Snag Retention

The silvicultural prescriptions for regeneration harvest provided retention of trees for snag recruitment. Reserves of trees were required and the snag quantities were tracked in the yield tables. Numbers of snags were reported for two diameter classes (10 to 19.9" and 20"+) for three densities (see table 13).

Table 13. Snag Density by Diameter Class

Diameter Class	Snag Density		
10 to 20-inch snags	0 to 5.9 snags/acre	6 to 9.9 snags/acre	≥10 snags/acre
20+ inch snags	0 to 0.9 snags/acre	1.0 to 3.9 snags/acre	≥4 snags/acre
Total Snags	0 to 5.9 snags/acre	6.0 to 9.9 snags/acre	≥10 snags/acre

Old Growth

For Alternative A, no harvest was allowed in the existing old growth areas (Layer 6 - code of *vlarge*). For the action alternatives, individual tree selection was allowed in existing old growth in the DFPP cover type and no other harvest allowed in Layer 6 (code of *vlarge*).

Watershed Constraints

Watershed objectives were met by limiting the amount of area that could be in an opening at one time. To protect watershed resources, the amount of area in openings is limited to not more than 20% of a watershed. Openings were modeled as follows

- For regeneration harvest or natural disturbance, one acre of opening is created for each acre of harvest.
- For group selection, 0.2 acres of opening is created for each acre of harvest.
- For commercial thinning, 0.2 acres of opening is created for each acre of thinning.

An opening remains an opening over 60 years, with a decay function over time. During the first decade of harvest, the opening equals 1.0, diminishing to 0.75 in decade 2, 0.55 in decade 3, 0.4 in decade 4, 0.3 in decade 5, and 0.2 in decade 6.

Wildlife Constraints

Wildlife requirements were met through various means. Grizzly bear core areas, old growth, and riparian areas were not suitable for timber production (Layer 3 - code of *NsuitN*).

For grizzly bear management units located outside grizzly bear core areas (Layer 3 - code of *bmucmu*), an opening was considered an opening for 30 years. Wildlife openings were limited to no more than 8 percent of the area over a decade.

For lynx habitat (Layer 3 - code of *lynxhb*), vegetation treatment was limited to no more than 15 percent over a decade.

For winter range or other areas with no wildlife condition (Layer 3 - code of *wntrng* or *nowldl*), openings were limited to no more than 25 percent of the area.

Limits on Silvicultural Prescriptions

Due to limitations of appropriate sites for uneven-aged management, this prescription was limited to no more than 5,000 acres per decade for all decades.

As a result of operational and logistical limitations on the amount of prescribed burning the Forest can perform, prescribed burning in the action alternatives was limited to no more than 10,000 acres per year. There was no prescribed burning in the Alternative A model, since this model did not have an objective function to move towards vegetation desired condition.

Because of operational and logistical limitations on the amount of thinning the Forest can do, thinning was limited to no more 4,000 acres per year for the first three decades.

Natural Disturbance (Wildfire)

The amount of natural disturbance (stand replacing wildfire) was determined using SIMPPLLE. Acres of natural disturbance (wildfire) were input into the Spectrum model, requiring a certain number of acres to undergo stand replacing wildfire every decade. The amount varies by cover

type and size class. As discussed previously, the acres of stand replacing wildfire was updated between draft and final EIS to more accurately portray expected wildfire behavior.

Table 14 displays the acres themed to stand replacing fire over each decade.

Table 14. Natural Disturbance (Stand Replacing Wildfire) by Layer

Spectrum Layer	Acres Stand Replacing Fire by Decade					
Layer 5 - Cover Type	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5	Decades 6-25
DFPP	1,211	1,903	3,421	5,741	4,173	3,290
DFwet	1,076	915	1,826	2,614	3,290	1,944
GFmix	3,510	3,940	4,674	6,489	8,694	5,462
Larch	3,780	5,394	6,914	12,542	10,865	7,899
LP	1,569	1,829	1,702	2,563	2,247	1,982
Sfmix	8,285	10,003	11,956	18,834	20,967	14,009
Total	19,430	23,984	30,494	48,783	50,238	34,586
Layer 6 - Size Class	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5	Dec 6-25
Large	7,151	8,711	11,564	20,521	14,717	12,533
Medium	7,191	7,296	7,759	7,520	10,855	8,124
SeedSap	957	1,708	2,778	3,220	2,646	2,262
Small	2,140	4,262	5,130	12,250	10,767	6,910
VeryLarge	1,990	2,007	3,263	5,273	11,252	4,757
Total	19,430	23,984	30,494	48,783	50,238	34,586

Management Objectives

Linear programming models, such as Spectrum, optimize an objective function subject to a set of constraints. An objective function is defined in terms of its type, discount rate (if applicable), duration, and contributing activities and outputs. The constraints in the model were described in the previous section. The following discussion provides a description of the objective functions that were used for solving the model.

Objective to move towards Desired Condition

For the action alternatives, the objective function for the model was to move towards the desired condition for vegetation, as defined in the revised Forest Plan. The desired condition was defined by cover type and size class and then goals were developed to achieve desired condition.

Table 15 and table 16 display the goals for species and size class, respectively, based on the desired condition ranges for vegetation in the revised Forest Plan. These goals did not vary by alternative. In the model, every acre that is not within the desired condition minimum and the desired condition maximum is assigned a “penalty point.” The objective is to minimize total penalty points. Thus, alternatives with lower overall penalty points do a better job of moving vegetation towards desired conditions than those alternatives with higher penalty points.

In the draft EIS, this objective was run separately for lands suitable for timber production and lands not suitable. The desired condition minimums and maximums were prorated, based on number of acres. In the final EIS, this objective was run forestwide, and did not separate out lands suitable for timber production from the not suitable lands. This adjustment was made to more accurately portray opportunities for moving vegetation towards desired conditions.

Table 15. Species Composition – Percent of all forested National Forest Acres

Veg Type	Desired Condition Minimum %	Desired Condition Maximum %
PP	5	9
DF	4	8
LP	12	23
WL	26	52
GF/WRC/WH Mix	5	11
WP	4	9
SAF/ES/WBP, MH, AL Mix	11	21

Table 16. Successional Stage (Size Class)

Veg Type	Desired Condition Minimum %	Desired Condition Maximum %
Seed/Sap	16	31
Small	10	19
Medium	8	16
Large	11	22
Very Large	23	45

Objective to Maximize Timber

For Alternatives A and D, the model was run with an objective function to maximize timber output levels in the first decade. For Alternative D, the results were then 'rolled over' (first decade harvest levels input as a constraint) and the model re-run with the objective to move towards vegetation desired condition.

Objective to Maximize Present Net Value

After the alternatives were run with the objective function to move towards vegetation desired condition or the objective to maximize timber only (Alternative A), the solutions were input into the model as constraints and the model re-run with an objective to maximize present net value using a 4 percent discount rate. This run was to ensure the model was being cost efficient in management choices.

Results

Table 17 displays the objective functions used to run each alternative and some key outputs: production of timber in both MMBF and MMCF in the first decade; long-term sustained-yield; present net value; timber budget in the first decade; and the number of acres managed for timber production over the planning horizon.

Table 17. Results by Alternative by Run

Alternative Run	Objective Functions	MMBF/Yr	MMCF/Yr	LTSY	PNV	Budget	Timber
		Decade 1	Decade 1	MMCF/Yr	MM\$	Decade 1	Mgmt ¹
						MM\$/Yr	Acres
A – with budget constraint	Max Timber, Max PNV	50.5	9.2	10.2	-34	6.87	359,667
A – without budget constraint	Max Timber, Max PNV	87.5	15.6	15.7	-82	14.3	510,099
B Modified– with budget constraint	Desired Condition, Max PNV	47.5	8.6	12.5	-104	6.87	412,205
B Modified – without budget constraint	Desired Condition, Max PNV	80.2	14.7	17.0	-144	14.2	563,816
C – with budget constraint	Desired Condition, Max PNV	36.8	6.7	12.4	-93	6.87	421,092
C – without budget constraint	Desired Condition, Max PNV	75.9	14.0	16.3	-140	13.6	537,104
D – with budget constraint	Max Timber, Desired Condition, Max PNV	50.5	9.2	11.3	-110	6.87	380,594
D – without budget constraint	Max Timber, Desired Condition, Max PNV	98.7	17.6	18.1	-193	17.2	597,764

¹ 1 Acres scheduled for timber management over the modeled 250 year planning horizon.

Sensitivity Analysis

Sensitivity analysis is conducted to examine the trade-offs caused by the constraints and determine if the Spectrum model is working correctly. For the sensitivity analysis, 10 runs were made. The first run had no constraints on the model. Subsequent runs included a set of constraints added to the previous run until the last run included all constraints. The analysis shows the effect of adding each set of constraints to the model. Except for Run 1, all sensitivity analysis runs were made on lands suitable for timber production common to all alternatives. These lands did not include the management area determination for timber suitability. All runs were made with the objective to move towards vegetation desired condition (minimize penalty points).

Table 18 displays several model outputs for each sensitivity analysis run: vegetation desired condition in terms of penalty points; production of timber in both MMBF and MMCF in the first decade; timber production in MMCF over the model's planning horizon; long-term sustained-yield; present net value; timber budget in the first decade; number of acres managed for timber over the planning horizon; thousands of acres of prescribed burning; million metric tons of carbon sequestered (this is a cumulative number over 25 decades, and does not reflect carbon sequestration at a point in time); and acres with high fire hazard. Following is a brief description of each sensitivity analysis run and general effects:

- **Run 1 – All Lands Available:** This run is made with all lands going to some kind of management. This run does not consider timber suitability, harvest policy, or any resource or operation constraints. This is the maximum for moving towards vegetation desired condition without any constraints. This run has the lowest penalty points for not meeting vegetation desired condition and shows the greatest possible movement towards vegetation desired condition.
- **Run 2 – All Suited Lands Available:** This run is made with all lands suitable for timber production going to some kind of management. No harvest policy, resource or operation constraints are included except those used in determining timber suitability. This is the maximum for moving towards vegetation desired condition when all lands suitable for timber production are managed. This run results in an almost doubling of the penalty points (movement away from vegetation desired condition) and a 50 percent decrease in timber harvest (MMBF) in the first decade.
- **Run 3 – Sustainable Harvest:** This is the same as Run 2 but includes the harvest policy constraints of non-declining yield, long-term sustained-yield, and ending inventory constraints. No resource or operation constraints are included. This is the maximum for moving towards vegetation desired condition and providing sustainable harvest levels. This run results in a slight increase (7 percent) to desired condition penalty points and a 65 percent decrease in timber harvest in the first decade.
- **Run 4 – Watershed Openings:** This is the same as Run 3 but includes constraints for watershed openings. This run results in a 21 percent increase in desired condition penalty points and an 18 percent decrease in first decade timber harvest.
- **Run 5– Wildlife Openings:** This is the same as Run 4 but includes constraints for wildlife openings. This run results in an additional 19 percent increase in desired condition penalty points and an 18 percent decrease in first decade timber harvest.
- **Run 6 – Old Growth:** This is the same as Run 5 but includes limits on management in old growth. This run has similar results to Run 5, showing little increase in penalty points and little decrease in timber harvest.

- **Run 7 – Rx Burn Limits:** This is the same as Run 6 but includes limits on the amount of prescribed burning that can occur. This run is similar to Run 6, resulting in only an 8 percent increase in desired condition penalty points and a 1 percent decrease in first decade timber harvest.
- **Run 8 – Unevenage Harvest Limits:** This is the same as Run 7 but includes constraints on the amount of unevenaged management that can occur. This run is similar to Run 7 for achieving desired condition, resulting in only a 6 percent increase in desired condition penalty points but a 12 percent decrease in first decade timber harvest.
- **Run 9 – Thinning Limits:** This is the same as Run 8 but includes constraints on the amount of thinning that can occur. This run is similar to Run 8, resulting in only a 2 percent increase in desired condition penalty points and a 2 percent decrease in first decade timber harvest.
- **Run 10 – Budget Constraint:** This is the same as Run 9 but includes the budget constraint. This run is similar to the runs for the alternatives except that it includes lands suitable for timber production that the management area may deem unsuitable. This run has significant effects on achieving vegetation desired condition and timber harvest, resulting in a 25 percent increase in desired condition penalty points and a 47 percent decrease in first decade timber harvest.

Results of the sensitivity analysis indicate the opening constraints and the budget constraints have a large impact on achieving vegetation desired condition. These constraints also limit timber harvest. Because the constraints were added sequentially for the sensitivity analysis, it is not known how limiting any one constraint may be. However, the change in key outputs shows the effects the constraints have as a whole on the solution.

Sensitivity analysis was not re-run for the revised Spectrum model. Except for the updates to the watershed openings, all other constraints remained the same as in the DEIS model.

Table 18. Sensitivity Analysis

Run - Description	Desired Condition	MMBF/ Yr	MMCF/ Yr	MMCF	LTSY	PNV	Budget	Timber	Rx Burn	Carbon	High Fire
	Penalty Points	Decade 1	Decade 1	Decade 1-25	MMCF/Yr	MM\$	Decade 1	Mgmt ¹	Decade 1	Decade 1-25 ²	Decade 1-25 ²
							MM\$/Yr	Acres	M Ac.	MM tonnes	MM Ac.
1 - All Lands Available	7,542,714	804.1	154.95	15,348	47.25	-934.0	123.71	1,697,845	79	4,643	12.2
2 - All Suited Lands Available	14,968,319	401.7	75.78	8,115	24.55	-498.4	61.95	845,436	359	4,857	19.8
3 - Sustainable Harvest	16,077,072	140.0	26.95	6,738	26.95	-322.9	21.69	845,436	228	4,856	21.0
4 - Watershed Openings	19,515,650	115.1	21.98	5,646	22.82	-266.0	18.78	841,127	279	4,854	21.2
5 - Wildlife Openings	23,198,902	88.5	16.98	4,417	17.88	-265.2	14.74	657,069	339	4,887	21.7
6 - Old Growth	23,223,144	88.3	16.94	4,408	17.85	-264.6	14.74	656,074	339	4,888	21.7
7 - Rx Burn Limits	25,106,356	87.8	16.84	4,400	17.84	-202.1	14.42	656,563	87	4,920	26.5
8 - Unevenage Harvest Limits	26,595,579	77.6	14.71	3,863	17.93	-177.5	12.91	615,554	87	4,932	27.5
9 - Thinning Limits	27,003,978	76.0	14.23	3,909	17.99	-175.7	13.00	615,723	87	4,935	28.2
10 - Budget Constraint	33,693,692	40.4	7.59	2,217	12.58	-110.2	6.87	428,880	100	4,998	31.7

¹ Acres scheduled for timber management over the modeled 250 year planning horizon.

² These are cumulative totals for 25 decades.

Benchmarks

Benchmarks analysis is conducted to understand the limits on production levels and outputs from the Spectrum model based on achieving certain objectives. The benchmark analysis determined maximum and minimum production levels and movement towards vegetation desired condition. The benchmark analysis was conducted on the same land base as the sensitivity analysis (lands suitable for timber production common to all alternatives) and included all resource and operability constraints except for the budget constraint. All benchmark runs were made without a budget constraint. Six benchmarks were run:

- **Benchmark to Maximize Timber** – This run was made with an objective to maximize timber in the first decade. Results were then rolled over and the run made to maximize timber harvest over the entire planning horizon. The maximum timber benchmark results in a first decade harvest of 102.3 MMBF. The penalty points for moving towards desired condition are not known, since this run was not made with any goal to move towards desired condition.
- **Benchmark to Maximize Present Net Value (PNV)** – This run was made with an objective to maximize the PNV. Because timber market conditions are currently depressed, resulting in very low timber values, the PNV is negative in most runs of the model. To maximize PNV, the result is only 11.0 MMBF in decade one. Again, penalty points for moving towards desired condition are not known, since this run was not made with any goal to move towards desired condition.
- **Benchmark to Maximize Desired Condition** – This run was made with a goal to move towards vegetation desired condition, given the land base and constraints of the model. The result was total of approximately 23 million penalty points and a first decade harvest level of 88.3 MMBF.
- **Benchmark to Maximize Carbon Sequestration** – This run was made with an objective to maximize carbon sequestration over the planning horizon. The result was a cumulative total of carbon sequestered over 25 decades and does not reflect a point in time. The cumulative total of carbon sequestered over 25 decades was 5,190 million metric tons and a first decade harvest of only 4.1 MMBF.
- **Benchmark to Minimize Fire Hazard** – This run was made with an objective to minimize acres with high fire hazard potential over the planning horizon. The result was 19.4 million acres with high fire hazard (cumulative for the total 25 decades) and a first decade harvest level of 64.3 MMBF.
- **No Management Benchmark** – This run was made with a goal to move towards vegetation desired condition but with no management allowed on any acres. This resulted in more than triple the penalty points from the maximum desired condition benchmark run and no timber harvest in any decade.

All benchmarks were re-run with the updated model for the FEIS. Table 19 displays the results of the benchmark runs and includes a summary of the following outputs for each run: production of timber in both MMBF and MMCF in the first decade; long-term sustained-yield; present net value; timber budget in the first decade; number of acres managed for timber over the planning horizon; million metric tons of carbon sequestered (cumulative total for 25 decades); and acres with high fire hazard (cumulative total for 25 decades).

Table 19. Benchmark Analysis

Benchmark	MMBF/ Yr	MMCF/Yr	LTSY	PNV	Budget	Timber	Carbon	High Fire
	Decade 1	Decade 1	MMCF/Yr	MM\$	Decade 1	Mgmt ¹	Decade 1-25 ²	Decade 1-25 ²
					MM\$/Yr	Acres	MM tonnes	MM Ac.
Max Timber	112.4	20.8	20.8	-235.6	19.6	641,238	4,643	23.2
Max PNV	44.2	9.2	13.2	16.8	6.3	432,469	4,787	37.3
Max Desired Condition	97.0	18.4	18.4	-223.1	16.3	641,238	4,630	21.6
Max Carbon Sequestration	0.0	0.0	0.0	0	0	0	5,208	45.1
Min High Fire Hazard	74.0	14.7	14.7	-283	12.7	488,934	4,602	18.6
No Management	0.0	0.00	0.00	0.0	0	0	4,891	45.1

¹ Acres scheduled for timber management over the modeled 250 year planning horizon.

² These are cumulative totals for 25 decades.

Efficiency Analysis for Prescriptions

An analysis was conducted to estimate the most profitable timber prescription for each analysis area. The analysis consisted of sorting through economic information that is generated for use in Spectrum and finding the highest present net value for each part of the Forest. Results from the analysis can be found in the project record.

Rangeland Capability and Suitability

The NFMA requires the identification of the suitability of lands for resource management. An analysis to determine lands suitable to produce forage for grazing animals (suitable for rangelands) was completed as part of the Forest Plan revision. Although an area may be deemed suitable for use by livestock in the Forest Plan, a project-level analysis evaluating the site-specific impacts of the grazing activity, in conformance with NEPA, is required in order to authorize livestock grazing on specific allotment(s).

The assessment of suitable rangelands was accomplished using GIS. Use of GIS resulted in consistent identification of each step in determining suitability.

The first step in determining suitability was to identify lands capable of providing forage for grazing animals. Capability is defined under the 1982 rule procedures as "The potential of an area of land to produce resources, supply goods and services, and allow resource uses under an assumed set of management practices and at a given level of management intensity. Capability depends upon current conditions and site conditions such as climate, slope, landform, soils, and geology, as well as the application of management practices, such as silviculture or protection from fire, insects, and disease" (36 CFR 219.3 1982 Rule Procedures).

The following steps determined capable rangelands:

- Begin with all lands that are NFS lands;
- Subtract soil types that are dominated by a large percentage of rock outcrop and rubble land, loose granitic or highly erosive soils, very wet and boggy soils, and sites with high mass movement risk;
- Subtract soil types that are not inherently capable of producing more than 200 pounds of forage per acre within their potential natural community (such as nutrient-poor or shallow soils);
- Subtract areas that consist of lakes, reservoirs, ponds, or major rivers;
- Subtract streams by buffering perennial streams by six feet and intermittent streams by three feet on either side; and

Subtract slopes greater than 40 percent.

The remaining area is capable rangeland. There are 921,700 acres of capable rangeland on the KNF.

The following steps were utilized to determine suitable rangelands:

- Subtract areas determined to be not capable;
- Subtract all areas outside of range allotments;
- Subtract areas that currently have an overstory of tree canopy cover greater than 60 percent. Transitory range is normally considered as a special short-term instance where suitability occurs because of the removal of the overstory vegetation (i.e., by fire or harvest). However, since the long-term site potential is normally a moderate to dense canopy with little understory production, these areas are generally considered to be suitable for grazing only until the tree canopy cover returns to 60 percent or greater. Changes to suitability due to changes in transitory forage (i.e., becomes available through timber harvest or wildfire or unavailable because of growth of overstory vegetation) will be considered at the project scale. The KNF

used the Vegetation Mapping Project coverage to determine tree canopy cover. All areas with a canopy cover of greater than 60 percent were subtracted; and

- Subtract MAs where livestock grazing is generally not suitable. For the action alternatives, all MAs except 5a, 5b, 5c, and 6 were subtracted. Grazing is not part of the desired condition for all other MAs. For Alternative A, MAs 2, 6, 7, 8, 9, 19, 21, 24, and 29 were subtracted as not suitable for grazing. Based on Forest Plan guidelines, also subtracted riparian areas.

The remaining area is considered suitable rangeland. Table 20 displays total suitable rangeland by alternative.

Table 20. Rangeland Suitability by Alternative (Acres)

Timber Suitability	Alternative A	Alternative B Modified	Alternative C	Alternative D
Capable Rangeland	921,700	921,700	921,700	921,700
Outside Allotment	-669,050	-669,050	-669,050	-669,050
>60 percent Canopy	-80,030	-80,030	-80,030	-80,030
Riparian Area	-19,200	-19,200	-19,200	-19,200
Management Area not suitable	-4,420	-4,890	-5,840	-3,980
Suitable Rangeland	149,000	148,530	147,580	149,440

Social and Economic Analysis

Social and economic impacts and economic efficiency were analyzed for each alternative. Social and economic impacts were measured in terms of changes to jobs and income. Economic efficiency was measured based on changes in present net value.

Economic Impacts

Introduction

Economic effects to local counties were estimated with input-output analysis using the IMPLAN (Impact analysis for PLANning) modeling system (MIG 2003) and FEAST (Forest Economic Analysis Spreadsheet Tool) (Alward et al. 2010). The IMPLAN modeling system allows the user to build regional economic models of one or more counties for a particular year. The model for this analysis used the 2008 IMPLAN data. FEAST is a spreadsheet modeling tool that serves as an interface between user inputs and imported data from an existing IMPLAN model.

Input-output analysis is a means of examining relationships within an economy, both between businesses and between businesses and final consumers. It captures all monetary market transactions for consumption in a given time period. Economic contribution analysis is defined as “the gross change in economic activity associated with an industry, event, or policy in an existing regional economy” (Watson et al. 2007). By using Forest Service expenditure data, resource output data, and other economic information, IMPLAN can describe, among other things, the jobs and income that are supported by NFS management activities. The direct employment and labor income benefit employees and their families, and therefore, directly affect the local economy. Additional indirect and induced, multiplier effects (ripple effects) are generated by the direct activities. Together the direct and multiplier effects comprise the total

economic contribution to the local economy. The data used to estimate the direct effects from timber harvest is information provided by University of Montana's Bureau of Business and Economic Research. The economic effects tied to other Forest Service programs and the multiplier effects were estimated using IMPLAN. Resource specific data (recreation visits, range head months, timber volume harvested, etc.) were collected and input into FEAST. For current management levels, a three-year average using 2007 to 2009 data was calculated for resources to eliminate the year to year variability inherent in the data.

Procedures

To estimate the economic impacts to the KNF area economy, one IMPLAN model covering five counties was developed. The counties included Lincoln, Sanders, and Flathead counties in Montana and Boundary and Bonner counties in Idaho. This area defines the functional social and economic planning area. Labor flows between towns and counties are generally contained within these five counties. Flows of labor, goods, and services between this area and other counties are not captured in the model, but considered as exports or imports.

Impact analysis describes what happens when a change in final sales (i.e., to non-residents — or exports — and governments) occurs for goods and services in the model region. Changes in final sales are the result of multiplying production data (i.e., cubic feet of timber or recreation visits by non-locals) times sales. Economic impacts were estimated using the best available production and sales data.

Impacts to local economies are measured in two ways: employment and labor income. Employment is expressed in jobs. A job can be seasonal or year-round, full-time or part-time. Jobs represent the annual average of 12 monthly estimates. There is no seasonality in this measure. The income measure used was labor income expressed in 2009 dollars. Labor income includes both employee compensation (pay plus benefits) and proprietor income (e.g., self-employed).

The planning area model was used to determine total consequences of dollar, employment, and income changes in selected sectors. Because input-output models are linear, multipliers or response coefficients need only be calculated once per model and then applied to the direct change in final demand. A specially-developed spreadsheet entitled "FEAST" (Forest Economic Analysis Spreadsheet Tool) was used to apply the model results to each alternative. Methods for developing response coefficients and levels of dollar activity are explained below.

Data and Assumptions

Timber Production

Current levels were developed from a three-year average of actual harvest for 2007 to 2009. Products were broken out by sawtimber (which includes house logs), pulp, posts, and fuelwood. For the alternatives, timber production levels were derived using the Spectrum model. First decade output levels were used for sawtimber. It was assumed that the predicted timber sold in the model would be harvested in the same timeframe. Pulp was not broken out separately for the alternatives, but included with sawtimber. Posts and fuelwood were assumed to remain near current levels, with a small decrease for all alternatives.

The data used to estimate the direct effects from timber harvest was developed by University of Montana's Bureau of Business and Economic Research. The indirect and induced effects were generated by the IMPLAN model.

Recreation and Wildlife

Recreation visitor days were calculated using the most recent National Visitor Use Monitoring (NVUM) data. The current level was based on the most recent data collection, which occurred in fiscal year 2007. The proportion of recreation that was wildlife related was generated based on White and Stynes (2009), using case weighted averages.

For the alternatives, a 13 percent increase was applied to the 2007 recreation levels to reflect the projected change in population over the next decade. Recreation figures were held constant for all alternatives.

The direct, indirect, and induced effects from changes in recreation levels were generated by the IMPLAN model.

Grazing

The current level is a three-year average of authorized use from 2007 to 2009. This figure was not expected to change by alternative, and based on desired conditions, kept constants at current levels.

The direct, indirect, and induced effects from changes in grazing levels were generated by the IMPLAN model.

Minerals

The current level for saleable minerals is based on a three-year average of mineral material production for 2007 to 2009 (source data was IWEB report, MMGS017L, Mineral materials - forest summary by commodity). These outputs were proportioned to IMPLAN sectors 25 (crushed stone, dimensional stone) and 26 (sand and gravel). Locatable minerals were based on production at the Montana Troy mine. A three-year average for 2007 to 2009 was developed for silver and copper production at the mine. Saleable and locatable mineral levels were held constant at current levels for all alternatives.

The direct, indirect, and induced effects from minerals were generated by the IMPLAN model.

Federal Expenditures and Employment

Total employment and salaries paid by the Forest Service was based on a three-year average for 2007 to 2009. Total Forest expenditures were based on a three-year average (2007 to 2009). These levels were held constant for all alternatives.

The direct, indirect, and induced effects from forest expenditures and employment were generated by the IMPLAN model.

Revenue Sharing

Two IMPLAN models were developed to predict the change in jobs and income associated with continuance of the Secure Rural Schools and Community Self-Determination Act or a return to payments under the 25% Fund. A three-year average of actual payments under the Secure Rural Schools and Community Self-Determination Act was input into one of the models. This level was held constant for all alternatives. A second model used the three-year average of payments that would have been made under the 25% Fund. This amount varied by alternative based on the size of revenues generated by resource output levels.

The direct, indirect, and induced effects from revenue sharing were generated by the IMPLAN model.

Output Levels

Table 21 displays the output levels that were used to perform the impact analysis.

Table 21. Output Levels for Impact Analysis

Activity	Units	Current Level	Alt A	Alt B Modified	Alt C	Alt D
Timber - Sawtimber	CCF	34,005	92,278	87,137	75,525	92,071
Timber – Pulp	CCF	789	0	0	0	0
Timber - Posts	CCF	203	200	200	200	200
Timber - Fuelwood	CCF	10,008	950	950	950	950
Recreation - Nonlocal Day Trips	Visits	98,547	11,256	11,256	11,256	11,256
Recreation -Nonlocal Overnight on NF	Visits	17,375	19,633	19,633	19,633	19,633
Recreation -Nonlocal Overnight not on NF	Visits	23,166	26,178	26,178	26,178	26,178
Recreation -Local Day Trips	Visits	341,704	386,125	386,125	386,125	386,125
Recreation - Local Overnight on NF	Visits	17,375	19,633	19,633	19,633	19,633
Recreation -Local Overnight not on NF	Visits	5,792	6,544	6,544	6,544	6,544
Wildlife & Fish - Nonlocal Day Trips	Visits	57,824	65,341	65,341	65,341	65,341
Wildlife & Fish -Nonlocal Overnight on NF	Visits	10,204	11,531	11,531	11,531	11,531
Wildlife & Fish -Nonlocal Overnight not on NF	Visits	13,606	15,374	15,374	15,374	15,374
Wildlife & Fish -Local Day Trips	Visits	200,683	226,722	226,722	226,722	226,722
Wildlife & Fish - Local Overnight on NF	Visits	10,204	11,531	11,531	11,531	11,531
Wildlife & Fish -Local Overnight not on NF	Visits	3,401	3,844	3,844	3,844	3,844
Range – Cattle	Head Months	5,366	5,366	5,366	5,366	5,366
Minerals – Copper	Short Tons	4,634	4,634	4,634	4,634	4,634
Minerals – Silver	Troy Ounces	1,122,870	1,122,870	1,122,870	1,122,870	1,122,870
Minerals – Crushed Stone	Short Tons	17,582	17,582	17,582	17,582	17,582
Minerals – Dimension Stone	Short Tons	1,000	1,000	1,000	1,000	1,000
Minerals – Construction Sand & Gravel	Short Tons	41,369	41,369	41,369	41,369	41,369

Activity	Units	Current Level	Alt A	Alt B Modified	Alt C	Alt D
FS Expenditures	M\$	25,293	25,293	25,293	25,293	25,293
Secure Rural Schools Payment	M\$	7,883	7,883	7,883	7,883	7,883
25% Fund Payment	M\$	1,431	1,602	1,399	1,709	1,583

Economic Efficiency

Economic efficiency is defined as how well the dollars invested in each alternative produce benefits to society. Present net value was used as an indicator of economic efficiency.

To calculate present net value, a spreadsheet was used which tracks revenues, costs, and benefits for a fifty-year period. Built into the spreadsheet were predicted increases and decreases to output levels over time. A 4 percent discount rate was used.

Table 22 displays the economic values that were used for each resource. All values were input as 2008 dollars. The values were derived from different sources. Timber revenues were those reported by the Spectrum model. Range values were based on the rate for private grazing fees for 2008 in the state of Montana. Mineral materials values were based on actual prices from the Forest. Values for silver and copper were from the 2008 Mineral Yearbooks at USGS. Recreation, fish and wildlife values were based on an analysis of the National Visitor Use Monitoring data (Bowker et al. 2009) and a draft report on Resource Planning Act non-market values (Retzlaff 2010).

Costs were a three-year average of actual expenditures by program area for fiscal years 2008 to 2010. The budget by program area remained constant for all alternatives.

Table 22. Economic Values for Present Net Value Analysis

Activity	2008 Dollars	2012 Dollars
Timber (M \$)		
Sawtimber Value		from Spectrum Model – by Alternative
Range (\$ / AUM)		
All Livestock (Cattle, Sheep, Horses)	\$18.00	\$19.12
Minerals		
Dimension Stone (\$/Short Ton)	\$51.02	\$54.18
Crushed Stone (\$/Short Ton)	\$1.63	\$1.73
Sand & Gravel (\$/Short Ton)	\$1.08	\$1.15
Copper (\$/Pound)	\$3.18	\$3.38
Silver (\$/Troy Ounce)	\$14.87	\$15.79
Recreation (\$ / Visit)		
Camping	\$29.69	\$31.53
Motorized Recreation	\$48.46	\$51.46
General Recreation	\$22.81	\$24.22
Hiking	\$91.92	\$97.62

Activity	2008 Dollars	2012 Dollars
Nature-based Recreation	\$38.00	\$40.35
OHV Use	\$62.26	\$66.12
Primitive Camping	\$30.61	\$32.51
Picnicking	\$48.01	\$50.98
Skiing	\$188.14	\$199.80
Snowmobiling	\$171.91	\$182.56
Non-motorized Recreation	\$155.67	\$165.32
Fish & Wildlife (\$ / Visit)		
Hunting	\$44.44	\$47.19
Fishing	\$66.08	\$70.17
Viewing Wildlife and Nature	\$37.74	\$40.08

Appendix C —Wilderness Evaluation

Introduction

The 1982 Planning Procedures state that “roadless areas within the NFS shall be evaluated and considered for recommendation as potential wilderness areas during the forest planning process.” This appendix describes the analysis used in evaluating individual roadless areas on the KNF. It includes a summary of each area’s evaluation of suitability for recommended wilderness.

Background

In the 1970s, the Forest Service studied all roadless and undeveloped areas in the NFS for the purpose of prioritizing areas with strong wilderness characteristics for further study. These studies were known as Roadless Area Review and Evaluation I and II (RARE I and RARE II).

In the 1980s the KNF began development of a land and resource management plan, which included an evaluation of roadless areas. The 1987 KNF Plan EIS, appendix C Volume 1&2, included 32 inventoried roadless areas (IRAs). These inventories were updated and other unroaded areas were evaluated for potential wilderness as part of the forest plan revision efforts in 1999.

Areas identified through the 1999 inventory process are potential wilderness inventory. The 1999 evaluation resulted in an increase in the number of potential wilderness inventory areas by 11, and increase in acres by 235,870, from the 1987 Forest Plan.

The 2001 Roadless Rule was the subject of litigation in multiple jurisdictions. Ultimately, the rule was judicially upheld (2012) and it is in effect, with the exceptions of the states of Idaho and Colorado where separate rules apply. See *Wyoming v. U.S.D.A.*, 661 F.3d 1209 (10th Cir. 2011) (upholding 2001 Roadless Rule); *Kootenai Tribe of Idaho v. Veneman*, 313 F.3d 1094 (9th Cir. 2002) (reinstating Roadless Rule); *Jayne v. Sherman*, No. 11-35269 (9th Cir. Jan. 7, 2013). The 2001 Roadless Rule will be implemented on KNF Inventoried Roadless Areas (36 CFR 294 Subpart B).

For NFS lands in Montana, inventoried roadless areas are those areas mapped under the 2001 Roadless Area Conservation Rule (36 CFR 294 Subpart B). These areas are identified in appendix C of the FEIS, for the revised Forest Plan. The official set of maps is maintained at the national headquarters office of the Forest Service.

For NFS lands in Idaho, inventoried roadless areas are those areas designated as Idaho Roadless Areas pursuant to 36 CFR §294.21 and 36 CFR §294.29. These areas are identified in a set of maps maintained at the national headquarters office of the Forest Service.

The current potential wilderness inventory includes 43 areas for a total of approximately 638,030 acres (figure 5 and table 23). These 43 areas also make up the KNF Inventoried Roadless Areas. Inventoried roadless areas in Montana are those mapped under the 2001 Roadless Area Conservation Rule. Inventoried roadless areas in Idaho have been identified as Idaho Roadless Areas under the 2008 Idaho Roadless Rule (36 CFR 294 Subpart C).

Maps

Figure 5 and the accompanying table of figures and page numbers (table 23) show the IRAs forestwide. Figures 6 through 41 shows more detailed maps of the individual IRAs. The official set of maps is maintained at the national headquarters office of the Forest Service. An IRA map layer is also retained in the KNF GIS library.

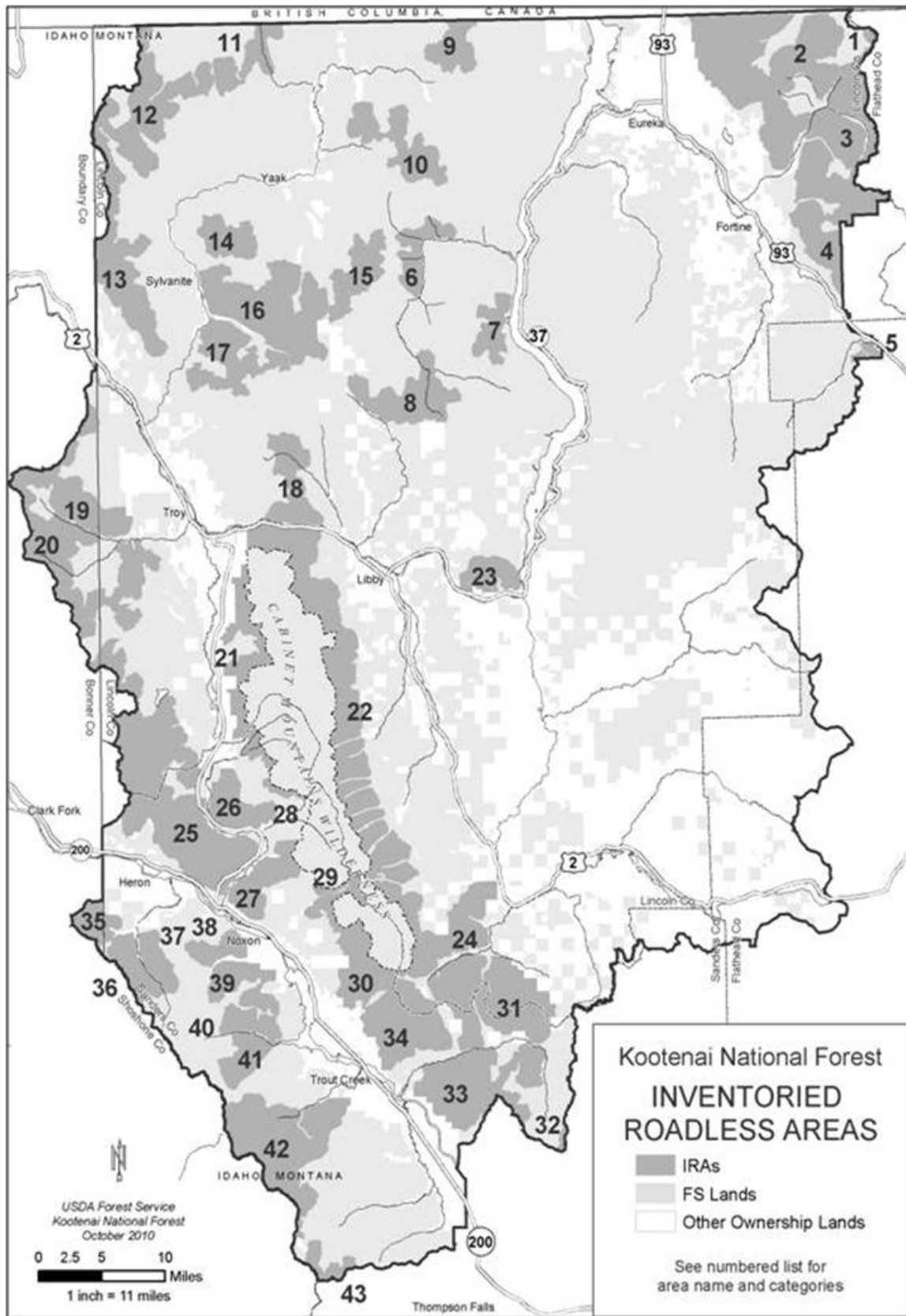


Figure 5. Kootenai National Forest IRAs Index Map

Table 23. Kootenai National Forest Inventoried Roadless Area Map Reference List

Mapcode	IRA Name/Number	Figure #	Page #
1	Tuchuck #482	7	56
2	Ten Lakes #683 and 683a (West/East Portion)	6/7	55/56
3	Thompson Seton #483 (North/South Portion)	7/8	56/57
4	Marston Face #172	8	57
5	LeBeau #507	9	58
6	Big Creek #701	10	59
7	Gold Hill #668	11	60
8	Gold Hill West # 176	12	61
9	Robinson Mountain #164	13	62
10	Mt Henry #666	14	63
11	West Fork Yaak #694 (East/West Portion)	15/16	64/65
12	Northwest Peak #663	17	66
13	Buckhorn Ridge #661 (North/South Portion)	17/18	66/67
14	Grizzly Peak #667	19	68
15	Zulu #166	10	59
16	Roderick #684	20	69
17	Saddle Mountain #168	21	70
18	Flagstaff #690	24	73
19	Roberts #691 (North/South Portion)	22/23	71/72
20	Willard Estelle #173 (North/South Portion)	22/23	71/72
21	Cabinet Face West #670 (North/South Portion)	27/28	76/77
22	Cabinet Face East #671 (North/Center/South Portion)	24/25/26	73/74/75
23	Alexander #696	29	78
24	Barren Peak #183	30	79
25	Scotchman Peaks #662 (North/South Portion)	31/32	80/81
26	Berray Mountain #672	33	82
27	Government Mountain #673	33	82
28	Chippewa #682	33	82
29	Rock Cr #693	34	83
30	McKay Creek #676	34	83
31	Allen Peak #185	35	84
32	Cube Iron #784	36	85
33	Cataract Creek #665	36	85
34	Galena #677	37	86
35	West Fork Elk #692	38	87
36	East Fork Elk #678	38	87
37	Lone Cliff West #674a	38	87
38	Lone Cliff Smeads #674	39	88
39	Huckleberry Mountain #699	39	88
40	Devil's Gap #698	39	88
41	McNeeley #675	39	88
42	Trout Creek #664 (North/South Portion)	40/41	89/90
43	Maple Peak #141	41	90

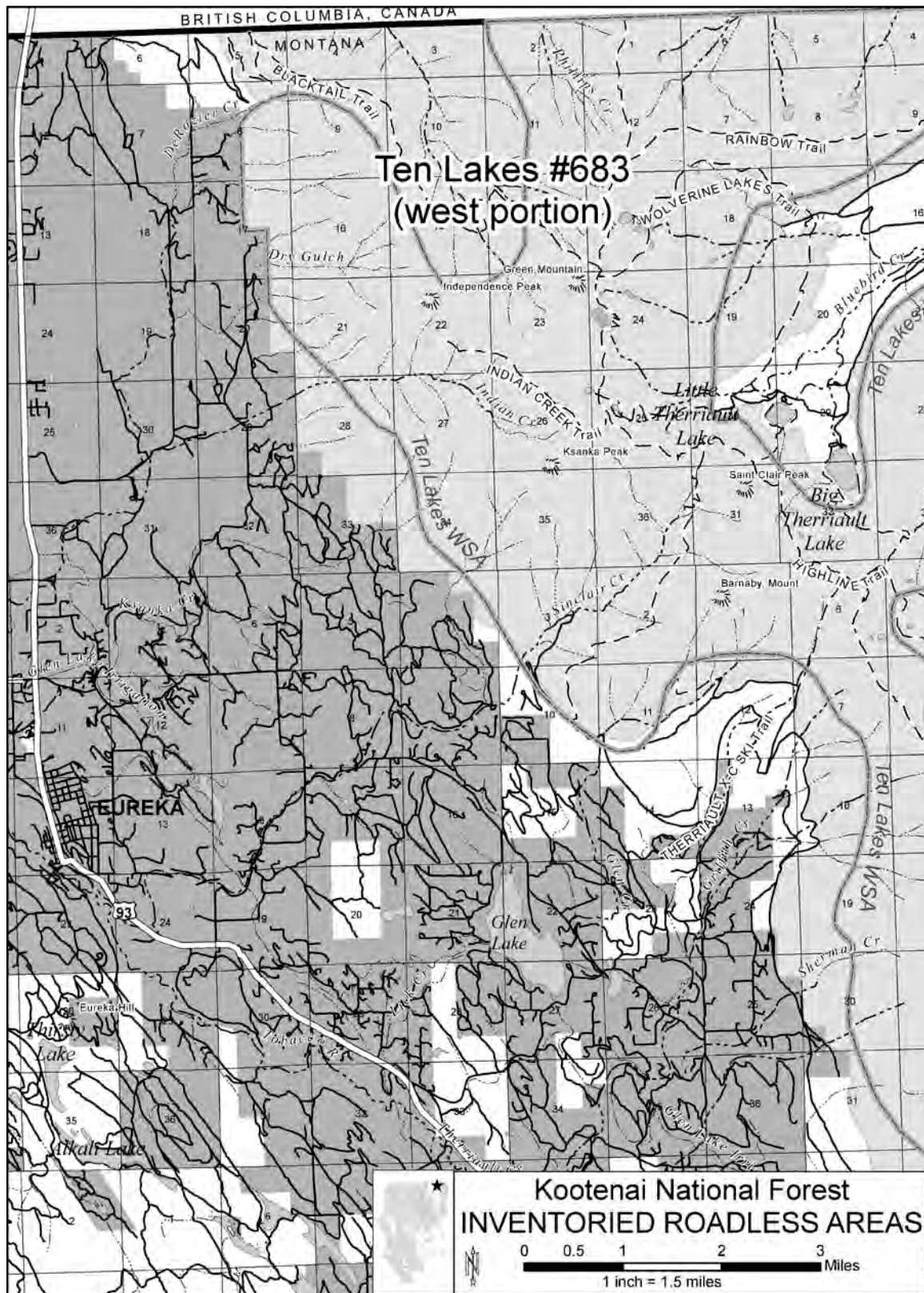


Figure 6. Ten Lakes #683 and 683a, (west portion) IRA

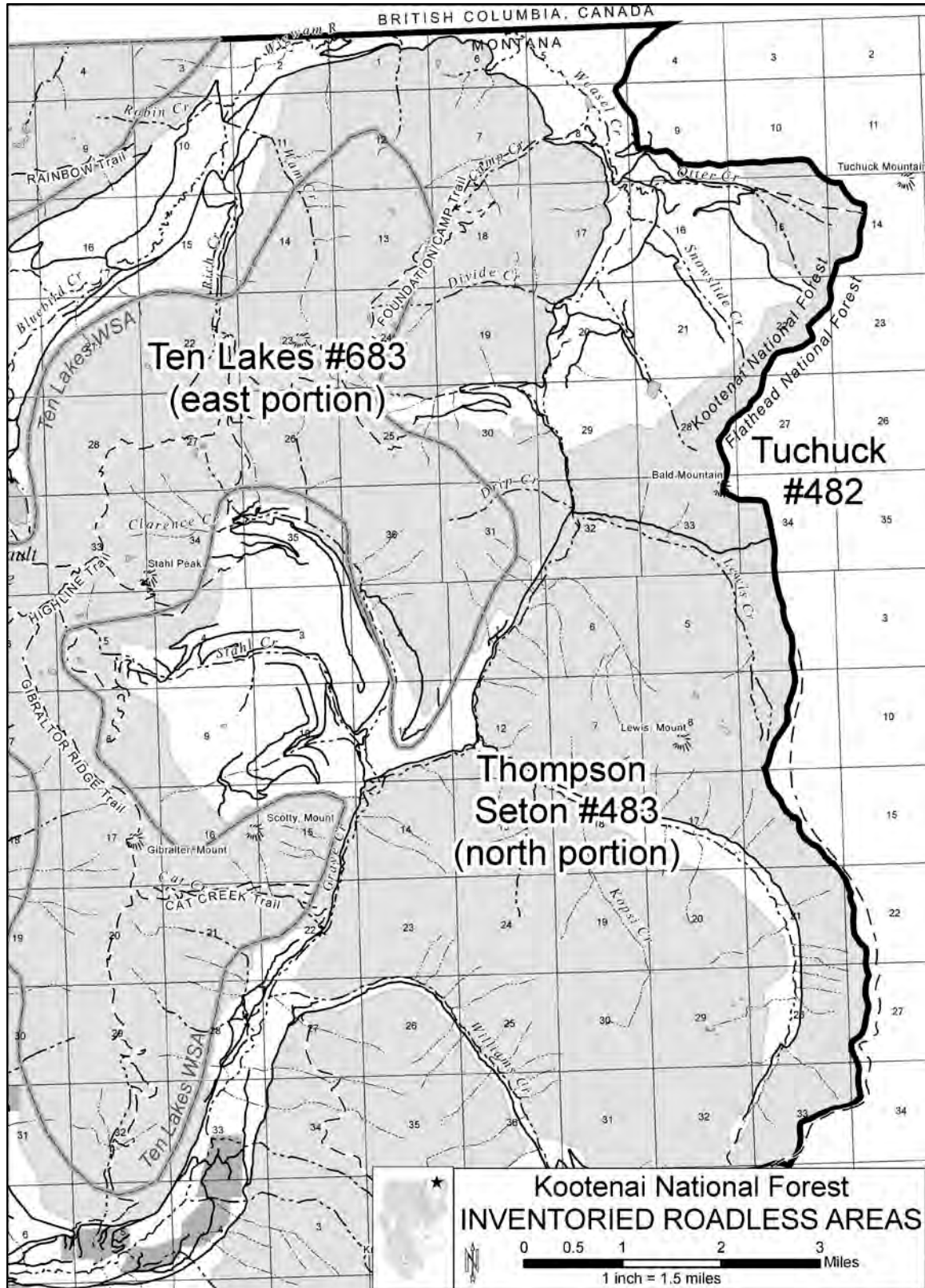


Figure 7. Tuchuck #482, Thompson-Seton #483 (north portion), and Ten Lakes #683 and 683a (east portion) IRAs

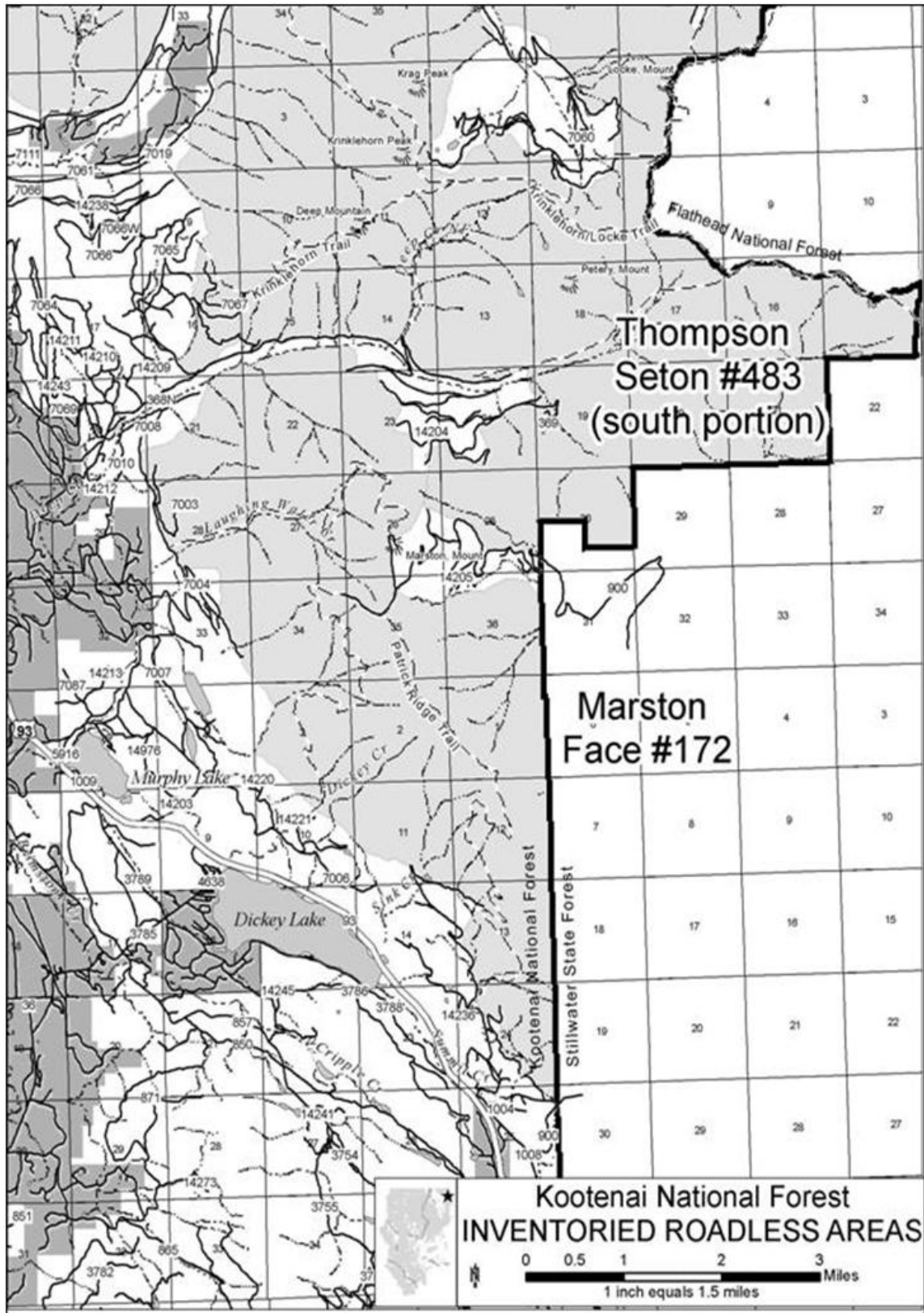


Figure 8. Thompson-Seton #483 (south portion) and Marston Face #172 IRAs

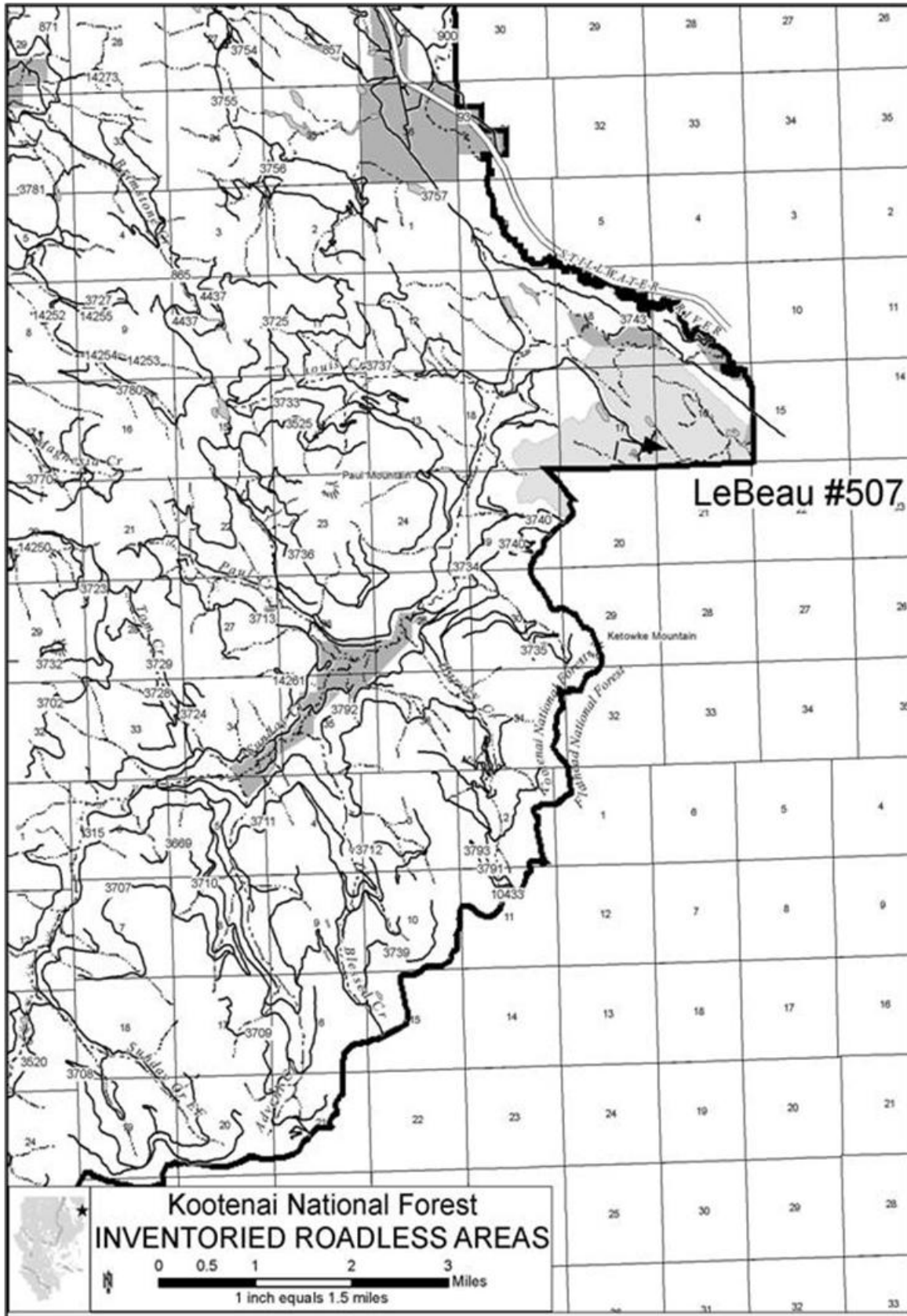


Figure 9. LeBeau #507 IRA

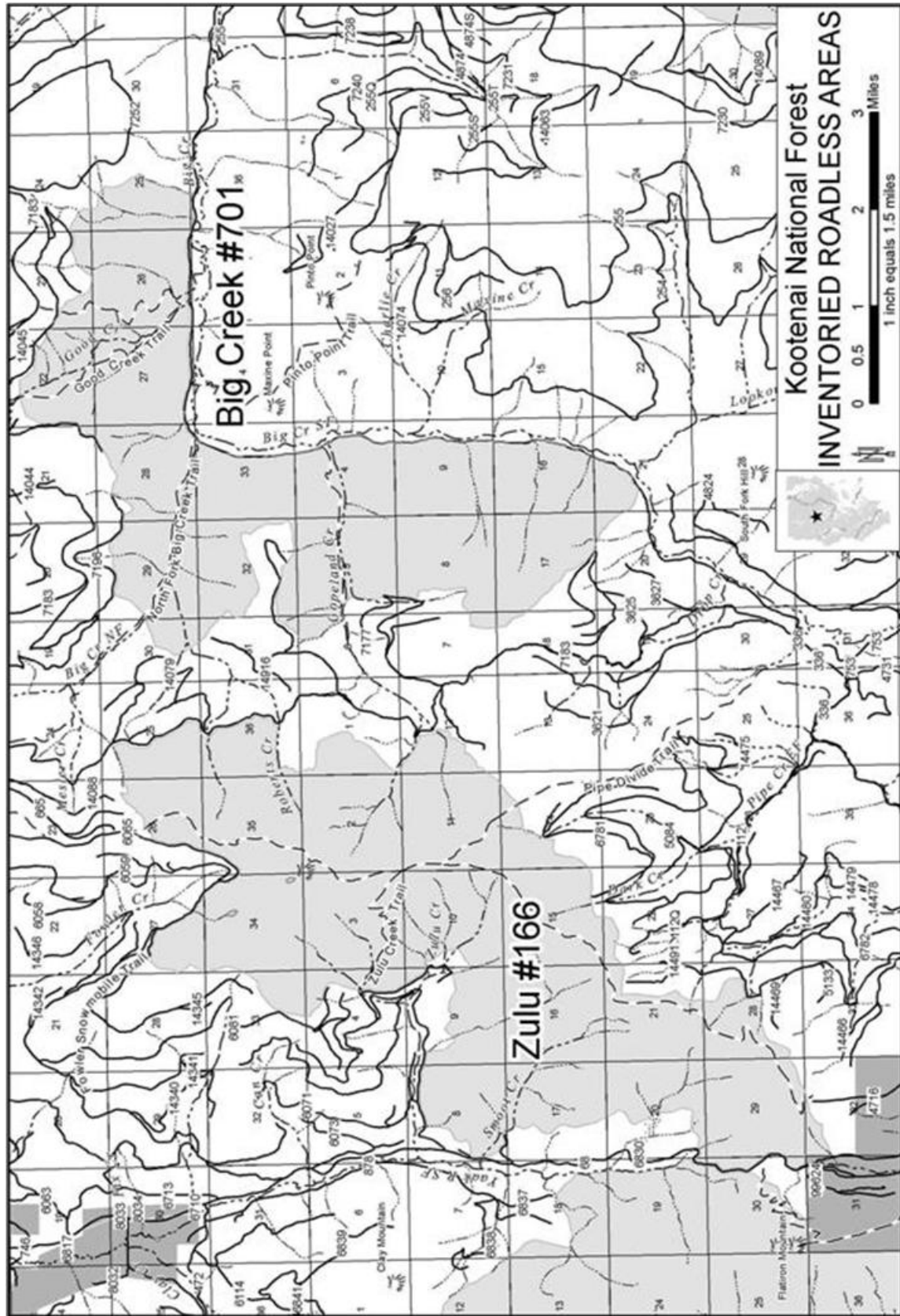


Figure 10. Big Creek #701 and Zulu #166 IRAs

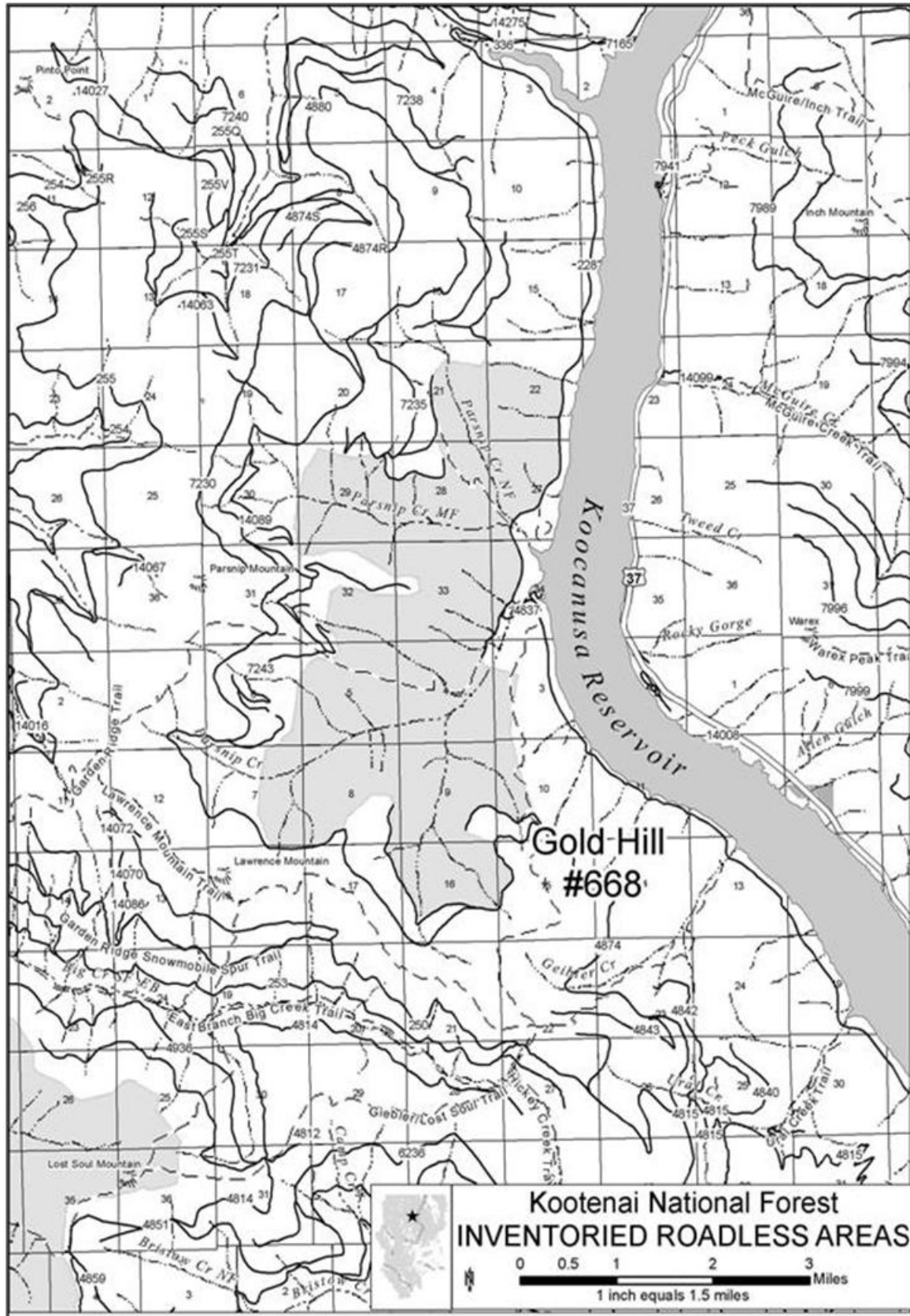


Figure 11. Gold Hill #668 IRA

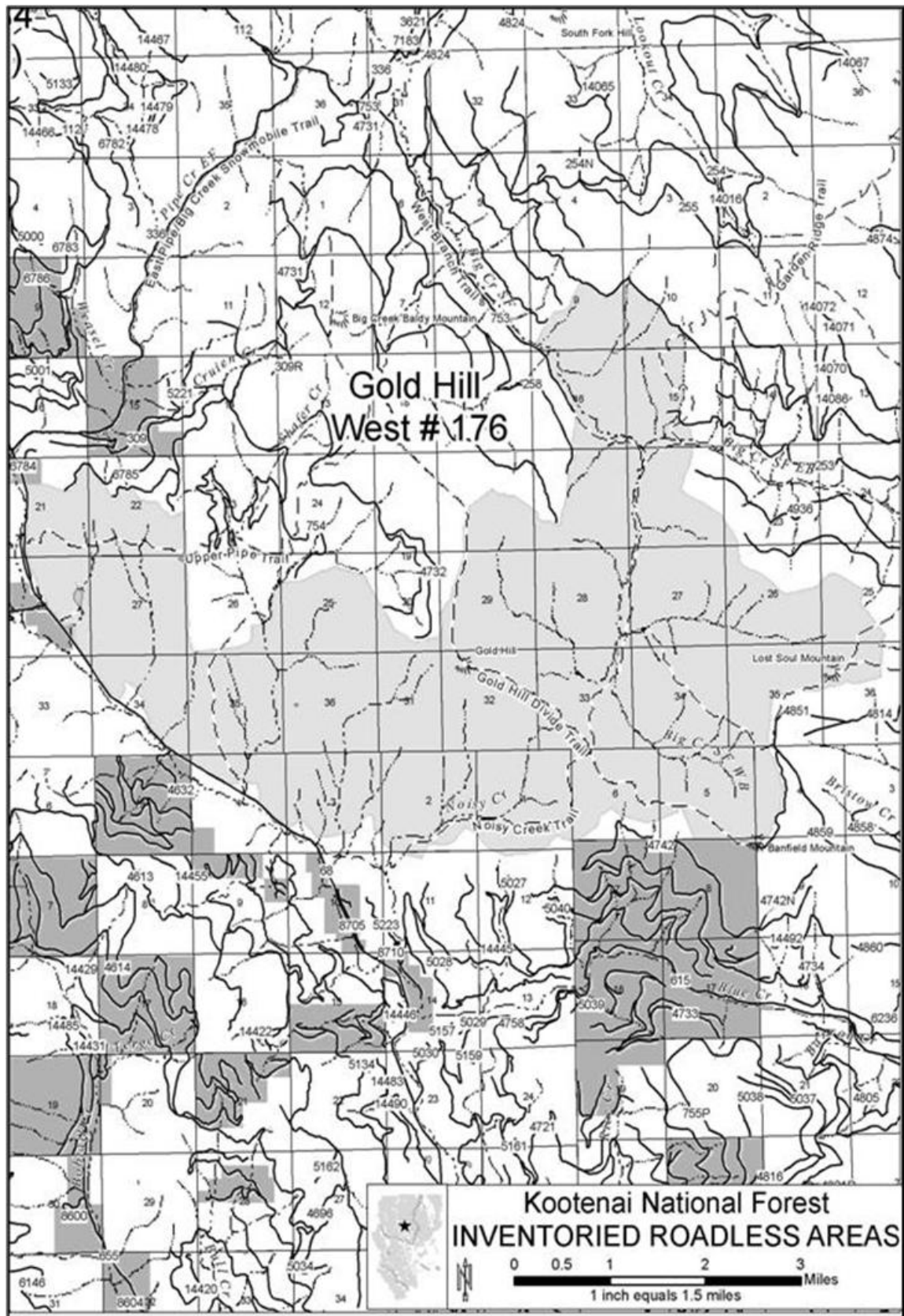


Figure 12. Gold Hill West #176 IRA

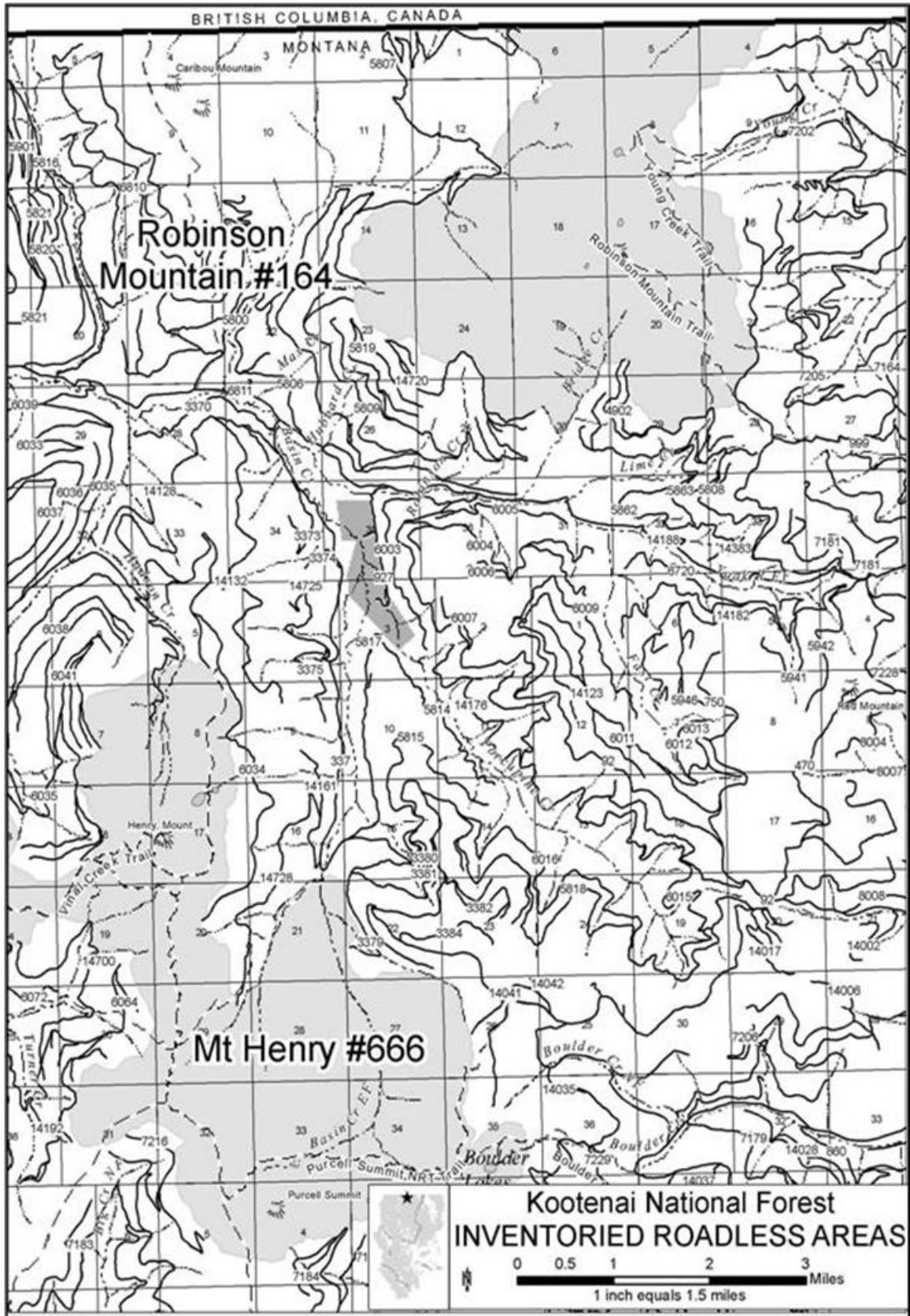


Figure 13. Robinson #164 IRA

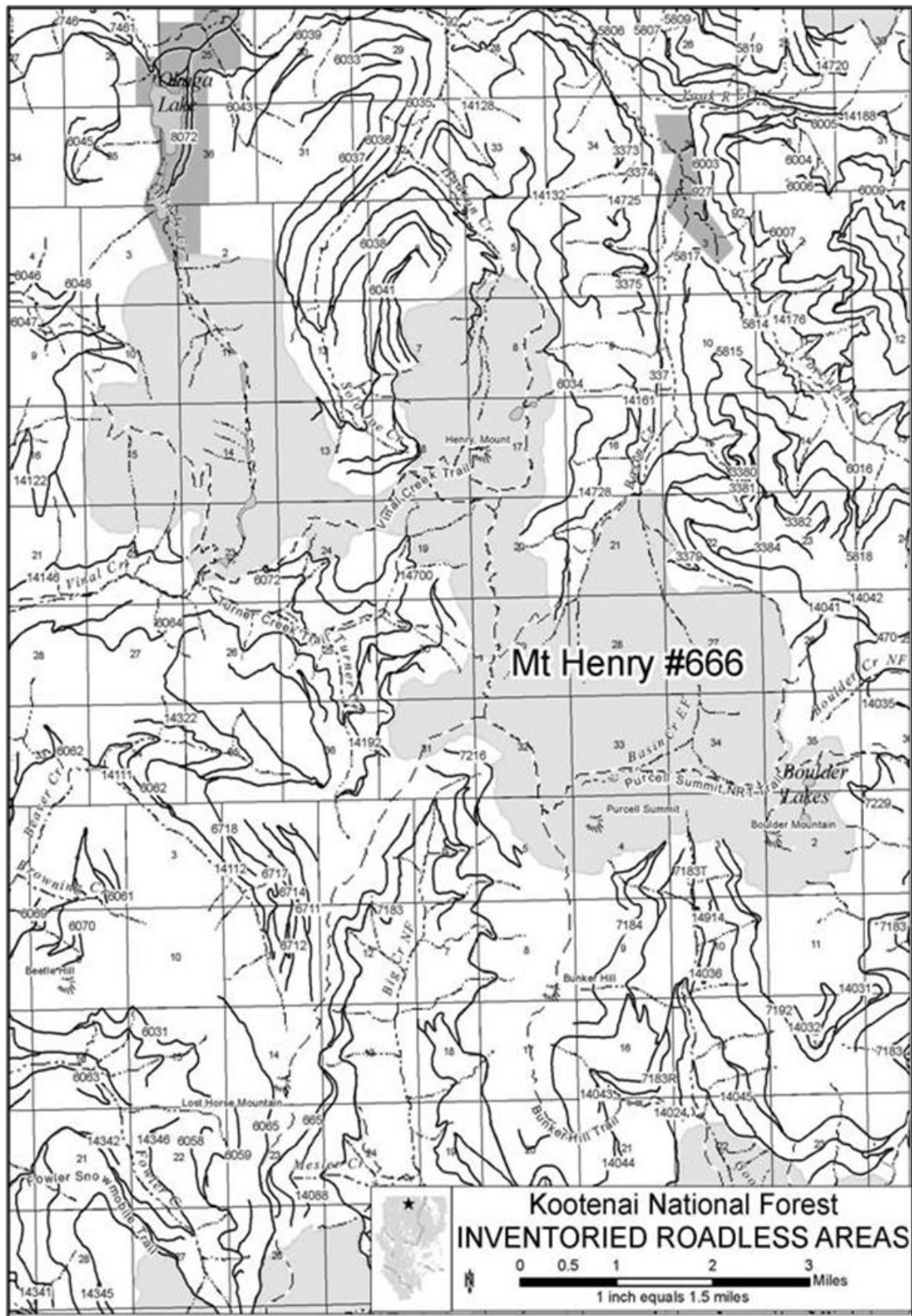


Figure 14. Mt. Henry #666 IRA

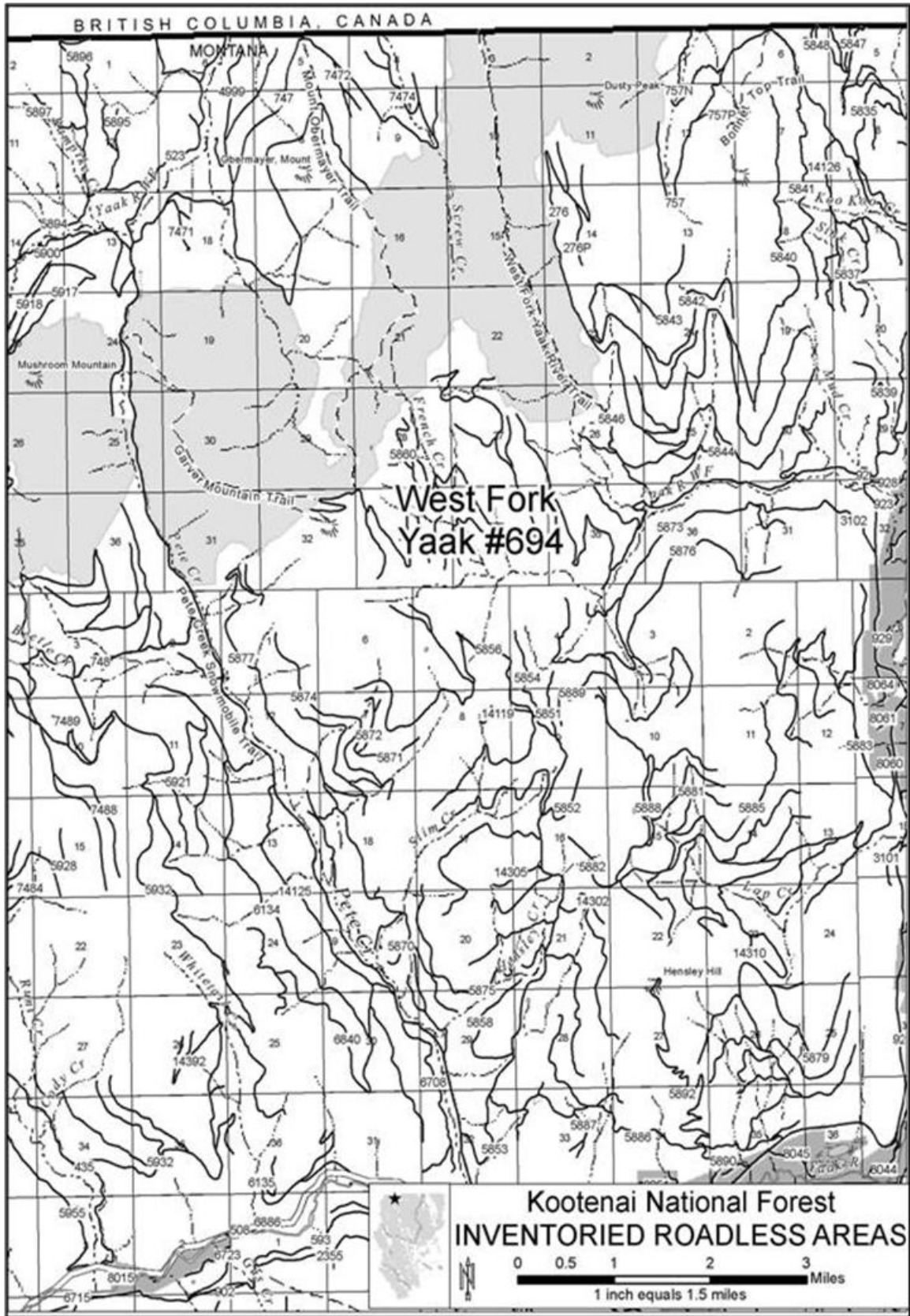


Figure 15. West Fork Yaak #694 (east) IRA

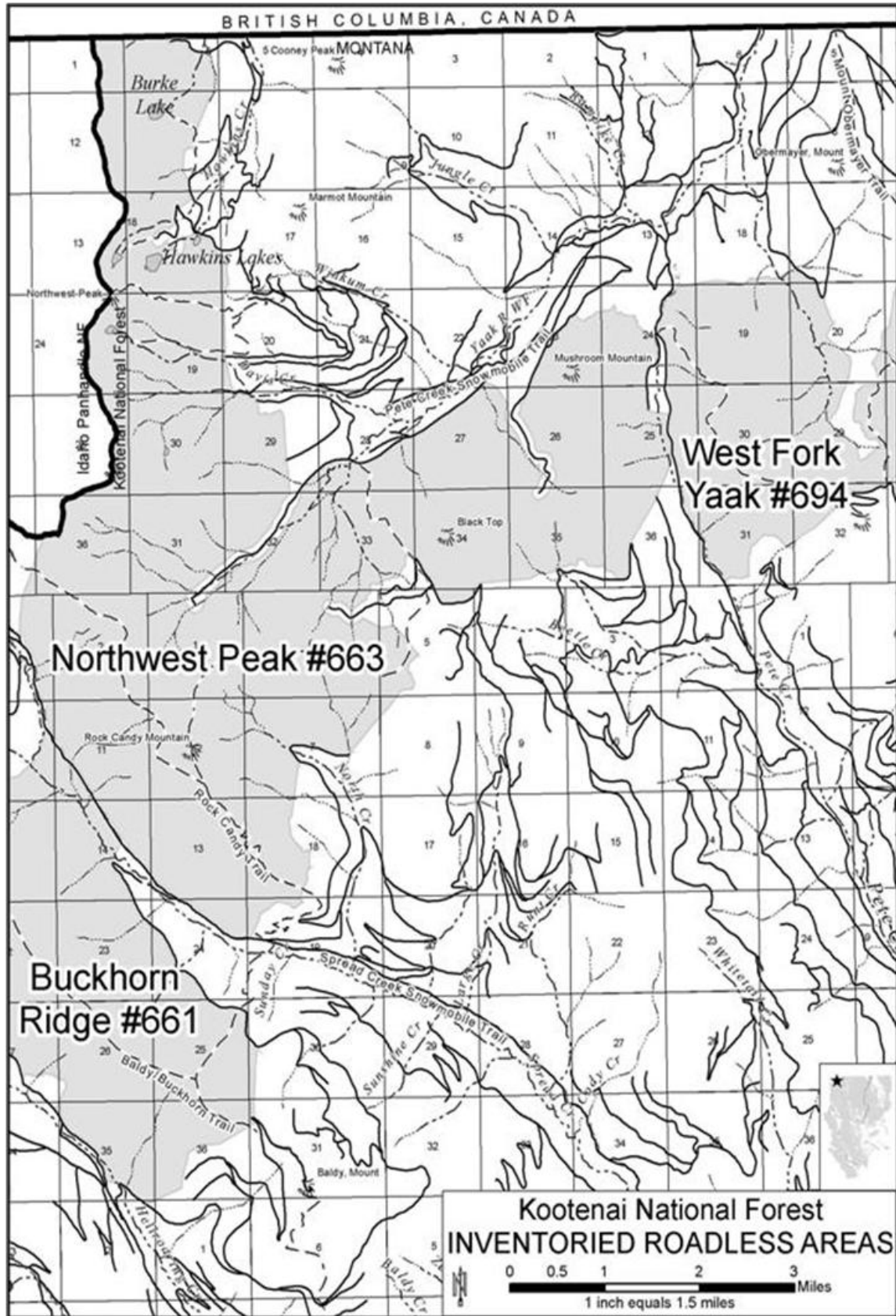


Figure 16. Northwest Peak #663 IRA, West Fork Yaak #694 (west)

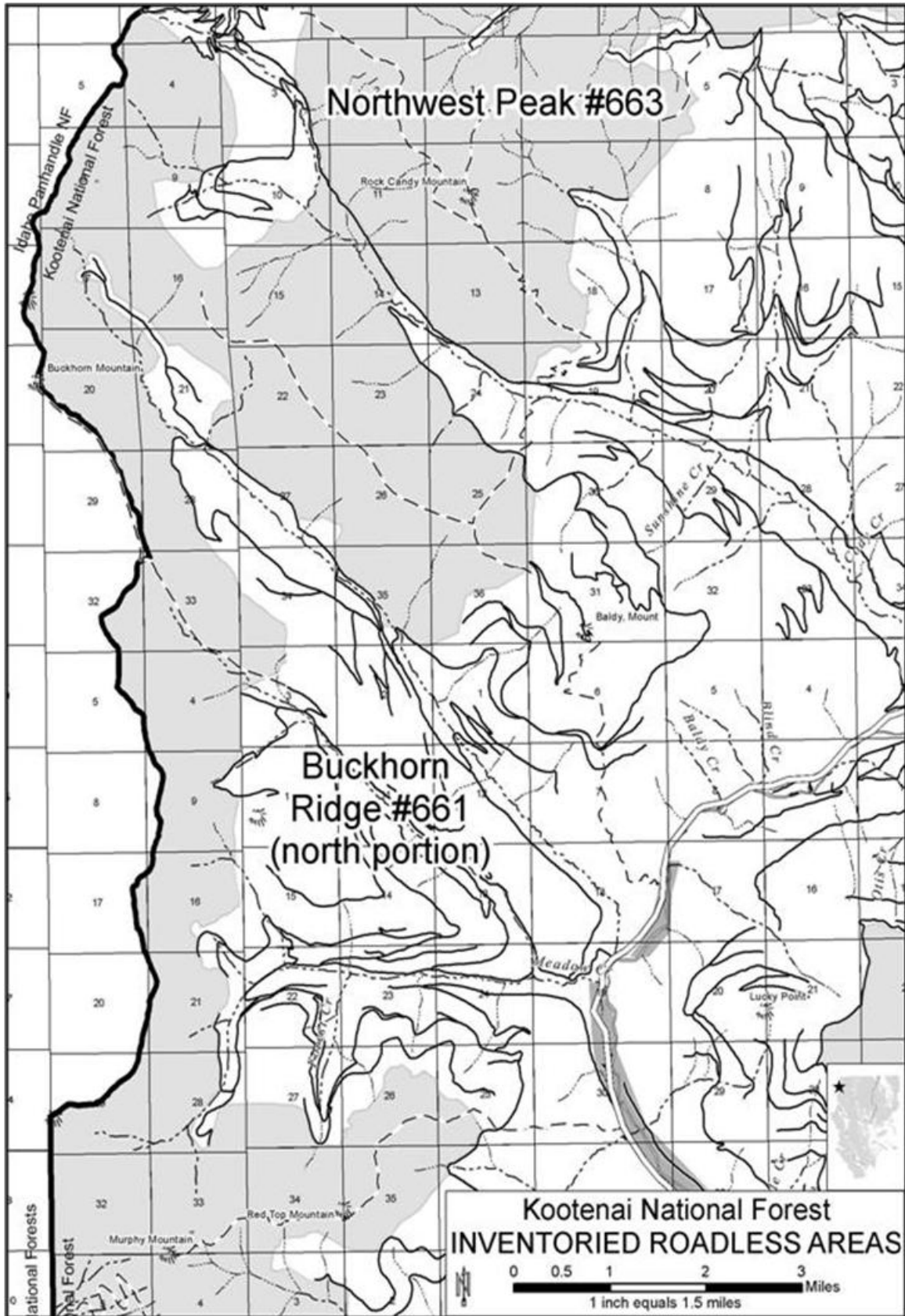


Figure 17. Buckhorn Ridge #661 (north portion) IRA

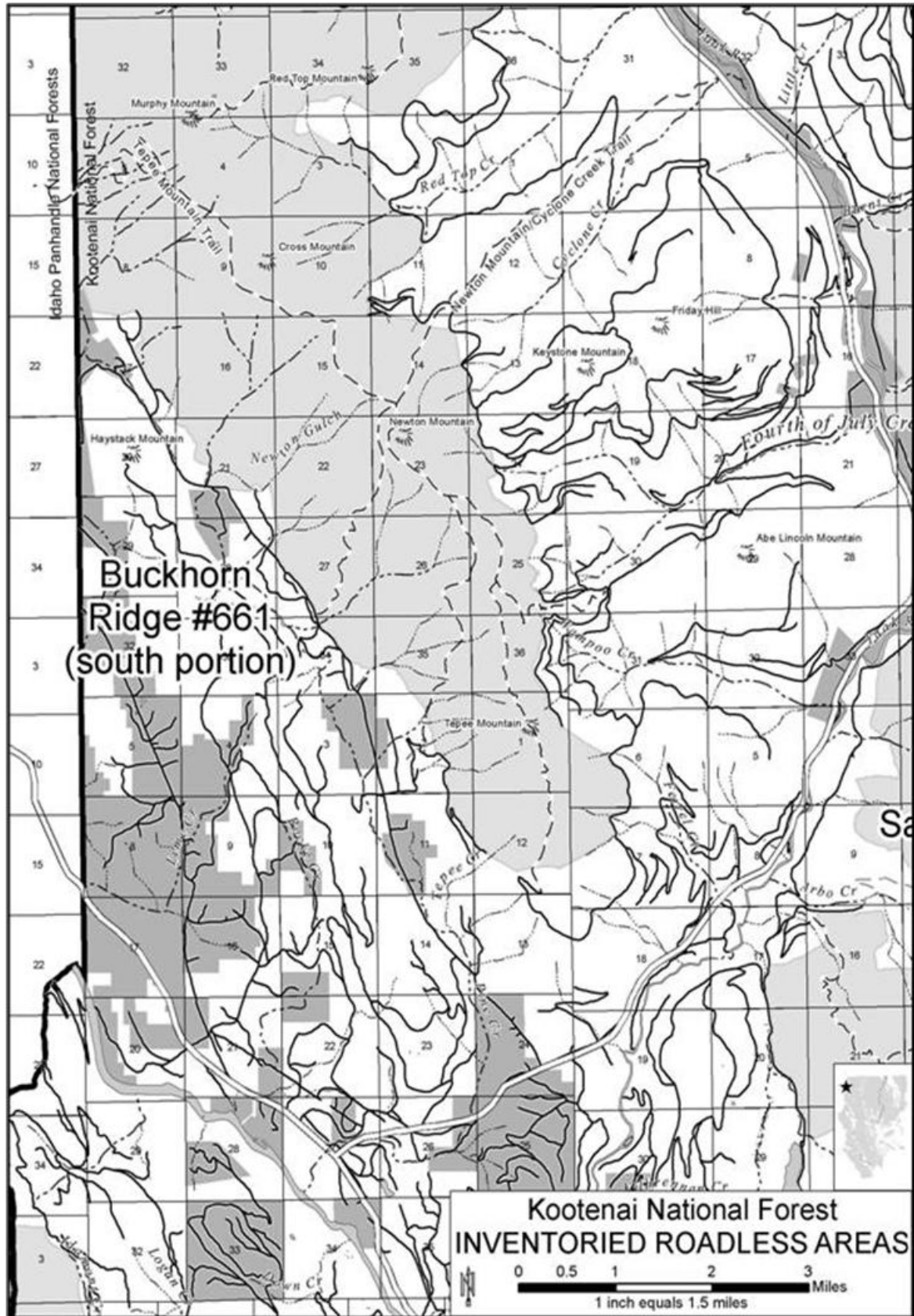


Figure 18. Buckhorn Ridge #661 (south portion) IRA

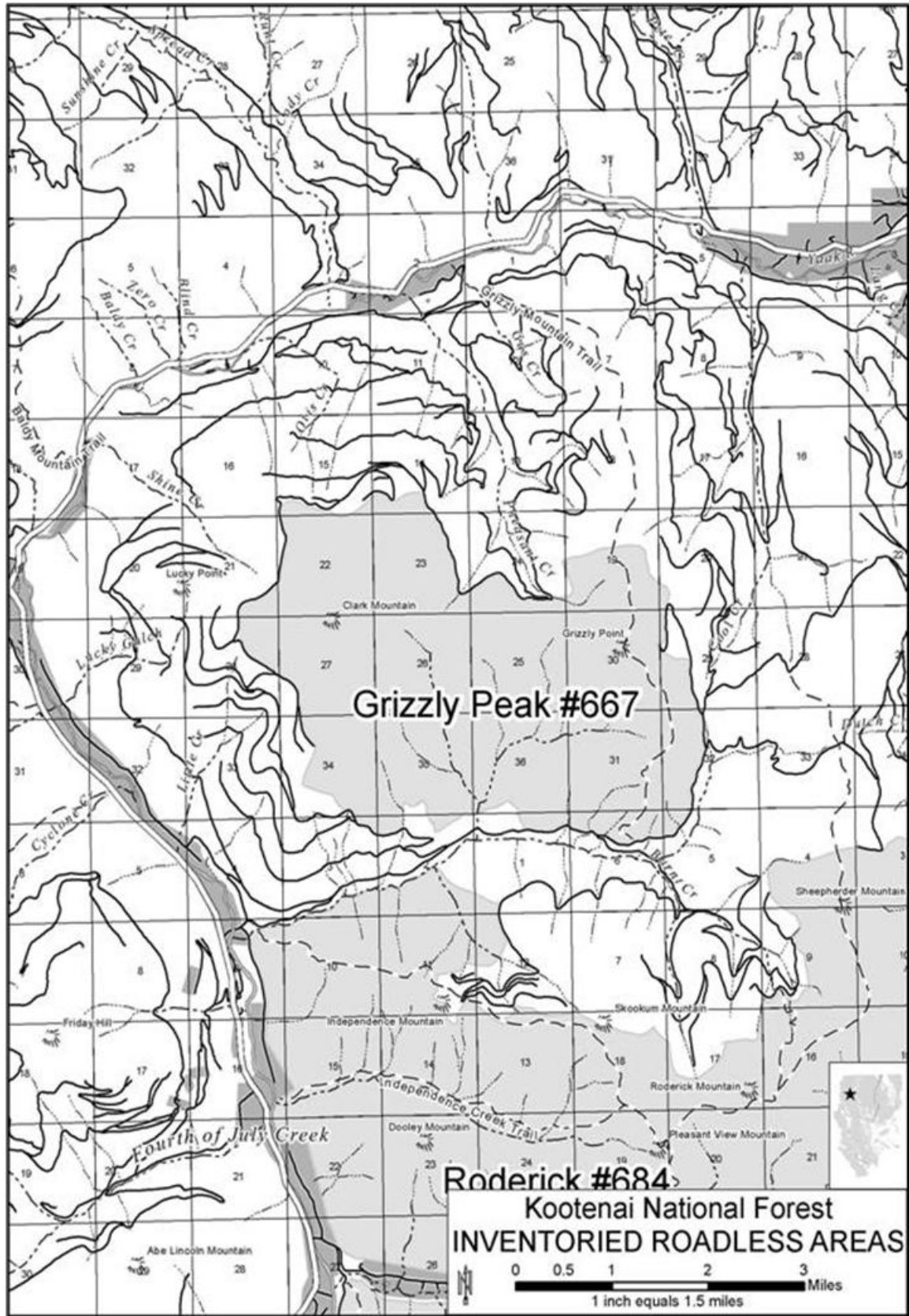


Figure 19. Grizzly Peak #667 IRA

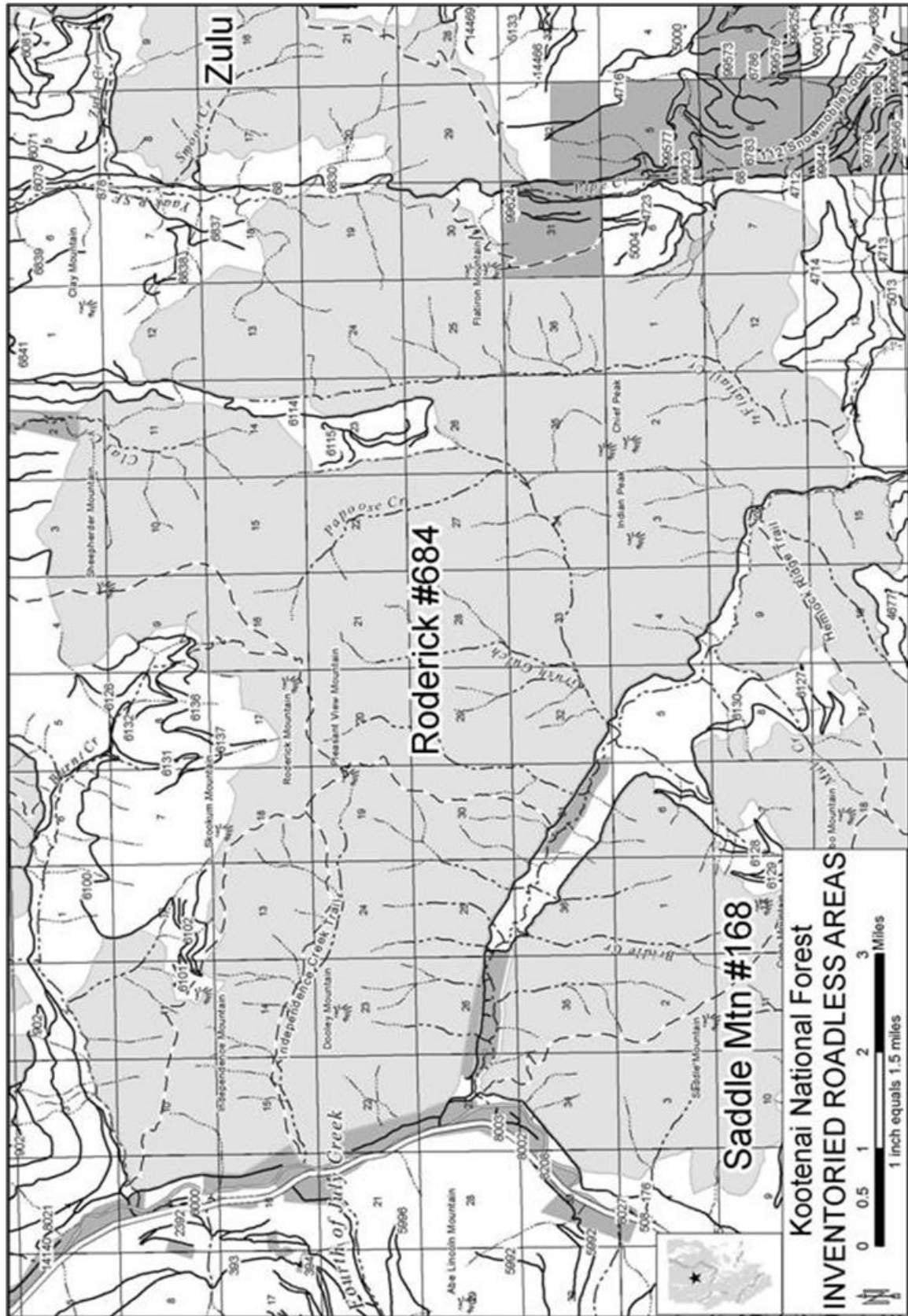


Figure 20. Roderick #684 IRA

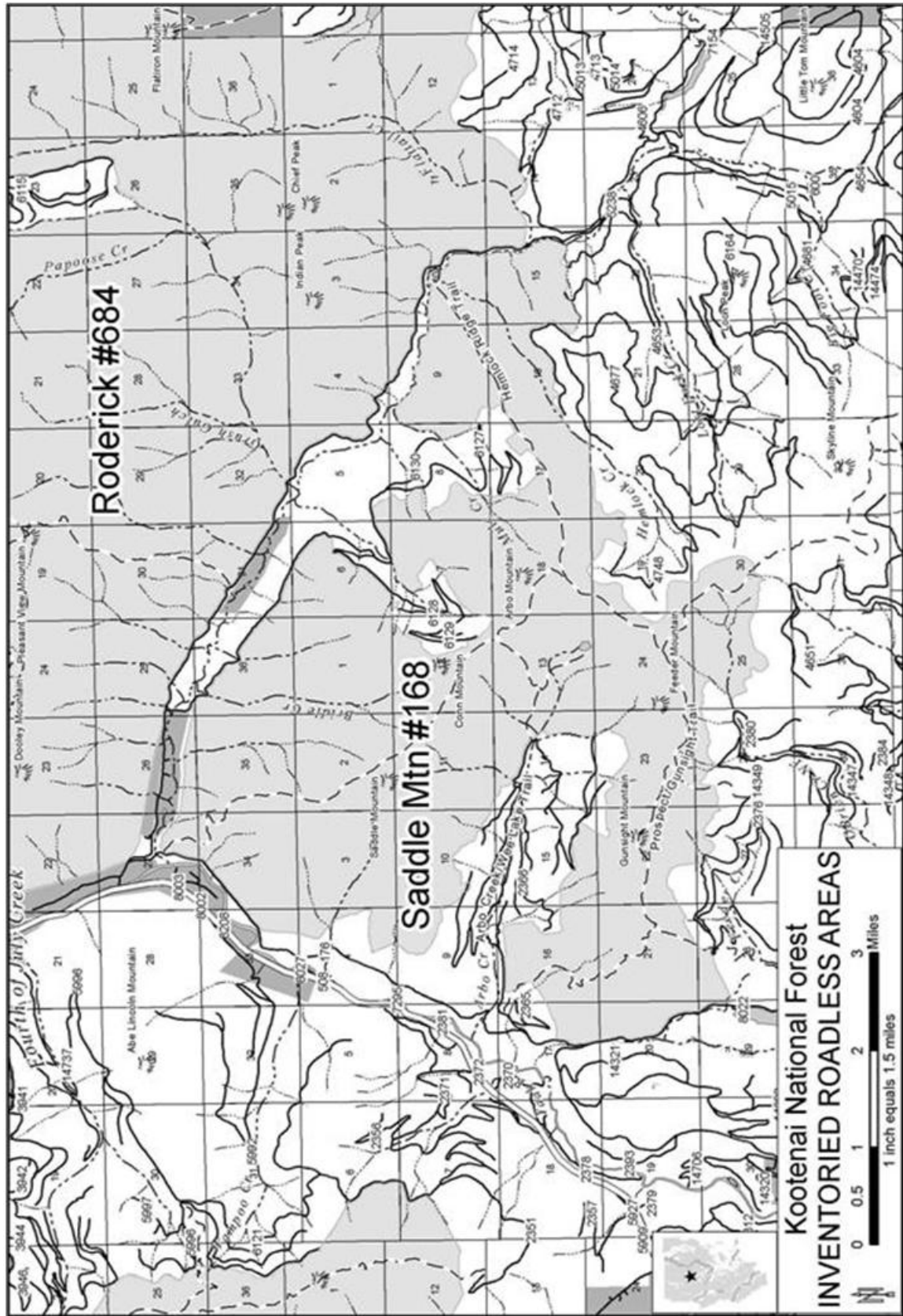


Figure 21. Saddle Mountain #168 IRA

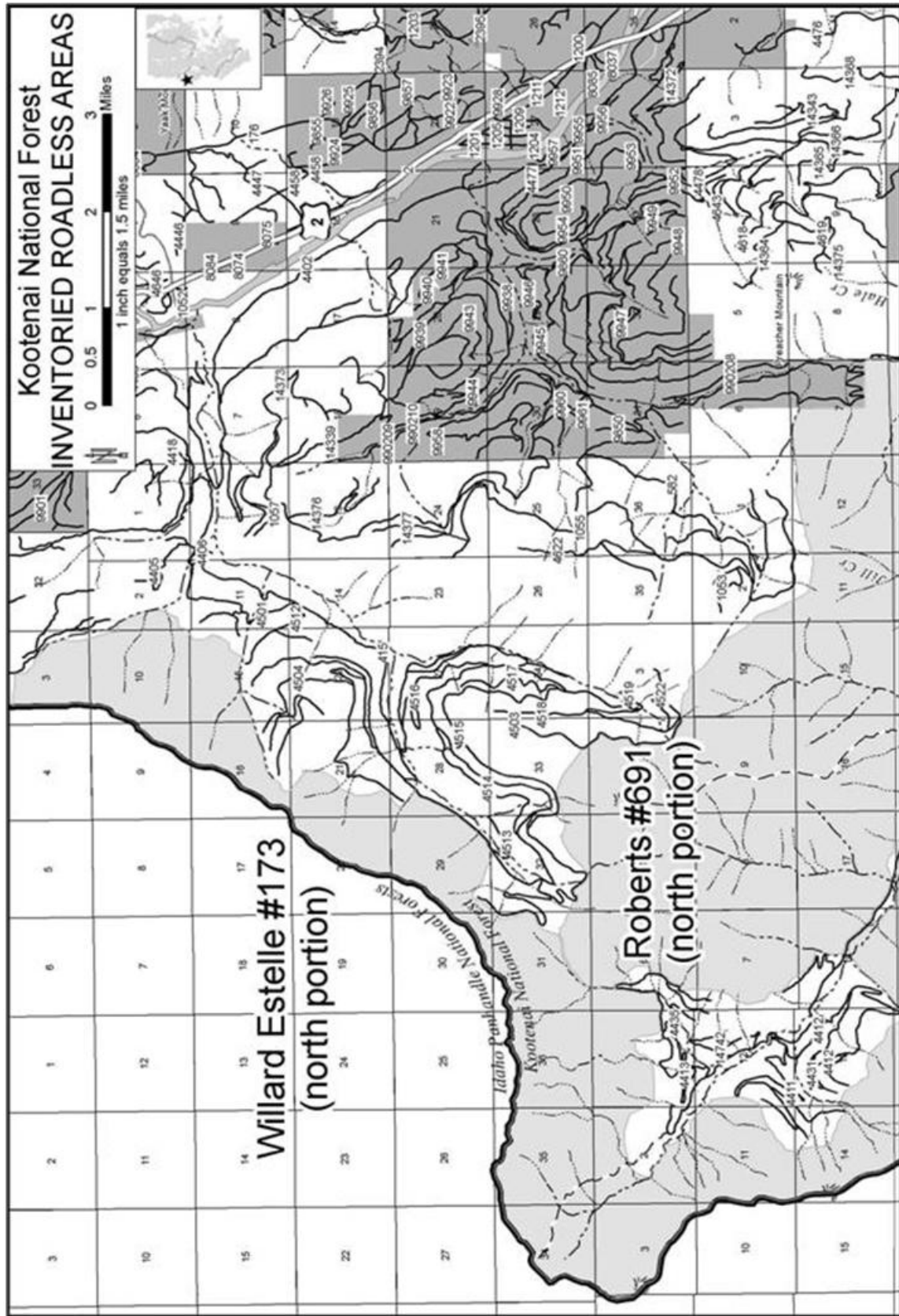


Figure 22. Willard-Estelle #173 (north portion) and Roberts #691 (north portion) IRAs

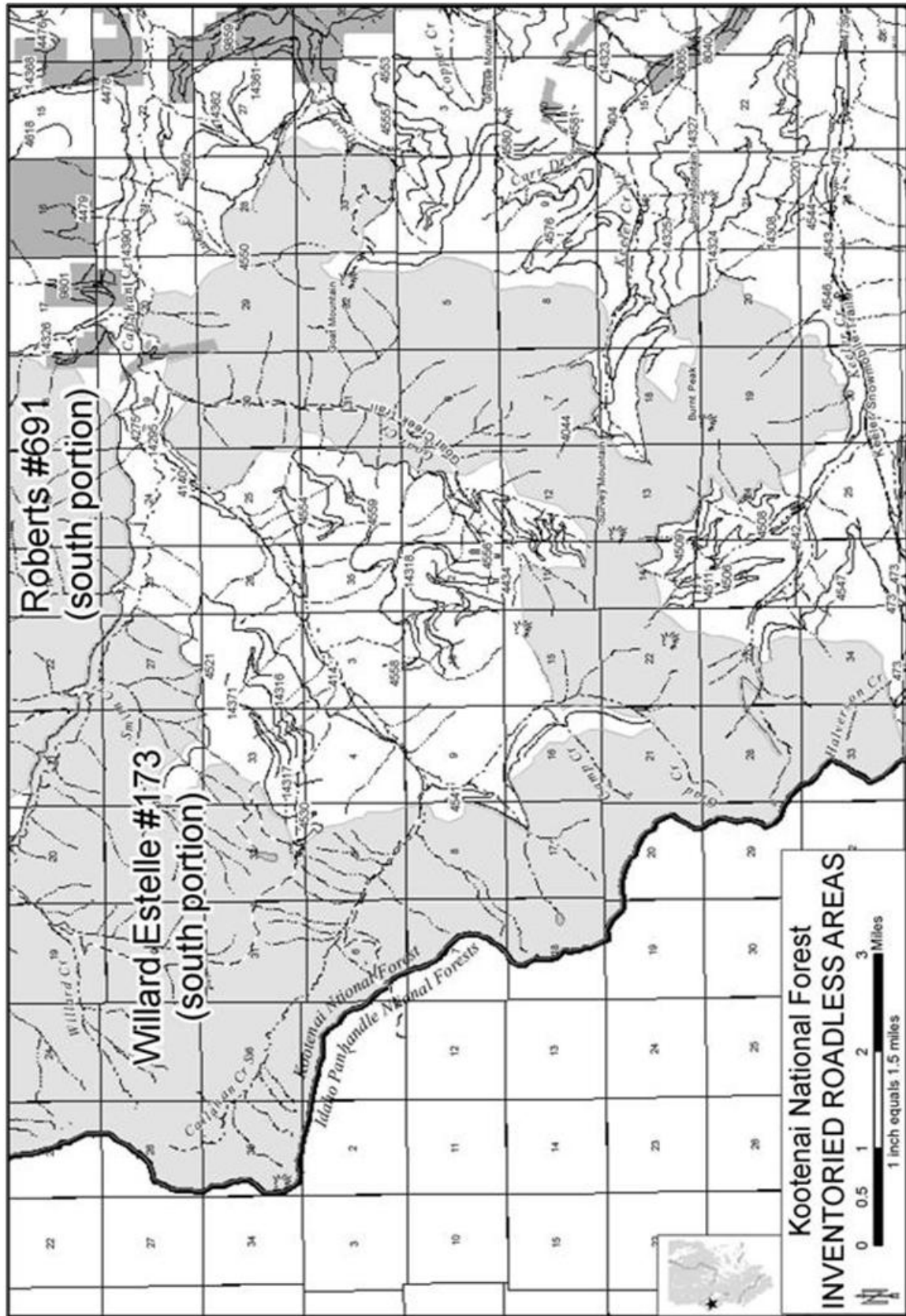


Figure 23. Willard Estelle #173 (south portion) and Roberts #691 (south portion) IRAs

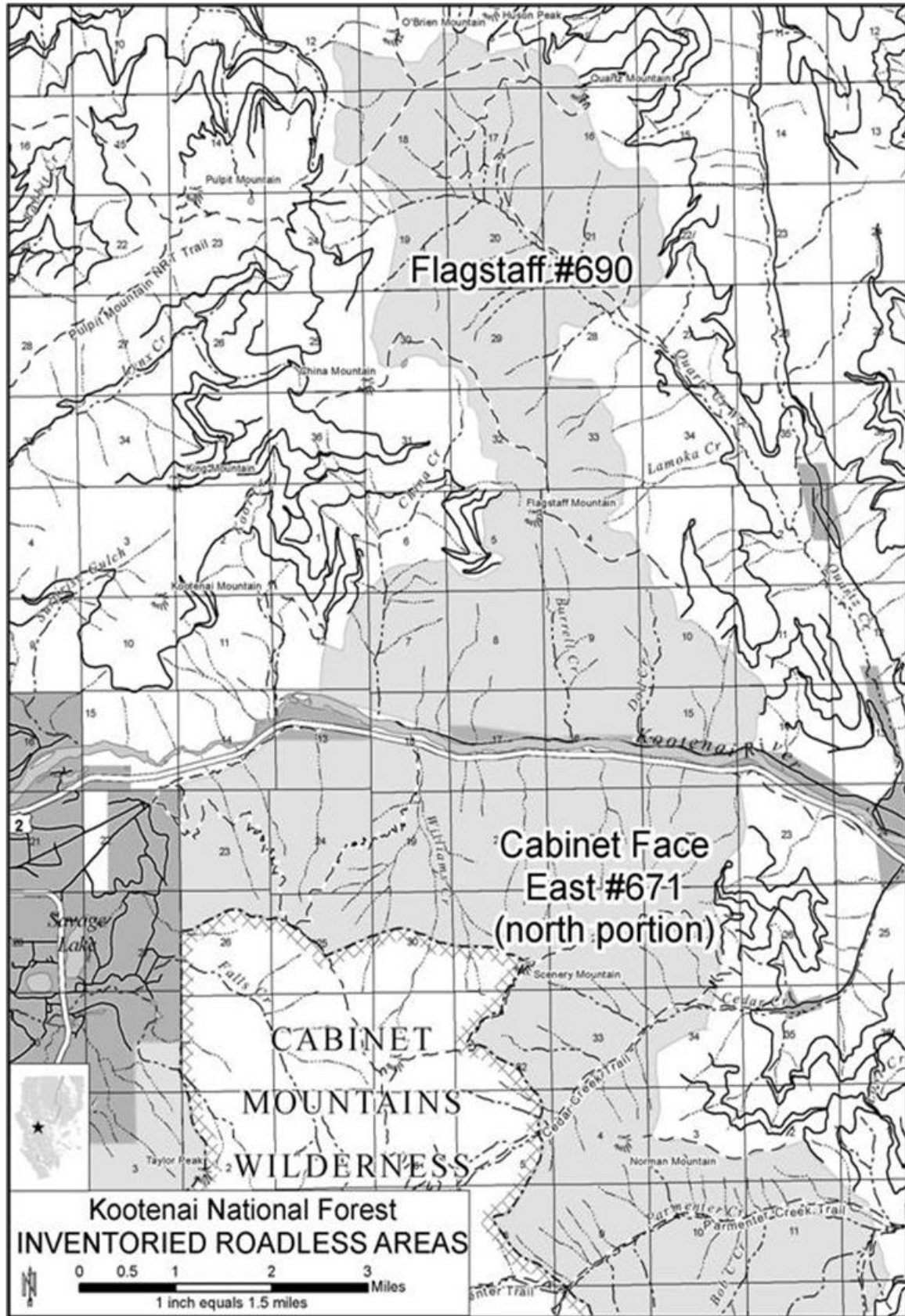


Figure 24. Flagstaff # 690 and Cabinet Face East #671 (north portion) IRAs

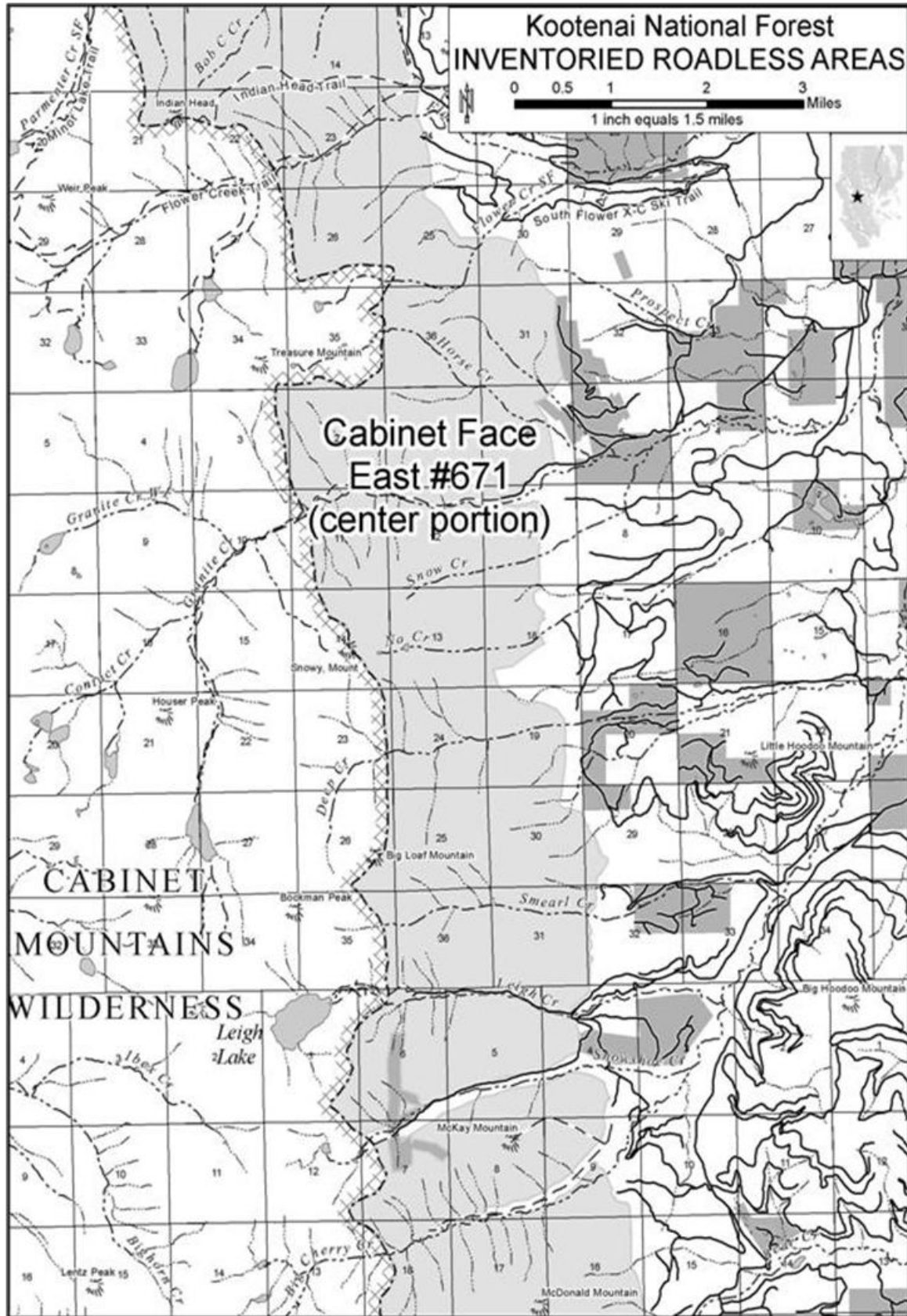


Figure 25. Cabinet Face East #671 (center portion) IRA

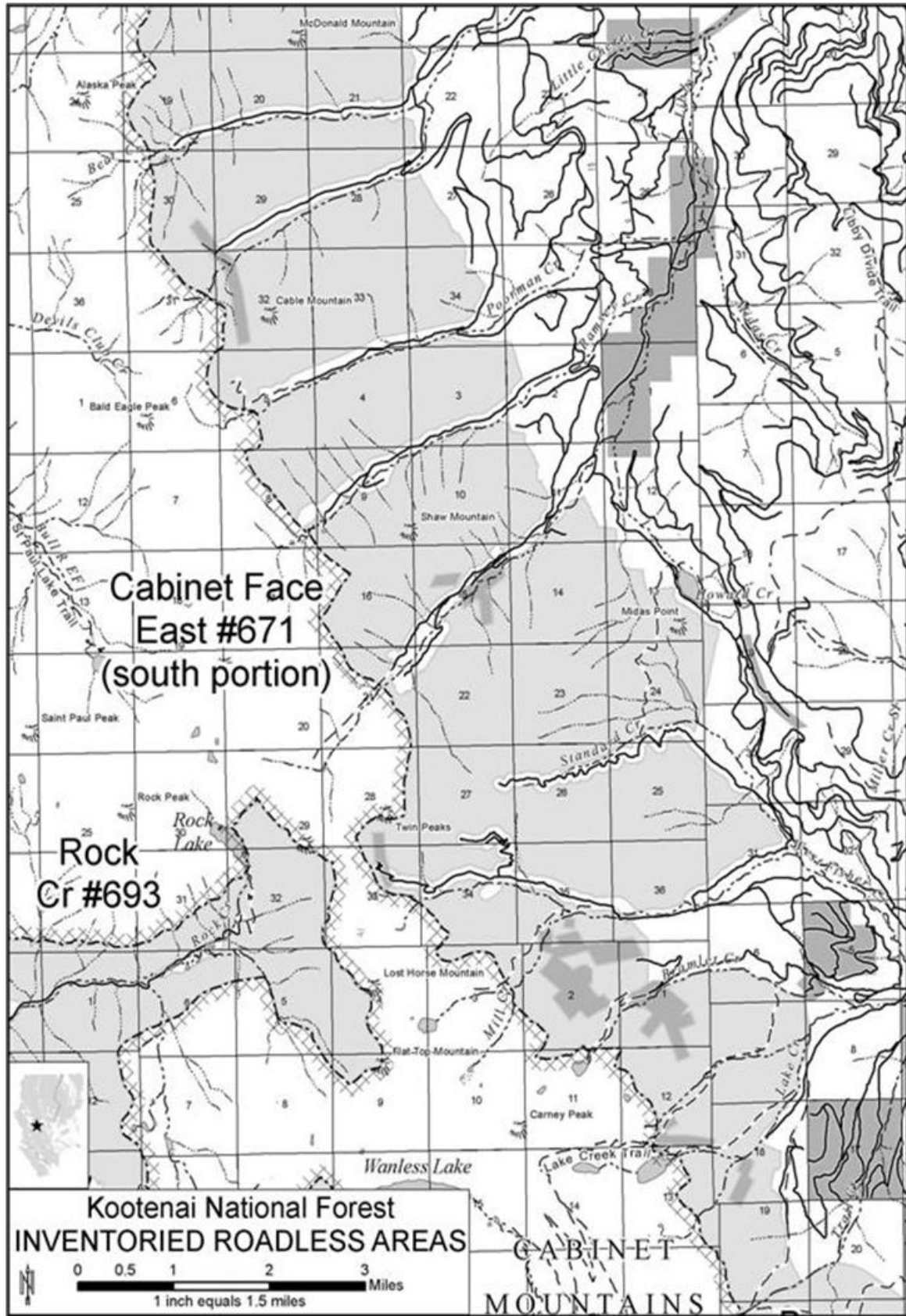


Figure 26. Cabinet Face East #671 (south portion) IRA

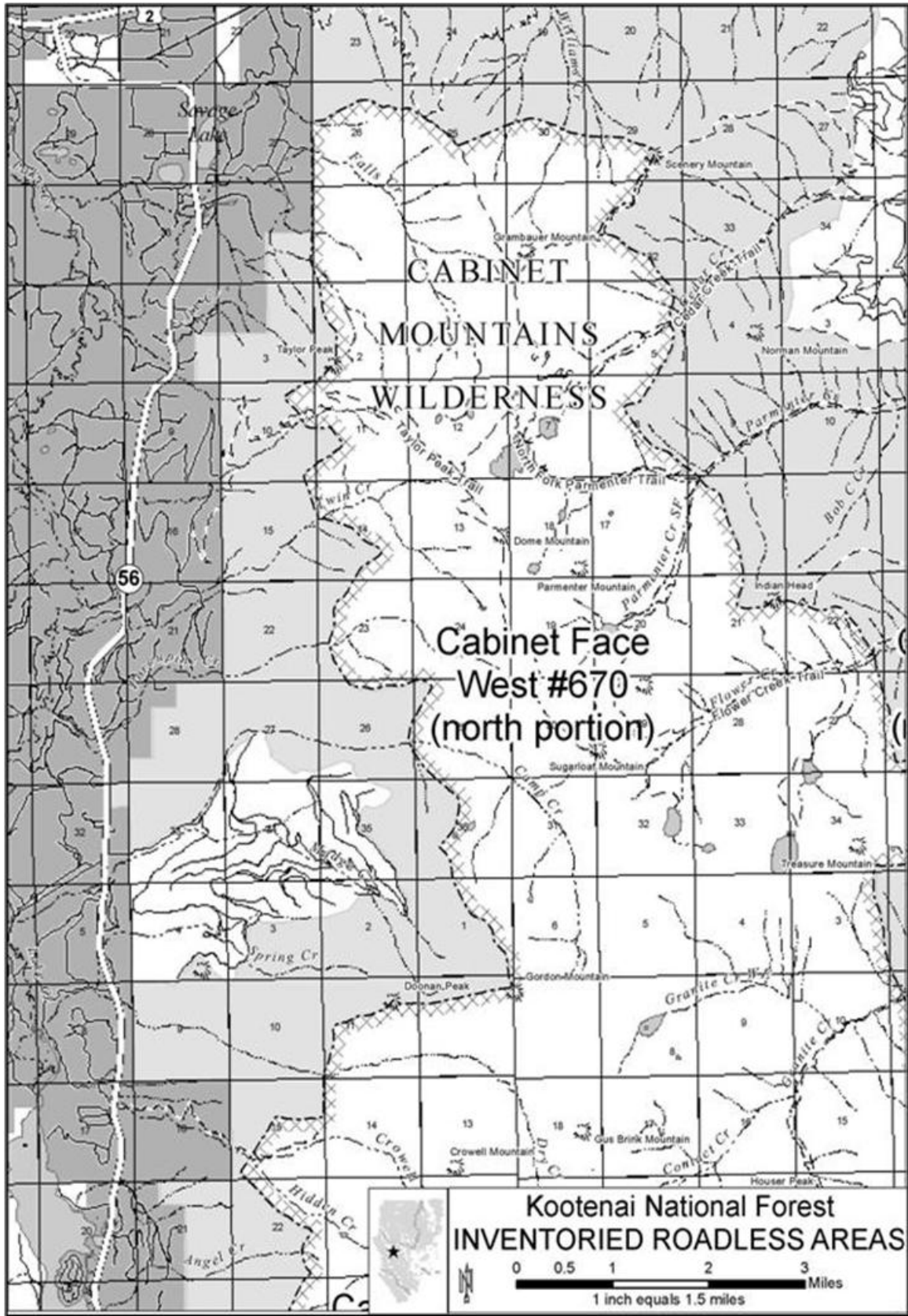


Figure 27. Cabinet Face West #670 (north portion) IRA

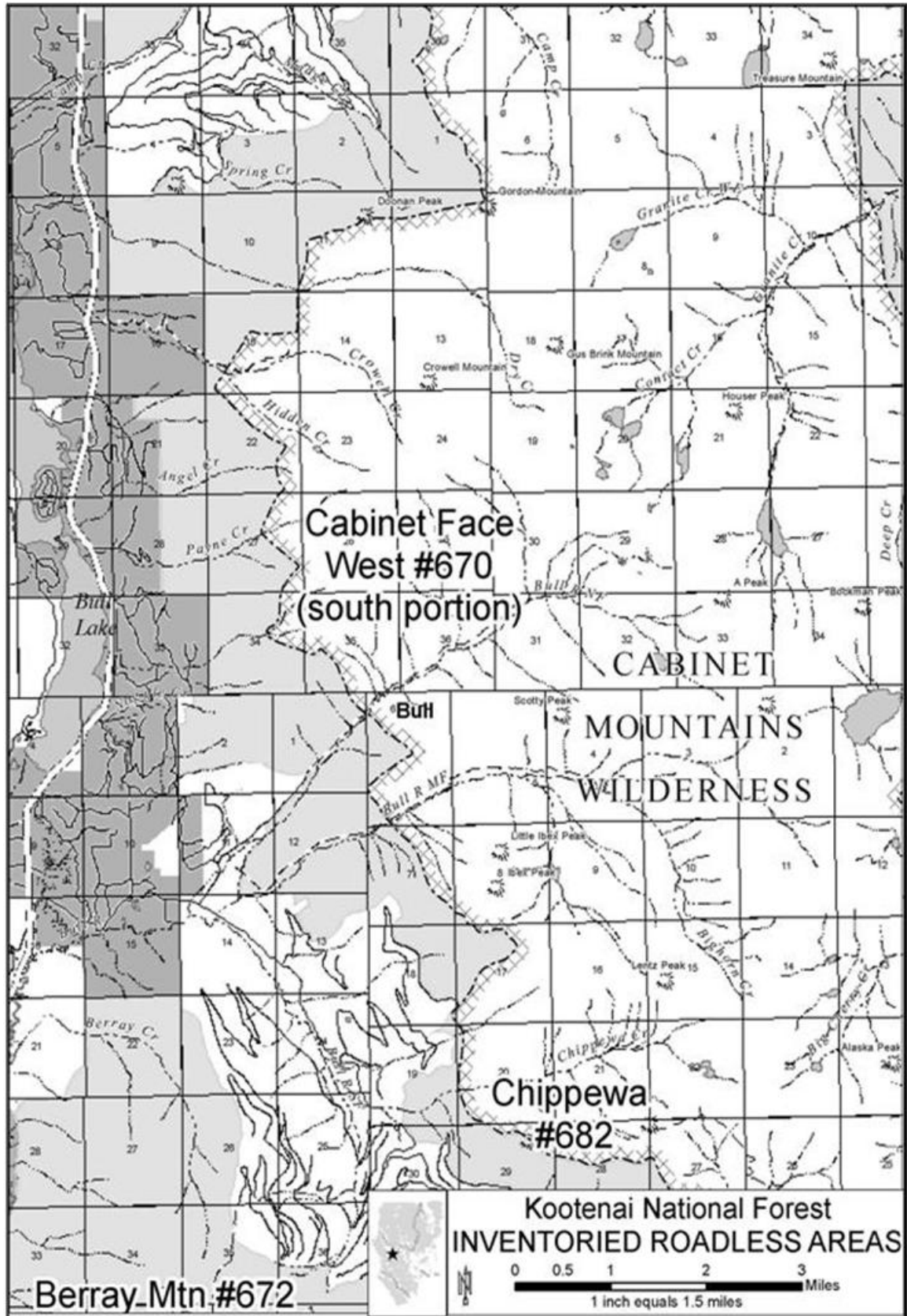


Figure 28. Cabinet Face West #670 (south portion) IRA

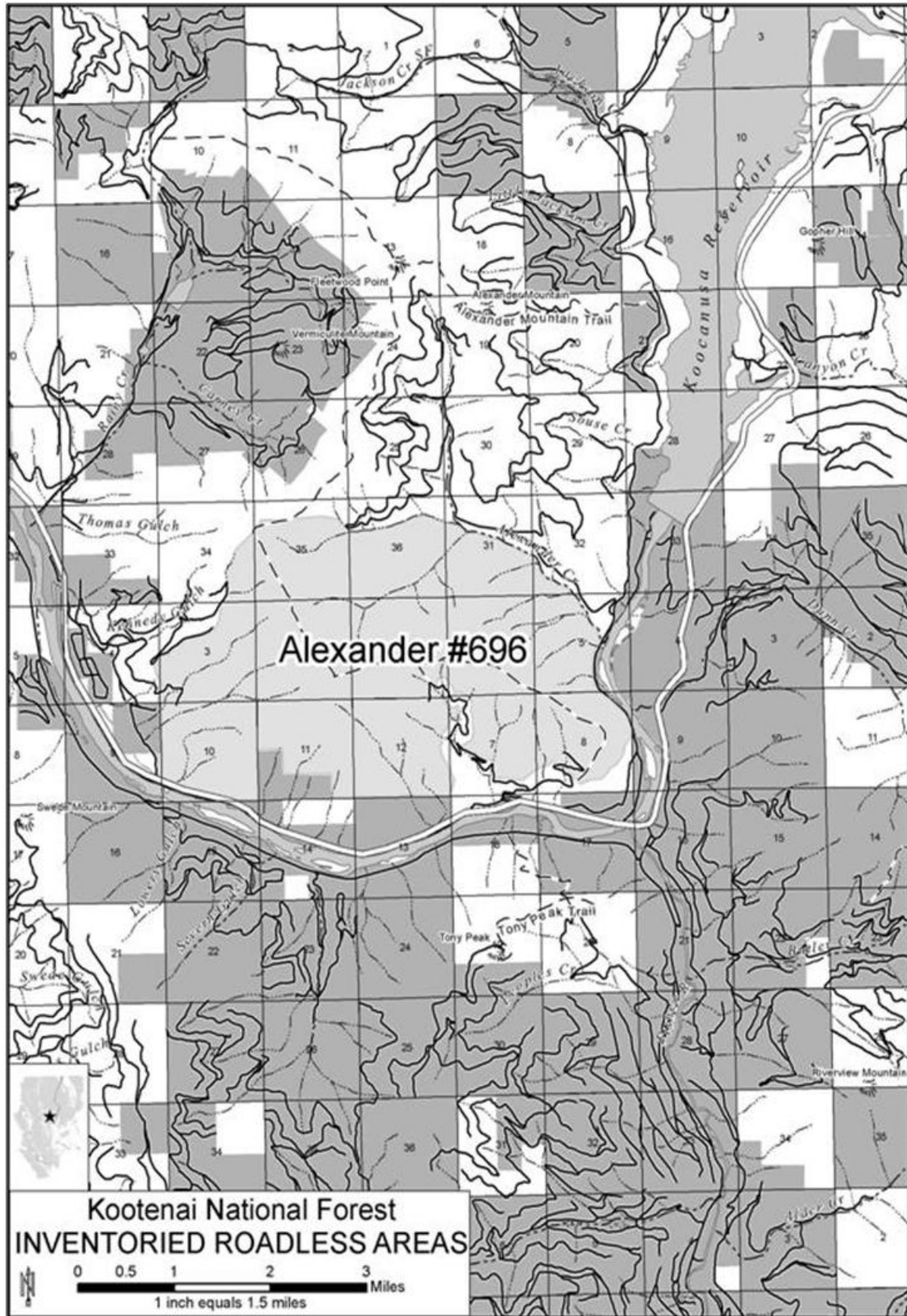


Figure 29. Alexander #696 IRA

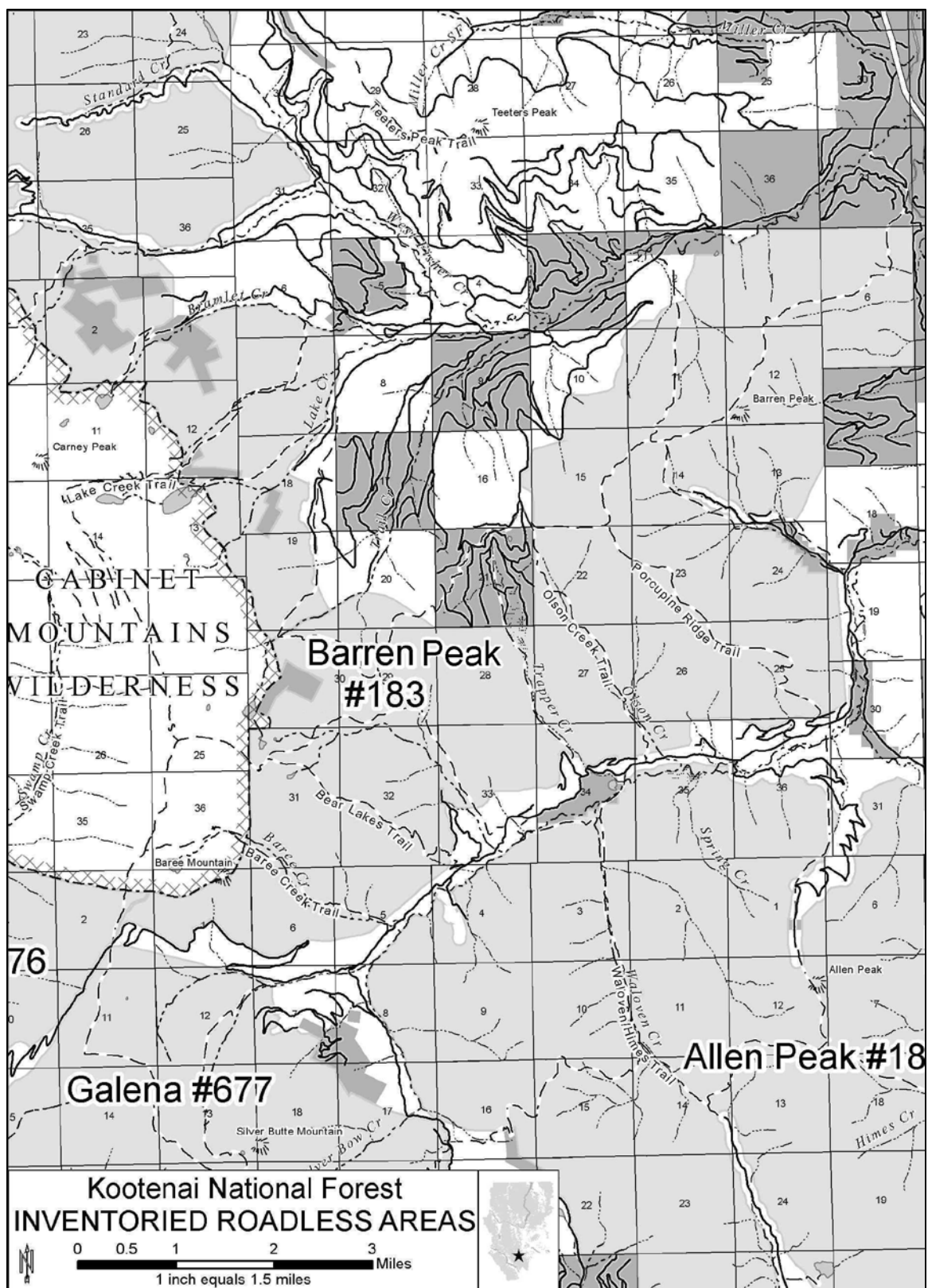


Figure 30. Barren Peak #183 IRA

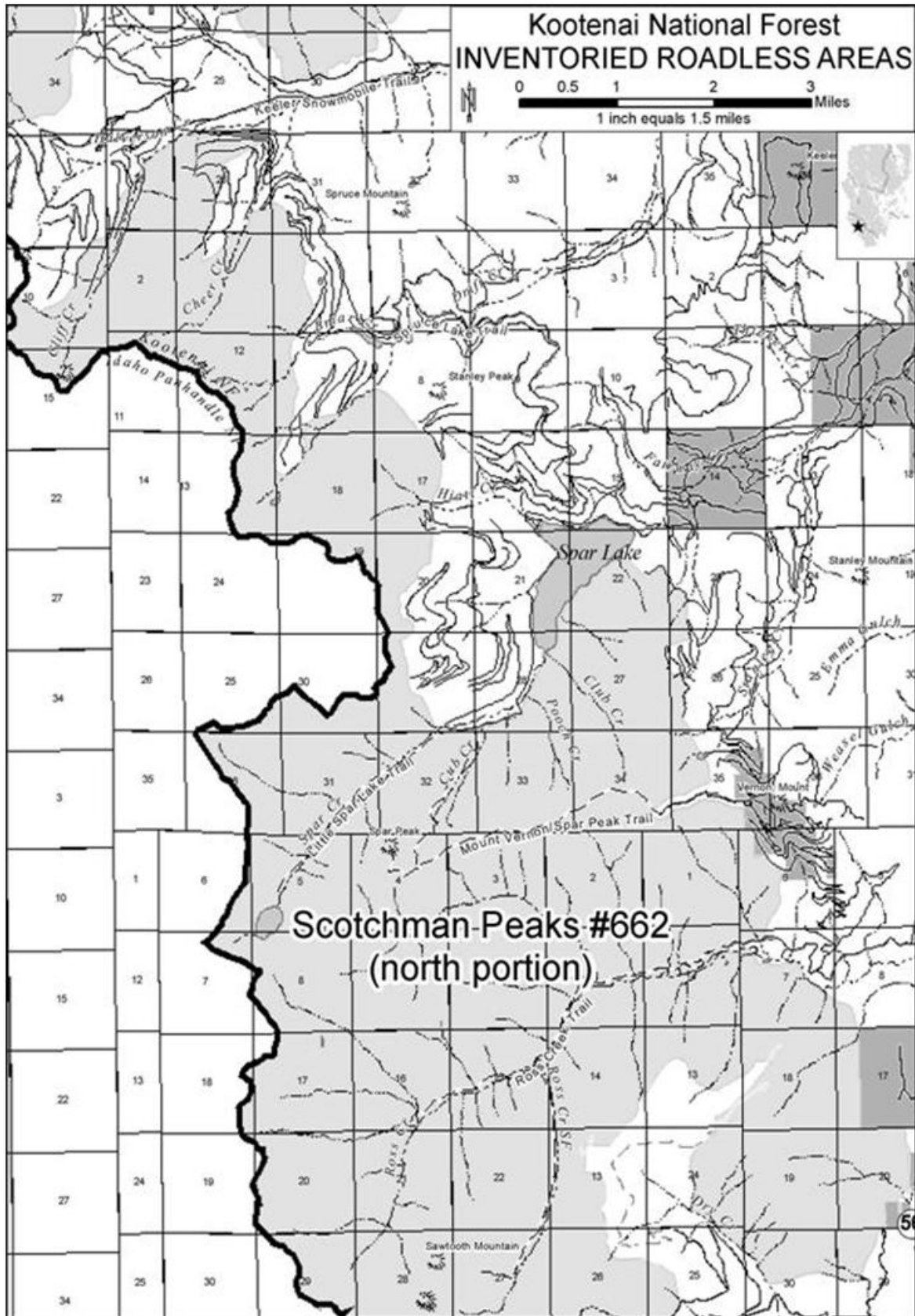


Figure 31. Scotchman Peaks #662, (north portion) IRA

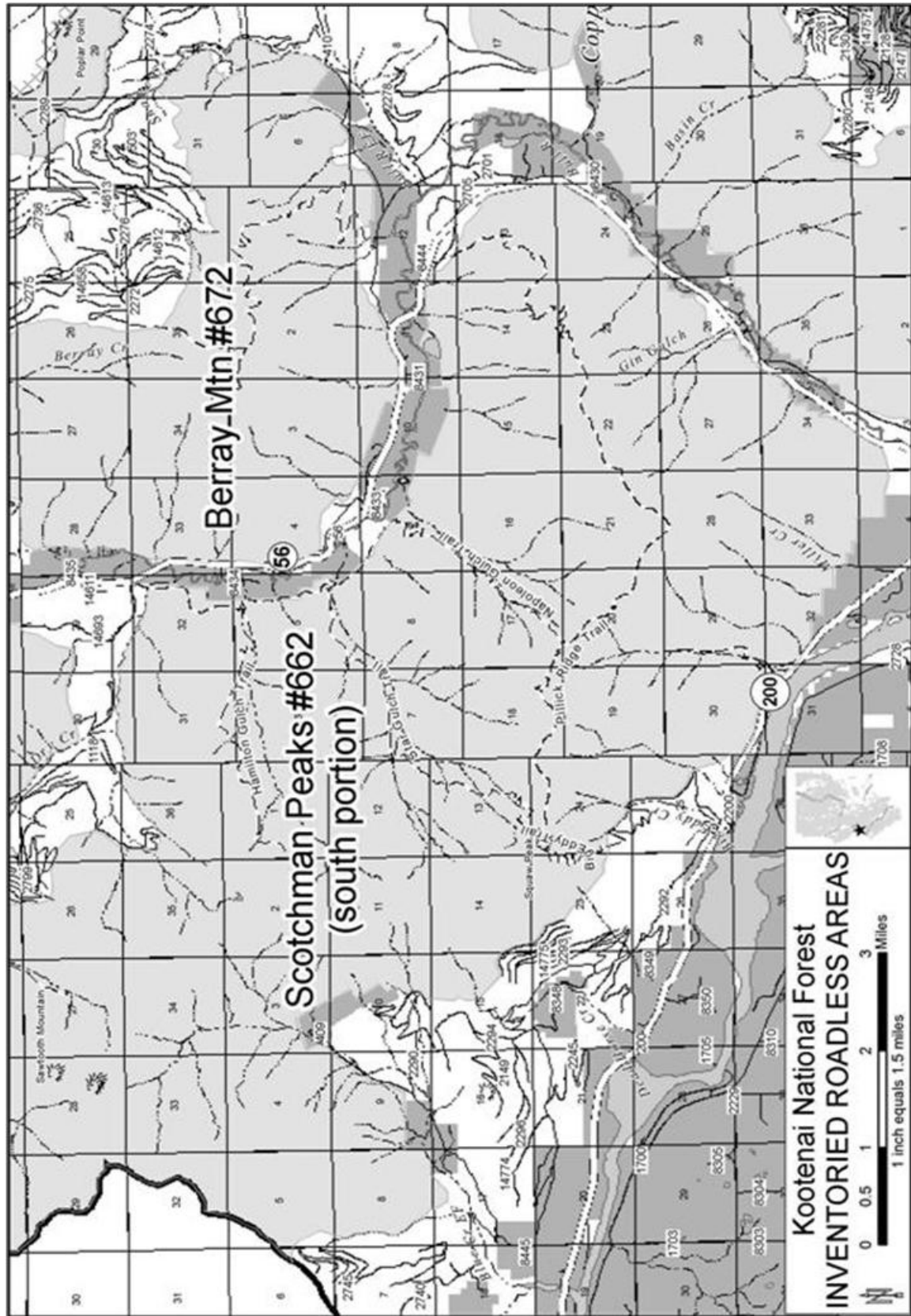


Figure 32. Scotchman Peaks #662 (south portion) IRA

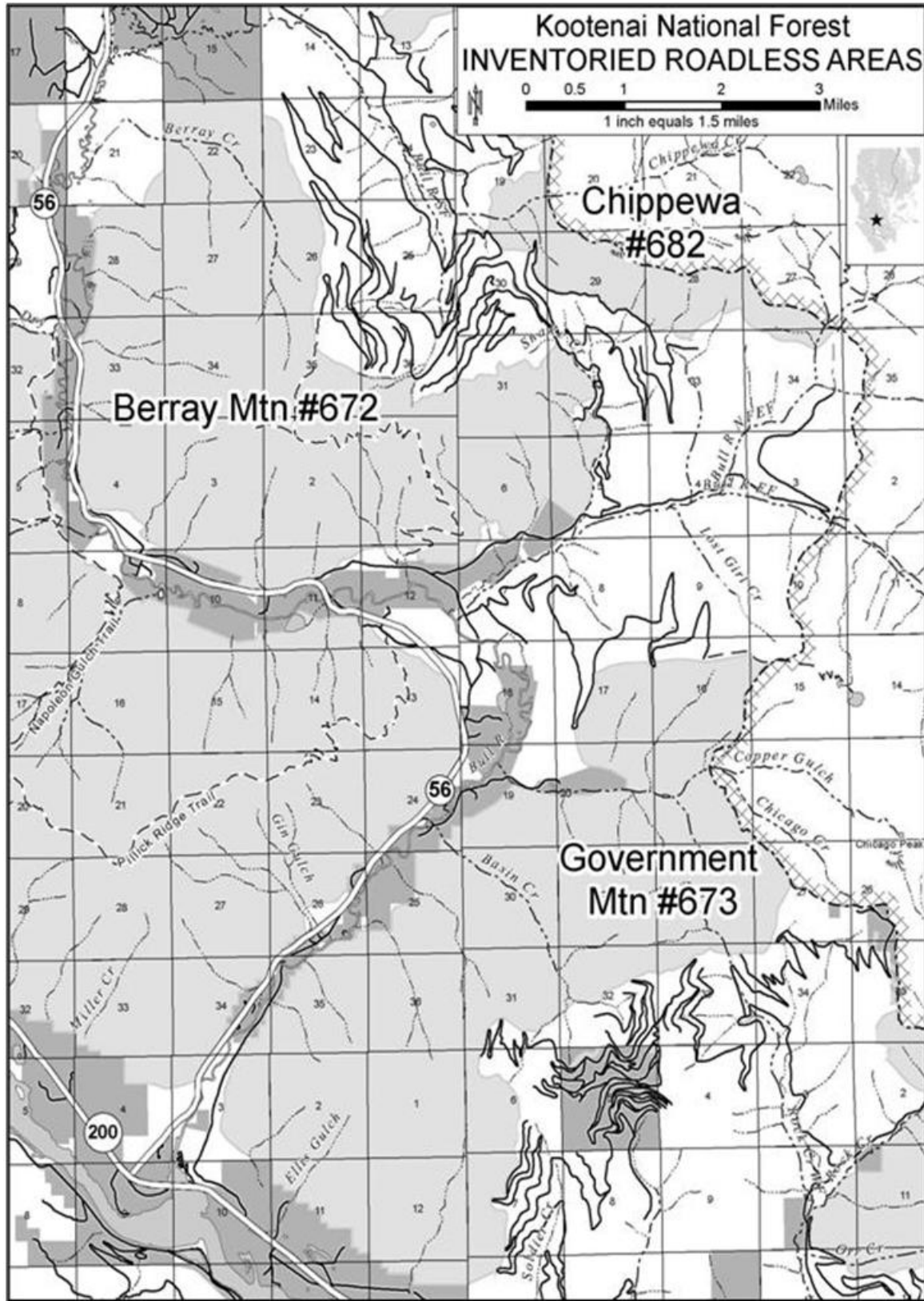


Figure 33. Chippewa #682, Berray Mountain #672, and Government Mountain #673 IRAs

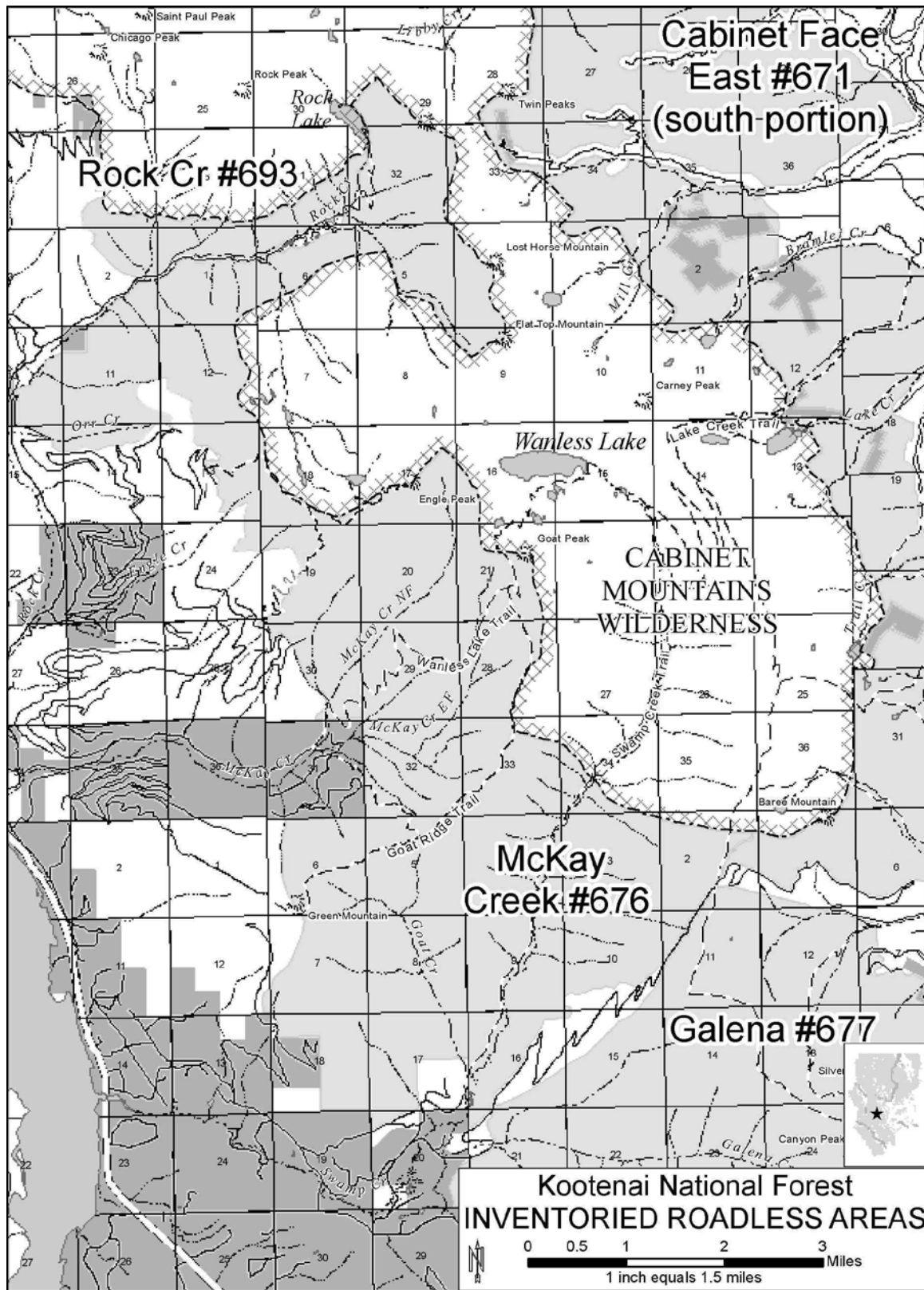


Figure 34. Rock Creek #693 and McKay Creek #676 IRAs

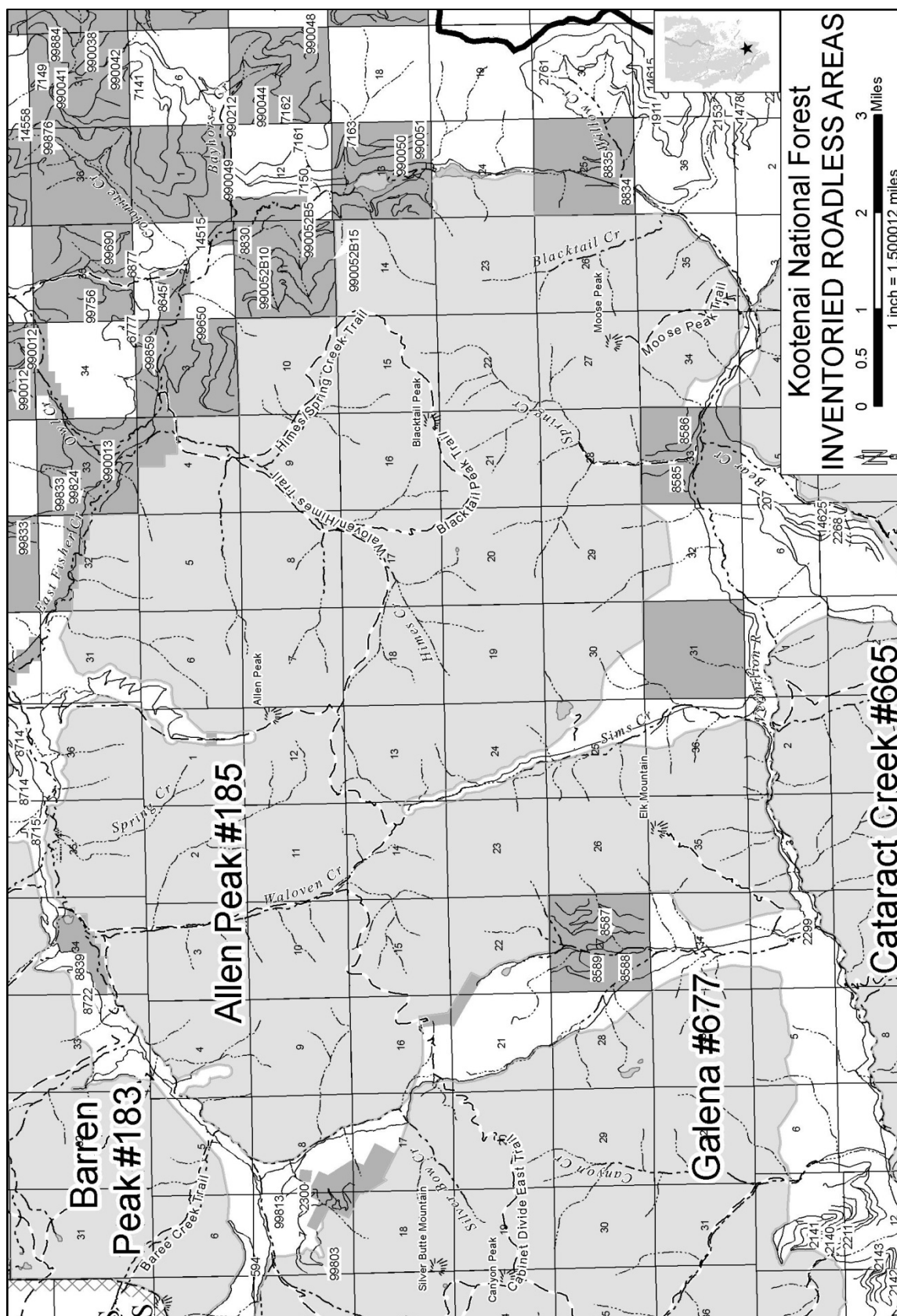


Figure 35. Allen Peak #185 IRA

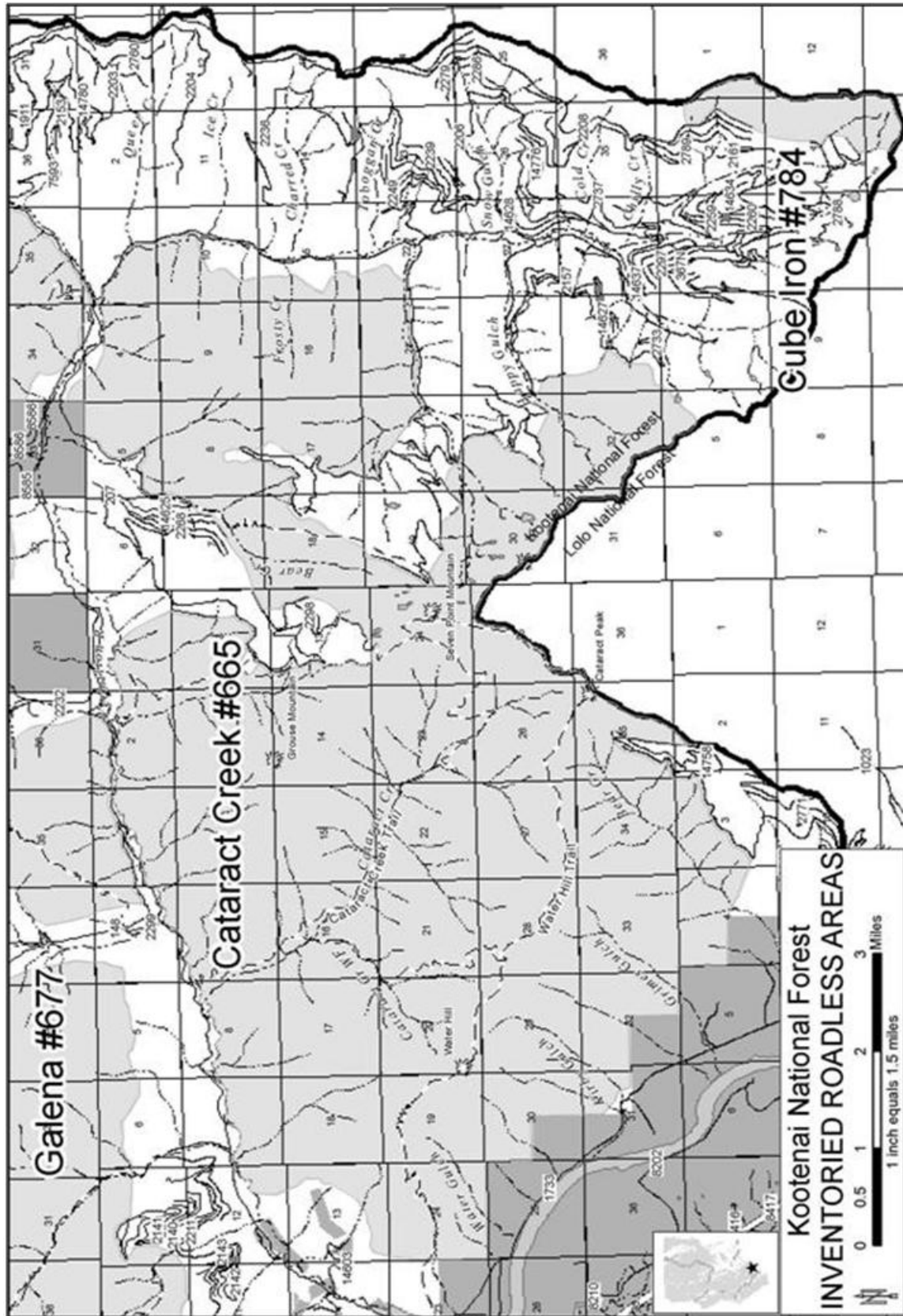


Figure 36. Cataract Creek #665 and Cube Iron #784 IRAs

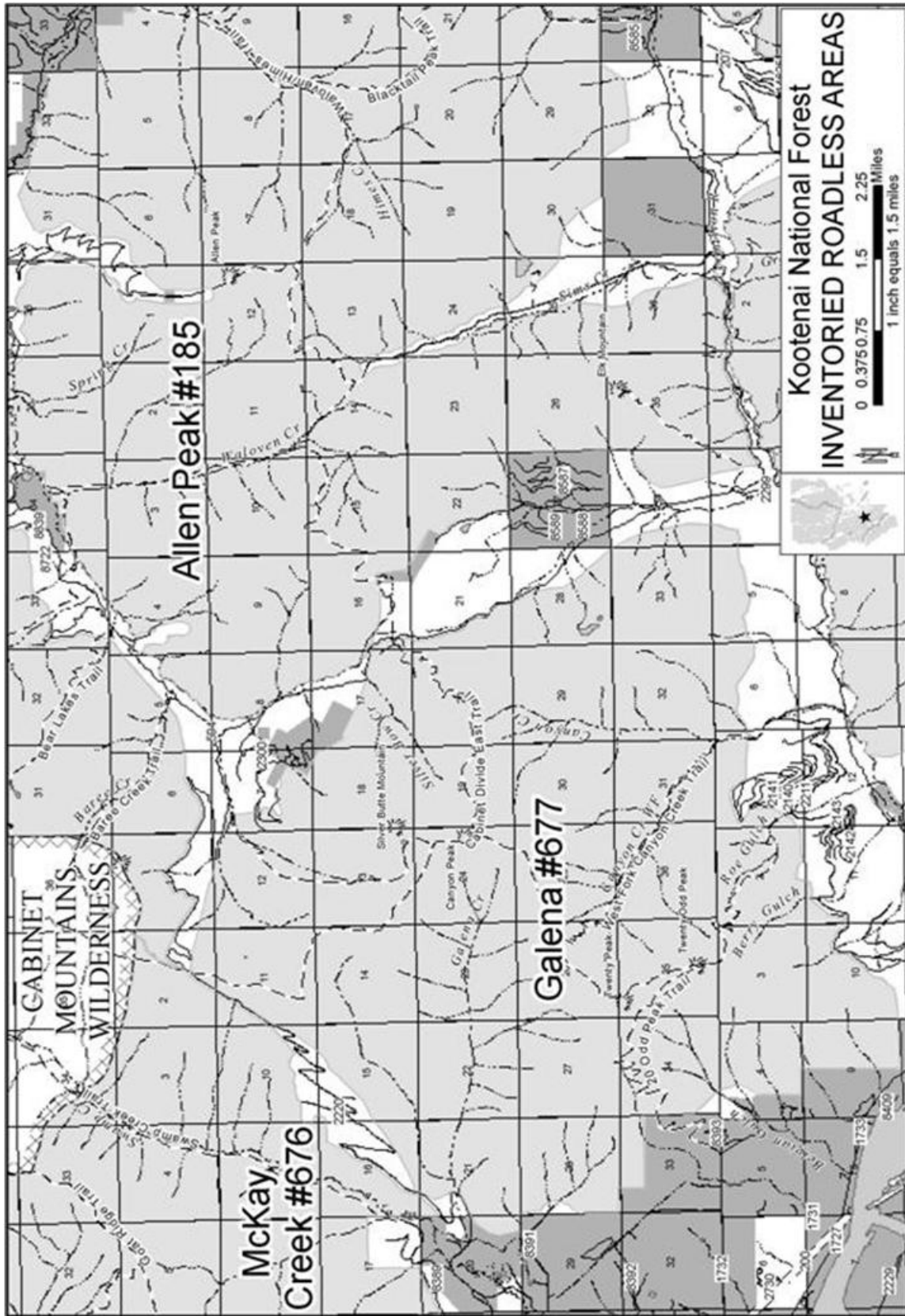


Figure 37. Galena #677 IRA

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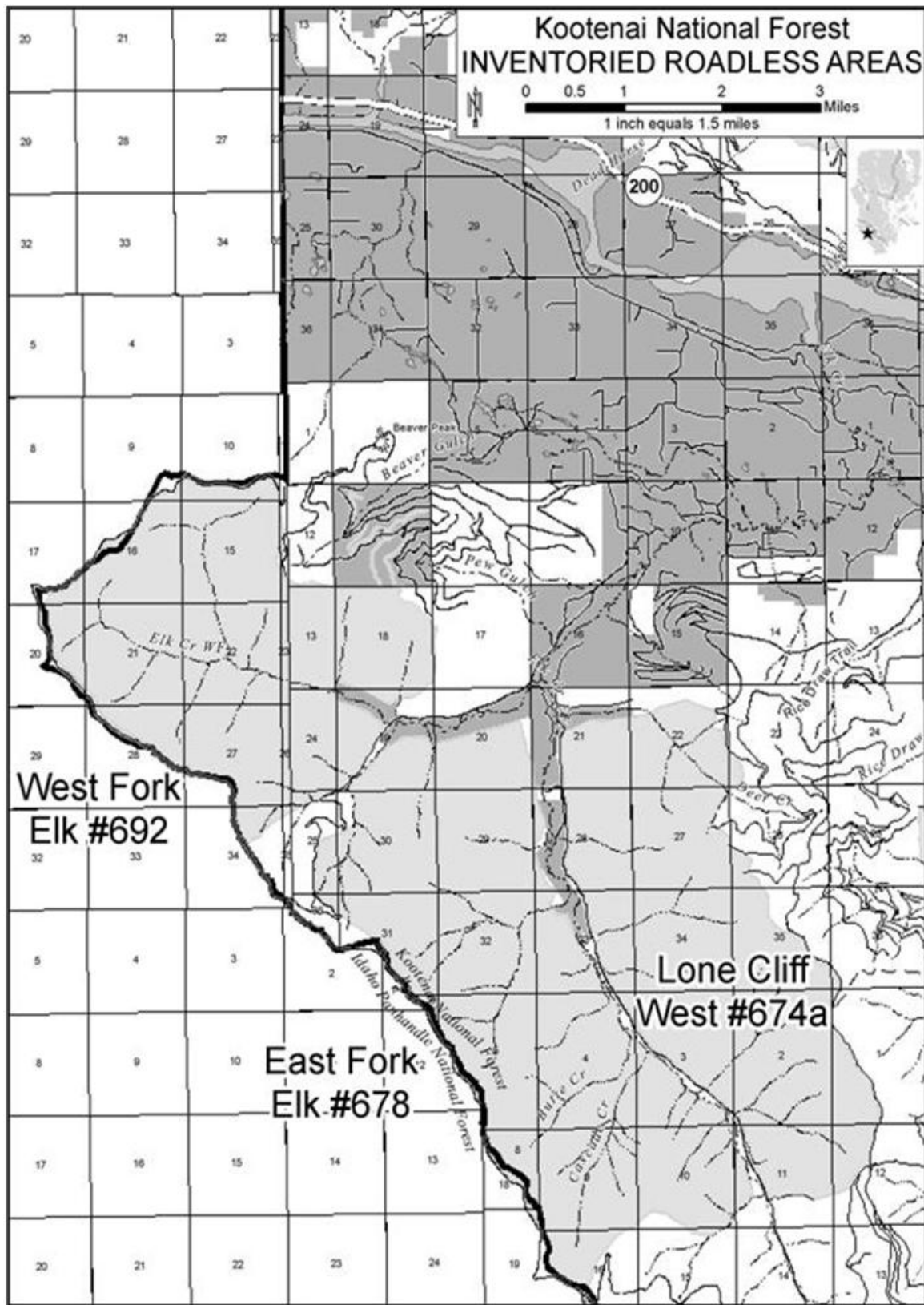


Figure 38. West Fork Elk #692, East Fork Elk #678, and Lone Cliff West #674a IRAs

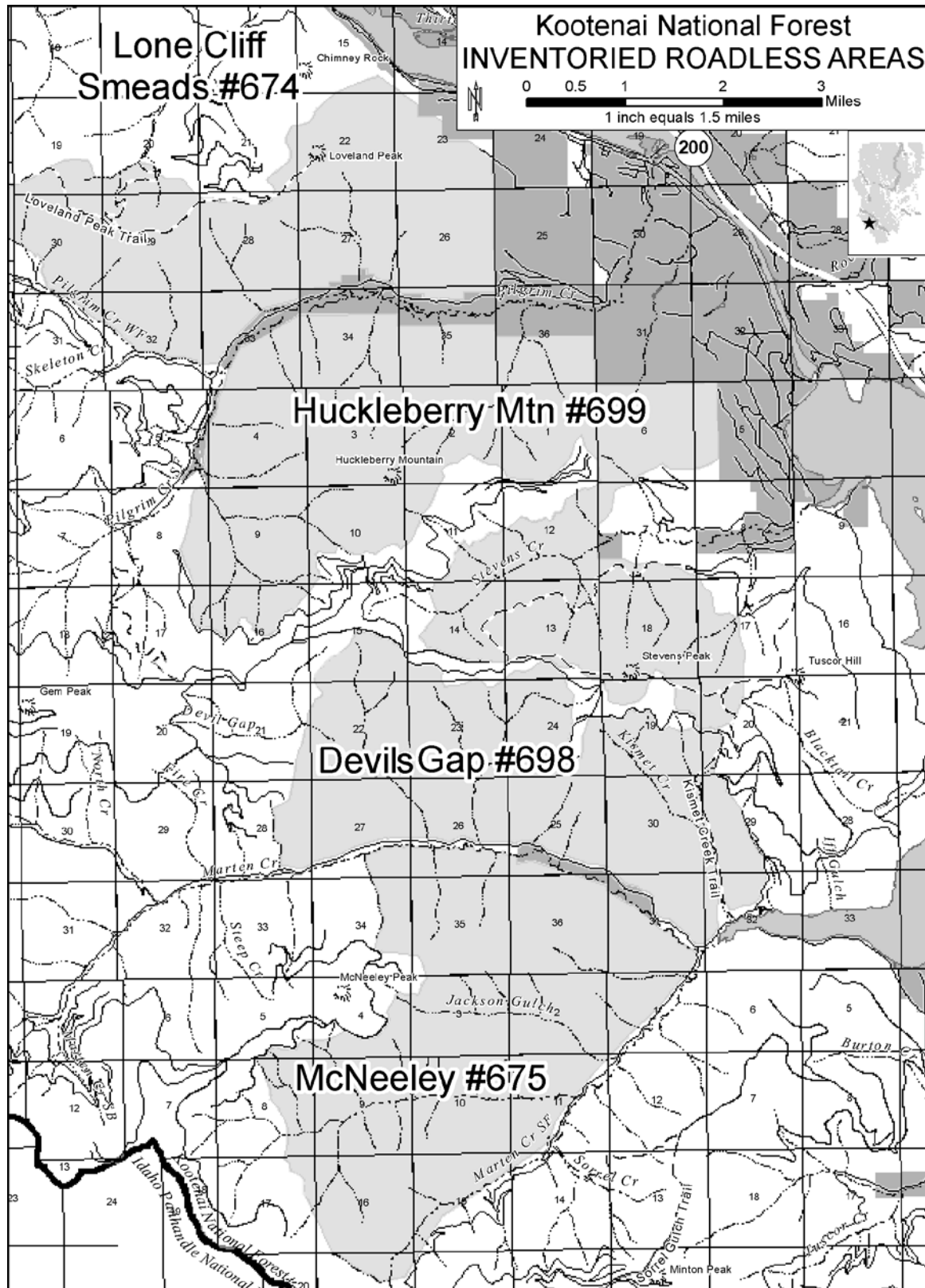


Figure 39. Lone Cliff Smeads #674, Huckleberry Mountain #699, Devil's Gap #698, and McNeeley #675 IRAs

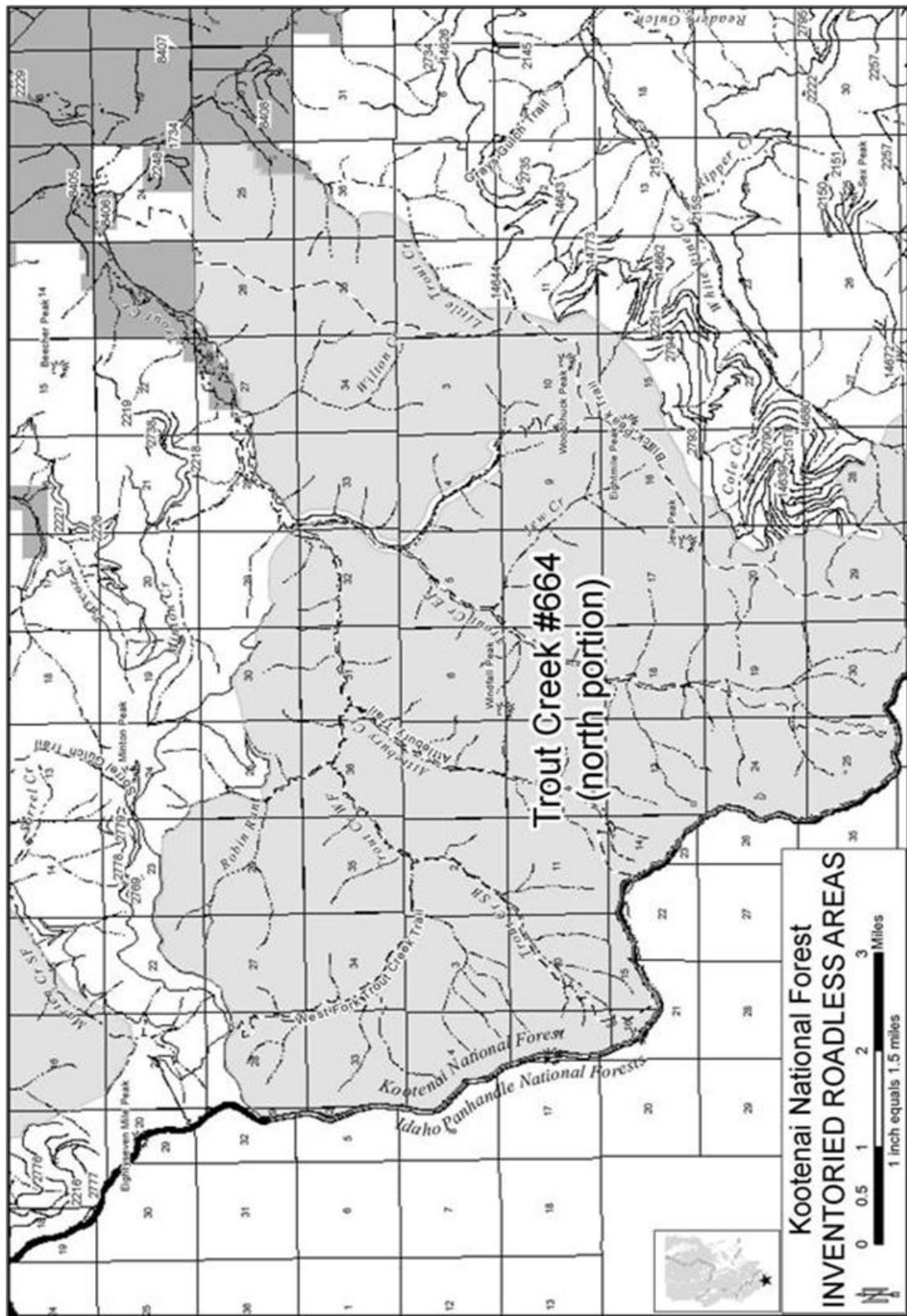


Figure 40. Trout Creek #664 (north portion) IRA

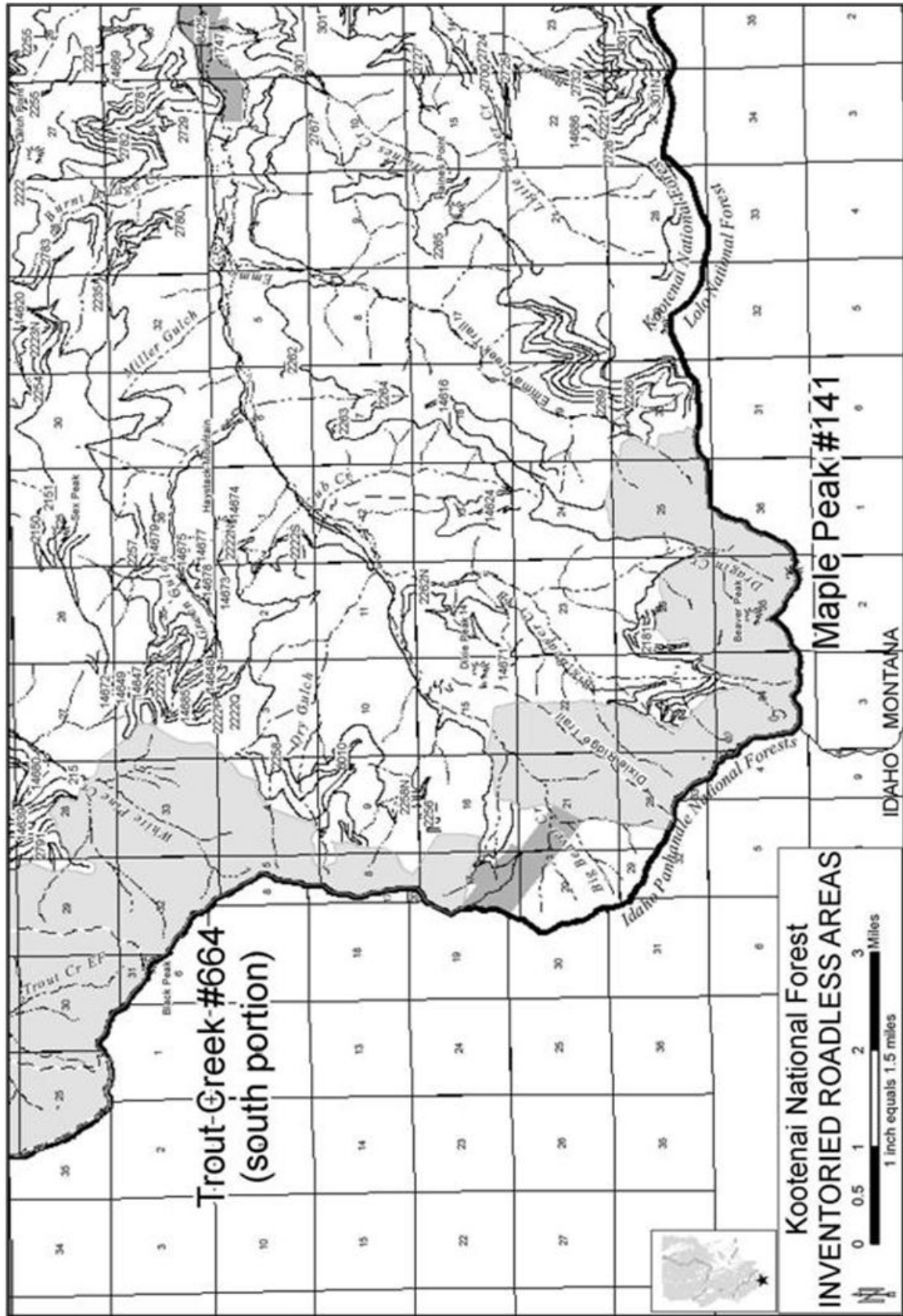


Figure 41. Trout Creek #664 (south portion) and Maple Peak #141 IRAs

Evaluation

The following pages describe the process followed in evaluating IRAs for capability, availability, and need, and the results of these analyses. The process for the final determination of wilderness recommendations is included.

When revising forest plans, national forests are required to evaluate roadless areas, consider their wilderness characteristics, and to make recommendations to Congress regarding areas suitable for inclusion into the National Wilderness Preservation System. The Forest Service can only recommend potential wilderness allocations to Congress via forest plans, and only Congress can designate wilderness through the legislative process.

Criteria for determining whether an area of NFS land qualifies as an IRA are provided in Forest Service handbook 1909.12, Chapter 70, which states: “Areas qualify for placement on the potential wilderness inventory if they meet the statutory definition of wilderness. Include areas that meet either criteria 1 and 3, or criteria 2 and 3 below.”

1. Areas contain 5,000 acres or more.
2. Areas contain less than 5,000 acres, but can meet one or more of the following criteria:
 - Areas can be preserved due to physical terrain and natural conditions;
 - Areas are self-contained ecosystems, such as an island, that can be effectively managed as a separate unit of the National Wilderness Preservation System; and
 - Areas are contiguous to existing wilderness, primitive areas, administration-endorsed wilderness, or potential wilderness in other federal ownership, regardless of their size.
3. Areas do not contain forest roads (36 CFR 212.1) or other permanently authorized roads, except as permitted in areas east of the 100th meridian (sec. 71.12).

This evaluation of potential wilderness identified and inventoried all areas within NFS lands that satisfy the definition of wilderness found in section 2(c) of the 1964 Wilderness Act (FSH 1909.12, Chapter 70, 2007). The areas identified through this evaluation process are called potential wilderness areas. The inventory resulted in 43 IRAs totaling 638,030 acres.

Inventoried roadless areas may contain improvements such as motorized trails, unauthorized and user-created roads, fences, outfitter camps, and past management or historic logging activities where the use of mechanical equipment is not evident (FSH1909.12 Chapter 70, 71.11). The point where use of mechanical equipment is no longer evident could include early logging or settlement activity where stumps, skid trails, or old roads are substantially unrecognizable, or units have regenerated to the degree that canopy cover is similar to the surrounding area.

Roadless areas are valued for many resource benefits including their undeveloped fisheries and wildlife habitat, biodiversity, and various undeveloped recreation settings. The same areas are also valued for their development potential, particularly for wood products.

Roadless Acres Analyzed for Capability, Availability, and Need

The next step is an evaluation of potential wilderness areas as potential additions to the National Wilderness Preservation system is to determine the mix of land and resources uses that best meet public needs. An area recommended as suitable for wilderness must meet the test of capability, availability, and need. In addition to the inherent wilderness quality it possesses, an area must provide opportunities and experiences that are dependent upon and enhanced by a wilderness environment, and the ability of the area to be managed as wilderness.

The KNF evaluation process (capability, availability, and need) and the suitability evaluation of the roadless areas for potential wilderness are outlined; these evaluations indicate the inherent wilderness quality of each roadless area.

The IRAs were evaluated for suitability for potential wilderness with the test of capability, availability, and need as follows:

- **Capability** – The capability of a potential wilderness is the degree to which that area contains the basic characteristics that make it suitable for wilderness recommendation without regard to its availability for or need as wilderness. This includes environmental as well as manageability considerations.
- **Availability** – The determination of availability is conditioned by the value of and need for the wilderness resource compared to the value of and need for other resources. Other resource demands and uses were evaluated. Constraints and encumbrances were also reviewed to determine the degree of Forest Service control over the surface and subsurface area.
- **Need** – This is an analysis of the degree to which the potential wilderness area would contribute to the overall national Wilderness Preservation System. This evaluation was conducted at the regional level.

In 2003 a Wilderness Needs Assessment was completed for the USDA Forest Service Northern Region. Need is described as an analysis of the degree to which an area contributes to the local and national distribution of wilderness (FSH 1909.12, Chapter 70). Social and ecological factors are considered in the Northern Region assessment.

Methodology Used for Evaluating Capability, Availability, and Need

Undeveloped areas on the KNF were evaluated for wilderness recommendation. The three tests of capability, availability, and need are used as set forth in (FSH) 1909.12, Chapter 72, 2007. In addition to the inherent wilderness quality an undeveloped area might possess, the area should provide opportunities and experiences one would expect to find in a wilderness environment.

Capability

The five basic characteristics identified in FSH 1909.12, Chapter 70 to evaluate the capability of an area are: natural, undeveloped, outstanding opportunities for solitude or primitive and unconfined recreation, special features and values, and manageability.

The environment provides the person the opportunity to feel or experience solitude and serenity, a spirit of adventure and awareness, and a sense of self-reliance. The area should appear natural and free from disturbance and where the normal activities and life cycles of biotic species take place. A range of geological, biological, and ecological variability exists and is identified. Any scientific, educational, or historical values are identified and considered. Social and economic

factors must blend with the environment and natural features to make the area desirable and manageable as wilderness.

Outdoor recreation opportunities that are primitive and unconfined include hiking, backpacking, stock riding, hunting, fishing, skiing, snowshoeing, and rafting. These may or may not currently exist within an individual area. Other outdoor recreational activities may currently exist but are not compatible with a wilderness setting or other wilderness characteristics.

Special features recognize scientific, educational, historical, and scenic values found in the area. The abundance and variety of wildlife and fish, including threaten and endangered species, will be considered. Other special features that are unique or are outstanding will be identified.

Manageability considers the ability to manage the area as wilderness as required by the 1964 Wilderness Act. Such factors as size, shape, and juxtaposition to external situations are considered. Boundary location and the ability to easily identify the boundary on the ground are critical in meeting this characteristic.

The combinations of basic natural characteristics are of infinite variety. No two areas possess any of these characteristics in the same measure. The process, then, is to analyze the quality and quantity of these characteristics and determine if they can be provided by establishing management, protective, mitigation, or enhancement measures.

In order to evaluate the five basic characteristics, they were broken down into elements, activities, or features that describe the basic characteristics and provide a basis for rating. At least two criteria were established for each element, activity, or feature with three criteria considered optimal. While there is no limit on the number of criteria that can be established, the number of criteria must be kept to a number that can reasonably provide for evaluation of the characteristics. Since criteria will probably not be of equal importance, criterion was listed in order of priority for each element, activity, or feature. Criteria were established to consider existing as well as future conditions both inside and adjacent to the area.

Forest and district resource specialists and managers rated the criterion as high, medium, or low depending on how well the criterion is or can be met in the area. For areas that crossed forest boundaries, the criteria were evaluated only for the portion that lies within the KNF boundary. Final evaluation of those areas will not be completed until coordination with the adjoining forest can be made.

Three specialists from the Forest evaluated the elements, activities, or features based on the criteria rating given in the first evaluation. The area was given a summary rating of high, moderate, or low in capability. Methodology used three Forest Service specialists familiar with the area along with three that generally did not know the area and was limited to the criteria ratings and comments provided by the districts during the first evaluation.

Availability

Availability of an area for wilderness management must be evaluated against other resource needs, demands, and uses of the area. To be available for wilderness, the wilderness value, both tangible and intangible, should offset the value of the other resources. The predominant value does not necessarily reflect the use or combination of uses that would yield the greatest dollar return or the greatest unit output. In evaluating other resources, current uses, trends, and potential future uses and outputs need to be considered.

Constraints and encumbrances on lands may also govern the availability of lands for wilderness. Forest Service control over the surface and subsurface of the area is a consideration regarding availability. The Forest Service should have sufficient control to prevent development of irresolvable, incompatible uses that would negatively affect wilderness character and potential.

Other resources evaluated are determined from resource specialists' knowledge of the areas and public comments. Once the resources were identified, criteria were established for evaluation. Forest and District resource specialists' rated the criteria as high, medium, or low. Two to six forest program managers then evaluated each area's availability for wilderness designation.

Need

Evaluation of need determines the degree to which an area can contribute to the overall National Wilderness Preservation System. There should be evidence of current or future public need for additional designated wilderness in the general vicinity of the area being considered. Need analysis uses such factors as the geographic distribution of areas, representations of landforms and ecosystems, and the presence of wildlife expected to be present in a wilderness environment.

To best analyze the need for additional wilderness in the Northern Region, the regional forester decided a needs assessment would be completed at the regional level. Two to six program managers then incorporate the assessment to rate the areas for need and assign a rating of high, moderate, or low to each area.

Evaluation Findings

Potential wilderness is based on the inherent wilderness quality determined in the capability, availability, and needs assessment. In addition to the inherent wilderness quality an area might possess, the area should provide opportunities and experiences one would expect to find in a wilderness environment. Potential wilderness management considers establishing boundaries that are easy to define and locate on the ground. Forest land managers reviewed the evaluation and determined which areas to recommend for wilderness designation.

Potential wilderness boundaries and mapping was completed following the guidelines in FSH 1909.12, Chapter 70 for each area recommended for wilderness designation. Boundaries should be easy to define, locatable on the ground, and be manageable. Determination of a recommended wilderness boundary uses the following guidelines (in descending order of desirability).

- (1) Use natural features locatable on both a map and on the ground, such as a ridge top, mountain peak, or lake shore;
- (2) Use semi-permanent human-made features such as roads and power lines. The boundary may be set back a given distance from these features;
- (3) Use previously surveyed lines or legally determined lines such as section and township lines, property lines, or state boundaries;
- (4) Use a straight line from one locatable, visible point to another, such as between two mountain peaks; and
- (5) Use a series of bearings and distances between locatable points that are not visible.

Evaluation of the 43 areas for potential wilderness and recommendation was based on the methodology established above. Areas that crossed the KNF boundary on to the IPNF, Flathead, and Lolo National Forests are evaluated for those portions that are within the KNF boundary.

Capability Process

Methodology required identifying elements, activities, or features that described the basic characteristics and provided a base for rating. This was completed by the KNF recreation program manager and assisted by a NEPA specialist and the forest planner. Work began in September 2002 and was completed in early 2006.

The five basic characteristics were broken down into 19 elements, activities, or features. A total of 47 criteria were established and used in rating each of the 43 areas. Generally, the criteria are listed in order of priority for each element, activity, or feature. Criteria were established to consider existing as well as future conditions both inside and adjacent to an area.

Evaluation of the criteria was performed by district recreation managers, Forest Fishery and Wildlife Biologists, and Forest Hydrologists. Each criterion was rated as high, medium, or low. For areas that crossed forest boundaries, the evaluation was conducted on each individual forest.

The Forest wilderness program manager and two district resource managers from the Forest rated the 19 elements, activities, or features as the first step. The area was then rated as high, medium/high, medium, medium/low, or low in capability. The medium/high and medium/low ratings were used only when an area did not clearly fit in one of the ratings established in methodology and was consider in a transition area between two established ratings.

A final capability rating for areas that crossed most other national forest boundaries was completed. This was accomplished by comparing the capability evaluation done by the adjacent forest with the evaluation on the KNF.

Table 24 shows the 19 elements, activities and features and the 47 criteria used to rate the areas. Figure 42 below shows the inventoried roadless areas for the KNF.

Table 24. Area-Capability Assessment Element and Criteria

High	Medium	Low
Environmental Elements		
Opportunity for Solitude		
1. Feeling of being alone or remote from civilization.	Feeling of being alone is possible but signs of civilization are likely.	Little opportunity of feeling alone.
2. The possibility of meeting another party is remote.	The possibility of meeting or not meeting another party is about equal.	It would be rare to not meet another party.
3. Recreation use is light.	Recreation use is moderate.	Recreation use is high.
Natural and Free from Human Disturbance		
4. IRA appears free of human disturbance. Any disturbance appears to be natural, such as a wildfire.	IRA appears mostly free of human disturbance. Natural disturbance evident, but does not dominate the landscape.	IRA shows signs of human disturbance. Natural disturbance dominates the landscape, such as a stand replacing wildfire.
5. Area visible in surrounding foreground (outside the IRA) may show some human disturbance but does not dominate the view.	Area visible in surrounding foreground has signs of human activity such as a road or farmhouse.	Area visible in surrounding foreground shows obvious human activity such as clearcuts or a town.
6. Has only a minor improvement, such as a trail.	Have several minor improvements.	Has a major improvement such as a power line, dam, or road.

High	Medium	Low
7. Noxious weeds not evident.	Noxious weeds evident in isolated spots.	Noxious weeds common or scattered throughout the area.
8. High water quality. Fully supports beneficial uses.	Good water quality. Partially supports beneficial uses.	Poor water quality. Does not support beneficial uses.
Provides Challenge and Adventure		
9. Terrain generally rugged.	Terrain typical for general forest area.	Terrain more gentle and rolling.
10. Requires above average physical ability, knowledge, or skill to safely recreate in the area.	Requires similar physical ability, knowledge, or skill as the general forested area.	Area easily accessible; requires average physical ability, limited knowledge and skill as compared to the abilities required in the general forest area.
11. Non-hunting outfitting permitted within area.	Non-hunting outfitting permitted but rarely used.	Non-hunting outfitting not permitted within area.
Manageable		
12. Size and shape of area allows for effective management.	Size or shape will affect manageability but can be mitigated by boundary changes.	Size is small or has irregular shape that makes management difficult.
13. Minimum activity in surrounding area that affects manageability.	Activity is evident and ongoing in surrounding area but will not keep the area from being managed.	Activity in surrounding area will affect the manageability of the IRA.
14. Located adjacent to existing Wilderness or other IRAs.	Located near existing Wilderness or other IRAs. May be difficult to access.	Isolated, small parcel of land.
Special Features		
Scientific, Educational, or Historical Values		
15. Several significant scientific, educational, or historical values have been identified in the IRA.	At least one significant or several minor scientific, educational, or historical values have been identified in the IRA.	No scientific, educational, or historical value has been identified in the IRA.
16. Identified values are unique to the northern Rockies.	Identified values are common in northwestern US but is uncommon on the KNF.	Any identified values are common throughout the KNF and northwest US.
Scenic Features		
17. Area has peaks or rocky formations considered spectacular from the rest of the Forest and/or special vegetative features that are considered very scenic.	Area has a peak or formation that stands out from surrounding terrain and/or vegetative features considered scenic.	Terrain is typical of the Forest or surrounding area and the vegetation is common to the surrounding area.
18. Area has alpine lakes, creeks in alpine meadows, or waterfalls.	Area may have bodies of water but are typical for the Forest.	Area has no permanent lakes but may have perennial creeks or ponds.
Variety and Abundance of Wildlife		
19. There is a diverse community of native mammals, birds, and fish.	There is a moderate variety of native mammals, birds, and fish.	The community of native mammals, birds, and fish is not diverse.
20. There is a known high variety of Threatened Endangered Species within the IRA.	There is a known moderate variety of Threatened Endangered Species within the IRA.	There is a known low variety of Threatened Endangered Species within the IRA.
21. Overall wildlife habitat	Overall wildlife habitat integrity	Overall wildlife habitat integrity

High	Medium	Low
integrity rating of high.	rating of moderate.	rating of low.
22. Provides critical linkage between wildlife areas or habitats.	Provides linkage between wildlife areas or habitats.	Does not provide linkage between wildlife areas or habitats.
Other Special Features		
23. Area has at least one major other special feature, such as a grove of western red cedars, high mountain meadow, bog, etc.	Area has several minor other special features, such as old growth stand, flat creek bottom, or small waterfalls.	Area has no major or very few minor other special features.
24. Contains a designated special area such as a Wild & Scenic River or SIA, etc.	Contains a candidate or eligible special area such as a Wild & Scenic River or SIA, etc.	Does not contain an established, candidate, or eligible special area such as a Wild & Scenic River or SIA, etc.
Primitive And Unconfined Recreation		
Hiking Opportunities		
25. Two or more trails, class 3 or higher, that are routinely maintained.	At least one trail, class 2 or higher, which is routinely maintained.	No system trails that are maintained.
26. Terrain is gentle and vegetation open to allow easy cross-country travel.	Terrain is moderate or vegetation brushy that impedes cross-country travel.	Terrain is steep or vegetation too dense (including down material) that cross-country travel is difficult.
Backpacking Opportunities		
27. Two or more trails, class 3 or higher, that are routinely maintained.	At least one trail, class 2 or higher, which is routinely maintained.	No system trails that are maintained.
28. Area has several dispersed camping sites that are routinely used.	Area has at least one dispersed camping site that is occasionally used.	Area does not have dispersed camping sites that are used, but progressive camping may occur.
Saddle Stock Opportunities		
29. At least one trail, class 3 or higher, designed for saddle stock and routinely maintained.	At least one trail, class 2 or higher, which is suitable for saddle stock and routinely maintained.	No system trails that are maintained.
30. Trailhead has stock facilities, such as unloading ramp.	Trailhead has room to turn around stock truck or stock trailer.	Trailhead does not support use of stock.
Hunting Opportunities		
31. Good populations of the big game animals or fair population of permitted animals, such as sheep or goats.	Has a fair population of game animals.	Has scattered small herds of big game animals.
32. Terrain is gentle and vegetation open to allow easy hunting access off trails and ridges.	Terrain is moderately steep or vegetation brushy that limits hunting on much of the area.	Terrain is steep or vegetation too dense that hunting is limited to trails or ridges.
Fishing Opportunities		
33. Good populations of native game fish.	Have fair populations of native game fish.	Have low populations of native game fish.
34. Stream bottoms are generally gentle with minor brush allowing access to water.	Stream channel has enough brush to limit access; channel bottom or side slopes not overly steep.	Stream channel steep, or steep rocky side slopes, or brush along channel makes access difficult.

High	Medium	Low
Skiing and Snowshoeing Opportunities		
35. Terrain is gentle and vegetation open to allow easy cross-country travel.	Terrain is moderate or vegetation brushy that impedes cross-country travel.	Terrain is steep or vegetation too dense that cross-country travel is difficult.
36. Area is easily accessible in winter by motorized wheel vehicles.	Snow keeps wheeled vehicles several miles from area but access is possible by snowmobile.	Area is difficult or rarely accessed by snowmobile.
Snowmobiling Opportunities		
37. Terrain is steep or vegetation too dense that cross-country travel is difficult.	Terrain is moderate or vegetation brushy that impedes cross-country travel.	Terrain is gentle and vegetation open to allow easy cross-country travel.
38. Snowmobile use prohibited, or if allowed, rarely used.	Snowmobile use restricted to two months or less, or on half or less of the area.	Snowmobile use permitted.
Manageability – The Extent That Area Boundaries Are Recognizable		
Area Boundaries are Recognizable		
39. The vast majority of the boundary follows features that can be easily found and identified on the ground, such as a dominate ridge, creek, road, or trail.	More than half of the boundary follows a feature that can be easily found and identified on the ground.	Boundary generally lies across the hill side and can rarely be located without equipment, such as a GPS unit.
40. Boundary can be easily adjusted to follow locatable and identifiable features without significantly modifying the area boundaries.	Boundary can be adjusted to follow locatable and identifiable features but will modify the general size and shape of the IRA. Boundary may be identified with minimal signing.	Boundary cannot be adjusted to follow locatable and identifiable features, or requires extensive signing.
Area Boundaries Promote Remoteness		
41. Area accessed by trail or closed and re vegetated road; adjacent area has natural setting.	May be accessed by narrow or two track open road that is lightly traveled; minimal human presence evident.	Boundary adjacent to heavily used road or along area showing high human presence, such as a number of farm houses with outbuildings, pasture land, etc.
42. No active disturbance near boundary.	May have disturbance near boundary but is short term such as a logging operation.	Boundary adjacent to long term disturbance like farmland or mining operations.
43. Natural processes take place undisturbed and un-manipulated.	Minimal disturbance of natural processes.	Natural processes cannot occur without human intervention.
Area Boundaries are Manageable		
44. Boundary total on national forest and not adjacent to private property.	Boundary follows property line forming irregular shape.	Boundary crosses private property so there are in-holdings along the boundary.
45. No inholdings.	Few small inholdings may be present.	Several small or a large inholding.
Area Boundaries Constitute Barrier to Prohibited Use		
46. Topographic feature provides a natural barrier, such as major stream or steep hill side.	Topography generally makes it difficult to participate in prohibited use.	Topography not a deterrent to prohibited use.

High	Medium	Low
47. Human improvement is significant to physically provide a barrier, such as a road cut slope.	Human improvement places user on notice of prohibited use, such as a sign.	Human improvement not a deterrent; may provide point of access of prohibited use.

Capability Results for the KNF

The results of the capability assessment for the KNF are displayed in table 25 through table 35.

Table 25. Area Capability Assessment for the KNF (Alexander, Allen Peak, Barren Peak, Berray Mtn)

	Alexander #696	Allen Peak #185	Barren Peak #183	Berray Mtn #672
Environmental Elements				
Opportunity For Solitude				
1 Feeling Alone	Med	High	High	High
2 Other Parties	High	High	High	High
3 Recreation Use	High	High	High	High
Natural And Free From Disturbance				
4 Free Of Disturbance	High	High	High	Med
5 Visible Foreground	High	High	High	Med
6 Improvements	High	Med	Med	Med
7 Noxious Weeds	Med	High	High	Med
8 Water Quality	Med	High	Med	Med
Provides Challenge And Adventure				
9 Terrain	High	Med	Med	High
10 Ability/Knowledge/Skill	Med	Med	Med	Med
11 Non-hunting Outfitting	Low	Low	High	Med
Manageable				
12 Size And Shape	High	Med	High	High
13 Surrounding Area	Med	High	Med	Med
14 Location	Low	High	High	Med
Special Features				
Scientific, Educational, Or Historical Values				
15 Value Presence	Med	Low	Med	Low
16 Value Uniqueness	Low	Low	Low	Med
Scenic Features				
17 Terrain Features	Low	Low	Low	Low
18 Water Features	Low	Low	Low	Low
Variety And Abundance Of Wildlife				
19 Native Animals	Low	Low	Med	Med
20 TE&S Species	Low	High	High	High
21 Wildlife Habitat	Med	Med	Med	High

	Alexander #696		Allen Peak #185		Barren Peak #183		Berray Mtn #672	
22 Habitat Linkage	Low		High		High		High	
Other Special Features								
23 Other Special Features	Med	Med	Med	Low	Med	Low	Low	Low
24 Designated Special Area	Low		Low		Low		Low	
Primitive And Unconfined Recreation								
Hiking Opportunities								
25 Trails	Med	Med	High	High	High	High	High	High
26 Terrain	Med		Med		Med		Med	
Backpacking								
27 Trails	Med	Med	High	High	High	High	High	Med
28 Dispersed Camping	Med		High		High		Med	
Saddle Stock								
29 Trails	Med	Med	High	Med	High	High	High	Med
30 Trailhead Facilities	Med		Med		High		Med	
Hunting Opportunities								
31 Big Game Populations	High	High	High	Med	High	High	Med	Med
32 Terrain	High		Med		Med		Med	
Fishing Opportunities								
33 Game Fish Populations	Low	Low	Low	Low	Med	Med	Low	Low
34 Stream Variables	Low		Low		Med		Low	
Skiing And Snowshoeing								
35 Terrain	Med	Med	Med	Med	Med	Med	Med	Med
36 Area Access	High		Med		Med		Med	
Snowmobiling								
37 Terrain	High	High	High	High	High	High	Med	Med
38 Use Restrictions	High		High		High		Low	
Manageability – The Extent That Area Boundaries are Recognized								
39 Identifiable On Ground	High	High	High	High	Med	Med	Med	Med
40 Boundary Adjustment	High		High		Med		Med	
Area Boundaries Promote Remoteness								
41 Area Access	Low	Med	Med	Med	Med	Med	Low	Low
42 Adjacent Disturbance	Med		Med		Med		Low	
43 Natural Process	Med		High		Med		Low	
Area Boundaries Are Manageable								
44 Adjacent Property	Med	Med	Med	Med	Med	Med	Med	Med
45 Inholdings	High		High		Med		High	
Area Boundaries Constitute Barrier To Prohibited Use								
46 Topographic Feature	High	Med	High	Med	High	Med	Med	Med
47 Human Improvement	Med		Med		Med		Med	
Capability Rating	Low/Mod		Mod		Mod		Mod	

Table 26. Area Capability Assessment for the KNF (Big Creek, Buckhorn Ridge, Cabinet Face East, Cabinet Face West)

	Big Creek #701		Buckhorn Ridge #661		Cabinet Face East #671		Cabinet Face West #670	
Environmental Elements								
Opportunity For Solitude								
1 Feeling Alone	High	High	High	High	High	High	Med	Med
2 Other Parties	High		High		High		Med	
3 Recreation Use	Med		High		Low		High	
Natural And Free From Disturbance								
4 Free Of Disturbance	Med	Med	High	High	High	High	Med	Med
5 Visible Foreground	Med		Med		High		Med	
6 Improvements	High		High		Med		High	
7 Noxious Weeds	High		Med		High		High	
8 Water Quality	High		Med		High		High	
Provides Challenge And Adventure								
9 Terrain	High	Med	High	High	High	High	High	High
10 Ability/Knowledge/Skill	Med		Med		Med		High	
11 Non -hunting Outfitting	Med		Med		High		High	
Manageable								
12 Size And Shape	Med	Med	Med	M/H	Med	Med	High	High
13 Surrounding Area	High		Med		Med		High	
14 Location	Low		High		High		High	
Special Features								
Scientific, Educational, Or Historical Values								
15 Value Presence	Med	Low	Low	Low	High	High	Med	Med
16 Value Uniqueness	Low		Low		Med		High	
Scenic Features								
17 Terrain Features	High	Med	High	High	High	High	High	Med
18 Water Features	Low		Med		High		Low	
Variety And Abundance Of Wildlife								
19 Native Animals	Low	Med	Med	High	High	High	High	High
20 TE&S Species	Med		High		High		High	
21 Wildlife Habitat	Med		Med		High		High	
22 Habitat Linkage	Med		High		High		High	
Other Special Features								
23 Other Special Features	High	Med	High	Med	High	High	Med	Med
24 Designated Special Area	Med		Low		High		Low	
Primitive And Unconfined Recreation								
Hiking Opportunities								
25 Trails	High	High	High	High	High	High	High	High
26 Terrain	Low		Med		Low		Low	
Backpacking								

	Big Creek #701		Buckhorn Ridge #661		Cabinet Face East #671		Cabinet Face West #670	
27 Trails	High	Med	High	High	High	High	High	High
28 Dispersed Camping	Med		High		High		High	
Saddle Stock								
29 Trails	Med	Med	High	High	High	High	High	High
30 Trailhead Facilities	Med		Med		High		Med	
Hunting Opportunities								
31 Big Game Populations	Med	Med	High	Med	High	High	Med	Med
32 Terrain	Low		Med		Med		Low	
Fishing Opportunities								
33 Game Fish Populations	High	Med	Low	Low	High	Med	Med	Low
34 Stream Variables	Med		Low		Med		Low	
Skiing And Snowshoeing								
35 Terrain	Low	Low	High	High	Med	Med	Low	Low
36 Area Access	Med		High		Med		Low	
Snowmobiling								
37 Terrain	High	High	Low	Low	High	High	High	High
38 Use Restrictions	High		Low		High		High	
Manageability – The Extent That Area Boundaries are Recognized								
39 Identifiable On Ground	Med	Med	Med	Med	Med	Med	High	High
40 Boundary Adjustment	High		Med		Med		Med	
Area Boundaries Promote Remoteness								
41 Area Access	Med	Med	High	High	High	High	High	High
42 Adjacent Disturbance	Med		Med		Med		Med	
43 Natural Process	Med		High		High		High	
Area Boundaries Are Manageable								
44 Adjacent Property	High	High	High	High	High	High	Med	Med
45 Inholdings	High		High		High		High	
Area Boundaries Constitute Barrier To Prohibited Use								
46 Topographic Feature	Med	Med	Low	Low	Med	Med	High	High
47 Human Improvement	Med		Low		Low		Med	
Capability Rating	Mod		High **		High		High	

Table 27. Area Capability Assessment for the KNF (Cataract Creek, Chippewa, Cube Iron, Devil's Gap)

		Cataract Creek #665	Chippewa #682	Cube Iron #784	Devil's Gap #698			
Environmental Elements								
Opportunity For Solitude								
1 Feeling Alone	Med	High	High	High	Med	High	High	High
2 Other Parties	High		High		High		High	
3 Recreation Use	High		High		High		High	

	Cataract Creek #665		Chippewa #682		Cube Iron #784		Devil's Gap #698	
Natural And Free From Disturbance								
4 Free Of Disturbance	High	Med	High	High	High	High	High	High
5 Visible Foreground	Med		High		Med		High	
6 Improvements	Med		High		High		High	
7 Noxious Weeds	Med		High		High		Med	
8 Water Quality	High		High		High		High	
Provides Challenge And Adventure								
9 Terrain	High	Med	High	High	Med	Med	High	High
10 Ability/Knowledge/Skill	Med		High		Med		High	
11 Non-hunting Outfitting	High		Med		High		Med	
Manageable								
12 Size And Shape	Med	Med	Low	High	Med	Med	High	High
13 Surrounding Area	Med		High		Med		Med	
14 Location	Med		High		Med		High	
Special Features								
Scientific, Educational, Or Historical Values								
15 Value Presence	Med	Med	Low	Low	Low	Low	Med	Med
16 Value Uniqueness	Low		Low		Low		Med	
Scenic Features								
17 Terrain Features	Low	Low	Low	Med	Low	Low	Med	Med
18 Water Features	Low		High		Low		Low	
Variety And Abundance Of Wildlife								
19 Native Animals	Med	High	High	High	Low	Low	Med	Med
20 TE&S Species	High		High ¹		Low		Med	
21 Wildlife Habitat	High		High		Low		Med	
22 Habitat Linkage	High		High		Low		Med	
Other Special Features								
23 Other Special Features	Med	Med	Low	Low	Low	Low	Med	Med
24 Designated Special Area	Med		Low		Low		Low	
Primitive And Unconfined Recreation								
Hiking Opportunities								
25 Trails	High	Med	Low	Low	Low	Low	Low	Low
26 Terrain	Low		Low		Low		Low	
Backpacking								
27 Trails	High	High	Low	Low	Low	Low	Low	Low
28 Dispersed Camping	High		Low		Low		Low	
Saddle Stock								
29 Trails	High	Med	Low	Low	Low	Low	Low	Low
30 Trailhead Facilities	Med		Med		Low		Low	
Hunting Opportunities								
31 Big Game Populations	Med	Med	Med	Med	Med	Low	Med	Med

	Cataract Creek #665		Chippewa #682		Cube Iron #784		Devil's Gap #698	
32 Terrain	Low		Med		Low		Low	
Fishing Opportunities								
33 Game Fish Populations	Med	Med	Low	Low	Low	Low	Low	Low
34 Stream Variables	Med		Low		Low		Low	
Skiing And Snowshoeing								
35 Terrain	Low	Low	Low	Low	Low	Low	Low	Low
36 Area Access	Low		Low		Low		Low	
Snowmobiling								
37 Terrain	High	High	High	High	High	Med	High	High
38 Use Restrictions	High		Low		Low		Low	
Manageability – The Extent That Area Boundaries are Recognized								
39 Identifiable On Ground	Med	Med	High	Med	Med	Med	High	High
40 Boundary Adjustment	Med		Med		Med		High	
Area Boundaries Promote Remoteness								
41 Area Access	Low	Med	High	High	High	High	Low	Med
42 Adjacent Disturbance	Med		Med		High		Med	
43 Natural Process	Med		High		High		Med	
Area Boundaries Are Manageable								
44 Adjacent Property	Med	Med	High	High	High	High	Med	Med
45 Inholdings	High		High		High		High	
Area Boundaries Constitute Barrier To Prohibited Use								
46 Topographic Feature	High	Med	High	High	Med	Low	High	High
47 Human Improvement	Med		Med		Low		High	
Capability Rating	Mod		High		Low **		Mod/High	

Table 28. Area Capability Assessment for the KNF (East Fork Elk, Flagstaff, Galena, Gold Hill)

		East Fork Elk #678		Flagstaff #690		Galena #677		Gold Hill #668	
Environmental Elements									
Opportunity For Solitude									
1 Feeling Alone	High	High	Med	High	High	High	High	High	
2 Other Parties	High		High		High				
3 Recreation Use	High		High		High				
Natural And Free From Disturbance									
4 Free Of Disturbance	Med	High	Med	Med	High	Med	High	Med	
5 Visible Foreground	High		Med		Med				
6 Improvements	High		High		Med				
7 Noxious Weeds	High		High		Med				
8 Water Quality	Med		High		Med				
Provides Challenge And Adventure									

	East Fork Elk #678		Flagstaff #690		Galena #677		Gold Hill #668	
9 Terrain	High	Med	High	Med	Med	Med	Med	Med
10 Ability/Knowledge/Skill	Med		Med		Med			
11 Non-hunting Outfitting	Med		Low		High			
Manageable								
12 Size And Shape	High	High	Med	Med	High	Med	Low	Low
13 Surrounding Area	High		Med		Med		High	
14 Location	High		Med		Med		Low	
Special Features								
Scientific, Educational, Or Historical Values								
15 Value Presence	Med	Med	High	High	Low	Low	Low	Low
16 Value Uniqueness	High		Med		Low		Low	
Scenic Features								
17 Terrain Features	Low	Low	Med	Med	Low	Low	Low	Low
18 Water Features	Med		Med		Low		Low	
Variety And Abundance Of Wildlife								
19 Native Animals	Med	Med	High	High	Med	Med	Med	Med
20 TE&S Species	Low		High		Med		Med	
21 Wildlife Habitat	Med		Med		High		Med	
22 Habitat Linkage	Low		High		High		Low	
Other Special Features								
23 Other Special Features	Low	Med	Med	Med	Low	Low	Low	Low
24 Designated Special Area	High		Med		Low		Low	
Primitive And Unconfined Recreation								
Hiking Opportunities								
25 Trails	Low	Low	Med	Med	High	High	High	Med
26 Terrain	Low		Med		Med		Low	
Backpacking								
27 Trails	Low	Low	Med	Med	High	High	Med	Med
28 Dispersed Camping	Med		Med		High		Low	
Saddle Stock								
29 Trails	Low	Low	Med	Med	High	High	Med	Med
30 Trailhead Facilities	Low		Med		High		Med	
Hunting Opportunities								
31 Big Game Populations	Med	Med	High	Med	High	Med	Med	Med
32 Terrain	Low		Med		Med		Low	
Fishing Opportunities								
33 Game Fish Populations	Med	Low	Med	Med	Low	Low	Low	Low
34 Stream Variables	Med		Med		Low		Med	
Skiing And Snowshoeing								
35 Terrain	Low	Low	Med	Med	Med	Med	Low	Low
36 Area Access	Low		Med		Med		Low	

	East Fork Elk #678		Flagstaff #690		Galena #677		Gold Hill #668	
Snowmobiling								
37 Terrain	High	High	High	High	High	Med	High	High
38 Use Restrictions	Low		High		Low		High	
Manageability – The Extent That Area Boundaries are Recognized								
39 Identifiable On Ground	Med	Med	Med	Med	Low	Low	Med	Med
40 Boundary Adjustment	Med		Med		Med		High	
Area Boundaries Promote Remoteness								
41 Area Access	High	Med	Med	Med	Low	Low	High	Med
42 Adjacent Disturbance	Med		Med		Low		Med	
43 Natural Process	Med		High		Med		Med	
Area Boundaries Are Manageable								
44 Adjacent Property	Med	Med	High	High	Med	Med	High	High
45 Inholdings	High		High		High		High	
Area Boundaries Constitute Barrier To Prohibited Use								
46 Topographic Feature	Med	Med	High	High	Med	Med	Med	Med
47 Human Improvement	Med		Med		Low		High	
Capability Rating	Mod		Mod		Mod		Low/Mod	

Table 29. Area Capability Assessment for the KNF (Gold Hill West, Government Mtn, Grizzly Peak, Huckleberry Mtn)

	Gold Hill West #176	Government Mtn #673	Grizzly Peak #667	Huckleberry Mtn #699				
Environmental Elements								
Opportunity For Solitude								
1 Feeling Alone	High	High	Med	Med	High	High	Med	High
2 Other Parties	High		High		High			
3 Recreation Use	High		High		High			
Natural And Free From Disturbance								
4 Free Of Disturbance	High	High	High	Med	High	High	High	Med
5 Visible Foreground	High		Med		Med			
6 Improvements	High		High		High			
7 Noxious Weeds	High		High		High			
8 Water Quality	Med		Med		High			
Provides Challenge And Adventure								
9 Terrain	Med	Med	High	Med	Med	Med	Med	Med
10 Ability/Knowledge/Skill	Med		Med		Med			
11 Non-hunting Outfitting	Low		Med		Low			
Manageable								
12 Size And Shape	High	Med	High	Med	Low	Med	Low	Med
13 Surrounding Area	Med		Med		Med			
14 Location	Low		Med		Med			

	Gold Hill West #176		Government Mtn #673		Grizzly Peak #667		Huckleberry Mtn #699	
Special Features								
Scientific, Educational, Or Historical Values								
15 Value Presence	Med	Med	Low	Low	Low	Low	Low	Low
16 Value Uniqueness	Low		Low		Low			
Scenic Features								
17 Terrain Features	Low	Low	Low	Low	Med	Med	Low	Low
18 Water Features	Med		Low		Low			
Variety And Abundance Of Wildlife								
19 Native Animals	High	High	Med	Med	Med	Med	Low	Med
20 TE&S Species	High		High ¹		Med		Med	
21 Wildlife Habitat	High		High		Med		Med	
22 Habitat Linkage	Med		Low		Med		Med	
Other Special Features								
23 Other Special Features	Med	Med	Low	Low	High	Med	Low	Low
24 Designated Special Area	Low		Med		Low			
Primitive And Unconfined Recreation								
Hiking Opportunities								
25 Trails	High	High	Low	Low	Med	Med	High	High
26 Terrain	Med		Low		Med		Med	
Backpacking								
27 Trails	High	Med	Low	Low	Med	Med	High	Med
28 Dispersed Camping	Med		Low		Med		Med	
Saddle Stock								
29 Trails	Med	Med	Low	Low	High	Med	Med	Med
30 Trailhead Facilities	Med		Low		Med		Med	
Hunting Opportunities								
31 Big Game Populations	High	Med	Med	Med	High	Med	High	Med
32 Terrain	Med		Med		Med		Med	
Fishing Opportunities								
33 Game Fish Populations	Med	Low	Low	Low	Low	Low	Low	Low
34 Stream Variables	Low		Low		Low		Low	
Skiing And Snowshoeing								
35 Terrain	Med	Med	Low	Low	Med	Med	Med	Med
36 Area Access	High		Low		Low		Med	
Snowmobiling								
37 Terrain	High	High	High	Med	High	High	Med	Med
38 Use Restrictions	High		Low		Low		Low	
Manageability – The Extent That Area Boundaries are Recognized								
39 Identifiable On Ground	Low	Low	Med	Med	Med	Med	Low	Low
40 Boundary Adjustment	Med		Med		Med		Med	
Area Boundaries Promote Remoteness								

	Gold Hill West #176		Government Mtn #673		Grizzly Peak #667		Huckleberry Mtn #699	
41 Area Access	Med	Med	High	Med	Med	Med	High	Med
42 Adjacent Disturbance	Med		Med		Med		Med	
43 Natural Process	High		High		High		High	
Area Boundaries Are Manageable								
44 Adjacent Property	High	High	Med	Med	High	High	Med	Med
45 Inholdings	High		High		High		High	
Area Boundaries Constitute Barrier To Prohibited Use								
46 Topographic Feature	High	High	Med	Med	Low	Low	Med	Med
47 Human Improvement	Med		Low		Low		Low	
Capability Rating	Mod		Low/Mod		Mod		Mod	

Table 30. Area Capability Assessment for the KNF (LeBeau, Lone Cliff Smeads, Lone Cliff West, Maple Peak)

	LeBeau #507		Lone Cliff Smeads #674		Lone Cliff West #674a		Maple Peak #141	
Environmental Elements								
Opportunity For Solitude								
1 Feeling Alone	High	High	Med	High	Med	Med	High	High
2 Other Parties	High		High		High			
3 Recreation Use	High		High		High			
Natural And Free From Disturbance								
4 Free Of Disturbance	Med	High	High	Med	High	High	Med	High
5 Visible Foreground	High		Med		High		High	
6 Improvements	High		High		High		High	
7 Noxious Weeds	High		Med		Med		High	
8 Water Quality	Med		Med		Med		Med	
Provides Challenge And Adventure								
9 Terrain	Med	Med	Med	Med	Med	Med	High	High
10 Ability/Knowledge/Skill	Med		Med		Med		Med	
11 Non-hunting Outfitting	Low		Med		Med		High	
Manageable								
12 Size And Shape	Low	Low	Low	Med	High	High	Med	Med
13 Surrounding Area	Med		Med		High		Med	
14 Location	Low		Med		High		Low	
Special Features								
Scientific, Educational, Or Historical Values								
15 Value Presence	Med	Med	Low	Low	Low	Low	Low	Low
16 Value Uniqueness	High		Low		Low		Low	
Scenic Features								
17 Terrain Features	Med	Med	Low	Low	Low	Low	Low	Low
18 Water Features	Med		Low		Low		Med	

	LeBeau #507		Lone Cliff Smeads #674		Lone Cliff West #674a		Maple Peak #141	
Variety And Abundance Of Wildlife								
19 Native Animals	Low	Low	Med	Med	Med	Med	Low	Low
20 TE&S Species	Low		Med		Low		Low	
21 Wildlife Habitat	Low		Med		Med		Med	
22 Habitat Linkage	Low		Low		Med		Low	
Other Special Features								
23 Other Special Features	Low	Low	Low	Low	Low	Low	Low	Low
24 Designated Special Area	Med		Low		Low		Low	
Primitive And Unconfined Recreation								
Hiking Opportunities								
25 Trails	Low	Low	High	Med	Low	Low	Med	Med
26 Terrain	High		Low		Med		Low	
Backpacking								
27 Trails	Low	Low	High	High	Low	Low	Med	Med
28 Dispersed Camping	Low		High		Low		Low	
Saddle Stock								
29 Trails	Low	Low	Med	Med	Low	Low	Low	Low
30 Trailhead Facilities	Low		Med		Low		Low	
Hunting Opportunities								
31 Big Game Populations	High	High	High	Med	High	Med	Low	Low
32 Terrain	High		Med		Med		Low	
Fishing Opportunities								
33 Game Fish Populations	Low	Low	Low	Low	Low	Low	Low	Low
34 Stream Variables	Low		Low		Low		Low	
Skiing And Snowshoeing								
35 Terrain	High	Med	Low	Low	Med	Med	Low	Low
36 Area Access	Med		Med		Med		Low	
Snowmobiling								
37 Terrain	Low	Low	High	Med	Med	Med	High	Med
38 Use Restrictions	Low		Low		Low		Low	
Manageability – The Extent That Area Boundaries are Recognized								
39 Identifiable On Ground	Low	Low	Low	Low	High	High	Low	Low
40 Boundary Adjustment	Med		Med		High		Low	
Area Boundaries Promote Remoteness								
41 Area Access	Med	Med	Low	Low	Med	Med	Med	Med
42 Adjacent Disturbance	Med		Low		Med		Med	
43 Natural Process	Med		Med		Med		Med	
Area Boundaries Are Manageable								
44 Adjacent Property	High	High	Med	Med	Med	Med	Med	Med
45 Inholdings	High		High		High		High	
Area Boundaries Constitute Barrier To Prohibited Use								

	LeBeau #507		Lone Cliff Smeads #674		Lone Cliff West #674a		Maple Peak #141	
46 Topographic Feature	Med	Med	Med	Med	Low	Low	Med	Med
47 Human Improvement	High		Low		Low		High	
Capability Rating	Low**		Low		Low/Mod		Low**	

Table 31. Area Capability Assessment for the KNF (Marston Face, McKay Creek, McNeeley, Mt Henry)

	Marston Face #172		McKay Creek #676		McNeeley #675		Mt Henry #666	
Environmental Elements								
Opportunity For Solitude								
1 Feeling Alone	High	High	High	Med	High	High	Med	High
2 Other Parties	High		Med		High		High	
3 Recreation Use	Med		Med		High		High	
Natural And Free From Disturbance								
4 Free Of Disturbance	Med	Med	High	Med	High	High	High	Med
5 Visible Foreground	Low		Med		Med		Low	
6 Improvements	Med		Med		High		Med	
7 Noxious Weeds	Med		Med		High		Med	
8 Water Quality	Med		High		Med		High	
Provides Challenge And Adventure								
9 Terrain	High	High	Med	Med	Med	Med	Med	Med
10 Ability/Knowledge/Skill	Med		Med		Med		Med	
11 Non-hunting Outfitting	High		High		Med		High	
Manageable								
12 Size And Shape	Low	High	Low	Med	Low	Med	Med	Med
13 Surrounding Area	High		Med		Med		Med	
14 Location	High		High		Med		Low	
Special Features								
Scientific, Educational, Or Historical Values								
15 Value Presence	Med	Med	Med	Med	Low	Low	Med	Low
16 Value Uniqueness	Low		Low		Low		Low	
Scenic Features								
17 Terrain Features	Med	Med	Med	Med	Low	Low	High	Med
18 Water Features	Low		Med		Low		Med	
Variety And Abundance Of Wildlife								
19 Native Animals	Med	Med	Med	High	Med	Med	Med	Med
20 TE&S Species	Med		High		Med		Med	
21 Wildlife Habitat	Med		High		Med		High	
22 Habitat Linkage	Med		High		Med		Med	
Other Special Features								
23 Other Special Features	Low	Low	Med	Med	Low	Low	Med	Med

	Marston Face #172		McKay Creek #676		McNeeley #675		Mt Henry #666	
24 Designated Special Area	Low		Low		Low		Low	
Primitive And Unconfined Recreation								
Hiking Opportunities								
25 Trails	High	High	High	High	Low	Low	High	High
26 Terrain	Low		Med		Med		Med	
Backpacking								
27 Trails	High	Med	High	High	Low	Low	High	High
28 Dispersed Camping	Low		High		Low		High	
Saddle Stock								
29 Trails	Med	Med	High	High	Low	Low	High	Med
30 Trailhead Facilities	Med		Med		Low		Med	
Hunting Opportunities								
31 Big Game Populations	High	Med	High	Med	Med	Med	Med	Med
32 Terrain	Med		Med		Med		Med	
Fishing Opportunities								
33 Game Fish Populations	Low	Low	Med	Med	Low	Low	Med	Med
34 Stream Variables	Low		Med		Med		Low	
Skiing And Snowshoeing								
35 Terrain	Low	Low	Med	Med	Med	Med	Med	Med
36 Area Access	Med		Med		Med		Med	
Snowmobiling								
37 Terrain	High	Med	Med	Med	High	Med	Med	Med
38 Use Restrictions	Low		Med		Low		Low	
Manageability – The Extent That Area Boundaries are Recognized								
39 Identifiable On Ground	Low	Low	Med	Med	Med	Med	Med	Med
40 Boundary Adjustment	Med		Med		Med		Med	
Area Boundaries Promote Remoteness								
41 Area Access	Med	Med	Med	Med	Med	Low	Med	Med
42 Adjacent Disturbance	Med		Med		Low		Med	
43 Natural Process	Med		High		Med		Med	
Area Boundaries Are Manageable								
44 Adjacent Property	Med	Med	Med	Med	High	High	Med	Med
45 Inholdings	High		High		High		High	
Area Boundaries Constitute Barrier To Prohibited Use								
46 Topographic Feature	Med	Med	Med	Med	Med	Med	Med	Med
47 Human Improvement	Low		Med		Low		Low	
Capability Rating	Mod		Mod/High		Low		Mod	

Table 32. Area Capability Assessment for the KNF (Northwest Peaks, Roberts, Robinson Mtn, Rock Creek)

	Northwest Peaks #663		Roberts #691		Robinson Mtn #164		Rock Creek #693	
Environmental Elements								
Opportunity For Solitude								
1 Feeling Alone	High	High	Med	High	High	High	High	High
2 Other Parties	High		High		High			
3 Recreation Use	High		High		Med			
Natural And Free From Disturbance								
4 Free Of Disturbance	High	High	Med	High	High	Med	High	High
5 Visible Foreground	High		High		Med			
6 Improvements	High		High		Med			
7 Noxious Weeds	High		High		High			
8 Water Quality	High		Med		Med			
Provides Challenge And Adventure								
9 Terrain	High	High	Med	Med	High	Med	High	High
10 Ability/Knowledge/Skill	High		Med		Med			
11 Non-hunting Outfitting	Med		Low		Med			
Manageable								
12 Size And Shape	Med	High	High	High	Med	Med	Low	High
13 Surrounding Area	High		Med		High			
14 Location	High		High		Low			
Special Features								
Scientific, Educational, Or Historical Values								
15 Value Presence	High	High	Low	Low	High	Med	Low	Low
16 Value Uniqueness	High		Low		Low			
Scenic Features								
17 Terrain Features	High	High	Low	Low	High	High	Low	Low
18 Water Features	High		Low		High			
Variety And Abundance Of Wildlife								
19 Native Animals	High	High	Med	Med	Med	Med	Low	Med
20 TE&S Species	High		High ¹		Med			
21 Wildlife Habitat	High		Med		High			
22 Habitat Linkage	High		Med		Med			
Other Special Features								
23 Other Special Features	High	High	Low	Low	Med	Med	Med	Med
24 Designated Special Area	High		Low		Low			
Primitive And Unconfined Recreation								
Hiking Opportunities								
25 Trails	High	High	Med	Med	High	High	Low	Low
26 Terrain	Med		Low		Med			
Backpacking								

	Northwest Peaks #663		Roberts #691		Robinson Mtn #164		Rock Creek #693	
27 Trails	High	High	Med	Med	High	High	Low	Low
28 Dispersed Camping	High		Low		High		Low	
Saddle Stock								
29 Trails	High	High	Low	Low	Med	Med	Low	Low
30 Trailhead Facilities	Med		Low		Med		Med	
Hunting Opportunities								
31 Big Game Populations	High	Med	Med	Med	Med	Med	Med	Low
32 Terrain	Med		Low		Low		Low	
Fishing Opportunities								
33 Game Fish Populations	High	High	Low	Low	Low	Low	Med	Med
34 Stream Variables	Med		Low		Low		Med	
Skiing And Snowshoeing								
35 Terrain	Med	Med	Low	Low	Low	Low	Low	Low
36 Area Access	High		Low		Low		Med	
Snowmobiling								
37 Terrain	Low	Low ²	High	High	High	High	High	High
38 Use Restrictions	Low		High		High		High	
Manageability – The Extent That Area Boundaries are Recognized								
39 Identifiable On Ground	Med	Med	Med	Med	Med	Med	High	High
40 Boundary Adjustment	Med		Low		High		High	
Area Boundaries Promote Remoteness								
41 Area Access	High	High	Med	High	High	High	High	High
42 Adjacent Disturbance	High		High		Med		High	
43 Natural Process	High		High		High		High	
Area Boundaries Are Manageable								
44 Adjacent Property	High	High	High	High	Med	Med	Med	Med
45 Inholdings	High		High		High		High	
Area Boundaries Constitute Barrier To Prohibited Use								
46 Topographic Feature	High	Med	Med	Med	High	High	High	High
47 Human Improvement	Low		Low		Med		Med	
Capability Rating	High **		Mod		Mod		High	

Table 33. Area Capability Assessment for the KNF (Roderick, Saddle Mtn, Scotchman Peaks, Ten Lakes)

	Roderick #684		Saddle Mtn #168		Scotchman Peaks #662		Ten Lakes #683	
Environmental Elements								
Opportunity For Solitude								
1 Feeling Alone	High	High	High	High	High	High	High	Med
2 Other Parties	High		High		High		Med	
3 Recreation Use	High		High		High		Low	

		Roderick #684		Saddle Mtn #168		Scotchman Peaks #662		Ten Lakes #683
Natural And Free From Disturbance								
4 Free Of Disturbance	High	High	High	M/H	High	M/H	Med	Med
5 Visible Foreground	High		Med		Med		Low	
6 Improvements	High		High		Med		Med	
7 Noxious Weeds	High		High		High		Med	
8 Water Quality	Med		Med		High		High	
Provides Challenge And Adventure								
9 Terrain	High	Med	High	High	High	High	High	Med
10 Ability/Knowledge/Skill	Med		High		High		Med	
11 Non-hunting Outfitting	Low		Low		Med		Low	
Manageable								
12 Size And Shape	High	High	Med	Med	High	High	Med	Med
13 Surrounding Area	High		Med		High		Med	
14 Location	High		High		Med		Low	
Special Features								
Scientific, Educational, Or Historical Values								
15 Value Presence	Med	Med	Low	Low	Med	Med	High	High
16 Value Uniqueness	Med		Low		Med		Med	
Scenic Features								
17 Terrain Features	High	High	Med	Med	High	High	High	High
18 Water Features	Med		Med		High		High	
Variety And Abundance Of Wildlife								
19 Native Animals	High	High	Med	Med	High	High	High	High
20 TE&S Species	High		Med		High		High	
21 Wildlife Habitat	High		Med		High		High	
22 Habitat Linkage	High		High		High		High	
Other Special Features								
23 Other Special Features	High	Med	High	Med	High	High	High	High
24 Designated Special Area	Low		Low		High		High	
Primitive And Unconfined Recreation								
Hiking Opportunities								
25 Trails	High	High	High	High	High	High	High	High
26 Terrain	Med		Med		Med		Low	
Backpacking								
27 Trails	High	High	High	High	High	High	High	High
28 Dispersed Camping	High		High		High		High	
Saddle Stock								
29 Trails	High	High	High	High	High	High	Med	High
30 Trailhead Facilities	Med		Med		Med		High	
Hunting Opportunities								
31 Big Game Populations	High	High	Med	Med	High	Med	High	Med

	Roderick #684		Saddle Mtn #168		Scotchman Peaks #662		Ten Lakes #683	
32 Terrain	Med		Med		Med		Med	
Fishing Opportunities								
33 Game Fish Populations	Low	Low	Low	Low	Low	Low	High	Med
34 Stream Variables	Low		Low		Low		Med	
Skiing And Snowshoeing								
35 Terrain	Med	Med	Low	Low	Low	Med	Low	Med
36 Area Access	Med		Low		High		High	
Snowmobiling								
37 Terrain	Med	Med	High	High	Med ²	Med/High	Med	Med
38 Use Restrictions	Low		Low		High		Low	
Manageability – The Extent That Area Boundaries are Recognized								
39 Identifiable On Ground	High	High	Low	Low	Med	Med	Low	Low
40 Boundary Adjustment	Med		Med		Med		Med	
Area Boundaries Promote Remoteness								
41 Area Access	Med	High	High	High	Med	Med	Med	Med
42 Adjacent Disturbance	High		High		Med		Med	
43 Natural Process	High		High		High		High	
Area Boundaries Are Manageable								
44 Adjacent Property	High	High	Med	Med	Med	Med	Med	Med
45 Inholdings	High		High		High		Med	
Area Boundaries Constitute Barrier To Prohibited Use								
46 Topographic Feature	Med	Med	High	Med	Med	Med	Med	Low
47 Human Improvement	Low		Low		Med		Low	
Capability Rating	High		Mod/High		High **		Mod/High	

Table 34. Area Capability Assessment for the KNF (Thompson Seton, Trout Creek, Tuchuck, West Fork Elk)

	Thompson Seton #483	Trout Creek #664	Tuchuck #482	West Fork Elk #692				
Environmental Elements								
Opportunity For Solitude								
1 Feeling Alone	High	High	High	High	High	High	High	High
2 Other Parties	High		High		High		High	
3 Recreation Use	High		Med		High		High	
Natural And Free From Disturbance								
4 Free Of Disturbance	Med	Med	High	Med	High	High	High	High
5 Visible Foreground	Low		High		Low		High	
6 Improvements	Med		Med		High		High	
7 Noxious Weeds	Med		Med		High		High	
8 Water Quality	Med		High		Med		Med	
Provides Challenge And Adventure								

	Thompson Seton #483		Trout Creek #664		Tuchuck #482		West Fork Elk #692	
9 Terrain	High	High	Med	Med	Med	Med	High	High
10 Ability/Knowledge/Skill	High		Med		Med		High	
11 Non-hunting Outfitting	High		High		Low		Med	
Manageable								
12 Size And Shape	Med	High	Med	High	Med	High	Low	Med
13 Surrounding Area	High		High		High		Med	
14 Location	High		Med		High		Med	
Special Features								
Scientific, Educational, Or Historical Values								
15 Value Presence	Med	Med	Low	Low	Med	Low	Low	Low
16 Value Uniqueness	Med ²		Low		Low		Low	
Scenic Features								
17 Terrain Features	High	High	Low	Low	Med	Med	Low	Low
18 Water Features	High		Med		Low		Low	
Variety And Abundance Of Wildlife								
19 Native Animals	Med	Med	Med	Med	Med	Med	Low	Low
20 TE&S Species	Med		Med		Med		Low	
21 Wildlife Habitat	Med		Med		Med		Low	
22 Habitat Linkage	Med		Med		High		Med	
Other Special Features								
23 Other Special Features	Low	Low	Low	Med	Low	Low	Low	Low
24 Designated Special Area	Low		High		Low		Low	
Primitive And Unconfined Recreation								
Hiking Opportunities								
25 Trails	High	High	High	High	Low	Low	Low	Low
26 Terrain	Med ²		Med		Low		Low	
Backpacking								
27 Trails	High	Med	High	High	Low	Low	Low	Low
28 Dispersed Camping	Med		High		Low		Low	
Saddle Stock								
29 Trails	Med	Med	High	Med	Low	Low	Low	Low
30 Trailhead Facilities	Med		Med		Low		Low	
Hunting Opportunities								
31 Big Game Populations	Med ²	Med	Med	Med	Med	Low	Med	Med
32 Terrain	Low		Med		Low		Med	
Fishing Opportunities								
33 Game Fish Populations	Med ²	Low	High	Med	Low	Low	Low	Low
34 Stream Variables	Low		Med		Low		Low	
Skiing And Snowshoeing								
35 Terrain	Low	Low	Med	Med	Low	Low	Low	Low
36 Area Access	Med		Med		Med		Med	

		Thompson Seton #483		Trout Creek #664		Tuchuck #482		West Fork Elk #692
Snowmobiling								
37 Terrain	Low ²	Low	Med	High	High	Med	High	High
38 Use Restrictions	Low		High		Low		High	
Manageability – The Extent That Area Boundaries are Recognized								
39 Identifiable On Ground	Low	Low	Med	Med	Low	Med	Med	Med
40 Boundary Adjustment	Med		Med		Med		High	
Area Boundaries Promote Remoteness								
41 Area Access	Med	Med	Med	High	High	High	Med	Med
42 Adjacent Disturbance	Med		High		High		Med	
43 Natural Process	High		High		High		Med	
Area Boundaries Are Manageable								
44 Adjacent Property	Med	Med	Med	Med	High	High	Med	Med
45 Inholdings	High		High		High		High	
Area Boundaries Constitute Barrier To Prohibited Use								
46 Topographic Feature	Med	Med	Med	Med	High	High	Med	Med
47 Human Improvement	Low		Low		Med		Low	
Capability Rating	Mod		Mod **		Mod		Low	

Table 35. Area Capability Assessment for the KNF (West Fork Yaak, Willard Estelle, Zulu)

	West Fork Yaak #694	Willard Estelle #173	Zulu #166				
Environmental Elements							
Opportunity For Solitude							
1 Feeling Alone	Med	High	High	High	High	High	
2 Other Parties	High		High		High		
3 Recreation Use	High		Med		High		
Natural And Free From Disturbance							
4 Free Of Disturbance	High	Med	Med	M/H	Med	High	
5 Visible Foreground	Med		Med		High		
6 Improvements	Med		Med		High		
7 Noxious Weeds	Med		Med		High		
8 Water Quality	Med		Med		High		
Provides Challenge And Adventure							
9 Terrain	Low	Low	High	High	High	High	
10 Ability/Knowledge/Skill	Low		High		High		
11 Non-hunting Outfitting	Low		Low		Low		
Manageable							
12 Size And Shape	Med	Med	Med	Med	Med	Med	
13 Surrounding Area	Med		Med		Med		
14 Location	Low		High		High		

	West Fork Yaak #694		Willard Estelle #173		Zulu #166		
Special Features							
Scientific, Educational, Or Historical Values							
15 Value Presence	Med	Low	High	Med	Low	Low	
16 Value Uniqueness	Low		Med		Low		
Scenic Features							
17 Terrain Features	Low	Low	Med	High	Med	Med	
18 Water Features	Low		M-H		Med		
Variety And Abundance Of Wildlife							
19 Native Animals	Med	Med	High	High	Med	Med	
20 TE&S Species	High ¹		High		Med		
21 Wildlife Habitat	Med		High		Med		
22 Habitat Linkage	High		High		Med		
Other Special Features							
23 Other Special Features	Low	Med	Med	Med	Low	Low	
24 Designated Special Area	Med		Low		Low		
Primitive And Unconfined Recreation							
Hiking Opportunities							
25 Trails	High	High	High	High	High	High	
26 Terrain	Med		Low		Med		
Backpacking							
27 Trails	High	High	High	High	High	High	
28 Dispersed Camping	High		High		High		
Saddle Stock							
29 Trails	High	Med	High	High	High	High	
30 Trailhead Facilities	Med		Med		Med		
Hunting Opportunities							
31 Big Game Populations	Med	Med	High	High	Med	Med	
32 Terrain	Med		Med		Med		
Fishing Opportunities							
33 Game Fish Populations	High	Med	Low	Low	High	Low	
34 Stream Variables	Med		Low		Low		
Skiing And Snowshoeing							
35 Terrain	Low	Med	Low	Low	Med	Med	
36 Area Access	Med		Low		Low		
Snowmobiling							
37 Terrain	Med	Med	Med	High	Med	Low	
38 Use Restrictions	Low		H-L		Low		
Manageability – The Extent That Area Boundaries are Recognized							
39 Identifiable On Ground	Low	Low	Low	Med	Low	Low	
40 Boundary Adjustment	Low		Med		Med		
Area Boundaries Promote Remoteness							

	West Fork Yaak #694		Willard Estelle #173		Zulu #166		
41 Area Access	High	Med	High	High	High	Med	
42 Adjacent Disturbance	Med		High		Med		
43 Natural Process	Med		High		Med		
Area Boundaries Are Manageable							
44 Adjacent Property	High	High	Med	Med	High	High	
45 Inholdings	High		Med		High		
Area Boundaries Constitute Barrier To Prohibited Use							
46 Topographic Feature	Med	Med	High	Med	Med	Med	
47 Human Improvement	Low		Low		Low		
Capability Rating	Mod/Low		High **		Mod		

¹ Changes in element #20 TE&S species, based on (USFWS) 2011 report on grizzly research for the Cabinet-Yaak Ecosystem (CYE)

² Changes in element rating based on public comment and review by resource specialist

Changes made between the DEIS and FEIS are noted with footnotes in the capability evaluation table. While there were changes in individual element ratings, these changes did not result in a change in the overall rating for any IRAs. The changes that were made were based on public comment or updated information, and reviewed by district specialist.

**** Capability Rating Notes for the KNF:**

- Buckhorn Ridge 661: Capability rating for this area reflects the evaluation completed by the IPNF.
- Cube Iron 784: Capability rating for this area reflects the evaluation completed by the Lolo National Forest.
- LeBeau 507: Capability rating for this area reflects the evaluation completed by the Flathead National Forest.
- Maple Peak 141: Capability rating for this area reflects the evaluation completed by the Lolo and IPNF.
- Northwest Peaks 663: Capability rating for this area reflects the evaluation completed by the IPNF.
- Scotchman Peaks 662: Capability rating for this area reflects the evaluation completed by the IPNF.
- Trout Creek 664: Capability rating for this area reflects the evaluation completed by the IPNF.
- Willard-Estelle 173: Capability rating for this area reflects the evaluation completed by the IPNF.

Availability Process

While capability evaluates the wilderness characteristics of an area, availability considers other resources. The determination of availability is conditioned by the value of and need for the wilderness resource compared to the value of and need for other resources. Other resource demands and uses were evaluated. Constraints and encumbrances were also reviewed to determine the degree of Forest Service control over the surface and subsurface area.

Direction from FSH 1909.12, Chapter 70 and internal and external comments were used to identify other resources for evaluation and establish the rating process. Eight resource categories were identified by the Forest wilderness program manager. The manager selected resource specialists from the Forest to rate the resource categories using a high, moderate, or low rating system. Specialists included recreation managers, wildlife and fishery biologists, hydrologists, ecologists, geologists, fuels and wildfire specialists, land specialists (special use permits), and silviculturists.

Individual district and forest specialists' ratings are determined for each area. An overall availability rating was then determined by the Forest wilderness program manager.

Table 36 lists the eight resource categories evaluated and the rating scale used. The availability of an area for potential wilderness designation is the opposite of the rating for other resource requirements. For example, a rating of high mineral value will mean a low rating for availability.

Table 36. Area Availability Resource Assessment

Resources
1. Areas that are of high value for water yield or on-site storage and where installation and maintenance of improvements may be required.
2. Areas needing management for wildlife or aquatic animals that MIGHT conflict with wilderness management.
3. Areas needing active aquatic restoration activities.
4. Areas needing active vegetative restoration activity due to specific species survival, or identifiable fuel reduction activity to reduce the risk of catastrophic wildfire, or known areas of severe insect infestation that will lead to heavy tree mortality.
5. Areas of high value mineral deposits of economic or strategic importance.
6. Areas having such unique characteristics or natural phenomena that general public access should be developed to facilitate public use and enjoyment including winter sports sites.
7. Lands committed through contracts, permits, or agreements that would be in conflict with wilderness management (some minor permitted uses may still be allowed.)
8. Forest Service does not have sufficient control to prevent development or irresolvable, incompatible uses that would lessen wilderness character and potential.
Rating
HIGH = Areas having evidence and a high priority need for treatment in the resource category. Availability would equate to Low.
MODERATE = Areas having a need for treatment in the resource category. Availability would equate to Moderate.
LOW = Areas have no to little need of treatments in the resource category. Availability would equate to High.

Availability Results for the KNF

The results of the availability assessment for the KNF are displayed in table 37 through table 47.

Table 37. Area Availability Resource Assessment for the KNF (Alexander, Allen Peak, Barren Pk, Berray Mtn)

Wilderness Evaluation – Availability	Alexander #696	Allen Peak #185	Barren Pk #183	Berray Mtn #672
1. Areas that are of high value for water yield or on-site storage and where installation and maintenance of improvements may be required.	Low	Low	Low	Low
2. Areas needing management for wildlife or aquatic animals that might conflict with wilderness management.	Low	Low – SO Mod – D7	Low	High – Fish Mod – Wildlife
3. Area needing active aquatic restoration activities.	Low	Low	Low	Mod – SO Low – D7/SO
4. Area needing active vegetative restoration activity due to specific species survival, or fuel reduction activity to reduce risk of catastrophic wildfire, or severe insect infestation that will lead to heavy mortality.	High	Low	Low	High – D7 Mod – SO
5. Area of high value mineral deposits of economic or strategic importance.	Low	Low	Mod	Low
6. Area having unique characteristics or natural phenomena that public access should be developed to facilitate public use and enjoyment.	Low	Low	Low	Mod
7. Land committed through contracts, permits, or agreements that would be in conflict with wilderness management.	Low	Low	Low Mod (mining)	Low
8. Forest Service does not have sufficient control to prevent irresolvable, incompatible uses that would lessen wilderness character and potential.	Low	Low	Low	Low (Mod adjacent to private)
Availability Rating	Mod	High	Mod	Mod
Other Resource Needs: Alexander #696: 4. Low elevation; warm, dry veg type needs mechanical treatment &/or prescribed fire. Allen Peak #185: none Barren Peak #183: 7. Patented mining claims. Berray Mtn #672: 2. North end – fish restoration needs; sheep management needs. 4. Low elevation; warm, dry veg type needs mechanical treatment &/or prescribed fire. 8. Some private land adjacent to boundary.				

Table 38. Area Availability Resource Assessment for the KNF (Big Creek, Buckhorn Ridge, Cabinet Face East, Cabinet Face West)

Wilderness Evaluation - Availability	Big Creek #701	Buckhorn Ridge #661	Cabinet Face East #671	Cabinet Face West #670
1. Areas that are of high value for water yield or on-site storage and where installation and maintenance of improvements may be required.	Low	Low	Low	Low
2. Areas needing management for wildlife or aquatic animals that might conflict with wilderness management.	Mod	Low	Low	Low

Wilderness Evaluation - Availability	Big Creek #701	Buckhorn Ridge #661	Cabinet Face East #671	Cabinet Face West #670
3. Area needing active aquatic restoration activities.	Mod	Low	Low	Low
4. Area needing active vegetative restoration activity due to specific species survival, or fuel reduction activity to reduce risk of catastrophic wildfire, or severe insect infestation that will lead to heavy mortality.	High – D1 Low - SO	Low	Low	Low/Mod – D4 & D7 Low - SO
5. Area of high value mineral deposits of economic or strategic importance.	Low	Low	High	Low
6. Area having unique characteristics or natural phenomena that public access should be developed to facilitate public use and enjoyment.	Low/Mod	Low/Mod	Mod	Low
7. Land committed through contracts, permits, or agreements that would be in conflict with wilderness management.	Low	Low	High (mining)	Low Mod (mining)
8. Forest Service does not have sufficient control to prevent irresolvable, incompatible uses that would lessen wilderness character and potential.	Low	Low	High	Low
Availability Rating	Mod	High	N – High S - Low	High
<p>Other Resource Needs:</p> <p>Big Creek #701: 2. Existing structures to maintain. 4. High fuel loading (mountain pine beetle mortality) and high ladder fuel from suppression. 5. Existing rec use on road, numerous dispersed sites along Big Creek, Big Creek cabin.</p> <p>Buckhorn Ridge #661: 6. Very popular snowmobiling area – heaviest use Spread Creek south to Keno Mountain.</p> <p>Cabinet Face East #671: 5. High mineral deposits. 7. South end has numerous patented claims, including one Plan of Operation. 8. Southern half has in holdings (patented claims).</p> <p>Cabinet Face West #670: 4. Wildland interface fuel issue along private boundary and DF bark beetle presence. 7. Potential for mining claims.</p>				

Table 39. Area Availability Resource Assessment for the KNF (Cataract Cr, Chippewa, Cube Iron, Devil's Gap)

Wilderness Evaluation – Availability	Cataract Cr #665	Chippewa #682	Cube Iron #784	Devil's Gap #698
1. Areas that are of high value for water yield or on-site storage and where installation and maintenance of improvements may be required.	Low	Low	Low	Low
2. Areas needing management for wildlife or aquatic animals that might conflict with wilderness management.	Low – Fish Mod – Wildlife	Low	Low	Low – Fish Mod – Wildlife
3. Area needing active aquatic restoration activities.	Low	Low	Low	Mod – D7 Low – SO
4. Area needing active vegetative restoration activity due to specific species survival, or fuel reduction activity to reduce risk of catastrophic wildfire, or severe insect infestation that will	High	Low/Mod – D7 Low – SO	Mod – SO Low – D7	Mod/High – D7 Mod – SO

Wilderness Evaluation – Availability	Cataract Cr #665	Chippewa #682	Cube Iron #784	Devil's Gap #698
lead to heavy mortality.				
5. Area of high value mineral deposits of economic or strategic importance.	High	Low	Low	Low
6. Area having unique characteristics or natural phenomena that public access should be developed to facilitate public use and enjoyment.	Mod	Low	Low	Low
7. Land committed through contracts, permits, or agreements that would be in conflict with wilderness management.	Low Mod (mining)	Low	Low	Low
8. Forest Service does not have sufficient control to prevent irresolvable, incompatible uses that would lessen wilderness character and potential.	Mod	Low	Low	Low
Availability Rating	Low	High	High	High
<p>Other Resource Needs:</p> <p>Cataract Cr #665: 2. Winter wildlife range. 4. Whitebark pine restoration needs; some warm, dry veg types need mechanical &/or prescribed fire. 5. High value mineral deposits. 7. Potential for mining claims. 8. Med along private boundary</p> <p>Chippewa #682: 4. Projected DF Bark Beetle</p> <p>Cube Iron #784: 4. Whitebark pine restoration.</p> <p>Devils Gap #698: 2. Wildlife winter range. 4. Warm, dry veg type needing mechanical and/or fire; expected DF bark beetle infestation.</p>				

Table 40. Area Availability Resource Assessment for the KNF (East Fork Elk, Flagstaff, Galena, Gold Hill)

Wilderness Evaluation - Availability	East Fork Elk #678	Flagstaff #690	Galena #677	Gold Hill #668
1. Areas that are of high value for water yield or on-site storage and where installation and maintenance of improvements may be required.	Low	Low	Low	Low
2. Areas needing management for wildlife or aquatic animals that might conflict with wilderness management.	Low	Low	Low – Fish Mod - Wildlife	Low – Fish Mod - Wildlife
3. Area needing active aquatic restoration activities.	Low	Low	Low	Low
4. Area needing active vegetative restoration activity due to specific species survival, or fuel reduction activity to reduce risk of catastrophic wildfire, or severe insect infestation that will lead to heavy mortality.	High – D7 Low – SO	High	High – SO Low/Mod – D7	High/Mod – D1 Low - SO
5. Area of high value mineral deposits of economic or strategic importance.	Low	Low	Low	Low
6. Area having unique characteristics or natural phenomena that public access should be developed to facilitate public use and enjoyment.	Low	Low	Low	Low
7. Land committed through contracts, permits, or agreements that would be in conflict with wilderness management.	Low	Low	Low Mod (mining)	Low
8. Forest Service does not have sufficient control	Low	Low	Low (Mod	Low

Wilderness Evaluation - Availability	East Fork Elk #678	Flagstaff #690	Galena #677	Gold Hill #668
to prevent irresolvable, incompatible uses that would lessen wilderness character and potential.			adjacent to private)	
Availability Rating	Mod	Mod	Mod	Mod
Other Resource Needs: East Fork Elk #678: 4. Infestation of DF bark beetle with high mortality. Flagstaff #690: 4. Whitebark pine restoration; warm, dry veg type needs mechanical treatment &/or prescribed fire. Galena #677: 4. Whitebark pine restoration; warm, dry veg type needs mechanical treatment &/or prescribed fire; identified DF bark beetle infestation. 7. Potential for mining claims. 8. Med adjacent to private boundary Gold Hill #668: 2. Mitigation to BPA elk/mule deer habitat restoration. 4. High ground fuels due to Mountain pine beetle mortality; excessive ladder fuels due to fire suppression				

Table 41. Area Availability Resource Assessment for the KNF (Gold Hill West, Government Mtn, Grizzly Peak, Huckleberry Mtn)

Wilderness Evaluation – Availability	Gold Hill West #176	Government Mtn #673	Grizzly Peak #667	Huckleberry Mtn #699
1. Areas that are of high value for water yield or on-site storage and where installation and maintenance of improvements may be required.	Low	Low	Low	Low
2. Areas needing management for wildlife or aquatic animals that might conflict with wilderness management.	Low – Fish Low/Mod – Wildlife	Low	Low	Low – Fish Mod – Wildlife
3. Area needing active aquatic restoration activities.	Low	Low	Low	Low
4. Area needing active vegetative restoration activity due to specific species survival, or fuel reduction activity to reduce risk of catastrophic wildfire, or severe insect infestation that will lead to heavy mortality.	High – D1 Low – SO	Low/Mod – D7 Low – SO	Low	High – D7 Mod – SO
5. Area of high value mineral deposits of economic or strategic importance.	Low	High	Low	Low
6. Area having unique characteristics or natural phenomena that public access should be developed to facilitate public use and enjoyment.	Low	Low	Low	Low
7. Land committed through contracts, permits, or agreements that would be in conflict with wilderness management.	Low	Low Mod (mining)	Low	Low
8. Forest Service does not have sufficient control to prevent irresolvable, incompatible uses that would lessen wilderness character and potential.	Low	Low (Mod adjacent to private)	Low	Low (Mod adjacent to private)
Availability Rating	High	Mod	High	Mod

Wilderness Evaluation – Availability	Gold Hill West #176	Government Mtn #673	Grizzly Peak #667	Huckleberry Mtn #699
<p>Other Resource Needs:</p> <p>Gold Hill West #176: 2. Huckleberry production for G Bear treatments. 4. High ground and ladder fuels pose high risk for WL</p> <p>Government Mtn #673: 4. DF bark beetle (need helicopter removal). 5. High value mineral deposit. 7. Potential for mining claims. 8. Med along private boundary</p> <p>Grizzly Peak #667: none</p> <p>Huckleberry Mtn #699: 4. Known DF bark beetle infestation with heavy mortality; some warm, dry veg types requiring mechanical treatment &/or prescribed fire. 8. Med adjacent to private boundary</p>				

Table 42. Area Availability Resource Assessment for the KNF (LeBeau, Lone Cliff Smeads, Lone Cliff West, Maple Peak)

Wilderness Evaluation - Availability	LeBeau #507	Lone Cliff Smeads #674	Lone Cliff West #674a	Maple Peak #141
1. Areas that are of high value for water yield or on-site storage and where installation and maintenance of improvements may be required.	Low	Low	Low	Low
2. Areas needing management for wildlife or aquatic animals that might conflict with wilderness management.	Low	Low – Fish High - Wildlife	Low – Fish High - Wildlife	Low
3. Area needing active aquatic restoration activities.	Low	Low	Low	Low
4. Area needing active vegetative restoration activity due to specific species survival, or fuel reduction activity to reduce risk of catastrophic wildfire, or severe insect infestation that will lead to heavy mortality.	Low	Mod – SO Mod/High – D7	Mod – SO Mod/High – D7	Low/Mod – D7 Low - SO
5. Area of high value mineral deposits of economic or strategic importance.	Low	Mod	Low	Low
6. Area having unique characteristics or natural phenomena that public access should be developed to facilitate public use and enjoyment.	Low	Low	Low	Low
7. Land committed through contracts, permits, or agreements that would be in conflict with wilderness management.	Low	Low Mod (mining)	Low	Low
8. Forest Service does not have sufficient control to prevent irresolvable, incompatible uses that would lessen wilderness character and potential.	Mod	Low (Mod adjacent to private)	Low	Low
Availability Rating	High	Low	Low	High
<p>Other Resource Needs:</p> <p>LeBeau #507: 8. Size of IRA on KTN compared to length to private boundary</p> <p>Lone Cliff Smeads #674: 2. Key wildlife winter range burned periodically. 5. DF bark beetle infestation. 7. Potential for mining claims. 8. Med along private boundary</p> <p>Lone Cliff West #674a: 2. Key wildlife winter range burned periodically. 5. DF bark beetle infestation. 8. Size of IRA on KTN compared to length to private boundary</p> <p>Maple Peak #141: 4. DF bark beetle</p>				

Table 43. Area Availability Resource Assessment for the KNF (Marston Face, McKay Cr, McNeeley, Mt Henry)

Wilderness Evaluation – Availability	Marston Face #172	McKay Cr #676	McNeeley #675	Mt Henry #666
1. Areas that are of high value for water yield or on-site storage and where installation and maintenance of improvements may be required.	Low	Low	Low	Low
2. Areas needing management for wildlife or aquatic animals that might conflict with wilderness management.	Low	Low – Fish Mod – Wildlife	Low	Low
3. Area needing active aquatic restoration activities.	Low	Mod – D7 Low – SO	Mod – D7 Low – SO	Low
4. Area needing active vegetative restoration activity due to specific species survival, or fuel reduction activity to reduce risk of catastrophic wildfire, or severe insect infestation that will lead to heavy mortality.	Low	High – D7 Low – SO	Low/Mod – D7 Mod – SO	Low – D4 Mod – D1/SO
5. Area of high value mineral deposits of economic or strategic importance.	Low	High	Low	Low
6. Area having unique characteristics or natural phenomena that public access should be developed to facilitate public use and enjoyment.	Low	Low	Low	Low/Mod
7. Land committed through contracts, permits, or agreements that would be in conflict with wilderness management.	Low	Low Mod (mining)	Low	Low
8. Forest Service does not have sufficient control to prevent irresolvable, incompatible uses that would lessen wilderness character and potential.	Low	Low	Low	Low
Availability Rating	High	Mod	High	High
Other Resource Needs: Marston Face #172: none McKay Cr #676: 4. White pine blister rust & DF bark beetle; potential for high fuel loads with adjacent power line that needs to be protected from fire. 5. High value mineral deposit. 7. Potential for mining claims McNeeley #675: 4. DF bark beetle but difficult to salvage Mt Henry #666: 4. Whitebark pine restoration needs; high ladder fuels due to fire suppression. 6. Mount Henry Lookout is historic and currently used for fire detection – may need to be replaced				

Table 44. Area Availability Resource Assessment for the KNF (Northwest Peaks, Roberts, Robinson Mtn, Rock Cr)

Wilderness Evaluation - Availability	Northwest Peaks #663	Roberts #691	Robinson Mtn #164	Rock Cr #693
1. Areas that are of high value for water yield or on-site storage and where installation and maintenance of improvements may be required.	Low	Low	Low	Low
2. Areas needing management for wildlife or aquatic animals that might conflict with wilderness management.	Low	High	Low	Low
3. Area needing active aquatic restoration activities.	Low	Low	Low	Low
4. Area needing active vegetative restoration	Low – D4	Low	Low – D4	Low

Wilderness Evaluation - Availability	Northwest Peaks #663	Roberts #691	Robinson Mtn #164	Rock Cr #693
activity due to specific species survival, or fuel reduction activity to reduce risk of catastrophic wildfire, or severe insect infestation that will lead to heavy mortality.	Mod - SO		Mod – D1/SO	
5. Area of high value mineral deposits of economic or strategic importance.	Low	Low	Low	High
6. Area having unique characteristics or natural phenomena that public access should be developed to facilitate public use and enjoyment.	Low/Mod	Low	Mod – D1 Low – D4	Low
7. Land committed through contracts, permits, or agreements that would be in conflict with wilderness management.	Low	Low	Low	Low High (mining)
8. Forest Service does not have sufficient control to prevent irresolvable, incompatible uses that would lessen wilderness character and potential.	Low	Low	Low	Low
Availability Rating	High	Mod	High	Low
Other Resource Needs: Northwest Peaks #663: 4. Whitebark pine restoration needs. 6. Northwest Peaks Lookout is historic and needs to be maintained. Snowmobile use around Hawkins Lake, West Fork, and ridge between Rock Candy and & Canuck Peak Roberts #691: 2. Old roads restoration needs Robinson Mtn #164: 4. Whitebark pine restoration needs; high ladder fuels due to fire suppression. 6. Robinson Mtn Lookout is historic Rock Cr #693: 5. High mineral value. 7. Mining permit and plan of operation				

Table 45. Area Availability Resource Assessment for the KNF (Roderick, Saddle Mtn, Scotchman Peaks, Ten Lakes)

Wilderness Evaluation – Availability	Roderick #684	Saddle Mtn #168	Scotchman Peaks #662	Ten Lakes #683
1. Areas that are of high value for water yield or on-site storage and where installation and maintenance of improvements may be required.	Low	Low	Low	Low
2. Areas needing management for wildlife or aquatic animals that might conflict with wilderness management.	Low	Low	Low – Fish Mod – Wildlife	Low
3. Area needing active aquatic restoration activities.	Low	Low	Low	Low
4. Area needing active vegetative restoration activity due to specific species survival, or fuel reduction activity to reduce risk of catastrophic wildfire, or severe insect infestation that will lead to heavy mortality.	Low – D4 Mod – SO	Low	Low/Mod – D7 Low – D4/SO	Mod
5. Area of high value mineral deposits of economic or strategic importance.	Low	Low	High	Low
6. Area having unique characteristics or natural phenomena that public access should be developed to facilitate public use and enjoyment.	Low	Low	Low	Low

Wilderness Evaluation – Availability	Roderick #684	Saddle Mtn #168	Scotchman Peaks #662	Ten Lakes #683
7. Land committed through contracts, permits, or agreements that would be in conflict with wilderness management.	Low	Low	Low	Mod
8. Forest Service does not have sufficient control to prevent irresolvable, incompatible uses that would lessen wilderness character and potential.	Low	Low	Low/Mod	Mod
Availability Rating	High	High	High	Mod
Other Resource Needs: Roderick #684: 4. Warm, dry veg type needing mechanical treatment &/or prescribed fire. Saddle Mtn #168: none Scotchman Peaks #662: 4. DF bark beetle. 5. High value mineral deposit. 8. Potential for mining claims Ten Lakes #683: 4. Whitebark pine restoration. 7. One snotel and snow course (snowmobile access). 8. Med along private boundary; one inholding				

Table 46. Area Availability Resource Assessment for the KNF (Thompson Seton, Trout Creek, Tuchuck, West Fork Elk)

Wilderness Evaluation - Availability	Thompson Seton #483	Trout Creek #664	Tuchuck #482	West Fork Elk #692
1. Areas that are of high value for water yield or on-site storage and where installation and maintenance of improvements may be required.	Low	Low	Low	Low
2. Areas needing management for wildlife or aquatic animals that might conflict with wilderness mgmt.	Low	Low – Fish High - Wildlife	Low	Low – Fish High - Wildlife
3. Area needing active aquatic restoration activities.	Low	Low	Low	Low
4. Area needing active vegetative restoration activity due to specific species survival, or fuel reduction activity to reduce risk of catastrophic wildfire, or severe insect infestation that will lead to heavy mortality.	Mod	Mod	Mod	High – D7 Mod – SO
5. Area of high value mineral deposits of economic or strategic importance.	Low	Mod	Low	Low
6. Area having unique characteristics or natural phenomena that public access should be developed to facilitate public use and enjoyment.	Low	Low	Low	Low
7. Land committed through contracts, permits, or agreements that would be in conflict with wilderness management.	Low	Low Mod (mining)	Low	Low
8. Forest Service does not have sufficient control to prevent irresolvable, incompatible uses that would lessen wilderness character and potential.	Low	Low	Low	Low (Mod adjacent to private)
Availability Rating	High	Low	High	Low

Wilderness Evaluation - Availability	Thompson Seton #483	Trout Creek #664	Tuchuck #482	West Fork Elk #692
Other Resource Needs: Thompson Seton #483: 4. Whitebark pine restoration Trout Creek #664: 2. Key wildlife winter range needs periodic burning. 4. Warm, dry veg type needs mechanical treatment &/or prescribed fire. 7. Potential for mining claims Tuchuck #482: 4. Whitebark pine restoration West Fork Elk #692: 2. Key wildlife winter range needs periodic burning. 4. Warm, dry veg type needs mechanical treatment &/or prescribed fire. 8. Med along private boundary				

Table 47. Area Availability Resource Assessment for the KNF (West Fork Yaak, Willard Estelle, Zulu)

Wilderness Evaluation - Availability	West Fork Yaak #694	Willard Estelle #173	Zulu #166
1. Areas that are of high value for water yield or on-site storage and where installation and maintenance of improvements may be required.	Low	Low	Low
2. Areas needing management for wildlife or aquatic animals that might conflict with wilderness management.	Low	High	Low
3. Area needing active aquatic restoration activities.	Low	Low	Low
4. Area needing active vegetative restoration activity due to specific species survival, or fuel reduction activity to reduce risk of catastrophic wildfire, or severe insect infestation that will lead to heavy mortality.	Mod – D4 Low – SO	Mod – D4 Low – SO	Low – D4/SO Mod – D1
5. Area of high value mineral deposits of economic or strategic importance.	Low	Mod	Low
6. Area having unique characteristics or natural phenomena that public access should be developed to facilitate public use and enjoyment.	Low	Low	Low
7. Land committed through contracts, permits, or agreements that would be in conflict with wilderness management.	Low	Low Mod (mining)	Low
8. Forest Service does not have sufficient control to prevent irresolvable, incompatible uses that would lessen wilderness character and potential.	Low	Low	Low
Availability Rating	High	Mod	High
Other Resource Needs: West Fork Yaak #694: 4. Needs mechanical treatment & fire to create ecological sustainable condition Willard Estelle #173: 2. Existing roads need to be rehabbed. 4. Needs mechanical treatment & fire to create ecological sustainable condition. 7. Potential for mining claims Zulu #166: 4. Whitebark pine restoration needs; high ladder fuels due to fire suppression			

Need Process

The next step of the evaluation process is the determination of need as part of the overall National Wilderness Preservation System. A Wilderness Needs Assessment was completed in 2003 by an interdisciplinary team at the Region 1 office. This allowed the assessment to cover Montana,

northern Idaho, and parts of the Dakotas (a much larger area than the KNF). The assessment focused on social and ecological factors.

The social factors included current levels of use in designated wilderness in the Northern Region, national and local trends in outdoor activities, and population statistics. Ecological factors included representation of vegetative cover types and ecological sections, fisheries, and wildlife. See the document *Wilderness Needs Assessment, 2003*, by the Northern Region of the USDA Forest Service.

Since the regional needs assessment covers a large and diverse area, it could not address individual areas. The Forest wilderness program manager applied the regional needs assessment to the 43 areas on the KNF. The assessment was broken down into six questions and each area rated high, moderate, or low. Maps created for the regional assessment were used to evaluate the resource criteria of individual areas. Table 48 shows the six resource criteria evaluated and the rating system.

Diversity within the KNF and application of the broad regional needs assessment resulted in ratings for individual areas. Ratings for questions 1 and 2 were determined for each area based on the presence or absence of the species being addressed. The species listed were identified in the 2003 1 Wilderness Needs Assessment, as species needed from a regional wilderness perspective. An updated 2011 list of plant species that are rare at the global or state level according to the state Natural Heritage Programs was used to update the Need assessment for the FEIS.

Question 3 was split based on whether the area was located adjacent to an existing wilderness or located near another area. A rating was determined for either 3a or 3b, but not both. A rating for question 4 was determined for the entire forest or portion of a forest. The R1 Wilderness Needs Assessment listed the Flathead Valley Section, which the KNF is a part of, as having 82,891 Ecological Section acres in wilderness. Therefore, for question 4 only one rating was used for the KNF.

A single population center was selected for the Forest from the list in the regional needs assessment for question 5. The options for population centers from the Regional Assessment were either Kalispell at 88 miles or Coeur d'Alene, Idaho which is 130 miles from Libby. Kalispell, Montana was selected as the population center for the KNF.

For question 6, the Forest produced a vegetative response unit map that showed four under-represented plant communities selected in the Regional Assessment that occur in the KNF. Vegetation Response Unit Characterizations and Target Landscape Prescriptions (USDA, 1999) are used to define groupings of habitat types into vegetation response units (VRUs),

The VRU is intended to be an aggregation of land having similar capabilities and potentials for management. As mapped polygons these units have similar patterns in potential natural communities (habitat types), soils, hydrologic function, landform and topography, lithology, climate, climate air quality, and natural disturbance processes (fire regimes, succession, productivity, nutrient cycling). The interaction of all these processes creates a mosaic across the area landscape. Within individual polygons of any VRU over time, the proportion of age and size classes, succession stage, and impacts of fire and/or disease will be dynamic as natural and managed disturbances occur (USDA, 1999).

The four plant communities selected which contribute to the underrepresented plant communities identified in the Regional Need Assessment are; VRU 2 (ponderosa pine), 5 (western red cedar

and western hemlock), and 8 (western red cedar and western hemlock – wet) and aquatic response unit (ARU) types representing forest-dominated riparian areas.

An overall rating was then applied for each area based on the following parameters:

- The overall rating would be high if:
 - Three or more questions were rated high; or
 - Two questions were rated high and at least two of the remaining four questions were rated moderate.
- The overall rating would be moderate if:
 - Two questions were rated high and not more than one of the remaining four questions was rated moderate; or
 - One question was rated high and at least one of the remaining five was rated moderate; or
 - No question was rated high but two or more were rated moderate.
- The overall rating would be low if:
 - Five of the questions rated low; or
 - No question was rated high and no more than two were rated moderate.

Changes between DEIS and FEIS include updated answers to question 2; the presence of sensitive plants was updated based on the 2012 Natural Heritage Program plant species list that are rare at the global or state level. These changes resulted in a Need rating change in 2 IRA assessments. The Need rating changes did not result in changes in the suitability determination of any IRA.

Table 48. Area Needs Assessment Criteria (High, Moderate, Low)

Resource Criteria	High	Moderate	Low
1. Areas having the presence of Westslope cutthroat, Yellowstone cutthroat, or bull trout.	Presence of 2 fish	Presence of 1 fish	None of the species present
2. Presence of sensitive plant species.	Sensitive plant(s) identified in IRA are globally rare	Sensitive plants identified in IRA would benefit from wilderness designation = moderate/high Sensitive plants present in IRA = moderate/low	No sensitive plants identified in IRA.
3a. Areas adjacent to existing Wilderness (larger reserved size beneficial for wildlife conservation.)	IRA is adjacent to existing Wilderness boundary	IRA adjacent but separated by corridor	Not applicable
3b. IRAs could be combined to form large habitat patches.	Two or more IRAs adjacent and separated only by a narrow corridor, such as a road.	Two or more IRAs could be connected by a wildlife travel corridor.	IRA not adjacent or close to another IRA
4. Ecological Sections represented in Wilderness.	Ecological Section represented by not more than 10,000 acres.	Ecological Section represented by 10,001 to 100,000 acres.	Ecological Section represented by more than 100,000 acres.
5. Number of	Wilderness acres of	Wilderness acres of	Wilderness acres of

Resource Criteria	High	Moderate	Low
Wilderness acres within 100 miles of Kalispell.	approximately 100,000 acres.	approximately 500,000 acres.	approximately 1,000,000 acres.
6. Under-represented plant communities.	VRU 2, 5, or 8 and ARU forest-dominated riparian covers more than 2/3 of the IRA.	VRU 2, 5, or 8 and ARU forest-dominated riparian covers 1/3 to 2/3 of the IRA.	VRU 2, 5, or 8 and ARU forest-dominated riparian covers less than 1/3 of the IRA.

Need Results for the KNF

The results of the needs assessment for the KNF are summarized in table 49 through table 59.

Table 49. Area Needs Assessment for the KNF (Alexander, Allen Peak, Barren Pk, Berray Mtn)

Wilderness Evaluation - Need	Alexander #696	Allen Peak #185	Barren Pk #183	Berray Mtn #672
1. Areas having the presence of Westslope cutthroat, Yellowstone cutthroat, or bull trout	Low	Mod	Mod	Mod
2. Presence of sensitive plant species.	Low	High	Low	High
3a. Areas adjacent to existing wilderness.	-	-	High	-
3b. IRAs could be combined to form large habitat patches.	Low	High - Cataract		Mod - Chippewa
4. Ecological Sections represented in Wilderness.	Mod	Mod	Mod	Mod
5. Number of wilderness acres within 100 miles of Kalispell.	Low	Low	Low	Low
6. Under-represented plant communities.	Mod (P pine)	Mod (riparian)	M (pine, cedar, hemlock, riparian)	High (pine, cedar, hemlock)
Need Rating	Low	High	Mod	High
# of Highs	0	2	1	2
# of Moderates	2	3	3	3
# of Lows	4	1	2	1

Table 50. Area Needs Assessment for the KNF (Big Creek, Buckhorn Ridge, Cabinet Face East, Cabinet Face West)

Wilderness Evaluation - Need	Big Creek #701	Buckhorn Ridge #661	Cabinet Face East #671	Cabinet Face West #670
1. Areas having the presence of Westslope cutthroat, Yellowstone cutthroat, or bull trout	Low	Mod	Low	Mod
2. Presence of sensitive plant species.	High	High	High	Mod / High
3a. Areas adjacent to existing wilderness.			High	High
3b. IRAs could be combined to form large habitat patches.	Mod – Zulu	High – W Fk Yaak, NW Peaks		
4. Ecological Sections represented in Wilderness.	Mod	Mod	Mod	Mod
5. Number of wilderness acres within 100 miles of Kalispell.	Low	Low	Low	Low
6. Under-represented plant communities.	High (cedar, hemlock)	Low	Mod (cedar, hemlock)	High (cedar, hemlock, riparian)
Need Rating	High	High	High	High
# of Highs	2	2	2	2
# of Moderates	2	2	2	3
# of Lows	2	2	2	1

Table 51. Area Needs Assessment for the KNF (Cataract Cr, Chippewa, Cube Iron, Devils Gap)

Wilderness Evaluation – Need	Cataract Cr #665	Chippewa #682	Cube Iron #784	Devils Gap #698
1. Areas having the presence of Westslope cutthroat, Yellowstone cutthroat, or bull trout	Mod	Mod	Low	Mod
2. Presence of sensitive plant species.	High	Low	Low	High
3a. Areas adjacent to existing wilderness.		High		
3b. IRAs could be combined to form large habitat patches.	High – Allen		Low	High – McNeeley
4. Ecological Sections represented in Wilderness.	Mod	Mod	Mod	Mod
5. Number of wilderness acres within 100 miles of Kalispell.	Low	Low	Low	Low
6. Under-represented plant communities.	Low	Mod (cedar, hemlock)	Low	High (pine, cedar, hemlock, riparian)
Need Rating	High	Mod	Low	High
# of Highs	2	1	0	3
# of Moderates	2	3	1	2

Wilderness Evaluation – Need	Cataract Cr #665	Chippewa #682	Cube Iron #784	Devils Gap #698
# of Lows	2	2	5	1

Table 52. Area Needs Assessment for the KNF (East Fork Elk, Flagstaff, Galena, Gold Hill)

Wilderness Evaluation - Need	East Fork Elk #678	Flagstaff #690	Galena #677	Gold Hill #668
1. Areas having the presence of Westslope cutthroat, Yellowstone cutthroat, or bull trout	Mod	Low	Mod	Low
2. Presence of sensitive plant species.	High	High	Low ¹	Low
3a. Areas adjacent to existing wilderness.	-	-	-	-
3b. IRAs could be combined to form large habitat patches.	High – West Fork Elk	Low	High – McKay	Low
4. Ecological Sections represented in Wilderness.	Mod	Mod	Mod	Mod
5. Number of wilderness acres within 100 miles of Kalispell.	Low	Low	Low	Low
6. Under-represented plant communities.	H (pine, cedar, hemlock, riparian)	Mod (pine, riparian)	Mod (pine, riparian)	M (pine, cedar, hemlock, riparian)
Need Rating	High	Mod	Mod²	Low
# of Highs	3	1	1	0
# of Moderates	2	2	3	2
# of Lows	1	3	2	4

Table 53. Area Needs Assessment for the KNF (Gold Hill West, Government Mtn, Grizzly Peak, Huckleberry Mtn)

Wilderness Evaluation - Need	Gold Hill West #176	Government Mtn #673	Grizzly Peak #667	Huckleberry Mtn #699
1. Areas having the presence of Westslope cutthroat, Yellowstone cutthroat, or bull trout	Low	High	Mod	Low
2. Presence of sensitive plant species.	Low ¹	High ¹	Low	Low
3a. Areas adjacent to existing wilderness.	-	High	-	-
3b. IRAs could be combined to form large habitat patches.	Low		Mod - Roderick	High - McNeeley
4. Ecological Sections represented in Wilderness.	Mod	Mod	Mod	Mod
5. Number of wilderness acres within 100 miles of Kalispell.	Low	Low	Low	Low
6. Under-represented plant communities.	Mod (cedar, hemlock, riparian)	Mod (cedar, hemlock, riparian)	Mod (cedar, hemlock, riparian)	Mod (pine, cedar, hemlock,

Wilderness Evaluation - Need	Gold Hill West #176	Government Mtn #673	Grizzly Peak #667	Huckleberry Mtn #699
				riparian)
Need Rating	Mod	High ²	Mod	Mod
# of Highs	0	3	0	1
# of Moderates	2	1	4	2
# of Lows	4	1	2	3

Table 54. Area Needs Assessment for the KNF (LeBeau, Lone Cliff Smeads, Lone Cliff West, Maple Peak)

Wilderness Evaluation – Need	LeBeau #507	Lone Cliff Smeads #674	Lone Cliff West #674a	Maple Peak #141
1. Areas having the presence of Westslope cutthroat, Yellowstone cutthroat, or bull trout	Low	Mod	Mod	Low
2. Presence of sensitive plant species.	Mod /High	Low	Low ¹	Low
3a. Areas adjacent to existing wilderness.	-	-	-	-
3b. IRAs could be combined to form large habitat patches.	Low	Low	High – E+W Elk	Low
-4. Ecological Sections represented in Wilderness.	Mod	Mod	Mod	Mod
5. Number of wilderness acres within 100 miles of Kalispell.	Low	Low	Low	Low
6. Under-represented plant communities.	Mod (cedar, hemlock)	Mod (pine)	Mod (pine)	Low
Need Rating	Mod	Mod	Mod	Low
# of Highs	0	0	1	0
# of Moderates	3	3	3	1
# of Lows	3	3	2	5

Table 55. Area Needs Assessment for the KNF (Marston Face, McKay Cr, McNeeley, Mt Henry)

Wilderness Evaluation - Need	Marston Face #172	McKay Cr #676	McNeeley #675	Mt Henry #666
1. Areas having the presence of Westslope cutthroat, Yellowstone cutthroat, or bull trout	Low	Mod	Mod	Low
2. Presence of sensitive plant species.	Low	Mod/High ¹	High	Low
3a. Areas adjacent to existing wilderness.	-	High	-	-
3b. IRAs could be combined to form large habitat patches.	High – Tuchuck		High – Devil's Gap, Huckleberry	Low
4. Ecological Sections represented	Mod	Mod	Mod	Mod

Wilderness Evaluation - Need	Marston Face #172	McKay Cr #676	McNeeley #675	Mt Henry #666
in Wilderness.				
5. Number of wilderness acres within 100 miles of Kalispell.	Low	Low	Low	Low
6. Under-represented plant communities.	Low (pine)	M (pine, cedar, hemlock, riparian)	H (pine, cedar, hemlock, riparian)	Low (cedar, hemlock)
Need Rating	Mod	Mod	High	Low
# of Highs	1	1	3	0
# of Moderates	1	4	2	1
# of Lows	4	1	1	5

Table 56. Area Needs Assessment for the KNF (Northwest Peaks, Roberts, Robinson Mtn, Rock Cr)

Wilderness Evaluation – Need	Northwest Peaks #663	Roberts #691	Robinson Mtn #164	Rock Cr #693
1. Areas having the presence of Westslope cutthroat, Yellowstone cutthroat, or bull trout	Mod	Low	Mod	Mod
2. Presence of sensitive plant species.	High	Low	Low	Mod/High ¹
3a. Areas adjacent to existing wilderness.	-	-	-	High
3b. IRAs could be combined to form large habitat patches.	High – W Fk Yaak	High – Willard	Low	
4. Ecological Sections represented in Wilderness.	Mod	Mod	Mod	Mod
5. Number of wilderness acres within 100 miles of Kalispell.	Low	Low	Low	Low
6. Under-represented plant communities.	Low	Mod (cedar, hemlock, riparian)	Low	High (cedar, hemlock)
Need Rating	High	Mod	Low	High
# of Highs	2	1	0	2
# of Moderates	2	2	2	3
# of Lows	2	3	4	1

Table 57. Area Needs Assessment for the KNF (Roderick, Saddle Mtn, Scotchman Peaks, Ten Lakes)

Wilderness Evaluation - Need	Roderick #684	Saddle Mtn #168	Scotchman Peaks #662	Ten Lakes #683
1. Areas having the presence of Westslope cutthroat, Yellowstone cutthroat, or bull trout	Low	Low	Mod	Mod
2. Presence of sensitive plant species.	Mod/High ¹	Low	High	High
3a. Areas adjacent to existing wilderness.	-	-	-	-

Wilderness Evaluation - Need	Roderick #684	Saddle Mtn #168	Scotchman Peaks #662	Ten Lakes #683
3b. IRAs could be combined to form large habitat patches.	High – Saddle	High – Roderick	Low	H – Tuchuck, Thompson Seton, Marston Face
4. Ecological Sections represented in Wilderness.	Mod	Mod	Mod	Mod
5. Number of wilderness acres within 100 miles of Kalispell.	Low	Low	Low	Low
6. Under-represented plant communities.	H (pine, cedar, hemlock, riparian)	Mod (cedar, hemlock)	M (pine, cedar, hemlock, riparian)	Low (pine, riparian)
Need Rating	High	Mod	Mod	High
# of Highs	2	1	1	2
# of Moderates	2	2	3	2
# of Lows	2	3	2	2

Table 58. Area Needs Assessment for the KNF (Thompson Seton, Trout Ck, Tuchuck, W. Fork Elk)

Wilderness Evaluation – Need	Thompson Seton #483	Trout Creek #664	Tuchuck #482	West Fork Elk #692
1. Areas having the presence of Westslope cutthroat, Yellowstone cutthroat, or bull trout	Low	Mod	Low	Low
2. Presence of sensitive plant species.	High ¹	High ¹	Low	High ¹
3a. Areas adjacent to existing wilderness.	-	-	-	-
3b. IRAs could be combined to form large habitat patches.	High	Low	High	High – East Fork
4. Ecological Sections represented in Wilderness.	Mod	Mod	Mod	Mod
5. Number of wilderness acres within 100 miles of Kalispell.	Low	Low	Low	Low
6. Under-represented plant communities.	Low (riparian)	M (pine, cedar, hemlock, riparian)	Low	H (pine, cedar, hemlock, riparian)
Need Rating	Mod	Mod	Mod	High
# of Highs	2	1	1	3
# of Moderates	1	3	1	1
# of Lows	3	2	4	2

Table 59. Area Needs Assessment for the KNF(West Fork Yaak, Willard Estelle, Zulu)

Wilderness Evaluation - Need	West Fork Yaak #694	Willard Estelle #173	Zulu #166
1. Areas having the presence of Westslope cutthroat, Yellowstone cutthroat, or bull trout	Low	Mod	Low

Wilderness Evaluation - Need	West Fork Yaak #694	Willard Estelle #173	Zulu #166
2. Presence of sensitive plant species.	Low	Low	High
3a. Areas adjacent to existing wilderness.			
3b. IRAs could be combined to form large habitat patches.	High – Buckhorn, NW Peaks	High – Roberts	Mod – Big Creek
4. Ecological Sections represented in Wilderness.	Mod	Mod	Mod
5. Number of wilderness acres within 100 miles of Kalispell.	Low	Low	Low
6. Under-represented plant communities.	High (cedar, hemlock, riparian)	Mod (cedar, hemlock, riparian)	Mod (cedar, hemlock, riparian)
Need Rating	Mod	Mod	Mod
# of Highs	2	1	1
# of Moderates	1	3	3
# of Lows	3	2	2

¹ Change in element rating based on updated 2012 Natural Heritage Program list of plant species that are rare at the global or state level

² Change in Need rating based on changes in elements ratings

Determination of Suitability as Recommended Wilderness

FSH 1909.12, Chapter 70 outlines the process for determining which areas are recommended as wilderness.

Each individual area received a summary rating for capability, availability, and need. Generally, to be considered for recommended wilderness, capability, availability and need should all rate relatively high. Areas not recommended for wilderness are considered for other management area allocations.

The three ratings of capability, availability, and need provide detailed information for determining whether to recommend an area as wilderness. When considered together, to be suitable, the three ratings should be high overall. Once this assessment was complete, factors such as size and shape, and the ability to manage the area as wilderness were considered by the forest supervisor, district rangers, forest staff officers, and forest wilderness program manager along with comments from the public to make a final decision. For areas determined to be recommended as wilderness, boundaries were then identified and mapped.

Table 60 shows the individual IRAs evaluation, a summary of evaluation criteria ratings and rationale for recommendation of wilderness by the regional forester.

Table 60. Summary of Suitability Evaluation for Recommended Wilderness

Map page	IRA Name	IRA #	Suitability Ratings ¹				Notes	Suitability Determination
			C	A	N	Y/N ²		
23	Alexander	696	L/M	M	L	N	One or more ratings of Low, IRA small and isolated, private property adjacent	
31	Allen Peak	185	M	H	H	Y	Adjacent to IRAs, private property along north, east, and west boundaries, electronic site to Allen Peak. Globally rare plant, riparian plant community	
24	Barren Peak	183	M	M	M	Y	Medium value for minerals, patented mining claim, adjacent to Cabinet Mountains Wilderness and Allen Peak IRA	
26	Berray Mountain	672	M	M	H	N	Restoration work needed on north end, sheep present/ management needed, private land along south boundary	
6	Big Creek	701	M	M	H	Y	Cedar/hemlock underrepresented plant community existing over-snow motorized use, existing structure (Big Creek Cabin)	
13	Buckhorn Ridge	661	H	H	H	N	Isolated from other IRAs, private property adjacent to south and west boundary, existing over-snow motorized use, managed jointly with IPNF, Idaho Roadless Rule theme backcountry/restoration	
22	Cabinet Face East	671	H	N-H S-L	H	Y	Adjacent to Cabinet Mountains Wilderness, south half high value mineral deposits, patented mining claims, areas of underrepresented plant communities	
21	Cabinet Face West	670	H	H	H	Y	Adjacent to Cabinet Mountains Wilderness, areas of underrepresented plant communities, adjacent private	
33	Cataract Creek	665	M	L	H	N	One or more ratings of Low	
28	Chippewa	682	H	H	M	Y	Known Douglas-fir beetle infestation, adjacent to Cabinet Mountains Wilderness,	
32	Cube Iron	784	L	H	L	N	One or more ratings of Low	
40	Devil's Gap	698	M/H	H	H	N	Narrow 1 1/2 mile wide north to south, known Douglas-fir bark beetle infestation, adjacent to Huckleberry Mountain & McNeeley IRA	
36	East Fork Elk	678	M	M	H	N	Known Douglas-fir bark beetle infestation, existing over-snow motorized use, adjacent to West Fork IRA, Idaho Roadless Rule theme general forest	
18	Flagstaff	690	M	M	M	N	Area is narrow and irregularly shaped, isolated, divided from Cabinet Face East by highway, railroad, power line and Kootenai river	
34	Galena	677	M	M	M	N	Over-snow motorized use, adjacent to McKay IRA and Cabinet Mountains Wilderness	
7	Gold Hill	668	L/M	M	L	N	One or more ratings of Low, irregular boundary, isolated	

Map page	IRA Name	IRA #	Suitability Ratings ¹				Notes	Suitability Determination
			C	A	N	Y/N ²		
8	Gold Hill West	176	M	H	M	Y	Western red cedar and riparian underrepresented plant communities, acquisition of the private lands within area in 2000, boundaries along open roads (FDR 68)	
27	Government Mountain	673	L/M	M	H	N	One or more ratings of Low, existing over-snow motorized use, high value minerals, adjacent to Cabinet Mountains Wilderness	
14	Grizzly Peak	667	M	H	M	N	Existing over-snow motorized use, close to Roderick IRA, proximity of roads	
39	Huckleberry Mountain	699	M	M	M	N	IRA has two areas, separated by a road, known Douglas-fir bark beetle infestation, adjacent to private land on north	
5	LeBeau	507	L	H	M	N	One or more ratings of Low	
38	Lone Cliff Smeads	674	L	L	M	N	One or more ratings of Low	
37	Lone Cliff West #	674a	L/M	L	M	N	One or more ratings of Low	
43	Maple Peak	141	L	H	L	N	One or more ratings of Low, Idaho Roadless Rule theme of backcountry/Restoration	
4	Marston Face	172	M	H	M	Y	Area adjacent to Thompson Seton IRA, ponderosa pine underrepresented plant community	
30	McKay Creek	676	M/H	M	M	N	Existing over-snow motorized use, restoration work identified, Douglas-fir bark beetle infestation, adjacent power line, high value mineral deposits	
41	McNeeley	675	L	H	H	N	One or more ratings of Low	
10	Mt Henry	666	M	H	L	N	One or more ratings of Low, irregular boundary, isolated	
12	Northwest Peak	663	H	H	H	N	Isolated from other IRAs, existing over-snow motorized use, support from Lincoln County Coalition for recreation uses; Scenic Special Area (MA3)	
19	Roberts	691	M	M	M	N	Old roads needing restoration work, adjacent to Willard Estelle IRA, Idaho Roadless Rule theme backcountry/restoration	
9	Robinson Mountain	164	M	H	L	N	One or more ratings of Low, irregular boundary, isolated	
29	Rock Creek	693	H	L	H	Y	Cherry stem into Cabinet Mountains Wilderness, high value for minerals, existing mining permit and Plan of Operations	
16	Roderick	684	H	H	H	Y	High ratings, support from Lincoln County Coalition as Wilderness	
17	Saddle Mountain	168	M/H	H	M	Y	Adjacent to Roderick IRA	

Map page	IRA Name	IRA #	Suitability Ratings ¹				Notes	Suitability Determination
			C	A	N	Y/N ²		
25	Scotchman Peaks	662	H	H	M	Y	Wildlife winter range along Clark Fork face, high value for minerals, areas of underrepresented plant communities, organized support, Idaho Roadless Rule theme of Wild Land Recreation	
2	Ten Lakes Ten Lakes contiguous	683 683a	M/H	M	H	Y	Part included in Montana Wilderness Study Area (1977), adjacent to Tuchuck and Thompson Seton IRA, ponderosa pine & riparian underrepresented plant community, existing over-snow motorized use	
3	Thompson Seton	483	M	H	M	Y	Most of IRA located on Flathead NF, adjacent to Tuchuck and Ten Lakes IRA, some over-snow motorized and mechanized use, riparian underrepresented plant community, boundary along open roads, private property and buildings along south boundary	
42	Trout Creek	664	M	L	M	N	One or more ratings of Low, Idaho Roadless Rule theme backcountry	
1	Tuchuck	482	M	H	M	Y	Most of IRA located on Flathead NF, adjacent to Thompson Seton and Ten Lakes IRA, existing over-snow motorized use south boundary	
35	West Fork Elk	692	L	L	H	N	One or more ratings of Low, Idaho Roadless Rule theme backcountry/restoration	
11	West Fork Yaak	694	M/L	H	M		One or more ratings of Low	
20	Willard Estelle	173	H	M	M	N	Existing over-snow motorized use, existing roads and fuels needing treatment, adjacent to Robert IRA, area long and narrow, mineral activity and potential, managed with IPNF, Idaho Roadless Rule theme backcountry/restoration	
15	Zulu	166	M	H	M	N	Existing over-snow motorized use, adjacent to Roderick and Big Creek IRA	

¹ C = Capability, A = Availability and N = Need² Y = area rated suitable for recommended wilderness, N = area not rated suitable for recommended wilderness

An area's inherent wilderness quality could be demonstrated if the capability rating was high or moderate/high. A rating of low for capability indicates that the area did not have inherent wilderness quality. A low rating for availability indicates that there is significant need for this area to provide a resource need other than wilderness. A low rating for need indicates that the area did not fill a need identified in the Regional Wilderness Needs Assessment. Applying the other considerations (boundary management, adjacent lands, etc.) completed the process for identifying which areas to recommend as wilderness.

Parameters for mapping recommended wilderness are (in order of priority):

- 1. Boundaries must be identifiable on the ground. Major ridges and roads provide the best topography or human development features that can identify a boundary. Minor or broad ridges are often hard to identify on the ground and should not be used. Major creeks or rivers are suitable for boundaries but small creeks should not be used. Contour lines are difficult to locate even with the proper equipment and generally will not be used except for short distances. Meandering lines are not used.
Points and connecting straight lines using GPS may provide adequate boundary identification in the near future. Small handheld GPS units can locate boundaries to within a few feet. This method is used when other boundary location methods are not adequate.
- 2. Some boundaries are adjusted for wildfire protection by providing a buffer near private property, along state and federal highways and county roads and along major utility corridors. The buffer used is generally ½ mile from these features. Narrower buffers are used where use of private property was not conducive for human occupancy, such as high elevation corporate timber lands, or where remoteness of the area allows for a narrower buffer. In some cases, recommended wilderness boundaries are inside a WUI boundary.
- 3. Boundaries generally accommodate maintenance of existing roads. Boundaries are set 300 feet (horizontal distance) on either side of the road centerline to provide adequate width to maintain clearing limits, provide fuel breaks, handle slumps and slides, maintain water drainage structures, and allow for improvements necessary for safe travel. Along major arterial roads where traffic is normally heavy and the road provides the main access to the national forest, the distance was increased to ¼ mile.
- 4. When two or more adjacent areas are recommended as wilderness and separated by an open road, the areas could be proposed as a single wilderness but a 600 foot (300 foot either side of the road) motorized travel corridor would be retained.
- 5. Old harvest units and access roads could be included within a recommended wilderness, provided the evaluation process indicated wilderness management was the highest resource value for the area. In these cases access would be controlled and adequate mitigation measures taken to reduce erosion.

Adjustment to recommended wilderness boundaries based on the above criteria changed acres for most areas (moving boundaries to an identifiable location). Some recommended wilderness includes areas outside of an IRA boundary, for the same reason (moving boundaries to identifiable locations).

In addition, portions of an IRA may not have been included in recommended wilderness area for the reasons shown. Table 61 shows the individual IRAs, IRA acres, propose/existing wilderness name, recommended wilderness acres, alternatives which include each area, and notes as to why an area was considered in different alternatives.

Table 61. Recommended Wilderness by Alternative

IRA		Total IRA Acres	Acres Recommended Wilderness					Alternative/Notes
Name	#		Name	Alt A	Alt B Modified	Alt C	Alt D	
Outside IRA			Allen Peak	0	0	81	0	Alt B Modified & D not included, long and narrow shape, adjacent private lands, timber lands, power line and patented mining claim. Alt C connects to existing CMW through Barren Peak recommended wilderness. Boundary updated to follow identifiable features on ground, and provide interface along open roads and private property.
Allen Peak	185	29,618				20,462		
Total Allen Peak		29,618		0	0	20,500	0	
Outside IRA			Big Creek	0	0	216	0	Alt B Modified & D allow for existing over-snow motorized use to continue. Boundary updated to follow identifiable features on ground, and provide interface along open road.
Big Creek	701	7,526				6,400		
Total Big Creek		7,526		0	0	6,616		
Outside IRA			Additions to existing Cabinet Mountains Wilderness		98	1,298	83	Alt C includes cherry stems along roads into south areas.
Cabinet Face East	671	50,193		21,046	18,807	32,677	17,429	Alt B Modified & D includes areas to north only, areas in south with low availability due to high value mineral deposits not included. Alt B Modified & D exclude area south of Flower Creek. Alt B Modified includes more area along the Kootenai River. Alt C includes areas to north and south, except for Snowshoe creek, with patented mining claims.
Cabinet Face West	670	13,684		9,791	1,261	8,027	8,027	Alt B Modified includes area along NF Bull and Bull River, allows for vegetation management above private lands elsewhere. Alt C & D includes areas between existing CMW and private property. Boundary updated to follow identifiable features on ground.
Chippewa	682	1,261		0	361	361	361	Alt B Modified, C & D include area along Chippewa creek,

IRA		Total IRA Acres	Acres Recommended Wilderness					Alternative/Notes
Name	#		Name	Alt A	Alt B Modified	Alt C	Alt D	
								Boundary updated to follow identifiable features on ground.
McKay Creek	676	15,287		0	8,741	8,741	11,291	Alt B Modified & C includes Rock creek with cherry stem for patented mining claim. Reduced size along McKay Creek to allow vegetation management, and along power line. Alt D only includes south part of Rock Creek, and larger portion along McKay Creek. Boundary updated to follow identifiable features on ground.
Barren Peak	183	14,526		0	0	2,059	0	Alt B Modified and D did not include as management would be difficult due to private lands and power line. Alt C included corridor between existing CMW and Allen Peak recommended wilderness area. Boundary updated to follow identifiable features on ground.
Rock Cr	693	806		0	581	581	0	Alt B Modified & C Boundary updated to follow identifiable features on ground.
Total Cabinet Mountains Additions		95,757		30,837	29,849	53,744	37,191	
Outside IRA			Gold Hill West	0	0	627	0	Boundary updated to follow identifiable features on ground, and provide interface along open road.
Gold Hill West	176	15,070				11,550		
Total Gold Hill West		15,070		0	0	12,177	0	
Outside IRA			Roderick	0	753	753	0	Alt B Modified & C Boundary updated to follow identifiable features on ground, and provide interface along open road. Cherry stem in Clay Creek included. Public support.
Roderick	684	29,658			22,719	22,719		
Total Roderick		29,658		0	23,472	23,472	0	

IRA		Total IRA Acres	Acres Recommended Wilderness					Alternative/Notes
Name	#		Name	Alt A	Alt B Modified	Alt C	Alt D	
Outside IRA			Saddle Mountain	0	0	3,495	0	Alt B Modified & D not included irregular shape. Alt C Boundary updated to follow identifiable features on ground, and provide interface along open road. Cherry stem in Arbo and north end included.
Saddle Mountain	168	14,666				10,796		
Total Saddle Mountain		14,666		0	0	14,291	0	
Outside IRA			Scotchman Peaks		43	43	0	Alt B Modified & C included Boundary updated to follow identifiable features on ground, and provide interface along open roads and private property. Alt C includes areas adjacent to IPNF on north, less area along the east boundary, in the EF of Blue Creek than B Modified. Alt B Modified the east boundary is closer to Highway 56 and private property. Alt D not included, allows for over-snow motorized use, and potential mining.
Scotchman Peaks	662	54,439		41,889	35,853	37,225		
Total Scotchman Peaks		54,439		41,889	35,896	37,268	0	
Outside IRA			Ten Lakes		0	815	0	All alternatives include Ten Lakes MWSA, allocated to MA1c pending further action by Congress. Contiguous area recommended wilderness in the revised Forest Plan varies by alternative. Alt B Modified & D would allow for over-snow motorized use to continue in the Ten Lakes Contiguous Area. Alt C includes finger west of Poorman Mountain within the WSA, Ten Lakes East, and boundary adjustments on southwest end.
Ten Lakes WSA ²	683	33,778		37,518 ²	0	33,778 ³	0	
Ten Lakes Contiguous	686a	14,732			0	8,257	0	
Total Ten Lakes		48,510		37,518	0	42,850²	0	
Outside IRA			Whitefish Divide		1,125	2,142	0	Alt B Modified & C includes area in Blue Sky and Williams Creek with old roads and previous harvest, not in IRA. Alt C Boundary updated to follow identifiable features on ground, and provide interface along open road. Alt B Modified boundary adjustments from Alt C to for wildland fire along private property on southwest and south side. Alt B Modified & C Boundary updated to follow identifiable
Marston Face	172	9,092		0	0	7,887	0	
Thompson Seton	483	29,378		0	14,879	27,954	0	

IRA		Total IRA Acres	Acres Recommended Wilderness					Alternative/Notes
Name	#		Name	Alt A	Alt B Modified	Alt C	Alt D	
Tuchuck	482	2,236		0	0	2,153	0	features on ground, and provide interface along open road. Alt B Modified & D allow for existing over-snow motorized use to continue. Boundary updated to follow identifiable features on ground, and provide interface along open road
Total Whitefish Divide	40,706			0	16,004	40,136	0	
Total MA1b				110,244	105,220	217,319	37,191	
Total MA1c³				n/a	0	33,788	0	
Total Recommended Wilderness				110,244	105,220	251,107	37,191	

¹ Acres do not match forestwide summary acres by MA due to overlapping acres of RNA and MA1b

² 1987 Forest Plan area, acres different than 1987 Forest Plan due to GIS mapping, 1987 Forest Plan assigned two MAs to Ten Lakes WSA; recommended wilderness and WSA

³ Included MA1c acres when Ten Lakes contiguous area is recommended wilderness. Ten Lakes Wilderness Study Area is allocated to MA1c, pending further action by Congress

Inventoried Roadless Area Description

This section summarizes each inventoried roadless area (IRA) on the KNF, and was added between draft and final EIS. The discussion includes a brief description of the area, summary of environmental consequences by alternative, allocation of roadless area by alternative and brief history of the IRA.

- RARE I and RARE II acres shown in this appendix are from the 1983 Roadless Area Update Summary, Kootenai National Forest.
- 1987 Forest Plan Roadless Area (RA) and 1987 Recommended Wilderness acres shown in this appendix are from the 1987 Forest Plan, and 1987 Forest Plan FEIS appendix C.
- 2001 Roadless Area Conservation Rule (RACR) Inventoried Roadless Area (IRA) acres shown are based on revised Forest Plan GIS mapping of 2001 RACR maps in Montana or 2008 Idaho Roadless Area maps in Idaho. Current GIS derived acres in the 2013 revised Forest Plan (RFP) mapping may have slightly different acres than those verified in 1999, or used in the 2001 RACR maps.
- Differences in acres over time can be due to mapping, boundary adjustments, or more accurate acreage calculations. The IRA history included in this appendix is intended as a brief overview of the IRA, not a complete record of the IRA.
- Some IRAs are managed by more than one forest or state. Acres shown for IRAs that cross multiple jurisdictions are for information only; those acres not on the KNF are not analyzed in the KNF FEIS.
- S.2751 (100th) Montana Natural Resources Protection and Utilization Act of 1988 included wilderness designation. This act was passed by both houses of Congress in 1988, but not signed into law by the President.

Alexander - (No. 01-696)

Description – This area is located north of the Kootenai River between Alexander Creek and Kennedy Gulch. The area is primarily low elevation dry vegetation, with ponderosa pine on the south slopes.

The area includes Canoe Gulch, Reinshagen Gulch, and tributaries of Alexander Creek and the Kootenai River. It is bounded by private land on the south, east, and west; and Alexander creek, roads, and harvest units on the north.

The IRA includes area of underrepresented (2003 R1 Wilderness Needs Assessment) plant communities of VRU2 and ARU. There is a population of Bitterroot flower (not sensitive plant). This area is within Fire Management Unit 3: (Special Fire Management Area) comprised of the EPA Superfund cleanup Operational Unit 3. The special circumstance is the presence of Libby Amphibole asbestos fibers.

Table 62. Alexander Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Alexander (01-696)	Low/Moderate	Moderate	Low	No	One or more ratings of Low, isolated, private property adjacent, EPA superfund site

¹Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This IRA did not have an evaluation rating of suitable. All action alternatives would protect roadless characteristics by allocating to MA5a, with the exception of a corridor along the Kootenai River that is MA2 wild and scenic river. The area has opportunities for solitude, and appears natural and free from disturbance; however, the only special feature identified was a population of Bitterroot flower (not a sensitive plant). This area is within the EPA Superfund cleanup Operational Unit 3.

Table 63. Alexander Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Alexander	MA2	143	143	143
	MA5a	6,571	6,571	6,571

Table 64. Alexander IRA History

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
Alexander	01-696	0	0	0	0	6,714	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

This area was identified in the 1999 review of IRAs and other un-roaded areas, and included as an IRA in the 2001 Roadless Area Conservation Rule.

Allen Peak - (No. 01-185)

Description – This area is located between Silver Butte Creek, East Fisher River, and the Vermilion River.

The area has a globally rare sensitive plant elemental occurrence of *Collema curtisporum*, Jelly Lichen (Montana Natural Heritage Program 2011). This area also includes areas of underrepresented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5, and ARU.

It is adjacent, although separated by open roads, to Barren Peak #183, Galena #667, and Cataract Creek #665. This area includes Waloven Creek, Spring Creek, Bench Creek, and Sims Creek. Prior to the Checkerboard Land Exchange in 1996, over 50 percent of the area was private land.

The area is bounded by private property along the northwest, northeast, and east boundaries, and patented mining claims along the west edge. There is a high power transmission line on the north boundary, between Allen Peak and Barren Peak IRAs. Forest Service roads #2232 and #2301 and the Allen Peak electronic site intrude into the area.

Table 65. Allen Peak Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Allen Peak (01-185)	Moderate	High	High	Yes	Globally rare plant, riparian plant community, moderate capability, adjacent to IRAs

¹Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – The evaluation rating was suitable for recommended wilderness, although the capability summary was moderate. The recommended wilderness differed by action alternative addressing a range of management options.

Alternative B Modified would protect roadless characteristics, while considering the adjacent private property, patented mining claims, maintenance of the high power transmission line, access on road #2232 and #2301, and operation of Allen Peak Electronic Site. In this alternative Allen Peak was allocated primarily to MA5b.

Alternative C would protect roadless characteristics, and enhance the wilderness environment. In this alternative Allen Peak was primarily allocated to MA1b. Allen Peak IRA would connect to the existing CMW through Barren Creek IRA. The boundary was modified to follow features on the ground and provide interface along open roads and private property.

Alternative D would protect roadless characteristics the least, allocating primarily to MA6. In this alternative Allen Peak was allocated primarily to MA6.

Table 66. Allen Peak Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Allen Peak	MA1b		20,462	
	MA2	329	256	329
	MA3		14	15
	MA5a		8,131	
	MA5b	29,289	720	
	MA6		35	29,274

Table 67. Allen Peak IRA History

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
Allen Peak	01-185	17,800	0	0	0	29,618	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

Allen Peak was not included in RARE II or the 1987 Forest Plan due to nearly 50 percent of the area being private. After the 1996 Checkerboard Exchange, 100 percent of the area is federal ownership. This area was identified in the 1999 review of IRAs and other un-roaded areas, and included as an IRA in the 2001 Roadless Area Conservation Rule.

Barren Peak - (No. 01-183)

Description – This area is located adjacent to the CMW on the west, Silver Butte Creek to the south, private property and roads to the east and north.

The area includes Barea Creek, Iron Meadows, Trapper Creek, Olsen Creek, and Porcupine Creek. Prior to the Checkerboard Land Exchange in 1996, over 30 percent of the area was private land.

Barren Peak IRA contains areas of all four underrepresented plant communities (2003 R1 Wilderness Needs). There is a patented mining claim that is an inholding on the west boundary with the CMW. Along the south boundary is Forest System roads # 148 and #594, and a high power transmission line.

Table 68. Barren Peak Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Barren Peak (01-183)	Moderate	Moderate	Moderate	Yes	Medium value for minerals, patented mining claim, adjacent to CMW and Allen Peak IRA

¹Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This area was evaluated as suitable for recommended wilderness, although all summary ratings were moderate because it is adjacent to the Cabinet Mountains Wilderness. The recommended wilderness differed by action alternative addressing a range of management options.

Alternative B Modified would protect roadless characteristics, while considering the adjacent private property, patented mining claim, access on road # 148 and #594, and operations of the high power transmission line. In this alternative Barren Peak was allocated primarily to MA5b.

Alternative C would protect roadless characteristics, and emphasize wilderness values on part of the IRA. In this alternative 2,059 acres of Barren Peak IRA was allocated to MA1b. This part of the Barren Peak IRA provides a connective corridor between Allen Peak IRA and the CMW. The boundary was modified to follow features on the ground, and provide interface along open roads and private property. The north and east areas were allocated to MA5a and MA5b due to adjacent private lands, patented mining claim, and occupancy.

Alternative D would protect roadless characteristics the least, allocating primarily to MA6. In this alternative Barren Peak was allocated primarily to MA6.

Table 69. Barren Peak Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Barren Peak	MA1b		2,059	
	MA5a		12,416	
	MA5b	14,526	52	
	MA6			14,526

Table 70. Barren Peak IRA History

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
Barren Peak	01-183	21,000	0	14,570	0	14,526	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

Barren Peak was identified in RARE I, but not included in RARE II. In the 1987 Forest Plan some of Barren Peak 183 was included as part of Cabinet Face East 671. After the 1996 Checkerboard exchange, 100 percent of the area is federal ownership. Barren Peak was separated from Cabinet Face East in the 1999 review of IRAs and other unroaded areas for the Analysis of the Management Situation because of the acquisition of the private land.

Berray Mountain - (No. 01-672)

Description – This roadless area is located on the east side of the Bull River between the South and East Forks of the Bull River. It is accessed from the Bull Lake Road (State Highway 6).

The area is characterized by high elevation ridge tops, with steep cliffs present on the southern and western ends. Berray Mountain is the highest point within the area at 6,150 feet. The northern portion contains forested lands but the remainder is generally sparsely forested.

Berray Creek, Baker Gulch, and numerous small tributaries of the Bull River drain into this area. The area has a globally rare sensitive plant elemental occurrence of *Grimmia brittoniae*, Britton's dry rock moss (Montana Natural Heritage Program 2011). The majority of Berry Creek contains underrepresented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5, and ARU.

Berray Mountain Lookout, while not active, is in fair to poor condition. There are mid-slope helicopter harvest units (individual tree harvest and under burning) along Bull River (1996). The area is surrounded by developments such as roads and harvest units.

Table 71. Berray Mountain Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Berray Mountain (01-672)	Moderate	Moderate	High	No	Active restoration work needed on north end; sheep present and management needed; private land along south boundary

¹Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This IRA did not have an evaluation rating of suitable. Alternatives B Modified and C would protect roadless characteristics by allocating to MA5a, with the exception of a corridor along the East Fork Bull River that is MA2 wild and scenic river. Aquatic and fish restoration work has been identified on the north end; sheep management work identified on the south end that may not be compatible with wilderness.

Alternative D would protect roadless characteristics least due to the proposed allocation of MA6 in this alternative; with the exception of a corridor along the East Fork Bull River that is MA2 wild and scenic river.

Table 72. Berray Mountain Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Berray Mountain	MA2	373	373	373
	MA5a	8,732	8,732	
	MA6			8,732

Table 73. Berray Mountain IRA History

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
Berray Mountain	01-672	0	8,200	8,300	0	9,105	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

Big Creek - (No. 01-701)

Description – This IRA is located to the west of Lake Koocanusa, and includes the west slopes of South Fork of Big Creek. The area is long and narrow, separated from Zulu IRA #166 by a system of roads and harvest units. There is a globally rare sensitive plant elemental occurrence of *Botrychium sp.* (SOC), Moonworts, just outside the boundary of Big Creek IRA (Montana Natural Heritage Program 2011). The majority of Big Creek IRA contains underrepresented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5, and ARU. Over one-third of

the area is within a wild and scenic river designation. Big Creek includes low elevation, bottom lands.

There are fish structures with maintenance needs, high fuel loadings due to mountain pin beetle mortality, and a structure, Big Creek Cabin, near the mouth of North Fork of Big Creek. This area has snowmobile use, with designated over-snow routes on Road #336 and 7138.

Table 74. Big Creek Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Big Creek (01-701)	Moderate	Moderate	High	Yes	Cedar/hemlock under represented plant community existing over-snow motorized use, existing structure (Big Creek Cabin)

¹Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This area was evaluated as suitable for recommended wilderness, although capability and availability summary ratings were moderate. The recommended wilderness differed by action alternative addressing a range of management options.

Alternatives B Modified and D would protect roadless characteristics, while considering moderate capability and availability summary ratings and management of the existing structures (fish and cabin), dispersed and over-snow recreation use. In these alternatives Big Creek IRA was allocated to MA5b and MA2 wild and scenic river.

Alternative C would protect roadless characteristics, and emphasize wilderness values on most of this IRA. In this alternative Big Creek IRA was allocated to MA1b, MA2 and MA6. The boundary was modified to follow features on the ground, and provide interface along open roads.

Table 75. Big Creek Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Big Creek	MA1b		6,400	
	MA2	2,559	278	2,559
	MA5c	4,967		4,967
	MA6		848	

Table 76. Big Creek IRA History

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
Big Creek	01-701	0	0	0	0	7,526	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

This area was reviewed in 1995, identified in the 1999 review of IRAs and other un-roaded areas, and included as an IRA in the 2001 Roadless Area Conservation Rule.

Buckhorn Ridge - (No. 01-661)

Description – The Buckhorn Ridge roadless area is located on the Idaho-Montana border, along the divide between the Moyie and Yaak Rivers, in the northwest corner of the Forest. Approximately 6,700 acres extend into Idaho, and is managed by the IPNF. The southern section is formed by Newton Ridge while the northern section is formed by the Spread Creek Road, which divides this roadless area from the Northwest Peaks roadless area to the north.

The geography and topography are characterized by a high elevation ridgeline (6,500 feet elevation) with broad, open, grassy side slopes and timbered basins divided by spur ridges. The area includes headwater areas for Pine, Meadow, Hell Roaring, Red Top, and Spread Creeks of the KNF and Deer Creek of the IPNF. The area is surrounded by roads and clearcuts, is between 1-3 miles wide, isolated from other IRAs (except NW Peaks), and has over-snow motorized use.

Approximately 37 percent of the area contains underrepresented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5, VRU8 and ARU. There is a globally rare sensitive plant elemental occurrence of *Botrychium sp.* (SOC), Moonworts (Montana Natural Heritage Program 2011).

Table 77. Buckhorn Ridge Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Buckhorn Ridge (01-661)	High	High	High	No	Private property adjacent, existing over-snow motorized use, Idaho designated backcountry/restoration

¹Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This IRA did not have an evaluation rating as suitable, although all ratings were high. This IRA is long and narrow, and adjacent to private property on south and west. The area has public support to manage for scenic resources and recreation including over-snow uses. The northern part of this area is part of the Three Rivers Challenge project supported by the Lincoln County Coalition, and is included in proposed legislation (U.S. Sen. Jon Tester Forest Jobs and Recreation Act 2012) as both motorized and non-motorized special recreation management areas. The portion in Idaho, under

the 2008 Idaho Roadless Rule, is designated under the backcountry/restoration management theme.

Alternative B Modified would protect roadless characteristics, while considering over-snow use. This would be consistent with management under the 2008 Idaho Roadless Rule. In this alternative Buckhorn Ridge IRA was allocated primarily to MA5c in the north and MA5a to the south and between Hellroaring and Spread Creek.

Alternative C would protect roadless characteristics the most, with the area being allocated primarily to MA5a. This would be consistent with management under the 2008 Idaho Roadless Rule, but not allow existing over-snow uses.

Alternative D would protect roadless characteristics the least, with the entire area allocated primarily to MA5c. This would be consistent with management under the 2008 Idaho Roadless Rule, while considering motorized uses.

Table 78. Buckhorn Ridge Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Buckhorn Ridge	MA5a	15,308	28,528	
	MA5b		150	
	MA5c	13,480		28,788
	MA6		110	

Table 79. Buckhorn Ridge IRA History

Buckhorn Ridge Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA or (2008 IRR IRA)	2013 RFP Recommended Wilderness
KNF Total	01-661	8,000	2,900	22,000	0	28,788	0
MT						28,688	
ID ²						(100) ²	
IPNF ³		661		5,500	9,600	9,500 ³	
MT						2,900	
ID ⁴						(6,600) ⁴	

Buckhorn Ridge Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA or (2008 IRR IRA)	2013 RFP Recommended Wilderness
Total			8,400	31,600	0	38,288	

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

² Managed under KNF Plan and 2008 Idaho Roadless Rule

³ Managed under IPNF Plan

⁴ Managed under IPNF Plan and 2008 Idaho Roadless Rule

RARE I acres are part of Red Top IRA 169. In RARE II Red Top 169 was reduced, with the north section of Buck Horn Ridge included as Buck Horn Ridge 661. The 1987 Forest Plan extended the area south to Newton Ridge, including parts of Red Top IRA 169 and Buck Horn Ridge IRA 661.

Cabinet Face East - (No. 01-671)

Description – The area is located along the eastern edge of the Cabinet Mountains Wilderness, extending about 36 miles south of Libby.

Topography is a row of rugged canyons for which the Cabinet Mountains derived its name. Most of the area is steep (55 percent) with a highly dissected drainage pattern.

The surrounding area includes the Cabinet Mountains Wilderness to the west and national forest land managed for timber and wildlife on the eastern edge. This area has high mineral deposits, with numerous patented and existing mining claims, including inholdings.

Approximately 50 percent of the area has underrepresented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5 and ARU. There are three known globally rare sensitive plant elemental occurrence of *Botrychium sp.* (SOC), Moonworts, and one occurrence of sensitive plant *Lomatium geyeri*, Geyer's Biscuitroot (Montana Natural Heritage Program 2011).

Table 80. Cabinet Face East Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Cabinet Face East (01-671)	High	N-High S-Low	High	Yes	Adjacent to CMW, south 1/2 high value mineral, patented mining claims, underrepresented plant communities

¹Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – The evaluation rating was as suitable for recommended wilderness, although the availability summary varied by area. Part of this area was included in the Montana Natural Resources Protection and Utilization Act of 1988, which included wilderness designation (not signed into law). The recommended wilderness differed by action alternative addressing a range of management options.

Alternative B Modified would protect roadless characteristics and enhance the wilderness environment, while considering the adjacent private property, mining claims, open roads, and recreation development. In this alternative parts of Cabinet Face East including; Flower Creek north were allocated primarily to MA1b or MA2 along the Kootenai River, and South Fork Flower Creek to Leigh Creek allocated primarily to MA1b or MA5b. The remaining portions of Cabinet Face East were allocated to MA5b. Alternative B Modified is most consistent with the 1987 Forest Plan recommended wilderness.

Alternative C would protect roadless characteristics, and enhance the wilderness environment. In this alternative approximately 60 percent of Cabinet Face East is allocated to MA1b. Parts of this area allocated to MA5a are: Snowshoe drainage with patented mining claims, and Ramsey Creek south to Trail Creek. The southern area includes multiple road intrusion, and mining claims. The boundary was modified to follow features on the ground, and provide interface along open roads and private property. Special management consideration is needed for mining claims and motorized access to wilderness trailhead. In Alternative C recommended wilderness is approximately twice the acreage as in the 1987 Forest Plan.

Alternative D would protect roadless characteristics the least, allocating primarily to MA6 on approximately 30 percent of the area. This alternative is similar to Alternative B Modified, with the same parts of Cabinet Face East allocated to MA1b. The remaining portions would be allocated to MA6. Boundary modifications along the Kootenai River are different than in Alternative B Modified. Alternative D is consistent with the 1987 Forest Plan recommended wilderness.

Table 81. Cabinet Face East Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Cabinet Face East	MA1b ¹	17,610	31,471	16,233
	MA2	547	547	547
	MA4	1,227	1,226	1,227
	MA5a	841	16,338	603
	MA5b	29,829		
	MA6	138	611	31,582

¹ Acres do not match recommended wilderness acres due to overlapping acres within MA4 and MA1b

Table 82. Cabinet Face East IRA History

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness ²
Cabinet Face East	01-671	36,500	18,000	50,400	21,046	50,192	18,807

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

² All MA1b acres, including overlapping MA4 acres

RARE I included 175 Cabinet Face & 183 Barren Peak. In RARE II IRA 183 was removed, and the area renumbered to IRA 671. 1987 Forest Plan roadless area includes 175 Cabinet Face and IRA 183, with adjusted boundaries.

Cabinet Face West - (No. 01-670)

Description - This area is located along the northwest edge of the Cabinet Mountains Wilderness, extending for approximately 16 miles from Swanson Creek on the north to the Middle Fork Bull River on the South.

The area is bordered by the Lake Creek and Bull River Valleys to the west and the Cabinet Mountains Wilderness to the east, with an average width of about one mile. The area is readily accessible from roads and trails leading off the Bull River Road (State Highway 56). These include the Madge Creek Road, Taylor Peak Trail, and trails up the North Fork and Middle Fork of the Bull River.

The area is steep and rugged, and is primarily a side hill situation along the northwest flank of the Cabinet Mountains. The drainages and side slopes are forested but, overall, the timber productivity is considered fair to poor.

The Bull River Valley has a growing population, spurred by the ASARCO Mt. Vernon mine near Troy and the recreation features of Bull Lake and the Lake Creek area.

Approximately 70 percent of the area has underrepresented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5 and ARU. There are three sensitive plant elemental occurrences (Montana Natural Heritage Program 2011).

Table 83. Cabinet Face West Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Cabinet Face West (01-670)	High	High	High	Yes	Adjacent to Cabinet Mountains Wilderness, areas of underrepresented plant communities, adjacent private

¹Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – The evaluation rating was as suitable for recommended wilderness. Part of this area was included in the Montana Natural Resources Protection and Utilization Act of 1988, which included wilderness designation (not signed into law). The recommended wilderness differed by action alternative addressing a range of management options.

Alternative B Modified would protect roadless characteristics and enhance the wilderness environment on portions of this area, while considering the adjacent private property and interface for fuel management options. In this alternative part of Cabinet Face West, the North Fork of Bull River was allocated to MA1b. The remaining portions of Cabinet Face West were allocated to MA5a. This area is reduced from the recommended wilderness allocation in the 1987 Forest Plan.

Alternatives C and D would protect roadless characteristics, and enhance the wilderness environment of the CMW. In this alternative approximately 60 percent of Cabinet Face West was allocated to MA1b. This is consistent with the recommended wilderness in the 1987 Forest Plan.

The remainder of the areas allocated to MA5a are; Camp Creek to Spring Creek, and smaller areas along private property. The boundary was modified to follow features on the ground, and provide interface along open roads and private property.

Table 84. Cabinet Face West Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Cabinet Face West	MA1b	1,261	8,027	8,027
	MA2	178	178	178
	MA4	504	504	504
	MA5a	11,579	4,814	4,081
	MA6	161	160	893

Table 85. Cabinet Face West IRA History

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness ²
Cabinet Face West	01-670	9,600	9,600	10,900	9,791	13,683	1,261

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

RARE I area 174 only included the northern portion; RARE II added the southern portion. The 1999 review of IRAs and other unroaded areas and 2001 Roadless Area Conservation Rule updated acres due to better mapping.

Cataract Creek - (No. 01-665)

Description – The area is located on the southern end of the KNF in Sanders County. A portion of the area extends into the Lolo National Forest (LNF). The area is readily accessible via the Vermilion Road (No. 154) which can be taken from State Highway 200. There are many trails in the area including a trail up Cataract Creek, a trail up West Fork Cataract Creek which connects with a ridgeline trail between Cataract Peak and Water Hill, and a ridgeline trail from Grouse Mountain to Seven Point Lakes.

The Cataract drainage is the dominant landform in the area. The drainage has severely rugged topography with many cliffs, rock slides, and vertical rock ribs. The Vermilion River is a recommended wild and scenic river. The highest point in the Kootenai portion is Seven Point Peak (6,600 feet). The Lolo portion is characterized by open parks at the higher elevations. Massive rock outcrops, bluffs, and cliffs are also present.

Vegetation types include mountain hemlock, bear grass, and cedar along the stream courses, patches of larch, grand fir, white pine, and Douglas-fir are also found.

Approximately 30 percent of the area has under represented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5 and ARU. There are nine globally sensitive plant elemental occurrence of *Collema curtisporum*, Jelly Lichen; two occurrences of sensitive plant *Clarkia rhomboidea*, Diamond Clarkia; and two occurrences of sensitive plant *Lobaria hallii*, A Lichen (Montana Natural Heritage Program 2011).

Except for the east and southwest sections of the area, developments around the area are minimal. Cataract is separated from the Galena roadless area to the northwest by the Vermilion River Road.

Table 86. Cataract Creek Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Cataract Creek (01-665)	Moderate	Low	High	No	One or more ratings of Low

¹Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This IRA did not have an evaluation rating of suitable. Alternatives B Modified and C would protect roadless characteristics by allocating primarily to MA5a. There is a corridor along the Vermilion River that is MA2 wild and scenic river, and MA4 a research natural area. Alternative D would protect roadless characteristics least, and is allocated to MA6.

Table 87. Cataract Creek Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Cataract Creek	MA2	1,205	1,205	1,205
	MA4	1,831	1,483	1,483
	MA5a	16,737	22,753	
	MA5b	5,667		
	MA6			22,753

Table 88. Cataract Creek IRA History

Cataract Creek Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
KNF	01-665	18,100	18,100	17,700	0	25,441	0
LNF ²				9,900		9,441	

Cataract Creek Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
Total				27,600		34,882	

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

² LNF AMS 2004 data, managed under the LNF Land Management Plan

In RARE I this area was 157. In the 1999 review of IRAs and other unroaded areas and 2001 Roadless Area Conservation Rule, an extension off Cataract was added.

Chippewa - (No. 01-682)

Description – This area is located immediately adjacent to the west side of the Cabinet Mountains Wilderness, roughly between Chippewa Creek and the North Fork of the East Fork of Bull River. Access to the roadless area is provided from State Highway 56 via the South Fork and East Fork Bull River Roads. A trail leading to Dad Peak within the Cabinets runs through the area.

The area is a high ridge top, steep with rocky shallow soils. Vegetation is relatively sparse on the south-facing slopes. Portions of Chippewa, Devil's Club, and Snake Creeks drain into the Bull River drainage.

The area is bordered by roads and clear cuts on the northwestern and southeastern edges and by the Cabinet Mountains Wilderness to the east.

Approximately 40 percent of the area has under represented plant communities (2003 R1 Wilderness Needs) including VRU5 and ARU.

Table 89. Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Chippewa (01-682)	High	High	Moderate	Yes	Douglas fir beetle infestation, adjacent to CMW

¹Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – The evaluation rating was as suitable for recommended wilderness. The portion of this area recommended as wilderness was the same for all action alternatives.

Alternatives B Modified, C, and D would protect roadless characteristics and enhance the wilderness environment on a portion of this area in underrepresented plant communities, while considering the management needs and adjacent harvest and roads. In these alternatives part of Chippewa Creek up to Poplar Point was allocated to MA1b, and the sections along the East Fork Bull River were allocated to MA2.

In Alternatives B Modified and C the remaining portions of Chippewa IRA were allocated to MA5a or 5b. Alternative D allocated the remaining area to MA6. All alternatives are consistent with the 1987 Forest Plan allocation of recommended wilderness.

Table 90. Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Chippewa	MA1b	361	361	361
	MA2	63	63	63
	MA5a	672	614	
	MA5b		58	
	MA6	165	165	837

Table 91. History of IRA

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
Chippewa	01-682	0	1,000	2,300	361	1,261	361

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

Chippewa IRA was included in RARE II. In the 1999 review of IRAs and unroaded areas and 2001 Roadless Area Conservation Rule the area was validated, with an acreage decrease around harvest units and roads.

Cube Iron - (No. 01-784)

Description – This area is located in the southeastern corner of the Forest bordering the Lolo National Forest, where the majority of the Cube Iron area is located. The portion on the KNF is high elevation ridge top, with steep and rocky slopes. Less than 4 percent of this area has under represented plant communities (2003 R1 Wilderness Needs) including VRU5 and ARU.

Table 92. Cube Iron Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Cube Iron (01-784)	Low	High	Low	No	One or more ratings of Low

¹Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This IRA did not have an evaluation rating of suitable. All action alternatives would protect roadless characteristics by allocating to MA5a or MA5b.

Table 93. Cube Iron Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Cube Iron	MA5a	623	623	0
	MA5b	0	0	623

Table 94. Cube Iron IRA History

Cube Iron Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
KNF	01-784	0	400	1,200	0	623	0
LNF ²				39,200		40,874	
Total				40,400		41,497	

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

² LNF AMS 2004 data, managed under the LNF Land Management Plan

In the 1999 KNF review of IRAs and unroaded areas and 2001 Roadless Area Conservation Rule, this area was validated with acreage corrected and reduced size due to a harvest unit.

Devil's Gap - (No. 01-698)

Description – This area is located south of Noxon Reservoir, and includes the north slopes of Marten Creek between Kismet Creek and Devil's Gap. The area includes steep cliffs, with a hole in the wall cave. The IRA is bounded by roads and a small section of private lands to the south.

Approximately 95 percent of the area has under represented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5 and ARU. There are two globally sensitive plant elemental occurrences of *Grimmia brittoniae*, Britton's dry rock moss (Montana Natural Heritage Program 2011).

Table 95. Devil's Gap Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Devil's Gap (01-698)	Moderate/High	High	High	No	Narrow 1 ½ mile wide, small size, Douglas fir bark beetle infestation, adjacent to Huckleberry Mountain & McNeeley IRA

¹Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This IRA did not have an evaluation rating of suitable although all ratings were moderate to high because of its narrow width, small size, and separation from other IRAs by roads.

Alternatives B Modified and C would protect roadless characteristics by allocating to MA5a. Alternative D would protect roadless characteristics the least by allocating to MA6.

Table 96. Devil's Gap Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Devil's Gap	MA3	832	0	0
	MA5b	4,518	5,350	0
	MA6	0	0	5,350

Table 97. Devil's Gap IRA History

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
Devil's Gap	01-698	0	0	0	0	5,350	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

Devil's Gap was not included in the 1987 Forest Plan as it was mapped under 5,000 acres. In the 1999 review of IRAs and other unroaded areas, and 2001 Roadless Area Conservation Rule, the area was validated as over 5,000 acres.

East Fork Elk - (No. 01-678)

Description – The area is located on the Idaho-Montana Divide, in the southwestern corner of the Forest. The area encompasses the Lost Cab Gulch, Butte Creek, and Cascade Creek drainages, all flowing northeasterly.

The area is primarily a ridge top with a steep rocky east face. Butte and Cascade Creeks, Cab Gulch, and several small unnamed tributaries originate within this area. Divide Peak (5,200 feet) is the dominant feature in the area.

The area is generally surrounded by existing or planned forest developments such as roads or timber harvesting units.

Approximately 80 percent of the area has under represented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5 and ARU. There is a globally sensitive plant elemental occurrence of *Collema curtisporum*, Jelly Lichen (Montana Natural Heritage Program 2011).

A small portion of this area is managed by the IPNF, and was designated as general forest in the Idaho Roadless Rule.

Table 98. East Fork Elk Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
East Fork Elk (01-678)	Moderate	Moderate	High	No	Known Douglas fir bark beetle infestation, existing over-snow motorized use, adjacent to West Fork IRA

¹Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – The area was evaluated as not suitable for recommended wilderness although the need was high. The adjacent area on the IPNF is designated as general forest under the 2008 Idaho Roadless Rule.

Alternative C would protect roadless characteristics the most allocating to MA5a; this is consistent with adjacent management by the IPNF under the 2008 Idaho Roadless Rule.

Alternative B Modified would protect the roadless characteristic, considering over-snow motorized use, allocating to MA5c. This is consistent with adjacent management by the IPNF under the 2008 Idaho Roadless Rule.

Alternative D would protect roadless characteristics the least, allocating primarily to MA6. This is consistent adjacent management by the IPNF under the 2008 Idaho Roadless Rule.

Table 99. East Fork Elk Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
East Fork Elk	MA5a	710	6,766	0
	MA5c	6,056	0	0
	MA6	0	0	6,766

Table 100. East Fork Elk IRA History

East Fork Elk Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA or (2008 IRR IRA)	2013 RFP Recommended Wilderness
KNF	01-678	0	6,400	5,000	0	6,766 MT	0
IPNF				0		(100) ID ²	
Total				0		6,866	

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

² Managed by the IPNF under the 2008 Idaho Roadless Rule

Acres validated in 1998 review of IRAs and other unroaded areas and the 2001 Roadless Area Conservation Rule, with an extension of the area on the north.

Flagstaff - (No. 01-690)

Description – The area is located just north of and adjacent to the Kootenai River between Hunter Gulch and China Creek, running north to O’Brien Mountain. Access is provided via the Kootenai River Road, Quartz Creek Road, and roads leading up O’Brien Creek, Lynx Creek, and Kootenai Mountain. A National Recreation Trail traverses the Quartz Creek portion of the roadless area.

The area is dominated by Flagstaff Mountain (6,100 feet), O’Brien Mountain (6,800 feet), and Quartz Mountain (6,300 feet) lying just outside the boundary.

The area is generally surrounded by forest developments such as roads and clear cuts.

The area contains bighorn sheep, primarily on the face overlooking the Kootenai River. Viewing them from Highway 2 in the spring is one of the area’s main attractions.

Approximately 51 percent of the area has under represented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5 and ARU. There are several globally sensitive plant elemental occurrence of *Botrychium sp.*, Moonworts and sensitive plant elemental occurrence of *Lomatium geyeri*, Geyer’s Biscuitroot (Montana Natural Heritage Program 2011).

Table 101. Flagstaff Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Flagstaff (01-690)	Moderate	Moderate	Moderate	No	Area is narrow and irregularly shaped, isolated, divided from Cabinet Face East by highway, railroad, power line, and Kootenai River

¹Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This IRA did not have an evaluation rating of suitable as all ratings were moderate. While the area is adjacent to the Cabinet Mountains Wilderness, a high power transmission line, the Kootenai River and Highway 2 separate the areas. All action alternatives would protect roadless characteristics. All alternatives include 1,434 acres as MA2, 77 acres as MA3, and 303 acres of MA4.

Alternative B Modified would protect the roadless characteristics, while considering over-snow motorized use in the China Mountain area, allocating that area to MA5c.

Alternative C would provide the most protection for roadless characteristics allocating primarily to MA5a, with Alternative D providing the least protection allocating primarily to MA 6.

Table 102. Flagstaff Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Flagstaff	MA2	542	1,434	1,434

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
	MA3	77	77	77
	MA4	767	303	303
	MA5a	3,848	9,289	0
	MA5c	5,871	0	0
	MA6	0	0	9,289

Table 103. Flagstaff IRA History

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
Flagstaff	01-690	0	0	9,500	0	11,103	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

This area was included in 1987 Forest Plan review, boundary adjustments were made in the 1999 review of IRAs and other unroaded areas, and in the 2001 Roadless Area Conservation Rule.

Galena - (No. 01-677)

Description – The area is located immediately south of the Cabinet Mountains Wilderness, separated from the wilderness by the BPA transmission line and road. Major drainages include Galena Creek and Canyon Creek. Trails include one up Canyon Creek and a system along the ridgeline connecting Canyon Peak, Twenty Peak, and Twenty Odd Peak.

The area is primarily steep and rocky. Several named and unnamed tributaries and streams originate in this area: Galena Creek, two forks of Silver Butte, Canyon Creek, and Belgian, Roe, Berry, and Odd Gulches. Canyon Peak (6,326 feet) and Twenty Peak (6,171 feet) dominate the area. Vegetation is generally sparse due primarily to thin soils and extreme climatic conditions on the south slopes. Except for the private lands bordering the area on the southwest, the area surrounding Galena is relatively undeveloped.

Approximately 46 percent of the area has under represented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5 and ARU. No sensitive plants noted in 2011.

Table 104. Galena Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Galena (01-677)	Moderate	Moderate	Moderate ²	No	Over-snow motorized use, adjacent to MacKay IRA and Cabinet Mountains Wilderness

¹ Please refer to detailed ratings and summaries in this appendix for each roadless area

² Change between draft and final from High to Moderate from Montana Natural Heritage Program 2011 sensitive plant information

Summary of Environmental Consequences by Alternative – This area was not evaluated as suitable for recommended wilderness as all ratings were Moderate. While the area is adjacent to the Cabinet Mountains Wilderness, a high power transmission line and road separate the areas.

Alternative B Modified would protect roadless characteristics, while considering over-snow motorized use, allocating the area primarily to MA5b. Alternative C would protect roadless characteristics the most, allocating primarily to MA5a. Alternative D would protect roadless characteristics the least, allocating the area primarily to MA6.

Table 105. Galena Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Galena	MA3	0	170	170
	MA5a	0	19,123	0
	MA5b	19,293	0	0
	MA6	0	0	19,123

Table 106. Galena IRA History

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
Galena	01-677	15,000	15,000	15,500	0	19,293	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

The Galena area 161 was combined to include Canyon Peak 184, with the IRA number changed in RARE II to 677. The Forest Service acquired all of the private land in the 1996 Checker Board Exchange. The review in 1999 of IRAs and other unroaded areas and 2001 Roadless Area Conservation Rule, with better mapping validated acres.

Gold Hill - (No. 01-668)

Description – The area is located along the west shore of Koocanusa Reservoir and includes the Parsnip, Middle Fork, and North Fork drainages.

It is easily accessible from the Forest Development Road, which runs along the west side of the reservoir. A trail up Parsnip Creek leads to Parsnip Mountain, which lies outside of the roadless area boundary.

The area is comprised of three gentle to steep-sided, densely-forested drainages separated by well-defined, tree-covered finger ridges. Gold Hill includes low elevation bottom lands.

The roadless area is surrounded by developments, ranging from Koocanusa Reservoir on the east to forest management activities, such as roads and clear cuts scattered along the remaining perimeter.

Approximately 77 percent of the area has under represented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5, VRU8 and ARU.

Table 107. Gold Hill Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Gold Hill (01-668)	Low/Moderate	Moderate	Low	No	One or more ratings of Low, irregular boundary, isolated

¹Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This IRA did not have an evaluation rating of suitable.

Both Alternatives B Modified and D would protect the roadless characteristics the least by allocating this area to MA6. Alternative C would protect the roadless characteristics the most by allocating this area to MA5c.

Table 108. Gold Hill Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Gold Hill	MA5c	0	6,452	0
	MA6	6,452	0	6,452

Table 109. Gold Hill IRA History

Roadless Area	Number	Acres ¹					
		RARE I*	RARE II*	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
Gold Hill	01-668	29,420	17,300	10,200	0	6,452	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

* Also see Gold Hill West #176

In RARE I the area shown as 176, extended from FDR to South Fork Big Creek and included parts of the current Gold Hill Area. In RARE II the area showed as #668 included parts of RARE I area 176, and additional area along Lake Koocanusa. The 1987 Forest Plan review defined Gold Hill 668 and Gold Hill West 176 as separate areas. The 1992 Forest Plan monitoring report noted size reduction in area 668, due to harvest units, to below 5,000 acres.

The 1999 review of IRAs and other unroaded areas and 2001 Roadless Area Conservation Rule, with updated mapping validated Gold Hill 668 area over 5,000 acres.

Gold Hill West - (No. 01-176)

Description – This area is located in the approximate center of the KNF. The area extends east from Pipe Creek road encompassing Gold Hill and Lost Soul Mountains. Access to the area is provided by the Pipe Creek Road to the trailhead on the South Fork of Big Creek.

The area is formed by the west branch of the South Fork of Big Creek forming a basin on the east half bordered by Gold Hill in the center and Lost Soul Mountain on the east. Noisy Creek drains the west half. The east half typically has gentle slopes with Lost Soul Mountain the highest point at 6,168 feet elevation.

There is over-snow use on the northern boundary of this area.

Approximately 51 percent of the area has under represented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5, VRU8 and ARU.

Table 110. Gold Hill West Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Gold Hill West (01-176)	Moderate	High	Moderate	Yes	Western red cedar and riparian under represented plant communities, acquisition of the private lands in area, boundaries along open roads (FDR 68)

¹Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – The evaluation rating was suitable, although the capability and need summary ratings were moderate. The recommended wilderness differed by action alternative, addressing a range of management options.

Alternative B Modified would protect roadless characteristics while allowing for over-snow motorized use. In this alternative Gold Hill West was allocated primarily to MA5c.

Alternative C would protect roadless characteristics, and enhance the wilderness environment. In this alternative Gold Hill West was and primarily allocated to MA1b.

Alternative D would protect roadless characteristics the least. In this alternative Gold Hill West allocated primarily to MA6.

Table 111. Gold Hill West Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Gold Hill West	MA1b	0	11,550	0
	MA3	1,267	155	1,267
	MA5a	0	1,628	0
	MA5c	13,805	746	3,460
	MA6	0	994	10,345

Table 112. Gold Hill West IRA History

Roadless Area	Number	Acres ¹					
		RARE I*	RARE II*	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
Gold Hill West	01-176	0*	0*	10,700	0	15,072	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

* Also see Gold Hill #668

In RARE I the area shown as #176, extended from FDR to South Fork Big Creek and included parts of the current Gold Hill Area. In RARE II, the area showed as #668 included parts of RARE I area #176, and additional area along Lake Koocanusa. In 1983 the Forest Plan IRA review defined Gold Hill #668 and Gold Hill West #176 as separate areas. In the 1999 review of IRAs and other unroaded areas and the 2001 Roadless Area Conservation Rule, the Tom Poole land exchange affected boundaries of Gold Hill West increasing size of the area.

Government Mountain - (No. 01-673)

Description – This roadless area is located immediately northeast of the confluence of the Bull and Clark Fork Rivers (State Highway 56 and 200). The area is primarily a ridge top and side hill setting with steep and rocky slopes, exposed during the 1920 burn and reforested in a mosaic of conifers and hardwoods. Ellis Gulch, Thirteen Gulch, Basin Creek, a portion of Copper Creek, and several other tributaries of both the Bull River and the Cabinet Gorge Reservoir drain from this area.

Approximately 57 percent of the area has under represented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5 and ARU. There is globally sensitive plant elemental occurrence of *Grimmia brittoniae*, Britton's dry rock moss (Montana Natural Heritage Program 2011).

Table 113. Government Mountain Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Government Mountain (01-673)	Low/Moderate	Moderate	Moderate	No	One or more ratings of Low, existing over-snow motorized use, high value minerals, adjacent to CMW

¹Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This IRA did not have an evaluation rating of suitable. Alternatives B Modified and C would protect roadless characteristics the most by allocating primarily to MA5a. Alternative D would protect roadless characteristics while considering motorized uses, and is allocated to MA5b and MA6.

Table 114. Government Mountain Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Government Mountain	MA2	330	330	330
	MA5a	9,754	9,754	0
	MA5b	0	0	7,154
	MA6	0	0	2,599

Table 115. Government Mountain IRA History

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
Government Mountain	01-673	0	8,600	8,600	0	10,084	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

This area was reviewed in RARE II, and included as an IRA in the 1987 Forest Plan. The 1999 review of IRAs and other unroaded areas and 2001 Roadless Area Conservation Rule, acreage was updated due to better mapping.

Grizzly Peak - (No. 01-667)

Description – The area is located in the north end of the Forest, northeast of Sylvanite, immediately north of the Burnt Creek Road (No. 472). The area is readily accessible from the Burnt Creek Road which is reached via the Yaak Road (Forest Highway 92). There is one trail in the area Grizzly Peak Trail 182 which runs from the south to the north over grizzly peak.

The area is formed by the Grizzly Creek drainage, fanning up from the Burnt Creek road, culminating at the main ridge running from Clark Mountain (6,400 feet) to Grizzly Peak (6,100 feet). The area is surrounded by management activities such as roads with harvest on the north side of the main ridge.

Approximately 57 percent of the area has under represented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5 and ARU.

Table 116. Grizzly Peak Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Grizzly (01-667)	Moderate	High	Moderate	No	Existing over-snow motorized use close to Roderick IRA

¹Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This IRA did not have an evaluation rating of suitable although availability was rated high. With the relative small size and shape of this area most of the area is within one mile of roads.

All alternatives would protect roadless characteristics by allocating primarily to MA5a. Alternative D allocated approximately one half of the area to MA6.

Table 117. Grizzly Peak Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Grizzly Peak	MA5a	7,436	7,054	4,698
	MA5b	0	54	0
	MA6	0	328	2,738

Table 118. Grizzly Peak IRA History

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
Grizzly Peak	01-667	0	5,900	6,000	0	7,436	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

This area was reviewed in RARE II, and included in the 1987 Forest Plan. The 1999 review of IRAs and other unroaded areas and 2001 Roadless Area Conservation Rule updated acres due to better mapping.

Huckleberry Mountain - (No. 01-699)

Description – Huckleberry Mountain is bounded on the north by private property along Pilgrim Creek and the south by Road 2214. The area contains two distinct sections. The northern area is over 5,000 acres in size. It is joined to the southern area by a narrow neck between harvest units and Road 2710. Southern area is approximately 3,400 acres. This area includes Telegraph Creek, Baxter Gulch, and Stevens Creek. There are two trails in the southern area.

Approximately 70 percent of the area has under represented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5 and ARU.

Table 119. Huckleberry Mountain Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Huckleberry Mountain (01-699)	Moderate	Moderate	Moderate	No	IRA has two areas, separated by a road, known Douglas fir bark beetle infestation, adjacent to private land on north

¹Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This IRA did not have an evaluation rating of suitable.

Alternatives B Modified and C would protect roadless characteristics the most by allocating primarily to MA5b. Alternative D would protect roadless characteristic the least, allocating the area to MA6.

Table 120. Huckleberry Mountain Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Huckleberry Mountain	MA5b	8,959	8,959	0
	MA6	0	0	8,959

Table 121. Huckleberry Mountain IRA History

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
Huckleberry Mountain	01-699	0	0	0	0	8,959	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

This area was not identified in the 1987 Forest Plan, as it was mapped under 5,000 acres. The 1999 review of IRAs and other unroaded areas and 2001 Roadless Area Conservation Rule, with better mapping validated the area as over 5,000 acres.

LeBeau - (No. 01-507)

Description – This area is on the eastern edge of the Forest, with the majority of the roadless area on the Flathead National Forest (FNF). Road 3738 to Smokey Lake divides the Kootenai portion of this area.

Approximately 70 percent of the area has under represented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5 and ARU. There are two sensitive plant elemental occurrences *Scorpidium scorpioides*, *Scorpidium* moss and *Dryopteris cristata*, Crested Shieldfern (Montana Natural Heritage Program 2011).

Table 122. LeBeau Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
LeBeau (01-507)	Low	High	Moderate	No	One or more ratings of Low

¹Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This IRA did not have an evaluation rating of suitable.

Alternative C would protect roadless characteristics the most by allocating primarily to MA5b and MA4. Alternative D would protect roadless characteristic the least, allocating the area to MA6 and MA4.

Table 123. LeBeau Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
LeBeau	MA4	411	411	411
	MA5a	0	847	0
	MA5b	847	0	0
	MA6	0	0	847

Table 124. LeBeau IRA History

LeBeau Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
KNF	01-507	0	0	700	0	1,258	0
FNF ²		0	0	6,200		6,200	
Total				6,900		7,458	

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

² Managed under the Flathead National Forest Plan

This area was identified in the 1987 Forest Plan. The majority of this area is on the Flathead National Forest. The 1999 KNF review of IRAs and other unroaded areas and the 2001 Roadless Area Conservation Rule increased the acreage on the KNF due to better mapping.

Lone Cliff Smeads - (No. 01-674)

Description – This roadless area is located along the south bank of the Clark Fork River. The east part containing Chimney Rock and Loveland Peak, and the west part containing the upper reaches of Rice Draw. The south is bordered by the West Fork Pilgrim Creek Road.

The area has steep slopes with narrow ridge tops and valley bottoms. It contains the upper reaches of Rice Draw and Smeads Creek and several small tributaries to the West Fork of Pilgrim Creek including Four mile Gulch. Loveland Peak (5,470 feet) is the highest point. Approximately 59

percent of the area has under represented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5 and ARU.

Table 125. Lone Cliff Smeads Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Lone Cliff Smeads (01-674)	Low	Low	Moderate	No	One or more ratings of Low

¹Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This IRA did not have an evaluation rating of suitable.

Alternatives B Modified and C would protect roadless characteristics the most by allocating primarily to MA5b. Alternative D would protect roadless characteristic the least, allocating the area to MA6.

Table 126. Lone Cliff Smeads Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Lone Cliff Smeads	MA5b	5,114	5,114	0
	MA6	0	0	5,114

Table 127. Lone Cliff Smeads IRA History

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
Lone Cliff Smeads	01-674	0	14,200	6,600	0	5,114	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

This area was reviewed in RARE II. In the 1987 Forest Plan review the acres were reduced (Deer Creek) due to harvest. In the 1998 review of IRAs and other unroaded areas and the 2001 Roadless Area Conservation Rule the acres were validated.

Lone Cliff West - (No. 01-674a)

Description – The area is located in the south west portion of the Forest, near the Idaho-Montana Divide. The area is bounded on the north by private property, the west by Road 2273 and on the east by road 2744.

It includes Deer Creek, Lone Cliff Gulch, and several unnamed tributaries of the East Fork of Elk Creek. Approximately 74 percent of the area has under represented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5 and ARU.

Table 128. Lone Cliff West Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Lone Cliff West (01-674a)	Low/Moderate	Low	Moderate	No	One or more ratings of Low

¹Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This IRA did not have an evaluation rating of suitable.

Alternative B Modified would protect roadless characteristics, while considering motorized uses, allocating primarily to MA5b. Alternative C would protect roadless characteristics the most by allocating primarily to MA5a. Alternative D would protect roadless characteristic the least, allocating the area to MA6.

Table 129. Lone Cliff West Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Lone Cliff West	MA5a	0	5,311	0
	MA5b	5,311	0	0
	MA6	0	0	5,311

Table 130. Lone Cliff West IRA History

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
Lone Cliff West	01-674a	0	0	0	0	5,311	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

This area was not mapped in the 1987 Forest Plan review as it was less than 5,000 acres. The 1999 review of IRAs and other unroaded areas and the 2001 Roadless Area Conservation Rule, validated the area as over 5,000 acres.

Maple Peak - (No. 01-141)

Description – This area is located on south end of the Forest, along the divide between Idaho and Montana. The KNF area is part of a larger IRA that extends into the IPNF and LNF. The area in Idaho was classified as backcountry/restoration in the Idaho Roadless Rule.

The area contains two small lakes, Beaver and an unnamed lake. The area is primarily high ridge top with open canopy of trees, rock cliffs and talus slides. This area, on the Kootenai includes the upper reaches of Dixie Creek, Dragin Creek, and Emma Creek. Approximately 26 percent of this area includes areas of underrepresented plant communities (2003 R1 Wilderness Needs) including VRU5, and ARU.

Table 131. Maple Peak Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Maple Peak (01-141)	Low	High	Low	No	One or more ratings of Low

¹Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This IRA did not have an evaluation rating of suitable. The portion of this IRA in Idaho, on the IPNF, was classified as backcountry recreation (IPFP MA5) in the 2008 Idaho Roadless Rule.

Alternatives B Modified and C would protect roadless characteristics by allocating to MA5b. This is consistent with the adjacent IRA on the IPNF which is under the 2008 Idaho Roadless Rule. Alternative D would protect roadless characteristics the least by allocating to MA6 general forest on the KNF.

Table 132. Maple Peak Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Maple Peak	MA5b	3,588	3,588	0
	MA6	0	0	3,588

Table 133. Maple Peak IRA History

Maple Peak Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA or (2008 IRR IRA)	2013 RFP Recommended Wilderness
KNF-MT	01-141	0	900	1,400	0	3,588	0
LNF-MT ²				6,960	0	6,469	0
IPNF-IDF ³		0		8,730	0	(8,700)	0
Total			0	17,090	0	18,757	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

² LNF AMS 2004 data, managed under the Lolo National Forest Plan³ Managed under Idaho Panhandle National Forest Plan and 2008 Idaho Roadless Rule

The KNF portion acreage increased in the 1999 review of IRAs and other unroaded areas. The increase was due to better mapping and more accurate information.

Marston Face - (No. 01-172)

Description – The area is located in the northeastern corner of the Forest, extending along Patrick Ridge northwesterly from the Stillwater State Forest on the east. The area is accessible from Highway 93 and the Deep Creek Road. Trails radiate from Mount Marston (just outside the area boundary) along Patrick Ridge (Trail 860), Laughing Water Creek (Trail 98), and down slope to the west of Highway 93 on the northern end of Dickey Lake (Trail 361).

Sink Creek, Laughing Water Creek, several small, unnamed tributaries, and the main tributary to Martin Lake all originate within this area. Approximately 35 percent of the area contains underrepresented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5, and ARU. The area also contains white bark pine stands.

Marston Face roadless area is surrounded on three sides by roads (FSR 900, 1002, and 368) and past harvest units. Two of the road systems intrude into the area, FSR 900 to Marston Peak and FSR 368 in Deep Creek.

Table 134. Marston Face Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Marston Face (01-172)	Moderate	High	Moderate	Yes	Area adjacent to Thompson Seton IRA, ponderosa pine under-represented plant community

¹Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – The evaluation rating was suitable for recommended wilderness, although the capability and need summaries were moderate. The recommended wilderness differed by action alternative addressing a range of management options. The Whitefish Divide recommended wilderness area is made up of parts of up to three IRAs depending on the alternative: Marston Face 172, Thompson Seton 483, and Tuchuck 482.

Alternative B Modified would protect roadless character, while considering the adjacent private property, public supply water shed for Eureka, community fire protection needs, and public comment. In this alternative Marston Face was allocated primarily to MA5a with small part of MA5b near Marston Peak Lookout.

Alternative C would protect roadless characteristics, and enhance the wilderness environment. In this alternative Marston Face was primarily allocated to MA1b. Road system 368 in Deep Creek, which is outside of the IRA, was included as MA1b to make the boundary more manageable. Evidence of past management is substantially unrecognizable. Road 900 to Marston Peak, which also intrudes into the area, is allocated to MA5b, as Marston Peak is being utilized.

The boundary was moved away from private property on the west boundary. Marston Face would connect to Thompson Seton IRA in Deep Creek.

Alternative D would protect the roadless characteristics the least. In this alternative Marston Face was allocated primarily to MA5c.

Table 135. Marston Face Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Marston Face	MA1b	0	7,887	0
	MA5a	7,707	822	0
	MA5b	202	22	0
	MA5c	0	0	9,092
	MA6	1,183	362	0

Table 136. Marston Face IRA History

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
Marston Face	01-172	6,400	6,400	6,000	0	9,092	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

In the 1999 review of IRAs and other unroaded areas and 2001 Roadless Area Conservation Rule, acres increased due to more accurate mapping, and inclusion of additional area in Deep Creek.

The area includes four old roads and associated harvest. Two of the roads were re-contoured in 1996 (Rd 7003, 7003A); Trail 361 starts on an old road bed; and Road 368D is overgrown and impassable. These roads were included in the roadless area because of the short-term effect on the roadless character.

McKay Creek - (No. 01-676)

Description – This area is located on the southwestern corner of the Cabinet Mountains Wilderness, extending north along the west face of the Cabinets from the Swamp Creek drainage to Rock Creek. Access to the area is good from the Clark Fork River Valley via the Rock Creek, McKay Creek, and Swamp Creek roads.

This area includes the lower portion of Swamp Creek, Goat Creek, most of the headwaters of McKay Creek, and small unnamed tributaries of both Rock and McKay Creeks.

Except for the Cedar Gulch drainage, the roadless area is surrounded by a minimum of forest management activities. A high power transmission line corridor and maintenance road separates the McKay roadless area from the Galena roadless area (#677) to the southeast.

Approximately 50 percent of this area included areas of underrepresented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5, and ARU. The area has a sensitive plant elemental occurrence of *Clarkia rhomboidea*, Diamond Clarkia (Montana Natural Heritage program 2011).

Table 137. McKay Creek Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
McKay Creek (01-676)	Moderate/High	Moderate	Moderate	No	Existing over-snow motorized use, motorized use, restoration work identified, Douglas fir bark beetle infestation, adjacent power line, high value mineral deposits

¹ Please refer to detailed ratings and summaries in this appendix for each roadless area. Need evaluation was updated based on 2011 information.

Summary of Environmental Consequences by Alternative – The evaluation rating was not suitable for recommended wilderness. However with a capability rating of Moderate/High, and because the area is adjacent to the existing CMW, part of the area was recommended as wilderness in all alternatives. Part of this area was included in the Montana Natural Resources Protection and Utilization Act of 1988, which included wilderness designation (not signed into law). The area recommended differed by action alternative addressing a range of management options.

Alternatives B Modified and C would protect roadless characteristics, and enhance the wilderness environment, while considering the adjacent private property, manageable boundaries, and existing mineral rights. In these alternatives part of McKay Creek IRA were allocated to MA1b. Rock Creek, with the exception of the cherry stem (Rock Creek Trail #935, located on a road bed), is allocated to MA5b and MA3 in both alternatives. Rock Creek Trail #935 would continue to be non-motorized. This is an increase in acreage from the 1987 Forest Plan recommended wilderness.

Alternative D would protect the roadless characteristics, and enhance the wilderness environment, while considering manageable boundaries, and existing mineral rights. In this alternative most of McKay Creek IRA was allocated to MA1b including down to private land boundaries. Rock Creek is allocated to MA6, except an area by Lost Horse Mountain. Rock Creek Trail #935 would continue to be non-motorized. This is an increase in acreage from the 1987 Forest Plan recommended wilderness.

Table 138. McKay Creek Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
McKay Creek	MA1b	8,760	8,741	11,291
	MA3	0	9	81
	MA5a	4,835	6,382	0
	MA5b	1,690	154	0
	MA6	0	0	3,913

Table 139. McKay Creek IRA History

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
McKay Creek	01-676	4,360	11,700	13,500	0	15,286	8,741

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

The area in RARE I (160) only included the Goat Ridge area. RARE II added area north to Rock Creek and south to the BPA power line. The review for the 1987 Forest Plan adjusted boundaries. In the 1999 review of IRAs and other unroaded areas and 2001 Roadless Area Conservation Rule, validation increased acreage due to better mapping and more accurate information.

McNeeley - (No. 01-675)

Description – The area is located due west of the Noxon Reservoir in the Clark Fork Valley, reached via Marten Creek Road from State Highway 200. Jackson Gulch, McNeeley Creek, and several unnamed tributaries to both the South Branch and South Forks of Marten Creek either originate within or traverse this roadless area. Most of the roadless area burned in the 1930s and much of this land has not regenerated to trees. The area is bordered by timber harvest activities to the west, and by a power line corridor to the south. The Marten Creek Road borders the northern portion.

The area has a globally rare sensitive plant elemental occurrence of *Grimmia brittoniae*, Britton's dry rock moss and sensitive plant elemental occurrence of *Alnus rubra*, Red Alder (Montana Natural Heritage program 2011). Approximately 98 percent of this area included areas of underrepresented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5, and ARU.

Table 140. McNeeley Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
McNeeley (01-675)	Low	High	High	No	One or more ratings of Low

¹ Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This IRA did not have an evaluation rating of suitable, due to its capability being low.

Alternatives B Modified and C would protect roadless characteristics by allocating to MA5b. Alternative D would protect roadless characteristics the least by allocating to MA6.

Table 141. McNeeley Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
McNeeley	MA5b	6,653	6,653	0
	MA6	0	0	6,653

Table 142. McNeeley IRA History

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
McNeeley	01-675	0	8,848	7,700	0	6,653	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

Acres decreased in the 1999 review of IRAs and other unroaded areas and 2001 Roadless Area Conservation Rule, due to updated location of the power line on the south boundary.

Mt. Henry - (No. 01-666)

Description – The Mt. Henry area surrounds Mt. Henry. It includes Hoskins Lake, Henry Lake, Fish Lakes chain; and extends south through the head of Turner Creek. Six streams drain from the area into the Yaak River; Solo Joe, Windy, Hudson, Basin, Turner and Vinal Creeks.

The area is an irregular shape, surrounded by roads and cutting units. There are several trails along ridge tops and in stream bottoms.

Approximately 30 percent of this area includes areas of underrepresented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5, and ARU.

Table 143. Mt. Henry Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Mt. Henry (01-666)	Moderate	High	Low	No	One or more ratings of Low, irregular boundary, isolated

¹ Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This IRA did not have an evaluation rating of suitable, because one rating was low, it is an irregular shape, and it is isolated.

Alternatives B Modified and C would protect roadless characteristics by primarily allocating to MA5a. Alternative D would protect roadless characteristics to a lesser degree by allocating to MA5c.

Table 144. Mt. Henry Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
McNeeley	MA2	40	40	40
	MA5a	13,556	11,746	0
	MA5c	0	1,810	13,556

Table 145. Mt. Henry IRA History

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
Mt. Henry	01-666	15,950	21,000	0	0	13,595	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

Mt. Henry was 165 in RARE I, changing to 666 in RARE II. Mt. Henry was identified in the Montana Wilderness study Act of 1977 (23,450 acres). The 1983 the Lee Metcalf Wilderness and Management Act released the area from further study by Congress, and it was not included as a roadless area or recommended wilderness in the 1987 Forest Plan. As part of the 1999 review of IRAs and other unroaded areas and 2001 Roadless Area Conservation Rule the area was validated, with a decrease in acreage due to better information and mapping.

Northwest Peaks - (No. 01-663)

Description – The Northwest Peaks area is located in the extreme northwest corner of the KNF, bordered by Canada to the north and Idaho to the west. Approximately 5,670 acres of the area extends onto the IPNF. All of this area lies in the state of Montana.

Destination points via trails from the Pete Creek Road include Hawkins Lake and Northwest Peak, and the ridgeline running along Rock Candy Mountain and Black Top Mountain. The area is used by snowmobilers.

The area is characterized as high ridgeline setting with a generally rough topography. Headwater sections for Spread and Hawkins Creek are found in this area, as are Seven Lakes. Named lakes include Hawkins and Burke.

The center portion of the Northwest Peaks IRA was designated as Northwest Peaks Scenic Area in 1964 by the regional forester.

This area is part of the Three Rivers Challenge project supported by the Lincoln County Coalition, and is included in proposed legislation (U.S. Sen. Jon Tester Forest Jobs and Recreation Act 2012) as both motorized and non-motorized special recreation management areas.

Table 146. Northwest Peaks Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Northwest Peaks (01-663)	High	High	High	No	Isolated from other IRAs, existing over-snow motorized use, Support from Lincoln County Coalition for recreation uses; Scenic Special Area (MA3)

¹ Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This area did not have an evaluation rating as suitable, although all ratings were high. The area has been managed as a scenic area since 1962, which has included winter motorized recreation use. The Northwest Peaks area has public support through the Lincoln County Coalition, Three Rivers Challenge Project, to manage for scenic resources and recreation including over-snow uses. Northwest Peaks was not recommended as wilderness because of public support to continue management for both motorized and non-motorized recreation.

All action alternatives protect the roadless characteristics, allocating primarily to special area MA3, while allowing for over-snow uses. The scenic area expanded from 1987 Forest Plan acres of 4,714 to approximately 11,240 acres. See FEIS MA3.

Table 147. Northwest Peaks Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Northwest Peaks	MA3	11,240	11,240	11,248
	MA5a	3,901	4,008	0
	MA5b	0	62	154
	MA5c	47	0	2,298
	MA6	153	31	1,641

Table 148. Northwest Peaks IRA History

Northwest Peaks Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
KNF-MT	01-663	6,500	8,800	13,400	0	15,341	0
IPNF-MT ²		0	0	5,670		5,500	
Total				19,070		20,841	

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

² Managed by the IPNF

RARE I only included areas identified as Northwest Peaks Scenic Area, area 276. Both RARE II and 1987 Forest Plan reviews expanded the area. The 1999 review of IRAs and unroaded areas

and 2001 Roadless Area Conservation Rule increased area due to better mapping, more accurate information, and extending the area east to Mushroom Mountain.

Roberts - (No. 01-691)

Description – This area is located on the west central edge of the Forest, immediately north of the Callahan Creek Road. The area includes both Idaho and Montana. The area is dominated by the divide between Sweasey and Frezkat Creeks. Sweasey, Frezkat, and Jill Creeks, as well as unnamed tributaries to North Fork Callahan and Gordon Creeks, originate in this area.

The area is surrounded by forest management activities such as roads and clear cuts. Approximately 67 percent of this area includes underrepresented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5, and ARU.

Table 149. Roberts Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Roberts (01-691)	Moderate	Moderate	Moderate	No	Old Roads need restoration for aquatics, adjacent to Willard Estelle IRA

¹ Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This IRA did not have an evaluation rating of suitable. The majority of this area, approximately 7,400 acres, is designated under the Idaho Roadless Rule as backcountry/restoration.

Alternatives B Modified and C would protect roadless characteristics by allocating primarily to MA5a. Alternative D would protect roadless characteristics to a lesser degree by allocating to MA5b. All alternatives are consistent with the 2008 Idaho Roadless Rule.

Table 150. Roberts Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Roberts	MA5a	10,814	10,467	0
	MA5b	0	52	10,814
	MA6	0	296	0

Table 151. Roberts IRA History

Roberts Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA or (2008 IRR IRA)	2013 RFP Recommended Wilderness
KNF-MT	01-691	0	0	2,700	0	3,417	0
KNF-ID		0	0	5,300		7,400 ²	
Total				8,000		10,814	

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

² Managed under KNF Plan and 2008 Idaho Roadless Rule

The review for the 1987 Forest Plan excluded acres planned for harvest. The harvest did not occur, and acreage was added in the 1999 review of IRAs and other unroaded areas and 2001 Roadless Area Conservation Rule.

Robinson Mountain - (No. 01-164)

Description – This area is located on the north end of the Forest, with the north boundary being the International Boundary with Canada. The west, south, and east boundaries are roads.

The area covers the divide draining into both the Yaak River and Young Creek, and includes Robinson Mountain, Lake Geneva, Plum Bob Lake, and other small unnamed lakes.

There is a historic lookout on Robinson Mountain.

Less than 5 percent of this area includes underrepresented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5, and ARU.

Table 152. Robinson Mountain Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Robinson Mountain (01-164)	Moderate	High	Low	No	One or more ratings of Low, irregular boundary, isolated, mechanized and over-snow motorized use

¹ Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This IRA did not have an evaluation rating of suitable.

Alternatives B Modified and C would protect roadless characteristics by allocating to MA5a. Alternative D would protect roadless characteristics the least by allocating to MA5a and MA5c.

Table 153. Robinson Mountain Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Robinson Mountain	MA5a	7,030	7,030	4,980
	MA5c	0	0	2,050

Table 154. Robinson Mountain IRA History

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
Robinson Mountain	01-164	0	0	0	0	7,030	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

Robinson was not included in the 1987 Forest Plan due to pending projects, which did not occur. The 1999 review of IRAs and other unroaded areas and 2001 Roadless Area Conservation Rule validated Robinson as a roadless area.

Rock Creek - (No. 01-693)

Description – The Rock Creek Roadless area is located on the southwestern edge of the Cabinet Mountains Wilderness, in the Rock Creek drainage. It is surrounded by wilderness on three sides. The south boundary is Rock Creek Trail #935, which is located on an old road. Rock Creek Trail #935 is a non-motorized route. The area south of Rock Creek Trail is in McKay IRA.

Access is provided via State Highway 200 and the Rock Creek Road. The Rock Creek drainage is a major destination point for recreationists entering the Cabinet Mountains Wilderness.

Approximately 87 percent of this area included areas of underrepresented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5, and ARU. The area has a sensitive plant elemental occurrence of *Phegopteris connectilis*, Northern Beechfern (Montana Natural Heritage program 2011).

Table 155. Rock Creek Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Rock Creek (01-693)	High	Low	High	Yes	Currently a cherry stem into Cabinet Mountains Wilderness, high value for minerals, active mineral claim and Plan of Operations

¹ Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – The evaluation rating was suitable for recommended wilderness. While the availability rated as Low, the area is surrounded by the Cabinet Mountains Wilderness. The recommended wilderness differed by action alternatives addressing a range of management options.

Alternatives B Modified and C would protect roadless characteristics, and enhance the wilderness environment, while considering manageable boundaries and existing mineral claims. In these alternatives most of the Rock Creek IRA was allocated to MA1b. Rock Creek Trail #935 is allocated to MA5b, and would continue to be non-motorized. This area was not included as recommended wilderness in the 1987 Forest Plan.

Alternative D would protect the roadless characteristics, while considering existing mineral claims. In this alternative most of Rock Creek IRA was primarily allocated to MA6. Rock Creek Trail #935, although allocated to MA6, would continue to be non-motorized.

Table 156. Rock Creek Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Rock Creek	MA1b	581	581	0

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
	MA3	25	25	46
	MA5b	47	199	0
	MA6	153		759

Table 157. Rock Creek IRA History

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
Rock Creek	01-693	0	0	400	0	806	581

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

In the 1999 review of IRAs and other unroaded areas and 2001 Roadless Area Conservation Rule, acres increased due to finer precision mapping.

Roderick (No. 01-684)

Description – The area is located in the northwestern corner of the Forest, lying between the Yaak River and Pipe Creek Divide. The IRA is dominated by Roderick Mountain and the Independence Mountain ridgeline on the northern edge.

There are numerous low-elevation stream bottoms: Flat Tail, Independence, and the North Fork Seventeen Mile Creeks, Crum Gulch, and several unnamed first order tributaries to Seventeen Mile.

Approximately 86 percent of this area included areas of underrepresented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5, and ARU. The area has a sensitive plant elemental occurrence of *Scheuchzeria palustris*, Pod Grass; *Drosera anglica*, English Sundew; and *Carex rostrata*, Glaucus Beaked Sedge (Montana Natural Heritage program 2011).

This area is part of the Three Rivers Challenge project supported by the Lincoln County Coalition, and in proposed legislation (U.S. Sen. Tester Forest Jobs and Recreation Act 2012) as Roderick Wilderness Area.

Table 158. Roderick Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Roderick (01-684)	High	High	High	Yes	High ratings, Support from Lincoln County Coalition as Wilderness

¹ Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This area was evaluated as suitable, with all ratings of high. This area has public support through the Lincoln County

Coalition, Three Rivers Challenge Project, to manage for Wilderness. The recommended wilderness differed by action alternative addressing a range of management options.

Alternatives B Modified and C would protect roadless characteristics, and enhance the wilderness environment, while considering manageable boundaries and public support. In these alternatives most of Roderick IRA was primarily allocated to MA1b, with MA5a along private lands or roads. This area was not included in the 1987 Forest Plan as recommended wilderness.

Alternative D would protect the roadless characteristics the least. In this alternative most of Roderick IRA was primarily allocated to MA5a.

Table 159. Roderick Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Roderick	MA1b	22,719	22,719	0
	MA2	176	176	176
	MA5a	6,223	6,218	29,481
	MA5b	124	85	0
	MA6	416	460	0

Table 160. Roderick IRA History

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
Roderick	01-684	20,800	1,560	24,800	0	29,657	22,719

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

The RARE I area 167 included nearly the same area in the 1987 Forest Plan. RARE II area 684 reduced the IRA to a small area just north of Roderick Mountain. The 1999 review of IRAs and other unroaded areas and 2001 Roadless Area Conservation Rule considered the Roadless Area Conservation Rule I area increasing the size based on better information and mapping.

The revised Forest Plan MA1b recommended wilderness area includes approximate 750 acres or 3 percent of the area which is outside of an IRA (cherry stem of closed road # 6114/6115 system and associated harvest in Clay Creek) for manageability. There are open slopes on the south side of Roderick that have been managed with prescribed fires for wildlife habitat.

The revised Forest Plan MA1b boundary provides buffers around private property and roads on the south and west, and the north boundary was moved to the ridge, above the 6100, 6126 and 6136 road systems and harvest units.

Saddle Mountain - (No. 01-168)

Description – This area is located east of the Yaak River, south of Seventeen Mile Creek. The area includes Saddle, Conn, Arbo, Feeder, and Gunsight mountains. The area is surrounded by

roads, and has an irregular shape with three lobes. Approximately 70 percent of this area included areas of underrepresented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5, and ARU.

Table 161. Saddle Mountain Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Saddle Mountain (01-168)	Moderate/High	High	Moderate	Yes	Adjacent to Roderick IRA

¹ Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This area was evaluated as suitable, although need was moderate. The recommended wilderness differed by action alternative addressing a range of management options. Alternative B Modified would protect roadless characteristics, while considering existing uses, most of the area allocated to MA5a and MA5c.

Alternative C would protect roadless characteristics, and enhance the wilderness environment, while considering manageable boundaries. In this alternative most of Saddle Mountain area was primarily allocated to MA1b and MA5a.

Alternative D would protect the roadless characteristics the least. In this alternative most of Roderick IRA was allocated to MA5a and MA6.

Table 162. Saddle Mountain Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Saddle Mountain	MA1b	0	10,796	0
	MA2	153	153	153
	MA5a	11,638	2,602	7,794
	MA5c	2,842	0	0
	MA6	33	1,116	6,719

Table 163. Saddle Mountain IRA History

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
Saddle Mountain	01-168	5,400	0	0	0	14,666	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

This area was validated as a roadless area during the 1999 review of IRAs and other unroaded areas and 2001 Roadless Area Conservation Rule.

Scotchman Peaks - (No. 01-662)

Description – The Scotchman Peaks roadless area is located in the southwest corner of the KNF in western Lincoln and Sanders Counties, Montana, and northeast Bonner County, Idaho. The area extends into the IPNF. Portions of the KNF and IPNF area in the state of Idaho are managed under the Idaho Roadless Rule.

Access on the KNF includes several trails: Ross Creek Trail in the mid-portion and Pellick Ridge in the southeast corner. Trails are also present in Star and Napoleon Gulches, leading to Star Peak on Pellick Ridge and in Spar and Cub Creeks on the northern tip. The Ross Creek Cedars attracts many visitors.

Discussions of geography, topography, and vegetation invariably include descriptions of the area's rugged alpine scenery left by glaciers. Perhaps some of the most classic examples of glacial cirques found in the region dominate the upper reaches of Ross Creek. Little Spar Lake is the only named water body in the area although several alpine potholes or ponds are scattered throughout the rocks along the main divide.

Scenic attractions include Sawtooth and Billiard Table Mountains and Scotchman Peaks. Views from Pellick Ridge include Lake Pend Oreille, the Bitterroot Mountains, and the Cabinet Mountains Wilderness.

Approximately 45 percent of this area included areas of underrepresented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5, and ARU. The area has a globally sensitive plant elemental occurrences of *Grimmia brittoniae*, Britton's dry rock moss and *Botrychium sp.*, Moonworts; and sensitive plant elemental occurrences of *Phegopteris connectilis*, Northern Beechfern and *Heterocodon rariflorum*, Western Pearl-flower (Montana Natural Heritage program 2011).

Table 164. Scotchman Peaks Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Scotchman Peaks (01-662)	High	High	Moderate	Yes	Wildlife winter range along Clark Fork face, high value for minerals, areas of underrepresented plant communities, public support

¹ Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This area was evaluated as suitable. The area has organized public support as recommended wilderness for the entire roadless area with the Friends of the Scotchman Peaks Wilderness, a non-profit organization. Part of this area was included in the Montana Natural Resources Protection and Utilization Act of 1988, which included wilderness designation (not signed into law). The recommended wilderness differed by action alternative addressing a range of management options. Idaho portions of the area are managed under the 2008 Idaho Roadless Rule. The Idaho Roadless Rule theme for 10,900 acres in Idaho is wild land recreation.

Alternatives B Modified and C would protect roadless characteristics, and enhance the wilderness environment, while considering manageable boundaries. In these alternatives the majority of the Scotchman Peaks area was primarily allocated to MA1b and MA5a. Alternative C includes two areas on the KNF near Drift Peak as MA1b and MA5a, which would not allow over-snow motorized use. Alternative B Modified allocates the Drift Peaks areas to MA5c which allows for over-snow motorized use. All KNF areas in Idaho are consistent with the 2008 Idaho Roadless Rule. This is a slight increase in acreage from the 1987 Forest Plan recommended wilderness.

Alternative D would protect roadless characteristics. In this alternative most of the area was primarily allocated to MA5a and MA5c. Over-snow motorized use would continue to be prohibited in areas allocated as MA5a. KNF areas in Idaho would not be consistent with the 2008 Idaho Roadless Rule. This is not consistent with the 1987 Forest Plan recommended wilderness.

Table 165. Scotchman Peaks Allocation of Roadless Area KNF by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Scotchman Peaks (KNF only)	MA1b ¹	34,545	35,917	0
	MA2	648	648	648
	MA3	52	52	52
	MA4	1,874	1,874	1,874
	MA5a	11,500	15,948	34,540
	MA5c	5,403	0	0
	MA6	418	0	17,325

¹ Acres do not match recommended wilderness acres due to overlapping acres within MA4 and MA1b

Table 166. Scotchman Peaks IRA History

Scotchman Peaks Roadless Area	#	Acres ¹					
		RARE I (28)	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA or (2008 IRR IRA)	2013 RFP Recommended Wilderness ⁵
KNF-Total	01-662	29,900	52,100	51,900	35,852	54,439	34,545
ID ²		0	0	500	0	(500)	0
MT		0	0	51,400	0	53,939	0
IPNF-Total		0	32,090	31,840	23,912	32,200	25,885
ID ³		0	0	19,160	0	(19,900)	0
MT ⁴		0	0	12,680	0	12,300	0
Total of All		0	84,190	83,740	59,764	86,639	60,430

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

² Managed by the KNF under the 2008 Idaho Roadless Rule

³ Managed by the IPNF under the 2008 Idaho Roadless Rule

⁴ Managed by the IPNF

⁵ All MA1b acres, including overlapping MA4 acres

The RARE I review only included areas on the IPNF and in the upper reaches of Ross Creek, Billiard Table Mountain, and Star Peak. Rare II expanded the area north, east, and south. The 1999 review of IRAs and other unroaded areas and 2001 Roadless Area Conservation Rule validated acres increased due to better mapping. The 2013 KNF revised Forest Plan recommended areas differ from the 1987 recommendations with the following:

- Boundary moved to more identifiable location on ridge in Blue Creek, Billiard Table Mountain area;
- Boundary moved lower on the slopes along Highway 56, but still allowing for management along the highway; and
- Boundary moved down to a more identifiable location, a road system in Dry Creek.

Ten Lakes - (No. 01-683) and Ten Lakes Contiguous Area (No. 01-683a)

Description – The Ten Lakes Area includes the Ten Lakes Montana Wilderness Study Area (MWSA) #683 and five areas contiguous to the MWSA, identified as Ten Lakes Contiguous Area #683a. Ten Lakes is located in the northeast corner of the Forest, next to the Canadian border. A portion of this area was designated as the Ten Lakes Scenic Area by the regional forester in 1964.

The Ten Lakes Wilderness Study Area is managed under the 1977 Montana Wilderness Study Act, pending action by Congress. The Ten Lakes MWSA is designated as its own management area, MA1c Wilderness Study Area in the revised Forest Plan.

The Ten Lakes MWSA and Ten Lakes contiguous areas were evaluated together. The contiguous areas include several areas surrounding the MWSA including: Blacktail Basin in the northwest corner, the Eureka Face; a portion of the upper basin of Griffith Creek, upper Stahl Creek, and Bluebird Basin just above the Therriault Lakes; and areas in Wickip Creek, Divide Creek, and Drip Creek.

The area is generally surrounded by signs of past forest management activities, roads, or population centers. The Ten Lakes area is directly west of the Thompson-Seton and Tuchuck roadless areas and overlooks the Tobacco Valley where the towns of Rexford, Fortine, and Trego are located. Many of the basins surrounding the MWSA area were roaded and logged during the spruce bark beetle infestation in the early 1950s, which explains the “finger” configuration of the Ten Lakes MWSA area. The Ten Lakes area is a popular snowmobiling area. Parts of the contiguous areas contain old roads and harvest units (see 2005 map IRA file).

Approximately 13 percent of the contiguous areas included areas of underrepresented plant communities (2003 R1 Wilderness Needs Assessment) including VRU2, VRU5, and ARU. The Ten Lakes IRA has several globally sensitive plant elemental occurrences of *Botrychium sp.*, Moonworts and one sensitive plant elemental occurrence of *Lathyrus bijugatus*, Latah Tule Pea (Montana Natural Heritage program 2011).

Table 167. Ten Lakes and Ten Lakes Contiguous Area Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Ten Lakes (01-683)				MWSA MA1c	Adjacent to MWSA, adjacent to Tuchuck and Thompson Seton

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Ten Lakes Contiguous Area 01-683a	Moderate/ High	Moderate	High	Yes	IRA, ponderosa pine & riparian under-represented plant community, existing mechanized and over snow motorized use (including Homeland Security)

¹ Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – Under all action alternatives the Ten Lakes MWSA area will be managed under the 1977 Montana Wilderness Study Act, designated MA1c Wilderness Study Area in the revised Forest Plan. The MWSA is administered to maintain the wilderness character that existed in 1977, and the potential for inclusion in the National Wilderness preservation System. Some uses that existed prior to the 1977 Act would continue to be allowed in the WSA as long as the wilderness character that existed in 1977 is maintained. This area was included in the Montana Natural Resources Protection and Utilization Act of 1988, which included wilderness designation (not signed into law).

The entire Ten Lakes area (both the MWSA and contiguous areas) evaluation rating was suitable for recommended wilderness. Recommended wilderness for the Ten Lakes area differed by action alternative addressing a range of management options. The Ten Lakes MWSA area is the same for all alternatives, MA1c Wilderness Study Area. This is a change from the 1987 Forest Plan, which included part the Ten Lakes MWSA as recommended wilderness and WSA (two MA designations). The revised Forest Plan allocates the MWSA to only one MA, MA1c Wilderness Study Area.

Alternative B Modified protects the roadless characteristic while allowing for existing over-snow motorized use, primarily allocating the contiguous areas to MA5a, 5b and MA6. Alternative B Modified does not include the Ten Lakes Area as recommended wilderness because of its lower degree of solitude than other similar areas; and the areas is valued by local communities for its over-snow motorized opportunities. The WSA area continues to be managed under the 1977 MWSA, until further action by Congress, and is allocated to MA1c.

Alternative C protects the roadless characteristics, enhances the potential wilderness qualities of the Ten Lakes MWSA area, and provides a more manageable boundary for the entire area. Parts of the contiguous areas are allocated to MA1b. An area in Foundation Creek, with old roads and harvest that are substantially unrecognizable, although outside of the IRA is included in MA1b to make boundaries more manageable. The WSA area continues to be managed under the 1977 MWSA, until further action by Congress, and is allocated to MA1c.

Alternative D protects the roadless characteristics the least, with the majority of the contiguous areas allocated to MA5c and MA6, allowing for existing over-snow motorized uses. The MWSA area continues to be managed under the 1977 MWSA, until further action by Congress, and is allocated to MA1c.

Table 168. Ten Lakes and Ten Lakes Contiguous Area Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives			
		A	B Modified	C	D
Ten Lakes MWSA MA1c Ten Lakes Contiguous Area (01-683 & 683a)	MA1b	6,800 ¹	0	8,257	0
	MA1c	26,000 ²	33,778 ³	33,778 ³	33,778 ³
	MA2	No direct comparison with 1987 Forest Plan	0	551	890
	MA3		80	24	80
	MA5a		2,832	2,752	0
	MA5b		8,534	2,189	0
	MA5c		0	960	7,329
	MA6		3,286	0	6,434

¹ 6,800 acres of contiguous area recommended wilderness in 1987 Forest Plan² 26,000 acres of the total 34,200 acres of MWSA recommended wilderness in 1987 Forest Plan³ MWSA managed as MA1c, pending further action from Congress**Table 169. Ten Lakes and Ten Lakes Contiguous Area IRA History**

Roadless Area	#	Acres ¹						2013 RFP MA1c MWSA
		RARE I	RARE II	1987 Forest Plan RA	1987 Recom- mended Wilderness	2001 RACR IRA	2013 RFP Recom- mended Wilderness	
Ten Lakes Contiguous	01- 683a	0	0	7,100	6,800	14,732	0	0
Ten Lakes MWSA MA1c	01- 683	0	0	34,200	26,000	33,778		33,778
Total		30,000	33,900	41,300	32,800	48,510		33,778

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

RARE I included the Ten Lakes Scenic Area #275 and Ksanka Peak/Gibraltar/Mt. Wam #170. RARE II was expanded to the area identified in the Ten Lakes Montana Wilderness Study Act (1977) and the number changed to 683.

The 1987 Forest Plan included 26,000 acres of the MWSA and 6,800 acres of contiguous area for a total of 33,000 acres of recommended wilderness.

In the 1999 review of IRAs and other unroaded areas and 2001 Roadless Area Conservation Rule, additional area was included as IRA along the edges around much of the Ten Lakes contiguous area. A larger section in the north east from Wam Creek to Foundation Creek was added. With various corrections, the MWSA acres and Ten Lakes contiguous acres were validated in the 1999 review and 2001 Roadless Area Conservation Rule.

The Ten Lakes area has been included in various wilderness legislation. The KNF is currently under a settlement agreement to complete travel management planning within the Ten Lakes Wilderness Study Area. Travel management will be address in the Galton Environmental Impact Statement, planned release of the draft EIS in 2013.

Thompson Seton - (No. 01-483)

Description – Thompson Seton Area is located in the north end of the KNF, 6 miles south of the Canadian border. The majority of this area lies on the Flathead National Forest (FNF). Thompson Seton is one of seven roadless areas located adjacent to Glacier National Park. This area, the ‘north fork’ is bordered by the North Fork of the Flathead River on the east and the Whitefish Mountain Range or Divide on the west. The North Fork area and Thompson Seton IRA is characterized by rugged mountains. There are several peaks over 7,000 feet, including Mt. Locke and Mt. Lewis in the Thompson Seton IRA. Unique scenic values include panoramic views from and into Glacier National Park.

The Whitefish Mountain Range divide forms the Flathead-Lincoln County boundary as well as the Flathead-Kootenai National Forest boundaries. The FNF is the lead forest for this roadless area. The KNF portion of this area is bounded on the north by Trail Creek Road #114, on the east by the FNF, on the south by FSR 368 and the Stillwater State Forest, and on the west by the Graves Creek Road. The drainages include parts of Graves, Lewis Creek, Blue Sky, Williams, and Deep Creeks.

Approximately 11 percent of this area included areas of underrepresented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5, and ARU. The area has one globally sensitive plant elemental occurrence of *Botrychium sp.*, Moonworts (Montana Natural Heritage program 2011).

Table 170. Thompson Seton Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Thompson Seton (01-483)	Moderate	High	Moderate	Yes	Adjacent to Tuchuck and Ten Lakes and Marston Face IRAs, over-snow motorized and mechanized use, riparian under-represented plant community, boundary along open roads

¹ Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This area was evaluated as suitable, although the need was moderate. The recommended wilderness differed by action alternative addressing a range of management options. This area was included in the Montana Natural Resources Protection and Utilization Act of 1988, which included wilderness designation (not signed into law). Changes were made, in the areas recommended as wilderness, in Alternative B Modified between draft and final in response to public comment. The Whitefish Divide recommended wilderness area is made up of parts of three IRAs depending on the alternative: Marston Face 172, Thompson Seton 483, and Tuchuck 482.

Alternatives B Modified and C would protect roadless characteristics, and enhance the wilderness environment, while considering manageable boundaries. The Thompson Seton roadless area on the KNF connects to a larger area on the FNF in the North Fork Drainage. In Alternatives B Modified and C most of the Thompson Seton area was primarily allocated to MA1b and MA5a.

In Alternative B Modified areas above the town of Rexford and in Williams Creek were moved from MA1b to MA5a due to concerns from the community. These concerns included potential management needs within areas that provide public water for the town of Rexford and areas of past logging in Williams Creek. This alternative would provide for some mechanized use on trails. The areas of concern were allocated to MA5a.

Alternative D would protect the roadless characteristics. In this alternative most of the area was primarily allocated to MA5a and MA5c.

Table 171. Thompson Seton Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Thompson Seton (KNF only)	MA1b	14,879	27,954	0
	MA2	0	415	2,268
	MA5a	13,195	918	19,120
	MA5b	395	92	0
	MA5c	0	0	7,991
	MA6	911	0	0

Table 172. Thompson Seton IRA History

Thompson Seton Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA)	2013 RFP Recommended Wilderness
KNF	01-483	5,700	5,700	19,100	0	29,379	14,879
FNF		0	23,000	52,650		52,234 ²	0
Total		0	42,100	71,750		81,613	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

² FNF AMS 2004, managed by the FNF

Rare I used the name Krinklehorn/Deep Creek #171, with Rare II the name changed to Thompson Seton #483. The 1983 review and 1987 Forest Plan added Deep Creek 171 to this IRA. The 1999 review of IRAs and other unroaded areas and 2001 Roadless Area Conservation Rule included additional areas between Blue Sky and Williams Creek. In the 1999 review a road system and old harvest south of Blue Sky Creek in Jiggs and Kopsi Creek were included in the IRA because the roads had recovered to the point that they were not readily distinguishable on the ground.

Blue Sky and Williams Creeks have old road systems, with associated logging, that are deep incisions into the area. Blue Sky trail 74 and old harvest units adjacent to it make a ‘cherry stem’ incision which was not included as part of the IRA. Williams Creek trail 73 and adjacent harvest units make a ‘cherry stem’ incision between Thompson Seton and Marston IRAs, and were not included in either IRA. Both Blue Sky and Williams Creek trails are on roads that are restricted to motor vehicle use year-long and are being managed as trails.

The Whitefish Divide recommended wilderness area is made up of parts of up to three IRAs, depending on the alternative: Marston Face, Thompson Seton, and Tuchuck.

The revised Forest Plan Whitefish Divide recommended wilderness area on the KNF also includes areas which are outside of an IRA (cherry stem of closed road systems and associated harvest in Blue Sky and Williams Creek) for manageability. This accounts for approximately 13 percent of the total acres in Alternative B Modified, and 5 percent in Alternative C. Portions of the Thompson Seton IRA were included in the Montana Natural Resources Protection and Utilization Act of 1988, which included wilderness designation (not signed into law).

Trout Creek - (No. 01-664)

Description – The area is located on the southern border of the Forest in western Sanders County and is bordered on the west by Idaho. Part of the area is in Idaho, managed by the IPNF. Roads up Trout Creek, White Pine Creek, Minton Peak, and Lost Peak-Bloom Peak Ridgeline provide easy access via several trailheads.

Black Peak, at 6,500 feet, is the highest point. The area was mostly burned over during the 1910 fire. This area includes numerous named tributaries of Trout Creek plus some headwater areas of both White Pine and Beaver Creeks on the Kootenai portion. On the Idaho Panhandle portion, major drainages include Casper, West Fork Eagle, and Tributary Creeks.

Approximately 53 percent of this area included areas of underrepresented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5, and ARU. The area has one globally sensitive plant elemental occurrence of *Grimmia brittoniae*, Britton's dry rock moss and *Douglasia conservatorium*, Bloom Peak Douglasia (Montana Natural Heritage program 2011).

The Settler's Grove of Ancient Cedars Botanical Area, on the IPNF attracts many visitors.

Table 173. Trout Creek Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Trout Creek (01-664)	Moderate	Low	Moderate	No	One or more ratings of Low

¹ Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This area did not have an evaluation rating of suitable. The portion of this area managed by the IPNF in Idaho is allocated under the backcountry/restoration theme in the 2008 Idaho Roadless Rule.

Alternatives B Modified and C would protect roadless characteristics by allocating to MA5a and/or MA5b. Changes in acres between draft and final in this roadless area were due to existing uses along the ridge between the KNF and IPNF. The corridor for motorized use, MA5b, was made wider to allow for current legal uses. This is consistent with the adjacent area on the IPNF under the 2008 Idaho Roadless Rule.

Alternative D would protect the roadless characteristics least allocating the area to MA6. This alternative is not consistent with the adjacent area on the IPNF under the 2008 Idaho Roadless Rule.

Table 174. Trout Creek Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Trout Creek	MA5a	23,842	30,866	0
	MA5b	7,024	0	0
	MA6	0	0	30,866

Table 175. Trout Creek IRA History

Trout Creek Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA) or (2008) IRR IRA	2013 RFP Recommended Wilderness
KNF-MT	01-664	23,000	32,600	31,400	0	30,866	0
IPNF-ID ²		0	0	8,300		(8,500)	0
Total		0	0	39,700		39,366	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

² Managed under the Idaho Roadless Rule, IPNF

This area was 162 in RARE I. The 1999 review of IRAs and other unroaded areas and 2001 Roadless Area Conservation Rule, acreage was validated with better mapping and information on the Dry Gulch Dixie Timber Sale.

Tuchuck - (No. 01-482)

Description – Tuchuck Roadless Area is located in the north end of the Kootenai and Flathead National Forests, 3 miles south of the Canadian border. The majority of the area lies on the FNF. Tuchuck IRA is one of seven roadless areas located in what is often referred to as the “North Fork.”

The North Fork region lies adjacent to Glacier National Park and is bordered by the North Fork of the Flathead River on the east and the Whitefish Mountain Range or Divide on the west. The FNF is the lead forest for this roadless.

The portion of Tuchuck on the KNF borders roads and timber harvest land on the west, the FNF the east, Grave and Lewis Creek Roads on the south. The site is accessed by the North Fork Road from Columbia Falls and by Therriault Lakes Road from the west.

Tuchuck Mountain (7,724 feet) and Review Mountain (7,286 feet) on the border with the FNF are the two highest peaks. Topography consists of typical steep, narrow alpine glaciated canyons with glacial cirque headwalls, glacial trough walls, high elevation slab rock, and glacial tills.

The KNF portion of this area includes the upper reaches of Otter Creek, Snowslide Creek, and Weasel Creek.

Table 176. Tuchuck Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Tuchuck (01-482)	Moderate	High	Moderate	Yes	Most of IRA located on FNF, adjacent to Thompson Seton and Ten Lakes IRA, existing over-snow use on west boundary

¹ Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This area's evaluation rating was as suitable for recommended wilderness. The recommended wilderness differed by action alternative addressing a range of management options. Portions of this IRA were included in the Montana Natural Resources Protection and Utilization Act of 1988, which included wilderness designation (not signed into law). The Whitefish Divide recommended wilderness area is made up of parts of up to three IRAs, depending on the alternative: Marston Face 172, Thompson Seton 483, and Tuchuck 482.

Alternative B Modified would protect roadless characteristics, while considering over-snow motorized use. In this alternative Tuchuck was allocated primarily to MA5b. This was a change between draft and final, to make the area more manageable. The MA5a boundary in the draft was mid slope and not identifiable on the ground.

Alternative C would protect roadless characteristics, and enhance wilderness values by allocating the area primarily to MA1b.

Alternative D would protect roadless characteristics the least, allocating the area primarily to MA6.

Table 177. Tuchuck Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Tuchuck	MA1b	0	2,153	110
	MA2	0	25	0
	MA5a	0	0	0
	MA5b	2,235	57	0
	MA5c	0	0	2.126

Table 178. Tuchuck IRA History

Tuchuck Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
KNF	01-482	2,300	2,300	2,300	0	2,235	0
FNF		0	0	17,520		17,730 ²	0
Total		0	0	19,820		19.965	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

² FNF AMS 2004 data managed by the FNF

This area was designated as #15 in RARE I.

West Fork Elk - (No. 01-692)

Description – The area is located in the southwest corner of the Forest, abutting the divide separating the Kootenai and Idaho Panhandle National Forests. This area is completely on the KNF; however the majority of it is in the state of Idaho.

The Idaho portion of the area was designated as backcountry/restoration in the 2008 Idaho Roadless Rule.

The area is primarily a low-elevation stream bottom with steep, rocky upland slopes. The area constitutes the watershed basin for the upper West Fork Elk Creek. A road to Prospect Lookout straddles a ridgeline which rims the area.

Approximately 90 percent of this area includes areas of underrepresented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5, and ARU. The area has one globally sensitive plant elemental occurrence of *Botrychium sp.*, Moonworts; and sensitive plant elemental occurrences of *Clarkia rhomboidea*, Diamond Clarkia, and *Satureja douglasii*, Yerba Buena (Montana Natural Heritage program 2011).

Table 179. West Fork Elk Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
West Fork Elk (01-692)	Low	Low	High	No	One or more ratings of Low

¹ Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This area was evaluated as not suitable for recommended wilderness, although the need was high. The Idaho portion of the area was designated as backcountry/restoration in the Idaho Roadless Rule.

Alternatives B Modified and C would protect roadless characteristics, allocating the area to MA5a.

Alternative D would protect roadless characteristics the least, allocating the area primarily to MA5b.

All alternatives would be consistent with the 2008 Idaho Roadless Rule.

Table 180. West Fork Elk Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
West Fork Elk	MA5a	5,117	5,117	0
	MA5b	0	0	5,117

Table 181. West Fork Elk IRA History

West Fork Elk Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA)	2013 RFP Recommended Wilderness
KNF-MT	01-692	0	0	0	0	1,417	0
KNF-ID ²		0	0	0		(3,700)	0
Total		0	0	4,800		5,117	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

² Managed by the KNF under the 2008 Idaho Roadless Rule

This area was reviewed in 1983 and included in the 1987 Forest Plan.

West Fork Yaak - (No. 01-694)

Description – The West Fork Yaak area is located in the northwest corner of the Forest. The area includes parts of the West Fork Yaak River drainage, Screw Creek, and Garver Creek. It is bounded on the north by Canada, and roads on the remaining three sides. Garver Mountain is on the south boundary, with Mt. Obermayer on the north. This area is long and narrow, but was found to meet the protocol as it is at least 2 miles in width, connects to a larger area near Garver Mountain, and is over 5,000 acres.

Approximately 91 percent of this area included areas of underrepresented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5, and ARU.

Table 182. West Fork Yaak Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
West Fork Yaak (01-694)	Moderate/Low	High	Moderate	No	One or more ratings of Low

¹ Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This area was evaluated as not suitable for recommended wilderness. All action alternatives allocate part of this area to MA2 and MA4.

Alternatives B Modified and C would protect roadless characteristics, allocating the remaining area to MA5a. Alternative D would protect roadless characteristics the least, allocating the remaining area to MA5a and MA6.

Table 183. West Fork Yaak Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
West Fork Yaak	MA2	1,326	1,326	1,326
	MA4	54	54	54
	MA5a	6,852	6,852	5,503
	MA6	0	0	1,349

Table 184. West Fork Yaak IRA History

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
West Fork Yaak	01-694	0	0	0	0	8,232	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

This unroaded area was identified in the 1999 review of IRAs and other unroaded areas and included in the 2001 Roadless Area Conservation Rule.

Willard Estelle- (No. 01-173)

Description – The area is along the divide that separates the Kootenai and Idaho Panhandle National Forests. The majority of this roadless area lies in the IPNF. This area is in both Montana and Idaho. The IPNF is the lead forest for this area.

The Idaho portion (86 percent of the area) under the 2008 Idaho Roadless Rule is designated as backcountry/restoration management theme.

The portion on the KNF runs north-south extending from a few miles south of the Kootenai River to Goat Mountain. The area includes several drainages; upper reaches of Star and Raymond Creeks, North and South Callahan Creek, West Fork Keeler Creek, and Goat Creek on the KNF.

The roadless area is long and narrow. It follows a ridge which is a watershed divide between the Pend Oreille and Kootenai River watersheds.

Approximately 50 percent of this area included areas of underrepresented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5, and ARU.

Table 185. Willard Estelle Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Willard Estelle (01-173)	High	Moderate	Moderate	No	Existing over-snow motorized use, existing roads and fuels needing treatment, adjacent to Robert IRA, area long and narrow, mineral activity

¹ Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This area was evaluated as not suitable for recommended wilderness. The Idaho portion (86 percent of the area) under the 2008 Idaho Roadless Rule is designated under the backcountry/restoration management theme. The KNF portion of this area in Idaho is primarily allocated to MA5s, consistent with management of most of the area that is under the Idaho Roadless Rule.

Alternative B Modified would protect roadless characteristics, while considering motorized over-snow use, allocating the area to MA5a and MA5c.

Alternative C would protect roadless characteristics, allocating the area primarily to MA5a, not considering over-snow motorize use.

Alternative D would protect roadless characteristics the least, allocating to MA5c and MA6, considering over-snow motorized use.

Table 186. Willard Estelle Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Willard Estelle (KNF only)	MA3	307	307	307
	MA5a	13,530	32,738	0
	MA5c	19,208	0	23,228
	MA6	0	0	9,511

Table 187. Willard Estelle IRA History

Willard Estelle Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
KNF Total	01-173	7,600	7,600	18,400	0	33,045	0
MT						9,745	
ID ²						23,300	
IPNF-ID ³		0	0	35,275		35,000	0
Total		0	0	53,675		68,045	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

² Managed by the KNF, under the 2008 Idaho Roadless Area Conservation Rule

³ Managed by the IPNF, under the 2008 Idaho Roadless Area Conservation Rule

The 1999 review of IRAs and other unroaded areas and 2001 Roadless Area Conservation Rule validated the KNF portion, increasing acreage due to better mapping and more accurate information.

Zulu - (No. 01-166)

Description – The Zulu Creek roadless area is located between the Pipe Creek Divide and Pink Mountain, running in a southwest to northeast direction. Access is provided via the Pipe Creek Road and a trail system exists on the main ridge.

The headwaters for Smoot, Zulu, and Copeland Creeks all originate in this roadless area, as do some small unnamed tributaries of the South Fork Yaak River. Approximately 51 percent of this area included areas of underrepresented plant communities (2003 R1 Wilderness Needs) including VRU2, VRU5, and ARU. The area has globally sensitive plant elemental occurrences of *Botrychium sp.*, Moonworts (Montana Natural Heritage program 2011).

Table 188. Zulu Revised Forest Plan Evaluation Rating Summary for Recommended Wilderness

Roadless Area	Summary Rating ¹			Rated Suitable	Rationale
	Capability	Availability	Need		
Zulu (01-166)	Moderate	High	Moderate	No	Existing over-snow motorized use, adjacent to Roderick and Big Creek IRA

¹ Please refer to detailed ratings and summaries in this appendix for each roadless area

Summary of Environmental Consequences by Alternative – This area was evaluated as not suitable for recommended wilderness, although availability was high.

Alternatives B Modified and D would protect roadless characteristic, allocating the area to MA5c, while considering over-snow motorized use. Alternative C would protect roadless characteristics, allocating the area primarily to MA5a, not considering over-snow motorize use.

Table 189. Zulu Allocation of Roadless Area by Alternative (acreage summary)

Roadless Area	MA	Action Alternatives		
		B Modified	C	D
Zulu	MA3	308	308	308
	MA5a	0	9,108	0
	MA5c	9,697	0	9,697
	MA6	0	590	0

Table 190. Zulu IRA History

Roadless Area	Number	Acres ¹					
		RARE I	RARE II	1987 Forest Plan RA	1987 Recommended Wilderness	2001 RACR IRA	2013 RFP Recommended Wilderness
Zulu	01-166	7,800	0	6,400	0	10,005	0

¹ Minor acreage changes are due to better mapping, or minor boundary adjustment over time

The 1999 review of IRAs and other unroaded areas and 2001 Roadless Area Conservation Rule validated the area extending the IRA to the north.

Appendix D – Aquatics: Analyses and Methodology

Use of a multi-scale hierarchical approach helps to integrate spatial scale into the evaluation of ecosystem processes and the patterns they create (Jensen et al. 1996). There is no single scale of ecological organization that is correct for all purposes (Jensen et al. 1996). Most land management activities are analyzed at the subbasin scale or smaller, and projects are often implemented at the subwatershed scale or smaller. Spatial and temporal scales of ecological processes and disturbance regimes necessitate a larger than planning view of ecosystems. Management to maintain or restore ecological integrity must consider how different processes operate at different scales, particularly with reference to how physical and biological processes are functionally organized (Urban et al. 1987 in Rieman et al. 2006). There is a degree of uncertainty with multi-scale approaches that is not recognized by many current management regulations or applications (Rieman et al. 2006). Even with perfect information, we cannot precisely predict how aquatic ecosystems will respond to alternative management actions (Rieman et al. 2006). Scale is particularly important when trying to manage for fish species conservation and recovery. Recent work on inland salmonids at larger scales suggests spatial pattern, including habitat size and isolation, may drive processes affecting species persistence (Rieman and McIntyre 1995, Dunham et al. 1997, Rieman and Dunham 2000). Aquatic specialists considered the value of meta-populations (interacting groups of two or more local or sub-populations (Hanski 1999)) for both development of the desired condition Plan component and identification and prioritization of conservation and restoration watersheds related to native fish conservation.

The watershed rating assessment, used for the analysis of existing condition, provides a multi-scale context between subbasins (4th level hydrologic units), watersheds (5th level hydrologic units), and subwatersheds (6th level hydrologic units). These different scales can be aggregated to identify population status, habitat conditions, restoration needs, and management risks and opportunities, in order to meet the objectives outlined in the revised Forest Plan, through site-specific management actions. This assessment accounts for the current condition of the aquatic resources based on the integration of hydrologic function, dynamic stream equilibrium, native fish populations, subwatershed sensitivity, and land management disturbances. The assessment provides a step-down implementation process that forms the basis for a much bigger picture of effects (direct, indirect, and cumulative effects at a programmatic scale) on the sustainability and recovery of aquatic species and de-listing of water quality impaired water bodies. The assessment shows how an individual subwatershed contributes to recovery of a species within a subbasin. The multi-scale assessment served as the groundwork in the development of the comprehensive strategy that was used in the development of management direction to support the goals, objectives, and requirements of existing laws, regulations, and other fish and water quality statutes. Updates to the data provided in the watershed rating and salmonid assessments ensure a mechanism to track and evaluate progress towards attainment of goals and objectives outlined in the revised Forest Plan.

Watershed Condition Rating (V3.1, December 2010)

Watershed condition was evaluated for every 6th level hydrologic unit boundary, also known as a subwatershed, which may be influenced by Forest Service land management activities. The analysis included a variety of physical measures reflecting the sensitivity and resiliency of watersheds, combined with attributes of human caused disturbances. Measures of disturbance

and inherent sensitivity were combined to determine a final watershed condition rating. Specific ranges for each factor were developed by a team of specialists on the Forest (Johnson 2002).

Subwatersheds with < 25 percent land area under Forest Service jurisdiction were not considered in this analysis, due to anticipated data deficiencies, perceived difficulties in affecting changes to watershed conditions through agency land management activities, and reluctance to describe watershed condition beyond Forest Service jurisdiction.

Watershed Sensitivity Rating

Watershed sensitivity provides an indication of a drainages inherent sensitivity with regards to both human and natural disturbances, as well as potential for recovery, following disturbance. To measure inherent sensitivity of subwatersheds, two factors were used:

- **1. Mean Annual Precipitation (MAP)** – average annual precipitation within a 6th code HUC.
- **2. Percent of Stream with Gradient < 2%** – percent of streams within a 6th code HUC that have a gradient of less than 2 percent.

These two factors were combined as shown in table 191 to determine an overall sensitivity rating.

Table 191. Watershed Sensitivity Rating

Mean Annual Precipitation	< 2% Stream Gradient	Watershed Sensitivity
> 45"		H
30 - 45"	> 21%	H
	10-21%	M
	< 10%	M
20 - 29.9"	> 21%	H
	10-21%	M
	< 10%	L
< 20"	> 21%	M
	10-21%	L
	<10%	L

Watershed Disturbance Rating

To measure disturbance, five factors were used:

- 1. Percent equivalent clearcut acres (ECA)
- 2. Percent intact riparian
- 3. Stream crossing density
- 4. Percent detrimental compaction
- 5. Riparian area road density

1. Equivalent clearcut acres (%) — Equivalent clearcut acres (ECA) for a subwatershed are the total ECA divided by the subwatershed acres.

The amount of ECA within each subwatershed was determined by querying timber harvest activities from the timber harvest activities database, FACTS. A given harvest type is assigned an ECA value related to the amount of crown cover that has been removed (ECA percentage) and the portion of a given stand that may have been harvested (harvest percentage). Records in the FACTS database were selected for stands with the most land disturbing activity and most current year. For these records, the harvest value is calculated as percentage of activity acres to stand acres and any resulting value greater than 1.0 is reset to 1.0. An ECA factor is then assigned to each of the records, based on the activity_code/local_qualifier field in the database. ECA values were originally determined from WATSED analyses (see discussion at the end of this section) and USFS Regional input. TSMRS codes have been adapted from FACTS activity codes for this exercise. The ECA Factor for each activity is shown in table 192.

Table 192. ECA Factor Values

Code	Activity	ECA Factor
4110	Clearcutting	1.0
4111	Patch Clearcut	1.0
4112	Strip clearcutting	1.0
4113	Stand Clearcut	1.0
4114	Stand clearcutting - Salvage Mortality	1.0
4115	Patch Clearcut (w/ leave trees)	1.0
4117	Stand Clearcut (w/ leave trees)	1.0
4121	Shelterwood Preparatory Cut	0
4122	Seed-tree Preparatory Cut	0
4123	Shelterwood seed cut (w/res)	1.0
4131	Shelterwood Establish. Cut (with or without leave trees)	.92
4132	Seed-tree Seed Cut (with and without leave trees)	.96
4133	Shelterwood cut (w/res)	.92
4134	Seed-tree cut (w/res)	.98
4141	Shelterwood Removal Cut	1.0
4142	Seed-tree Final Cut	1.0
4145	Shelterwood Removal Cut (w/ leave trees)	1.0
4146	Seed-tree Removal Cut (w/ leave trees)	1.0
4148	Shelterwood Staged Removal Cut	.92
4151	Single-tree Selection Cut	0
4152	Group Selection Cut	.98
4183	Two-aged Seed-tree Seed and Removal Cut (w/res)	1.0
4192	Two-aged Preparatory Cut (w/res)	0
4194	Two-aged Shelterwood Establishment Cut (w/res)	.92
4196	Two-aged Shelterwood Final Removal Cut (w/res)	1.0
4210	Improvement Cut	.03
4210	Improvement Cut (post/pole harvest)	.03
4211	Liberation Cut	.16
4220	Commercial Thin	.16
4230	Sanitation (salvage)	.16

Code	Activity	ECA Factor
4231	Salvage Cut (intermediate treatment, not regeneration)	.16
4232	Sanitation Cut	.16
4240	Special Cut	.16
4241	Special Products Removal	.16
4250	High Severity Wildfire	.88
4250	Insect/Disease	0
4250	Low Severity Wildfire	.15
4250	Mixed Severity Wildfire	0.5
4250	Wildfire	1.0
4250	Wind	0
4260	Human Caused Fire – High Severity	1.0
4260	Human Caused Fire – Low Severity	.15
4260	Human Caused Fire – Mixed Severity	0.5
4270	Permanent Land Clearing	1.0
NA	Non-Forest Service lands, where data unavailable	0
NA	Roads (use 4 acres/mile and no recovery)	1.0

EXAMPLES:

100 Acres of Code 4111 = $100 * 1.00 = 100$ Equivalent clearcut acres (ECAs) with no recovery

100 Acres of Code 4211 = $100 * 0.16 = 16$ ECAs, with no recovery

100 Acres of Code 4151 = $100 * 0 = 0$ ECAs and no affect on water yield

Equivalent clearcut acres in table 192 assume no recovery. Recovery occurs over time since initial perturbation, for most activities, and adjustments to ECAs need to account for this recovery. These recovery factors (see table 193) are based on a moderate speed recovery curve, which was developed from the WATSED model.

Table 193. ECA Recovery Factors

Years Since Ground Disturbing Activity	Activity Year Between these Years	Recovery Factor*	% Recovery
0	2002-2011	1.00	0
10	1992-2001	0.73	27
20	1982-1991	0.53	47
30	1972-1981	0.39	61
40	1962-1971	0.30	70
50	1952-1961	0.23	77
60	1942-1951	0.18	82
70	1932-1941	0.13	87
80	1922-1931	0.09	91
90	1912-1921	0.06	94
100	--1911	0.03	97

*The value "% Recovery" is for informational purposes only and not used in the ECA calculations.

To develop an ECA recovery factor by year, rather than by decade, a logarithmic equation was developed to simulate recovery using years since activity and ECA recovery factors. Based on analysis of WATSED data, the ECA recovery factor was determined as follows:

$$\text{ECA factor} = -0.308(\text{LN (years since disturbance)}) + 1.440$$

Non-Forest Service Lands – For subwatersheds with mixed ownership, activities on non-Forest Service lands were accounted for where reliable data is readily available. If data was available, the same analysis for ECAs on Forest Service lands applied. In the absence of reliable data, an ECA value of 0 (zero) was used, due to the inherent difficulty in determining or making interpretations of activities on lands outside of Forest Service jurisdiction. However, roads on non-Forest Service lands were accounted for, because data is readily available and fairly reliable. Roads on non-Forest Service lands are assumed to have an ECA of 1, with no recovery, as with Forest Service lands.

WATSED Analysis – Predicted runoff is derived from the methods documented in the WATBAL Technical User Guide (Patten 1989). The model calibrated for the KNF, known as WATSED, is a tool that organizes typical watershed response relationships resulting from land management activities. Use of the model is designed to provide information to the resource specialist, who, along with knowledge of the model and its limitations, other data and analyses, experience, and professional judgment, integrates all available information to draw conclusions about the probable effects of land management activities on sediment and water yield.

WATSED estimates the most probable mean annual sediment loads, expected sediment load modifications over time, and water yield. WATSED is not intended to determine event-based processes or specific in-channel responses. It does, however, incorporate the results of those processes in the calibration of its driving coefficients. Furthermore, WATSED does not evaluate increases in sediment and peak flows specifically resulting from “rain-on-snow” events or other stochastic events, nor does it attempt to estimate in-channel and stream-bank erosion. WATSED includes assumptions and cannot determine the exact response of a given subwatershed.

2. Percent Intact Riparian – Total amount of riparian areas without disturbance. Disturbance acres include harvest activities (all TSMRS codes from table 192) and all roads, with no ECA or recovery factor applied. Riparian areas were delineated by buffering streams and waterbodies as follows:

- Buffer 150' per side on streams > 2 percent gradient; and
- Buffer 300' per side on streams ≤ 2 percent and along shores of lakes and wetlands.

$$\% \text{ Intact Riparian} = (\text{total acres riparian} - \Sigma \text{ riparian disturbed acres}) / \text{total riparian acres in the watershed}$$

See appendices for a description of GIS steps used to calculate percent intact riparian.

3. Stream Crossing Density – Number off road and stream intersections (e.g., crossings) per square mile of subwatershed. See appendices for a description of GIS steps used to calculate stream crossing density.

4. Percent Detrimental Compaction – The amount of detrimental soil compaction within a subwatershed. The FACTS database was queried to determine past activities and assign a coefficient for detrimental disturbance. Coefficient values were assigned based on activities that have occurred in a timber stand. Activities include timber harvests, along with date of the

harvest and the type of equipment used to accomplish the harvest, site preparation and the type of equipment used to accomplish the site prep, and fires along with the type of fire, the time of year the fire occurred, and the aspect of the stand in which it occurred.

Soil disturbance coefficients were assigned on the basis of a presumed sequence of activities (i.e., a harvest followed by some type of site prep and/or fire). Because multiple sequences of harvest/site prep/fire can be difficult to track spatially in an automated fashion in TSMRS, this query looks for the sequence of activities following last harvest in a stand and applies a coefficient based on this sequence to the entire stand.

5. Riparian Area Road Density – Number of miles of all roads per total square miles of riparian areas within each subwatershed, stratified by the subwatershed mean annual precipitation (MAP). See appendices for a description of GIS steps used to calculate riparian area road density.

The five watershed disturbance factors were then combined as shown in table 194.

Table 194. Watershed Disturbance Calculation

Watershed Disturbance Factors	Watershed Disturbance Ratings			Multiplier
	High (3x)	Moderate (2x)	Low (1x)	
ECA (%)	> 30	15-30	< 15	3
Intact Riparian (%)	< 70	70 - 80	> 80	2
Stream Crossing Density (#/mi ² of entire subwatershed)	> 3	1.5 - 3	< 1.5	3
Detrimental Compaction (%)	> 10	4 - 9.9	< 4	1
Riparian Area Road Density (#/mi ² , as a function of MAP)	MAP >45": >2.0mi/mi ² = HIGH 0.5-2.0mi/mi ² = MODERATE <0.5mi/mi ² = LOW MAP 20-45": >3.0mi/mi ² = HIGH 1.0-3.0mi/mi ² = MODERATE <1.0mi/mi ² = LOW MAP <20": >3.0mi/mi ² = HIGH 1.5-3.0mi/mi ² = MODERATE <1.5mi/mi ² = LOW			2

A watershed disturbance score is calculated as:

$$\Sigma (\text{ECA rating} \times 3, \text{Intact Riparian rating} \times 2, \text{Stream Crossing Density rating} \times 3, \text{Detrimental Compaction rating} \times 1, \text{Riparian Area Road Density rating} \times 2)$$

A total disturbance score is generated for each subwatershed. For example, a subwatershed with 38 percent of its area in an ECA condition would have 9 points towards a total score for watershed disturbance. A value of 20 percent for the same factor would generate a score of 6.

Watershed Condition Rating

A watershed condition rating is a combination of sensitivity rating and disturbance score, and evaluated as shown table 195.

Table 195. Watershed Condition Rating

Watershed Sensitivity Rating	Watershed Disturbance Score	Watershed Condition Rating
High	> 19	HIGH
	14 - 19	MODERATE
	< 14	LOW
Moderate	> 25	HIGH
	17 - 25	MODERATE
	<17	LOW
Low	≥19	MODERATE
	<19	LOW

Final Watershed Condition Rating

The following descriptions provide a basic summary of interpreting watershed condition ratings, although a given subwatershed may have different combinations of watershed sensitivity and watershed/riparian disturbance. For example, it is possible for a subwatershed to have a low level of sensitivity and a high level of disturbance, providing an overall rating of “moderate.”

Appendix B Modified provides details of the analysis used to determine watershed condition ratings for subwatersheds on the Forest.

Subwatersheds rated as “low” generally have a relative low inherent sensitivity to disturbances and low level of overall disturbance. These subwatersheds exhibit geomorphic, hydrologic, and biotic integrity relative to their natural potential condition. The drainage network is generally stable. Soil, aquatic, and riparian systems are assumed to be functional, in terms of supporting beneficial uses.

A rating of “moderate” generally indicates a subwatershed with a low to moderate inherent sensitivity and/or a low to moderate level of disturbances. Watersheds exhibit moderate geomorphic, hydrologic, and biotic integrity relative to their natural potential condition. Portions of these subwatersheds may exhibit an unstable drainage network. Soil, aquatic, and riparian systems may or may not support beneficial uses.

In general, subwatersheds rated as “high” have a relatively higher sensitivity to natural and human caused natural disturbances and relatively higher level of overall disturbances. These subwatersheds may have limited geomorphic, hydrologic, and biotic integrity relative to their natural potential condition. A majority of the drainage network may be unstable. It is assumed that beneficial uses are generally not supported.

Final watershed condition rating may also include professional judgment in some cases. Review by resource specialists, with local ground based knowledge and site-specific data, may have resulted in a change to a condition rating and those changes are noted in the fields “override” and “comments,” in the watershed characterization spreadsheet (V3.1 or later).

Salmonid Assessment (V6.5 – February 2011)

Monitoring and Adaptive Management

Monitoring and adaptive management is critical for evaluating the implementation and effectiveness of the goals and objectives outlined in the revised Forest Plan. Forest Plan level monitoring will be conducted at multiple scales, complimentary with ongoing regional, district, and project level efforts. The Forest monitoring plan accomplishes five items: (1) it bases the level of monitoring on the commensurate level of management actions; (2) it provides feedback on the effects of activities; (3) it has a mechanism for monitoring accountability and oversight; (4) it evaluates the implementation and effectiveness in the recovery/restoration of aquatic species and their habitats, and other aquatic dependent resources.

Implementation, effectiveness, and validation monitoring are designed to measure success toward achieving Plan desired conditions. In addition, project level implementation monitoring is essential for answering questions about the use of guidelines, design criteria, and best management practices to protect soil and aquatic resources. Project level implementation monitoring is critical to successful passive restoration efforts. The goal of the effectiveness monitoring strategy is to assess the progress of forest management in attaining desired conditions. Essentially, Plan monitoring attempts to answer two basic questions: “How will we recognize achievement of desired conditions?” and “how will progress be measured?” Effectiveness monitoring is designed to collect data on aquatic and riparian condition and trend. Validation monitoring is used to validate the assumptions made during Plan revision and analysis, including modeling. Validation monitoring will be important for determining if restoration activities result in the projected fish population response and watershed conditions.

PACFISH/INFISH Biological Opinion Effectiveness Monitoring (PIBO EM) Program (Kershner et al. 2004) is currently used by national forests and BLM units west of the Continental Divide to assess the effects of management activities on aquatic ecosystems in the interior Columbia Basin. PIBO EM is designed to yield consistent, scientifically defensible, credible data with which to compare and interpret aquatic ecosystem status, condition, and trend. Through the collection of a fairly large data set that includes managed and reference watersheds across the Forest, PIBO EM can be used to measure and evaluate the effectiveness of Plan design criteria (e.g., guidelines, best management practices) in restoring and maintaining aquatic ecosystem desired conditions on NFS lands. PIBO EM will be incorporated into an evaluation of trends in aquatic habitats across the Forest and help ensure that management activities are consistent within the context of broad and local recovery and restoration goals and objectives.

The monitoring plan provides a means of evaluation for land managers to make appropriate adjustments to individual activities and forestwide programs (i.e., adaptive management). Adaptive management uses monitoring results to ensure Forest Plan direction is improving ecological conditions and reduces risks to aquatic species and aquatic dependent resources. Adaptive management provides the mechanism to modify management actions in response to the monitoring and evaluation results, changes in laws or regulations, or new information. This feedback loop allows management adjustments as needed to continue moving towards attainment of revised Forest Plan direction and goals of this strategy. For example, if monitoring concludes that a specific practice is ineffective or riparian conditions are not being maintained over a number of sites, changes in management direction will need to be considered and implemented. In some cases, low levels of negative effects from either an individual action or aggregate effects from multiple actions may persist until monitoring can alert managers of the

need to change management practices or adjust Forest Plan direction. This includes the ability to make appropriate modifications to restoration direction, mitigation measures, budgets, and monitoring approaches.

Conservation/Restoration Watersheds

Salmonid Multi-Scale Assessment

The Region 1 Salmonid Multi-Scale Assessment was used to evaluate the status of salmonids within the planning area. Risks and threats to native fish species of interest were identified for each subwatershed and tracked in a spreadsheet (V6.0). Risks identified during Step 3 included deterministic, stochastic and genetic extinction risk factors (Rieman and McIntyre 1993).

Extinction risks included influences at several spatial and temporal scales. An understanding of the processes of extinction and the characteristics of native fish populations that make them more or less likely to persist was fundamental to the risk assessments (Rieman and McIntyre 1993).

The list of threats includes land use practices, invasive species, or landscape conditions that may directly or indirectly affect native fish population life stages, aquatic habitats, and subwatersheds.

The subbasin is the primary broadscale summary unit for salmonids. The subbasin acts as a terminal aquatic environment, aligning with the salmonid meta-population. A meta-population is a collection of local populations interacting to hedge against extinction through the migratory life stage. Self-sustaining populations (strongholds) act as source populations for supporting weaker populations or re-colonizing extirpated populations or new habitats. This multi-scale approach allows for broader interpretations of current conditions in terms of salmonid meta-populations and movement throughout several subwatersheds.

Aquatic data is summarized by subwatershed (6th level hydrologic units). The subwatershed is the primary fine scale for summarizing reach and habitat data. The subwatershed is often synonymous with local populations and their life stages, potential risks and threats to those populations and their life stages, and assessments of project level management actions. Each scale contains valuable information about how the ecosystem functions. Habitats are created and maintained by all the scales of a drainage system functioning together (Wissmar 1997). This multi-scale analysis incorporated professional interpretations from numerous data sources such as subbasin assessments, species recovery plans, watershed analysis, TMDL implementation plans, or other broad or mid-scale information. Subsequent project decisions would incorporate annually updated progress toward meeting desired conditions at the watershed and subbasin scale using data summarized at the subwatershed scale. Some of this information is summarized and interpreted at the subbasin (4th level hydrologic units) to determine how conditions are distributed across a larger geographic area.

At a subwatershed scale, or site-specific project scale, the potential for a management action to contribute to conditions that will positively or negatively contribute to the broader-scale goals and objectives can be completed by viewing project level effects in context to the watershed rating and salmonid assessments completed in support of Forest Plan revision and other broader-scale assessments (e.g., NWPC Subbasin Assessments, Final Basin-wide Salmon Recovery Strategy, and Final Bull Trout Recovery Plans). These assessments provides a multi-scale context of each subbasin and its respective subwatersheds' baseline and potential status of population and habitat conditions to develop site-specific management actions to make progress towards attainment of Forest Plan goals and objectives and provides the appropriate scales to

other components of this strategy, that prioritize, design, and evaluate management actions needed to move towards goals and the conservation of native fish species, their habitats, and other aquatic dependent resources.

The concept of "priority watersheds" as described in INFISH (USDA Forest Service 1995) is further refined in the revised Forest Plan as "conservation" and "restoration" watersheds. Priority watersheds in INFISH were designated based on the following criteria:

- Watersheds with excellent habitat or strong assemblages of inland native fish, with a priority on bull trout populations;
- Watersheds that provide for meta-population objectives; and
- Degraded watersheds with a high restoration potential.

INFISH states that priority watersheds are intended to provide a pattern of protection across the landscape, where habitat for inland native fish would receive special attention and treatment. Priority watersheds would have the highest priority for restoration, monitoring and watershed analysis. Priority "areas in good condition would serve as anchors for the potential recovery of depressed stocks, and also would provide colonists for adjacent areas where habitat had been degraded by land management or natural events (USDA Forest Service 1995)". Priority watersheds in this condition are considered "conservation" watersheds in the revised Forest Plan. Priority watersheds that are "areas of lower quality habitat, with high potential for restoration, would become future sources of good habitat with the implementation of a comprehensive restoration program (USDA Forest Service 1995)" are labeled "restoration" watersheds in the revised Forest Plan.

Conservation watersheds were evaluated by selecting subwatersheds that had strong or stable populations of bull trout, westslope cutthroat trout, interior redband trout, or a combination of the three (population status codes 111 and 113) in subwatersheds rated as "low" from the watershed characterization rating spreadsheet (V2.5).

Active restoration watersheds were determined by selecting subwatersheds that had small populations or populations of unknown size (population status codes 112 and 119) of bull trout, westslope cutthroat trout, interior redband trout, or a combination of the three, present in subwatersheds rated as "moderate."

Passive restoration watersheds were determined by selecting subwatersheds that had small populations or populations of unknown size (population status codes 112 and 119) of bull trout, westslope cutthroat trout, interior redband trout, or a combination of the three, present in subwatersheds rated as "high."

Status Coding

Each of the three digits in the salmonid status assessment numerical code represents presence or absence, habitat, species status, or unknown (i.e., 113 = species present – spawning and rearing habitat – small and stable population). This code structure is intended for use in a database that could be queried to identify occupied, unoccupied, and potential habitat. Under those separate headings you could then query further but you could not query on the second or third digits independently of the previous digits and get any meaningful results.

- **First digit – Presence, absence, or unknown**
 - **Second digit**

- **Third digit**
- 1 present
 - 1 spawning and rearing habitat
 - 1 strong
 - 2 depressed
 - 3 small and stable
 - 9 no information
 - 2 migratory corridors
 - 0 place mark
- 2 absent
 - 1 rigorous sampling has confirmed species absence
 - 2 historically absent or currently inaccessible or unsuitable
 - 0 place mark
- 3 unknown – some data available, high uncertainty
 - 1 Suitable habitat present
 - 1 connected
 - 2 un-connected
 - 2 Suitable habitats not present
 - 0 place mark
- 4 assumed extirpated – may or may not have data on historical presence and current species absence
 - 0 place mark
 - 0 place mark
- 9 unknown (999)
 - 9 unknown
 - 9 unknown

Present – Strong: Spawning & Rearing Habitat (code = 111)

The subwatershed has ALL of the following conditions:

- The species is present in the subwatershed based on sample data using accepted fish sampling methods in the last 10 years;
- All major life histories (e.g., stream resident or migratory) that historically occurred in the subwatershed are still present;
- Numbers are stable or increasing, and the local population is likely to be half or more of its historic size or density; and
- The population or meta-population in the subwatershed or in the larger region of which it is part, likely is at least 5,000 individuals or 500 adults. If the population size is based on a population that extends outside of this subwatershed, the subwatershed presently constitutes an important core area for this larger population.

Note: Number of individuals and/or adults may need revision based on population characteristics or species that do not occur within the Interior Columbia River Basin.

Present – Depressed: Spawning and Rearing Habitat (code = 112)

The species is present in the subwatershed based on sample data using accepted fish sampling methods in the last 10 years; AND the subwatershed has ONE or MORE of the following conditions:

- A major life-history component (e.g. migratory or resident form of cutthroat trout) has been eliminated; or
- Numbers are declining, or species occurs in less than half of its historic habitat, or numbers are less than half of historic; or

Note: If historic habitat is unavailable, densities are less than half of comparable undamaged streams where the species is well-distributed. Hybridized cutthroat issues would be described and displayed in status of westslope cutthroat trout (*Oncorhynchus clarki lewisi*) in the United States (Shepard et al. 2005).

The population or meta-population in the subwatershed, or in the larger region of which it is part, is less than 5,000 individuals or 500 adults (fish in the watershed are isolated by distance or natural barriers from other populations that would collectively exceed these numbers).

Note: Number of individuals and/or adults may need revision based on population characteristics or species that do not occur within the Interior Columbia River Basin.

Present – Small & Stable Population: Spawning and Rearing Habitat (code = 113)

The subwatershed has the following conditions:

- The species is known to be present in this subwatershed;
- The species is using spawning and rearing habitat in this subwatershed; and
- The population in this subwatershed is small (number of individuals in population is less than 500) and the population is believed to be relatively stable and comparable to historic size.

Notes regarding this call: Small populations that are reduced in size from historic are coded as depressed. In general these are physically isolated populations or populations that occupy relatively small amounts of habitat.

Present- Unknown Pop Status: Spawning and Rearing Habitat (code = 119)

The subwatershed has the following conditions:

- The species is present in the subwatershed based on sample data using accepted fish sampling methods in the last 10 years; and
- Sampling has not been conducted at the level to characterize the status of the population.

Present – Migratory Corridor (code = 120)

The subwatershed has the following conditions:

- The species is known to be present in this subwatershed; and
- The species uses habitat in this subwatershed for migration.

Notes regarding this call: Migratory corridors are habitat that do not support spawning or rearing and function solely as routes for migrating fish. In general, these areas are main stem rivers

contained within composite subwatersheds that do not contain any other spawning and rearing habitat for this species in the tributaries.

This call is not used for resident populations except for adfluvial fish (stream reaches between lakes and spawning areas) and for anadromous fish (although it is recognized that there is some juvenile rearing that occurs in these corridors).

Absent based on rigorous sampling (code = 210)

The subwatershed has the following condition:

- Sampling for this species in this subwatershed has been completed using recognized protocol for detecting small, sporadic fish presence (Must have used AFS Western Division protocol for bull trout).

Notes regarding this call: This protocol does not need to be applied for introduced fishes. For introduced fishes the species has not been detected in the subwatershed based on sample data using accepted fish sampling methods in the last 10 years.

Absent – Historically and Currently Inaccessible or Unsuitable (code = 220)

The subwatershed has the following condition:

- This subwatershed (or all suitable habitats for the species in this subwatershed) has been inaccessible or is unsuitable to this species since the last ice age, and currently remains inaccessible or is unsuitable to this species

Notes regarding this call: This call is not used to represent temporary or small barriers to the species. A determination of unsuitable habitat in this call is generally used for anadromous species.

Presence Unknown – Suitable Habitat Present and Connected (code = 311)

The subwatershed has the following conditions:

- The species has not been detected in this subwatershed;
- Rigorous sampling protocols have not been implemented to determine the presence of the species; and
- The subwatershed contains suitable habitat that is physically connected to areas outside the subwatershed that contain the species.

Presence Unknown – Suitable Habitat Present but Unconnected (code = 312)

The subwatershed has the following conditions:

- The species has not been detected in this subwatershed;
- Rigorous sampling protocols have not been implemented to determine the presence of the species; and
- The subwatershed contains suitable habitat that is not physically connected to areas outside the subwatershed that contain the species.

Presence Unknown – Suitable Habitat Not Present (code = 320)

The subwatershed has the following conditions:

- The species has not been detected in this subwatershed;

- Rigorous sampling protocols have not been implemented to determine the presence of the species; and
- The subwatershed does not contain suitable habitat.

Assumed Extirpated – Known Historical Habitat (code = 400)

The subwatershed has the following conditions:

- The species has been historically detected or assumed to be historically present based on environmental parameters in this subwatershed; and
- Assumed that the species no longer occurs in subwatershed.

Presence Unknown – Habitat Unknown (code = 999)

The subwatershed has the following conditions:

- The species has not been detected in this subwatershed;
- Rigorous sampling protocols have not been implemented to determine the presence of the species; and

Habitat conditions in this subwatershed are unknown.

Appendix E – Wild, Scenic, and Recreational Rivers

Introduction

Congress enacted the Wild and Scenic Rivers Act (WSRA) in 1968 to preserve select river's free-flowing condition, water quality, and outstandingly remarkable values. The most important provision of the WSRA is protecting rivers from the harmful effects of water resources projects. To protect free-flowing character the Federal Energy Regulatory Commission (which licenses non-federal hydropower projects) is not allowed to license construction of dams, water conduits, reservoirs, powerhouses, transmission lines, or other project works on or directly affecting wild and scenic rivers. Other federal agencies may not assist by loan, grant, license, or otherwise any water resources project that would have a direct and adverse effect on the values for which a river was designated.

The WSRA also directs that each river in the National Wild and Scenic Rivers System (National System) be administered in a manner to protect and enhance a river's outstanding natural and cultural values. It allows existing uses of a river to continue and future uses to be considered, so long as existing or proposed use does not conflict with protecting river values. The WSRA also directs building partnerships among landowners, river users, tribal nations, and all levels of government.

Rivers may be identified for suitability studies by an act of Congress under Section 5(a), or through federal agency-initiated study under Section 5(d) (1). By the end of 2002, Congress had authorized 138 rivers for study. Section 5(d) (1) directs federal agencies to consider the potential of wild and scenic rivers in their planning processes; and its application has resulted in numerous individual river designations, and state and area-specific legislation.

Both Sections 5(a) and 5(d) (1) require determinations to be made regarding a river's eligibility, classification, and suitability. Eligibility and classification represent an inventory of existing conditions. Eligibility is an evaluation of whether a river is free-flowing and possesses one or more outstandingly remarkable value. If found eligible, a river is analyzed as to its current level of development and a preliminary classification determination is made as to whether it should be placed into one of three classes: wild, scenic, or recreational.

The final procedural step, a suitability study, provides the basis for determining whether to recommend a river as part of the National System. A suitability study is designed to answer the following questions:

- Should the river's free-flowing character, water quality, and outstandingly remarkable values be protected, or are one or more other uses important enough to warrant doing otherwise?
- Will the river's free-flowing character, water quality, and outstandingly remarkable values be protected through designation? Is it the best method for protecting the river corridor? In answering these questions, the benefits and impacts of wild and scenic rivers designation must be evaluated and alternative protection methods considered.
- Is there a demonstrated commitment to protect the river by any non-federal entities that may be partially responsible for implementing protective management?

Rivers authorized for suitability studies by Congress are protected under the WSRA; specifically,

- Section 7(b) – prevents the harmful effects of water resources projects;
- Section 8(b) – withdraws public lands from disposition under public land laws;
- Section 9(b) – withdraws locatable minerals from appropriation under mining laws; and
- Section 12(a) – directs actions of other federal agencies to protect river values.

These protections last through the suitability study process, including a three-year period following transmittal of the final suitability study report by the President to Congress. The integrity of the identified classification must also be maintained during the protection period.

The identification of a river as eligible through the forest planning process does not trigger any protections under the WSRA. To manage the river for its potential inclusion into the National System, other authorities are cited to protect its free-flowing character, water quality, outstandingly remarkable values, and preliminary or recommended classification.

No suitability studies are being conducted with this revised Forest Plan.

In this evaluation, only eligibility of rivers on the KNF is completed. Suitability is deferred, pending:

- 1. Public interest or support in wild and scenic river study;
- 2. Congress expresses interest in a specific river for wild and scenic river designation, or
- 3. A proposed project would alter the free-flowing character of a stream, such as by impoundment, or adversely affect outstandingly remarkable values, or the river's inventoried classification (82.5).

Process to Identify and Classify Potentially Eligible Wild and Scenic Rivers

The following describes the process used for identifying those rivers and streams on the KNF that are potentially eligible for inclusion in the National Wild and Scenic River System. Maps of existing eligible and potentially eligible Wild, Scenic, and Recreational Rivers are also included.

In order to identify potentially eligible rivers the Forest used:

- Region 1 "Draft Consistency Paper – Wild and Scenic Rivers Assessment";
- Forest Service Handbook 1912.09 Ch.80 for identifying and evaluating potential additions to the National Wild and Scenic Rivers System on NFS lands pursuant to the WSRA of October 2, 1968, as amended; and
- Wild and Scenic Rivers Guidelines as published in the *Federal Register/Vol.47, No. 173/Tuesday, September 7, 1982*.

Step 1 – Evaluate the status of eligible wild and scenic rivers in the current Forest Plan.

A review of the 1987 Forest Plan for the KNF revealed that the Forest addressed eligibility of select rivers, but no forestwide assessments were completed. Therefore, a comprehensive forestwide evaluation of potentially eligible rivers on the Forest was needed.

Step 2 – Complete a systematic forestwide inventory of streams and rivers.

As per the Wild and Scenic River Act at 5(d) (1) and Forest Service Manual policy ([FSM 1924.03](#)) a systematic inventory of named streams and rivers was completed on the KNF. The inventory of the named rivers and streams on the KNF was generated from the Forest's GIS coverage of rivers and streams on the Forest.

- The inventory of named rivers and streams on the KNF resulted in the identification of 752 candidates to consider for eligibility. By district there are: Libby District (206), Cabinet District (180), Three Rivers District (189), Rexford District (84), and Fortine District (93).

Step 3 – Determine which of the named rivers and streams are free-flowing.

Initial assessments were accomplished in an interdisciplinary manner by having district and/or supervisor office resource specialists review the listed named rivers and streams and, based on their knowledge, identify if the river or stream is free-flowing. This determination is made by answering the question:

- Is the river segment flowing in a natural condition without impoundment, diversion, straightening, rip rapping, or other modification of the waterway? Bridges and culverts are allowed and do not affect the segment's free-flowing nature.

If the river segment is not free-flowing, the river is not eligible.

Step 4 – Identify potential eligibility by determining which of the named rivers and streams that is free-flowing, have a potential 'outstandingly remarkable value'.

To be eligible for designation, a river must be free flowing and possess one or more outstandingly remarkable value. Thus, the eligibility analysis consists of an examination of the river's hydrology, including any man made alterations; and an assessment of its natural, cultural, and recreational resources. The determination that a river area contains outstandingly remarkable values is a professional judgment on the part of the interdisciplinary team, based on objective, site-specific assessments.

In order to be assessed as outstandingly remarkable, a river related value must be a unique, rare, or exemplary feature that is significant at a comparative regional or national scale. Dictionary definitions of the words "unique" and "rare" indicate that such a value would be one that is a conspicuous example from among a number of similar values that are themselves uncommon or extraordinary. Only one such value is needed for eligibility.

The area, region, or scale of comparison is not fixed, and is defined as that which serves as a basis for meaningful comparative analysis; it may vary depending on the value being considered. Typically, a "region" is defined on the scale of an administrative unit, a portion of a state, or an appropriately scaled physiographic or hydrologic unit. The comparative scale used for this assessment is the individual Forest. That is, the rivers and streams on the KNF were compared one to another.

While the spectrum of resources that may be considered is broad, all values should be directly river related. That is, they should:

- a) Be located in the river or on its immediate shore lands (generally within 1/4 mile on either side of the river);

- b) Contribute substantially to the functioning of the river ecosystem; and/or
- c) Owe their location or existence to the presence of the river.

The following criteria were considered in order to establish whether one or more outstandingly remarkable values are present. This is an illustrative list and is not intended to be all inclusive.

Scenery:

- Do the landforms, vegetation type or seasonal variations, watercolor, or related factors result in notable or exemplary visual features or attractions?

Recreation:

- Are recreational opportunities unique or rare within the region?
- Are recreational opportunities popular enough or have the potential to be popular enough to attract visitors from throughout the region of comparison?
- Are visitors willing to travel long distances to use the river resources for recreational purposes?
- Are interpretive and/or educational opportunities exceptional and unique within the region of comparison?

Geology:

- Does the river, or area within the river corridor, contain one or more example of a geologic feature, process, or phenomenon unique or rare within the region of comparison?

Fish Populations:

- Is there threatened or endangered species represented?
- Is it an important stronghold for native fish assemblages (diversity)?
- Are there genetically pure strains of native populations?
- Is there a Native American dependence on this fishery?
- Is there a lack of exotic species or non-native species in this river?
- Are there other important wildlife species dependent upon this fishery?

Habitat:

- Is there a relationship between this river and the health and vigor of the fishery that would warrant protection of the river?
- Are there natural barriers to fish migration that restrict the distribution of the population?
- Is there high restoration or recovery potential for the habitat?
- Is this an intact system and does the habitat support native or wild stock assemblages?
- Does the habitat represent a pristine river system?

Wildlife:

- Does the river or river corridor contain nationally or regionally important populations of indigenous wildlife species?
- Does the river or river corridor provide exceptionally high quality habitat for wildlife of national or regional significance?

- Does the river or river corridor provide unique habitat or a critical link in habitat conditions for federal or state listed (or candidate) threatened, endangered, or sensitive species? [Of particular significance is the presence of wild stocks and/or federal or state listed (or candidate) threatened, endangered, or sensitive species. Diversity of species is an important consideration and could, in itself, lead to a determination of "outstandingly remarkable."]

Prehistory:

- Does the river or river corridor contain a site(s) where there is evidence of occupation or use by Native Americans?
- Do sites have unique or rare characteristics or exceptional human-interest value(s)?
- Do sites represent an area where a culture or cultural period was first identified and described?
- Were sites used concurrently by two or more cultural groups, and/or used by cultural groups for sacred purposes?

History:

- Does the river or river corridor contain a site(s) or feature(s) associated with a significant event, an important person, or a cultural activity of the past that was rare or one-of-a-kind in the region?

Botany/Rare Plants and Plant Communities:

- Are there any occurrences of federally threatened or endangered plant species?
- Are there any occurrences of plant species designated as sensitive by the Forest Service?
- Are there any occurrences of other rare plants that are tracked by the state Natural Heritage Program(s)?
- Are there any plant communities or habitats that are unique, rare, or significant, or that are tracked by the state Natural Heritage Programs?
- Are the native plant communities in good ecological conditions (i.e., relatively free of invasive plant species)?

Natural Areas:

- Are there any designated research natural areas along the river?
- Are there any special interest areas (Botanical, Geological, Scenic, Zoological, etc.) along the river?
- Are there any other specially designated areas in the corridor (such as National Natural Landmarks)?

Initial assessments were accomplished in an interdisciplinary manner by having district and/or supervisor office resource specialists review the listed named rivers and streams and, based on their knowledge, identify whether a potential 'outstandingly remarkable value' exists. In most cases on-the-ground knowledge was used in developing the assessment of outstandingly remarkable values. Only the botanical resource was assessed using GIS information; this data was populated from on-the-ground surveys. All other assessments were based on direct knowledge of the individual streams.

The assessment on the free flowing nature, scenery, and recreation was completed by the district recreation specialist. The assessment of geology was completed by the forest geologist. The assessment of fish was completed by the forest fish biologist. The assessment of wildlife was completed by the district wildlife biologist. The assessment of history and prehistory was completed by the forest archaeologist. The assessment of botany was completed by the forest ecologist.

The resulting assessment of the free-flowing nature and outstandingly remarkable values was summarized by named stream and input into a spreadsheet. A copy of this spreadsheet can be found in the project record.

Step 5 – Using the Forest as the comparative scale, review the identified potential ‘outstandingly remarkable values’ and determine whether they meet the criteria of being rare, unique, or exemplary.

This review was completed by the KNF Recreation Program Manager, the Recreation lead, and the Wild and Scenic Rivers lead for the forest plan revision interdisciplinary team.

After reviewing the initial assessments of the resource specialists the three reviewers made a preliminary determination as to whether the potential outstandingly remarkable values was a unique, rare, or exemplary feature that is significant at the selected comparative scale and meets the other criteria for being directly river-related (as described in a, b, c, above). This resulted in the list of eligible streams that were brought forward for inclusion in the action alternatives.

Narratives were developed for each river system. Some outstandingly remarkable values were found not to be rare, unique, or exemplary when assessed at a forest level. Based on the narratives, the outstandingly remarkable values were identified and summarized for each eligible river system. The final outstandingly remarkable value(s) were determined for the entire river system.

Step 6 – Determine preliminary Classification.

The potential classification of a river found to be eligible is based on the condition of the river and the adjacent lands as they currently exist. Section 2(b) of the WSRA of October 2, 1968 specifies and defines three classification categories for eligible rivers:

- 1. Wild rivers;
- 2. Scenic rivers; and
- 3. Recreational rivers.

The USDA and USDI Guidelines for Eligibility, Classification, and Management of River Areas dated September 7, 1982 (USDA-USDI Guidelines) provides the following classification criteria for wild, scenic, and recreational rivers.

Table 196. Classification Criteria for Wild, Scenic, and Recreational River Areas

Attribute	Wild	Scenic	Recreational
Water Resource Development	Free of impoundment.	Free of impoundment.	Some existing impoundment or diversion.
			The existence of low dams,

Attribute	Wild	Scenic	Recreational
			diversions, or other modifications of the waterway is acceptable, provided the waterway remains generally natural and riverine in appearance.
Shoreline Development	Essentially primitive. Little or no evidence of human activity.	Largely primitive and undeveloped. No substantial evidence of human activity.	Some development. Substantial evidence of human activity.
	The presence of a few inconspicuous structures, particularly those of historic or cultural value is acceptable.	The presence of small communities, dispersed dwellings, or farm structures is acceptable.	The presence of extensive residential development and a few commercial structures is acceptable.
	A limited amount of domestic livestock grazing or hay production is acceptable.	The presence of grazing, hay production, or row crops is acceptable.	Lands may have been developed for the full range of agricultural and forestry uses.
	Little or no evidence of past timber harvest. No ongoing timber harvest.	Evidence of past or ongoing timber harvest is acceptable, provided the forest appears natural from the riverbank.	May show evidence of past and ongoing timber harvest.
Accessibility	Generally inaccessible except by trail.	Accessible in places by road.	Readily accessible by road or railroad.
	No roads, railroads, or other provision for vehicular travel within the river area. A few existing roads leading to the boundary of the area are acceptable.	Roads may occasionally reach or bridge the river. The existence of short stretches of conspicuous or longer stretches of inconspicuous roads or railroads is acceptable.	The existence of parallel roads or railroads on one or both banks as well as bridge crossings and other river access points is acceptable.
Water Quality	Meets or exceeds criteria or federally approved state standards for aesthetics, for propagation of fish and wildlife normally adapted to the habitat of the river, and for primary contact recreation (swimming) except where exceeded by natural conditions.	No criteria are prescribed by the WSRA. The Federal Water Pollution Control Act Amendments of 1972 have made it a national goal that all waters of the US are made fishable and swimmable. Therefore, rivers will not be precluded from scenic or recreational classification because of poor water quality at the time of their study, provided a water quality improvement plan exists or is being developed in compliance with applicable federal and state laws.	

(1) Wild River Areas – The rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shoreline essentially primitive and waters unpolluted. These represent vestiges of primitive America.

These criteria are interpreted as follows:

- a. "Free of impoundments." Wild river areas shall be free of impoundments.
- b. "Watersheds or shorelines essentially primitive." Wild river areas will show little or no evidence of human activity. Shorelines and watersheds within the river area should be essentially free of structures including such things as buildings, pipelines, power lines, dams,

pumps, generators, diversion works, rip-rap, and other modifications of the waterway or adjacent land within the river corridor. The existence of a few inconspicuous structures, particularly those of historic or cultural value, at the time of study need not bar wild classification.

A limited amount of domestic livestock grazing or hay production may be considered "essentially primitive." There should be no row crops or ongoing timber harvest and the river area should show little or no evidence of past logging activities.

- c. "Generally inaccessible except by trail." Wild river areas will not contain roads, railroads, or other provisions for vehicular travel within the river area. The existence of a few inconspicuous roads leading to the boundary of the river area at the time of study will not necessarily bar wild river classification.
- d. "Waters unpolluted." The water quality of a wild river will meet or exceed federal criteria or federally approved state standards for aesthetics, for propagation of fish and wildlife normally adapted to the habitat of the stream, and for primary contact recreation except where exceeded by natural conditions.

(2) Scenic River Areas – The rivers, or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.

These criteria are interpreted as follows:

- a. "Free of impoundments." Scenic river areas will be free of impoundments.
- b. "Shorelines or watersheds still largely primitive." To qualify for scenic classification, the rivers segment's shorelines and immediate environment should not show substantial evidence of human activity. The portion of the watershed within the boundary of the scenic river may have some discernible existing development. "Largely primitive" means that the shorelines and the immediate river environment still present an overall natural character, but that in places land may be developed for agricultural purposes. Row crops would be considered as meeting the test of "largely primitive," as would timber harvest and other resource use, providing such activity is accomplished without a substantial adverse effect on the natural appearance of the river or its immediate environment.
"Shorelines largely undeveloped," means that any structures or concentration of structures must be limited to relatively short reaches of the total area under consideration for designation as a scenic river area.
- c. "Accessible in places by road." Means that roads may reach the river area and occasionally bridge the river. The presence of short stretches of conspicuous or longer stretches of inconspicuous and well-screened roads or railroads will not necessarily preclude scenic river designation. In addition to the physical and scenic relationship of the free-flowing river area to roads or railroads, consideration should be given to the type of use for which such roads or railroads were constructed and the type of use which would occur within the proposed scenic river area.

(3) Recreational River Areas – The rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

These criteria are interpreted as follows:

- a. "Some impoundment or diversion in the past." There may be some existing impoundments, diversions, and other modifications of the waterway having an impact on the river area. Existing low dams, diversion works, rip-rap, and other minor structures will not bar recreational classification, provided the waterway remains generally natural and riverine in appearance.
- b. "Some development along their shorelines." Lands may have been developed for the full range of agricultural and forestry uses, may show evidence of past and ongoing timber harvest, and may include some residential, commercial, or similar development.
- c. "Readily accessible by road or railroad." River areas classified as recreational may contain existing parallel roads or railroads in close proximity to one or both banks of the river as well as bridge crossings and roads fording or ending at the river.

There are several points to keep in mind when reading and applying the classification criteria:

- It is important to understand each criterion, but it is more important to understand their collective intent. Each river segment and its immediate environment should be considered as a unit. The basis for classification is the degree of naturalness, or stated negatively, the degree of evidence of man's activity in the river area. The most natural rivers will be classified wild; those somewhat less natural, scenic, and those least natural, recreational.
- Generally, only conditions within the river area determine classification; however, occasionally conditions outside the river area, such as developments which could impact air and water quality, noise levels, or scenic views within the river area, may influence classification.
- For the purpose of classification, a river area may be divided into segments. Each segment, considered as a whole, will conform to one of the classifications. In segmenting the river, the assessment should take into account the management strategies necessary to administer the entire river area and should avoid excessive segmentation.
- The WSRA provides no specific guidance on water quality for scenic and recreational rivers. However, the Clean Water Act has made it a national goal that all waters of the United States be made fishable and swimmable, and provides the legal means for upgrading water quality in any river which would otherwise be suitable for inclusion in the system. Therefore, rivers will not necessarily be excluded from the system because of poor water quality at the time of study, provided a water quality improvement plan exists or is being developed in compliance with applicable state and federal laws.
- Although each classification permits certain existing development, the criteria do not imply that additional inconsistent development is permitted in the future.
- The classification criteria provide uniform guidance for professional judgment, but they are not absolutes. It is not possible to formulate criteria so as to mechanically or automatically classify river areas. Therefore, there may occasionally be exceptions to some of the criteria. For example, if the assessment finds that strict application of the classification criteria would not provide the most appropriate classification for a specific river segment, the recommendation may consider an exception to the classification criteria.

Eligible Wild and Scenic Rivers

All of the eligible rivers and streams identified in the 1987 Forest Plan and subsequent amendments were found to still be eligible, totaling 112.4 miles on NFS lands and 38,120 acres within the associated corridors. Thirteen additional river and stream segments were found to be

potentially eligible as wild and scenic rivers, totaling 59.9 miles on NFS lands and 18,298 acres within the associated corridors. Table 197 lists the potentially eligible wild and scenic rivers.

Table 197. Eligible Wild, Scenic, and Recreation Rivers

River System	Status ¹ .	Outstandingly Remarkable Value	Preliminary Classification	NFS Miles	NFS Acres
Kootenai River					
Seg. 1	Existing	Scenery, Fisheries, Recreation, and History	Recreational	1.3	737
Seg. 2	Existing		Recreational	1.9	363
Seg. 3	Existing		Recreational	5.0	2,299
Seg. 4	Existing		Recreational	0.5	237
Seg. 5	Existing		Recreational	6.7	2,308
Yaak River					
Seg. 1	Existing	Scenery, Recreation, and History	Recreational	3.5	1,842
Seg. 2	Existing		Recreational	7.1	2,734
Seg. 3	Existing		Recreational	6.2	2,068
Seg. 4	Existing		Wild	9.0	2,586
West Fork Yaak River					
Seg. 1	New	Scenery and History	Wild	4.2	1,330
Seg. 2	New		Recreational	4.5	1,428
Vinal Creek System					
Vinal Creek/Seg. 1	New	Scenery and Recreation	Scenic	3.9	1,074
Turner Creek/Seg. 2	New		Scenic	1.1	386
Vermilion River					
Seg. 1	Existing	Scenery and History	Recreational	11.1	3,599
Bull River System					
Bull River/Seg. 1	Existing	Scenery	Recreational	5.7	1,911
Bull River/Seg. 2	Existing		Recreational	3.4	1,608
North Fork and Middle Fork Bull River/Seg.3	Existing		Wild	12.6	4,135
East Fork Bull River/Seg. 4	Existing		Recreational	4.1	1,119
East Fork Bull River/Seg. 5	Existing		Wild	3.0	997
North Fork of the East Fork Bull River/Seg. 6	New		Recreational	2.2	616
North Fork of the East Fork Bull River/Seg. 7	New		Wild	1.4	497

River System	Status ¹ .	Outstandingly Remarkable Value	Preliminary Classification	NFS Miles	NFS Acres
Big Creek System					
Big Creek/Seg.1	Existing	Recreation	Recreational	7.6	2,261
South Fork Big Creek/Seg. 2	Existing		Recreational	6.7	2,103
Little North. Fork Big Creek/Seg. 3	Existing		Wild	1.6	452
Good Creek/Seg. 4	Existing		Wild	2.4	717
North Fork Big Creek/Seg. 5	Existing		Wild	5.6	1,797
Copeland Creek/Seg. 6	Existing		Wild	1.8	564
Lookout Creek/Seg. 7	Existing		Wild	2.4	725
East Fork Lookout Creek/Seg. 7	Existing		Wild	1.5	443
Unnamed Tributary to Lookout Creek/Seg. 7	Existing		Wild	1.7	515
Grave Creek System					
Grave Creek/Seg. 1	New	Fisheries	Recreational	12.5	3,699
Sahl Creek/Seg. 2	New		Recreational	4.3	1,244
Clarence Creek/Seg. 3	New		Recreational	5.2	1,654
Blue Sky/Seg. 4	New		Recreational	6.3	2,002
Quartz Creek System					
Quartz Creek/Seg. 1	New	Fisheries and Botany	Recreational	8.4	2,572
West Fork Quartz Creek/Seg. 2	New		Wild	2.8	892
West Fork Quartz Creek/Seg. 3	New		Recreational	3.1	904
Total				172.3	56,418

¹ Segments found to be eligible as wild and scenic under the 1987 Forest Plan as amended are listed as "existing." Additional segments found to be potentially eligible under the plan revision are listed as "new."

Narratives

Following are narratives for each river system listed in table 197.

Kootenai River System

Introduction

The Kootenai River drains the northern portion of the Kootenai Forest from Libby Dam downstream to the Montana-Idaho state line. The Kootenai River is 47 miles long within Montana, with approximately 70 percent of the river mileage in non-national forest

landownership. There are 5,940 acres of NFS lands within a ½ mile-wide corridor. The qualities that contribute to its eligibility are the exceptional scenic values along the entire length including Kootenai Falls, its “blue ribbon” status as a fishery, abundant recreation opportunities, as well as the historic and pre-historic values that are related to the early days of northwest exploration and settlement. Natural topographic features, along with the landownership pattern, readily yield five different segments that can be assessed independently. They are:

Segment 1: Recreation river potential from the junction of the Fisher River (three miles downstream of Libby Dam), downstream for nine miles to Tub Gulch, approximately four miles upstream from the town of Libby, Montana. This segment flows through a wide-bottom canyon in a rural setting that is mostly non-national forest ownership (85%). The historic site of Jennings, Montana, a steamboat town, and Jennings Rapids are located within the corridor. Also included are: State Highway 37; the Burlington Northern Santa Fe Railroad; the reclaimed WR Grace vermiculite loading facility; the Canoe Gulch Ranger Station; and the Osprey Landing Forest Service boat ramp. Bald eagle and osprey frequently nest along this segment offering views to recreationists.

Segment 2: Recreation river potential for 10 miles from Tub Gulch to Quartz Creek. This segment flows through a wider valley-setting that is more developed than Segment 1, although open hayfields border the river in many places. Landownership is primarily non-national forest (81%). A portion of the town of Libby, Montana, a major portion of State Highway 37, four miles of US Highway 2, and the Burlington Northern Santa Fe Railroad are all located within the corridor. This segment offers river recreationists outstanding views of the snowcapped Cabinet Mountains located to the west.

Segment 3: Recreation river potential for 9 miles from Quartz Creek to Surprise Gulch, two miles below Kootenai Falls. This segment flows at a faster rate through a forested, narrow, valley-bottom, and canyon setting that is primarily NFS land (57%). The China Rapids, Kootenai Falls, Lions Club picnic ground and vista point, Kootenai River canyon, the historic “swinging footbridge,” as well as the David Thompson portage trail and Kootenai Falls Cultural Resource District are located within the corridor. US Highway 2, the Burlington Northern Santa Fe Railroad, and the Bonneville Power Association electric transmission line are also included. Much of this segment is bordered on the north by the Montana Fish, Wildlife and Parks “Kootenai Falls Wildlife Management Area” with the opportunity to view bighorn sheep. Kootenai Falls forms the upstream barrier for an endangered population of white sturgeon. Each spring male harlequin ducks are frequently observed at Kootenai Falls after females have moved up smaller streams to nest. The Kootenai Falls has become a regional hub for extreme kayakers, especially during spring high flows.

Segment 4: Recreation river potential for 10 miles from Surprise Gulch to a mile below Kootenai Vista Estates. This segment flows through a valley-bottom setting and includes a portion of the town of Troy, Montana, US Highway 2, the Burlington Northern Santa Fe Railroad, and a Bonneville Power Administration (BPA) substation. Landownership is 95 percent non-national forest.

Segment 5: Recreation river potential for 8 miles from Kootenai Vista Estates to the Montana-Idaho State line and the KNF boundary (another five miles of recreation river continues into Idaho with a significant portion of NFS land located within the Idaho Panhandle National Forest). This segment flows through a forested, wide canyon-bottom to the mouth of the historic Yaak River. Downstream of Yaak River, the Kootenai River

enters a narrow canyon with little development to the historic town site of Leonia. Landownership is 77 percent NFS land. US Highway 2 and the Burlington Northern Santa Fe Railroad are located within the corridor.

Yaak River System

Introduction

The Yaak River drains the northwest portion of the KNF and merges with the Kootenai River six miles downstream from the town of Troy, Montana. The Yaak is 50 miles long with 52 percent of the river mileage in NFS ownership. There are 9,230 acres of NFS land included within a ½ mile-wide corridor. The qualities that contribute to its eligibility are the scenic values along the entire length; recreational values for canoeing, rafting, and kayaking in the early summer months; and historical values related to the gold-mining days. The natural topographic features, along with the landownership pattern, readily yield four different segments that can be assessed independently. They are:

Segment 1: Recreation river potential from the junction of the East and West Fork, downstream for 19 miles to Pete Creek. This segment meanders through valley-bottom land in the rural wetland setting that is primarily private ownership (82%). The historical community of Yaak, Montana and a major portion of the Yaak River Road are located within the corridor. Also included is the Upper Ford work center (Yaak Ranger District). This section has limited public access. On normal flow years the river is navigable by raft, drift boat, canoe, and kayak until early July. River flows after July limit floating opportunities.

Segment 2: Recreation river potential for 10 miles from Pete Creek to Meadow Creek. This segment flows at an increased rate through a heavily forested setting that is primarily NFS ownership (72%). The Pete Creek and Whitetail Creek Campgrounds, as well as the Yaak River Road are located within the corridor. There is good public access. During normal flow years, the river is navigable by raft, drift boat, canoe, and kayak until early July. River flows after July limit floating opportunities.

Segment 3: Recreation river potential for 11 miles from Meadow Creek to the Yaak Falls. This segment flows at a still faster rate through a forested, narrow, valley-bottom setting that is approximately one-half NFS land (54%). The Red Top Campground, historical mining community of Sylvanite, and the Yaak River Road are located within the corridor. Also included is the old Sylvanite Ranger Station.

Segment 4: Wild river potential begins at the Yaak Falls and cascades downstream for 9 miles through a deep canyon setting and ends at the Bonneville Power Administration (BPA) electric transmission corridor paralleling US Highway 2 adjacent to the mouth of the Yaak River. This rugged segment is almost entirely NFS land (97%) and includes the Yaak Falls Campground. This stretch of the Yaak River has limited access, is very steep, remote, and rugged. While there are some guide books showing this portion of the river as raft and or kayakable, it is not a recommended route. This portion of the river should only be navigated by highly experienced individuals only after scouting, checking river levels, and insuring safety. This section of river has some very dangerous falls, rapids, and tight canyon areas.

West Fork Yaak River

Introduction

The West Fork Yaak River flows into the United States from Canada in lush wet river bottom with limited access. The West Fork Yaak River flows nine miles long with 100 percent of the river mileage in NFS ownership. There are 2,760 acres of NFS land included within a ½ mile-wide corridor. The qualities that contribute to its eligibility are the scenic and historic values along the entire length. The upper and lower West Fork Falls are very scenic and have cultural significance to the Confederated Salish and Kootenai Tribes.

Segment 1: Wild river potential from the border with Canada for a length of four miles through a very scenic and remote valley. This portion of the river is very lush, scenic, and has a variety of wildlife that utilizes the river corridor. A non-motorized trail, trail 318, runs along this stretch of the river corridor.

Segment 2: Recreation river potential for five miles where the West Fork joins the main Yaak River. This section of river has several roads that are within ½ mile of the river corridor. The upper and lower West Fork Falls are located in this section and are very popular recreation sites. The Lower West Fork Falls has a trail and viewing platform located at the falls.

Vinal Creek System

Introduction

The Vinal Creek System flows into the Yaak River at the extreme northeast end of the river. The Vinal Creek System is 5 miles long with 100 percent of the river mileage in NFS ownership. There are 1,460 acres included within a ½ mile-wide corridor. The qualities that contribute to its eligibility are the scenic and recreational values, with several popular trails, including a national recreation trail (part of the Pacific Northwest Scenic Trail). Two different creeks make up the two different segments that comprise this system. They are:

Segment 1: Vinal Creek drains a large area that contains the Fish Lakes Canyon located below Mount Henry. Landownership is 100 percent NFS land. Trail 9 follows most of the Vinal Creek drainage. This National Recreation Trail is a popular route for recreationists visiting Fish Lakes and Turner Falls. Trail 9 is also part of the newly designated Pacific Northwest Scenic Trail. A short portion of trail 397, Fish Lakes Trail follows the upper section of Vinal Creek. Vinal Creek flows through portions of magnificent old growth containing western larch and cedar and there is a variety of other plants, mosses, and lichens along the drainage. There are also rocky canyons along the drainage offering scenic views. The drainage has abundant wildlife, birds and fish along the entire route. Vinal Creek has good access via trails throughout the area and is a popular recreation area. Vinal Creek drains into the Yaak River.

Segment 2: Turner Creek drains an area off of the Purcell Summit in the north-west portion of the KNF on the Three Rivers Ranger District. Turner Creek flows into Vinal Creek along the National Recreation Trail #9. Landownership is 100 percent in NFS land. The lower stretch of Turner Creek contains Turner Falls before its connection with Vinal Creek. Turner Falls is a beautiful falls that is adjacent to the Vinal Creek National Recreation Trail and the newly designated Pacific Northwest Scenic Trail. Turner Falls is a highly visited site by recreationists. The clean, cold water that flows through this lower

stretch of Turner Creek offers a combination of scenery, vegetation, and wildlife in a remote setting.

Vermilion River System

The Vermilion River drains a southern portion of the Kootenai Forest and merges with the Noxon Reservoir three miles southwest from the town of Trout Creek, Montana. This eligible river system is 13 miles long with 85 percent of the river mileage in NFS ownership. There are 4,000 acres of NFS land included within a ½ mile-wide corridor. The qualities that contribute to its eligibility are the scenic values along the entire length, including Vermilion Falls and the Hog Back Gorge, as well as the geologic landforms and historical values related to the gold-mining days.

The natural topographic features, along with the landownership pattern, readily yield a continuous Recreation river segment from the junction of Willow Creek, downstream to Noxon Reservoir. The river cascades over the Vermilion Falls located near the upper end of the river segment and down through a narrow, timber-covered canyon. The seasonal, unpaved Vermilion River road parallels the river for the entire length within the study corridor.

Bull River System

Introduction

The Bull River drains the southwestern corner of the Kootenai Forest and merges with the Cabinet Gorge Reservoir four miles northwest of the town of Noxon, Montana. The Bull River is 49 miles long with 66 percent of the river mileage in NFS ownership. There are 10,900 acres of NFS land included within a ½ mile-wide corridor. The qualities that contribute to its eligibility are outstanding scenic values, including beautiful vistas of the Cabinet Mountains and lush meadows of the river valleys.

The natural topographic features, along with the landownership pattern, readily yield seven different river segments that can be assessed independently. They are:

Segment 1: Recreation river potential from the junction of the North and Middle Forks, downstream for 11 miles to the junction of the East Fork. The river meanders through the upper Bull River valley which is primarily rural wetlands and important riparian areas. Approximately 50 percent of the river mileage is in NFS ownership. The Bull River Highway and Cabinet Mountains Vista Point are included within the corridor.

Segment 2: Recreation river for nine miles from the junction of the East Fork to the Cabinet Gorge Reservoir. This segment flows at a faster rate through a narrow valley-bottom canyon setting that is 37 percent NFS ownership. A major portion of the Bull River Highway is included within the corridor.

Segment 3: Wild river for 17 miles in two sections from the headwaters of the North and Middle Forks to the junction of the North and Middle Forks. These two forks flow at a fast rate out of the Cabinet Mountains Wilderness through a steep canyon into a narrow valley-bottom setting that is 72 percent NFS ownership. Main trails into the Cabinet Wilderness parallel both of these forks.

Segment 4: Recreation river for four miles from the Cabinet Mountains Wilderness boundary on the East Fork to the junction of the Bull River main stem. This segment

flows at a moderate rate through a narrow valley-bottom setting that is 91 percent NFS ownership. The historic Bull River Guard Station is included within the corridor.

Segment 5: Wild river for three miles from the headwaters of the East Fork to the Cabinet Mountains Wilderness boundary. This segment flows at a fast rate through a steep canyon into a narrow valley-bottom setting that is 100 percent NFS ownership. The Saint Paul Lake Trail is included within the corridor.

Segment 6: Recreation river for two miles from the Cabinet Mountains Wilderness boundary on the North Fork of the East Fork of the Bull River to the junction of the East Fork Bull River. This segment flows at a fast rate through a steep canyon into the narrow valley of the East Fork Bull River. This is 100 percent NFS ownership and Dad Peak trail parallels the corridor.

Segment 7: Wild river for one mile from the headwaters to the Cabinet Mountains Wilderness boundary on the North Fork of the East Fork of the Bull River. This segment flows at a fast rate through a steep canyon and is 100 percent NFS ownership. The Dad Peak trail is within the corridor and crosses through the headwaters.

Big Creek System

Big Creek drains a significant portion of the north-central portion of the Kootenai Forest and merges with Koocanusa Reservoir, a 90-mile long water storage facility that extends 45 miles into Canada. Big Creek is an important spawning tributary to Lake Koocanusa and is 100 percent in NFS ownership. The qualities that contribute to its eligibility are the composite features of scenery, hiking, and secluded fishing opportunities.

The natural topographic features readily yield a combination of recreation and wild river segments that are currently being managed for recreational opportunities in the KNF Forest Plan. The main stem of Big Creek and a portion of the South Fork of Big Creek are a continuous recreational river segment 14 miles in length. Adjoining this 14-mile segment is a series of five separate wild river segments totaling 17 miles, most of which contain existing trail systems readily accessible from the Big Creek road (#336).

Road #336, which parallels all of Big Creek and the South Fork of Big Creek, is a native surface road and provides access to seven trailheads, one serving two trails, as well as numerous dispersed picnic and camp sites. One trail is an interpretive trail leading to Little North Fork Falls. Three trailheads (four trails) access the Big Creek Inventoried Roadless Area. One of the trails connects to another trail system.

Grave Creek System

The Grave Creek system drains a significant portion of the north-eastern portion of the KNF and merges with Fortine Creek to create the Tobacco River, which then drains into Lake Koocanusa. The Tobacco River provides the drinking water for the town of Eureka. The quality that contributes to its eligibility is the presence of threatened and endangered fish.

The Grave Creek System is north of the Glen Lake Irrigation District diversion and encompasses 28 miles. More than 98 percent of the system is in NFS ownership. The Grave Creek System is broken into four recreational segments composed of the following creeks: Grave Creek, Stahl Creek, Clarence Creek, and Blue Sky Creek. Several roads access the area. Road 114 parallels most of Grave Creek, road 7702 parallels Clarence Creek, and road 7021 parallels Stahl Creek.

This road system is used to access trails and campgrounds that are mostly outside the stream corridor. The exception is Blue Sky Creek, which is paralleled by the Blue Sky Trail.

Grave Creek has been identified as the primary bull trout stream south of the 49th parallel and above the Kootenai Dam. It is spawning habitat for bull trout and westslope cutthroat trout.

Quartz Creek System

Introduction

Quartz Creek drains the west central portion of Libby Ranger District into the Kootenai River six miles downstream of Libby, Montana. Quartz Creek and its tributary West Fork of Quartz Creek is 15 miles long with over 90 percent of the creek mileage in NFS landownership. There are 4,370 acres of NFS land within a ½ mile wide corridor including the water surface. The qualities that contribute to its eligibility are: the most important spawning habitat for the threatened bull trout between Libby Dam and Kootenay Lake; old growth habitat for associated species; the presence of rare (sensitive) plants such as short-spored jelly lichen, prickly tree club moss, sheathed sedge, northern beechfern, and moonworts; and the presence of the Skyline National Recreation Trail #13. Natural topographic features readily yield three different segments that can be assessed independently. They are:

Segment 1: Recreation river potential from the junction of Hennesey Creek downstream for nine miles to the confluence with the Kootenai River. This segment flows through a narrow valley with steep forested side slopes that is mostly NFS ownership (88%). Also included are: Quartz Creek road #600; an isolated 80 acre Plum Creek Timber Company parcel; and two homesteads that have been subdivided for residential development. Outstanding resource values are regionally important bull trout spawning habitat, old growth habitat for associated species and presence of rare plants.

Segment 2: Wild river potential from the headwaters of the West Fork of Quartz Creek downstream for three miles to the boundary of the Flagstaff Mountain Inventoried Roadless Area #690. This segment flows through moist old growth forest that is all NFS ownership (100%). There are no roads or tree harvest units. The only man made feature is the Skyline National Recreation Trail. Outstanding resource values are regionally important bull trout spawning habitat, old growth habitat for associated species, Skyline NRT presence of rare plants, and opportunities for solitude and primitive recreation.

Segment 3: Recreation river potential from the boundary of the Flagstaff Mountain Inventoried Roadless Area #690 downstream for three miles to the confluence of main Quartz Creek. This segment flows through a narrow valley with steep forested side slopes that is all NFS ownership (100%). Also included are West Fork Quartz road #4691, and a superior white pine plantation. Outstanding resource values are regionally important bull trout spawning habitat, old growth habitat for associated species, and presence of rare plants.

Maps

Following are maps of the eligible wild and scenic rivers. Figure 42 displays the eligible wild and scenic rivers forestwide and table 198 indicates the name of the river segment, classification, and page number and figure number for detailed maps.

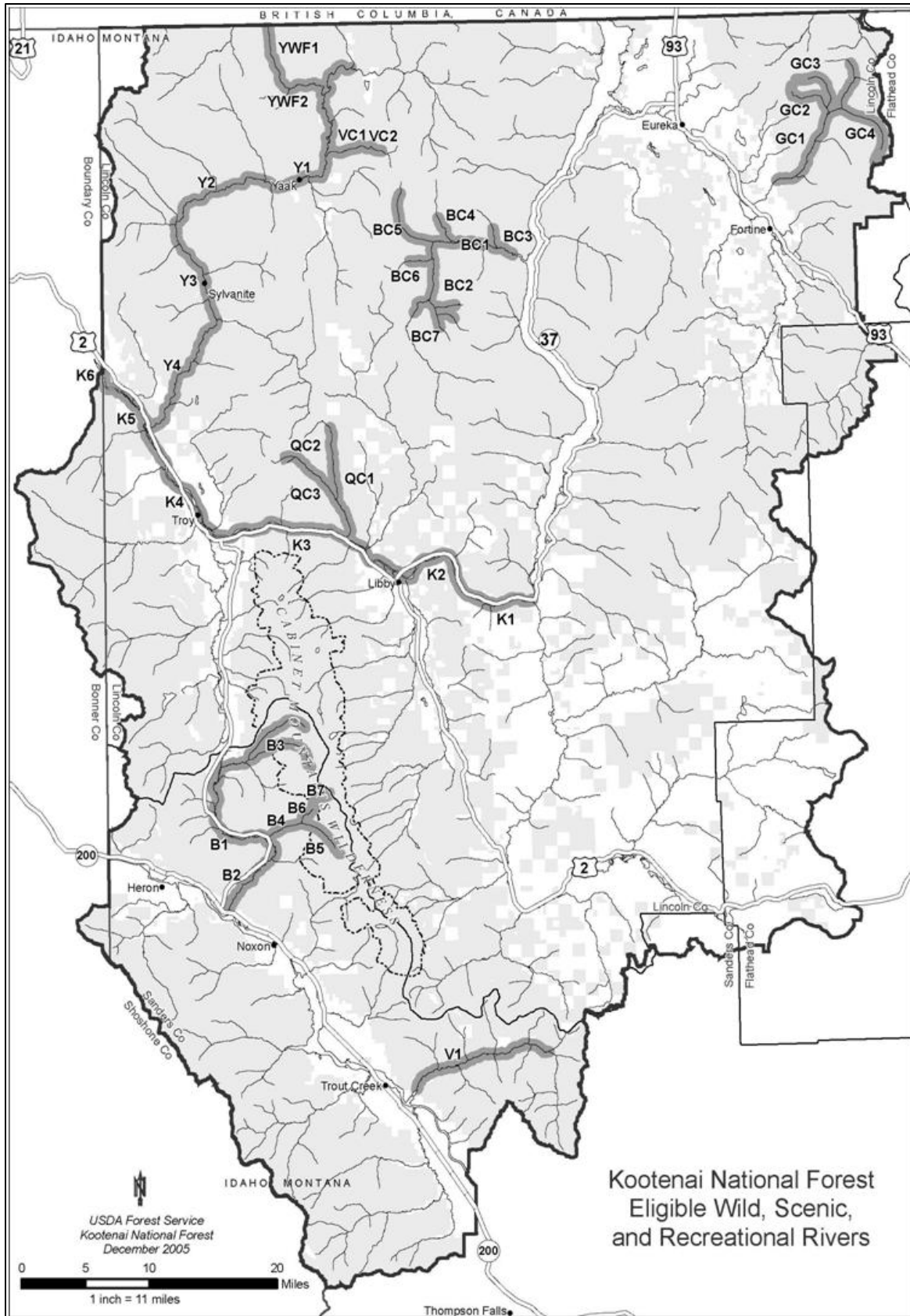


Figure 42. KNF Eligible Wild, Scenic, and Recreational Rivers Index Map

Table 198. KNF Eligible Wild, Scenic, and Recreation Rivers Map Reference List

Figure #	Page Number	Name	Type
43	242	West Fork Yaak River	wild
43	242	West Fork Yaak River	recreation
44	243	Vinal Creek	scenic
44	243	Turner Creek	scenic
44	243	Yaak River	recreation
45	244	Yaak River	recreation
46	245	Yaak River	recreation
47	246	Yaak River	wild
51	250	Kootenai River	recreation
50	249	Kootenai River	recreation
49	248	Kootenai River	recreation
48	247	Kootenai River	recreation
47	246	Kootenai River	recreation
49	248	Quartz Creek	recreation
49	248	West Fork Quartz Creek	wild
49	248	West Fork Quartz Creek	recreation
52	251	Grave Creek	recreation
52	251	Stahl Creek	recreation
52	251	Clarence Creek	recreation
52	251	Blue Sky Creek	recreation
53	252	Big Creek	recreation
53	252	South Fork Big Creek	recreation
53	252	Little North Fork Big Creek	wild
53	252	Good Creek	wild
53	252	North Fork Big Creek	wild
53	252	Copeland Creek	wild
53	252	Lookout Creek / EF Lookout Creek / Unnamed Trib to Lookout Creek	wild
54	253	Bull River	recreation
54	253	Bull River	recreation
55	254	North Fork and Middle Fork Bull River	wild
55	254	Lower East Fork Bull River	recreation
55	254	Upper East Fork Bull River	wild
55	254	North Fork of East Fork Bull River	recreation
55	254	North Fork of East Fork Bull River	wild
56	255	Vermilion River	recreation

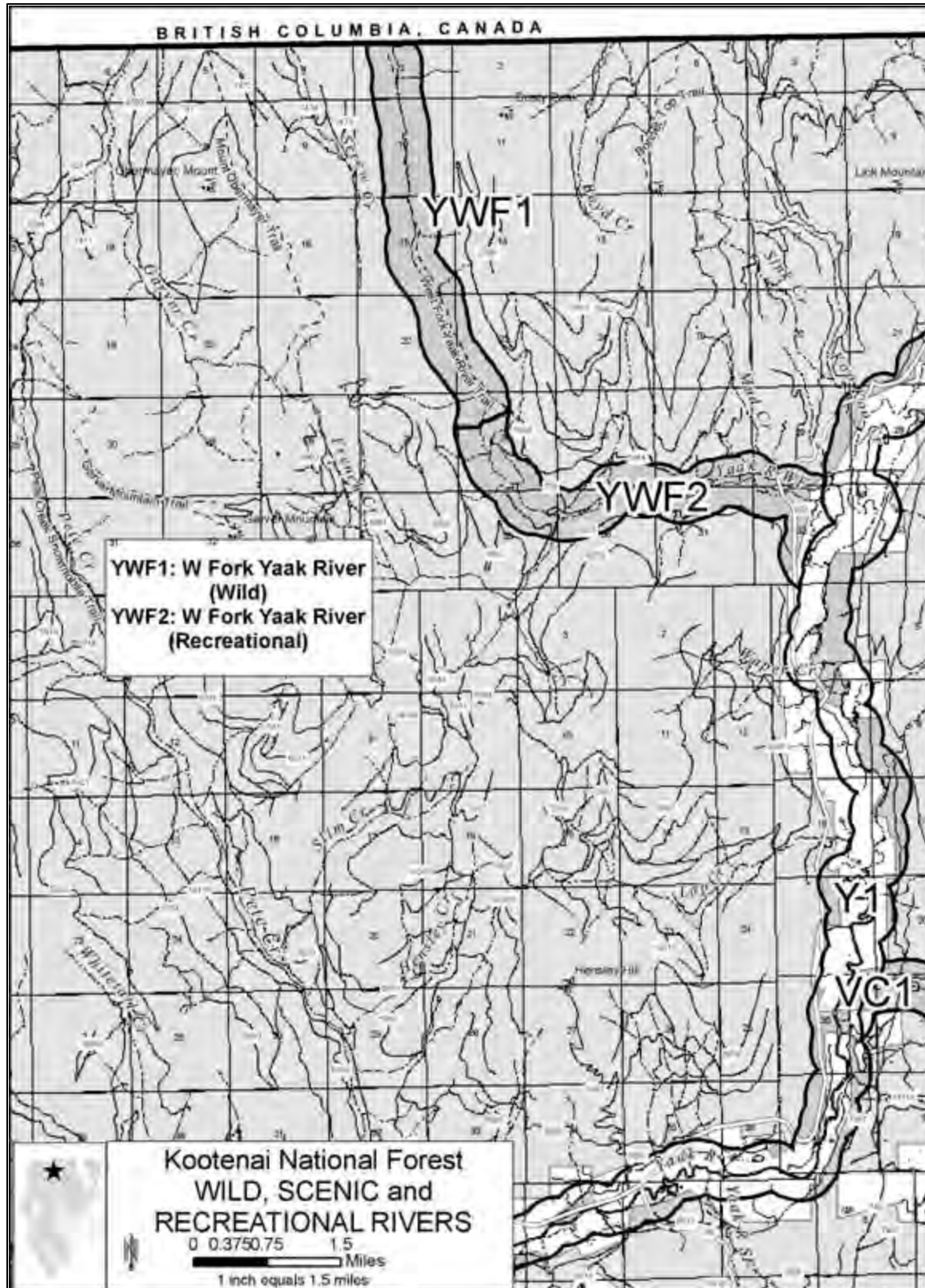


Figure 43. Eligible Wild River: YWF1-West Fork Yaak River, Eligible Recreational River: YWF2-West Fork Yaak River

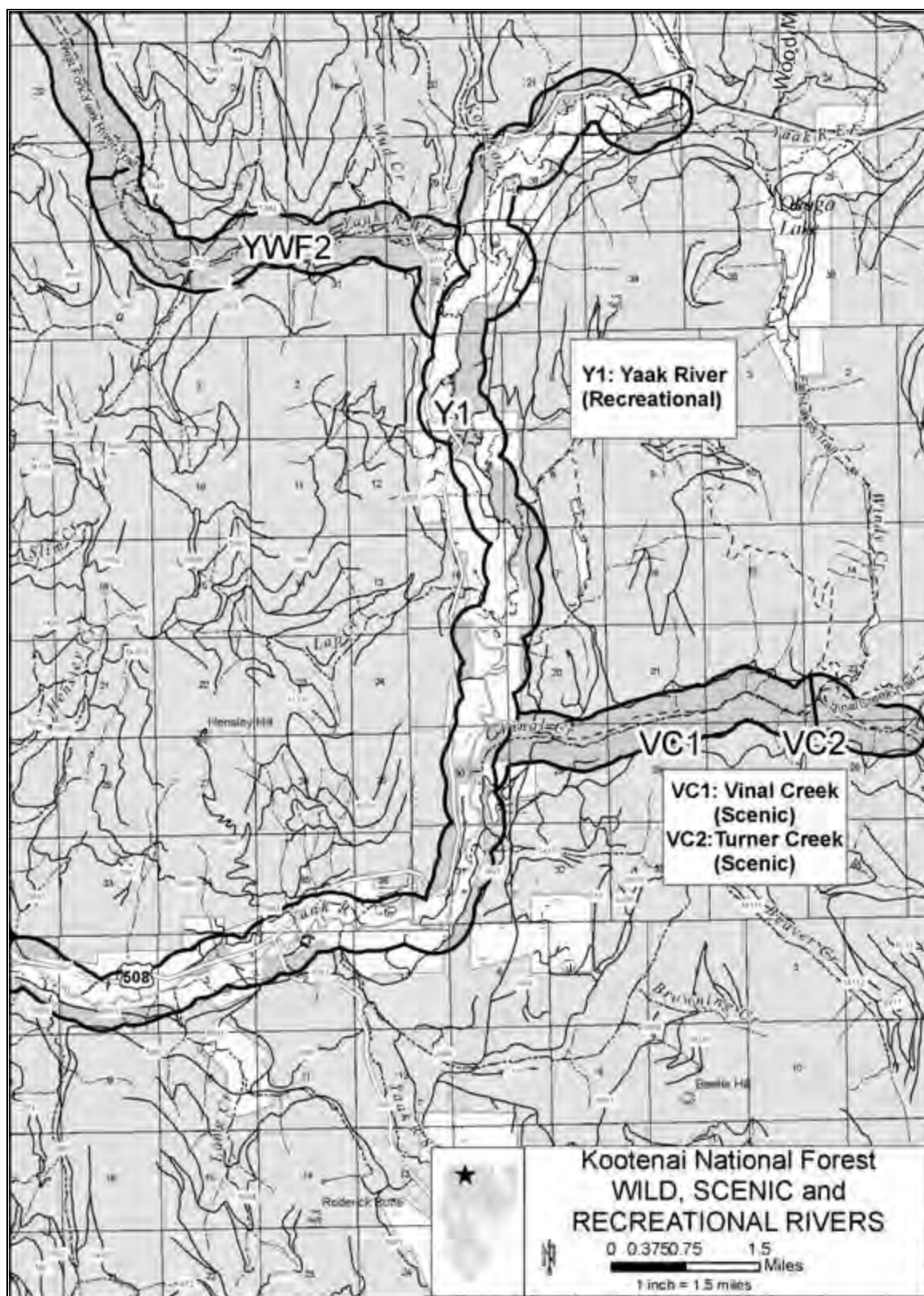


Figure 44. Eligible Scenic River: VC1-Vinal Creek, and VC2-Vinal Creek/Turner Falls, Eligible Recreational River: Y1-Yaak River

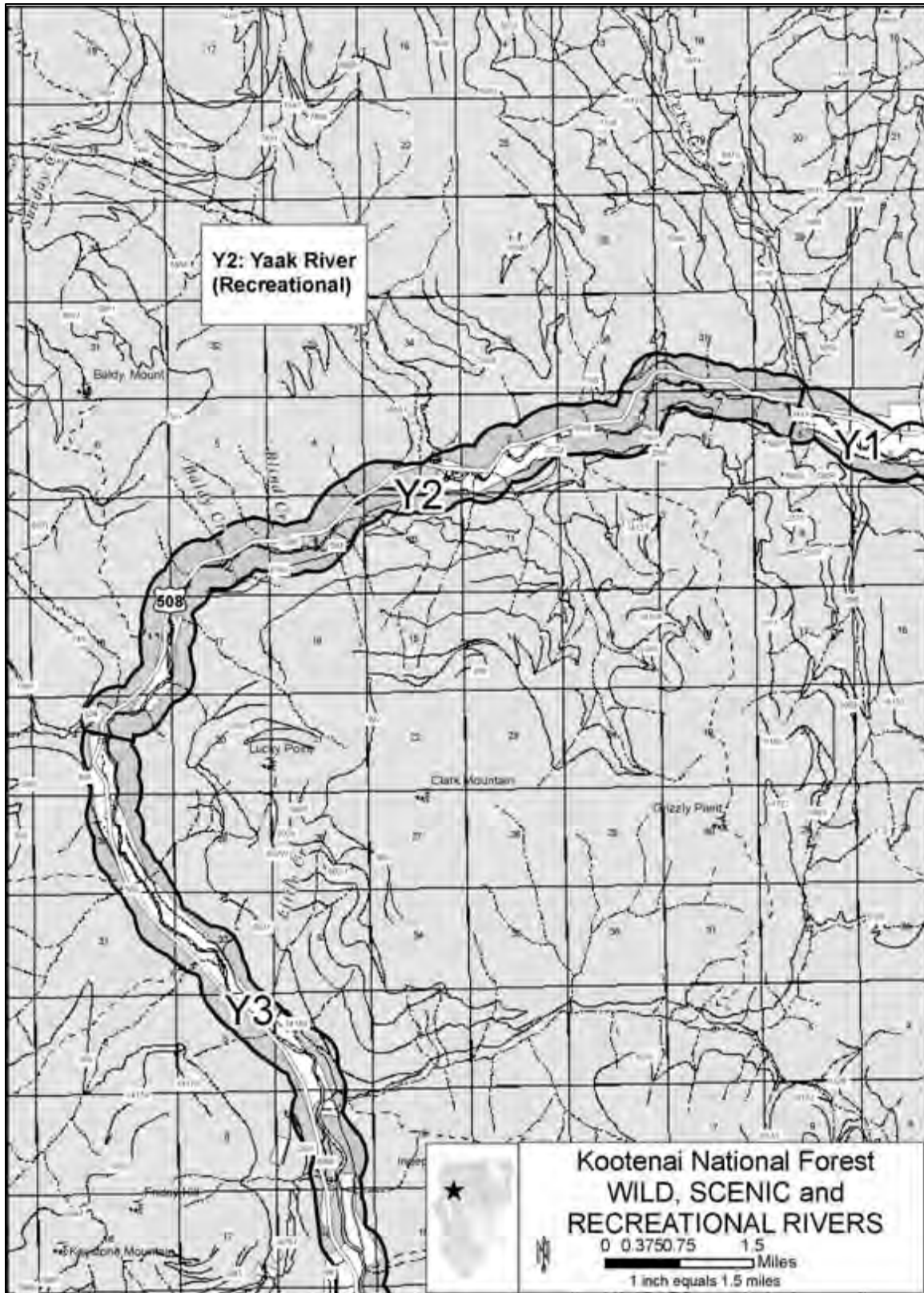


Figure 45. Eligible Recreational River: Y2-Yaak River

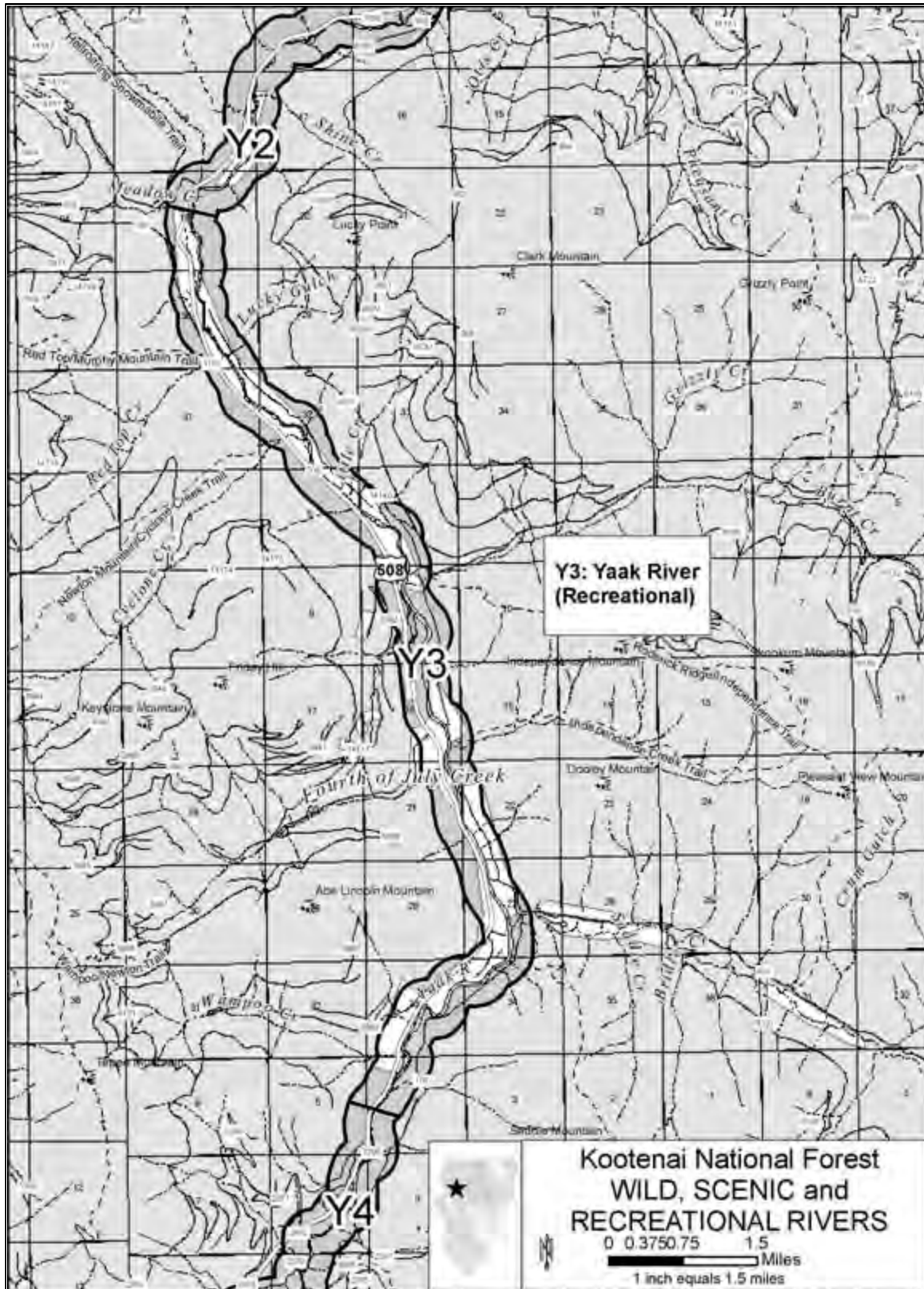


Figure 46. Eligible Recreational River: Y3-Yaak River



Figure 47. Eligible Wild River: Y4-Yaak River, Eligible Recreational River: K5-Kootenai River

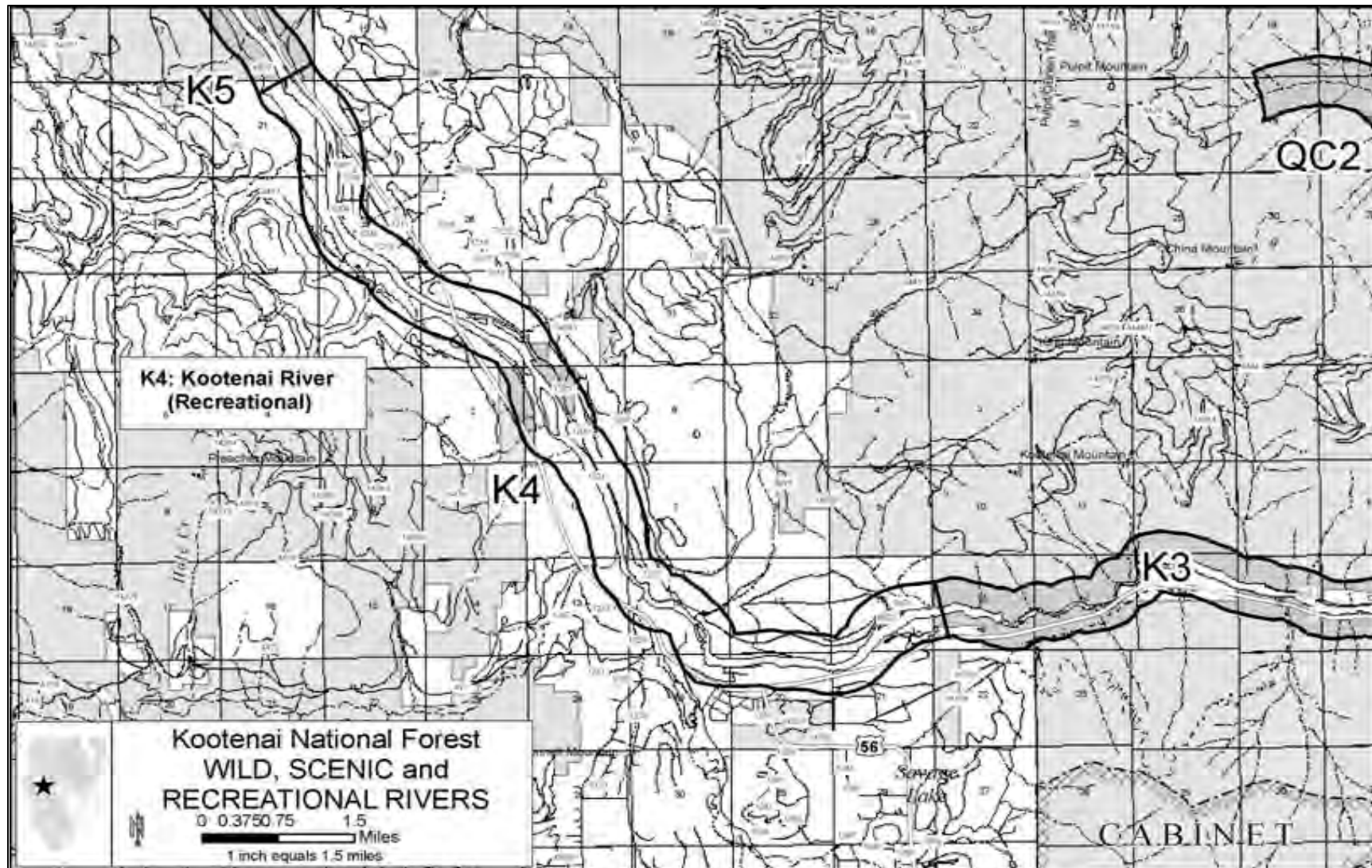


Figure 48. Eligible Recreational River: K4-Kootenai River

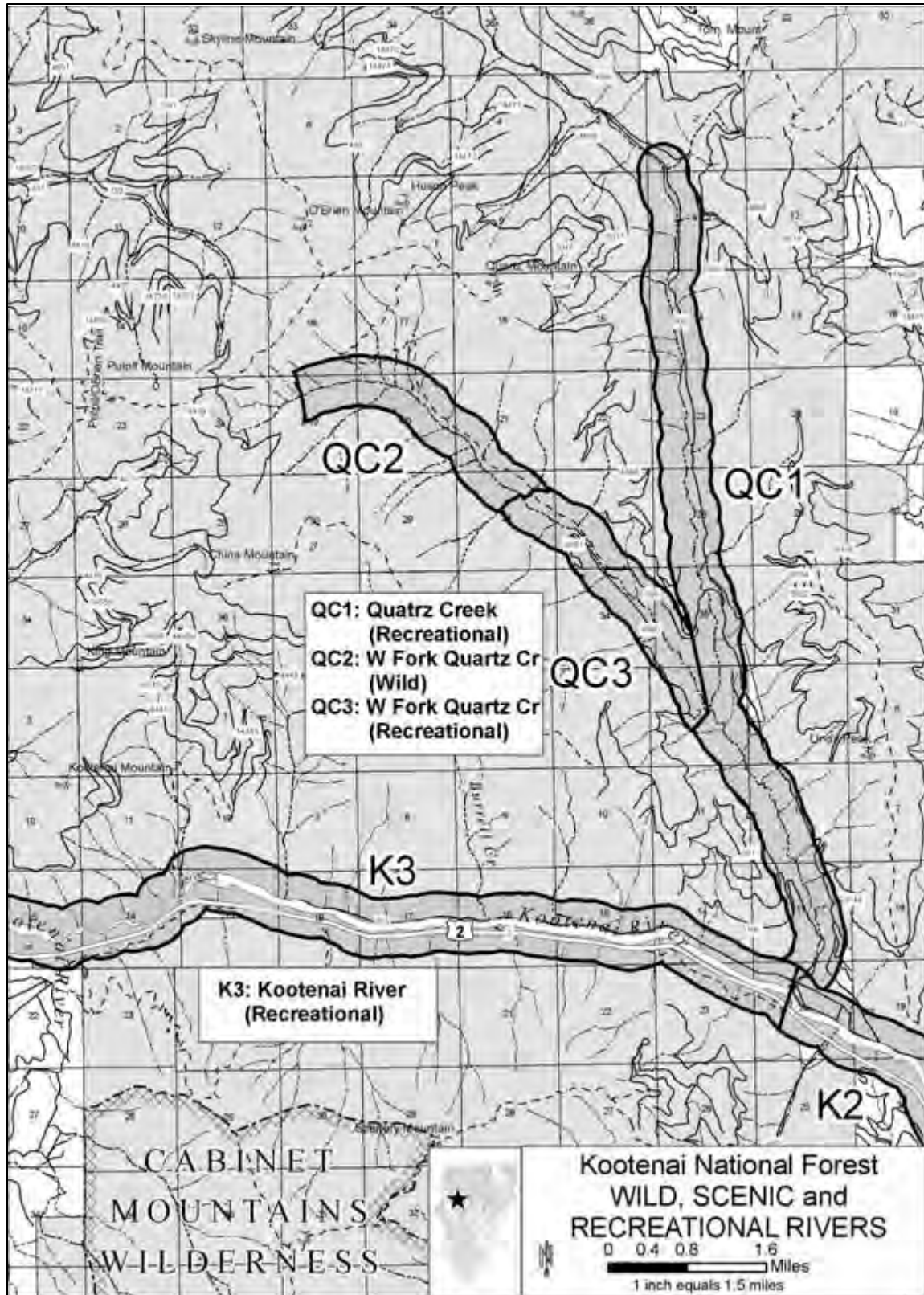


Figure 49. Eligible Recreational River: K3-Kootenai River, QC1-Quartz Creek, and QC3-West Fork Quartz Cr., Eligible Wild River: QC2-West Fork Quartz Cr

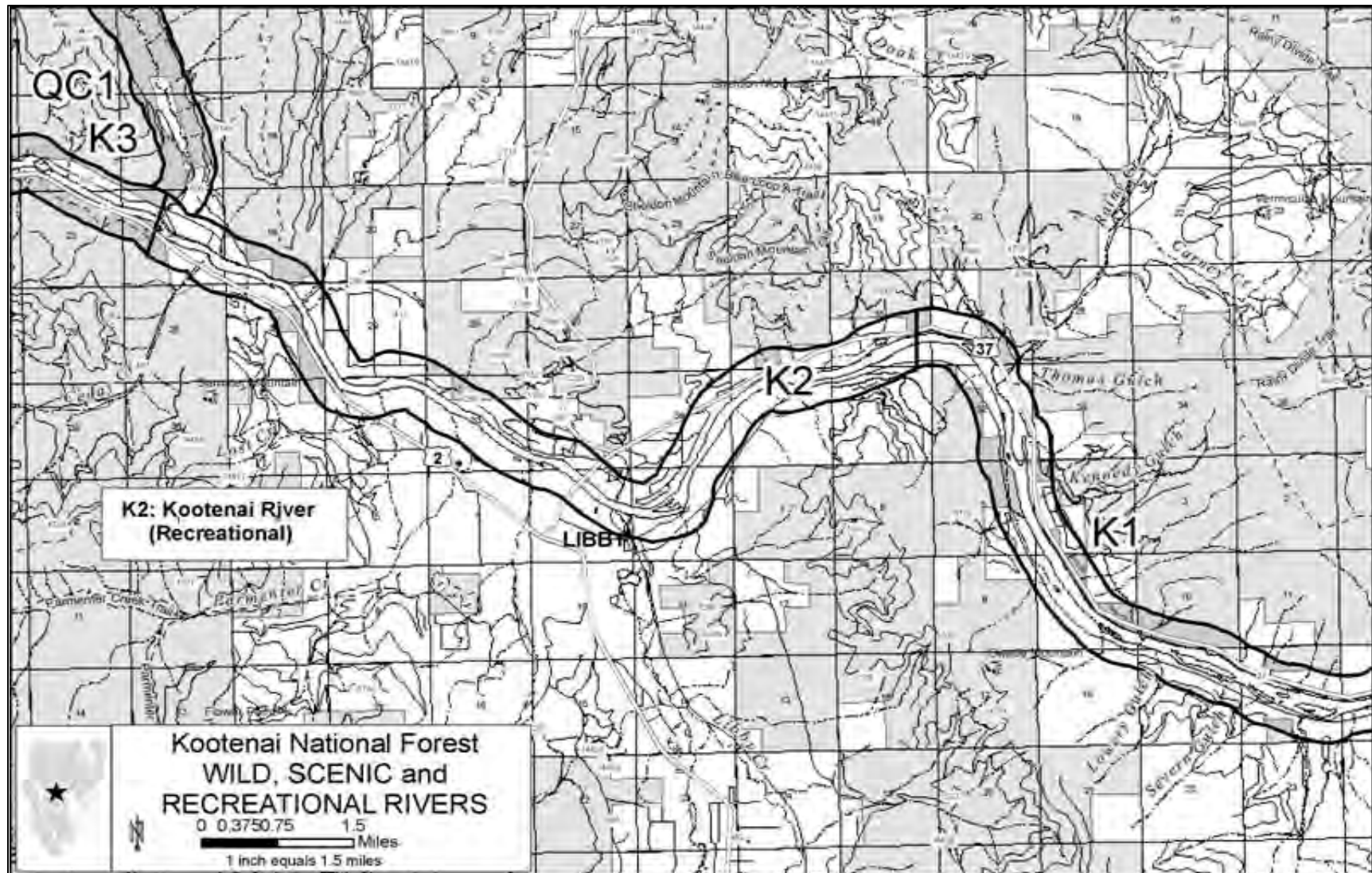


Figure 50. Eligible Recreational River: K2-Kootenai

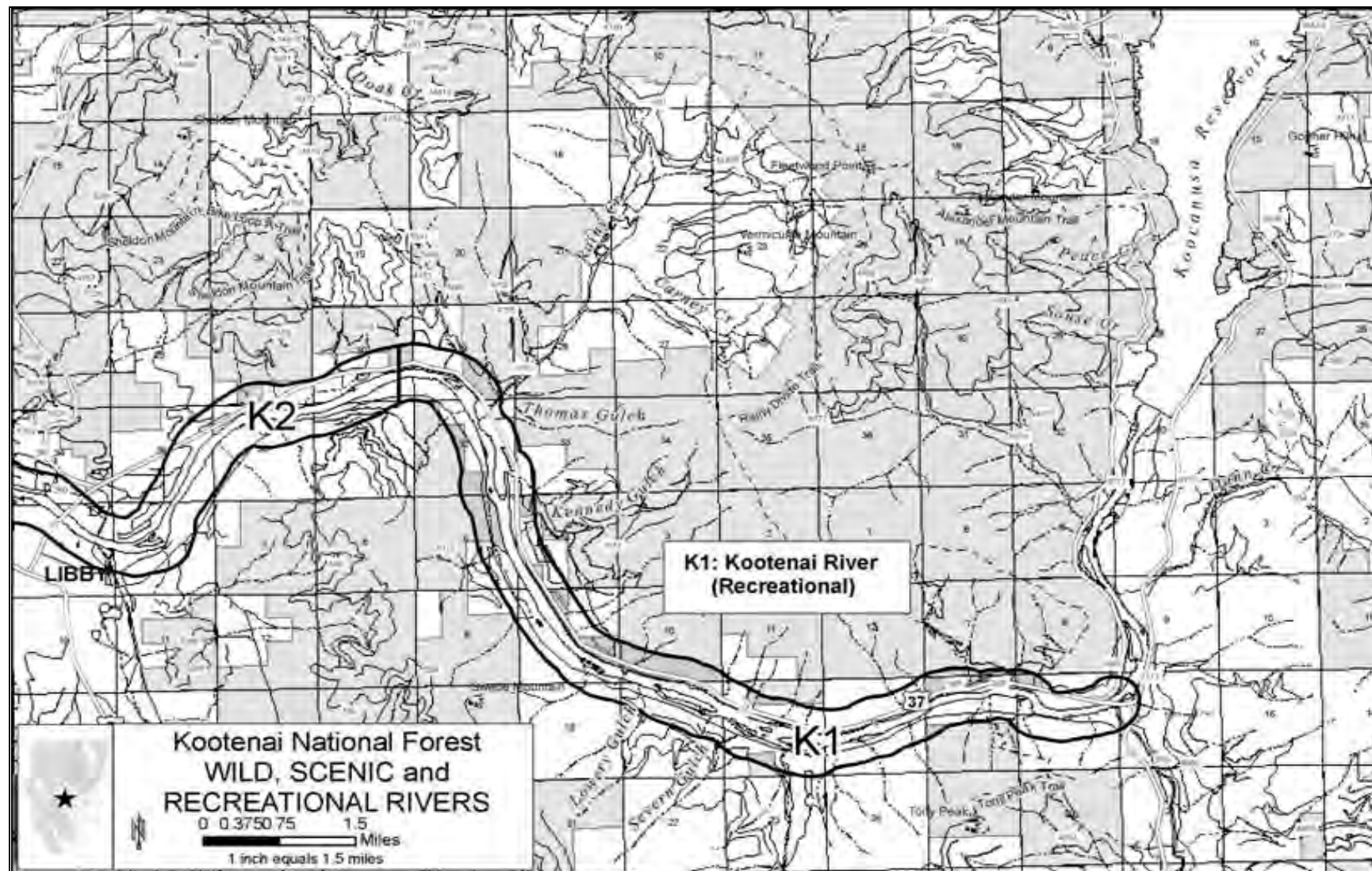


Figure 51. Eligible Recreational River: K1-Kootenai

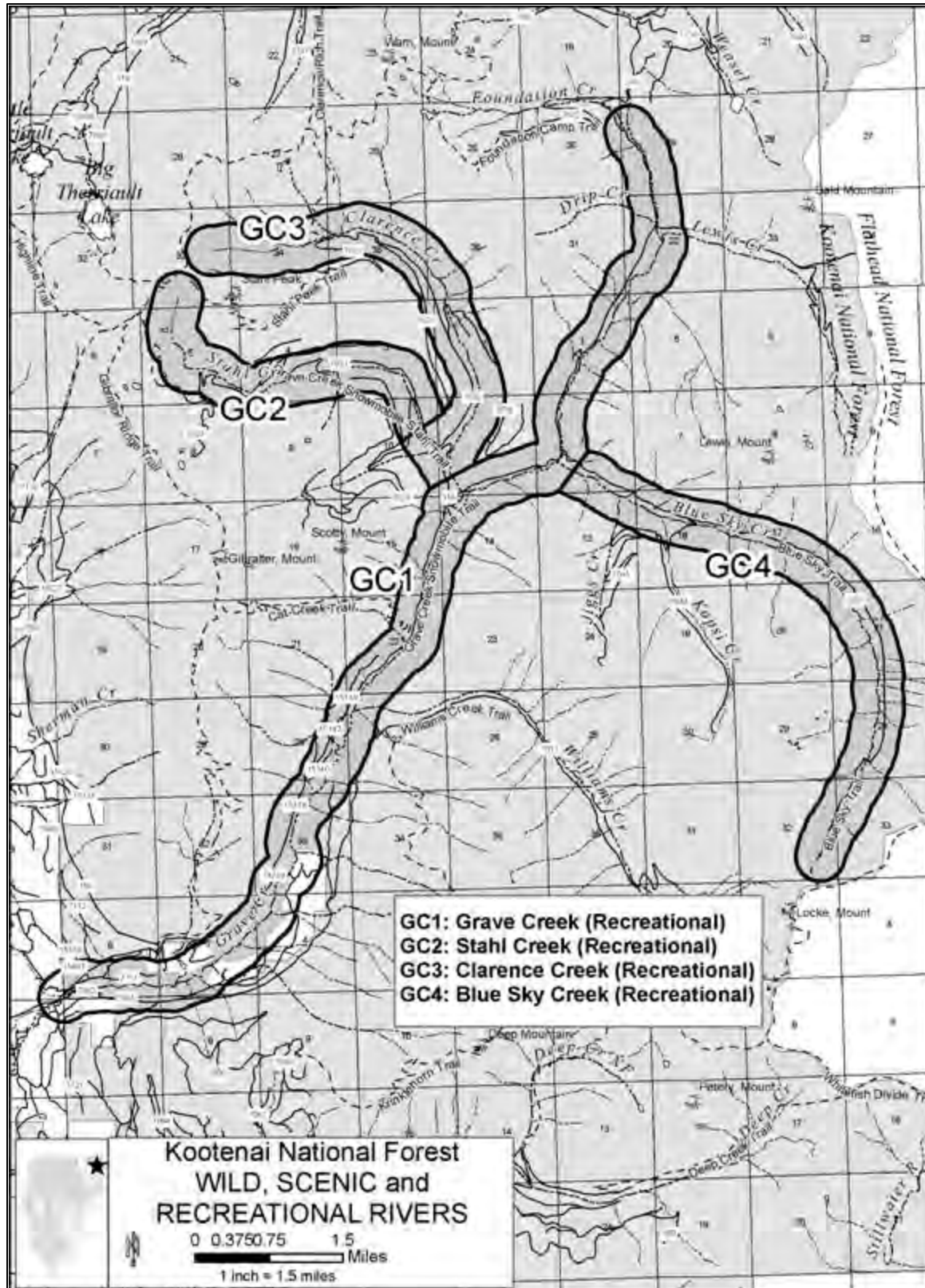


Figure 52. Eligible Recreational River: GC1, GC2, GC3, GC4, Grave Creek

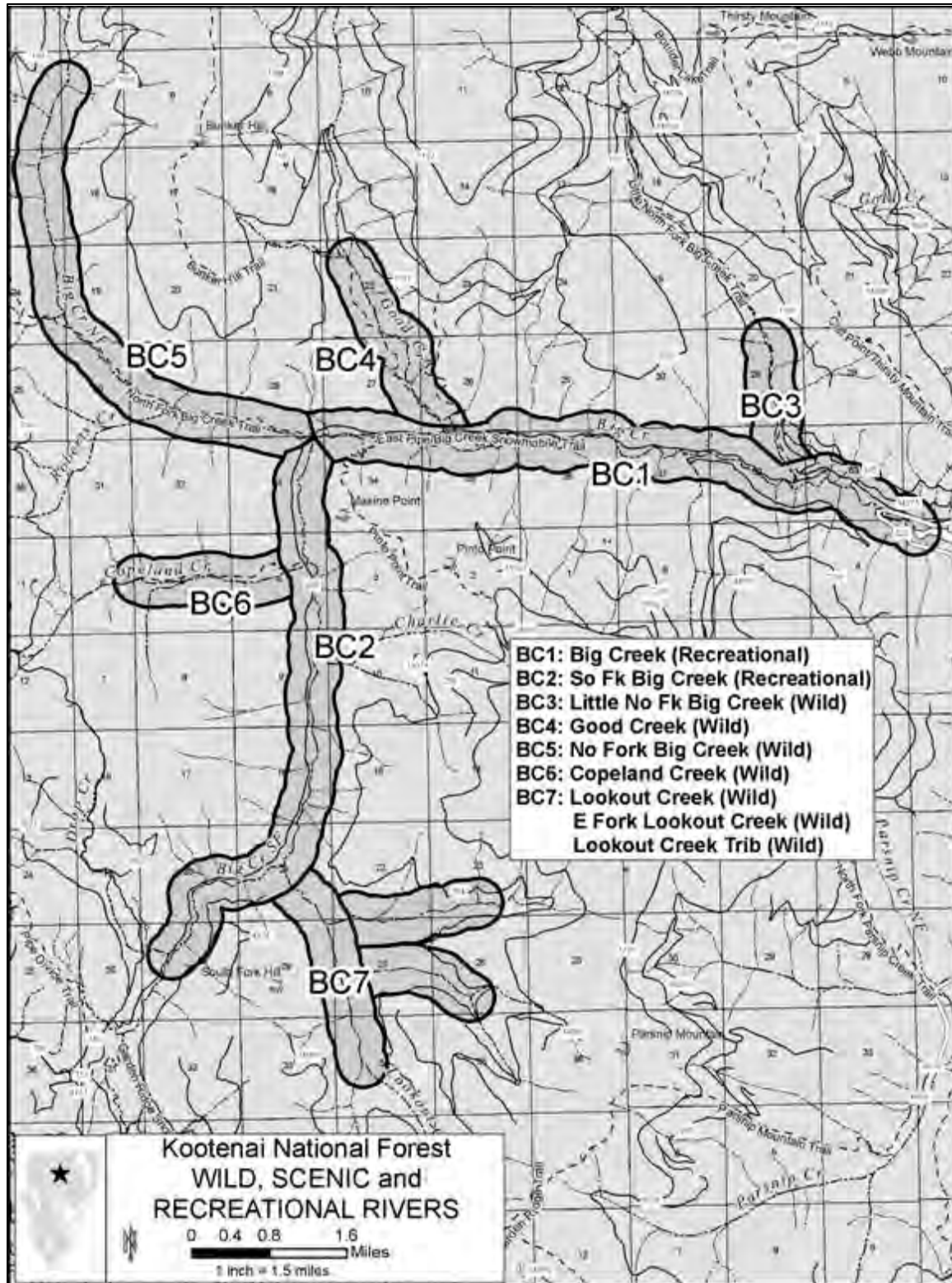


Figure 53. Eligible Recreational River: BC1-Big Cr., BC2-So Fk Big Creek, Eligible Wild River: BC3-Little No Fk Big Creek, BC4-Good Creek, BC5-No Fk Big Creek, BC6-Copeland Creek, and BC7-Lookout Creek

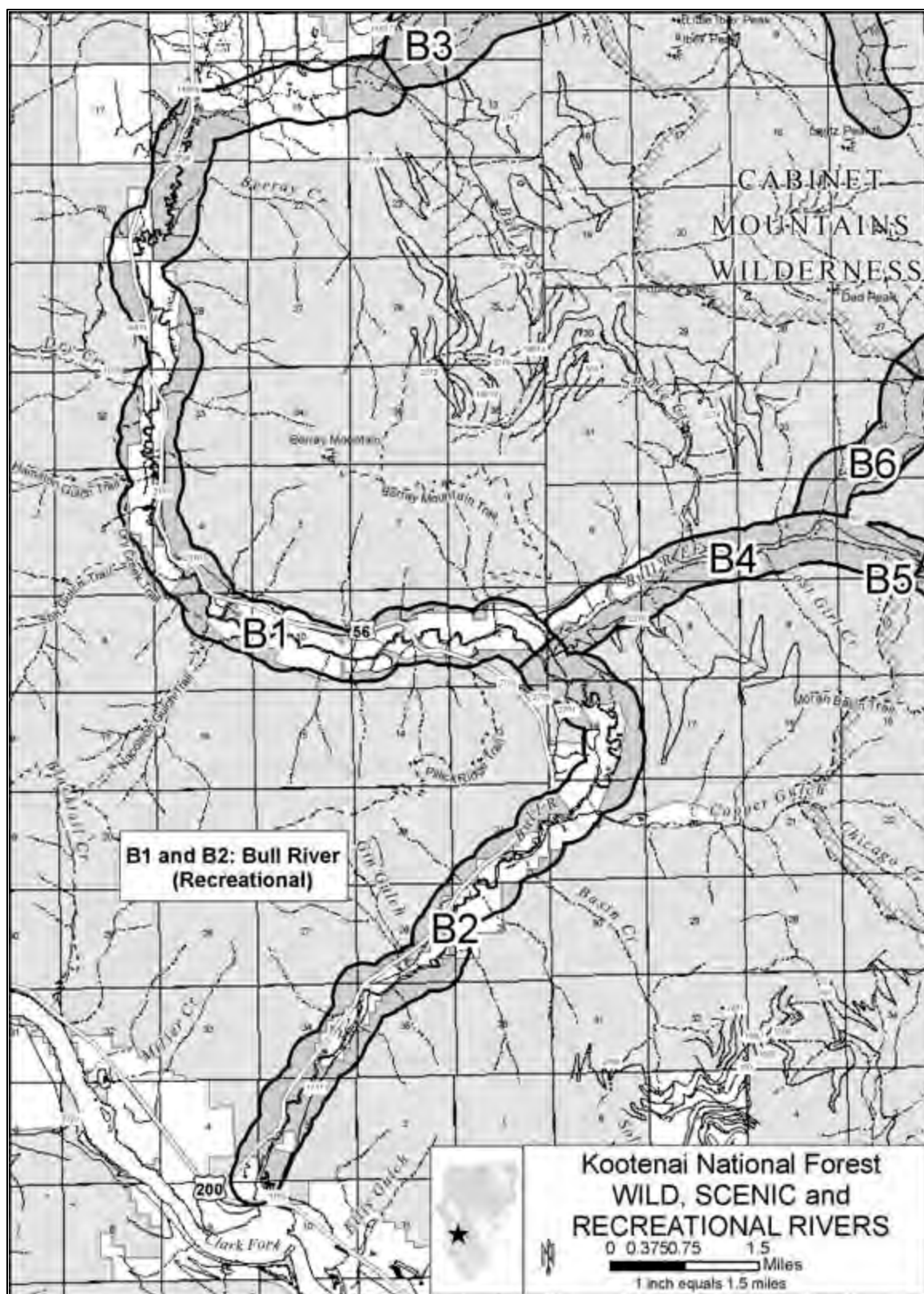


Figure 54. Eligible Recreational River: B1, B2-Bull River

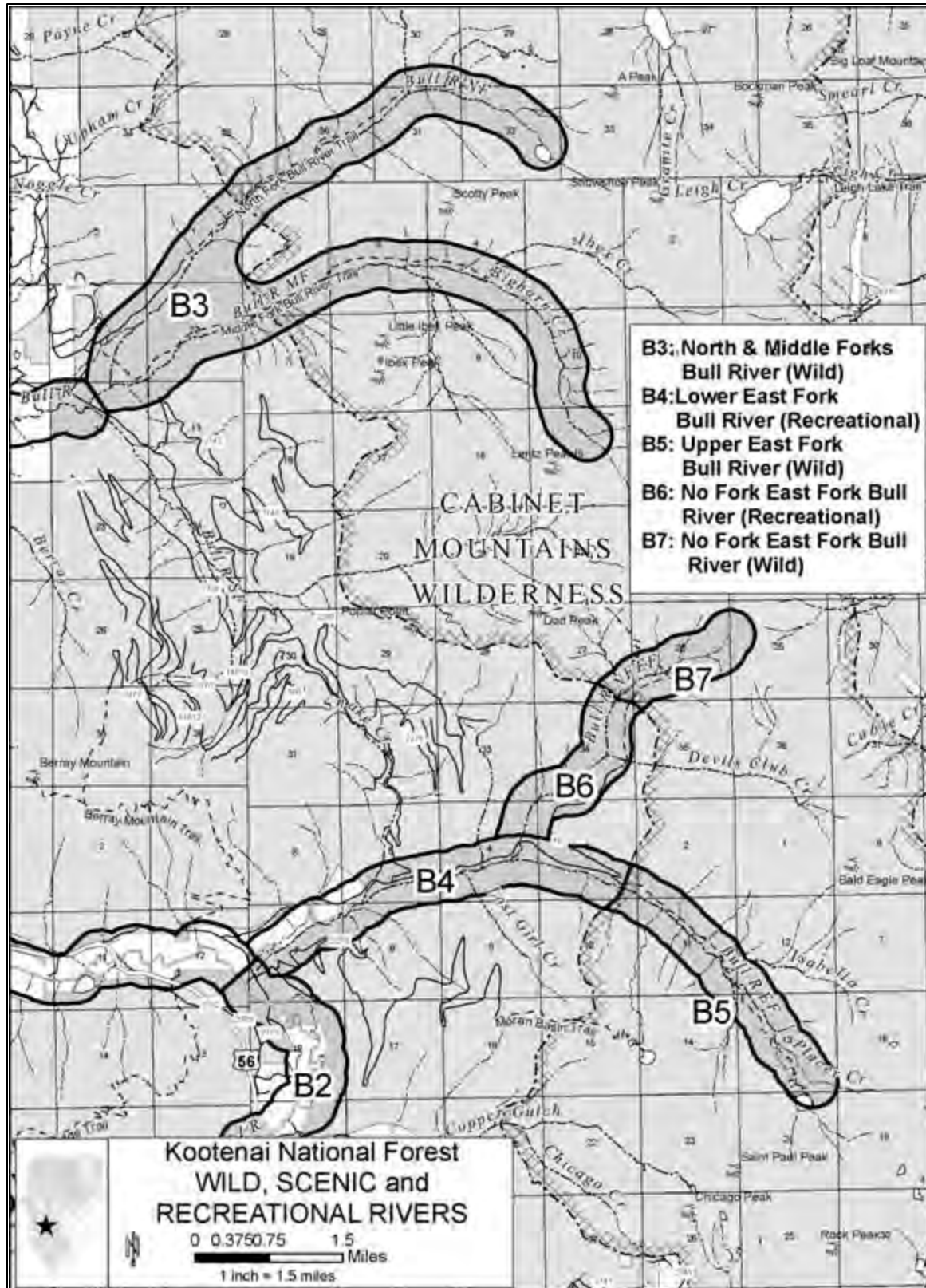


Figure 55. Eligible Wild River: B3-Bull River, B5-Upper East Fork Bull River, B7- North Fork East Fk Bull River, Eligible Recreational River: B4-Lower East Fork Bull River, B6-North Fork East Fk Bull River

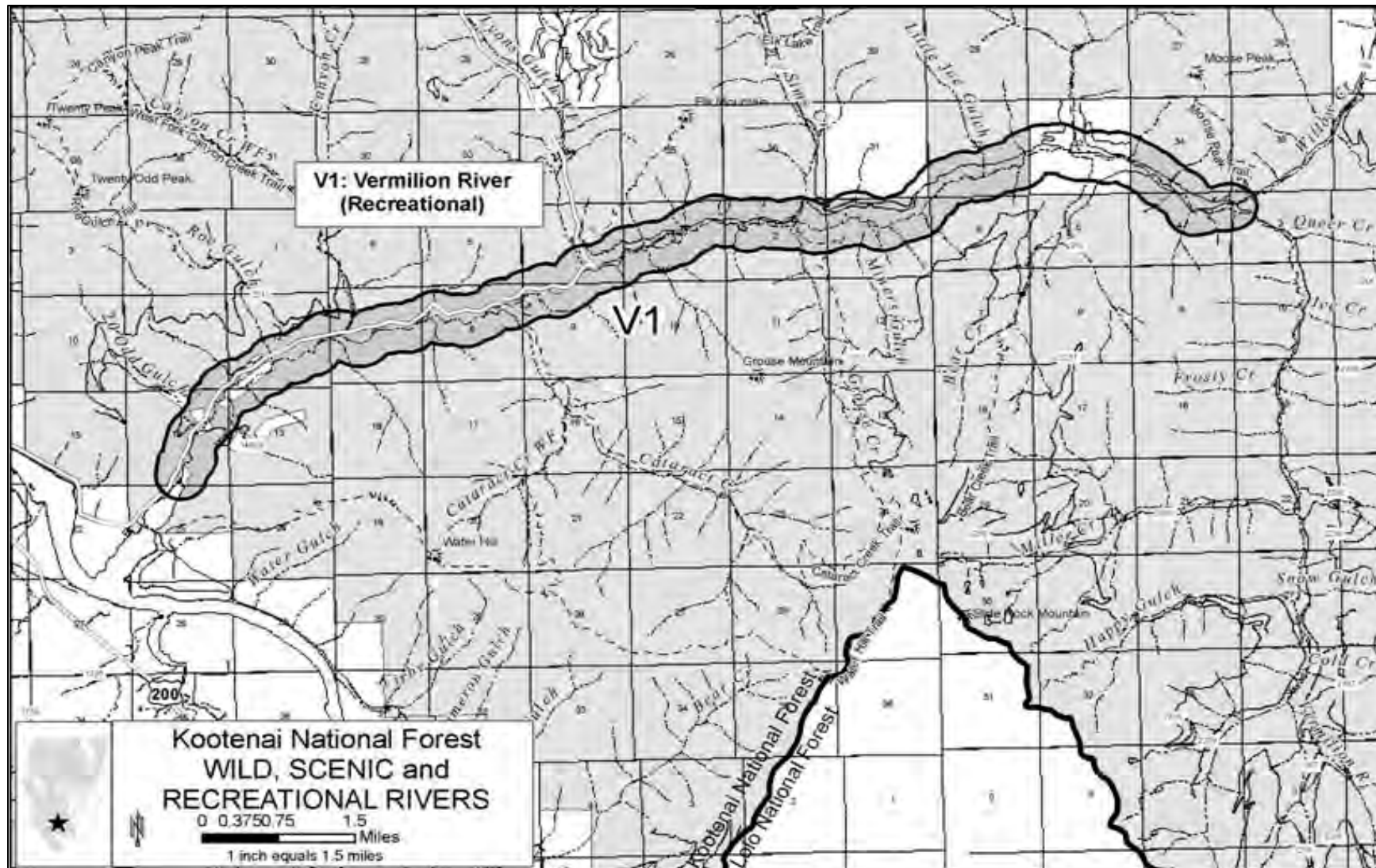


Figure 56. Eligible Recreational River: V1 – Vermilion River

Appendix F – Special and Research Natural Areas

Following is a description of the existing and recommended Special Areas and Research Natural Areas found on the Kootenai National Forest.

Special Areas

Process

Special Areas were identified for a wide variety of reasons. Special Areas are managed with emphasis on public use and enjoyment while protecting and/or enhancing areas of unusual characteristics. These areas have outstanding natural characteristics or unique recreation or cultural values and are managed to maintain their special values. Special Areas are classified as scenic, geological, botanical, zoological, paleontological, historical, or recreational, depending on their special characteristics or unique values (FSM 2370). These classifications are defined below.

The objective of designating special areas is to “protect and manage for public use and enjoyment, special recreation areas with scenic, geological, botanical, zoological, paleontological, archaeological, or other special characteristics or unique values” (FSM 2370.02). Many of the areas have more than one feature type.

Areas were identified by district and forest resource specialists. Boundaries of these areas were mapped to be locatable on the ground (using features such as creeks, ridges, roads, etc.). In drawing boundaries to recognizable, some areas may have small inclusions that lack "unique" values. A narrative was developed for each special area to describe the unique or special characteristics and the proposed classification.

Special Area Classifications

Special areas are classified as one or more of the following, depending on their unique values:.

1. Scenic Area. A scenic area is a unit of land with outstanding natural beauty that requires special management to preserve this beauty.
2. Geological Area. A geological area is a unit of land with outstanding formations or unique geological features of the earth's development such as caves, fossils, dikes, cliffs, or faults.
3. Botanical Area. A botanical area is a unit of land that contains plant specimens, plant groups, or plant communities that are significant because of their form, color, occurrence, habitat, location, life history, arrangement, ecology, rarity, or other features.
4. Zoological Area. A zoological area is a unit of land that contains animal specimens, animal groups, or animal communities that are significant because of their occurrence, habitat, location, life history, ecology, rarity, or other features.
5. Paleontological Areas. A paleontological area is a unit of land that contains fossils of plants and animals, shellfish, early vertebrates, coal swamp forests, early reptiles, dinosaurs, and other prehistoric plants or animals.
6. Historical Area. A historical area is a unit of land possessing a significant site or a concentration of sites, buildings, structures, or objects united historically or prehistorically by plan or physical development. Memorial areas are included in this definition.

7. **Recreational Area.** A recreational area is a unit of land that has been administratively designated for particular recreation opportunities or activities such as hiking, rock hounding, recreational mining, photography, or other special activity.

The KNF did not identify any special areas with paleontological values

Established Special Areas

Following are descriptions for each established Special Areas.

Berray Cedars: The site is located in the South Fork Bull River at mid-elevation and contains a stand of large, very old western red cedars. The area contains approximately 86 acres (Botanical).

Devil Gap: This site is located near the southwest edge of the Forest on the Cabinet Ranger District near the confluence of Devil Gap Creek and Marten Creek. The area contains very steep sidewalls with cliffs, and prominent outcrops of rock. The vegetation is sparse. The area is approximately 831 acres (Geological).

Hidden Lake: This area contains a unique assemblage of low-elevation forest, ponds and lakes, wetlands, and sensitive plant species (small yellow lady's slipper, sparrow's-egg lady's-slipper, and round-leaved orchids), landforms, and geologic substrates. The area supports the highest known occurrence of sensitive plant populations on the Forest. It is characterized by a series of narrow, northwest-southeast trending ridges separated by small drainages and basins. The bedrock, of alternating layers of softer and harder bedrock, has been tilted nearly vertically and was scoured by continental glaciers resulting in the softer rock being removed. The area burned in the early 1900s with the stand now composed of western larch, lodgepole pine, and Douglas-fir. There are three lakes and two swampy areas that contain water. The area is approximately 607 acres (Botanical).

Kootenai Falls: This site is an archeological district with both historic and prehistoric values. It is located on both the north and south banks of the Kootenai River. The area contains a diverse set of historic-period resources representing railroading, a Chinese settlement, homesteading, and placer mining. The area contains approximately 420 acres (Historical).

Lower West Fork Yaak Falls: This site includes two falls along the lower West Fork Yaak River shortly before joining with the Yaak River. Vegetation includes older-aged Douglas-fir, western red cedar, western hemlock, and western larch, depending on the aspect. Habitat types include Douglas-fir/pinegrass, western hemlock/queencup beadlily, subalpine fir/queencup beadlily. The bedrock is described as west-dipping argillite of the Wallace Formation located slightly east of the Yaak River Syncline. The area is approximately 274 acres (Geological).

Northwest Peak Scenic Area: The area includes the high ridgeline setting and the upper, glaciated basins of West Fork Yaak River and American Creek in the northwestern-most corner of Montana. There are several small alpine lakes. Vegetation includes all the high, cold-habitat types and contains moderately open stands of trees that include subalpine larch, subalpine fir, whitebark pine, and Engelmann spruce. The KNF and IPNF share the area with 4,714 acres on the Kootenai side and 1,972 acres on the Idaho Panhandle side (Scenic).

Rexford Hoodoos: This site is on an erosional landform that has developed on a drumlin exposed as the Tobacco River reestablished its channel following glaciations. The "hoodoos" are developing in dense glacial till. The vegetation represents the droughty nature of the area. It is a very open stand of grass and trees. Habitat types include Idaho fescue/bluebunch wheatgrass,

Douglas-fir/Idaho fescue, and rough fescue/Idaho fescue. The area is approximately 76 acres (Geological).

Ross Creek Scenic Area: This area is located in the bottom of Ross Creek, containing a stand of large, old western red cedars. A 1 mile, self-guided trail winds through the stand. The trees are upwards of eight feet in diameter and 175 feet tall. The area includes sites referred to by descriptive names: “Cedar Chimney”, the “Wrestlers”, the “Fairy Den”, and the “Twins.” Ground fire has occurred in the area, killing scattered trees and allowing enough opening for some other tree species to inhabit the area: western white pine, grand fir, Douglas-fir, as well as younger, smaller western red cedar and western hemlock. The area is approximately 101 acres (Scenic).

Star Creek Canyon: This site is a steep-walled canyon at the mouth of Star Creek near the Idaho-Montana border. The area is a surface reflection to the Leonia Fault. The area contains 100 percent sideslopes with areas of slide rock and cliffs. There are a series of waterfalls up to 40 feet in height. There is little vegetation in the canyon itself. Douglas-fir/pinegrass, Douglas-fir/kinnikinnick, and western hemlock/queencup beadlily are the main habitat types, depending on aspect or depth of soil. The vegetation is mostly old-aged stands of western hemlock, western red cedar, western larch, and Douglas-fir. The area is approximately 81 acres (Geological).

Ten Lakes Scenic Area: The area is composed of high alpine ridges with many lakes, incorporating most of the land between Grave Creek and the Canadian border. It is part of the Galton Mountains of the Whitefish Range, with elevations ranging from 3,200 feet in the bottom of Grave Creek to over 7,800 feet on Green and Poorman Mountains. The entire area was glaciated, mostly by alpine ice, as evidenced by the cirque basins and lakes, the glaciated troughs, and the sharp mountain ridges. The landform facing into the Eureka Valley was largely influenced by continental ice. The area includes the landform known as Gibraltar Ridge. Vegetation is composed of alpine species reflecting a cold, moist climate: subalpine fir, Engelmann spruce, beargrass, grouse whortleberry, and mountain hemlock. The Mediterranean influence extends up Grave Creek as evidenced by the stands of western red cedar. The Wigwam River and Blacktail Creek drain much of the northern portion of the area. These drainages flow into Canada, where the water eventually joins the Kootenai River. There is a 19 acre private patented mining claim within the boundaries of the Special Area. The area is 6,542 acres (Scenic).

Tenmile Talus: The prime features of the area are the "notch" in the topographic divide between Pinkham Creek and Tenmile Creek and the rock outcrops and talus debris found there. The area is a surface expression of the "Pinkham Thrust" fault. The notch was accentuated by glacial scour and water flowing through it during glacial melt. Vegetation includes subalpine fir/twinflower, subalpine fir/grouse whortleberry, Douglas-fir/pinegrass, and Engelmann spruce/twinflower. Where tree cover exists, it ranges from very open to dense composed of subalpine fir, Engelmann spruce, and lodgepole pine. Where vegetation exists on the lower slopes it is mostly grass. The area is approximately 390 acres (Geological).

Upper Big Creek Riparian Ecosystem: The area is comprised of a low-gradient stream and the adjacent, gentle lands along the east and west branches of upper South Fork Big Creek. During glacial melt the area was a glacial lake with outlets to the south and the west. Two very obvious outlets are seen on the topographic divide with Everett and Gold Creeks. The soil material is mostly lacustrine silt. The vegetation is over 85 percent lodgepole pine with scattered subalpine fir and Engelmann spruce. The area is approximately 2,966 acres (Botanical).

Wood Creek Larch Scenic Area: The site is composed mostly of a pure, intact stand of large, old western larch. The topography is steep, mountainous slopes. The habitat type is subalpine fir/twinflower. The area is approximately 115 acres (Scenic).

Yahk Mining District: This area was the site of mining operations over several decades. A mining camp was first established in the area in the 1890s, was revitalized in 1910, and again in 1930. The 1910 Fire burned through the entire area. There are many adits and houses, two stamp mills, an assay office, shops, and a business office. There are over 200 features in all. The area is approximately 456 acres (Historical).

Recommended Special Areas

Following are descriptions for each recommended Special Area and additions to established Special Areas.

494 Road Bedrock Meadow: This site is located on the east side of Sterling Creek along the topographic divide with drainage to the east. The site is a grassy meadow with several clumps of Douglas-fir and associated species: kinnikinnick, common juniper, big huckleberry, pinegrass and elk sedge. The meadow features are a result of shallow-to-bedrock conditions. The meadow is not a riparian meadow, but is a ridge-top meadow. Continental glaciation strongly scoured the area during the glacial period. It is the only site on the Kootenai for the Nevada bitterroot. It is also the site for a new vascular plant species for Montana, Harkness' linanthus. The area is approximately 35 acres (Botanical).

Bad Medicine: A very special area on the KNF, the site contains a surface expression of the Leonia Fault – rocky cliffs, rockfall. The Fault has been studied by many geologists, including Willis Johns (1972), and is described as having had 26,000 to 32,000 vertical feet of movement in the vicinity of the Bad Medicine area. The rocky cliffs are the only occupied nesting habitat for the peregrine falcon (sensitive species) on the KNF. The area also contains sensitive plant species. The cliffs are one of, if not the largest, vertical relief-cliff areas on the Forest. The area is approximately 1,938 acres (Zoological).

Barnum Wetlands: The area contains a wetland (marsh/wet meadow). The soils are hydric; somewhat poorly drained, with a water table less than one-half foot from the surface for a week or more during the growing season. The vegetation represents obligate wetland plants (almost always occur in wetlands), facultative wetland plants (plants that usually occur in wetlands), and facultative plants (plants with the likelihood of occurring in both wetlands and non-wetlands). Sedges, rushes, willows, alders, and pink spirea are scattered throughout. The area is approximately 227 acres (Botanical).

Barron Creek: The area includes the lands surrounding the mouth of Barron Creek as it enters Koocanusa Reservoir. Much of the area is underlain by lacustrine material deposited as the glacial ice was melting and retreating. The area contains the remains of an early homestead site from 1920. The area is approximately 326 acres (Historical).

Bitterroot Point: This is one of the few areas on the KNF containing the bitterroot flower. The site is on the north side of the Kootenai River on a southerly aspect. The plants are located mainly on the shallow soil, rocky ledges of the open slopes below Flagstaff Mountain between 3,000 and 3,800 feet elevation. The site is approximately 126 acres (Botanical).

Callahan Historic Mining & Logging District: This area contains sites related to early-day logging and mining activities along Callahan Creek, including old railroad rail pinned to the

canyon walls. The area is eligible for the national register of historic places. The area is approximately 3,262 acres (Historical).

Cody Lakes: This area contains a series of three small lakes at the head of Cody Creek within calcareous bedrock producing plant species consistent with calcareous soils. A thick organic mat fringes the lower lake. Important shrubs include bog birch, hoary willow, and small-leaved laurel. Major graminoids include slender sedge, few-flowered spikerush, beaked sedge, and mud sedge. It is habitat for northern bog lemming, a Northern Region sensitive species. The area is approximately 194 acres (Botanical/Zoological).

East Fork Bull River: This site contains the southern-most known location of northern beech fern on the KNF. It contains rich old growth streamside riparian environment for sensitive plant species located along the East Fork Bull River bottom and terrace remnant. The area is approximately 109 acres (Botanical).

East Fork Pipe Creek: This site contains parallel, adjacent notches accentuated and created by outflow from glacial lakes ponded in the South Fork Big Creek as well as the east and west branches of the South Fork Big Creek. The area is approximately 1,118 acres (Geological).

Falls Creek: The area contains falls located within and adjacent to the western boundary of the Cabinet Mountains Wilderness. They are high falls, observed from west of Troy traveling on Highway 2 east to Libby. The area is approximately 42 acres (Scenic/Geological).

Flower Lake: A small lake lying adjacent to the east side of the Cabinet Mountains Wilderness. The landform is the result of alpine and continental glacial till colliding and leaving glacial debris that eventually formed a lake. The lake is surrounded by an organic floating fen that grades into an attached fen. It is referred to as a “poor” fen, which is characterized by a bryophyte layer dominated by sphagnum and low surface-water pH (4.0-5.5). This site is an excellent example of a “poor” fen, a rare wetland type in Montana. It supports a boreal toad population as well as watershield, creeping sedge, English sundew, and pod grass. The area is approximately 16 acres (Botanical).

French Creek Cedars: One of the finest examples of an “ancient,” old growth cedar grove in the southern end of the Purcell Mountains. The location of this grove is in the moist valley bottom of French Creek near many stream confluences, which has allowed this grove to survive multiple wildfires. This grove boasts abundant 50 plus inch diameter breast height western red cedar, and 40 plus inch diameter breast height western larch, many of which exceed 500 years of age. This is also the location of two rare moonwort species. It is the location of a control plot for a moonwort monitoring study. The area is approximately 131 acres (Botanical).

Gateway Prairie: Remnant Palouse prairie. Idaho fescue/bluebunch wheatgrass and rough fescue/bluebunch wheatgrass cover types are present. Soils are neutral to slightly calcareous and have a mollic epipedon (dark surface). The area is approximately 2,147 acres (Botanical).

Halverson Creek: Location of northern beechfern, a KNF sensitive plant species. Unlike the other locations of northern beechfern on the Forest, the site contains weeping rock walls. The area is approximately 47 acres (Botanical).

Hamilton Gorge: This is the only gorge located on the KNF that is recommended as a special area. The area was glaciated with ice, which then pushed up and over Meadow Creek and filled the gorge. The gorge then became an outlet for melt waters from the north, which accentuated the

head of the gorge. A series of beaver ponds are scattered along the bottom in the south half of the gorge. An esker forms the upper ridgeline of the west side of the canyon, making the west side higher than the east side.

Kelsey Creek: This site boasts three rare species in the moonwort genus, two of which are presently on the KNF sensitive list. The Kelsey Fire engulfed this site in 2000 and, without any human intervention, these populations (located in thick cedar duff) survived. This event demonstrated how these three species may have a historic interaction with wildfire edge, and demonstrated the importance of “fire refugia” as habitat for rare plant species. of the area contains a control plot for a moonwort monitoring study. The area is approximately 53 acres (Botanical).

Kenelty Caves: These are the only caves on the KNF and they are located within the Cambrian Limestone Formation. There is a very small amount of Cambrian exposed on the KNF. Also, grotto-like features are seen in several above-ground sites. The area is approximately 87 acres (Geological).

Little North Fork Falls: The area is located on the lower end of Little North Fork Big Creek just before it joins Big Creek. The site is a popular recreation area. The area is approximately 6 acres (Recreational).

Lost Horse Fen: The area is a unique peatland with a large, floating, sphagnum mat. Also, it is the location of one of two occurrences for Wulf’s sphagnum in Montana. The KNF sensitive plant species, poor sedge, can be found here. This Special Area includes the upper wetland and the unique cliffs and outcrops above the fen. A population of the KNF sensitive plant species, Iceland-moss lichen, occurs near the fen. The area is approximately 308 acres (Botanical).

Lower Sunday Creek Ecosystem: The area is located on lower Sunday Creek. The falls on Sunday Creek are within the boundary of the area. This is a riparian forest and swamp along lower Sunday Creek. The area supports a diverse, mixed-conifer forest with a swamp dominated by western red cedar and skunk cabbage, a unique feature on the eastern half of the KNF. It also supports old growth forest features. The area contains is 150 acres (Botanical).

Northwest Peak Scenic Area (addition): Additions are recommended to include larger portions of the glaciated basins and several lakes and extend the boundary to the Canadian line. The addition is approximately 8,534 acres, which would result in a total area of 13,248 acres (Scenic).

Pete Creek: This area contains a significant population of northern beechfern. Old growth features occur along the stream channel, including the presence of western red cedar and the slow-meandering sections of the channel. The area is approximately 320 acres (Botanical).

Pinkham Falls: This area is a narrow canyon on lower Pinkham Creek. It includes Pinkham Falls, where the stream turns from a northerly flow to a westerly flow to the Koocanusa Reservoir. There is western red cedar located in the canyon bottom. The area is approximately 21 acres (Geological).

Rock Creek Meadows: This area is a significant meadow and wetland area in the head of Rock Creek. It lies adjacent to the west side of the Cabinet Mountains Wilderness. The area is approximately 185 acres (Botanical).

Rocky Fivemile Forest: This area includes a rocky-landform, spruce-fir forest at the headwaters of Lake Creek. There are many rock outcrops in the midst of a late seral spruce-fir forest. The area also includes stringers of bedrock meadows, which lie on quartzite of the Ravalli Formation.

The rock outcrops host a very rich and varied acid-loving lichen flora in many different microclimates. Between the rock outcrop stringers is a chain of wetlands, which are dominated by large, coarse-beaked sedge. The rare, diminutive annual false mermaid and uncommon threeleaf *Lewisia* are also found here. The presence of arctic-alpine species in the rock crevices of the area underlies the refugium-nature of the bedrock area. The area is approximately 215 acres (Botanical).

Ross Falls: This area is located on lower Ross Creek below Ross Creek Cedars. The falls is tucked in a narrow gorge with steep sidewalls and scattered vegetation on the rocky, southerly aspect. The area contains approximately 44 acres (Geological).

Spar Springs: This area is a subsurface outlet for Spar Lake. Spar Lake has no surface outlet and the spring area is recognized as the outlet for the lake. The flow from the springs is in the 60-80 cubic feet per second. The area is approximately 196 acres (Geological).

Spread Otis Creeks: This area contains a significant population of northern beechfern. This population is located on both sides of the Yaak River. The area is approximately 382 acres (Botanical).

Stone Hill: The area is located along the Koocanusa Reservoir (approximately 15 miles south of the Canadian Line). This portion of the Kootenai Valley is much narrower than further north. As the continental glacial ice moved down-valley, the walls of the valley were strongly scoured leaving the area known as Stone Hill highly polished. The area is used for rock climbing, particularly the training of novice climbers. The area is approximately 760 acres (Recreational/Geological).

Sutton Falls: This area is in a drainage flowing from the north into Sutton Creek that contains a very visible falls during the spring melt period. The topography is very steep and the falls has a drop of over 100 feet. The vegetation is sparse. Bedrock is scattered along this aspect. The area is approximately 113 acres (Geological).

Swamp Mountain Meadows: This area is located on the east-facing ridge south of the junction of Swamp Creek and Fortine Creek and lies about one mile east/northeast of Swamp Mountain. This is an upland grassy opening. The area has two herbaceous meadows that are relatively large (each being approximately 5 acres) with extraordinarily pristine and unusual cover type. The area is approximately 45 acres (Botanical).

Ten Lakes Scenic Area (addition): Additions are recommended to include larger portions of the unique, glaciated basin. The addition is approximately 8,403 acres, which would result in a total area of 14,945 acres (Scenic).

Tenmile Falls: This area is a steep-walled canyon with a series of falls in the middle section (mostly below the junction of Briery and Tenmile Creeks) of the Tenmile drainage. There are a lot of talus and rock bluffs. The southeasterly aspect is mostly devoid of vegetation while the northwesterly aspect has moist species mixed in with the rock bluffs. The area is approximately 187 acres (Geological).

Tepee Lake: This is a beautiful lake with floating and anchored organic deposits. It is the only known location on the KNF in Lincoln County for great sundew. The floating mat is dominated by a *dulichium* community. The site is a very good example of a “poor” fen (characterized by a bryophyte layer dominated by sphagnum moss and low surface water pH). It is also home for

buckbean, spatter-dock, dulichium, and purple cinquefoil. The area is approximately 46 acres (Botanical).

Terriault Pass: This site is a prominent U-shaped feature on the skyline seen while traveling north on US Hwy 95 between Fortine and Eureka. It is a fault-notch that was scraped, gouged, and expanded by ice backing to the west away from the main alpine lobe. The area is approximately 493 acres (Geological).

Vermilion Falls: This site contains a series of falls located on the middle section of the Vermilion River near where Thirteen Gulch and Little Joe Gulch join the river. The area is a popular recreation site. The area is approximately 99 acres (Recreational).

Vinal Lake: This is a glacial lake located just east of the Yaak River between Vinal Creek and Yodkin Creek. The surrounding vegetation is composed of moist forest vegetation. The area is approximately 83 acres (Botanical).

Yaak Falls: This is the second largest falls on the KNF (second to Kootenai Falls). Although not as wide, it has a greater drop than Kootenai Falls. Because it is adjacent to the Yaak Highway, the area has high recreational interest. An old roadway spanned the top of the falls at one time. The area is approximately 44 acres (Recreational).

Research Natural Areas (RNAs)

Process

Research Natural Areas are part of a national network of ecological areas designated in perpetuity for research and education and/or to maintain biological diversity on NFS lands. RNAs are for non-manipulative research, observation, and study. These areas protect either outstanding examples of late-successional plant communities, pristine examples of plant communities that are relatively rare, or unusual complexes of plant communities in very good condition. They also may assist in implementing provisions of special acts, such as the Endangered Species Act and the monitoring provisions of the National Forest Management Act. The prime consideration in managing RNAs is maintenance of unmodified conditions and natural processes.

The RNAs designated in the revised Plan were identified during the plan revision process as unique habitats or prime examples of habitat types that would enhance the representativeness of the natural area network as they are not currently identified in existing RNAs. The Forest Service Manual (FSM 4063) and individual RNA Establishment Records provide specific direction concerning RNA management.

The selection and establishment of RNAs in Region 1 is guided by priorities identified in the “Research Natural Areas of the Northern Region: Status and Needs Assessment” (Chadde et al 1996). The potential for additional RNAs is not precluded during the life of this Plan. Establishment of any additional RNAs would require site-specific NEPA and an amendment to the Plan.

Established Research Natural Areas

Big Creek: The RNA is located on a series of terraces at the mouth of Big Creek where it joins Koocanusa Reservoir. The main habitat type is Douglas-fir/dwarf huckleberry. This vegetative type is uncommon on the KNF and is generally confined to terraces and benches. The soil material is a glacio-fluvial deposit composed mainly of mixed and sorted silts, sands, and gravels.

The terraces are nearly flat except for the steep edges that slope into the reservoir. This habitat type is generally only found on benchy/terracy landforms. Other vegetative types include drier Douglas-fir types, but scattered western red cedar and Engelmann can be seen. Established in 1991 the RNA is approximately 178 acres.

Hoskins Lake: Hoskins Lake RNA is comprised of rolling to steep forested, mountainous terrain in the Yaak River drainage. The major habitat type is Engelmann spruce/queencup beadlily; others include Engelmann spruce/twinflower, Douglas-fir/twinflower, and western red cedar/queencup beadlily. The topography from the western boundary gradually rises to the east ending in two knobs. From these knobs the landform drops sharply to the east towards two lakes. The lakes lie in a structural trough created by fault activity and further enhanced by subsequent glacial scouring. Mature stands of western larch, Douglas-fir, Engelmann spruce, and western red cedar occupy much of the area. Established in 1992 the RNA is approximately 376 acres.

LeBeau: Ridges and troughs, formed by intense glacial scouring as ice sheets advanced through a narrow portion of the Rocky Mountain Trench, characterize the topography of the LeBeau RNA. The resultant ridges, cliffs, and troughs are oriented parallel to the flow of the glaciers, generally north-south. A number of nearly level ridgetops support interesting herbaceous communities with an abundance of clubmosses, true mosses, and lichens. The more rounded ridgetops and mountain slopes support forests dominated by Douglas-fir, subalpine fir, western larch, and lodgepole pine. Troughs and valley bottoms feature wetlands and mesic forests, of spruce, grand fir, western red cedar, and western hemlock. Seven ponds and one lake ranging in size from 5 to 34 acres occur within the RNA. LeBeau RNA provides an important and viable area to meet the need for a landscape-level reference for understanding the range of natural variability of larger-scale natural processes. Established in 1995 the RNA is approximately 5,709 acres. The RNA is shared with the Flathead National Forest, with 411 acres on the KNF.

Lower Ross Creek: The RNA contains an extensive stand of large, mature western red cedar. The wind-sheltered position and perpetual moistness of the streamsides have protected the western red cedar from most wildfires. It is evident light ground fire has moved into the stands as indicated by charred stumps and stems of cedars. Some stand-replacing fires have occurred as evidenced by some seral communities dominated by western larch, lodgepole pine, and Douglas-fir. The mature stands generally contain western red cedar, western hemlock, and western white pine. The mountain slopes are underlain by quartzite bedrock of the Belt rock group with several rock outcrops and talus slides present. The area was influenced by both alpine and continental glaciation. Some of the cedars may be more than 1,000 years old. Established in 1997 the RNA is approximately 1,874 acres.

Norman Parmenter: The vegetation of the RNA varies from mature trees of western hemlock, western red cedar, black cottonwood, Douglas-fir, Engelmann spruce, and subalpine fir to pole-sized grand fir, western larch, Douglas-fir, lodgepole pine, western white pine, and Engelmann spruce. High water flows during winter rain-on-snow events and/or high spring flows have caused the main Parmenter Creek channel to migrate across the flood plain. These flood events have produced favorable habitat for the establishment of black cottonwood. The main vegetative features are Douglas-fir/pinegrass habitat type and stands of black cottonwood. The RNA lies in a canyon that was developed through natural processes, but was strongly influenced by alpine glaciation. Established in 1997 the RNA is approximately 1,289 acres.

Pete Creek Meadows: Pete Creek Meadows RNA is located in the Purcell Mountains in extreme northwestern Montana. It occupies the headwater reaches of Pete Creek within the Yaak River watershed. It lies on the topographic divide of two large watersheds. The RNA contains a series

of wet meadows and adjacent stands of coniferous forest. Pole-sized to mature stands of subalpine fir, Engelmann spruce, and lodgepole pine occupy the small hillocks in the almost-level terrain. Sedges dominate the low-lying areas. The area is within a northwest trending fold, which lies about halfway between the Sylvanite Anticline and the Yaak River Syncline. Established in 1992 the RNA is approximately 153 acres.

Ulm Peak: This RNA along the Bitterroot Divide contains a mature stand of mountain hemlock forest. Mountain hemlock is found primarily in the Cascade Mountains, western British Columbia, southern Alaska, and northern California. This site represents mountain hemlock's eastern range limits. This stand is valuable because of its mature, well-developed status. Fire has not influenced much of the RNA during the past two centuries. The area exhibits steep, rocky cliffs and talus slides. Ancient ripple marks and mud cracks are characteristic of the Precambrian bedrock. Whitebark pine and lodgepole pine are common along the edges of the rocky sites. The cliffs are wet and seep moisture through most of the summer. The wet ledges and crevices support an abundance of liverworts, mosses, ferns, and high moisture-requiring vascular plants. Established in 1988 the RNA is approximately 689 acres.

Wolf Weigel: The RNA is located along the western edge of the Salish Mountains in northwestern Montana. It features a gorge and waterfall, a steep-sided basin, and a wetland dominated by willows and sedges. The vegetation varies from old growth elements of subalpine fir, Engelmann spruce, western larch, and Douglas-fir to pole and sapling-sized lodgepole pine and western larch. The steep southerly and westerly slopes are comprised mainly of shallow soil, rock outcrops, and talus dominated by dry Douglas-fir vegetation while the gentler slopes have deeper soil and a greater variety of vegetation. The RNA includes a surface expression of the Pinkham Thrust; thus, the head of Wolf Creek lies in a trough. As a result, the head of Weigel Creek and glacial lakes draining to the south have downcut a steep canyon as it joins Wolf Creek. Established in 1992 the RNA is approximately 240 acres.

Proposed Research Natural Areas

Doonan Peak: The area contains hybrids of a cross between western larch and alpine larch. It is known as hybrid larch. This site has an extensive, well-developed distributional overlap of western larch and alpine larch and their natural hybrids. Trees of all three taxa are present in both old growth and young age classes. It is the largest known concentration of hybrid larch in northwestern Montana. After the St. Mary's area in the Bitterroot Valley it is the most extensive natural hybridization zone of western larch and alpine larch. The site also contains a tree that is nominated for the Montana Champion Tree Program for alpine larch. The proposed RNA is located adjacent to the Cabinet Mountain Wilderness. The area is in a rugged glacial cirque having a steep headwall with talus slopes and an adjacent subalpine ridge. The site contains approximately 504 acres.

Huson Peak: The area contains a viable stand of whitebark pine. This stand is an historic representation of the species for western Montana and northern Idaho. The site is used for collecting seed for a breeding program to determine genetic resistance of the species to white pine blister rust. It is not known if these trees contain any rust resistance, but they are alive and well, while many of the stands in the area have been killed by the rust. The stands are generally located above 5,800 feet elevation. This site is approximately 1,715 acres.

Seven Point Genetical: The area contains a viable stand of whitebark pine. This stand is an historic representation of the species for western Montana and northern Idaho. The site is used for collecting seed for a breeding program to determine genetic resistance of the species to white pine

blister rust. It is not known if these trees contain any rust resistance, but they are alive and well, while many of the stands in the area have been killed by the rust. The stands are generally located above 5,800 feet elevation. This site is approximately 2,390 acres.

Maps

Following are maps of the special areas and RNAs. Figure 57 displays these areas forestwide and table 199 indicates the name of the area along with its designation, page number and figure number for detailed maps.

Table 199. Special Areas & Research Natural Maps Index

Map Ref #	Special Area Name	Figure #	Page #
1	494 Bedrock Meadow Botanical Area	58	270
2	Bad Medicine Zoological Area	59	271
3	Barnum Wetland Botanical Area	60	272
4	Barron Creek Historical Area	61	273
5	Berray Cedars Botanical Area	62	274
6	Bitterroot Point Botanical Area	64	276
7	Callahan Historical Mining & Logging District Historical Area	65	277
8	Cody Lakes Botanical/Zoological Area	66	278
9	Devil Gap Geological Area	67	279
10	East Fork Bull River Botanical Area	69	281
11	East Fork Pipe Creek Geological Area	70	282
12	Falls Creek Scenic/Geological Area	71	283
13	Flower Lake Botanical Area	72	284
14	French Creek Cedars Botanical Area	73	285
15	Gateway Prairie Botanical Area	74	286
16	Halverson Face Botanical Area	75	287
17	Hamilton Gorge Geological Area	76	288
18	Hidden Lake Botanical Area	77	289
19	Kelsey Creek Botanical Area	79	291
20	Kenelty Caves Geological Area	80	292
21	Kootenai Falls Historical Area	81	293
22	Little North Fork Falls Recreational Area	63	275
23	Lost Horse Fen Botanical Area	79	291
24	Lower Sunday Creek Ecosystem Botanical Area	82	294
25	Lower West Fork Yaak Falls Geological Area	83	295
26	Northwest Peak Scenic Area	84	296
27	Pete Creek Botanical Area	85	297
28	Pinkham Falls Geological Area	87	299
29	Rexford Hoodoos Geological Area	88	300
30	Rock Creek Meadows Botanical Area	89	301
31	Rocky Fivemile Forest Botanical Area	90	302

Map Ref #	Special Area Name	Figure #	Page #
32	Ross Creek Scenic Area	91	303
33	Ross Falls Geological Area	91	303
34	Spar Springs Geological Area	93	305
35	Spread Otis Creeks Botanical Area	94	306
36	Star Creek Canyon Geological Area	95	307
37	Stone Hill Recreational/Geological Area	96	308
38	Sutton Falls Geological Area	96	308
39	Swamp Mountain Meadows Botanical Area	97	309
40	Ten Lakes Scenic Area	98	310
41	Tenmile Falls Geological Area	99	311
42	Tenmile Talus Geological Area	99	311
43	Tepee Lake Botanical Area	100	312
44	Therriault Pass Geological Area	101	313
45	Upper Big Creek Riparian Ecosystem Botanical Area	103	315
46	Vermilion Falls Recreational Area	104	316
47	Vinal Lake Botanical Area	105	317
48	Wood Creek Larch Scenic Area	107	319
49	Yaak Falls Recreational Area	108	320
50	Yahk Mining District Historical Area	109	321
	Research Natural Area Name		
51	Big Creek RNA	63	275
52	Doonan Peak RNA	68	280
53	Hoskins Lake RNA	105	307
54	Huson Peak RNA	78	290
55	LeBeau RNA	82	294
56	Lower Ross Creek RNA	91	303
57	Norman Parmenter RNA	72	284
58	Pete Creek Meadows RNA	86	298
59	Seven Point Genetical RNA	92	304
60	Ulm Peak RNA	102	314
61	Wolf Weigel RNA	106	318

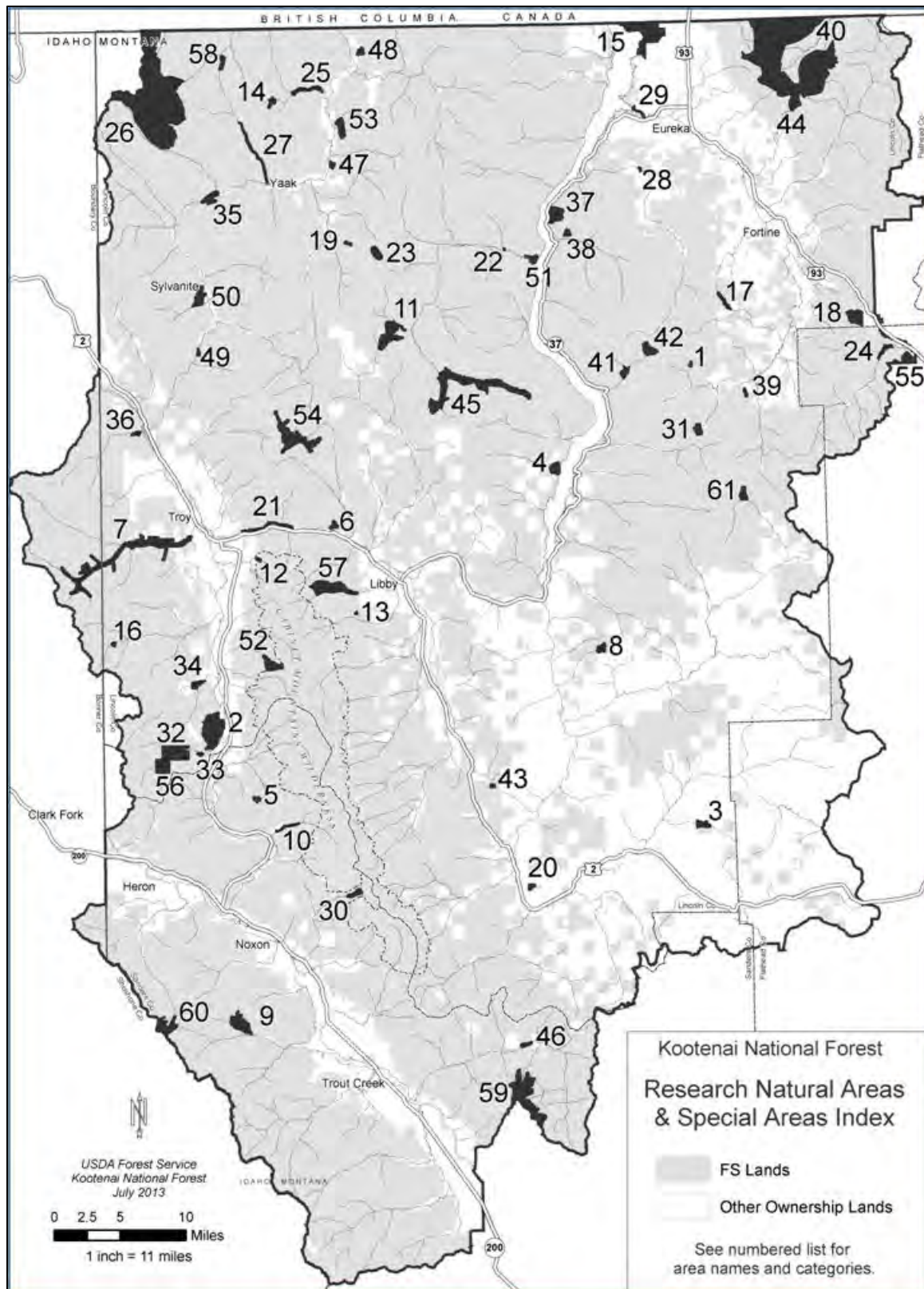


Figure 57. Index of Special Areas & Research Natural Areas Maps

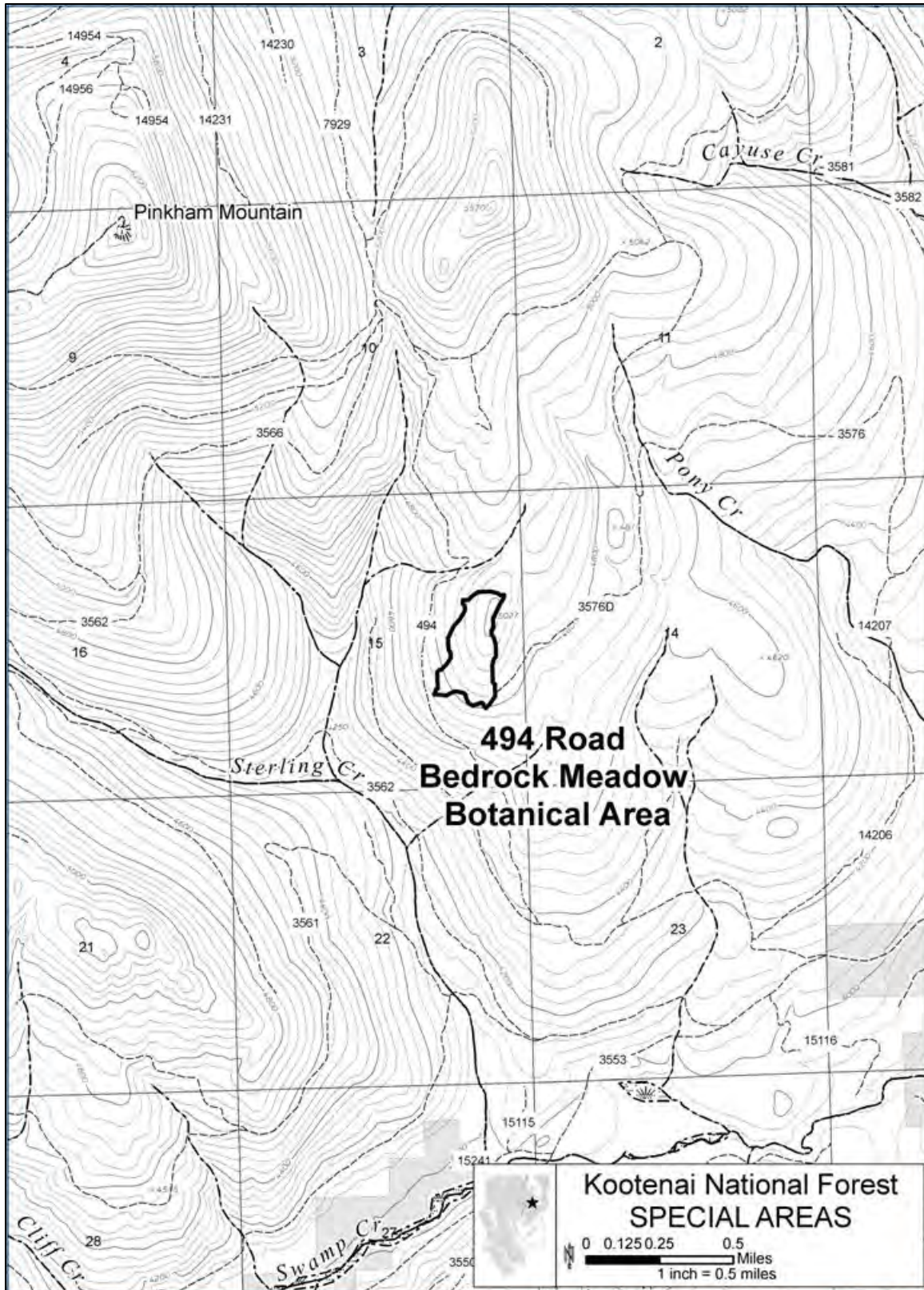


Figure 58. 494 Road Bedrock Meadow Botanical Area

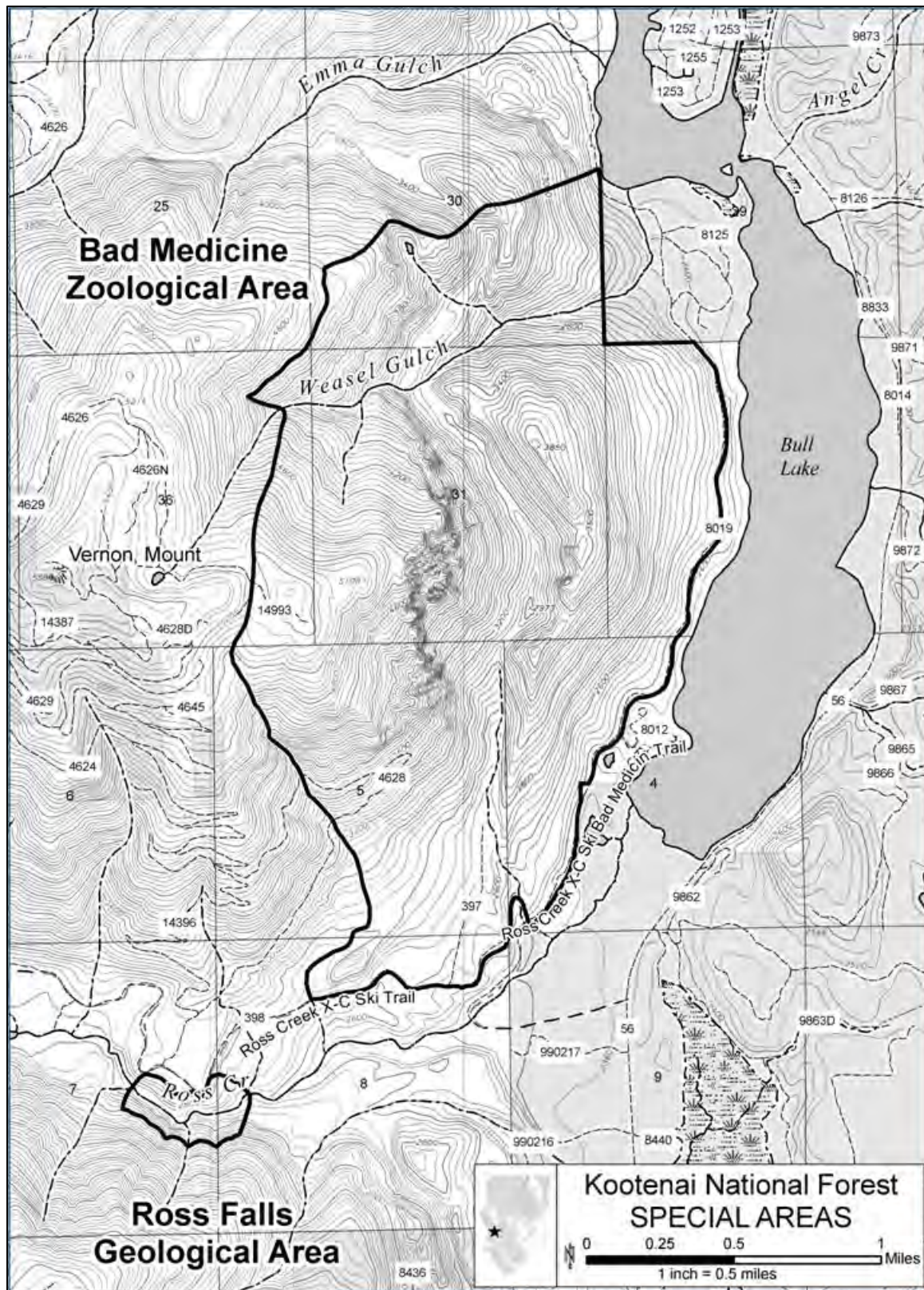


Figure 59. Bad Medicine Zoological Area/Ross Falls Geological Area

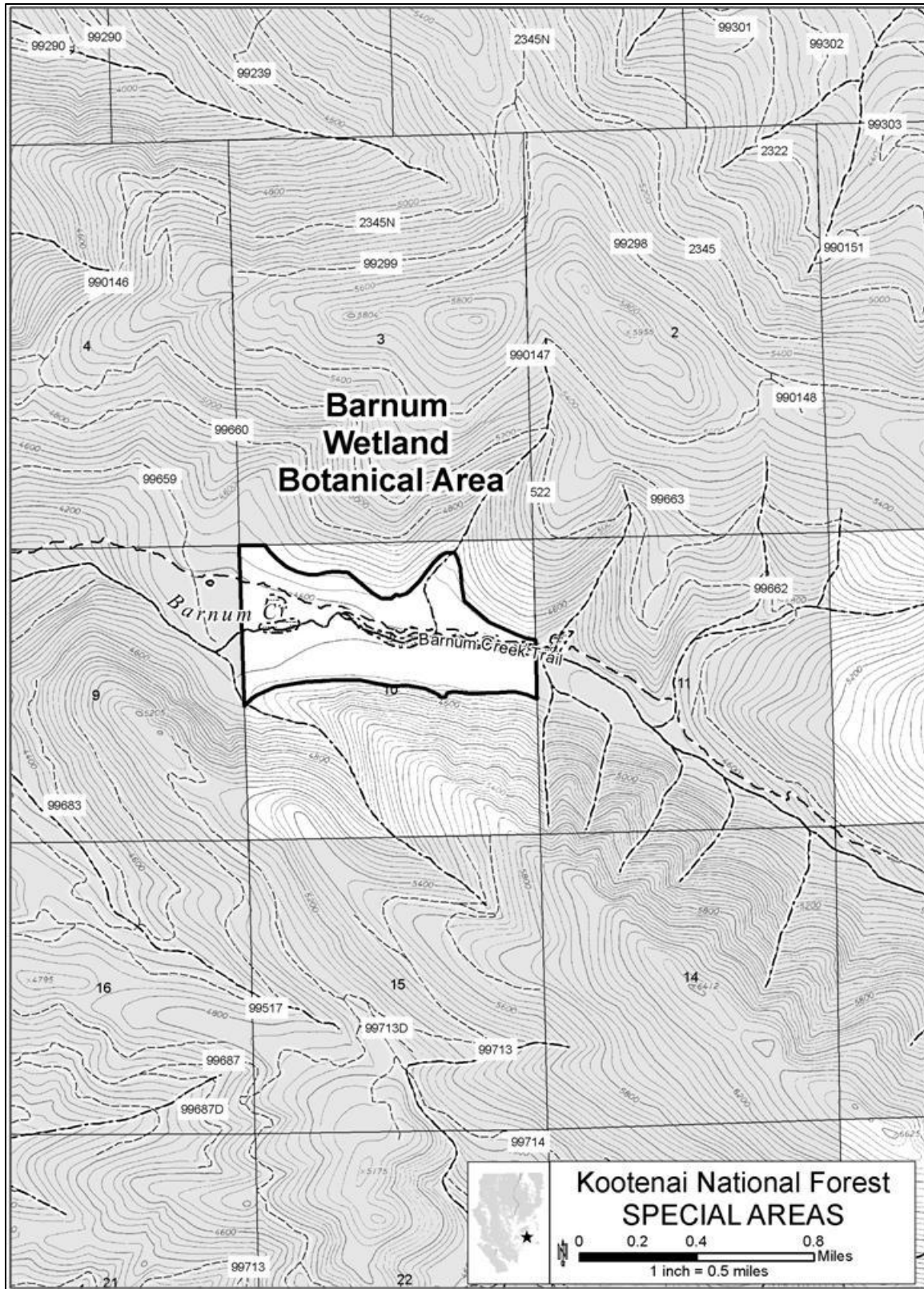


Figure 60. Barnum Wetland Botanical Area



Figure 61. Barron Creek Historical Area

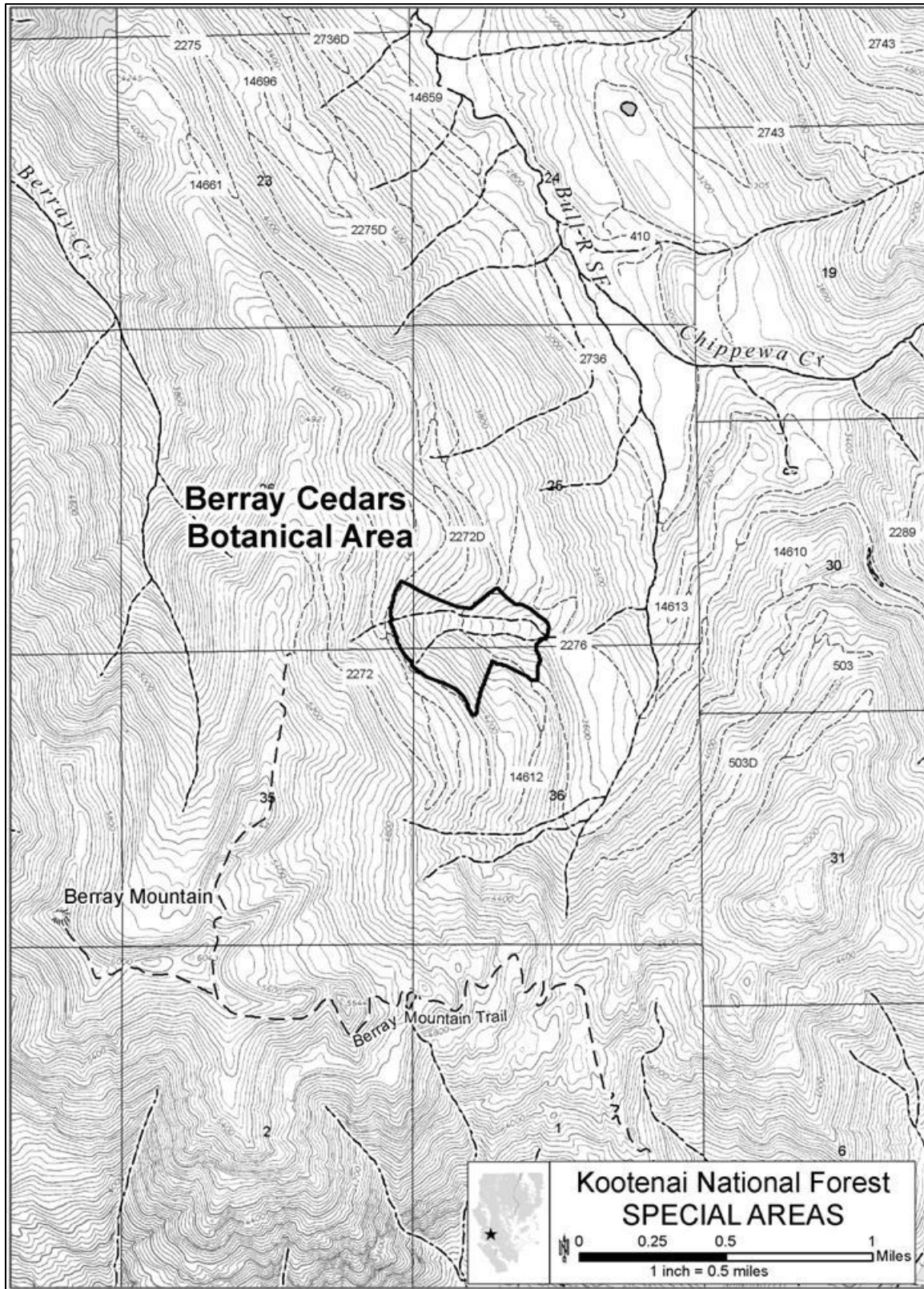


Figure 62. Berray Cedars Botanical Area

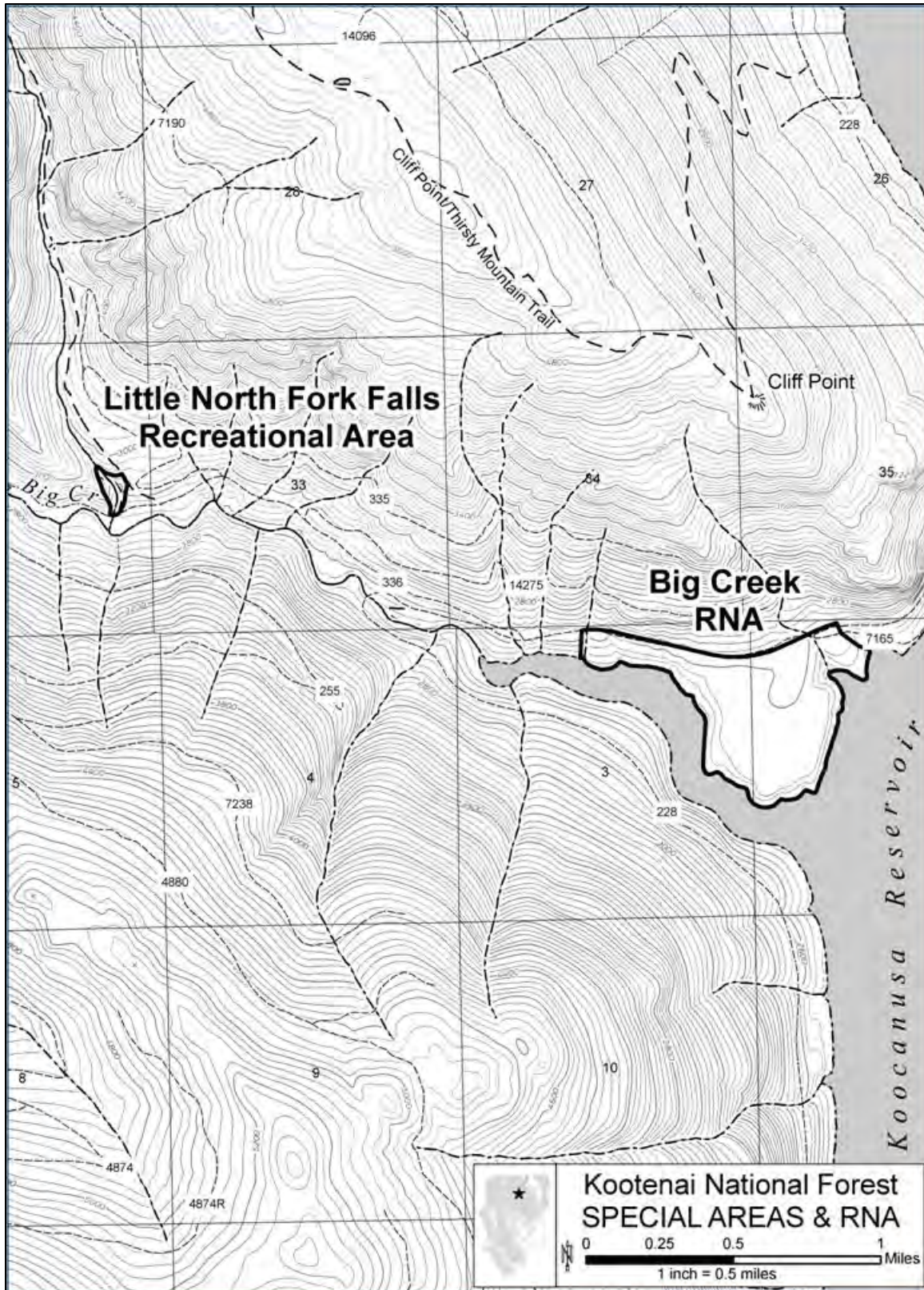


Figure 63. Big Creek RNA/Little North Fork Falls Recreational Area

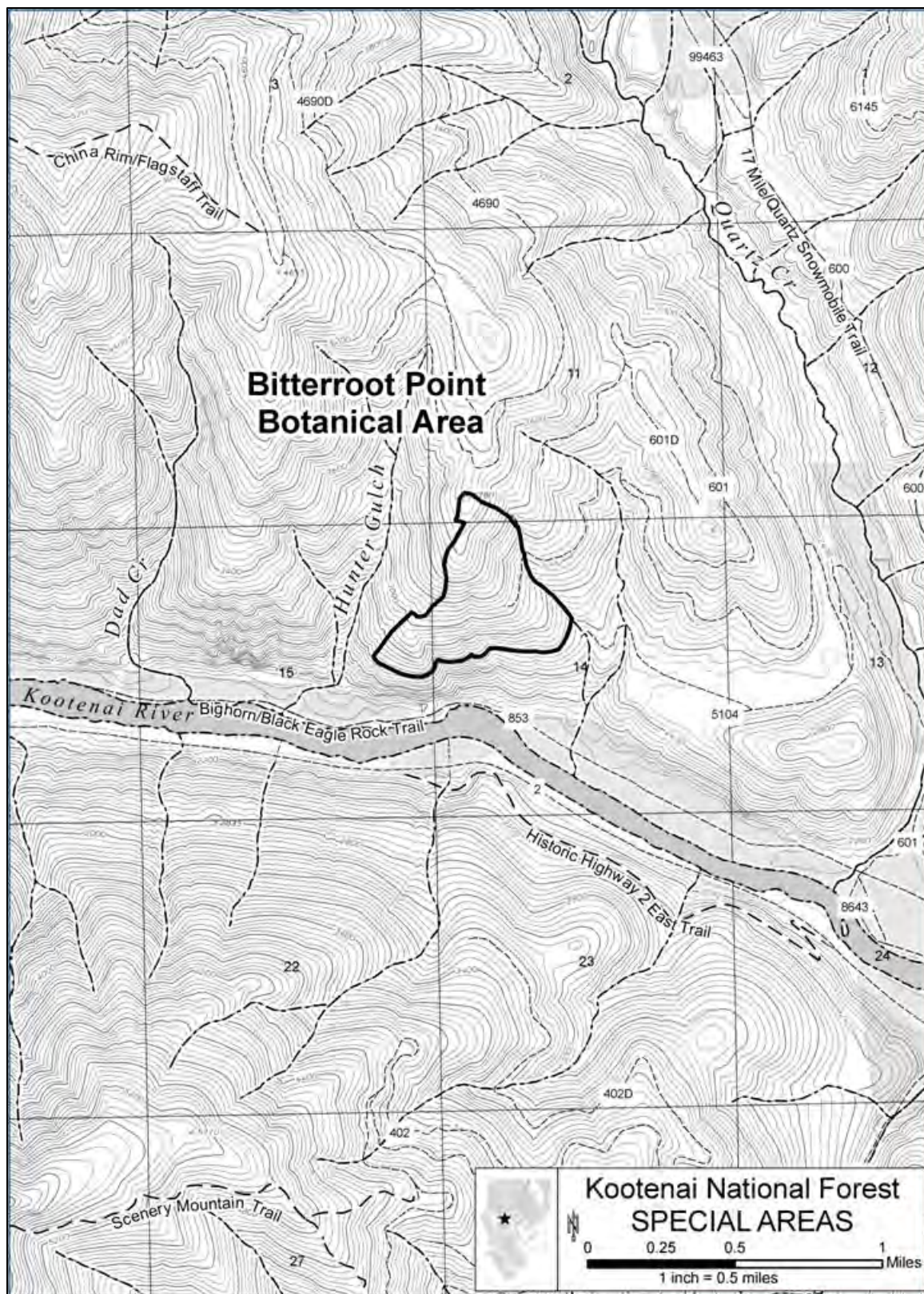


Figure 64. Bitterroot Point Botanical Area

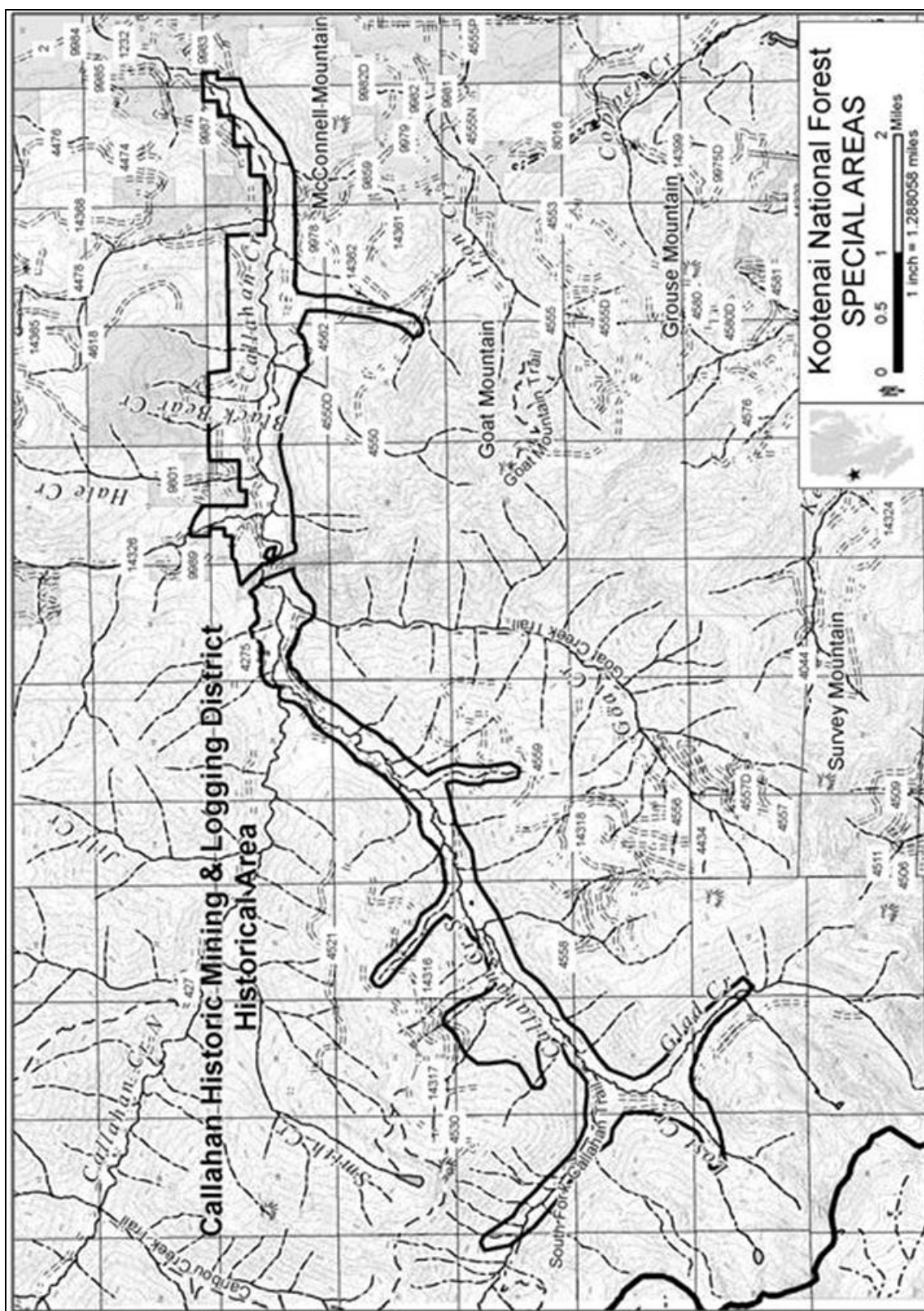


Figure 65. Callahan Historic Mining & Logging District Historical Area

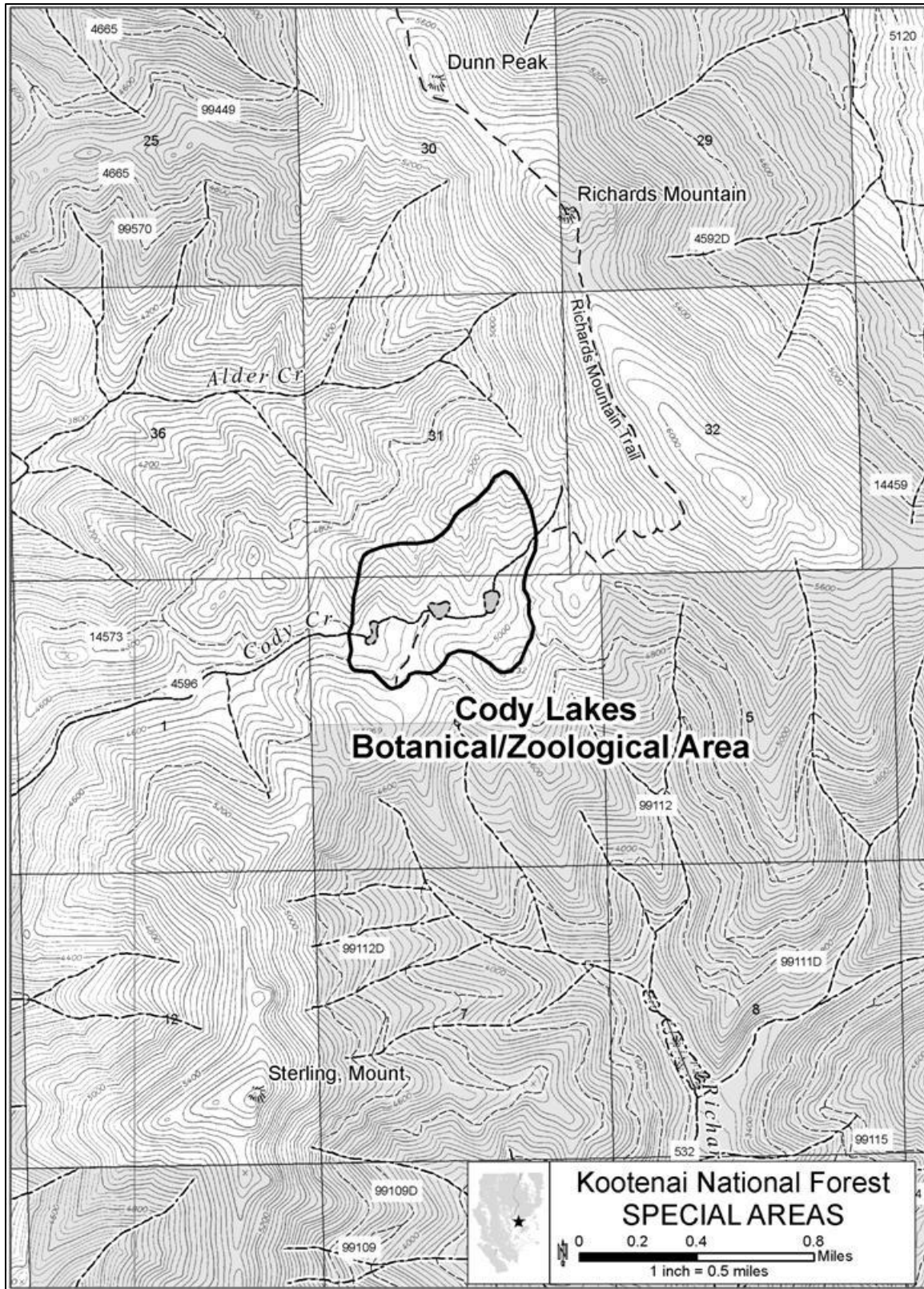


Figure 66. Cody Lakes Botanical/Zoological Area

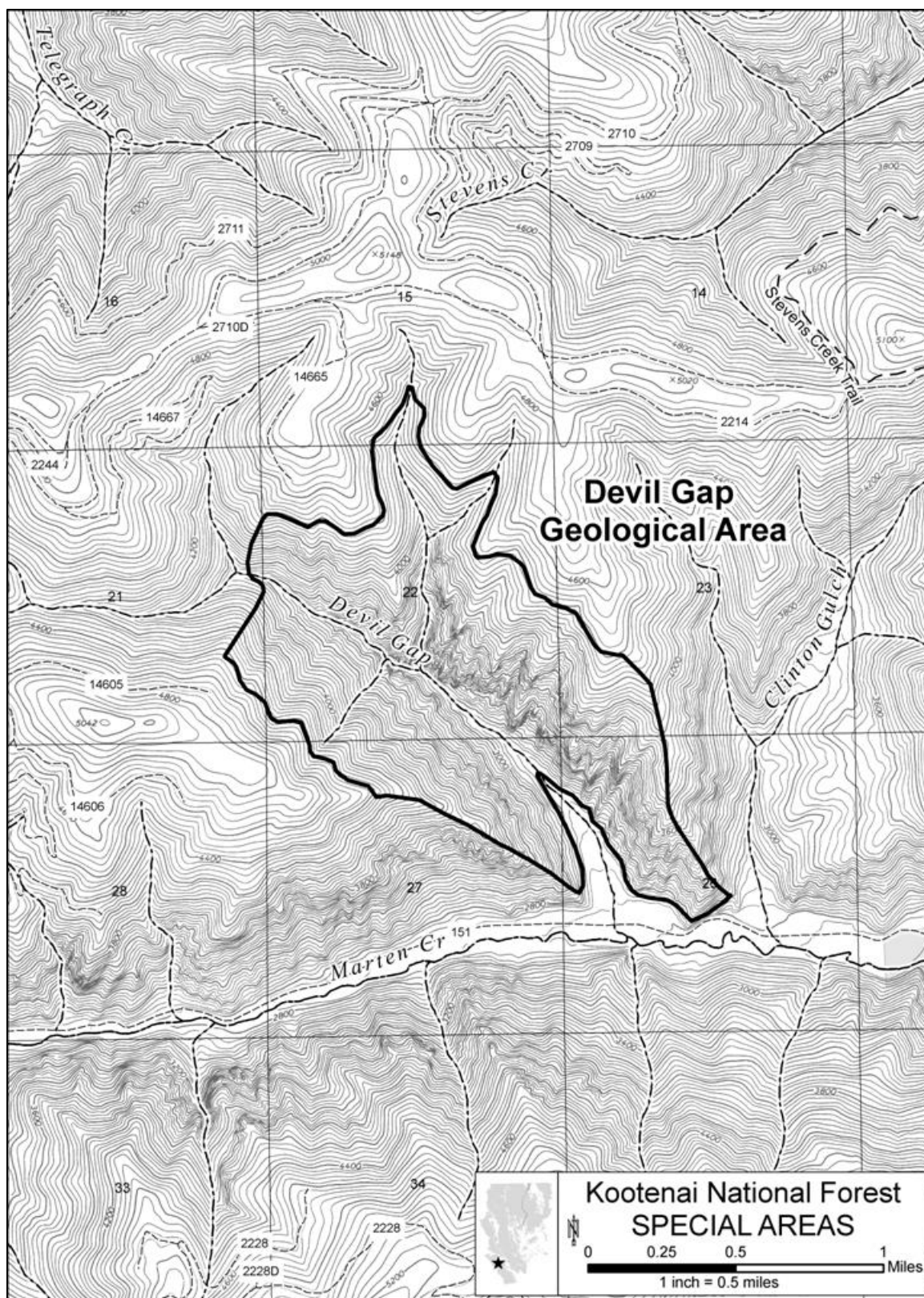


Figure 67. Devil Gap Geological Area

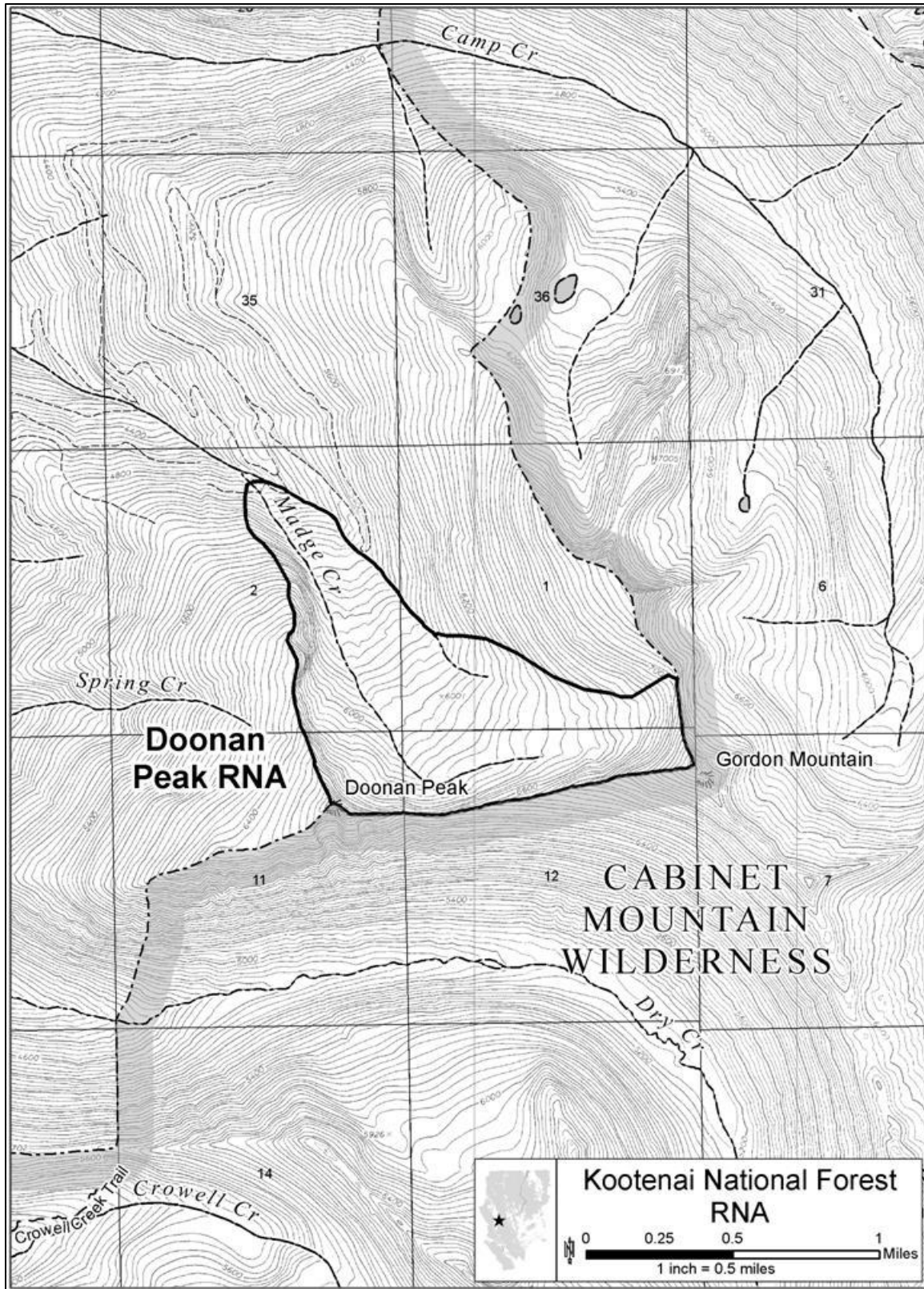


Figure 68. Doonan Peak RNA

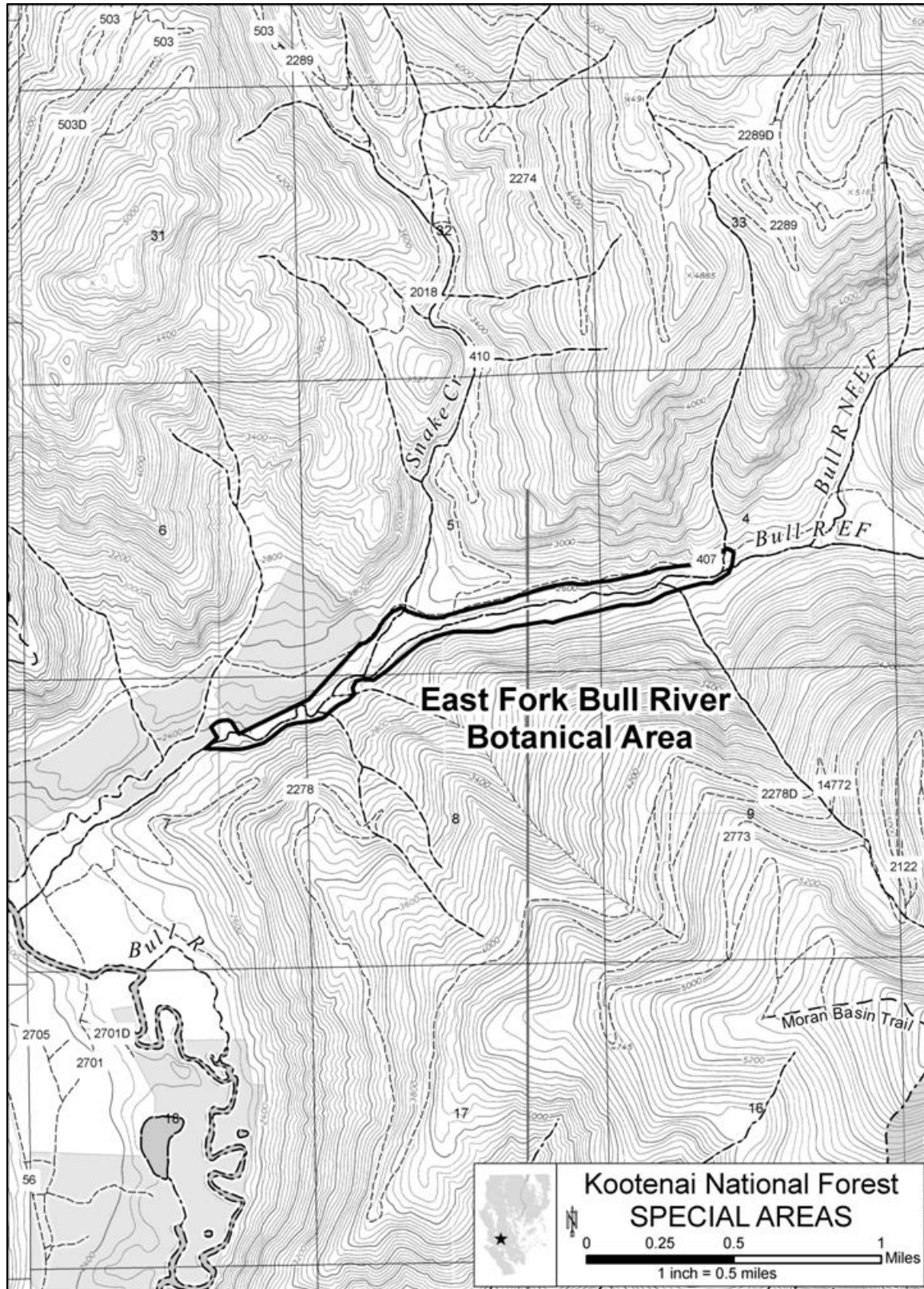


Figure 69. East Fork Bull River Botanical Area

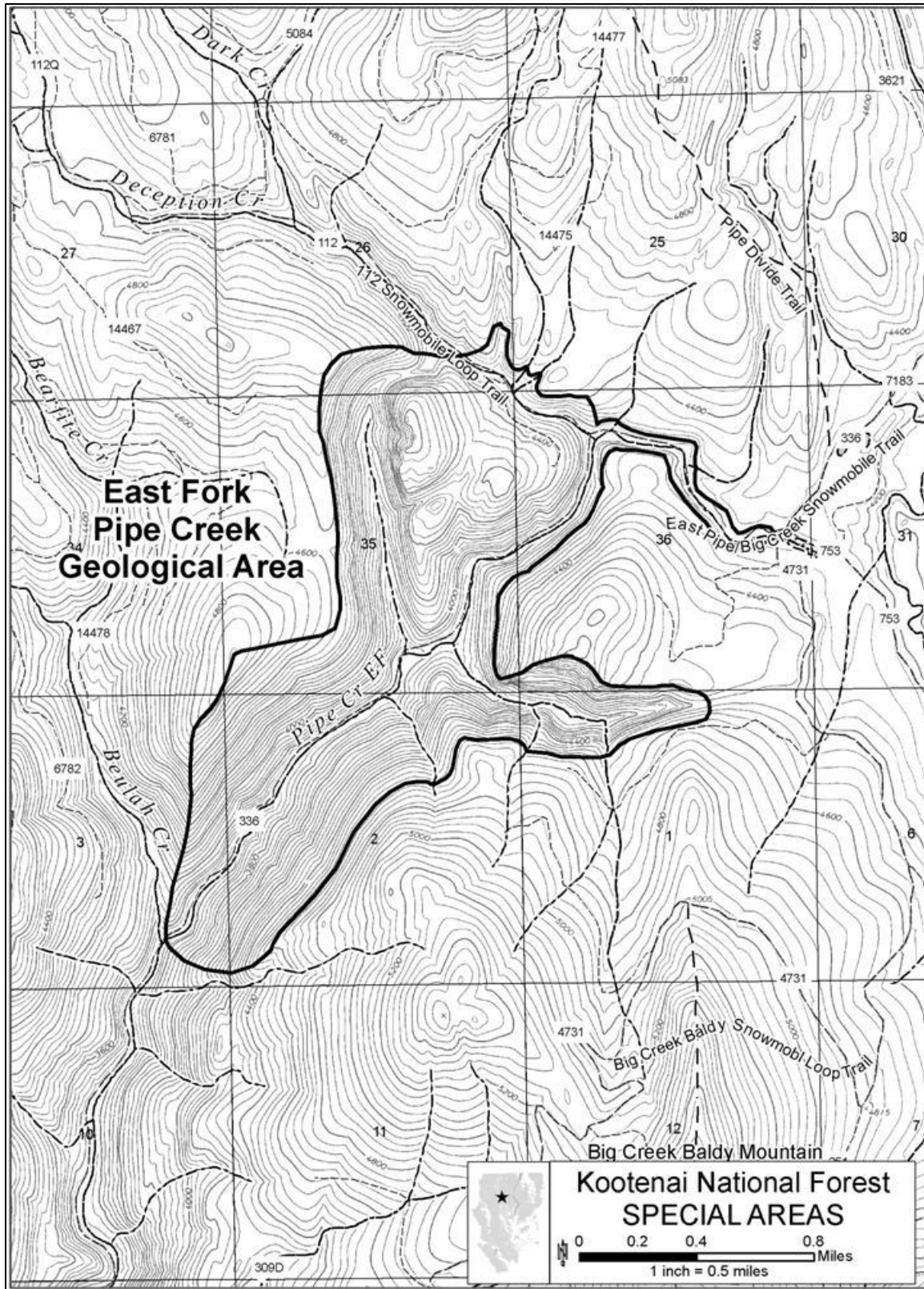


Figure 70. East Fork Pipe Creek Geological Area

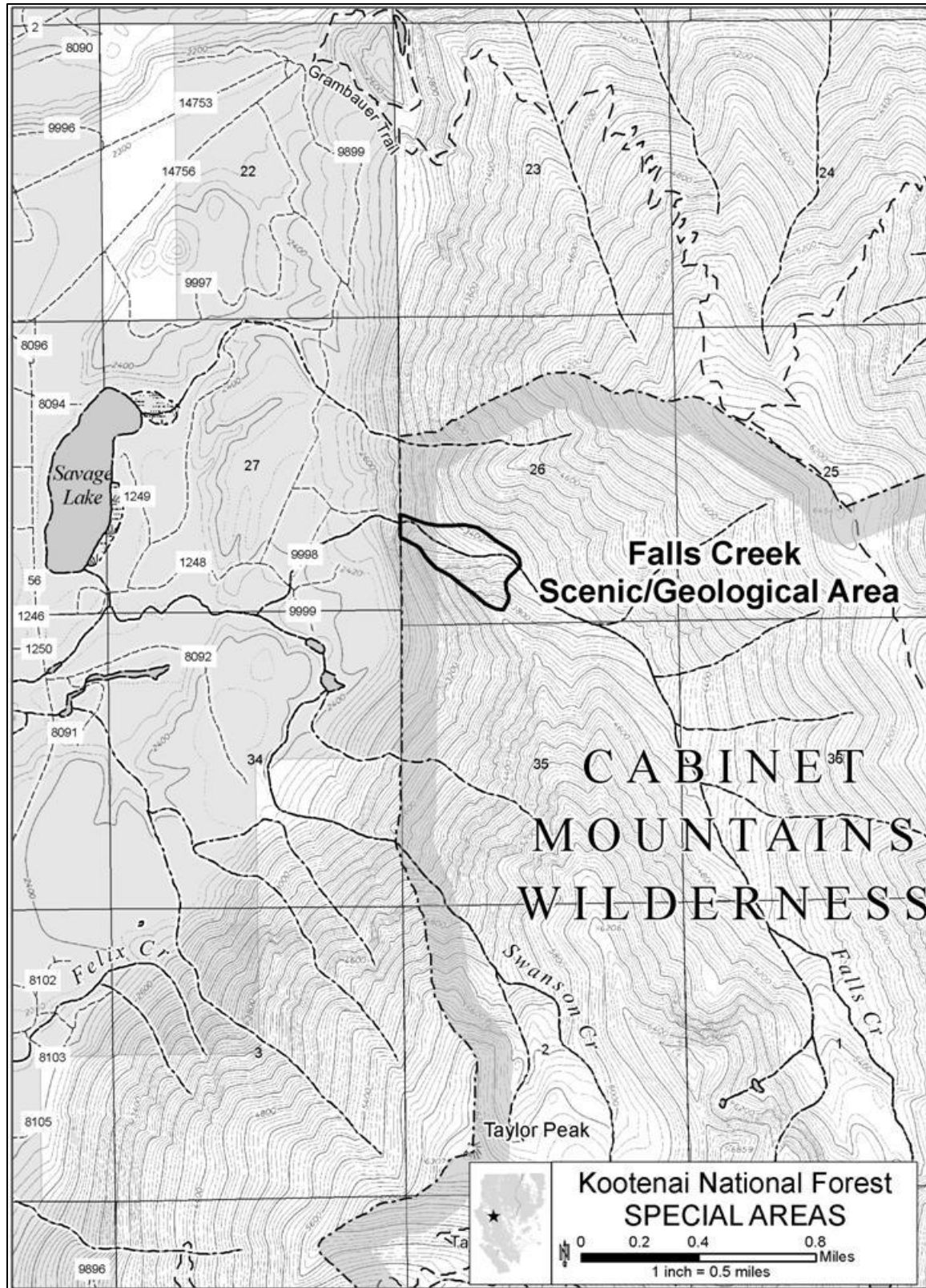


Figure 71. Falls Creek Scenic/Geological Areas

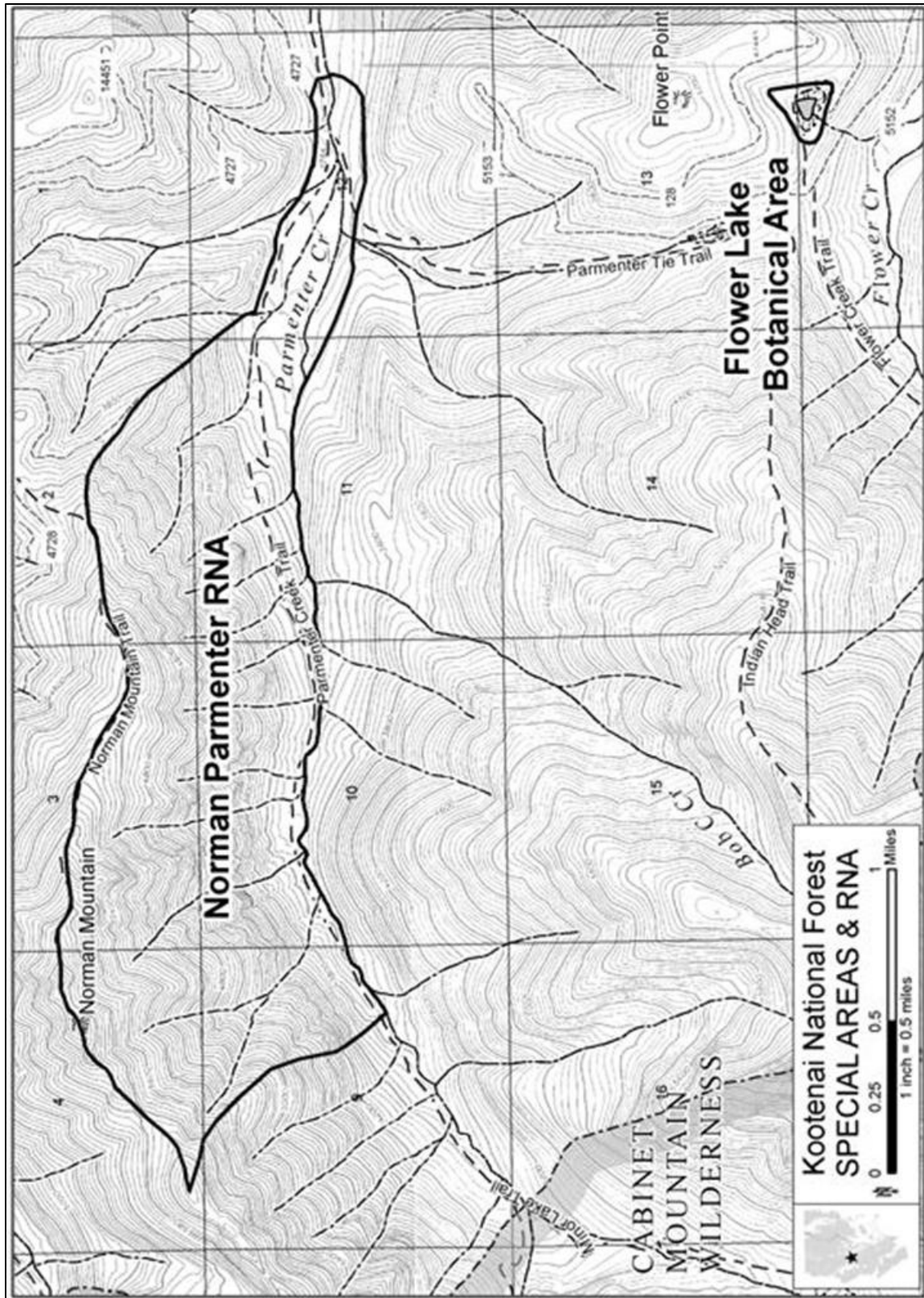


Figure 72. Flower Lake Botanical Area/Norman Parmenter RNA

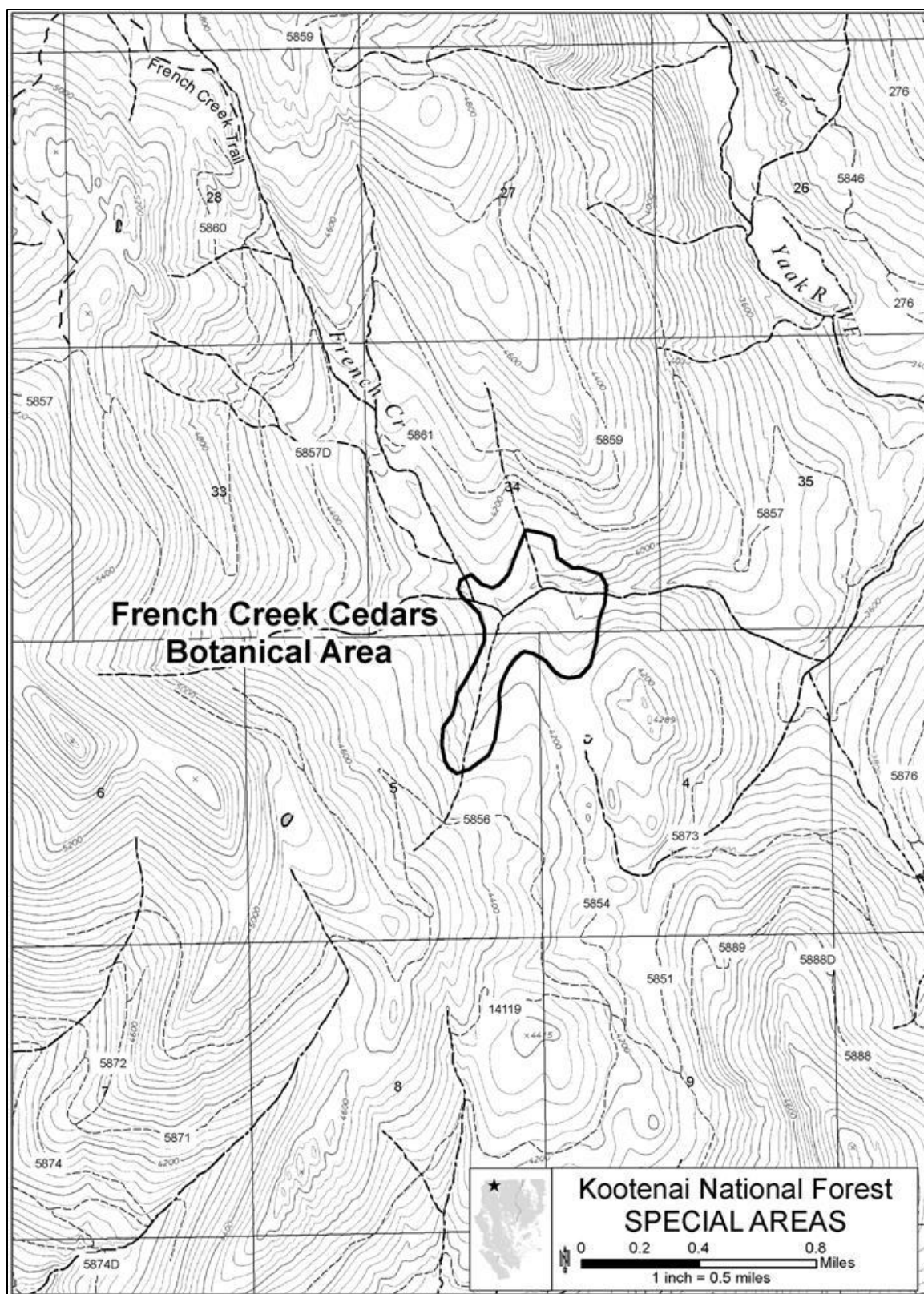


Figure 73. French Creek Cedars Botanical Area

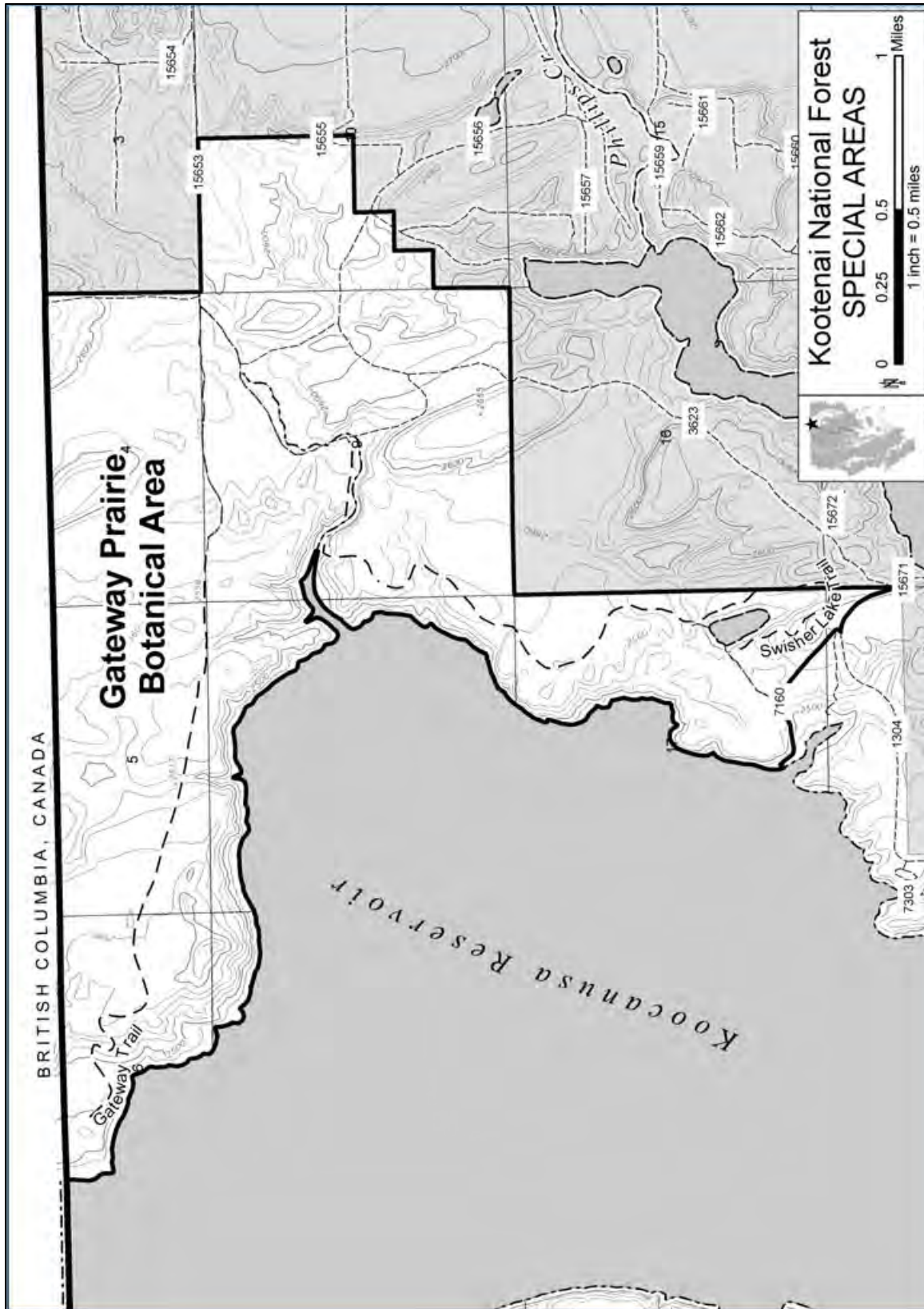


Figure 74. Gateway Prairie Botanical Area

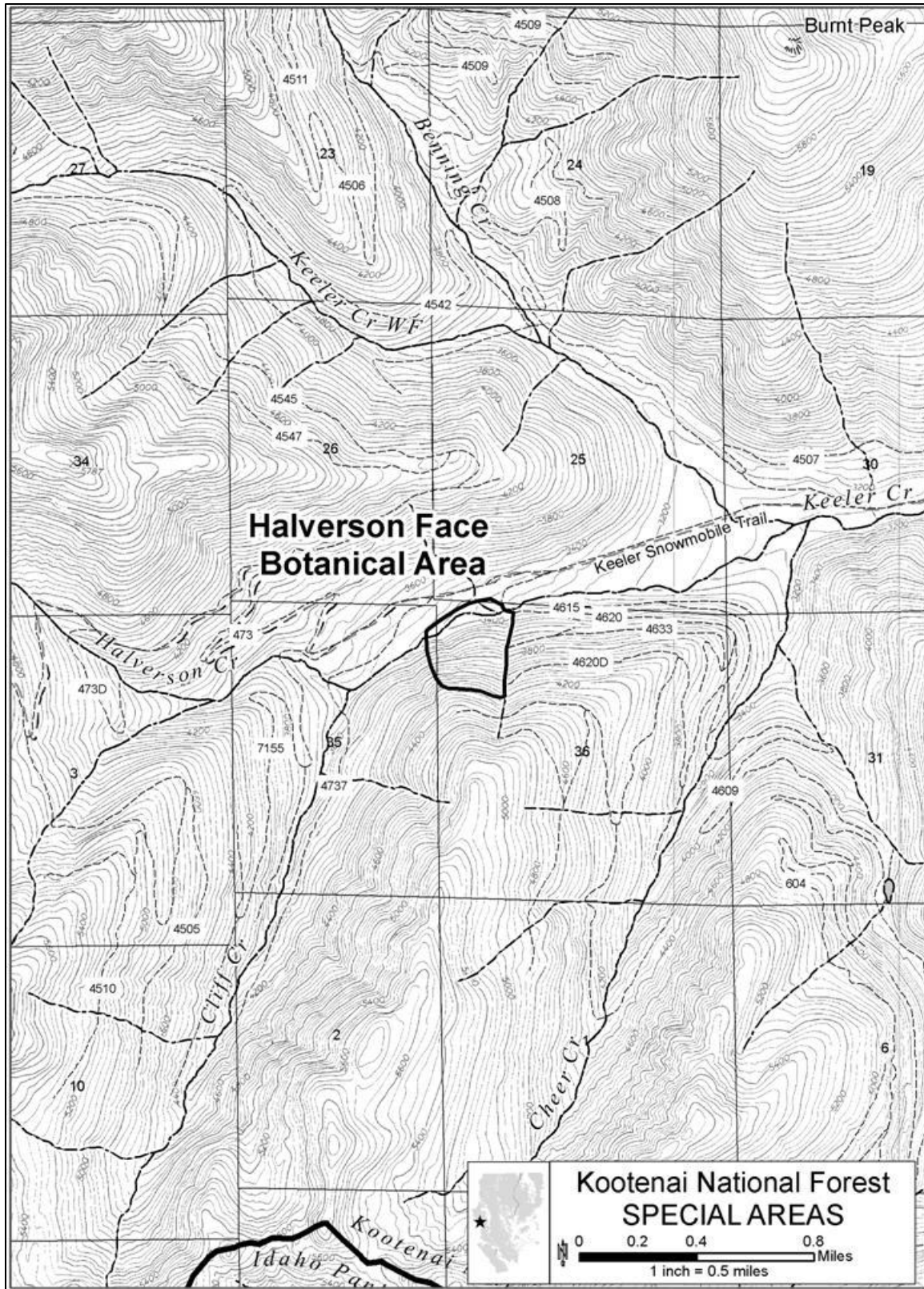


Figure 75. Halverson Face Botanical Area

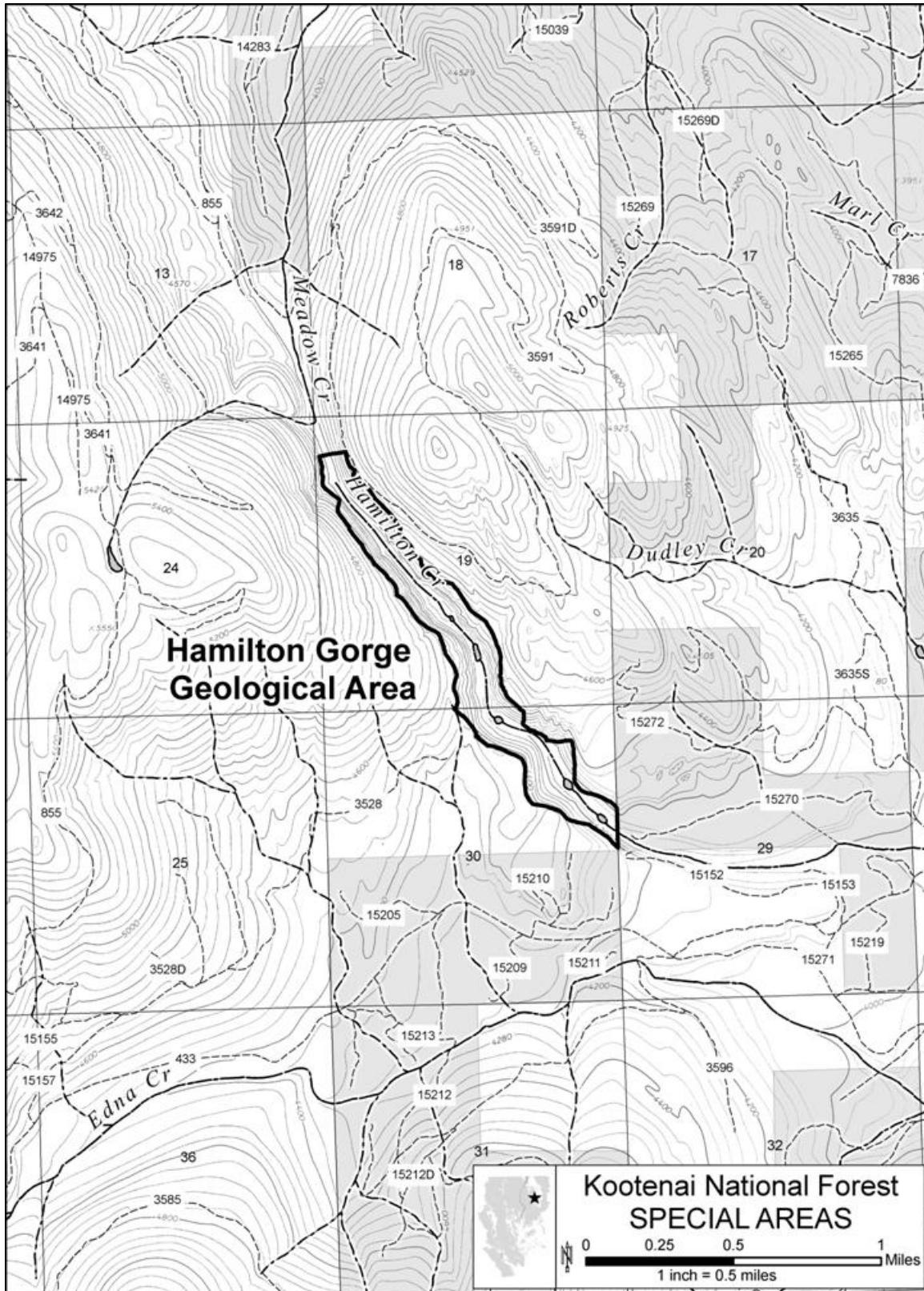


Figure 76. Hamilton Gorge Geological Area

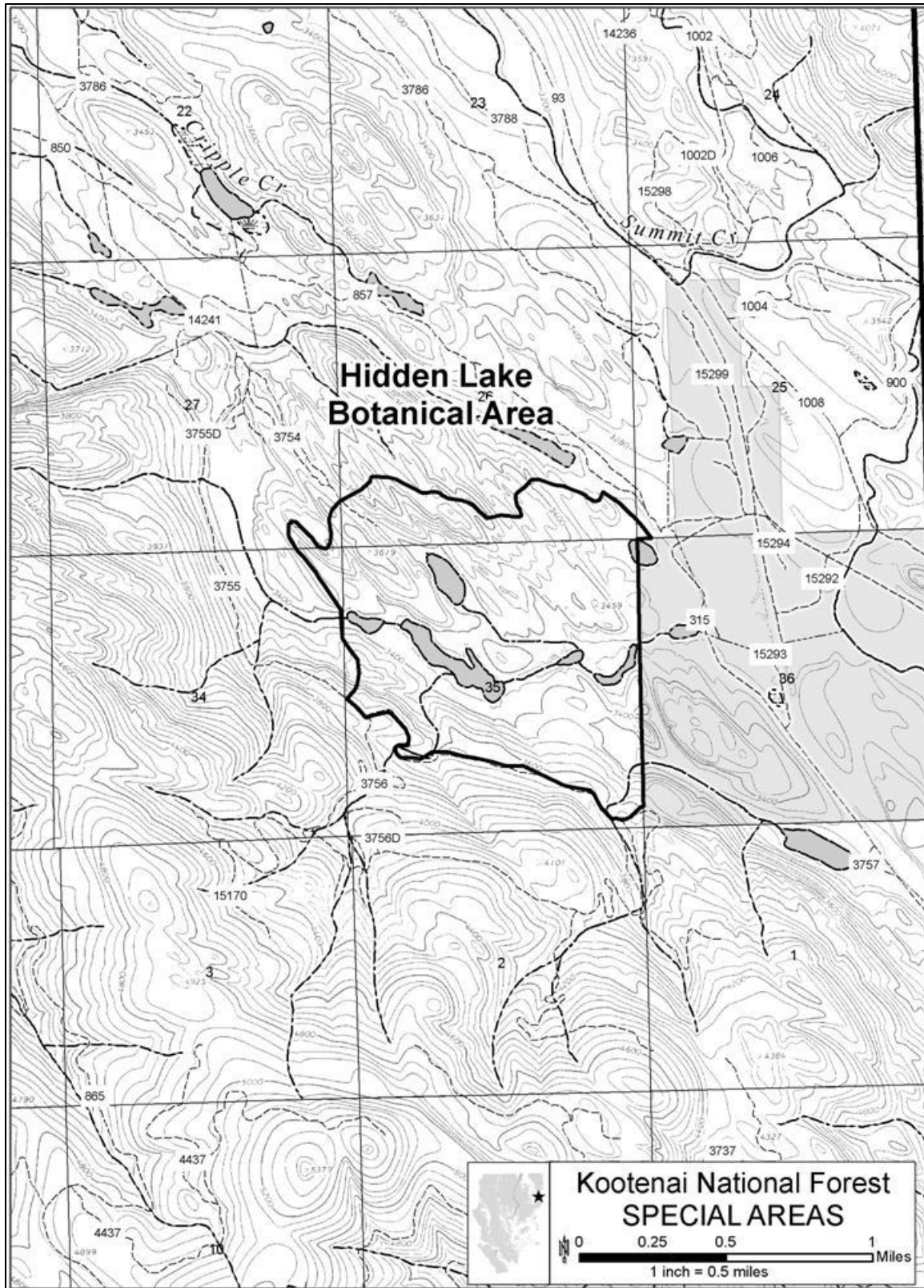


Figure 77. Hidden Lake Botanical Area

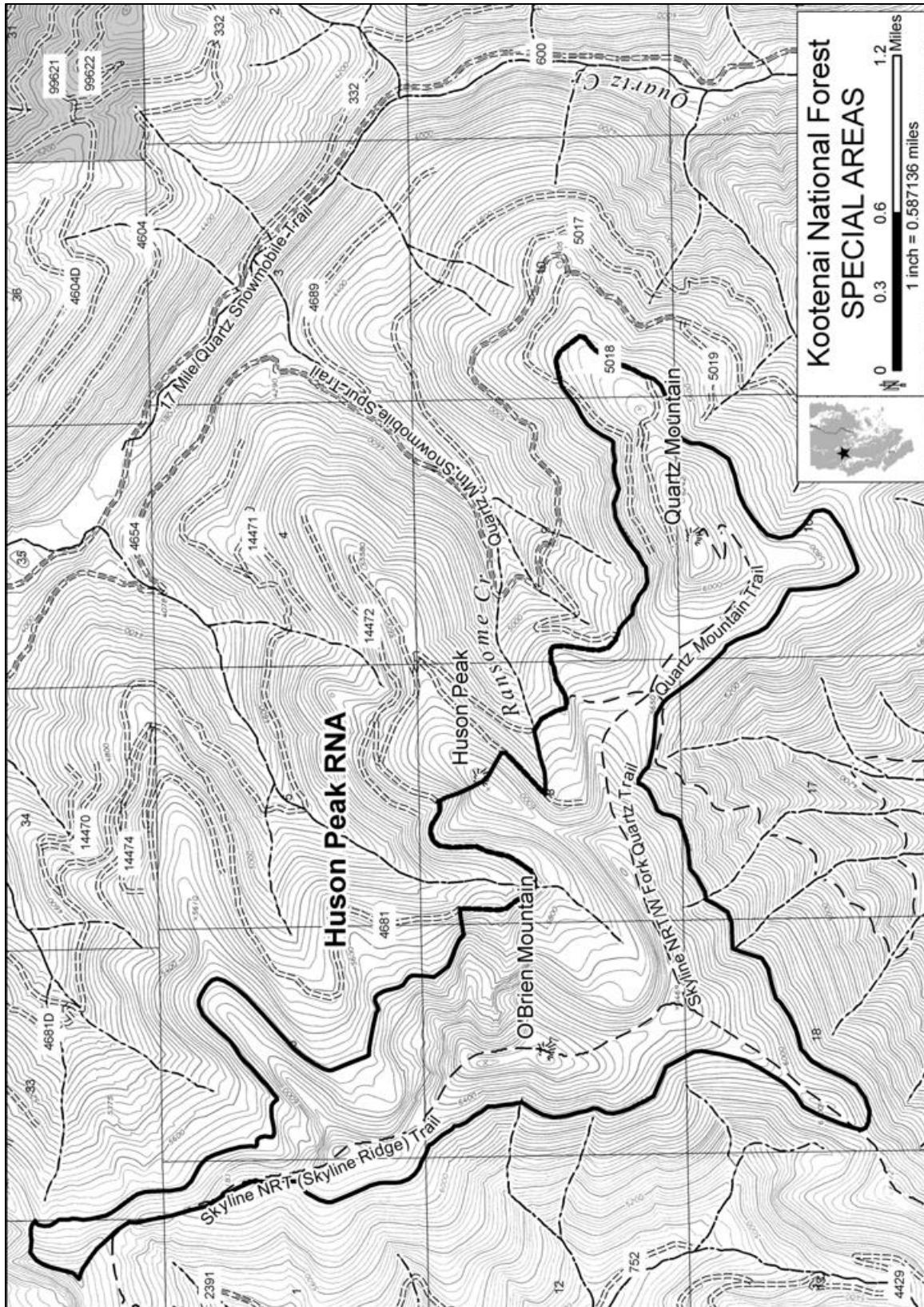


Figure 78. Huson Peak RNA

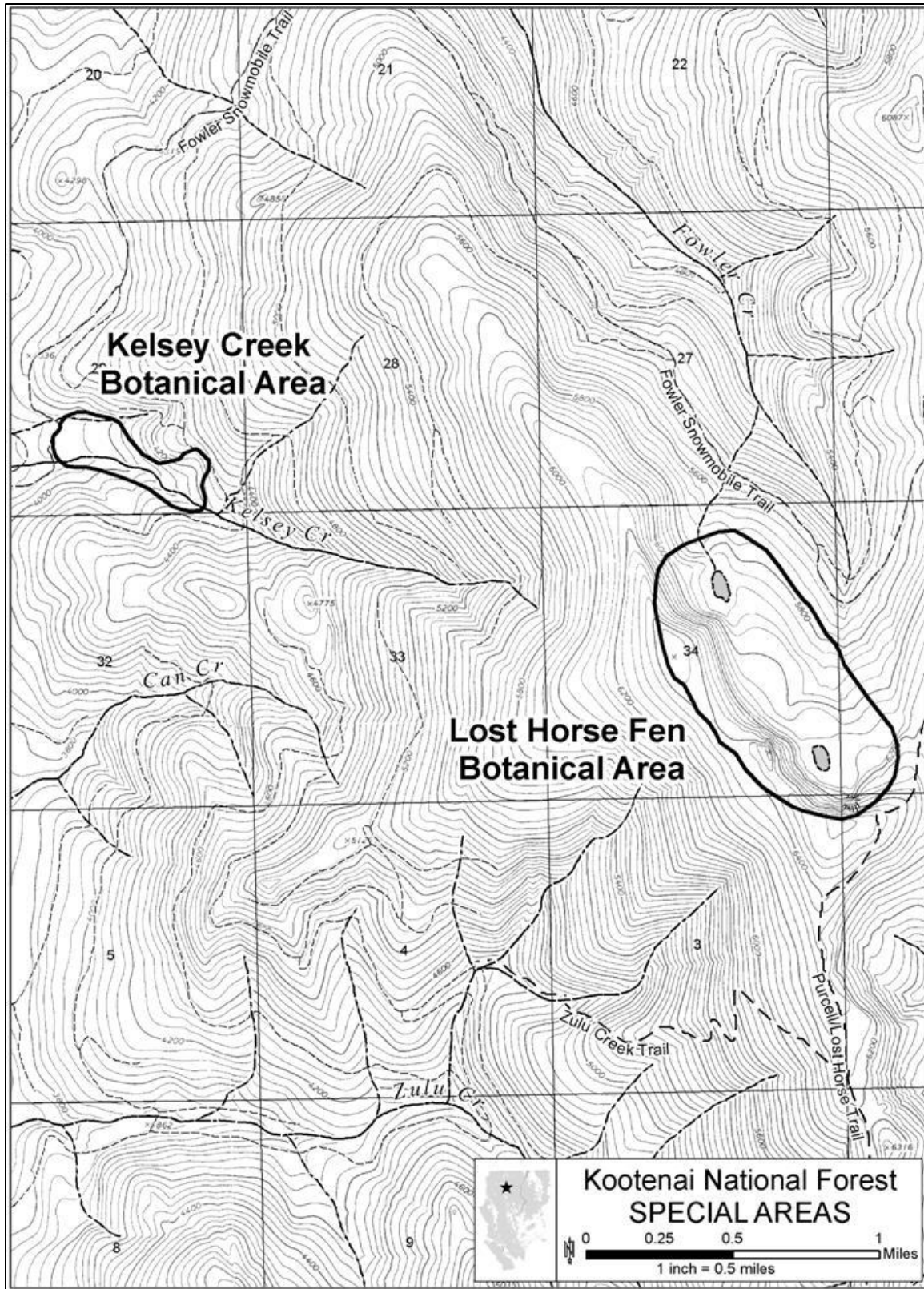


Figure 79. Kelsey Creek Botanical Area/Lost Horse Fen Botanical Area

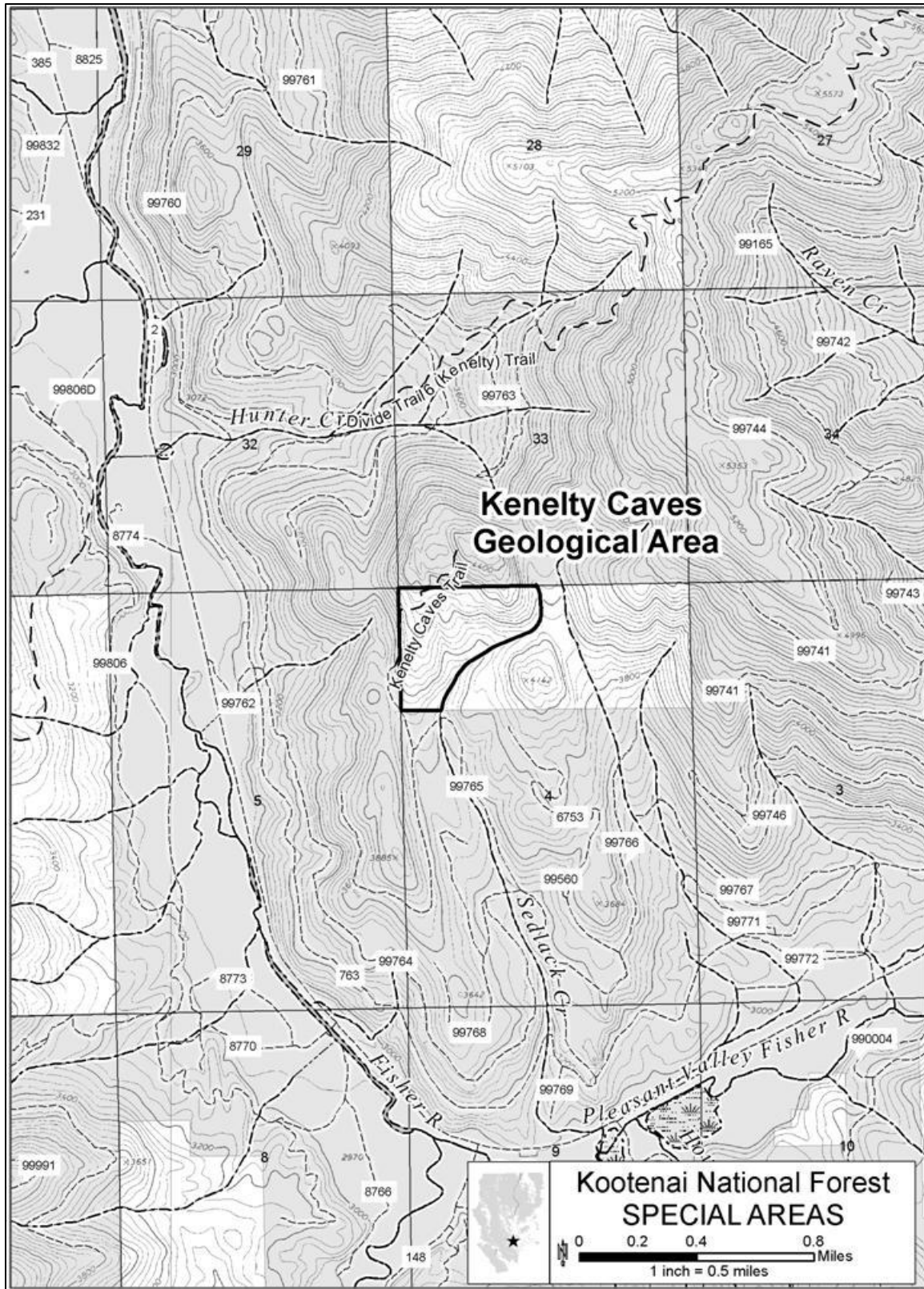


Figure 80. Kenelty Caves Geological Area

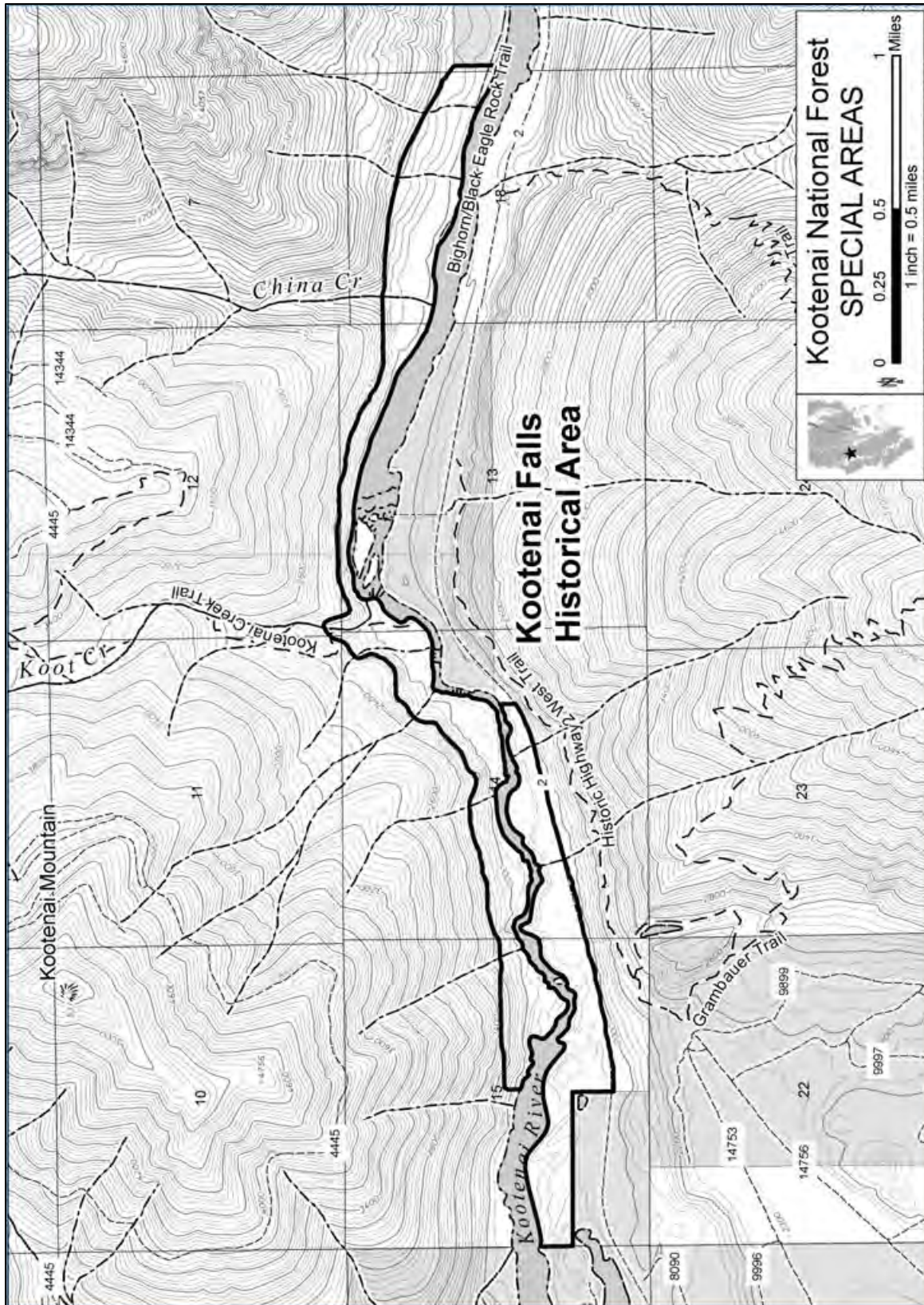


Figure 81. Kootenai Falls Historical Area

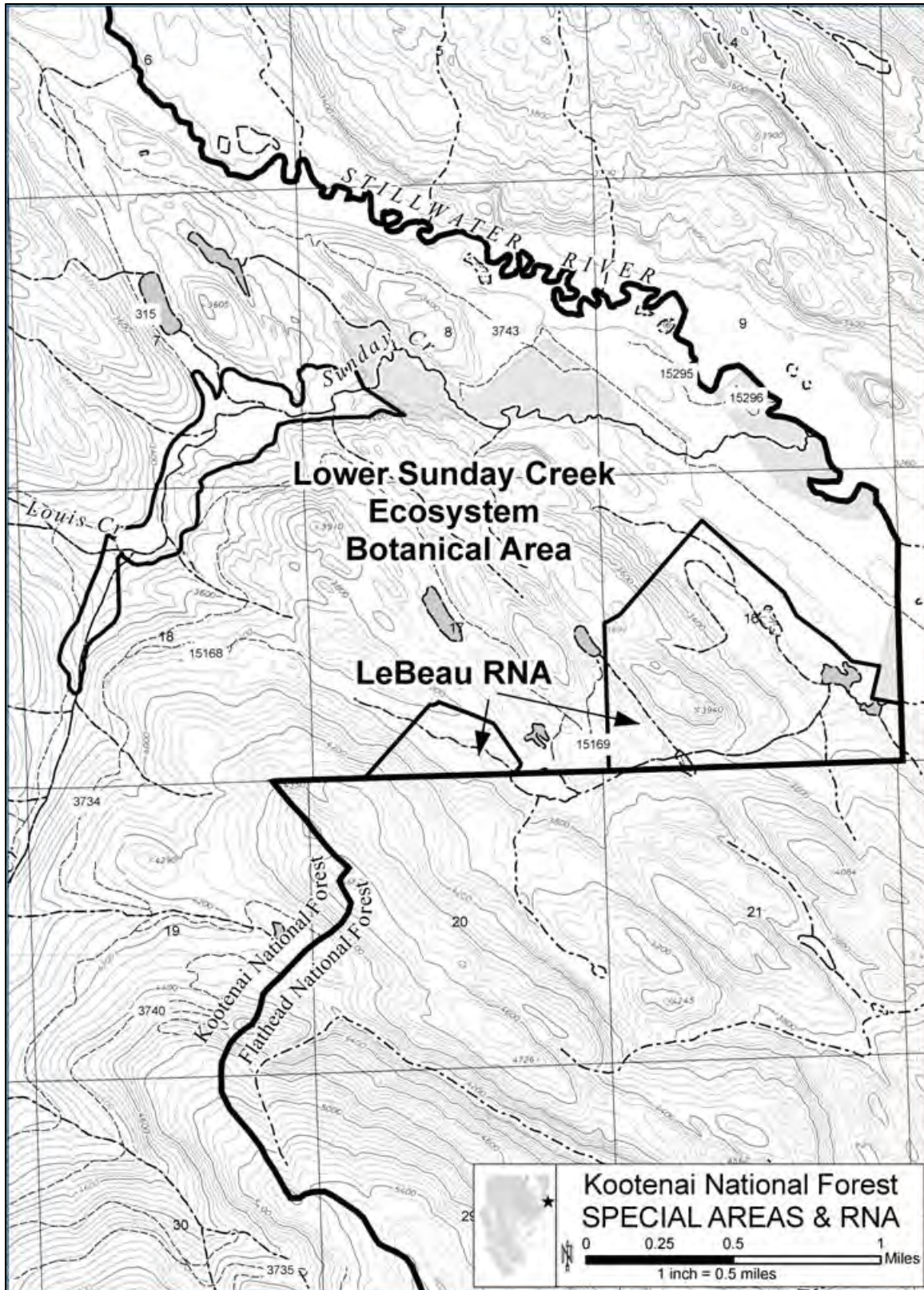


Figure 82. Lower Sunday Creek Ecosystem Botanical Area/LeBeau RNA

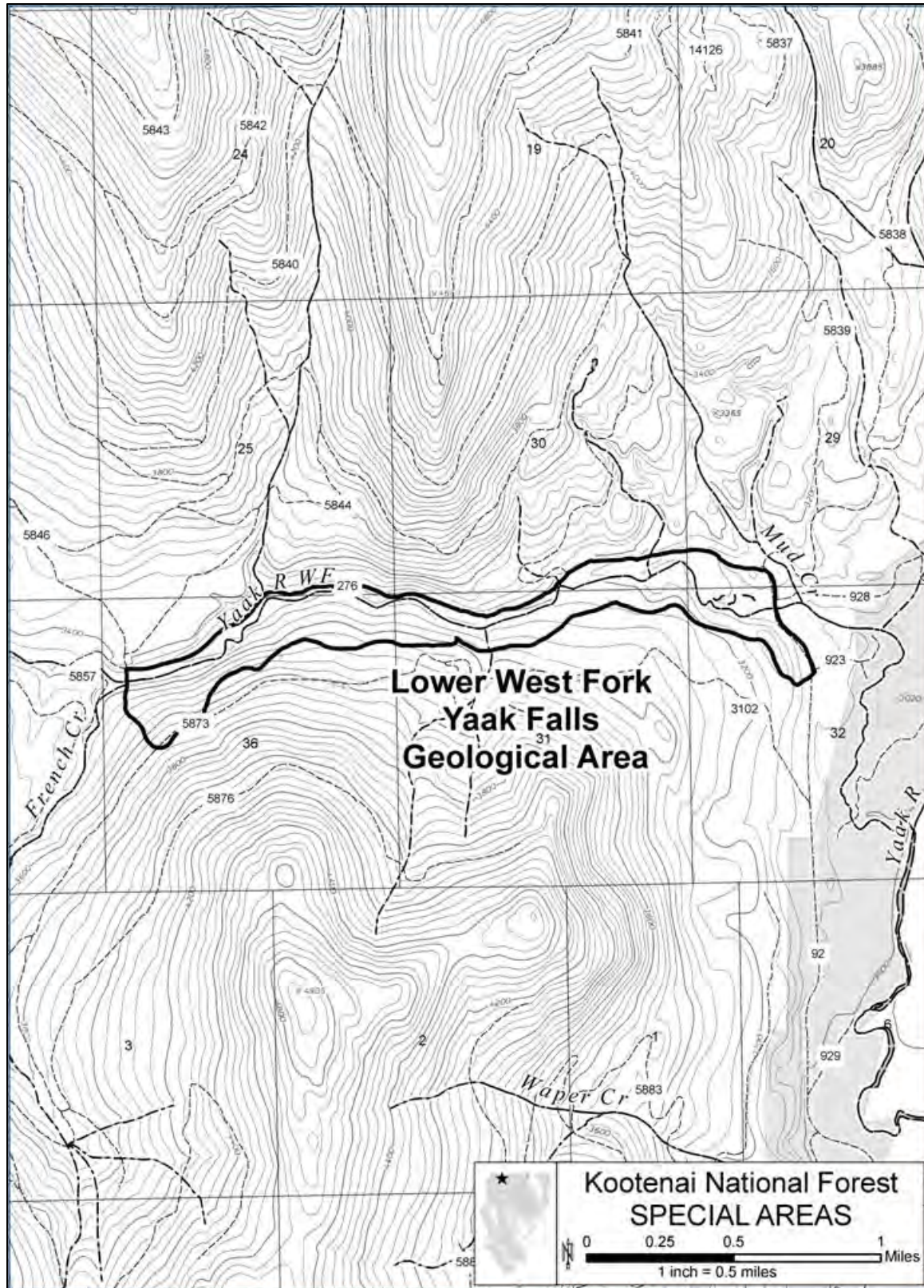


Figure 83. Lower West Fork Yaak Falls Geological Area

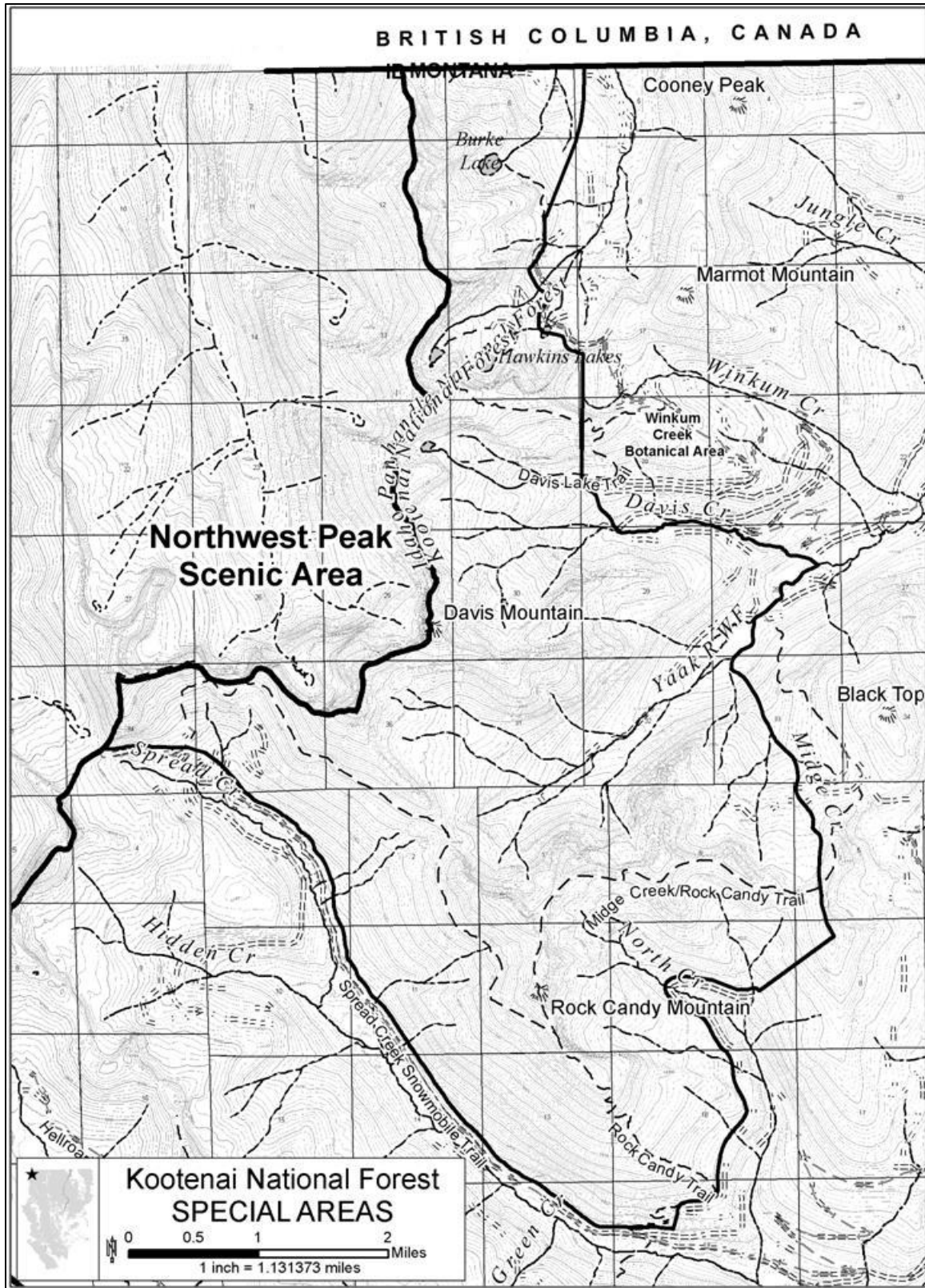


Figure 84. Northwest Peak Scenic Area

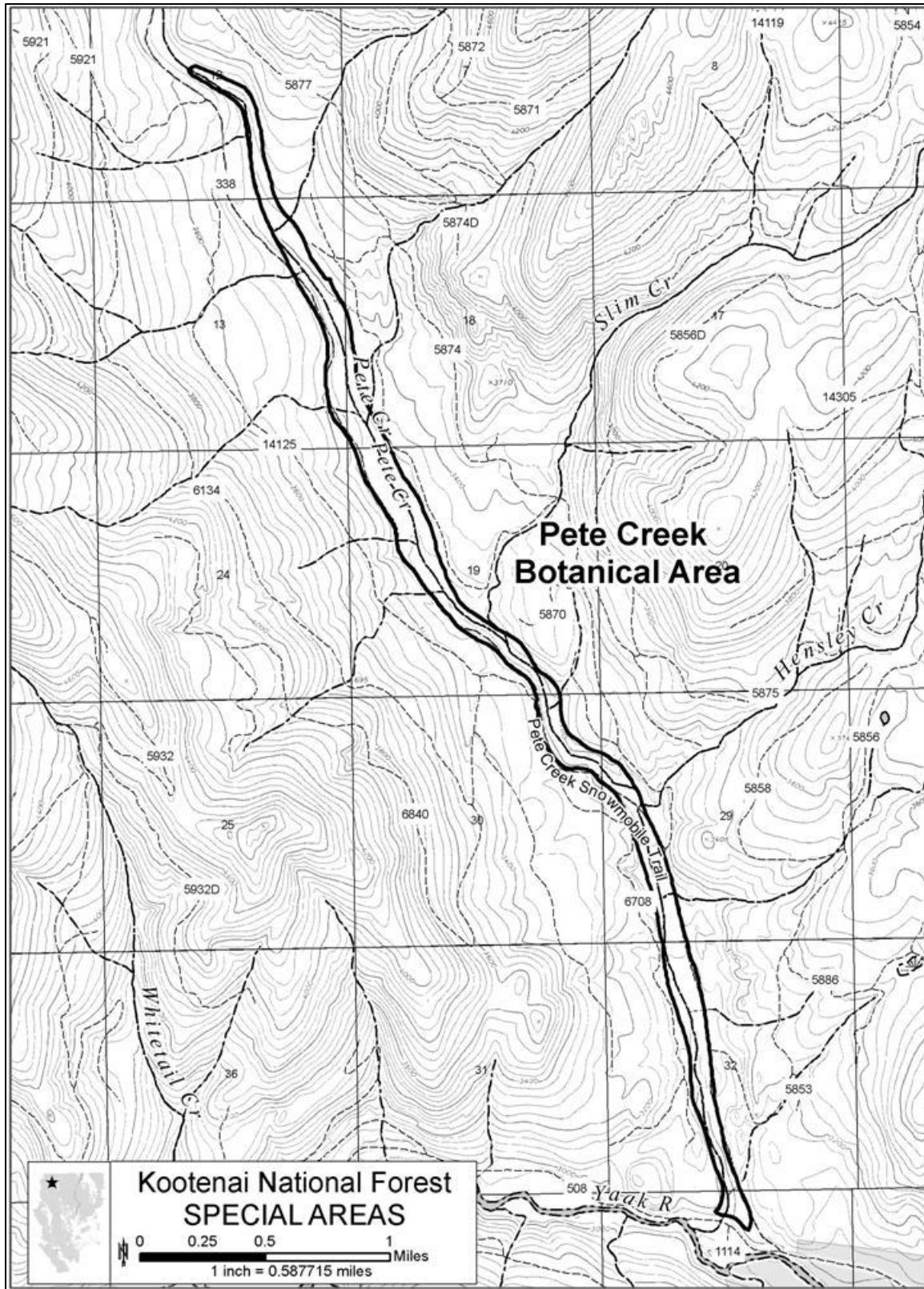


Figure 85. Pete Creek Botanical Area

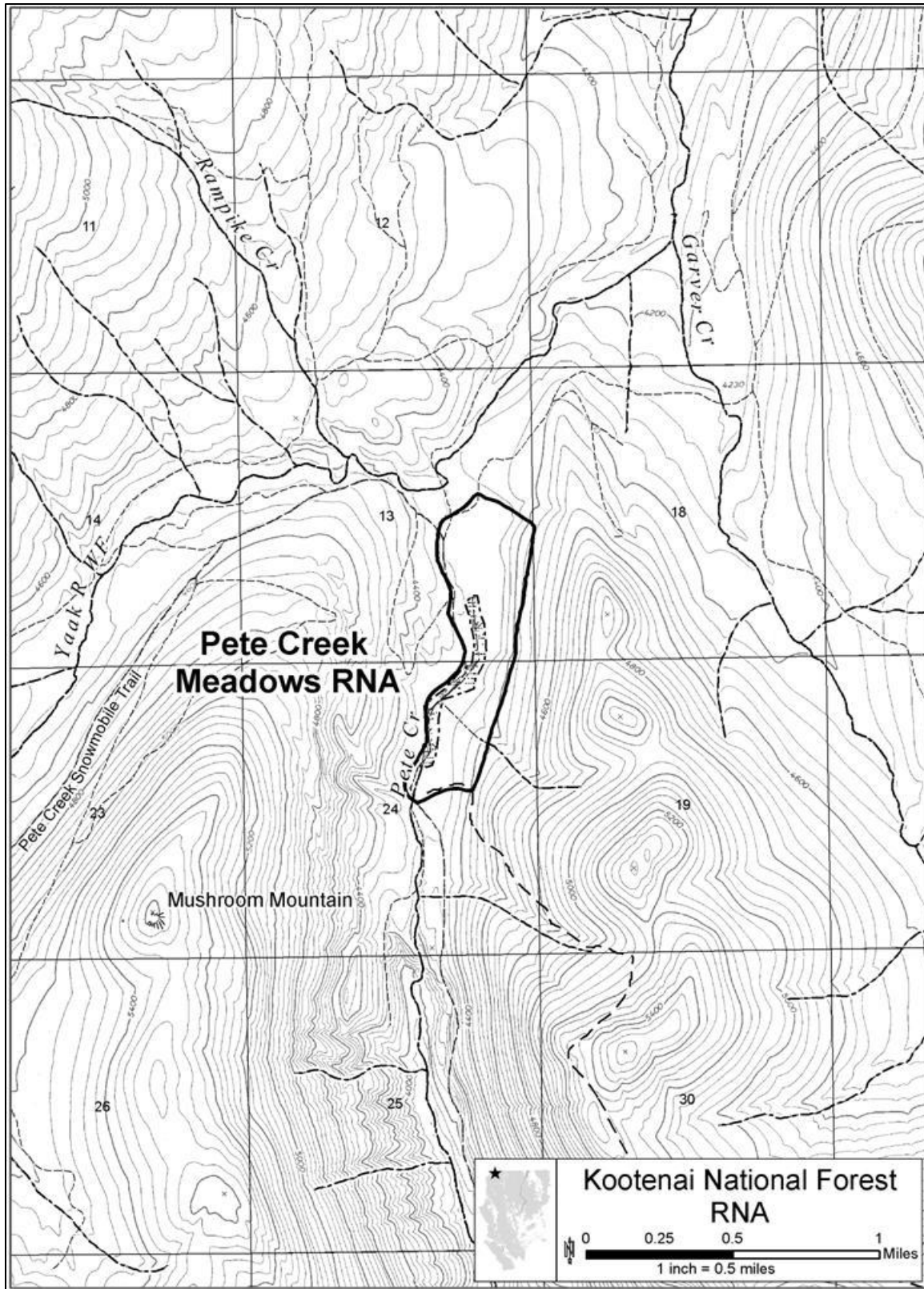


Figure 86. Pete Creek Meadows RNA

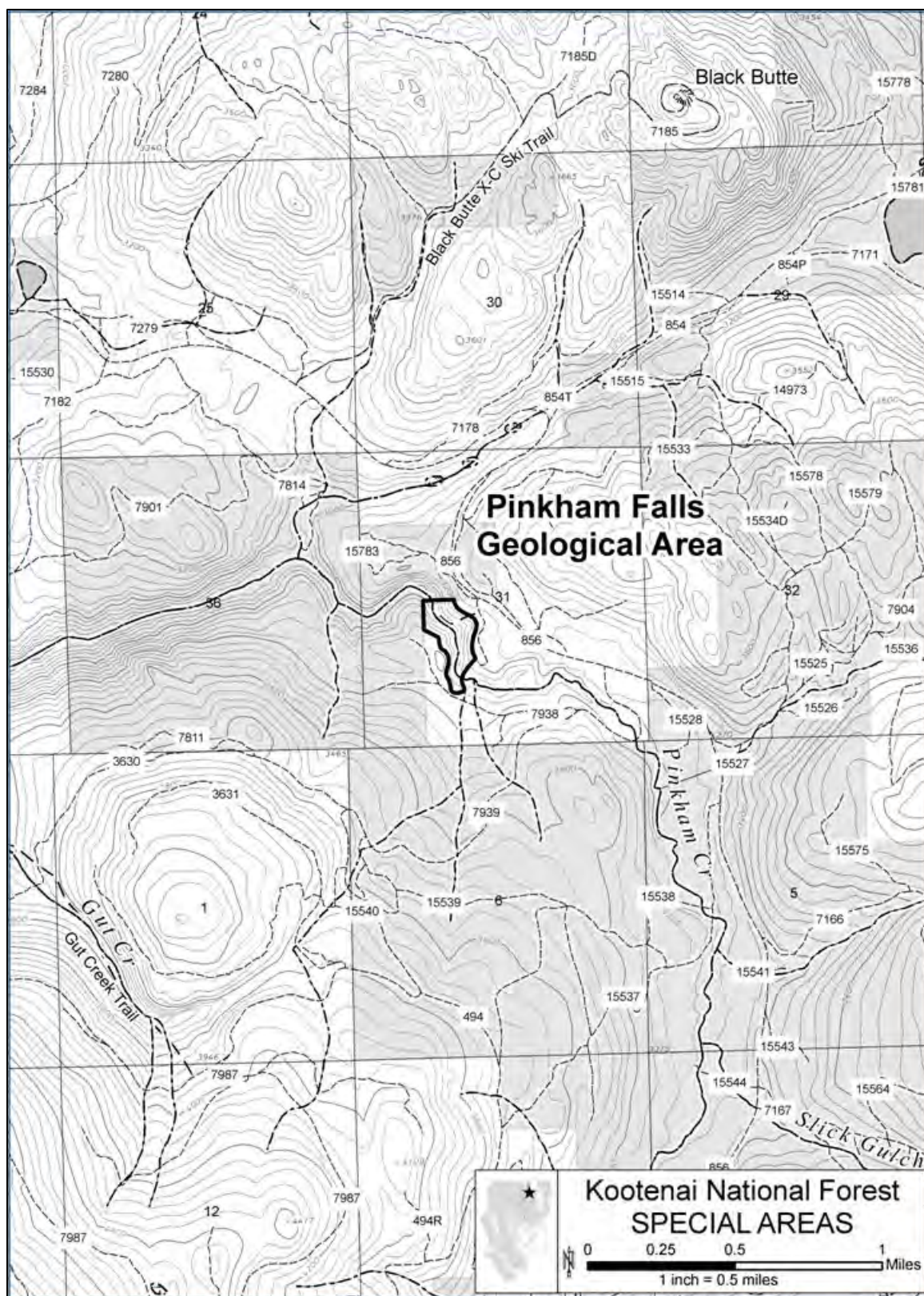


Figure 87. Pinkham Falls Geological Area

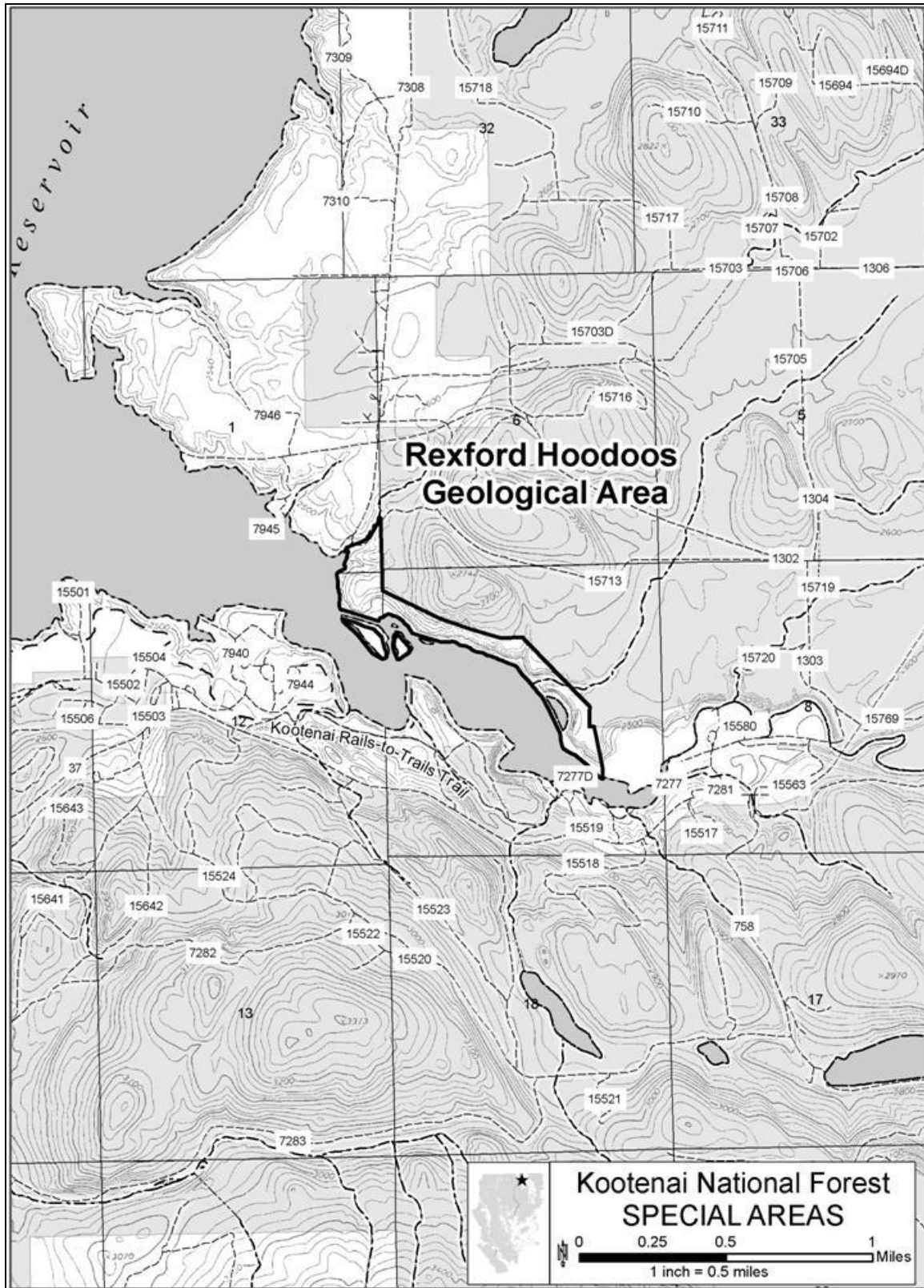


Figure 88. Rexford Hoodoos Geological Area

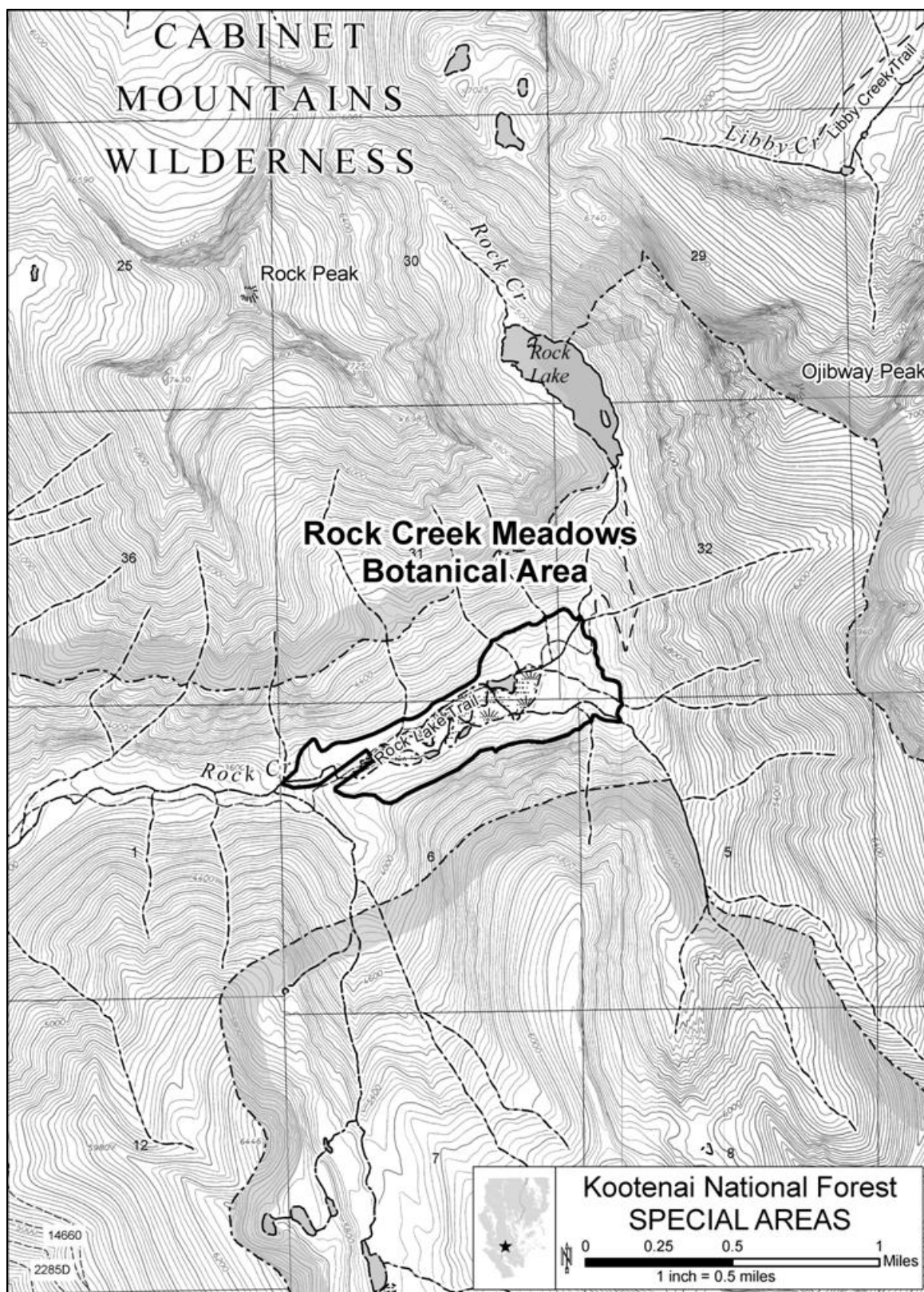


Figure 89. Rock Creek Meadows Botanical Area



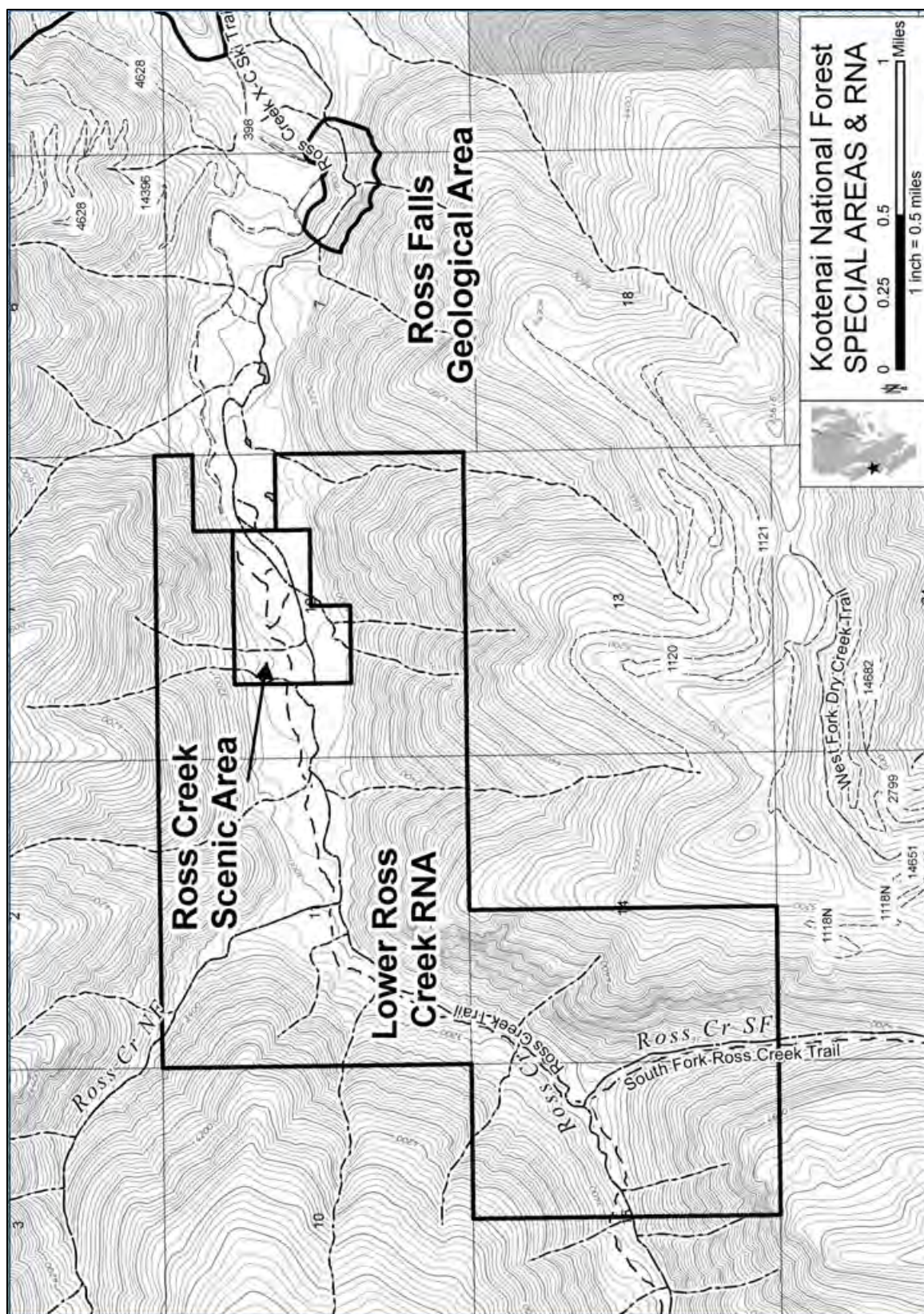


Figure 91. Ross Falls Geological Area/Ross Creek Scenic Area/Lower Ross Creek RNA

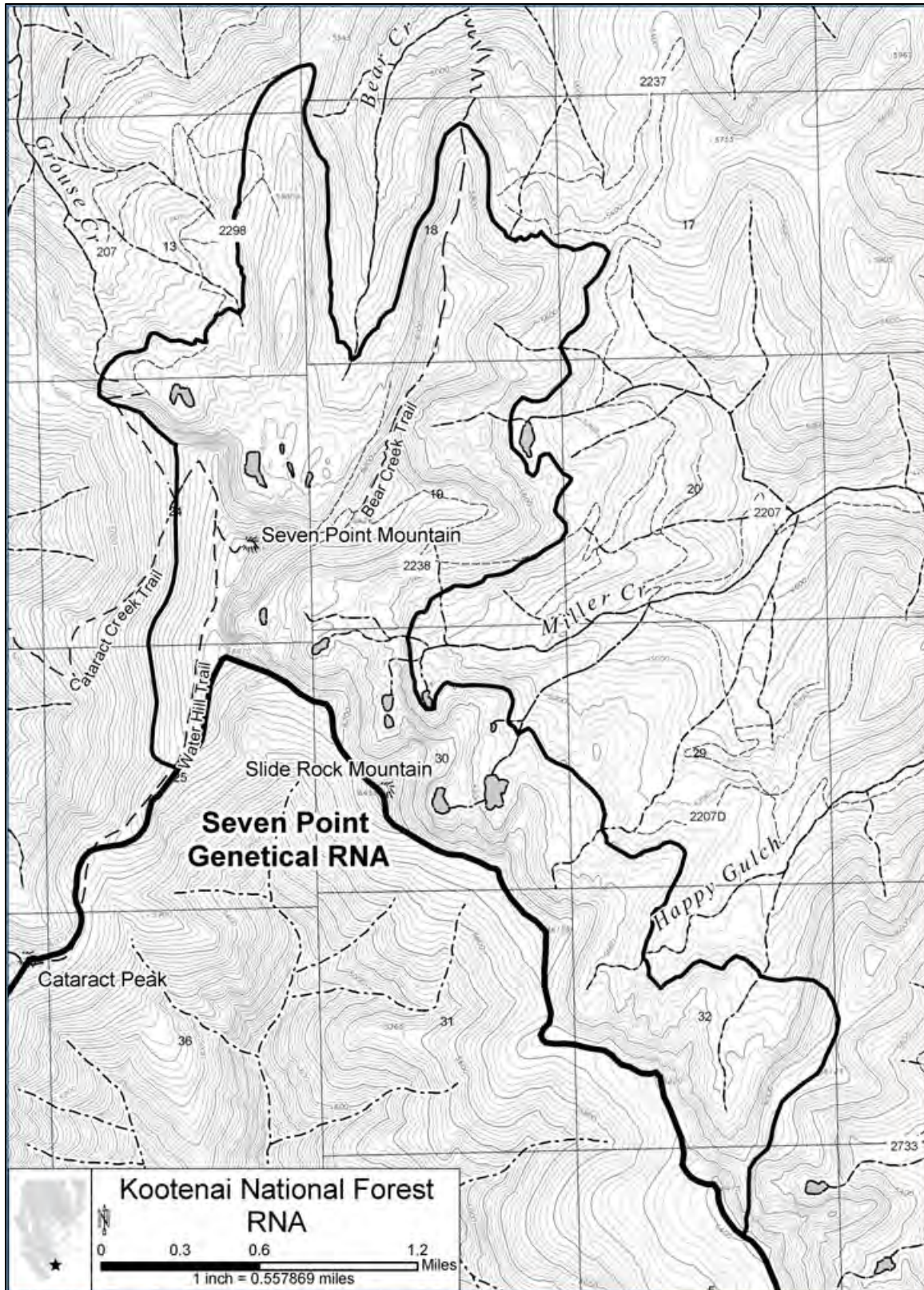


Figure 92. Seven Point Genetical RNA

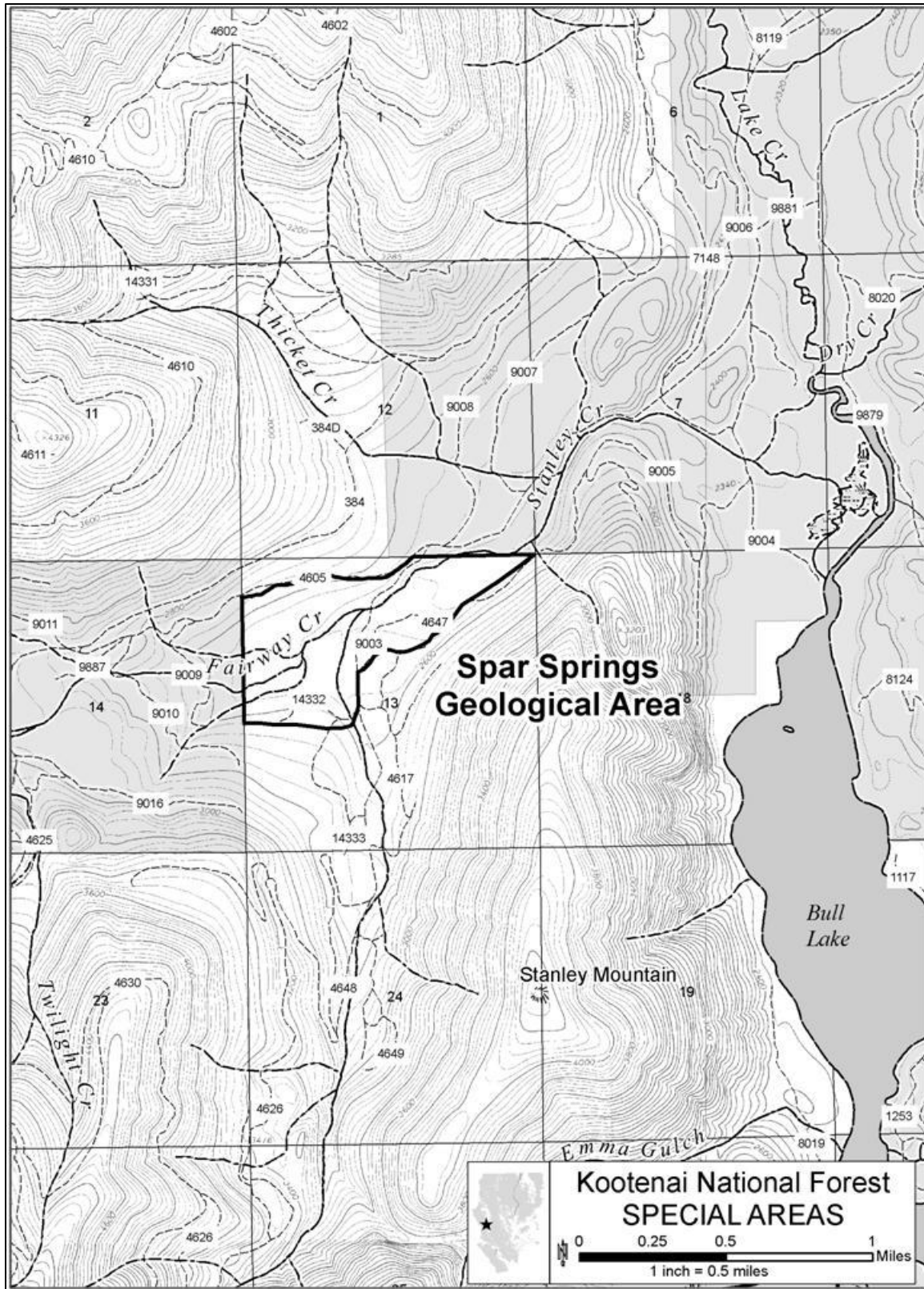


Figure 93. Spar Springs Geological Area

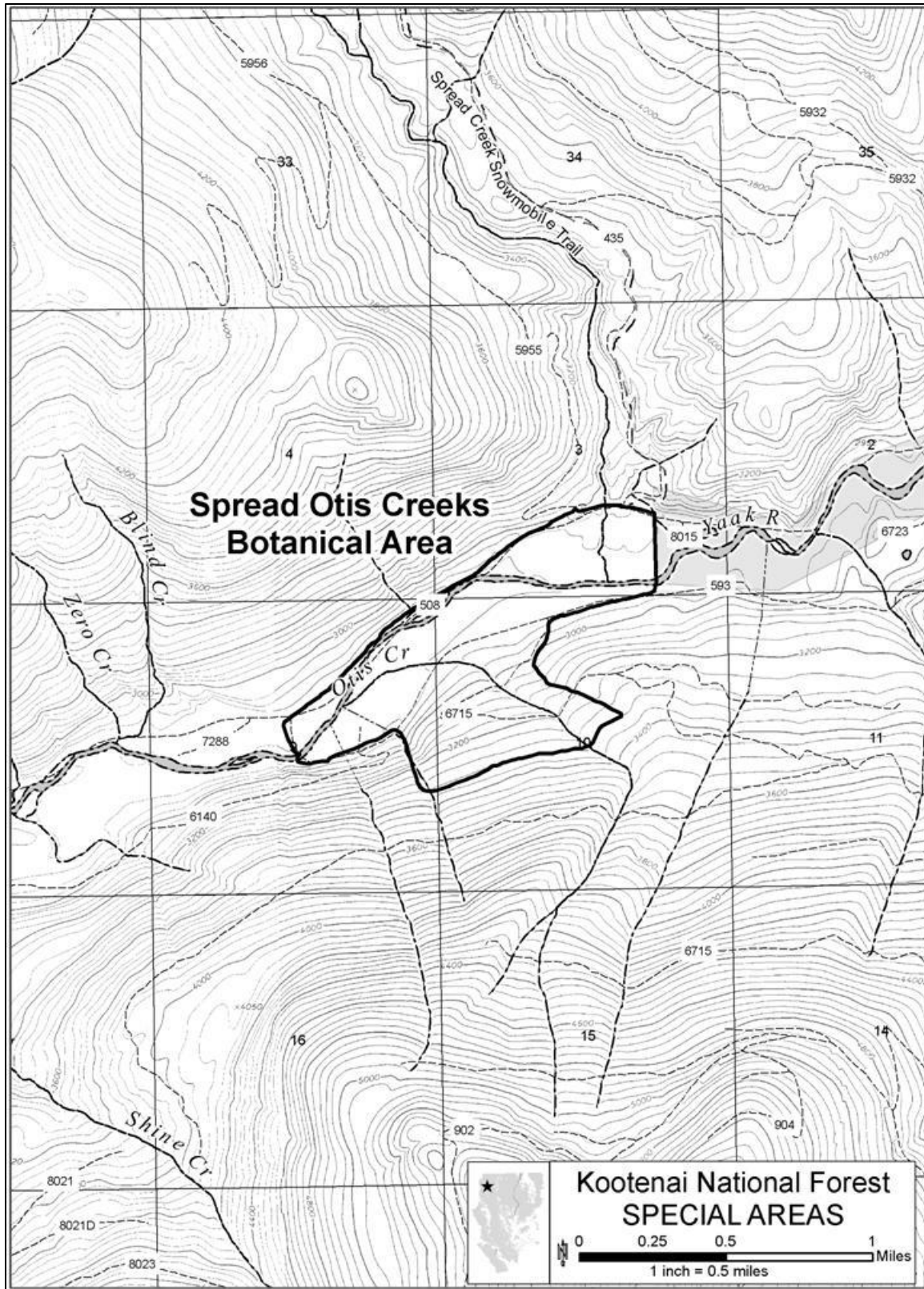


Figure 94. Spread Otis Creeks Botanical Area

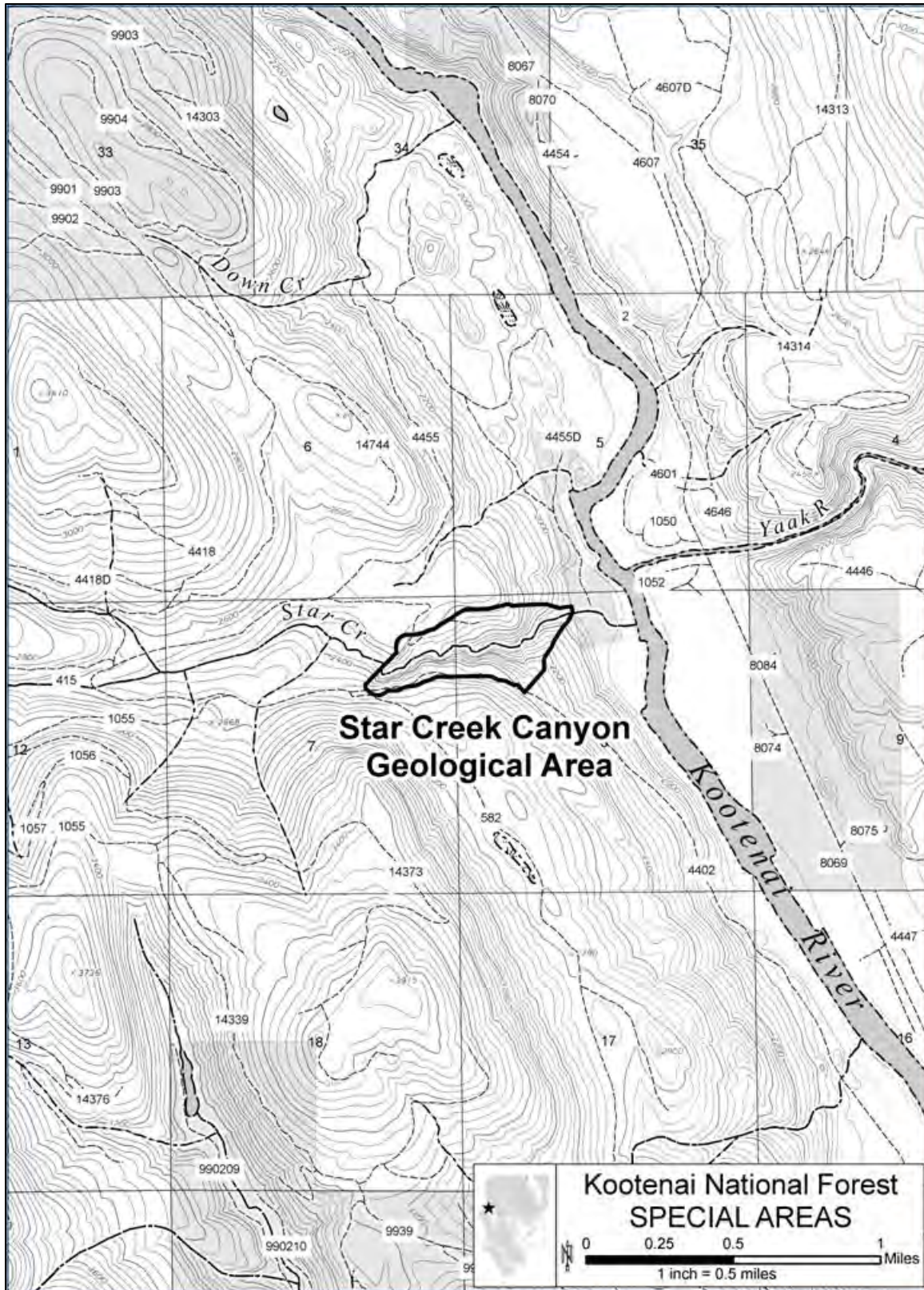


Figure 95. Star Creek Canyon Geological Area

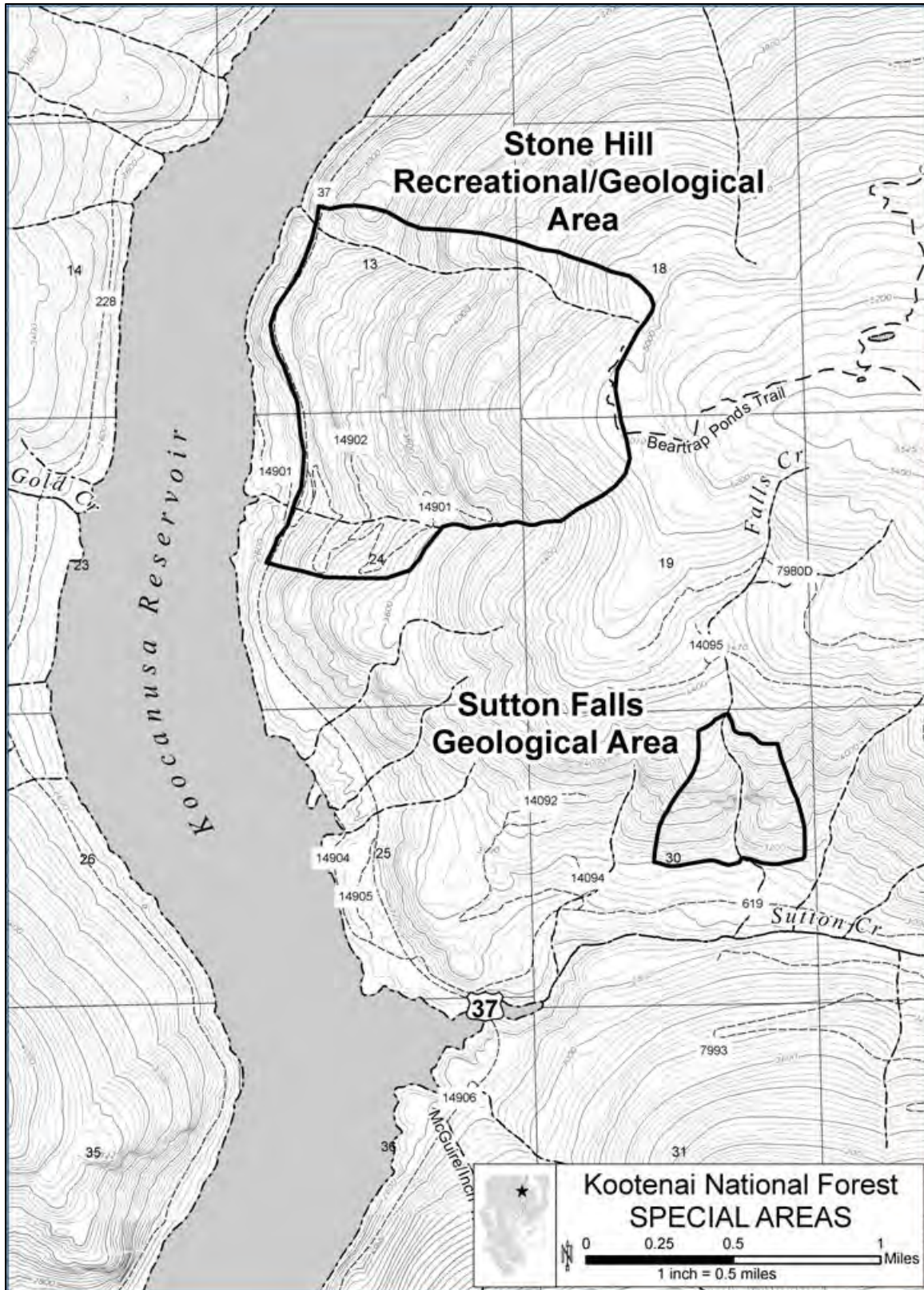


Figure 96. Stone Hill Recreational/Geological Area/Sutton Falls Geological Area

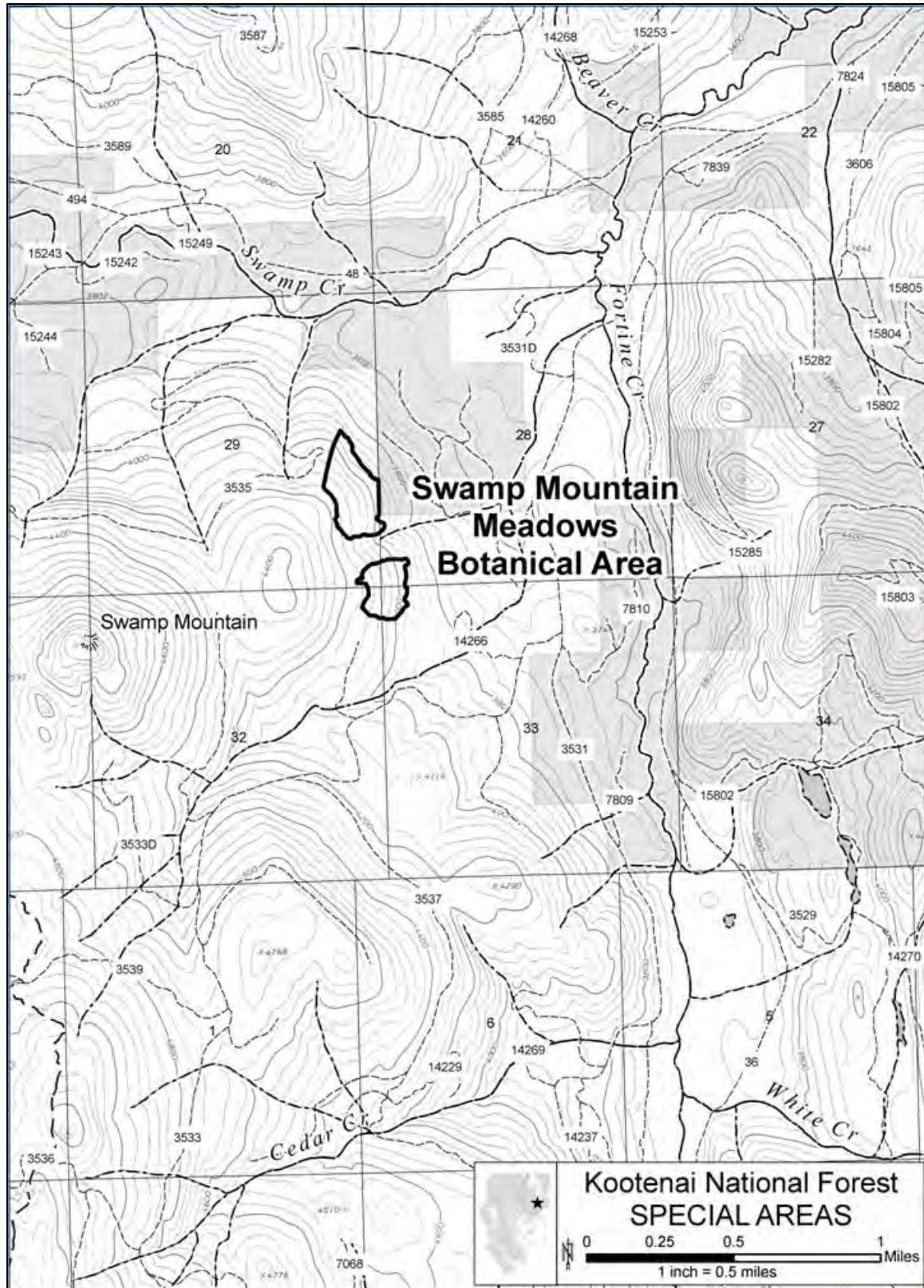


Figure 97. Swamp Mountain Meadows Botanical Area

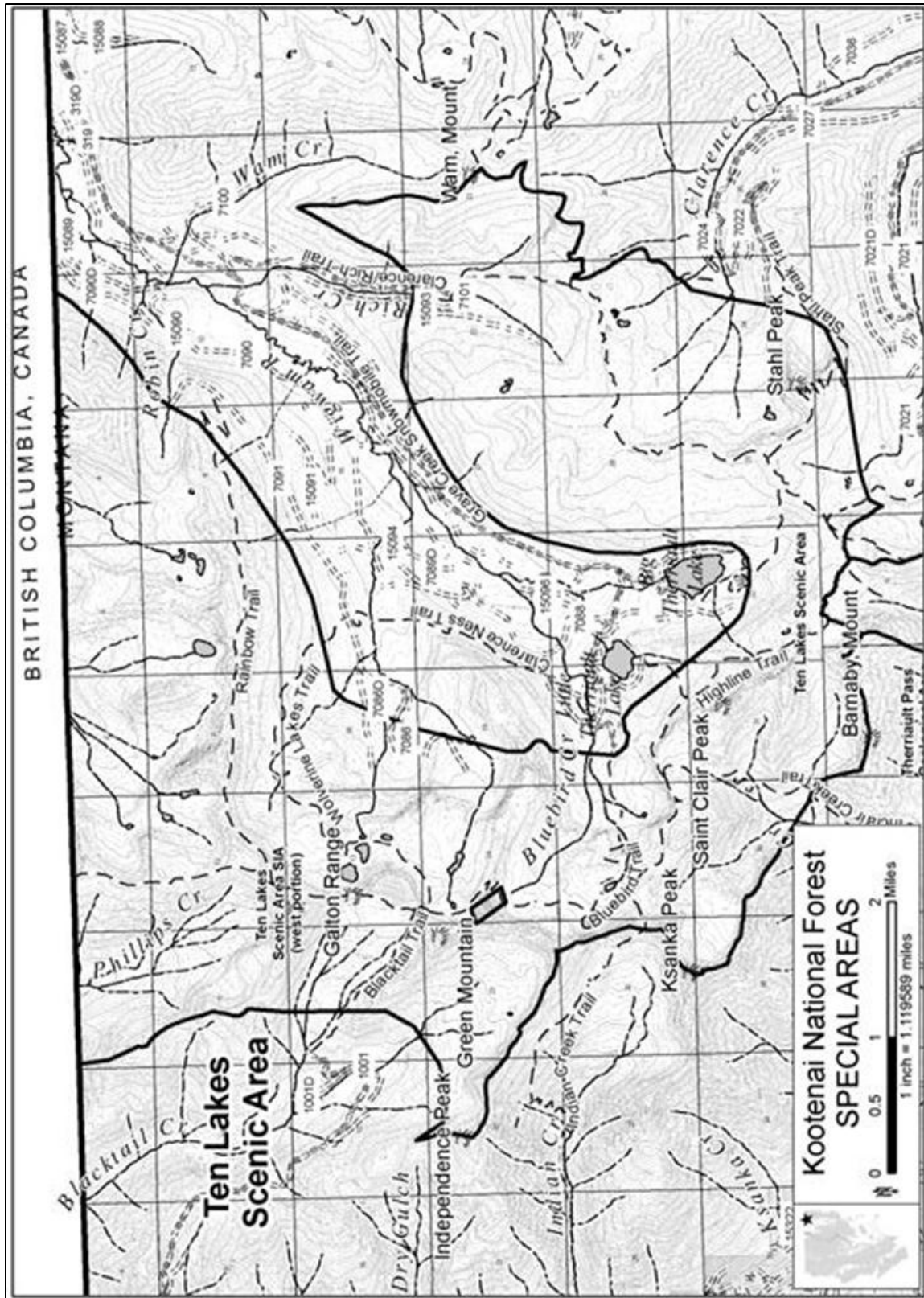


Figure 98. Ten Lakes Scenic Area

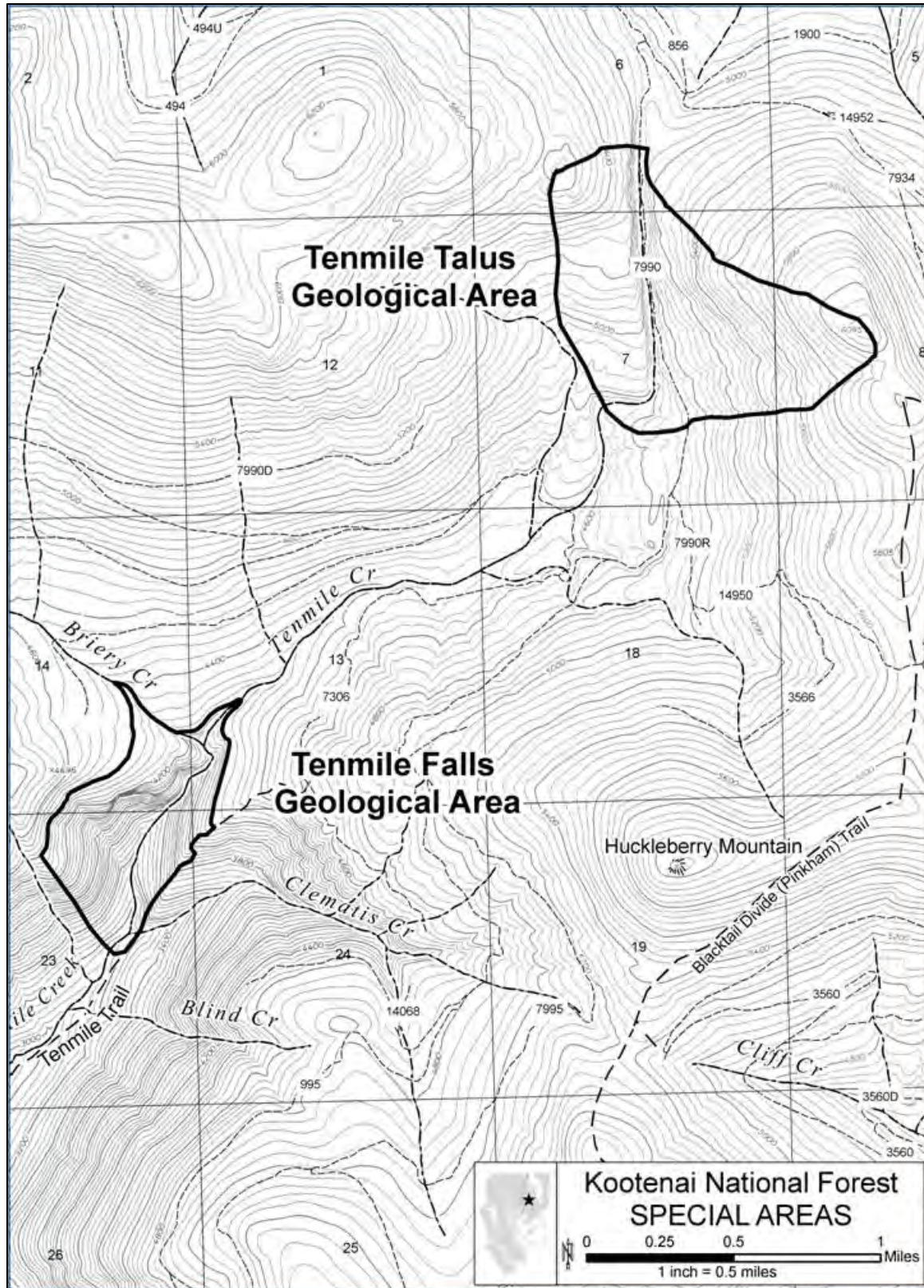


Figure 99. Tenmile Falls Geological Area/Tenmile Talus Geological Area

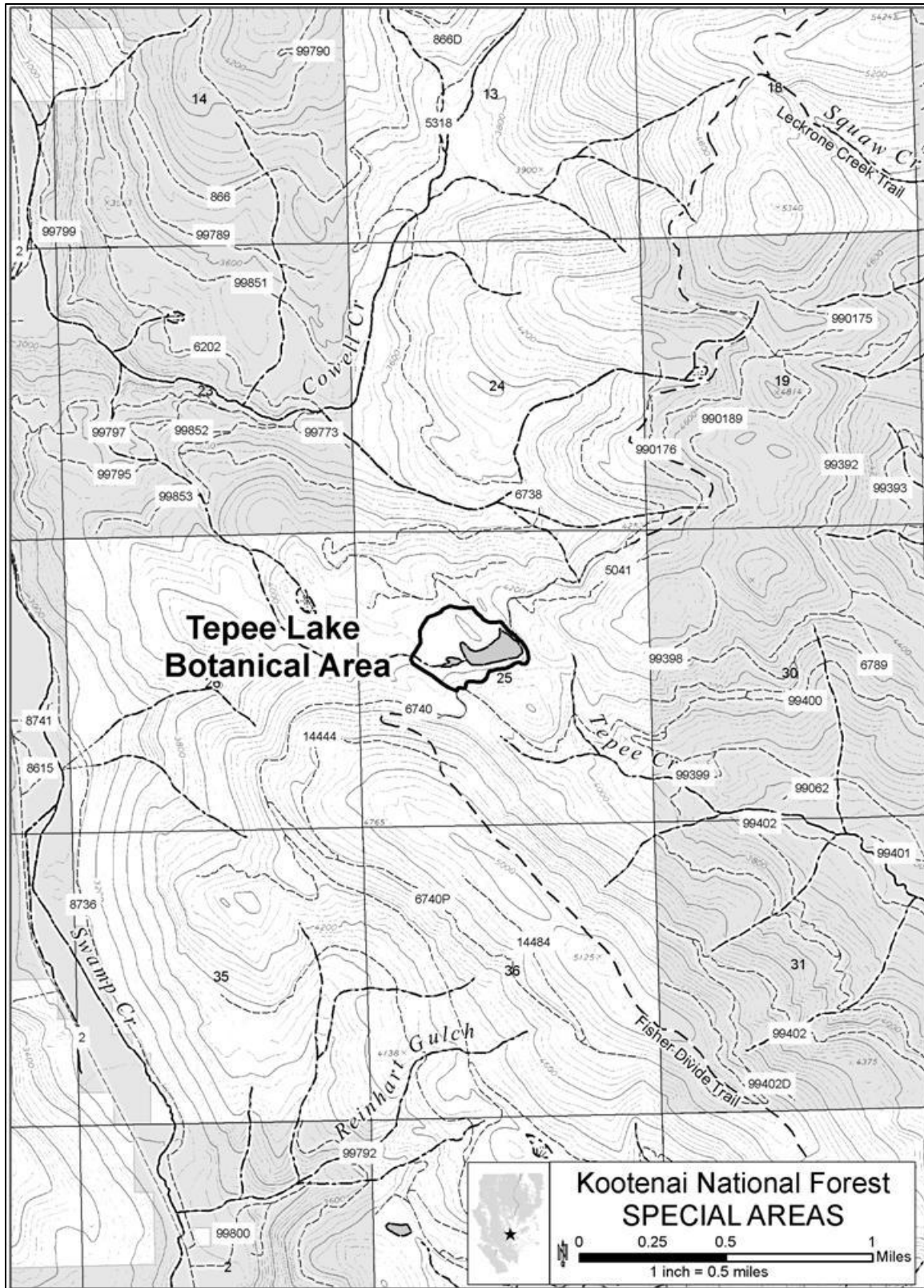


Figure 100. Tepee Lake Botanical Area

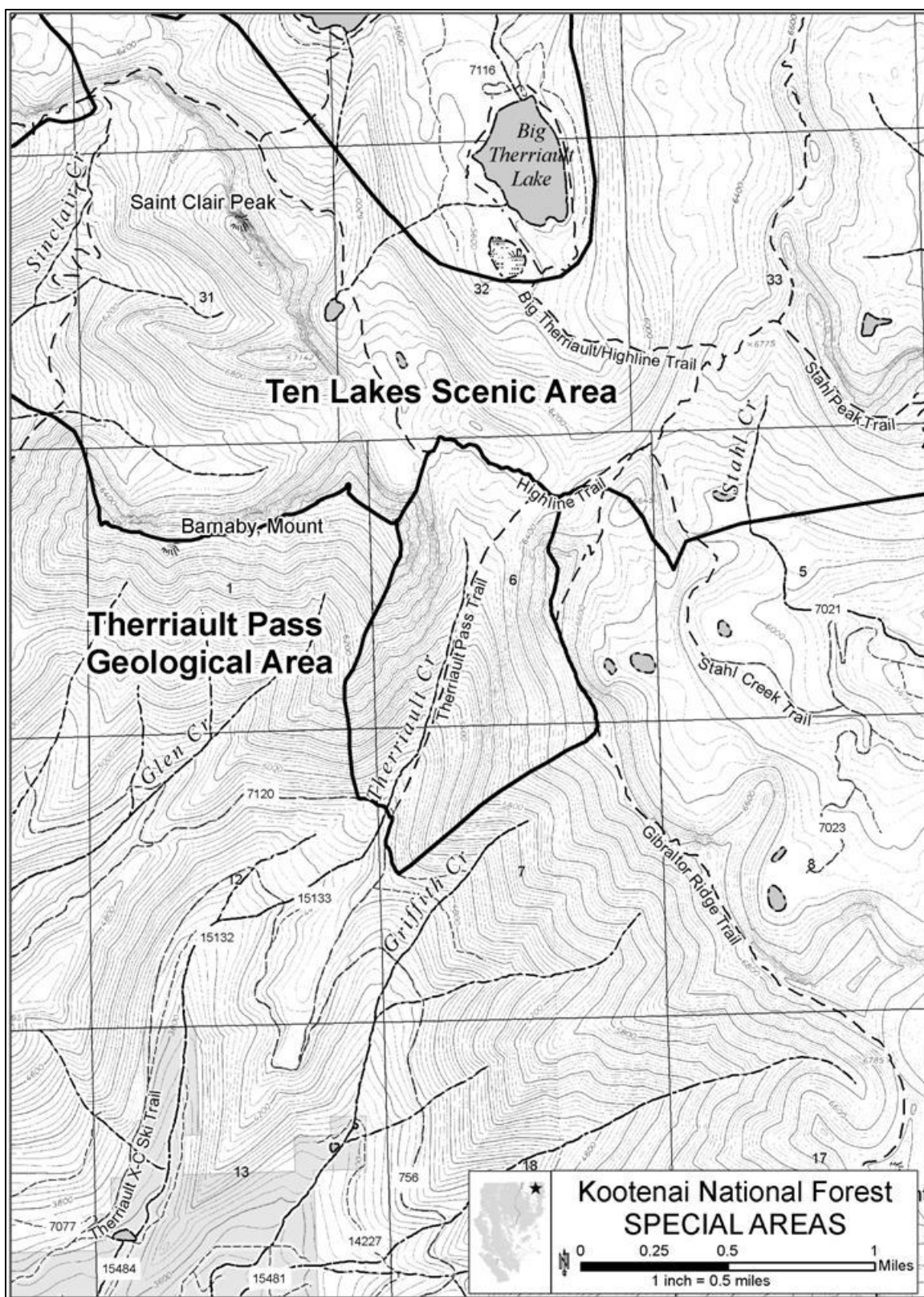


Figure 101. Therriault Pass Geological Area

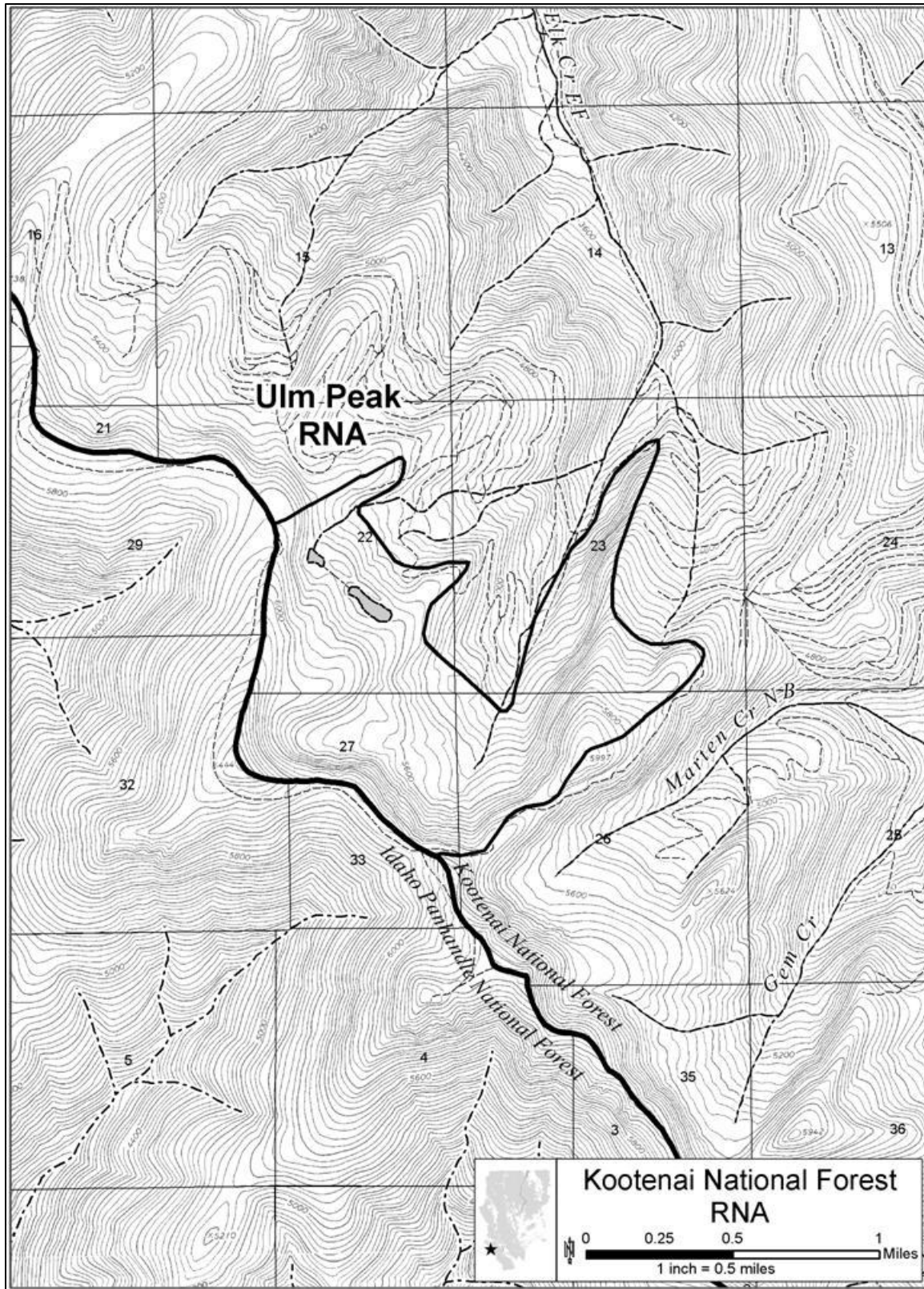


Figure 102. Ulm Peak RNA

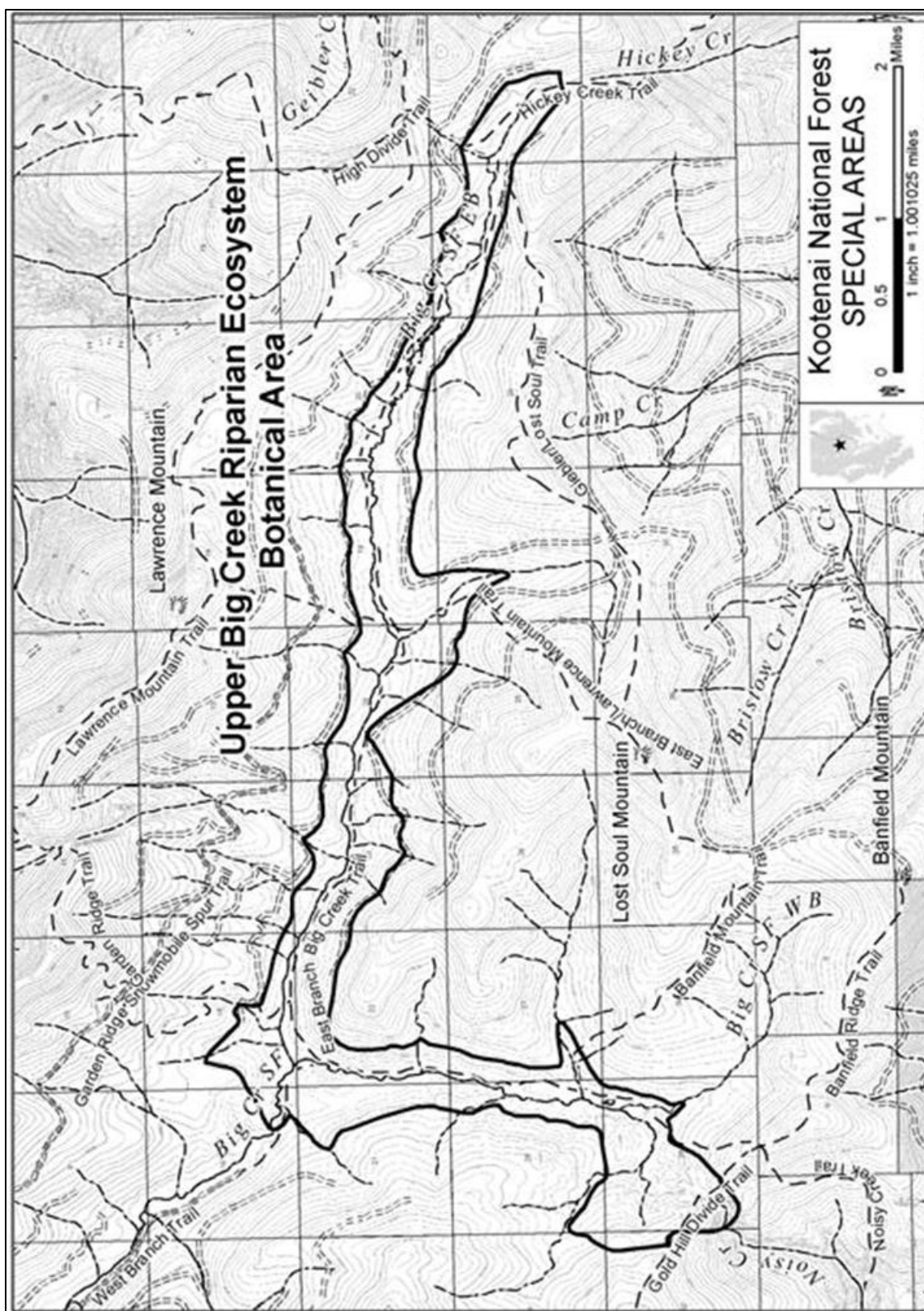


Figure 103. Upper Big Creek Riparian Ecosystem Botanical Area

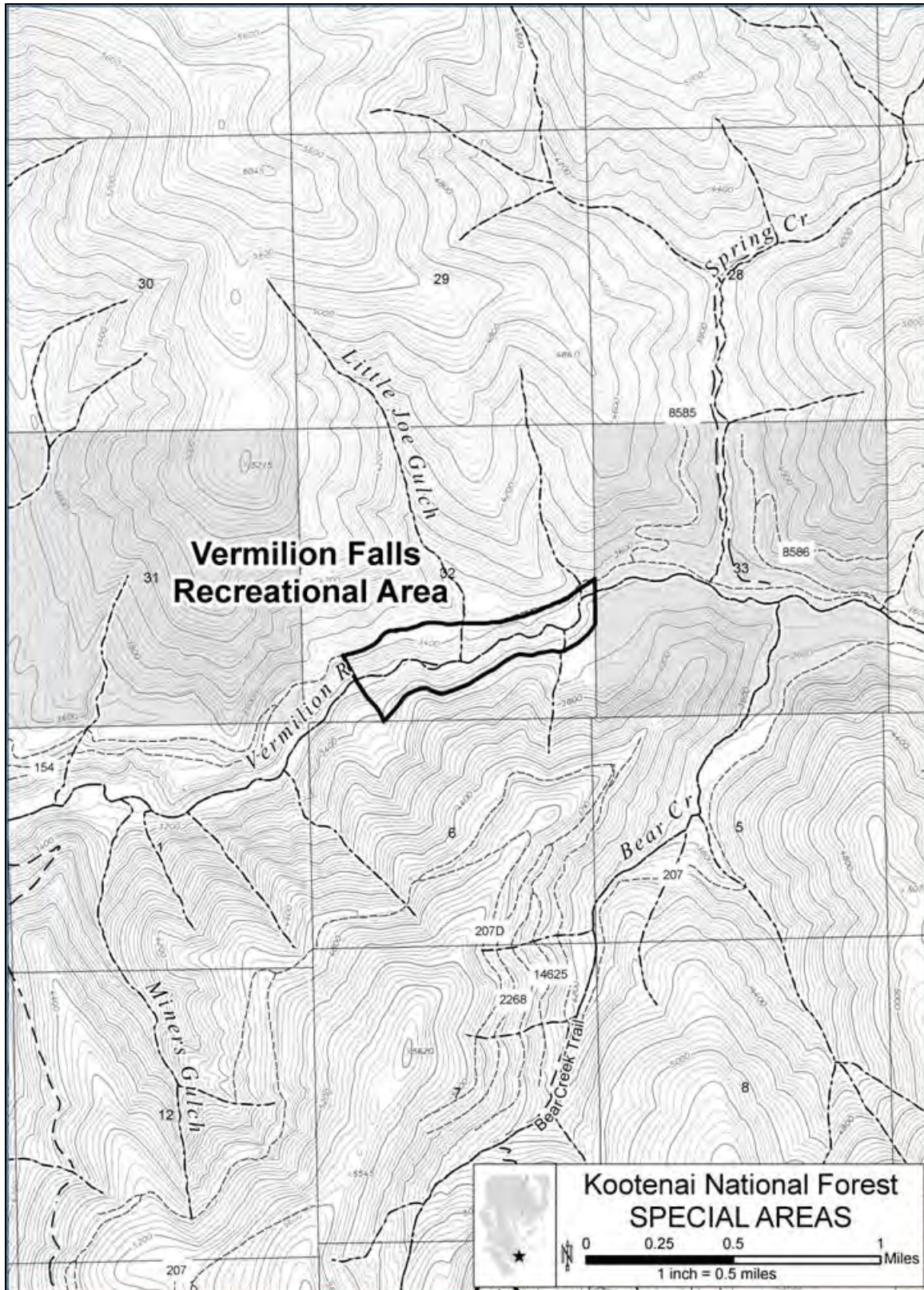


Figure 104. Vermilion Falls Recreational Area

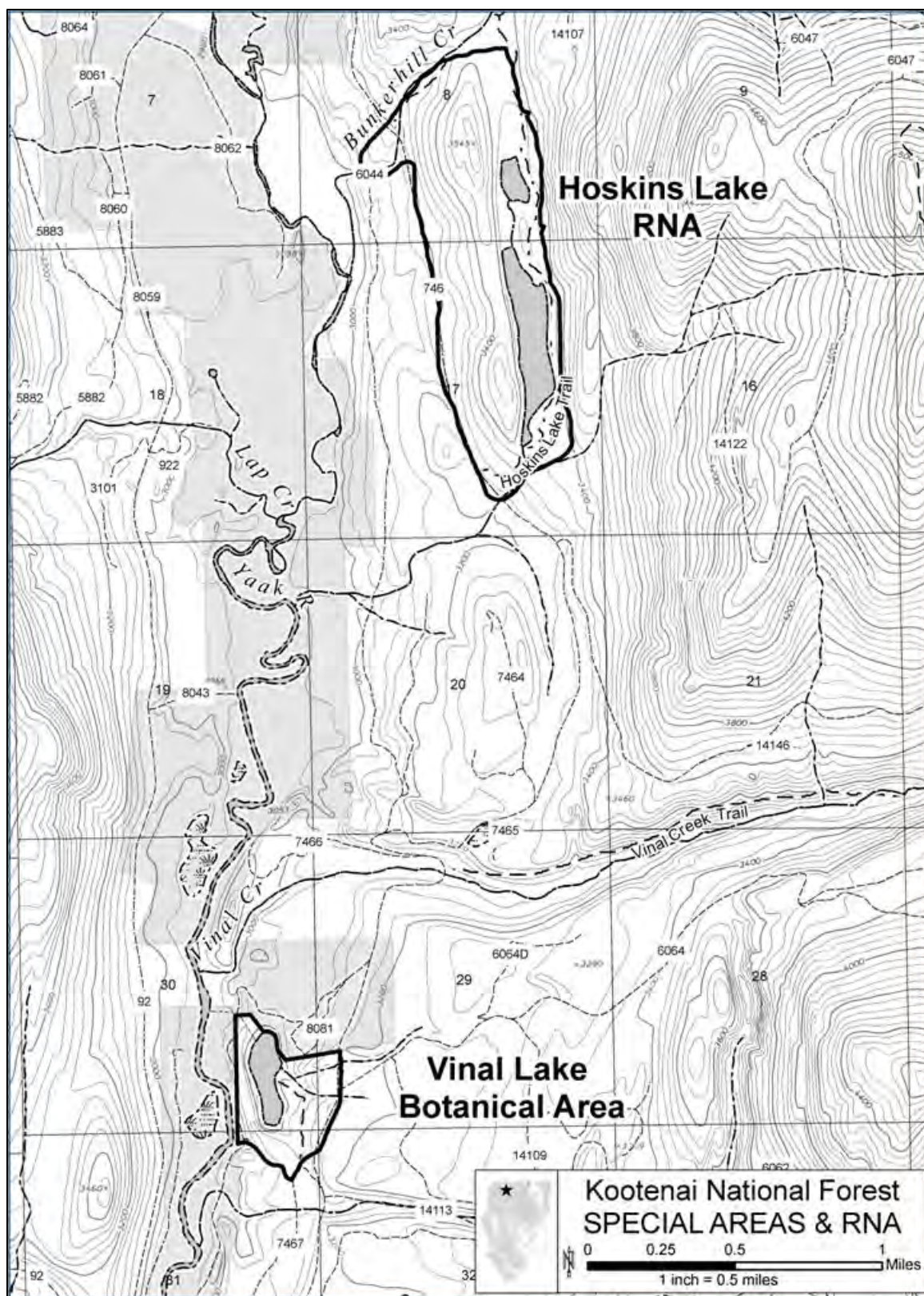


Figure 105. Vinal Lake Botanical Area/Hoskins Lake RNA

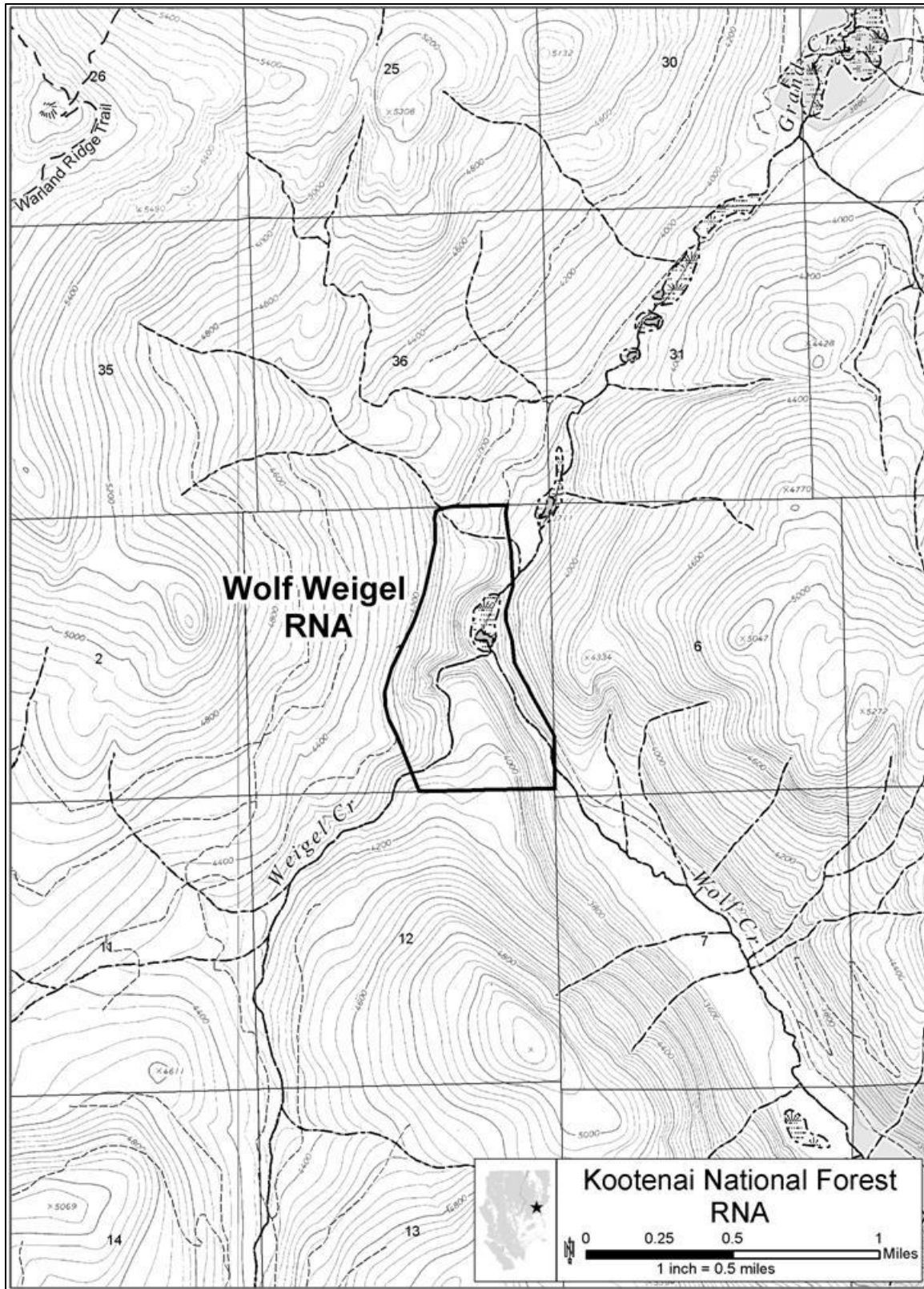


Figure 106. Wolf Weigel RNA

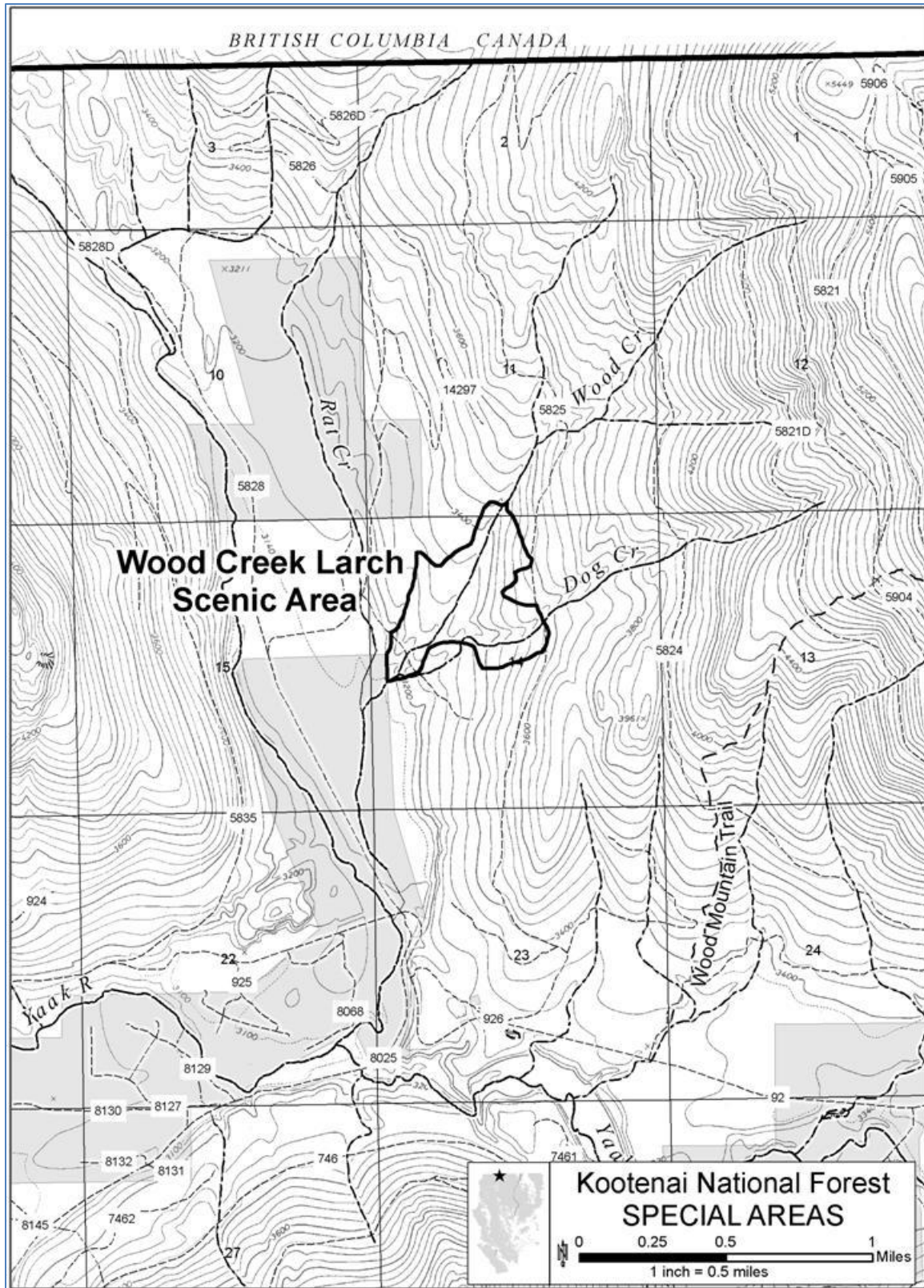


Figure 107. Wood Creek Larch Scenic Area

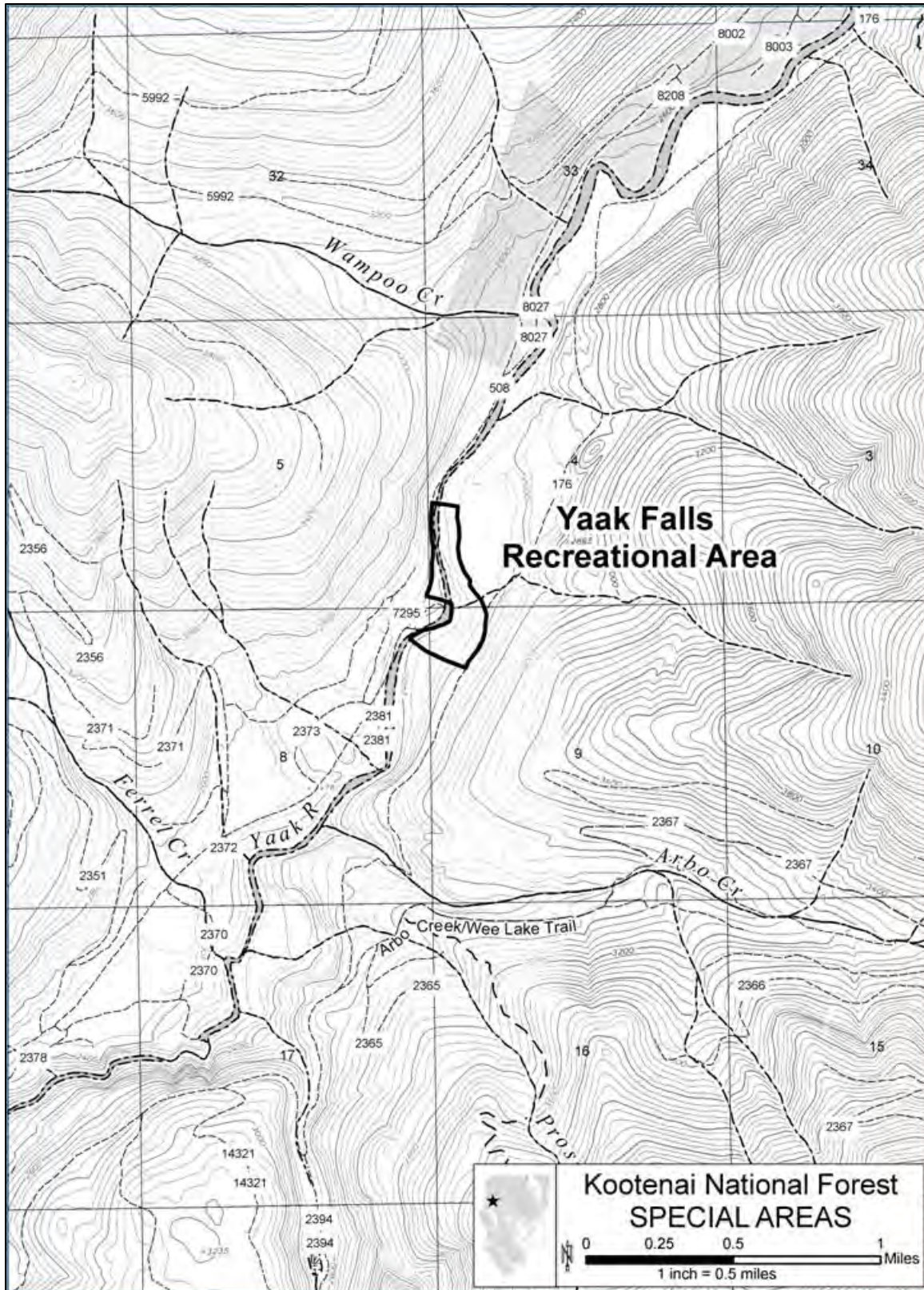


Figure 108. Yaak Falls Recreational Area

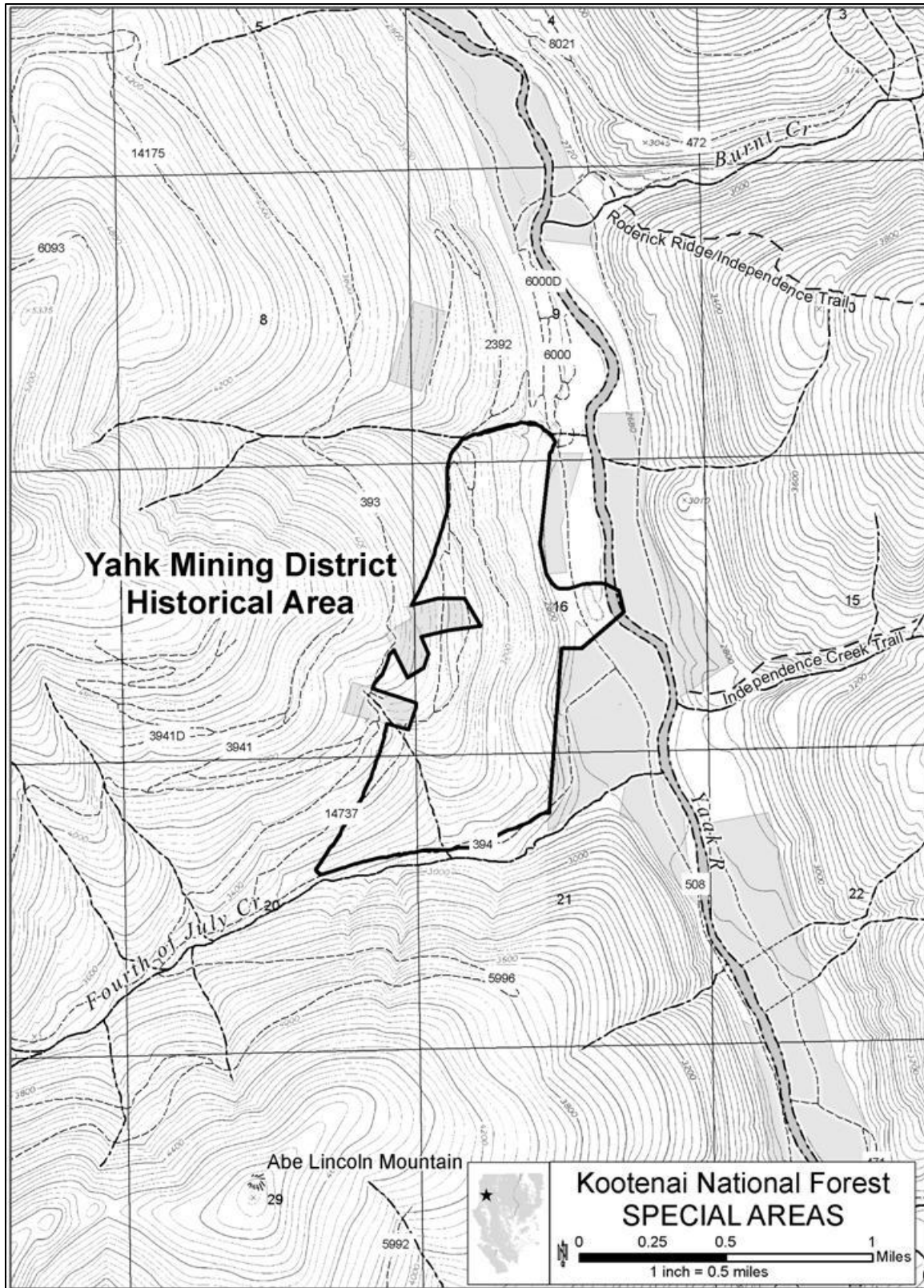


Figure 109. Yahk Mining District Historical Area

Appendix G – Response to Public Comments

Introduction

This appendix includes either direct comments or representative comments and agency responses to the substantive comments received during the public comment period of January 6 to May 7, 2012. A variety of methods were used to inform the public about the DEIS and Proposed Revised Plan. These included direct mailings to interested and potentially affected individuals and organizations, news releases, newsletters, media interviews, open houses, contacts with other federal and local agencies, publication of the Notice of Availability in the Federal Register and website posting at www.fs.usda.gov/kootenai.

The KNF received 28,245 responses; there were 385 unique letters, with 378 individual/organization letters, six form letters, and one petition. Of the 28,245 responses, 27,550 (received via CD) were comments with no signatures, names, or addresses. The six form letters had the following number of responses:

- Form 1 – 69 via postal
- Form 2 – 15 via email and postal
- Form 3 – 187 via email
- Form 4 – 27,550 via CD
- Form 5 – 31 via postal
- Form 6 – 8 via email and postal

Responses were analyzed using a process called “Content Analysis,” which is described in the section below.

Content Analysis Process

Content analysis is a method commonly used by specialists to gather information regarding various types of messages. Each unique letter was read and substantive comments identified and coded by major topic. The substantive comments and their coding were entered into a database, allowing for reporting of all substantive comments by topic. Similar comments were then combined into a “public comment statement.” Therefore, while not every comment is listed in this Appendix exactly as written by each respondent, each comment was considered individually. Comments and responses are arranged alphabetically according to resource or topic.

In considering the comments, it is important for readers and decision makers to understand this process makes no attempt to treat input as if it were a vote. Instead, the content analysis process ensures that every comment is considered at some point in the decision process.

Considering Different Types of Comments (Substantive/Non-substantive)

Agencies have a responsibility under the NEPA to first “assess and consider comments both individually and collectively” and then to “respond... stating its response in the final statement.” The content analysis process considers comments received “individually and collectively” and equally, not weighting them by the number received or by organizational affiliation or other status of the commenter. Public comment statements and supporting quotes from public input form the

basic summary of public comment and were the primary focus of the interdisciplinary team in considering comments.

In completing the content analysis, comments were identified that fell outside the scope of the forest plan revision. Generally, the types of comments that were considered outside the scope include those that:

- Do not address the purpose, need, or goals of the revised Forest Plan;
- Address concerns that are already decided by federal law or national policy;
- Suggest an action not appropriate for the forest plan decision (such as site-specific decisions to construct new roads, campgrounds or facilities, to offer special use permits, or the sale of timber resources);
- Propose untenable restrictions on management of the Forest or conflict with approved plans not being revised in the Forest Plan revision process; and
- Did not consider reasonable and foreseeable negative consequences.

These types of comments are outside the scope and do not require a response.

Once comments were identified as being within the scope, they were identified as being substantive or not. Based on the Council of Environmental Quality's regulations, a substantive comment is one that:

- Questions, with a reasonable basis, the accuracy of the information in the environmental impact statement;
- Questions, with a reasonable basis, the adequacy of environmental analysis as presented;
- Presents reasonable alternatives other than those presented in the DEIS that meet the purpose and need of the proposed action and address significant issues; and
- Cause changes or revisions in the proposal.

Non-substantive comments, or concerns identified from them, include those that simply state a position in favor of or against an alternative, merely agree or disagree with Forest Service policy, or otherwise express an unsupported personal preference or opinion.

A response is only required for substantive comments or the concerns identified from them. Responses to substantive concerns are typically more extensive, complete, and most importantly, offer an explanation of why or why not and where the concern may have resulted in changes to the Forest Plan or analysis. If several concerns are very similar, they have been grouped for response purposes. Public comments that identified editorial or other errors in the presentation of information in the DEIS were used to revise text and make corrections for the FEIS.

Commenters and Coding Numbers

Table 200 lists the unique letters. It includes the individuals and organizations that submitted unique letters. It also includes a single copy of each form letters. If an individual or organization sent in a form letter with additional comments (that were substantive and different from the form letter), those letters are listed with the form number noted. The names of those submitting form letters without additional substantive comments are not included in this table; their concerns are captured through the coding of the form letter listed in the table. Some letters were submitted from different organizations or individuals, but were identical (but not considered a form letter).

In that case, the letter was coded once. See the column “number coded” for the number of each letter used in the coding. These are the numbers that are found in the public comments following.

Table 200. Unique Comment Letters with Coding Letter Number

UNIQUE LTR#	FORM	LAST NAME	FIRST NAME	ORGANIZATION	NUMBER CODED
230		AARSTAD	CHRISTIE		230
146		ABELIN	DOUG	CAPITAL TRAIL VEHICLE ASSOCIATION	146
367		ACHATZ	DEB		367
257		ALLEN/BEARDSLEE	BOB/GREG	MONTANA MOUNTAIN BIKE ALLIANCE	257
6		AMNOTTE	DAVE		6
134		ANDERSON	DAVE/MICHELLE		134
136		ANDERSON	LINDSAY		136
231		ANDERSON/HANSON	MAURY/PAT		231
290		BAKER	HOLLY		290
386	01+	BANEY	SCOTT		386
172		BANWART	ALBERT		172
318		BASS	LOWRY		318
171		BATEMAN	GUY		171
2		BATES	SCOTT		2
137	02+	BAUM	BILL		137
139		BECKER	MIKE/STEPHANIE		139
64		BECKWITH	KIP		64
140		BECKWITH	KIP		140
94		BECKWITH & BROWNING	J BRUCE & NANCY		94
311		BEEBE	VALERIE		311
30		BENITZ	ALVIN		30
97		BERG	DOUGLAS	BERG HOMESTEAD	97
240		BERGENSKI	JOHN	WILDSIGHT	240
9		BERGET	TONY	COUNTY COMMISSIONERS - LINCOLN	9
351		BERGET	ANTHONY	COUNTY COMMISSIONERS - LINCOLN	351
95		BERGET	ANTHONY		95
170		BERNALL	BEN		170

UNIQUE LTR#	FORM	LAST NAME	FIRST NAME	ORGANIZATION	NUMBER CODED
69		BIRDSALL	JENNIE		69
158		BLACKLER	EDD		158
150		BLANK	D.L.		150
334		BOARDMAN	MARK	F.H. STOLTZE LAND AND LUMBER CO.	334
206		BOLIN	GAIL	KINNIKINNICK NATIVE PLANT SOCIETY	206
141		BOSLOUGH	REBECCA		141
236		BOSSE	SCOTT	AMERICAN RIVERS	236
242		BOWSER	MATT	YAAK VALLEY FOREST COUNCIL	242
346		BOWSER	MATT		346
368		BOYLE	DYLAN		368
269		BRANDOS	SCOTT		269
106	01+	BROOKS	ALAN		106
354		BROWNBACK	ANN		354
147		BUCKSKIN	ELAINE		147
96	01+	BURGESS	JOEY		96
38		BURKHART	JULIE		38
14		BURT	DAVID		14
335		BUTTS	MAGGIE	GLEN LAKE IRRIGATION DISTRICT	335
333		CAMPBELL	MARY		333
369		CAREY	HEATH		369
89		CARPARELLI	MARY		89
214	01+	CARVEY	ED		214
161		CHESTER	MARYALICE		161
341		CLARK	CHARLES		341
352		CLARK	DON		352
234		CLOUGH	GEORGE		234
355	DUPLICATE	CLOUGH	CHARLIE		354
68		COLAVITO	DAVE		68
236		COLBURN	KEVIN	AMERICAN WHITEWATER	236
345		COMMERFORD	JOHN	COMMERFORD LAW, PLLC	345
370		COMPTON	SANDY/MITCHELL		370
103		CONNELL	MARK		103

UNIQUE LTR#	FORM	LAST NAME	FIRST NAME	ORGANIZATION	NUMBER CODED
142		CONNORS	JOHN		142
325		CONROW	CLARK	COUNTY COMMISSIONERS - MINERAL	325
87		CORN	STEWART		87
268		COSTELLO	JIM	ROCK CREEK ALLIANCE	268
22		COURTNEY	JEFF		22
15		COX	DON		15
76		CRILL	MICHAEL		76
332		CUFFE	MIKE	REPRESENTATIVE - HOUSE DISTRICT 2	332
362		CUFFE	MIKE	REPRESENTATIVE - HOUSE DISTRICT 2	362
143		CUMIN	CAL		143
26		CUMMINGS	RON		26
42		CUNNINGHAM	ERIN		42
358		DAMROW	CHRIS	F.H. STOLTZE LAND AND LUMBER COMPANY	358
272		DAVIDSON	MATTHEW		272
145		DAVIS	STANLEY		145
148	02+	DAVIS	JIM		148
339		DAVIS	STANLEY		339
151		DEAN	ALEXIS/BRANDON		151
162		DEKORT	LINDA		162
16		DENOWH	RON		16
152		DEUTSCH	DONNA		152
276		DEXTER	FORREST	PACIFIC NW 4WD ASSOCIATION	276
74		DOWNEY	ROBERT	COUNTY COMMISSIONER - LINCOLN	74
332		DOWNEY	RON	COUNTY COMMISSIONERS - LINCOLN	332
351		DOWNEY	RON	COUNTY COMMISSIONERS - LINCOLN	351
23		DOWNEY	MARY JO		23
157		DOWNING	EMILY		157
266		DUFFIN	ANDREW		266

UNIQUE LTR#	FORM	LAST NAME	FIRST NAME	ORGANIZATION	NUMBER CODED
107	01+	DUNCAN	HAROLD	DUNCAN TRUCKING	107
59		DUNFIELD	TODD		59
384		DURGLO	JOE	CONFEDERATED SALISH AND KOOTENAI TRIBES OF THE FLATHEAD NATION	384
131		EDWARDS	HELEN/DON		131
260		ELLWOOD	DON/CHRISTI		260
44		EMERICH	LORNA		44
108	01+	ENGHUSEN	NANCY		108
289		ERICKSON	DAVID		289
232		ERWIN	DEAN		232
251		FAIRBROTHER	JENNIFER	FOREST SERVICE EMPLOYEES FOR ENVIRONMENTAL ETHICS	251
254		FANCHER	JEREMY	INTERNATIONAL MOUNTAIN BICYCLING ASSOCIATION	254
216		FANSLER	WILLIAM		216
73		FENNESSY	ANN		73
155		FERGUSON	LAURA		155
39		FERRELL	PETER		39
285		FERRELL	PETE		285
319		FERRELL	DOUG		319
372		FERRELL	MELINDA		372
261		FIELDER	PAUL		261
330		FIELDER	JENNIFER		330
132		FIELDS	EDWIN		132
295		FINNEY	JOHN		295
174	01+	FISH	DORENE		174
213		FISH	DONN		213
217		FLANSAAS	ROBERT		217
243		FOOTE	CAM		243
133		FORD	MICHAEL		133
258		FRANCIS	WENDY	YELLOWSTONE TO YUKON CONSERVATION INITIATIVE	258

UNIQUE LTR#	FORM	LAST NAME	FIRST NAME	ORGANIZATION	NUMBER CODED
309		FRANCISCO	ALAN		309
297		FRITZ	JANE		297
273		FUQUA	PAMELA		273
359		GARGASZ	MEREDITH		359
104		GARRISON	JACKSON	FIRST MONTANA BANK	104
65		GARVEY	LYDIA		65
98		GARVEY	LYDIA		98
117		GARVEY	LYDIA		117
149		GAUTIER	LEE/STAN		149
3		GETMAN	SHERYL/DANIEL		3
10		GINGER	DALE		10
159		GLENN	WILLIAM		159
244		GNIADEK	STEVE		244
164		GOFORTH	JIM/ALEXIS		164
167		GOLLEN	PATRICK		167
360		GOOD	MARK		360
307		GRACE	CELESTE		307
237		GREEN	DAN		237
168		GUTKOSKI	JOSEPH		168
175	01+	GWYNN	BUTCH		175
46		HAAG	TIMOTHY		46
7		HADDEN	DAVE	HEADWATERS MONTANA	7
154		HADDEN	DAVE	HEADWATERS MONTANA	154
299		HADDEN	DAVE	HEADWATERS MONTANA	299
300		HADDEN	DAVE	HEADWATERS MONTANA	300
27		HALL	JEAN		27
55		HALLINAN	BILL		55
63		HANDELSMAN	ROBERT		63
124		HANSON	JOHN		124
208		HARDING	ERIC		208
1		HARRISON	JOA		1
180		HARVEY	GEOFFREY		180
181		HASATAHI	HAKARA		181
246		HAWTHORNE	BRIANE	BLUE RIBBON COALITION	246

UNIQUE LTR#	FORM	LAST NAME	FIRST NAME	ORGANIZATION	NUMBER CODED
62		HECKEL	JIM		62
58		HEEP	DAVID		58
105		HERLING	DAPHNE		105
271		HEYMAN	GEORGE	SIERRA CLUB BC	271
323		HIDY	CAROLYN		323
24		HIGGINS	RON		24
263		HINKLE	GREG		263
182		HINTHER	ROGER/JANET		182
270		HO	ANITA		270
327		HOBDAY	BRIAN	F.H. STOLTZE LAND AND LUMBER CO.	327
90		HOFFMAN	GREG		90
79	06+	HORTON & HOLLY	JANE & DOUG		79
287		HOUGH	PHIL	FRIENDS OF THE SCOTCHMAN PEAKS WILDERNESS	287
262		HOUGH	PHIL		262
67		HOWELL	H		67
43		HUISMAN	CATE		43
373		HUMPHREYS	THOMAS/MARTHA		373
32		HUNSICKER	DEB		32
308		HUTCHINS	JUDY		308
176	01+	INZANO	KEN		176
177	01+	JAMISON	BETTY		177
183		JANSSEN	SUE		183
218		JANSSEN	SUE		218
347		JENKINS	CAROL		347
348		JENKINS	IRV		348
281		JENNINGS	CHARLES		281
211		JOHNSON	SHARON/CRAIG		211
48		JOKELA	BRIAN		48
60		JORDAN/PINTER	GIL/KIMBERLY		60
99		JUNGST	PHIL		99
286		KAMMEYER	DENNIS/CATHY		286
122		KARGOL	STANLEY		122
123		KARGOL	BARBARA		123
184		KAUFMAN	HARPER		184
54		KILMER	TOM		54

UNIQUE LTR#	FORM	LAST NAME	FIRST NAME	ORGANIZATION	NUMBER CODED
275		KLAUS	ANDREW		275
92		KLIMENT	WENDY		92
33		KNOX	DAVID		33
236		KOBER	JOHN	PACIFIC RIVERS COUNCIL	236
259		KROSCHER	MIKE		259
127		KRYISS	DAVID		127
387		KUENNEN	LOU		387
329		KUHL	RICHARD		329
45		KUHNS	JEFF		45
11		KUMLE	TIM		11
17		KVITTUM	KEN		17
72		L HEUREUX DURTSCHI	BONNIE		72
185		LABAR	CHRISTIAN		185
374		LAFEMINA	MICHAEL		374
18		LARSON	GREGORY		18
19		LARSON	JANEEN		19
88		LARSON	JOHN		88
186		LEIDIGH	CHARLES		186
219		LEIDIGH	CAMILLE		219
8		LEIMBACH	PAUL		8
365		LEIVASTAD	RUSTI		365
364		LEIVESTAD	OLE		364
314		LETCHER	JOSH		314
49		LEWIS	TONY		49
120		LILL	NANCY ENZ		120
303		LOCKWOOD/OREILLY	STEVE/MOLLY		303
342		LOGAN	DAN		342
227		LONEY	MARY		227
274		LOPUSHOK	PETER		274
375		LOPUSHOK	PETER		375
138	02+	LORICK	GENEVIEVE		138
338		LUNDSTRUM	SARAH	MONTANA WILDERNESS ASSOCIATION	338
220		LUNDSTRUM	JOHN/DARLENE		220
317		LUNDSTRUM	SARAH		317
188		LYMAN	DAVE/DEBBIE		188

UNIQUE LTR#	FORM	LAST NAME	FIRST NAME	ORGANIZATION	NUMBER CODED
278		MARSH	DEAN		278
189		MARSHALL	ABIGAIL		189
50		MARTIN	DREW		50
109	01+	MASON	GARY		109
322		MATTHEW	KIM		322
376		MCBRIAR	JOHN		376
302		MCCORMICK	CHAD		302
20		MCCULLY	MARK		20
66		MCDONALD	MATT		66
93		MCGEEHAN	CHRIS		93
241		MCIVER	JIM	LEWIS-CLARK ATV CLUB	241
81		MCKINNON	ROSEMARY		81
277		MCLEOD	PAT		277
178	01+	MEE	JOHN		178
291		MELLEN	JIM		291
292	DUPLICATE	MELLEN	SANDII		291
221		MENSON	SUSAN		221
126		MERRELL	SCOTT		126
61		METSKY	JEFF		61
305		MEYERS	JAMES		305
326		MEYERS	TERRY		326
247		MILLER	JENNIFER	THE WILDERNESS SOCIETY	247
283		MONTANA	MOLLY	MOLLY MONTANA REAL ESTATE	283
163		MORELLI	JEANMARIE		163
166		MORKERT	JIM		166
222		MORKERT	HOWARD		222
235		MUNTHER	GREG	BACKCOUNTRY HUNTERS AND ANGLERS	235
86		MURPHREY	DONNA		86
190		MURPHY	JEAN/JAMES		190
377		NASH	JIM		377
356	PETITION	NEIL	DONNA		356
4		NELSON	CHRIS		4
5		NELSON	DON		5

UNIQUE LTR#	FORM	LAST NAME	FIRST NAME	ORGANIZATION	NUMBER CODED
256		NEWGARD/DICKINSON	KRIS/ERIC		256
245		NITSCHKE	DAVE	LIBBY SNOWMOBILE CLUB	245
31		NOBLE	MIKE		31
192		NOLEN	MICHAEL	CABINET RIDGE RIDERS	192
215		NOLEN	MIKE	CABINET RIDGE RIDERS	215
191		NOLEN	DIANE		191
239		NULL	MATT		239
84		OBRIEN	MARY		84
115		OBRIEN	JOHN		115
340		O'BRYAN	PATTY		340
312		OLFERT	RON	SANDERS NATURAL RESOURCE COUNCIL	312
265		OLOUGHLIN	CHLOE	CANADIAN PARKS AND WILDERNESS SOCIETY	265
34		OLSEN	ROSEMARIE		34
320		OLSON	KEITH	MONTANA LOGGING ASSOCIATION	320
25		OLSON	TRICIA ELLEN		25
28		ORR	ROBERT		28
284		PARTIN	TOM	AMERICAN FOREST RESOURCE COUNCIL	284
316		PASCOE	R.D.	ACCESS FUND	316
229		PATTEN	TED		229
118		PATTERSON	CYNTHIA		118
279		PEARTREE	ERIKA		279
301		PECK	BRIAN	NATURAL RESOURCES DEFENSE COUNCIL	301
193		PELTIER	CAROL ANN		193
194		PETERS	EDWARDS/JOYCE		194
378		POLQUAPTEWA	JEAN/HONANI		378
212		PORTER	JENNIFER	KOOTENAI TRIBE OF IDAHO	212
207		PORTER	KAREN		207
209		PORTER	ZACK		209
128		POSTEN/LANCE	KATHRYN/ROBERT		128

UNIQUE LTR#	FORM	LAST NAME	FIRST NAME	ORGANIZATION	NUMBER CODED
153		POTEN	CONNIE		153
36		POTTER	DOUG		36
169	02+	POTTER	RACHEL/JACK		169
29		POWERS	JAMES		29
353		RAINES	MCKINLEY		353
195		RASOR	LEE		195
310		REGIER	KATHERINE		310
361		REGNIER	LINDA		361
35		REITZ	MICHAEL		35
70		REMP	ANDY		70
250		RICH	JEFFREY		250
130		RICHARDSON	GAIL		130
12		RIDDEL	SCOTT		12
47		RIDDEL	WILLIAM		47
57		RIDGWAY	ERIC		57
173		ROBERTS	WALTER		173
196		ROE	GIONA		196
332		ROLL	DOUG	MAYOR OF LIBBY	332
187		ROOSE	MARIANNE	COUNTY COMMISSIONERS - LINCOLN	187
351		ROOSE	MARIANNE	COUNTY COMMISSIONERS - LINCOLN	351
366		ROOSE	KENT/MARI		366
144		ROYER	FRITZ		144
304		RUFFING	JIM		304
100		RUSNAK	RICHARD		100
223		RUST	WILBUR		223
82		RYMAN	KAREN	GREAT OLD BROADS FOR WILDERNESS	82
197		SALISBURY	JOHN		197
371		SALSOGLIO	JULIE	EPA - REGION 8	371
328		SAMY	REBECCA		328
336		SATTERFIELD	JIM	MONTANA FISH, WILDLIFE, AND PARKS	336
41		SHELLY	JANE		41
198		SCHOPP	WENDY/DAVID		198
321		SEDLER	LIZ	ALLIANCE FOR THE	321

UNIQUE LTR#	FORM	LAST NAME	FIRST NAME	ORGANIZATION	NUMBER CODED
				WILD ROCKIES	
80		SENINGER	STEVE		80
313		SHAFFER/HANSON	THERESA/WES		313
199		SHANE	SUSAN		199
343		SHEETS	MARK		343
349		SHEETS	KAREN		349
224		SHERMAN	MICHAEL		224
225		SHERMAN	ROGER		225
233		SHERMAN	SUSAN		233
53		SHERRADEN	MARGARET & MICHAEL		53
325		SIMONS	DUANE	COUNTY COMMISSIONERS - MINERAL	325
379		SLORA	KATHRYN		379
332		SMITH	RONALD	COUNTY COMMISSIONERS - BOUNDARY	332
248		SMITH	PAULA	FLATHEAD AUDUBON SOCIETY	248
324		SMITH	DAN	MONTANANS FOR MULTIPLE USE - NORTH LINCOLN COUNTY CHAPTER	324
83		SMITH	BRAD		83
264		SMITH	DANIEL		264
252		SOYARS	DARRELL	AVISTA CORPORATION	252
52		SPENCER	VINETTA RUTH		52
71		SPROUT	JUNE		71
160		STANGE	DOUG		160
380		STEM	JIM/CHERYL		380
91		STEWART	ROBERT	DOI - OFFICE OF ENVT POLICY AND COMPLIANCE	91
280		STOCKWELL	MARK		280
315		SULLIVAN	CATHIE		315
21		SWING	JOHN & BEV		21
200		TABATA	IKUMI		200
156		TANNER	TODD		156
205		TAYLOR	JANIS		205

UNIQUE LTR#	FORM	LAST NAME	FIRST NAME	ORGANIZATION	NUMBER CODED
101		THOMPSON	STEVE		101
381		TINCHER	DON		381
129		TOLAND	MARY		129
298		TONKYN	JAMES		298
294		TORLINE	JANET		294
179	01+	TOTTEN	JEFF		179
77		TREBESCH	KAY		77
288		TREBESCH	MATT		288
13		TROYER	ABE		13
125		TURNER	MARK		125
350		VADEBONCOEUR	JANET		350
282		VANHORN	FRED		282
37		VERPOORTEN	NORA		37
202		VINCENT	CRYSTAL		202
226		VINSON	RICHARD/PATRICIA	VINSON RANCH RODEO	226
110	01+	VOGELMAN	DAVID & KIMBERLY		110
135		VOGLER	ROBIN		135
337	DUPLICATE	VOYLE	JIM	TEN LAKES SNOWMOBILE CLUB	335
210		VUCHETICH/CLEGHORN	CAROL/JAMES		210
306		WAGNER	MIKE		306
203		WALDRON	BOB		203
238		WALKER-BICKETT	JERI		238
245		WANDLER	JERRY	TROY SNOWMOBILE CLUB	245
382		WARD	DAN		382
40		WARDIAN	SCOTT		40
383		WAYMIRE	FLOYD/CINDY		383
165		WEAVER	JOHN	WILDLIFE CONSERVATION SOCIETY	165
111	01+	WEBB	FAMILY		111
204		WEINGART	PAUL		204
85		WELTZIEN	ALAN		85
114		WERNER	J KIRWIN		114
363		WEST	KURT		363
357		WHITE	KERRY	CITIZENS FOR	357

UNIQUE LTR#	FORM	LAST NAME	FIRST NAME	ORGANIZATION	NUMBER CODED
				BALANCED USE	
344		WHITE	ETHEL	TOWN OF EUREKA	344
253		WILLIAMSON	SHANNON	LAKE PEND OREILLE WATERKEEPER	253
249		WIMBERLEY	ANN		249
296		WIMBERLEY	NEIL		296
56		WOOD	RALPH		56
201		WOOD	J.D.		201
51		WOOLARD	MARTY		51
116		YATES	RICK		116
255	4	YEUNG	JOYCE	FORM 04 - NATURAL RESOURCES DEFENSE COUNCIL	255
267		YOUNG	DANIEL		267
228		ZABARO	RALPH		228
102		ZAJANC	AMANDA		102
325		ZYLAWY	ROMAN	COUNTY COMMISSIONERS - MINERAL	325
75	1			FORM 01	75
112	2			FORM 02	112
113	3			FORM 03	113
385	5			FORM 05	385
78	6			FORM 06	78
293				MONTANANS FOR MULTIPLE USE	293
121				PLAINS PARADISE CHAMBER OF COMMERCE	121
293				TEN LAKES SNOWMOBILE CLUB	293
321				THE LANDS COUNCIL	321

Access & Recreation

Motorized Access: Category 101

Public Comment 1: (Letter Number (s): 14, 146, 176, 193, 219, 227, 241, 264, 324, 326, 357, 362, and 366)

The KNF should provide motorized access for public recreational opportunities (e.g., disabled and all age groups) and safety (e.g., search and rescue, fire suppression, homeland security).

Response:

The KNF agrees that motorized access is an important component of forest management to meet the needs of many recreating publics. However, a variety of resources are affected by open roads and motorized traffic so the Forest seeks a range of access opportunities while considering resource needs and user safety. See FW-DC-AR-07, 08, and 09.

The Forest Service strives to meet user needs and accessibility guidelines. The Forest Service trail Accessibility Guidelines and the Forest Service Outdoor Recreation Accessibility Guidelines, are legally mandated for use within the National Forest System (FSM2300).

Access for administrative purposes, fire suppression, homeland security, search and rescue, or other emergencies can be authorized under 36 CFR 261.50(e), and is provided for in FW-DC-AR-07 and FW-DC-FIRE-01.

Developed Recreation: Category 105

Public Comment 2: (Letter Number(s): 264, 309, and 356)

The KNF should consider the need for, and impact of, additional developed recreation opportunities as well as the maintenance of existing opportunities. Recreation opportunities can benefit the local community and economy.

Response:

The revised Forest Plan contains direction regarding maintaining, improving or increasing recreation opportunities (see FW-DC-AR-01, FW-OBJ-AR-01, GA-DC-AR-BUL-01, GA-DC-AR-CLK-01, GA-DC-AR-KOO-01, GA-DC-AR-LIB-01, and GA-DC-AR-TOB-01). The revised Forest Plan does not make any decisions regarding development of additional facilities. Any future site-specific proposals for developed recreation will comply with NEPA, FSM2300 and other policy and regulations.

The future trend for both annual recreation maintenance and capital improvement funding is level to decreasing. Managing increasing visitors and more diverse visitors with level to smaller programs will continue to be a challenge. The Recreation Facility Analysis process is one tool to help align the Forest's recreation site infrastructure with current and future demands and budgets to meet future desired conditions.

The KNF partners with 50 to 60 groups each year to provide for recreation opportunities that would not otherwise be provided. In 2011 organizations, individuals, and groups donated over 33,000 volunteer hours, including campground hosts and trail work. The KNF has, and will continue to partner with groups and organizations, work with volunteers, and look for other funding grants to provide recreation opportunities. See FW-DC-CCI-01, GA-DC-AR-CLK-01, GA-DC-AR-FSH-01, GA-DC-AR-LIB-01, and GA-DC-AR-YAK-01.

Dispersed Recreation: Category 106

Public Comment 3: (Letter Number(s): 146, 316, 332, 341, and 353)

The KNF should not reduce dispersed recreation opportunities such as dispersed camping, climbing, and general forest use. Concerns with other resources should be mitigated so continued or increased opportunities are available.

Response:

We agree that dispersed use (including but not limited to camping, climbing, berry picking, firewood gathering, hunting, and fishing) are important uses on the KNF. Dispersed use accounts for over 85 percent of use on the Forest (table 2, NVUM 2007, updated 2011). The KNF Recreation Facility Analysis niche, or vision, for the recreation program was summarized in “Vast by nature, un-crowded by design.” A key element of recreation opportunities on the KNF is water in all forms. The revised Forest Plan does not propose any site-specific reduction or increase in dispersed sites across the Forest.

FW-OBJ-AR-01 objective is to improve conditions at 50 to 75 dispersed sites, and a 5 to 10 percent reduction of deferred maintenance in developed recreation (cabin/lookouts/campgrounds). This objective has been modified to define what improved conditions at dispersed sites could be (e.g., mitigation for critical standards at dispersed sites such as: visitor education or install toilet where exposed to human waste; camping area where use negatively impacts vegetation or stream banks, define parking area where site continues to expand; or abate high-risk condition such as bug killed trees. Any site-specific project would require further analysis and site-specific NEPA.

The desired condition for the Koocanusa GA (GA-DC-AR-KOO-004) was modified to include additional recreation opportunities for rock climbing. Recreation opportunities could include an inventory of climbing areas, management plan, brochures, or site improvements.

The KNF MVUM identifies where motor vehicle use is allowed, and where cross-country travel to a dispersed campsite is permissible on the KNF. Motorized travel to a dispersed campsite is allowed within 300 feet of routes designated for motor vehicle use (FW-DC-AR-08 MVUM). The revised Forest Plan does not propose site-specific changes to dispersed campsite access. See response to Public Comment 12 (road access).

NVUM national protocols selection of sample sites, each site can be selected based on the use level predicted. Question 11 of the survey “In which of the following activities have you participated or will participate during this national forest visit?” does allow for OTHER (fill in activity). Sampling methods can be found at <http://www.fs.fed.us/recreation/programs/nvum/>. NVUM is one tool for total visitation estimates and to some extent, a profile of visitors. Other methods used include observations, campground receipts, campground host records, outfitter, and guide client numbers, agreement with clubs and organizations, and recreation events.

Motorized Recreation: Category 107

Public Comment 4: (Letter Number (s): 75, 122, 123, 146, 188, 205, 216, 232, 241, 269, 312, 352, and 357)

The KNF should maintain all current recreation uses allowed on the Forest, preserving all reasonable existing motorized recreational opportunities. Existing motorized opportunities should be expanded, and new motorized opportunities should be developed to accommodate the growing need. Appropriate signing should be done to enhance motorized recreation.

Response:

We agree that motorized recreational opportunities are important, that motorized use on the KNF has increased since the 1987 Forest Plan, and that motorized recreation opportunities serve a wide variety of users. The Forest provides motorized access on approximately 3,350 miles of road, 147

miles of trail, and 3,800 acres of area on the Forest as displayed on the MVUM. The current MVUM is based on past site-specific NEPA analysis and decisions.

As clarified in the FEIS, the Revised Plan provides the opportunity to consider non-winter motor vehicle use designations on 74 percent of the Forest. While motor vehicle use is allowed in certain MAs (parts of MA2, parts of MA3, MA5b, and MA6) not all of these MAs may be appropriate for motorized access (e.g., big game winter range, inventoried roadless area). Motor vehicle use (excluding over-snow vehicle use) is limited to designated routes and areas. The MAs that allow motor vehicle use could have motorized routes or areas designated in the future, following site-specific NEPA. Thus, there is an opportunity for additional motorized routes or areas within these MAs.

The only site-specific travel management decision that will be issued in conjunction with the revised Forest Plan is closure of recommended wilderness (MA1b) and research and natural areas (MA4) to motorized and/or mechanized use. In addition, areas recommended for wilderness in the 1987 Forest Plan that is not recommended for wilderness in the revised Forest Plan will be opened to over-snow use where appropriate. The “Access and Recreation” section in chapter 3 has been updated to include this analysis.

No other changes to motorized routes or areas are proposed in the revised Forest Plan. Site-specific decisions are addressed at the project level. Travel management proposals will occur through site-specific project planning over the life of the Plan. Any future site-specific designations for motorized use will comply with policy, regulations and law.

The Forest Plan provides programmatic direction as to where motorized recreation may or may not be suitable. This direction can be found at access and recreation Goal-01, FW-DC-AR-05, 07, 08, and 09, FW-OBJ-AR-03, 04, and 05, MA5a, 5b, 5c-DCs-01, and MA6-DC-AR-01. The revised Forest Plan desired condition for motorized and non-motorized recreation opportunities meet other resource needs, provide for user safety, and comply with all laws (FW-DC-AR-05, revised Forest Plan page 2 and 4).

Based on the recreation opportunity spectrum (ROS), the desired range of recreation opportunities on the KNF has more non-motorized (77 percent of area) than motorized recreation opportunities (33 percent of area) during the summer (FW-DC-AR-04). ROS maps the recreation setting available; however because motor vehicle use is limited to designated routes and areas (except over-snow vehicles), not every acre mapped in a motorized setting may be available. The FEIS “Recreation” section has been updated with additional information. While the desired condition is to provide for a range of recreation opportunities, we recognize that we will not be able to meet the demands equally of all recreation groups on the KNF.

Desired conditions for development and maintenance of motorized recreation opportunities are included in GA-DC-AR-CLK-01, GA-DC-AR-KOO-04, and GA-DC-AR-LIB-03. A site-specific travel management designation for the Forest is addressed in the alternatives Considered but Eliminated from Detailed Study in the FEIS (see the Site-Specific Travel Management Alternative).

The KNF published the motor vehicle use map (MVUM) in 2010. The MVUM displays routes and areas designated for motor vehicle use per 36 CFR 212 Subpart B. The MVUM is the legal order and travel off designated routes and areas is prohibited. The site-specific changes noted above that address motor vehicle use would be included on the MVUM after the ROD is executed.

Motorized Recreation: Category 107

Public Comment 5: (Letter Number(s): 112, 137, 146, 247, 264, 268, 276, 307, and 356)

The Forest Service should provide an adequate distribution of opportunities for motorized and non-motorized recreation.

Response:

Travel management on federal lands has been a challenging management issue since the late 1970s, when the Executive Order 11644 was issued establishing policy and procedures “... that will ensure that the use of off-road vehicles on public lands will be controlled and directed so as to protect the resource of those lands, to promote the safety of all users of those lands and minimize conflicts among the various users of those lands.” What is a fair allocation between different forest users will continue to be an issue that all land managers face. We recognize that we are not able to meet the needs equally of all recreation groups on the KNF.

The FEIS “Access and Recreation” section in chapter 3 has been updated to use the most current information, and reorganized to show comparisons between motorized and non-motorized recreation opportunities. Various comments, reports, and statistics were provided in comments on the DEIS and draft Forest Plan; this information was reviewed and used as appropriate. As displayed throughout the FEIS, recreation is one of several resources considered in travel management. We recognize that areas, roads, and trails where motorized use is restricted, have increased since the 1987 Forest Plan.

The ROS shown in in tables entitled “Percentage Summer Recreation Opportunity Spectrum by Alternative” and “Percentage Winter Recreation Opportunity Spectrum by Alternative” in the “Recreation Setting” section of the Environmental Consequences of Access and Recreation in Chapter 3 of the FEIS shows the spectrum of opportunities based on existing conditions (current legal closure orders) and MA desired condition. This table has been updated from the DEIS, which used MA desired condition only.

The existing ROS as mapped (Alternative A) displays current opportunities as a result of policy, regulation, law, and site-specific analysis across the Forest. There are motorized and non-motorized users who desire more or less motorized access. However, without substantive changes in policy, regulation, or law, ROS shows relative small changes between alternatives. The desired distribution of forestwide ROS settings (FW-DC-AR-04) comes from the selected alternative ROS analyzed and displayed in the FEIS.

Motorized Recreation: Category 107

Public Comment 6: (Letter Number(s): 146)

The Forest Service should consider the positive benefits of motorized recreation.

Response:

We agree that motorized recreation is an appropriate use of national forest and that riding OHVs or over-snow machines has positive benefits for many forest users. Opportunities for a variety of recreation activities, motorized and non-motorized, are considered at different levels by alternative and Alternatives Considered but Eliminated from Detailed Study. Recreation facilities and opportunities, as well as other resources, are considered in management of National Forest Lands (see FW-DC-AR-07 and FW-DC-AR-07).

Motorized Recreation: Category 107

Public Comment 7: (Letter Number(s): 149, 154, 205, 277, 303, 326, and 371)

The Forest Service should manage for less motorized opportunities because of: budget constraints, the higher cost of maintaining motorized routes, resource impacts, and the relatively small number of motorized users.

Response:

The trend on the KNF has been a reduction in motorized recreation opportunities since the 1987 Forest Plan for a variety of reasons including: wildlife management, budget (operating and

construction), and resource impacts. The MVUM restricts all motorized vehicle use (except over-snow vehicle use) to designated routes and areas. Over-snow vehicle use is managed by site-specific Forest Special Orders. The predominating recreation opportunity provided is non-motorized use in the summer. This trend continues in the revised Forest Plan. Also see the response to Public Comment 48.

The desired condition is to provide a range of recreation opportunities (FW-DC-AR-05), providing a variety of experiences for all users. Determining the “need” for a particular recreation opportunity is based on many factors; current use and public demand is one part of that.

The Forest uses the best information available to estimate current use numbers and what activities visitors participate in. National Visitor Use Monitoring (NVUM) is one tool we use to estimate total forest visitation participation. Other sources of visitor participation which supplements NVUM data include: observations, campground receipts, campground host records, outfitter and guide client numbers, trail registers, agreement with clubs and organizations, and recreation events. The FEIS has been updated to reflect these other sources of visitor use information.

Objective FW-OBJ-AR-05 has fewer miles of motorized than non-motorized trail to be maintained. These numbers are based on the current level of motorized routes that we are able to manage given current funding levels, impacts to the ground, and other resource concerns. Other resource concerns include impacts to wildlife and invasive species.

Non-Motorized Recreation: Category 108

Public Comment 8: (Letter Number(s): 50, 53, 63, 73, 77, 89, 112, 132, 133, 137, 142, 225, 235, 262, 268, 270, 275, 283, 287, 303, 307, 308, 312, 315, 333, 352, 360, 364, and 365)

The Forest Service should provide opportunities for non-motorized recreation and protection of backcountry, fragile areas, and wildlife habitat. The Forest Service should enforce restrictions on motorized use.

Response:

Enforcement of travel management restrictions is not within the scope of Forest Plan decisions, but is site-specific implementation of travel management guidance. The Forest Service enforces existing laws and regulations through law enforcement and forest personnel. The KNF has published an MVUM which displays where motorized vehicle use (except over-snow vehicles) can occur across the Forest. The Forest Service will continue to work to educate user groups and individuals to prevent violations. In addition, the KNF has a Law Enforcement Plan that provides this direction.

Segregating uses on specific roads or trails is a site-specific decision that is made after a thorough analysis of the issues, following NEPA. The revised Forest Plan does not make this decision. Management area direction in the Rock Creek drainage does allow for motorized use on designated routes and areas; however, no changes are proposed for the East Fork Rock Creek Trail #935. This trail is a non-motorized trail. Any changes to allow or restrict uses would require site-specific analysis and NEPA. The revised Forest Plan is not proposing to change use on this trail to allow motorized access.

There is no requirement to provide a non-motorized buffer around the Cabinet Mountain Wilderness. The boundary for the wilderness area is enforceable, with little infraction of motorized use occurring within the designated wilderness area. Alternative C provided mostly non-motorized MAs around the Cabinet Mountains Wilderness Area. This alternative was considered in selecting the preferred alternative.

The Forest Plan Amendment for Motorized Access Management within the Selkirk and Cabinet-Yaak Grizzly Bear Recovery Zones is a part of the revised Forest Plan and provides for the continued recovery of this species in these ecosystems.

The decision to prohibit motorized and mechanical use (including bicycle) in recommended wilderness will be made in the ROD. Areas recommended for wilderness will be managed to protect the wilderness character of that area. Appendix C to the FEIS defines outdoor recreation opportunities that are primitive and unconfined to include hiking, backpacking, stock riding, hunting, fishing, skiing, snowshoeing, and rafting.

Clarification of allowed uses in the Ten Lakes WSA is provided in the Designated Wilderness, Wilderness Study Area, and Recommended Wilderness, Effects from Management Area Allocation section of Chapter 3 of the FEIS.

Regarding bicycle use in WSR, eligible WSRs have been updated. Please see the Wild & Scenic Rivers section of Chapter 3 of the FEIS.

NVUM Data: Category 109

Public Comment 9: (Letter Number(s): 146, 216, and 316)

The Forest Service should update procedures in collecting and using visitor use data for management decision, specifically the National Visitor Use Monitoring (NVUM).

Response:

Protocols for collecting and analyzing data using the NVUM process is outside the scope of the revised Forest Plan. The NVUM survey and data analysis is scientifically designed to reflect use statistics at the forestwide level, not at the ranger district or site-specific level. NVUM may not capture all use or all activities, for example climbing which occurs in a few specific locations on the Forest.

The Forest uses the best information available to estimate current use numbers and what activities visitors participate in. See the response to Public Comment 7.

We disagree with some of the data provided by groups and organizations in comments provided. Some of the information provided did not apply to the KNF.

We agree that user conflicts, while they do occur, are uncommon on the KNF.

See the response to Public Comment 4 for information regarding site-specific travel management decisions.

The desired condition for the Koocanusa GA (GA-DC-AR-04) was modified to include additional recreation opportunities for rock climbing. This may include route inventory and a management plan for climbing. Climbing use information is collected such as observations, donations at Stone Hill, and outfitter and guide use.

Recreation Opportunity Spectrum (ROS): Category 110

Public Comment 10: (Letter Number(s): 146, 205, 216, 258, 324, 363, and 379)

The recreation opportunity spectrum does not reflect the values and needs of users of the KNF.

Response:

The ROS inventory is helpful in establishing baseline conditions for recreation settings. It is a macro, not micro, management tool, used in the Forest Plan and other broad-scale planning. ROS can be used to show the general effect of alternatives to recreation settings and opportunities over broad landscapes. ROS in the FEIS “Access & Recreation” section has been updated.

The desired range of recreation opportunities in the revised Forest Plan has more non-motorized (77 percent of area) than motorized recreation opportunities (33 percent of area) during the summer (FW-DC-AR-04). While the desired condition is to provide for a range of recreation opportunities, we recognize that we will not be able to meet the demands of all recreation groups equally on the KNF.

The revised Forest Plan does not designate wilderness. Congress, after a public process, is the only level of government that can designate wilderness.

For more information, see the response to Public Comment 4 and 5.

Where appropriate, motorized recreation opportunities may be maintained or expanded.

We agree that restricting use can concentrate users and resource impacts.

We agree that the KNF is beneficial socially, economically, and for general health of local publics.

The ROS desired condition for MA3 has been reviewed and updated to be consistent.

Recreational Access Fees: Category 111

Public Comment 11: (Letter Number(s): 277)

The Forest Service should consider redesigning the permitting process to allow for educational opportunities without costly fees.

Response:

The permitting regulations on NFS lands are outside the scope of the Forest Plan. However, the KNF has worked with several organization, schools, and clubs to provide education opportunities. When in partnership with non-profits or accredited schools, there are provisions for reduced or waived fees.

Road Access and System: Category 112

Public Comment 12: (Letter Number (s): 144, 186, 201, 264, 277, 284, 306, 330, 324, 352, 353, 356, and 357)

The Forest Service should maintain a road system that provides adequate and economical access for resource management including timber harvest and fire suppression. Adequate road access and regular maintenance is important for public safety, recreation, and firewood harvest.

Eliminating the economic investment of the existing road system through decommissioning (obliteration) is a waste of taxpayer dollars.

A) Public access on NFS roads should not be changed without notice and evidence of adverse effects to natural resources. Justification for year-round closures versus seasonal closures should be provided.

Response:

The KNF agrees that forest roads are an essential part of the transportation system designed to support the multiple use of our NFS lands. They help meet recreational demands and facilitate access to forest commodities. They provide access needed to manage vegetation and conduct fire suppression activities. And the overarching aim of transportation planning on the KNF is to seek a balance of access opportunities while considering resource needs and user safety.

However, as a result of changing resource management technology (longer yarding distances), financial limitations (reduced road maintenance funding), and requirements to meet other resource objectives (wildlife security and water quality protection), the trend on the KNF has been a reduction in road miles. The Forest Service is directed to identify those roads no longer needed to meet resource management objectives (36 CFR 212). Site-specific travel analyses at the project level are conducted to assess the risks and benefits (including access and economic investment) of individual roads prior to any decommissioning proposals. Subsequent NEPA projects provide the opportunity for public notice and comment regarding changes in public access.

The revised Forest Plan provides for both road decommissioning and road construction to meet multiple resource goals and objectives over the life of the Plan. However, site-specific travel

management decisions are outside the scope of the Forest Plan. That analysis occurs at the project-level, with decisions following site-specific NEPA.

Road Access and System: Category 112

Public Comment 13: (Letter Number (s): 247, 301, 309, 321, and 349)

The KNF must bring its road system to a size and design commensurate with available funding. The Forest Plan should provide direction to identify the minimum road system as directed in 36 CFR Subpart A and the 2010 FS correspondence (updated 2012) regarding implementation of subpart A. The draft Forest Plan direction is inadequate for reducing road miles and no additional road or bridge construction should occur (including temporary roads).

Response:

The direction to identify the minimum road system is found in the code of federal regulations (36 CFR 212), the Forest Service Manual (FSM 7710), and the Forest Service Handbook (FSH 7709.55); so repeating this direction in the revised Forest Plan is unnecessary.

All decisions to authorize additional road or bridge construction must be supported by travel analysis as directed in the preceding citations. Travel analysis considers the environmental, social, and economic effects of road construction within the context of the Forest's resource management needs. Although the Forest Plan predicts a reduction in road miles over the life of the Plan, this will be achieved through site-specific identification of transportation needs. A blanket restriction on any additional road or bridge construction would be unduly restrictive to allow the Forest to meet the multiple resource goals and objectives identified in the revised Forest Plan.

The Forest Plan does not make any site-specific travel management decisions. This analysis occurs at the project-level, with decisions following site-specific NEPA. The ongoing project-scale travel analysis continues to prioritize road maintenance, decommissioning, and trail opportunities as the Forest works to identify the minimum number of routes needed for an efficient transportation system as directed in 36 CFR 212.

Road Access and System: Category 112

Public Comment 14: (Letter Number (s): 87, 89, 98, 118, 128, 139, 242, 247, 266, 300, 321, 333, and 371)

The Forest Service should consider road-related effects to water quality, fish habitat, wildlife, and other resources. Inadequate funding to maintain road BMPs may lead to adverse effects to watersheds and aquatic habitat through chronic erosion and/or continue the risk for mass failure at crossings or locations on sensitive land types. Some commenters support road decommissioning as a method to reduce weed spread and restore native plants, improve wildlife security and connectivity, improve aquatic habitat, reduce fire human-caused fire risk, and reduce maintenance burdens. Commenters encouraged the Forest Service to prioritize decommissioning in the Forest Plan to restore ecosystems and move toward a road system that can be adequately maintained with foreseeable agency budgets.

Response:

Road-related effects are considered in the watersheds, soils, riparian and aquatic habitat/species, rare plants, and terrestrial wildlife sections of the FEIS. The desired condition for access includes a transportation system that has minimal impacts on watersheds, riparian areas, and aquatic species including threatened, endangered, and sensitive species (FW-DC-AR-07). The aim of forestwide watershed objectives (FW-OBJ-WTR 01 and 02) is to remove or mitigate risk factors like roads to improve watersheds and water quality. FW-OBJ-AQH-03 aims to reconnect

fragmented habitat in streams to increase the distribution of aquatic and riparian associated species. Project-level design criteria directs that roads that are decommissioned or put in storage be treated to make them hydrologically stable in order to avoid future risks to watershed conditions (FW-GDL-WTR-02). And although allocated road maintenance funding is in decline, scheduled road maintenance for maintenance levels 2 through 5 is an access objective with an additional objective of decommissioning or storing 150 to 350 miles over the life of the Plan (FW-OBJ-AR-03).

The Forest Plan does not make any site-specific travel management decisions. This analysis occurs at the project-level, with decisions following site-specific NEPA. Ongoing project-scale travel analysis continues to prioritize road maintenance and decommissioning opportunities as the Forest works to identify the minimum number of roads needed for an efficient transportation system as directed in 36 CFR 212. User safety, resource protection, and mission needs are used to prioritize roads for maintenance.

Road and Trail Inventory: Category 113

Public Comment 15: (Letter Number (s): 146 and 257)

The Forest Service should use existing opportunities (open roads/trails) as the inventory with which to develop a motorized recreational trail system and should address environmental concerns through mitigation rather than closures. Non-motorized trail inventories should be considered separately.

Response:

The revised Forest Plan provides programmatic direction regarding where motorized recreation may or may not be compatible with MA direction. Although the KNF overarching aim is to seek a balance of access opportunities on NFS lands while considering resource needs and user safety, identification and development of specific motorized recreation trail system is outside the scope of the Forest Plan revision. On-going site-specific travel analyses and travel management planning efforts consider the risks and benefits of motorized trail use, potential mitigations and/or limited operating periods, and non-motorized use and opportunities.

Road MTCE and Decommissioning: Category 115

Public Comment 17: (Letter Number (s): 146 and 312)

The Forest Service should prioritize funding for road and motorized trail maintenance before decommissioning as a better return on funding in both environmental enhancement and recreation opportunities.

A) Where stream-side roads are out of compliance with BMPs, describe what actions/repairs are needed to bring them in compliance.

Response:

User safety, resource protection, and mission needs/recreation use are used to prioritize road/trail maintenance funding. 36 CFR 212 directs the Forest Service to identify the minimum road system needed for safe and efficient travel, administration, utilization, and protection of NFS lands. Roads that are no longer needed to meet resource management objectives are to be decommissioned or considered for other uses (36 CFR 212.5 ((b))).

The Forest Plan does not make any site-specific travel management decisions. This analysis occurs at the project-level, with decisions following site-specific NEPA. Site-specific travel analyses assess the benefit and risks of roads and trails to identify and prioritize opportunities for decommissioning or providing additional recreation. These analyses help the KNF meet FW-DC-

AR-07 for a transportation system that is efficiently maintained, environmentally compatible, and responsive to public needs and desires.

The watersheds, soils, riparian, and aquatic habitat species section of the FEIS discusses the estimated miles of road located within riparian areas as a potential indicator of riparian condition. It is outside the scope of the revised Forest Plan to identify all site-specific actions needed for BMP compliance. Site-specific travel analyses and project planning efforts are the appropriate location to provide this information.

Snowmobiling: Category 117

Public Comment 19: (Letter Number(s): 70, 190, 195, 245, 256, 319, 356, 357, and 372)

The Forest Service should provide more and higher quality, snowmobile recreational opportunities.

Response:

The desired condition for Winter ROS in Alternative B Modified is for 86% of the KNF to be open to over-snow motorized use. This is an increase from the current condition. The KNF has worked with the Montana FWP, local snowmobile clubs, and other organizations to provide quality snowmobile opportunities and will continue to do so. ROS in the FEIS “Access and Recreation” section in chapter 3 has been updated.

The only site-specific change in over-snow motorized use (restriction or opening) addressed in the revised Forest Plan is with MA1b recommended wilderness and MA4 research natural areas. See response to Public Comment 4 for more information.

We disagree that the closure of recommended wilderness (Dry Creek/proposed, Savage Mountain/existing) is excessive. Discussion with the local snowmobile club, snowmobile users, Troy district personnel, law enforcement, and other public comment indicate that Dry Creek has been used by a relatively small group of snowmobilers. The boundary for MA1b recommended wilderness was moved from the ridge down to Forest Road 2291. The reason for this was that the ridge line boundary has not been enforceable; district personnel have observed snowmobile tracks as far as the top of Billiard Table. Current motorized restrictions and enforcement of the boundary at the ridge line have not been successful at preventing illegal snowmobile access. Moving the boundary down to the road system still provides access for snowmobilers (in a smaller area), but is more manageable and enforceable.

The closed area around Savage Mountain, on the KNF, has been closely monitored under cooperation by the Forest Service and the Troy Snowmobile Club. This closure has been enforceable and is in a manageable location.

We agree that the Bloom Peak area should be designated motorized. The ridge line between 87 Mile Peak and Black Peak, which includes Bloom Peak, was designated 5b (motorized vehicle use allowed). The corridor line was not readily visible on the alternative maps. This has been corrected in the revised Forest Plan map.

See response to Public Comment 124 for information on the process for evaluating inventoried roadless areas.

Snowmobiling: Category 117

Public Comment 20: (Letter Number(s): 112, 125, 132, 135, 137, 154, 224, 225, 256, 265, and 308)

The Forest Service should reduce or regulate snowmobile use based on non-motorized user conflicts and impacts to wildlife.

Response:

Motorized over-snow users, like non-motorized users, are generally allowed to go cross-country. This does not mean that either user group can access every acre that is open to them. Topography, vegetation, and precipitation play factors in where user can effectively recreate. Motorized over-snow users, like non-motorized users are individuals. Some may desire a group outing, while others are seeking a solitary remote experience.

Conflicts between winter users are rare. See response to Public Comment 7 and 9 for changes to the FEIS regarding visitor use information.

See response to Public Comment 4 for changes between DEIS and FEIS regarding recreation opportunities for over-snow motorized use by alternative. In the FEIS and revised Forest Plan the analysis of the opportunity for over-snow motor vehicle use by percentage of the Forest was changed to use ROS and MA, which more accurately reflects the motorized opportunity.

We agree that a separate environmental assessment on snowmobile access would be required for any additional site-specific changes. See response to Public Comment 4 for site-specific travel management decisions regarding over-snow use.

Effects to wildlife, including wolverine, are covered under the “Wildlife” section of the FEIS.

Snowmobiling: Category 117

Public Comment 21: 70, 146, 245, 335, and 356)

The Forest Service should consider the impacts of snowmobiling in a fair and unbiased manner, taking into consideration all research.

Response:

We agree that snowmobilers historically have used much of the KNF (including the Ten Lakes WSA in 1977), that ATVs have been around since the early 1970s, and that the bicycle was invented in 1879. Technical advancement of both the snowmobile and ATV, along with an increase in the popularity of the sport, has resulted in more users being able to easily access areas that they may not have had the ability to do in the past. Mountain biking developed as a sport in the 1970s, with the first mass produced mountain bike “Specialized Stumpjumper” in 1981.

Chapter 3 of the FEIS has been updated with this information.

We agree that research provided indicates over-snow machines use with adequate snow cover can have little impact to soils, soil compaction and vegetation. We agree that research provided indicates wildlife can react more to people walking, than a person in a vehicle (over-snow or other all-season vehicles). We agree that we have had few complaints of noise regarding over-snow machines, and that snowmobiles can be relatively quiet.

There is a variety of research, depending on location, of over-snow motorized use effects on various wildlife species. See “Wildlife” sections in the FEIS.

The site-specific changes in over-snow motorized use in the revised Forest Plan are with MA1b recommended wilderness and MA4 research natural areas. Appendix C of the FEIS explains in detail the evaluation process for recommended wilderness and the criteria used. The determination of an area being suitable and allocated to recommended wilderness is based on multiple criteria, not recreation use alone.

The revised Forest Plan has a net reduction of acres open to over-snow motorized use. We recognize while the net loss in over-snow motorized use is relatively small, the areas being closed overlap with areas that are important to the snowmobile community.

See response to Public Comment 10 and 19.

Snowmobiling: Category 117

Public Comment 22: (Letter Number(s): 245, 295, and 336)

The Forest Service should consider changes to the Wilderness evaluation criteria in appendix C of the DEIS regarding snowmobiles.

Response:

Winter recreation opportunities are address by 4 of the 47 elements for an inventoried roadless areas capability assessment as recommended wilderness. When addressing non-motorized use an area where wheeled access was several miles away, but access is possible by snowmobile, the rating was “medium.” When addressing motorized use if snowmobile use is permitted on half or less of the area rates as “medium.” Both elements come out as “medium” if snowmobile access is possible in part of the area. The reason for this is that motorized use is not considered a primitive recreation opportunity; any motorized use reduces the capability of the area.

The Recommended Wilderness Evaluation, FEIS appendix C, has been updated. See response to Public Comment 124.

The FEIS appendix C for Northwest Peaks IRA #663 comments for Wilderness Evaluation - Availability has been changed; the term “some” was dropped.

The KNF FEIS and revised Forest Plan do not use the word “play area” as relating to over-snow use.

Trail Access and System: Category 119

Public Comment 23: (Letter Number(s): 146, 277, 321, 352, and 357)

The Forest Service should provide a motorized trail system that meets the needs of the public.

Response:

See response to Public Comment 1 and 4: The KNF agrees that motorized access is an important component of forest management to meet the needs of many recreating publics. However, a variety of resources are affected by motorized traffic. The revised Forest Plan seeks a range of access opportunities while considering resource needs and user safety.

See response to Public Comment 2: The KNF has, and will continue to partner with groups and organizations, work with volunteers and look for other funding grants to provide recreation opportunities.

See response to Public Comment 4: The revised Forest Plan provides programmatic direction as to where motorized recreation may or may not be suitable. The revised Forest Plan desired condition for motorized and non-motorized recreation opportunities meet other resource needs, provides for user safety, and complies with all laws. The desired range of recreation opportunities on the KNF has more non-motorized than motorized recreation opportunities during the summer (FW-DC-AR-04). While the desired condition is to provide for a range of recreation opportunities, we recognize that we will not be able to meet the demands of all recreation groups equally on the KNF.

See response to Public Comment 4 regarding site-specific changes to travel management.

Trail Access and System: Category 119

Public Comment 24: (Letter Number(s): 146 and 357)

The Forest Service should use examples of other trail systems to guide development of the Forest trail system that is adequate, reasonable, and fair to allow continued motorized use of existing routes in inventoried roadless and wilderness study areas until such time as Congress approves the area as wilderness.

Response:

See response to Public Comment 1: The KNF agrees that motorized access is an important component of forest management to meet the needs of many recreating publics.

See response to Public Comment 2: The KNF has, and will continue to partner with, groups and organizations, work with volunteers, and look for other funding grants to provide recreation opportunities, including motorized trails.

See response to Public Comment 4: The revised Forest Plan provides programmatic direction as to where motorized recreation may or may not be suitable.

Where appropriate, motorized recreation opportunities will be maintained or expanded (see FW-DC-AR-05 and FW-OBJ-AR-04 and 05).

See response to Public Comment 4: The only site-specific changes to travel management are in MA1b recommended wilderness and MA4 research natural areas (closure to over-snow motorized and mechanized use) and areas removed as recommended wilderness in the revised Forest Plan (open to over-snow motor vehicle use where appropriate).

See also Alternatives Considered but Eliminated from Detailed Study in the FEIS including: Reduction of Roadless Areas, Access and Roads (all trails and roads available to multi-use recreationalist), and Site-Specific Travel Management.

Trail Access and System: Category 119

Public Comment 26: (Letter Number(s): 324)

The Forest Service should permit more multiple use trails and reduce conflicts among users by adopting the following principles (Conflict in Outdoor Recreation: A Theoretical Perspective by Gerald R. Jacob and Richard Schreyer. Journal of Leisure Sciences Vo. 12 (1980) No. 4 Pages 368-380):

- A) Recognizing conflict as goal interference (Jacob and Schreyer 1980, 369);
- B) Providing adequate trail opportunities;
- C) Minimizing number of contacts in problem areas;
- D) Involving users as early as possible (Ryan 1993, 79);
- E) Understanding user needs;
- F) Identifying the actual sources of conflict;
- G) Working with affected users (Isbill 1993);
- H) Promoting trail etiquette (Roggenbuck and Ham 1986);
- I) Encouraging positive interaction among different users;
- J) Favoring "Light-Handed Management";
- K) Planning and acting locally; and
- L) Monitoring progress.

Response:

These references are not applicable to the forest plan revision. These references may be applicable to site-specific travel management planning, when considering trail uses of individual trails. The revised Forest Plan does not make decisions regarding individual trails.

Trail MTCE and Decommissioning: Category 120

Public Comment 27: (Letter Number (s): 146)

The Forest Service should consider constructing and maintaining water bars with equipment and enlisting assistance from user groups to maintain OHV trails.

Response:

See response to Public Comment 2: The KNF objective is to maintain 10-20 miles of motorized trail each year (FW-OBJ-AR-05).

In addition, the KNF partners with between 50-60 groups, including motorized users, each year to provide for recreation opportunities that would not otherwise be provided. The KNF has, and will continue to partner with groups and organizations, work with volunteers and look for other funding grants to provide recreation opportunities. The KNF received state of Montana OHV grant funds for 2012, and applied for funds in 2013.

Travel Management: Category 121**Public Comment 28:** (Letter Number (s): 146)

The Forest Service has not followed the intent of the Travel Management Rule to provide designation of additional motorized recreation opportunities. Commenters expressed concern with an imbalance in available motorized and non-motorized recreation opportunities and NEPA compliance with travel management decisions related to purpose and need, scope of analysis, and cumulative effects analysis. The Forest Plan should designate additional motorized recreation opportunities including designated motorized mixed-use and loop opportunities.

Response:

The revised Forest Plan provides programmatic direction as to where motorized recreation may or may not be suitable and aims for a balance of motorized and non-motorized recreation opportunities. The KNF has published motor vehicle use maps (MVUMs) which display those roads, trails, and areas designated for motor vehicle use in compliance with the Travel Management Rule (36 CFR 212 Subpart B). Additional travel management designations or modifications are outside the scope of the revised Forest Plan but are predicted as possible actions for site-specific project planning over the life of the Plan. Any future site-specific designations for loop opportunities and motorized mixed-use will comply with NEPA and FSH 7709.55 requirements for engineering analysis.

Travel Management: Category 121**Public Comment 29:** (Letter Number (s): 333)

Some commenters suggested site-specific road restrictions to reduce user-conflict related to winter recreation and lookout rentals.

Response:

An alternative including site-specific travel management decisions was considered but eliminated from detailed study. The Forest Plan provides programmatic direction regarding where motorized access may or may not be compatible with MA direction. However, site-specific access changes are outside the scope of the Forest Plan revision.

Travel Management: Category 121**Public Comment 30:** (Letter Number(s): 146 and 357)

The Forest Service should adequately research RS-2477 prescriptive rights in the county records and consult with the county before making any changes in road access.

Response:

Forest Service Manual direction at 7715.3 requires coordination with appropriate federal, state, county and other local government entities and tribal governments when making travel

management decisions. However, it is the county's responsibility to conduct the research, document evidence of construction and public use, and subsequently pursue the assertion of R.S. 2477 rights in the appropriate court of jurisdiction.

The revised Forest Plan does not negate or infringe on any valid existing rights. Forest Service regulation of occupancy occurring under valid rights would be adjusted to a level consistent with the full protection and recognition of R.S. 2477 rights, consistent with current applicable law, once those roads are identified, proposed, and validated by the courts.

Travel Management: Category 121

Public Comment 31: (Letter Number(s): 357)

The Forest Service needs to provide a complete trail inventory prior to any travel management changes.

Response:

Site-specific travel management changes are outside the scope of the Forest Plan revision. Road and trail inventories are conducted for site-specific travel analyses at the project level to support site-specific travel management changes following NEPA. The level of detail and inventory conducted are commensurate with the scope and purpose and need of the proposed project.

Unauthorized Roads and Trails: Category 122

Public Comment 32: (Letter Number (s): 268 and 280)

Some commenters are concerned expanding OHV motorized recreation opportunities will result in additional illegal use and subsequent natural resource damages.

Response:

The revised Forest Plan does not identify or change site-specific motorized recreation designations. Travel management planning is used to assess the risks and benefits associated with designating routes or areas for motor vehicle use (including OHVs) and are outside the scope of the revised Forest Plan. The KNF motor vehicle use map (MVUM) shows those roads, trails, and areas designated for motor vehicle use per 36 CFR 212 Subpart B for the purpose of enforcing the prohibition at 36 CFR 261.13. Any motor vehicle use occurring on NFS lands other than those roads, trails, and areas as shown on the MVUMs is prohibited and subject to fine and/or imprisonment.

Mountain Biking: Category 124

Public Comment 34: (Letter Number(s): 254 and 257)

The Forest Service should recognize mountain biking as a low impact non-motorized method of travel, and address it in a meaningful manner.

Response:

We agree that mountain biking is a distinct use, and a mechanical not motorized vehicle. Mountain biking has increased on the KNF since the 1987 Forest Plan. Mountain Biking is address in the revised Forest Plan under FW-DC-AR-05 to provide a variety of recreation opportunities, and GA-DC-AR-KOO-04 to provide additional opportunities. The only site-specific change to mountain biking in the revised Forest Plan is a restriction of mechanized use in MA1b recommended wilderness. Chapter 3 of the FEIS contains updated information regarding this closure.

Mountain Biking opportunities have been added to the Access and Recreation section of chapter 3 of the FEIS.

DEIS General: Category 125

Public Comment 35: (Letter Number(s): 83, 146, 246, 264, 321, 357, and 371)

The Forest Service should consider strategies for successfully managing all of the various recreational uses on the Forest.

Response:

The revised Forest Plan provides programmatic direction as to where recreation opportunities may or may not be suitable. While the desired condition is to provide for a range of recreation opportunities, we recognize that we will not be able to meet the needs of all recreation groups equally on the KNF.

We agree that technical advancement of snowmobiles, ATV and mountain bikes, along with an increase in the popularity of these sports, has resulted in more users being able to easily access areas that they may not have had the ability to in the past.

We agree with research provided that: interest and desire to participate in OHV recreation in the outdoors is increasing; motorized recreation is expected to have a beneficial effect on health and fitness; and that recreational activity is associated with moderate-intensity cardiovascular demand. All this promotes mental and physical health of the public.

See response to Public Comment 4 for site-specific changes to travel management and Alternatives Considered but Eliminated from Detailed Study for Access and Roads; where appropriate, motorized recreation opportunities will be maintained or expanded.

While the revised Forest Plan does not make site-specific route decisions, we disagree that we have limited the desired condition to existing routes only. See response to Public Comment 4 where appropriate motorized recreation opportunities will be maintained or expanded. Desired conditions for development and maintenance of motorized recreation opportunities is included in GA-DC-AR-CLK-01, GA-DC-AR-KOO-04, and GA-DC-AR-LIB-03.

Thank you for information showing the national OHV web site is not current. This national information was not used in the forest plan revision.

DEIS Alternatives: Category 127

Public Comment 37: (Letter Number (s): 146, 321, 335, 351, 356, and 359)

The Forest Service should consider analyzing an alternative for the maximum amount of motorized recreation opportunities. It is not clear what changes in recreation demand have occurred since the 1987 Plan, as stated on page 5 of the DEIS.

Response:

This type of alternative is similar to alternatives not considered in detail in the DEIS, the “Access and Roads” and the “Site-Specific Travel Management” alternatives. The FEIS includes an additional alternative, the “Pro-Motorized Recreation” alternative to address this concern. Similar to the “Access and Roads” alternative, the pro-recreation alternative would not provide wildlife security. Similar to the “Site-Specific Travel Management” alternative, this type of alternative desires site-specific decisions that are not made in the Forest Plan.

Regarding changes in recreation demand since the 1987 Forest Plan please see the KIPZ Analysis of the Management Situation Technical Report (2003) and KIPZ Comprehensive Evaluation Report (2006). Some of the changes noted include; increased user demand over the last 15 years... motorized and non-motorized modes of travel have increased and diversified; technological advancements in recreational equipment; changes in logging system technology and

the need for high density road systems; miles of roads put into restricted status to meet wildlife habitat needs (2003 AMS Technical Report, page 107-122).

DEIS Cumulative Effects: Category 128

Public Comment 38: (Letter Number (s): 146)

The Forest Service must recognize the cumulative effects motorized closures have on the public over time. The Forest Service should develop an alternative that mitigates this loss and provides a balance of opportunities for motorized users.

Response:

We agree that motorized recreation opportunities are important and that motorized use has increased since the 1987 Forest Plan. We also recognize that areas, roads, and trails where motorized use is restricted has increased since the 1987 Forest Plan (2003, AMS Technical Report, tables 1-25, 1-26 and 1-27). We agree that restricting use can concentrate users and create resource impacts.

The trend on the KNF has been a reduction in motorized recreation opportunities for a variety of reasons including wildlife management (habitat and law), budget (operating and construction), and resource impacts. Recreation is one of several resources considered in travel management. The Motor Vehicle Use Maps (MVUMs) were developed at a more site-specific level and incorporated the applicable laws, rules, and regulations required in the analysis of which roads and trails would be open to motorized use. Site-specific travel management designations or modifications to the MVUMs are outside the scope of the revised Forest Plan but are predicted as possible actions for continued or additional project-level planning over the life of the Plan. Any future site-specific designations for loop opportunities and motorized mixed-use will comply with NEPA and FSH 7709.55 requirements for engineering analysis.

There were several alternatives considered in the DEIS and FEIS regarding motorized recreation. Alternatives considered but eliminated from detailed study in the FEIS include; Reduction of Roadless Areas, Open all Roadless Areas to Snowmobile Use, Access and Roads, and Site-specific Travel Management, and Pro-Motorized Recreation. Also see responses to Public Comments 1, 4, 5, 7, and 10.

DEIS Environmental Consequences: Category 129

Public Comment 39: (Letter Number (s): 146 and 356)

Environmental impacts from recreation discussed in the FEIS should be based on science that is relevant to the activity and resources being addressed.

Response:

Please see chapter 3 of the FEIS which summarizes the physical, biological, social, and economic environments that may be affected by the alternatives. Each of these resources has a section titled “Effects from Recreational Management,” which described the effects anticipated from recreation management including trails, campground, type of use, etc.

Forest Plan General: Category 131

Public Comment 41: (Letter Number(s): 146)

The Forest Service should avoid overly restrictive recreation management prescriptions that limit the agency’s ability to respond to changing recreation patterns.

Response:

The effects analysis for access and recreation recognizes there are continuing changes in recreation technology and use. The forestwide direction for access and recreation contains goals, desired conditions, objectives, and guidelines to provide a wide range of environmentally sustainable opportunities to meet the needs and desires of visitors. All alternatives in the FEIS accommodate a mix of recreation opportunities providing today's recreationists with reasonable assurances of future motorized and non-motorized recreational opportunities. Although some specific wildlife management guidelines may limit types and seasons of access during sensitive periods (e.g., breeding, calving, den emergence), there are no overly restrictive management prescriptions in the revised Forest Plan that will limit the agency's ability to respond to changing recreation patterns.

Forest Plan Goals: Category 132**Public Comment 42:** (Letter Number (s): 146, 247, 276, 312, and 335)

The Goal for Access and Recreation (GOAL-AR-01) "Manage large areas on the Forest that accommodate opportunities for solitude, self-reliance, and provide traditional recreation such as hunting, fishing, gathering products, and hiking" is not consistent with the amount of motorized access.

Response:

Goals are concise statements that describe an overall desired condition the Forest will strive to achieve. The third sentence in Goal-AR-01 goes on to state "Maintain a road and trail system that provides access to the Kootenai National Forest." The desired condition for recreation opportunities FW-DC-AR-04 described through ROS are used then to guide management. The desired range of recreation opportunities on the KNF has more non-motorized area than motorized during the summer, and more motorized than non-motorized during the winter. See Public Comment 4.

Forest Plan Goals: Category 132**Public Comment 42A:** (Letter Number (s): 324)

There is no discussion of two main water-based recreation areas (Dickey Lake and Lake Koocanusa) that are overcrowded and not easily accessed.

Response:

Direction is included in the revised Forest Plan to manage Lake Koocanusa and Dickey Lake. Please see MA7 Primary Recreation Areas and Koocanusa GA for desired conditions: MA7-DC-AR-01 – improved to serve the forest visitor; MA7-DC-AR-05 facilities designed for specific activities used by large numbers of people; GA-DC-KOO-03 recreation plan is developed; and GA-DC-AR-KOO-04 additional recreation opportunities for equestrians, mountain bikers, rock climbers, access to lakes, camping and OHV users are provided.

Forest Plan Desired Conditions: Category 133**Public Comment 45:** (Letter Number (s): 216 and 247)

The Forest Service should address the inconsistency between the Forest's prioritized distribution along the ROS and the desired condition FW-DC-AR-06 for Access and Recreation: "solitude and non-motorized experiences are available in remote settings. Non-motorized uses are of sufficient size and configuration to minimize disturbance from other uses" (DLRMP page 10).

The numbers in table 49 of the DEIS indicate a preponderance of quiet recreation use on the KNF, with little motorized recreation.

Response:

We disagree that FW-DC-AR-06 “solitude and non-motorized experiences are available in remote settings” is inconsistent with the ROS distribution in FW-DC-AR-05. The summer ROS distribution for primitive and semi-primitive non-motorized area is approximately 62 percent of the total KNF. Remote settings include the Cabinet Mountains Wilderness, the 43 Inventoried Roadless Areas, as well as core habitat for Grizzly Bear.

The recreation use numbers cited from table 49 of the DEIS neglected to include the number one visitor participation on the KNF which is driving for pleasure (49%). This table does not split use into motorized or non-motorized. For example, of the 46.3 percent who selected viewed wildlife, 40.6 percent who selected view scenery, or 28.2 percent who selected hunting, we do not know if the activity was from a vehicle or not.

Forest Plan Desired Conditions: Category 133

Public Comment 46: (Letter Number (s):371)

The Forest Service should revise FW-DC-AR-07 to quantify and shorten the timeline for achieving this desired condition.

Response:

This desired condition provides part of the framework to manage our transportation system in an environmentally sensitive and responsible manner. Unfortunately, the ability to achieve this desired condition is primarily a function of the Forest budget and ultimately the agency’s budget. The importance of aquatic ecosystems will continue to play a key role in the management of our roads and trails but the timeline to achieve this desired condition is highly variable and dependent on future funding.

Forest Plan Standards: Category 135

Public Comment 50: (Letter Number (s):371)

The Forest should add standards in the revised Forest Plan to address road and trail maintenance and enforcement of regulations to protect resources.

Response:

Road and trail maintenance is not required by law or regulation, but dependent on a number of factors including total miles, allocated funding, commercial activities, operational maintenance levels, use levels and season of use. FW-OBJ-AR-3, 4, and 5 address road and trail maintenance. FW-GLD-WTR-03 states that project-specific best management practices will be incorporated in all land use and project plans.

The MVUM is dynamic, intended to be updated annually or as needed when conditions change. Stated on the MVUM is “The designations shown on this motor vehicle use map are effective as of the date on the front cover and will remain in effect until superseded by the next years MVUM.”

Campground facilities and other recreation use areas are addressed under FW-DC-AR-01; quality, well maintained recreation facilities exist at key locations to accommodate concentrations of use, enhance the visitors’ experience, and protect the natural resources of the area.

Funding of law enforcement is outside the scope of the revised Forest Plan. Current direction for travel management signing can be found in FSM7100-15 Sign and Poster Guidelines for the Forest Service.

Forest Plan Standards: Category 135

Public Comment 51: (Letter Number (s):371)

The Forest Service should consider adding FW-GDL-AR-02 to including the following:

- A) Minimizing roads and landing locations in RCAs, and carry out watershed analysis to assure roads and landings in RCAs are protective of watersheds;
- B) Avoiding constructing roads near streams and riparian areas and on unstable landtypes or landslide or mass failure prone areas, and identify such areas for avoidance prior to road design and construction;
- C) Minimizing and avoiding sediment transport and delivery from roads to streams with appropriate techniques, such as:
 - * Stabilize cut and fill slopes;
 - * Outsloping road surfaces;
 - * Minimizing or avoiding disruption of natural hydrologic flow paths by roads, including diversion of streamflow and interception of surface and subsurface flow;
 - * Routing road drainage away from erosive areas or where they may discharge directly into streams;
 - * Providing adequate numbers of waterbars, rolling dips, and ditch relief culverts to avoid drainage running on or along roads;
 - * Installing cross-drainage above stream crossings to prevent ditch sediments from entering streams where possible;
 - * Minimizing road use during spring thaw periods that causes rutting and channeling of snowmelt and runoff, and during wet periods that may erode road surfaces;
 - * Minimizing road construction and reduce road density as much as possible to reduce potential adverse effects to watersheds;
 - * Considering road effects on stream structure and seasonal and spawning habitats;
 - * Allowing for adequate large woody debris recruitment to streams and riparian buffers near streams;
 - * Minimizing the number of road stream crossings;
 - * Simulating natural stream grade and substrate at stream crossings as much as possible in fish bearing streams (use bridges, arches, and open bottom culverts wherever possible); and
- D) Road stream crossings should be assessed to see if they adequately provide for fish passage.

Response:

This direction is included in INFISH (a retained decision in the revised Forest Plan) and other revised Forest Plan direction under the Watershed, Soils, Riparian, Aquatic Habitat, and Aquatic Species sections.

Forest Plan Objectives: Category 134

Public Comment 47: (Letter Number (s): 356)

The Forest Service should consider including a multiple, equitable use educational component to the access and recreation forestwide objectives.

Response:

The KNF agrees that education and cooperation is an important component of the Forest Service's Travel Management policy. Forestwide desired conditions for access and recreation include an educational and informational component for motor vehicle use designations through user awareness programs (FW-DC-AR-08).

Forest Plan Clark GA DC: Category 138

Public Comment 52: (Letter Number(s): 323)

The Forest Service should consider revising GA-DC-AR-CLK-03 (page 78) and determine whether it is desirable to improve the access, and thus better confine the human footprint disturbance to a set trail. Or, is it better to keep these areas more difficult to access, thus potentially limiting impacts to the sensitive lake shores by limiting the access.

Response:

The direction under GA-DC-AR-CLK-03 is adequate and is consistent with the desired conditions developed by the collaborative GA work group.

Forest Plan Clark GA DC: Category 138

Public Comment 53: (Letter Number(s): 323)

The Forest Service should clarify the motorized access to Taylor Saddle and Bloom Peak areas (GA-DC-AR-CLK-04).

Response:

The map has been modified to make it clear there is an area along the ridge open to motorized use.

Forest Plan Tobacco GA DC: Category 142

Public Comment 54: (Letter Number(s): 257)

The Forest Service should recognize the Tobacco GA as an important destination for the adventurous Montana bicyclists because of its proximity to Kalispell, Whitefish, Missoula, and the Canadian populations.

Response:

Mountain bike use is just one use of this area. The GA desired conditions were developed by collaborative work groups.

Forest Plan Yaak GA DC: Category 143

Public Comment 55: (Letter Number(s): 273)

The Forest Service should consider making one of the drainages in the Yaak specifically for cross-country skiers (accessible from Yaak and away from snowmobile noise).

Response:

There are several areas of MA1b and 5a in the Yaak that could be suitable for cross-country skiers. See response to Public Comment 2 for recreation opportunities.

Air Quality

Asbestos: Category 150

Public Comment 58: (Letter Number(s): 31 and 76))

The Forest Service should protect the public from asbestos and should consider how management actions may influence the risk of wildfires and the possibility of asbestos fibers being released into the air.

Response:

The draft Forest Plan contained a brief discussion of the presence of the asbestos and the potential safety concerns (see 2nd paragraph on page 87). In addition, the draft Forest Plan contained a desired condition statement for the Libby GA that indicated that research and interagency coordination would continue in order to evaluate the potential of exposure to the asbestos that could result from Forest Service activities in the area (see GA-DC-MIN-LIB-01 on the top of page 89).

In response to this public comment, additional information was added to the revised Forest Plan as well as the FEIS. In the revised Forest Plan (see the Libby GA section in Chapter 4) information was added to the description of the contaminated site and a new desired condition statement was developed for the Fire section to convey the importance of limiting public and firefighter exposure to the asbestos from fire suppression activities (see GA-DC-FIRE-LIB-02). In the FEIS, a discussion was added in the “Air Quality” section of chapter 3 to describe the affected environment and the potential impacts that the alternatives could have on this health concern.

DEIS Environmental Consequences: Category 156**Public Comment 59:** (Letter Number(s):212)

The Forest Service must meet Tribal air quality standards where applicable.

Response:

Under the Clean Air Act (CAA), tribes can have TAS (treatment as state) status and take over CAA responsibilities for their lands. Currently, the Kootenai Tribe has TAS for the 105c grant program under the CAA. EPA has a federal implementation plan for the Kootenai Tribal lands. The CAA requires that an air pollution emitter comply with any applicable air quality standards, air quality requirements, implementation plans, etc. In order to recognize that one or more tribes on the KNF may take over CAA responsibilities for their lands in the future, the language in two air quality related components in the draft Forest Plan (FW-DC-AQ-01 and FW-GDL-AQ-01) was revised for the revised Forest Plan. The language in these plan components was modified to indicate that in addition to federal, state, and local air quality agencies, the KNF would cooperate with tribes to meet any applicable Tribal air quality requirements as well.

Forest Plan Guidelines: Category 163**Public Comment 61:** (Letter Number(s):371)

The Forest Service should add a guideline indicating that the requirements of the Interagency Prescribed Fire Planning and Implementation Procedures Guide (July 2008, <http://www.nwcg.gov/pms/RxFire/rxfireguide.pdf>) would be included into prescribed burn plans.

Response:

The second to the last paragraph on page 249 of the KNF DEIS contains a description of the 2008 Interagency Prescribed Fire Planning and Implementation Procedures Guide and indicates that the Forest Service Handbook requires that all prescribed burn plans address the elements contained in that document. Element 19 (pg 26) in the 2008 Interagency Prescribed Fire Planning and Implementation Procedures Guide specifically addresses smoke management and air quality (NWCG, 2008). Because this is an existing requirement, the KNF does not feel it is necessary to reiterate that requirement in a specific forest plan component. As indicated on page 2 of the KNF draft Forest Plan (under the heading of Implementing the Forest Plan), the Forest Service will follow all existing laws, regulations, and policies relating to the management of the NFS lands,

and the forest plan components are generally designed to supplement, not replace, existing direction.

Alternatives

Alternative A (No-action Alternative): Category 200

Public Comment 62: (Letter Number(s): 146)

The Forest Service should develop a true No-action Alternative (Alternative A) that is accurately and reasonably evaluated to ensure it complies with the NEPA and other planning regulations.

Response:

NEPA requires a No-action Alternative to be analyzed that reflects current management. The current management for the KNF is the 1987 Forest Plan as amended, which is reflected in Alternative A of the EIS.

Alternative A (No-action Alternative) - Pro with Rationale: Category 201

Public Comment 63: (Letter Number(s): 97, 134, 166, 167, 186, 192, 194, 198, 232, and 357)

The Forest Service should adopt Alternative A (No-action Alternative) because it:

- A) Does not change current management;
- B) Provides the greatest protection to the remaining wilderness in the Yaak Valley;
- C) Imposes no further restrictions on forest uses, access, and opportunities;
- D) Recommends no new wilderness; and
- E) Does not include elements of Senator Tester's proposed legislation.

Response:

Thank you for expressing your views on Alternative A. All views were carefully considered during development and evaluation of the alternatives in the Forest Plan process.

Alternative B (Preferred Alternative): Category 203

Public Comment 67: (Letter Number(s): 171 and 370)

The Forest Service should adopt Alternative B (Preferred Alternative) with the following suggested changes or modifications:

- A) Designate more recommended wilderness (in particular, the MA5a area in the East Fork of Blue Creek and Pillick Ridge, the roadless areas South and East of the Cabinet Mountain Wilderness, the Ten Lakes Wilderness Study Area and surrounding roadless lands, and more lands in Whitefish Divide);
- B) Designate more areas as non-motorized (in particular, Rock Creek Meadows, Drift Peak, east and south of the Cabinet Mountains, Cabinet Face, and the Galena Roadless Area);
- C) Discontinue use of the existing motorized trail (#892) in West Fork Canyon Creek, within the Galena Creek Roadless Area; and
- D) Ensure that Northwest Peaks and surrounding areas on the Three Rivers District reflect the collaborative agreement worked out through the Three Rivers Challenge, which is included in FJRA.

Response:

A) Alternative C provides more recommended wilderness. Boundaries for areas recommended as wilderness were drawn to be locatable and manageable. For more information on recommended wilderness, see the response to comments for categories 708-722;

B) Drift Peak is included in recommended wilderness and is non-motorized. The other areas are mostly in designation MA5b. These areas allow motorized access only on designated routes, with the exception of over-snow vehicles. These areas have very few roads or motorized routes. Other than over-snow vehicle prohibitions specific to MA allocations, the revised Forest Plan does not make any travel management decisions;

C) The Forest Plan does not make any decisions on motor vehicle use designations of trails (relative to 36 CFR 212 Subpart B);

D) The proposed Forest Jobs and Recreation Act include site-specific travel management decisions that are not appropriate in the Forest Plan. If this legislation is passed, the Forest Plan will be amended to incorporate that decision.

Alternative B (Preferred Alternative) - Pro with Rationale: Category 204

Public Comment 66: (Letter Number(s): 59, 206, 212, 231, 252, 284, 320, 336, 367, and 379)
The Forest Service should adopt Alternative B (Preferred Alternative) because it:

A) Designates appropriate areas as recommended wilderness or backcountry;

B) Reflects compromise;

C) Places a proper amount of emphasis on restoration of vegetation, protecting terrestrial and aquatic habitat, and improving watershed conditions; and

D) Provides a minimum sale level of 47.5 MMBF with a 791,400 acre suitable land base.

Response:

See response to Public Comment 63.

Alternative B (Preferred Alternative) - Con with Rationale: Category 205

Public Comment 65: (Letter Number(s): 4, 5, 123, 132, 135, 146, 154, 158, 165, 166, 188, 195, 215, 222, 224, 225, 240, 251, 313, 323, 326, 335, and 384)

The Forest Service should not adopt Alternative B (Preferred Alternative) because it:

A) Focuses too much on ecological sustainability without supporting science or data;

B) Lacks minimum protections for public values such as wilderness, backcountry, and fish and wildlife habitat and does not contribute to the recovery of the grizzly bear; the alternative does not comply with NEPA or NFMA to provide protection for wildlife and fish;

C) Ignores wildlife connectivity issues within the KNF as well as adjoining lands;

D) Insufficient amount of backcountry and recommended wilderness;

E) Too much backcountry and recommended wilderness and not enough motorized access or timber harvest; this alternative would lock out motorized recreationists from areas they currently use;

F) Values motorized recreation and resource extraction too greatly; and

G) The Analysis for Public Comment Report on the 2006 Proposed Plan indicates there were equal numbers of comments that both favored and opposed more restrictive management.

Alternative B offers more restrictive management and should not be the preferred alternative.

Response:

For A – G) see response to Public Comment 63;

B) Also see response to Public Comment 249C;

C) Also see response to Public Comment 439(A); and

G) Alternative B was selected as the preferred alternative based on resolution of the Forest Plan revision topics. Access is one of seven revision topics. See chapter 2 of the FEIS for a description of the revision topics and a comparison of the alternatives considered in detail. See the draft ROD for rationale on why the decision maker selected Alternative B Modified as the revised Forest Plan.

Alternative C: Category 206

Public Comment 70: (Letter Number(s): 4, 5, 112, 132, 135, 137, 147, 153, 154, 165, 206, 210, 224, 225, 233, 235, 240, 244, 248, 258, 262, 267, 271, 287, 299, 311, 319, 321, 329, 345, 349, and 371)

The Forest Service should adopt Alternative C with the following suggested changes or modifications:

A) Designate more recommended wilderness (in particular the Ten Lakes WSA, additional areas in Whitefish Divide, areas adjacent to the Cabinet Mountain Wilderness, and IRAs in the Yaak); adjust the boundaries to Roderick and Scotchman Peaks recommended wilderness areas; designate all IRAs as recommended wilderness;

B) Designate more non-motorized areas;

C) Include Wigwam River to the list for ‘scenic or recreation river’ designation under the Wild and Scenic River Act;

D) Include modifications to meet needs of threatened and endangered species; provide more direction on the impacts of climate change, and include a wildlife linkage zone MA (MA8); and

E) Remove the MA3 overlay for the Ten Lakes WSA.

Response:

A) Boundaries for areas recommended as wilderness were drawn to be locatable and manageable. For more information on recommended wilderness, see the response to comments for 708-722.

There were two alternatives not considered in detail, the “Wilderness/Roadless Related Alternative” and the “Recommending Additional Roadless Areas for Wilderness” that document the rationale for not including more recommended wilderness;

B) This alternative provides the most non-motorized recreation that was possible while still providing for some motorized opportunities;

C) The Wigwam River was found to not be eligible as a wild and scenic river. See documentation of this in the FEIS, Additional eligible wild and scenic river alternative under the Alternatives Considered but Eliminated from Detailed Study;

D) Threatened and endangered species and climate change are addressed under the alternatives. A wildlife linkage zone MA is not the best way to manage wildlife habitat. See the Defenders of Wildlife Alternative under the Alternatives Considered but Eliminated from Detailed Study in the FEIS; and

E) The Ten Lakes Scenic Area (MA3) is an important designation for the Ten Lakes area. See the response to Public Comment 168.

Alternative C - Pro with Rationale: Category 207

Public Comment 68: (Letter Number(s): 61, 88, 105, 112, 116, 131, 137, 154, 169, 183, 188, 204, 205, 206, 247, 258, 260, 262, 277, 278, 280, 282, 283, 287, 294, 307, 308, 313, 322, 323, 333, 345, 346, 354, 364, 365, and 369)

The Forest Service should adopt Alternative C because it:

A) Offers a compromise among the diversity of interests involved in the KNF;

B) Offers the most recommended wilderness, maximizes non-motorized recreation opportunities, and provides the highest level of backcountry protection; recommended wilderness in the Whitefish Divide area is consistent with management direction on the adjoining Flathead National Forest;

C) Offers protection and security for wildlife, fish, plants, threatened and special species, and the wildlands they depend on; provides less fragmentation of habitat;

D) Provides improvements and protections to important watersheds and minimizes impacts on water quality, soil productivity, riparian and aquatic habitats;

E) Provides for more carbon sequestered, greater focus on restoration, and use of fire to move vegetation towards desired conditions; and

F) Slightly increases the land available for timber production (34 percent for Alternative C compared to 33 percent currently and 38 percent for Alternative D; the ASQ could be increased by fine-tuning the suitable timber base and including useful updates to the management prescriptions.

Response:

See response to Public Comment 63.

Alternative C - Con with Rationale: Category 208

Public Comment 69: (Letter Number(s): 166, 232, and 301)

The Forest Service should not adopt Alternative C because:

A) Too much designated backcountry and recommended wilderness; and

B) Designates backcountry motorized or snowmobile areas in the heart of many IRAs, or immediately adjacent, cutting them off from other IRAs.

Response:

See response to Public Comment 63.

Alternative D: Category 209

Public Comment 73: (Letter Number(s): 11, 12, 15, 16, 17, 18, 19, 20, 21, 23, 24, 26, 27, 28, 29, 30, 46, 47, 74, 102, 104, 122, 123, 127, 202, 211, 215, 230, 269, 327, 332, 351, 358, and 385)

The Forest Service should adopt Alternative D with the following suggested changes or modifications:

A) Increase timber production and active management; de-emphasize fire and mechanical fuel treatments; increase motorized access;

B) Increase mineral extraction and exploration;

C) Designate less recommended wilderness (in particular, Scenery Mountain and Treasure Mountain areas);

D) Allocate no additional recommended wilderness;

E) Designate backcountry non-motorized and winter motorized instead of recommended wilderness; and

F) Eliminate WSAs and wild and scenic study areas.

Response:

A) This alternative provides the highest level of timber production that is sustainable while meeting protection requirements for other resources. The use of fire and mechanical treatment are important tools for moving vegetation towards desired conditions. This tool is emphasized under all action alternatives. Alternative D has the highest level for motorized access. There was an alternative in the DEIS not analyzed in detail (the “access and roads” alternative under the

“alternatives considered but eliminated from detailed study” section on pages 30-31) that desired increased motorized access. The DEIS documents why this alternative was not feasible and not analyzed in detail;

B) All alternatives provide for the possibility of mineral exploration and extraction. The amount of exploration and extraction that occurs is based on markets and results of site-specific NEPA analysis;

C – E) Alternative D includes the least amount of recommended wilderness, with MA1b allocated only in areas adjacent to the Cabinet Mountain Wilderness Area. This provides some balance to this alternative and follows Forest Service handbook direction on recommending wilderness to Congress through the plan revision process. This alternative also provides the most over-snow vehicle access and a mix of motorized and non-motorized opportunities; and

F) The KNF cannot eliminate the Ten Lakes Wilderness Study Area (WSA). This area was designated by Congress in 1977 as a WSA. The KNF is required to manage this as a WSA until Congress removes this designation. The KNF followed Forest Service handbook direction in identifying streams and rivers eligible as wild and scenic rivers.

Alternative D - Pro with Rationale: Category 210

Public Comment 71: (Letter Number(s): 11, 95, 99, 104, 151, 193, 198, 201, 217, 219, 306, and 351)

The Forest Service should adopt Alternative D because it:

A) Provides for multiple uses, highest level of timber harvest, and most access;

B) Allows for continuation of historical and cultural uses;

C) Offers the best protection for endangered species and plants through active management;

D) Maintains as much of the KNF as possible as "a working forest";

E) Allows for active management on the KNF and reduces the likelihood of catastrophic fires; and

F) Provides the right amount of recommended wilderness (adjacent to the Cabinet Mountain Wilderness Area); and

Response:

See response to Public Comment 63.

Alternative D - Con with Rationale: Category: 211

Public Comment 72: (Letter Number(s): 154, 275, and 301)

The Forest Service should not adopt Alternative D because it:

A) Designates too much motorized access; and

B) Does not provide for roadless areas, wilderness, wildlife security, and landscape connectivity.

Response:

See response to Public Comment 63.

Alternatives Considered but Eliminated from Detailed Study: Category: 212

Public Comment 74: (Letter Number(s): 271, 299, 362, and 363)

The Forest Service should consider the following regarding the Defenders of Wildlife Alternative that was eliminated from detailed study:

A) The DEIS does not provide enough detail or rationale in dismissing this from an alternative considered in detail; and

B) Explain how an alternative was submitted from a special-interest group that was named in the DEIS for that group.

Response:

A) The FEIS has been updated to include more information as to why this alternative was not considered in detail; and

B) Any public individual or group may submit an alternative to be considered in developing the Forest Plan. This alternative was not considered in detail by the Forest Service for the reasons documented in the draft and final EISs. The name has been changed to “wildlife linkage” in the FEIS to be more descriptive and inclusive of other groups that proposed similar concepts in their comments.

Alternative Development: Category: 214

Public Comment 76: (Letter Number(s): 335)

The Forest Service should explain the following regarding alternatives:

A) The description of Alternative B states: “This alternative emphasizes moving towards desired future conditions and contributing to ecological, social, and economic stability” (DEIS page 21). The KNF needs to explain what the desired future condition is and the criteria and personnel used in developing it; and

B) Explain how the regional forester can identify a preferred alternative before the public has commented on the draft Forest Plan and DEIS.

Response:

A) The desired future condition is defined in the draft Forest Plan. For vegetation, the desired future condition was built around the concept of the historic range of variation (HRV) within the context of climate change. See appendix B of the DEIS for a description of how HRV was developed by the Forest. The Forest silviculturist and ecologist developed these desired conditions, with review and input from the forest analyst and the Forest Plan interdisciplinary team; and

B) NEPA requires the agency to identify the proposed action. For forest planning, the preferred alternative is the proposed action, consisting of a draft plan for review and comment by the public. The 1982 planning regulations describe the identification of a preferred alternative for public review at 36 CFR 219.8(c), “The draft [EIS] statement shall identify a preferred alternative.”

Alternative Suggestions: Category: 215

Public Comment 79: (Letter Number(s): 75, 135, 146, 153, 154, 162, 169, 293, 299, 308, 312, 321, 324, 327, 334, 335, 353, 356, 357, 358, 362, 363, and 384)

The Forest Service should consider the following suggestions regarding alternatives:

A) Developing a Pro-Recreation Alternative that addresses the increased demand for OHV and motorized recreation opportunities. The alternative needs to include access to existing routes and areas and an adequate quantity and quality of beginning, intermediate, and advanced routes and trails for a wide cross-section of motorized visitors including motorcycles, ATVs, and four-wheel drive vehicles. The quantity and quality of motorized routes should be at least equal to the quantity and quality of non-motorized routes. In addition, concern with noise from motorized recreation should be addressed through mitigation for a reasonable decibel limit for exhaust systems;

B) Modifying an alternative to have a greater focus on natural resource use and less on preservation. There must be balanced multiple use. Develop an alternative that produces at

minimum 80 MMBF of sawlogs annually as the planned sales volume (not ASQ), has increased use of mineral extraction and exploration, a greater emphasis on mechanical fuels treatment, increased pre-commercial thinning for increased tree growth, and increased opportunities for both motorized and non-motorized recreation;

C) Proposing less restrictive forest management policies and more motorized access than is currently available; all action alternatives have more restrictions and less motorized access than Alternative A;

D) Removing “special designations,” such as critical waterways, geological areas, unroaded areas, botanical areas, and national scenic areas from the proposed action because the Forest Service has no statutory authority to designate and manage such areas;

E) Offering a 'conservation alternative' that does not emphasize motorized recreation and industrial logging. A true conservation alternative would meet the needs of threatened and endangered species; provide for wildlife habitat needs and connectivity; address the global concerns for the impacts of climate change; meet the requirements of the Montana Wilderness Study Act; and find a balance in recreational resources allocation and use. The alternative needs to include an MA8 to provide for wildlife linkages;

F) Formulating an alternative that addresses the following issues/concerns: vegetation and fuels management issues that exist in all municipal watersheds contained within the boundaries of the KNF, including the municipal watershed of the city of Eureka, Montana; how non-motorized management area designations which are being recommended on the northern border of the KNF will affect the United States Department of Homeland Security’s ability to patrol and secure that border; why the KNF proposes “Recommended Wilderness” management area designations in areas that do not meet the definition of wilderness that is provided in The Wilderness Act; and why the KNF proposes wild, scenic, and recreational river designations which do not meet the definition of a wild and scenic river as defined in the Wild and Scenic River Act; and

G) Providing an alternative that has no increases in the acreages of MA1b, MA2, MA3 (in Ten Lakes Area), MA5a, MA5b, or MA5c, relative to the 1987 Forest Plan; enough flexibility in the management of any municipal watershed that will allow the KNF to implement vegetation management policies that will minimize the risk of large scale wildfires in those areas; maximizes the diversity of recreational opportunities available on the KNF (both motorized and non-motorized); utilizes the best available science when implementing forest management policies, including but not limited to vegetation management, wildlife management, motorized access, and recreation; recognizing the economic impacts of forest management policies and attempts to minimize any negative economic impacts that may result from the implementation of forest management policies; increasing motorized access to KNF lands through July 1 – Sept 1 (access to gated roads); and recognizing the access issues that currently exist with the Department of Homeland Security obligation to protect our northern border; and

H) Developing a modified preferred alternative that takes into account all uses of the KNF but focuses less on extractive uses on such a forestwide scale.

Response:

A) The “Pro-Recreation” alternative reflects a desire for increased motorized recreation. This type of alternative is similar to alternatives not considered in detail in the DEIS, the “Access and Roads” and the “Site-Specific Travel Management” alternatives. The FEIS includes an additional alternative, the “Pro-Motorized Recreation” alternative to address this concern. Similar to the “Access and Roads” alternative, the pro-recreation alternative would not provide wildlife security. Similar to the “Site-Specific Travel Management” alternative, this type of alternative desires site-specific decisions that are not made in the Forest Plan. In considering the alternatives analyzed in detail, Alternative D provides increased motorized recreation opportunities from what is currently available under Alternative A. See the “Environmental Consequences” section of

access and recreation in the FEIS for a comparison of Alternative D to current conditions found in Alternative A;

B) This alternative is reflected in Alternative D. The requested harvest level of 80 MMBF of sawtimber for the predicted timber volume sold is not possible given current budget levels. The ASQ reflects possible timber harvest levels with no budget constraint, and is well above 80 MMBF (at 98.7 MMBF) in Alternative D. Mineral extraction and development is given due consideration when proposals are made and is handled at the project level and not in the Forest Plan. Alternative D emphasizes motorized recreation, with increased opportunities for motor vehicle use with a small decrease in over-snow vehicle opportunities. Alternative D emphasizes fuel treatments; it would be consistent with the alternative to emphasize mechanical treatment over prescribed fire. However, increased use of prescribed fire is still desired in all action alternatives. The amount of precommercial thinning possible is dependent on budgets;

C) The action alternatives have varying levels of restrictions. Alternative D has the least amount of restrictions, with 75 percent of the Forest in MA6. Alternative D provides for increased motorized opportunities above current levels found in Alternative A. Alternative D also provides for less restrictions than Alternative A, with fewer acres in recommended wilderness;

D) The Forest Service cannot designate wilderness areas or wild and scenic rivers. Only Congress can make these designations. The 1982 Planning Rule and manual direction require forests to recommend wilderness areas to Congress and identify and protect eligible wild and scenic rivers. The KNF is operating within these requirements. Other special areas, such as (botanical, geological, historical, recreational, scenic, and zoological areas) may be designated by the regional forester. Research Natural Areas may be designated by the regional forester with concurrence by the research station director;

E) Several “conservation” alternatives were considered in the DEIS, including the “Forest Restoration Alternative,” the “Conservation Alternative,” and the “Defenders of Wildlife Alternatives.” The DEIS describes why these alternatives were not considered in detail. The Defenders of Wildlife Alternative was renamed in the FEIS as “Wildlife Linkage Alternative” and further detail included as to why this alternative was not analyzed in detail. Alternatives B, B Modified, and C provide improved habitat and protection for wildlife species and increased non-motorized opportunities over the 1987 Forest Plan;

F and G) Alternative D addresses many of these concerns, with an increased emphasis on motorized access and timber harvest and a reduction in non-motorized management areas. Some type of vegetation or fuels management is allowed in all management areas. Mechanical treatments through timber harvest are allowed in all management areas except MA1a, 1b, 1c, 2 (wild segments) and 4. The boundary for the Whitefish Divide recommended wilderness area was adjusted (resulting in a reduced area) under Alternative B Modified to provide possible mechanical treatments in the public supply watershed for the town of Eureka as well as access for mechanical use (e.g., mountain biking). Actual fuel treatments within these watersheds will be dependent on site-specific NEPA and budgets. The Forest worked with the Border Patrol on developing direction within the plan to coordinate on issues relating to national security along the northern international boundary. The Forest Plan does not close or open any routes or areas to motorized use with the exception of over-snow vehicle use in recommended wilderness and RNAs. The Forest followed Forest Service manual and handbook direction in evaluating areas for recommended wilderness and inventorying streams for eligible wild and scenic rivers. See appendices C and F in the FEIS. Increased motorized access is found under Alternative D. All alternatives utilize the best available science. The commenter did not indicate what science was not used; and

H) All alternatives take into account all uses on the Forest. A reduced emphasis on natural resource extraction can be found under Alternative C, with reduced timber harvest levels. See the

draft ROD for an explanation and rationale as to why the decision maker chose Alternative B Modified as the revised Forest Plan.

Range of Alternatives: Category 216

Public Comment 80: (Letter Number(s): 132, 154, 224, 225, 247, 262, 299, 301, 321, and 332)
The DEIS lacks a full range of alternatives. There is little statistical variation in the alternatives considered in detail. Some commenters felt alternatives were inadequate in providing for conservation while other felt access and motorized use was inadequate.

Response:

Given the alternatives considered in detail and the alternatives considered but eliminated from detailed study, the range of reasonable alternatives was carefully evaluated and designed to meet the requirements of NEPA and NFMA. Alternatives were considered from a full spectrum of very little management and emphasizing preservation to highly-managed with an emphasis on commodity outputs and motorized access. The alternatives considered in detail were developed from this range and represent a realistic subset of alternatives proposed. The action alternatives were developed to be realistic and implementable and respond to the revision topics. There is a range in management area allocations for recommended wilderness (MA1b), with 36,100 acres in Alternative D to 214, 800 acres in Alternative C. There is a range for back country winter motorized (MA5c), ranging from 20,000 acres in Alternative C to 117,500 acres in Alternative D. The ASQ for alternatives varied in the DEIS, ranging from 70.2 MMBF/year in Alternative B to 86.3 MMBF/year in Alternative D. When output levels were calculated based on current budgets, the variation between alternatives diminished. This is because of the influence of budget and its effect on output level. Under current budgets, the timber harvest level is reduced to 40.2 MMBF/year in Alternative C to 50.4 MMBF/year in Alternative D. Thus, the budget reduced the variation in the action alternatives. The action alternatives were built so that any one of them could be chosen as the revised plan and implemented on the ground. There were no unreasonable alternatives considered in detail.

Pro/Con without Rationale: Category 217

Public Comment 81: (Letter Number(s): 3, 22, 25, 134, 149, 164, 166, 191, 194, 197, 198, 230, 291, 334, 342, 350, 373, 375, 377, and 378)
Several commenters expressed support for Alternative A, B, C, or D without rationale.

Response:

Thank you for your comment.

American Indian Rights & Interests

Treaty Rights: Category 251

Public Comment 83: (Letter Number(s): 212, 294, 297, and 384)

The Forest Service should consider the following regarding American Indian Treaty rights:

- A) Specifying the treaty rights, cultural, and religious significance to the Kootenai Tribe of Idaho in the Bull, Clark, and Yaak GAs;
- B) Ensuring coordination and cooperation with Tribal governments as co-managers of wild game, wetland plants, and waterfowl; and

C) Ensuring sound ecological conditions, by limiting extracting industry as necessary, to ensure that tribes have the opportunity to exercise their treaty rights for generations to come. More areas need protection as recommended wilderness to protect the heritage of the Tribes.

Response:

A) Treaty rights for the Kootenai Tribe of Idaho and the Confederated Salish and Kootenai Tribes has been described for the Forest in chapter 1 of the revised Forest Plan. There is forestwide direction to protect treaty rights and cultural uses across the Forest (FW-DC-AI-01 and FW-DC-AI-02). This description of treaty rights does not need to be repeated at the GA scale;

B) Tribal governments are not “co-managers” of National Forest System lands. Management of NFS land is the responsibility of the Forest Service. However, Forest Service officials consult with tribal governments on a government-to-government basis regarding the management of NFS lands. The revised Forest Plan contains direction to consult and coordinate with the Tribes and protect or enhance treaty rights; and

C) The revised Forest Plan provides direction that promotes ecological conditions and improved forest health, while recommending certain areas as wilderness. The revised Forest Plan also contains direction to consult and coordinate with the Tribes and protect or enhance treaty rights. All projects, including any commercial or extractive activities, undergo consultation with the Tribes.

DEIS Affected Environment: Category 253

Public Comment 85: (Letter Number(s): 212)

The Forest Service should consider the following regarding the American Indian Rights and Interests Affected Environment:

A) Correcting statements describing the Kootenai and Salish Nations, as these are separate peoples with separate histories, cultures, and languages. Also, the FEIS needs to recognize the Kootenai Tribe of Idaho’s Treaty rights;

B) Including specific reference to the following in the Legal and Administrative Framework for Access and Recreation in the FEIS: the Treaty of Hellgate of 1855, Executive Order 13175, USDA and USFS regulation and policy, as well as the National Historic Preservation Act of 1966, American Indian and Religious Freedom Act of August 11, 1978 (42 U.S.C. § 1996), Archaeological Resources Protection Act of October 31, 1976 (16 U.S.C. § 470aa), Religious Freedom Restoration Act of 1993, Native American Graves Protection and Repatriation Act of 1990; and

C) Revising the Legal and Administrative Framework for Tribal Interest and Treaty Rights to include references to 36 C.F.R. §§ 223.239 and 223.240 recognizing Tribal Treaty harvest without permit.

Response:

A) This section has been updated in the FEIS to address your concerns;

B) The American Indian Religious Freedom Act has been added to “Access and Recreation” section in the FEIS. The Hellgate Treaty, Executive Order 13175, and the other acts listed were not added, as they are not directly related to the Access and Recreation topic. However, these, and all other legal requirements, will be followed by all management activities on the Forest; and

C) This has been added to the FEIS.

DEIS Affected Environment: Category 257

Public Comment 88: (Letter Number(s): 212)

The Forest Service should plan for active and passive management to improve forest conditions affected over the last century through fire suppression policies, overharvest, and other policies. Forests need active management to resolve this man-made problem. Passive management as a tool is also important to allow natural wildfire to become part of the ecosystem. This passive management and allowance for wildfire; however, must take into account the needs of the Tribal and non-Tribal communities on and near the Forests who depend on vital resources, such as drinking water, from these lands.

Response:

Direction in the revised Forest Plan seeks to balance passive and active management. The Forest is limited in the amount of active management that is possible, given budget levels. Decisions on where wildfire will be managed for resource benefit will be based on many things, including potential effect to other resources and water quality.

Forest Plan Goals: Category 259

Public Comment 89: (Letter Number(s): 212)

The Forest Service should add a goal to the revised Forest Plan: Respect Indian tribal self-government and sovereignty, honor tribal Treaty and other rights through protection and enhancement of such, and meet the responsibilities that arise from the unique legal relationship between the Federal Government and Indian tribal governments. Manage the forests to address and be sensitive to traditional American Indian religious beliefs and practices.

Response:

This goal has been added under the American Indian Rights and Interests section of the revised Forest Plan.

Forest Plan Desired Conditions: Category 260

Public Comment 90: (Letter Number(s): 212)

The Forest Service should add a new access and recreation desired condition in order to ensure accommodation of Tribal needs: Provide access to traditional and Treaty resources and sacred sites, balancing the need for motorized access essential for reaching more distant locations, especially for elders who can no longer walk long distances, with protection of Tribal resources from use and vandalism by non-Tribal members.

Response:

A desired condition has been added to the revised forest plan to address the concern of access for Tribal members

Forest Plan Desired Conditions: Category 260

Public Comment 91: (Letter Number(s): 212)

The Forest Service should edit FW-DC-AI-02 to be consistent with Goal-01 and federal law. Change the ending of the desired condition that says “not significantly impacted or diminished” with “protected and enhanced.”

Response:

This change has been made to the revised Forest Plan.

Best Available Science

Best Available Science: Category 280

Public Comment 92: (Letter Number(s): 146, 257, 293, 312, 321, 324, 335, 353, 357, and 362)
The Forest Service should consider the following in regard to the use of the best available science:

- A) Evaluating impacts in a fair and unbiased manner, including natural sources of disturbance and a sense of the relative magnitude of possible causes of the impacts; the impact of recreation on such things as soils, sedimentation, and noxious weeds should be fairly compared to the impact of floods, wildfire, and other natural events on all resource areas. The monitoring and evaluation must be consistent with and pursuant to the best available scientific information, techniques, and methods, and basing any conclusions on statistically significant data;
- B) Considering the numerous studies showing that mountain biking has no more impact than hiking/equestrian use;
- C) Basing forest management policies on the best available science; and
- D) Science is lacking to show that any motorized use currently allowed in wilderness or other highly restricted areas, including snowmobiles or chainsaws, are negatively impacting any species currently listed as threatened or endangered under the Endangered Species Act or any other law.

Response:

A) The revised Forest Plan does not make travel management decisions or close areas to motorized use, with the exception of closing areas to over-snow vehicle use in recommended wilderness and research natural areas. Because the Forest Plan does not make site-specific travel management decisions, there was no analysis showing impacts from motorized recreation on soil, sediment production, or noxious weeds. Forest Plan evaluation and monitoring of effects to soils is based primarily on vegetation management activities and effectiveness of best management practices. See chapter 5 of the revised Forest Plan;

B and D.) We agree that restricting motorized or mechanized uses in MA1b recommended wilderness is not based on science related to impacts on physical resources. The restrictions in MA1b were based on the desired conditions (MA1b-DC-AR-01, 02, 03) and the wilderness character and potential for the area to be included in the National Wilderness Preservation system remain intact until Congressional action is taken.

A white paper provides consistency for management of Recommended Wilderness and Wilderness Study Areas across the Region¹. In addition, FSM 1923.03 provides direction on management of recommended wilderness “A roadless area being evaluated and ultimately recommended for wilderness or wilderness study is not available for any use or activity that may reduce the area’s wilderness potential. Activities currently permitted may continue, pending designation, if the activities do not compromise wilderness values of the roadless area.”

In some areas across the region uses have become established over the years that have now precluded the area from being recommended. Some public may come to expect motorized or mechanized uses will continue, and there may be an economic dependency by local communities on those uses¹.

The regional office guidance is to be consistent in management of recommended wilderness. If it is determined that the area is best suited to wilderness designation the desired condition and standards in the revised Forest Plan should support those conclusions by restricting uses that would jeopardize the capability and availability of the area as designated wilderness. If there are

existing uses that may threaten the capability and availability of the area, forest should choose to implement one of the following actions¹:

1. Eliminate those uses that threaten the capability and availability;
2. Adjust the management area boundary to eliminate the area with established uses; or
3. Not recommend the area for wilderness designation.

In the revised Forest Plan we did not recommend some areas that had been recommended wilderness in the 1987 Plan, and modified boundaries of some areas that had established motorized/mechanized use. In the areas that are recommended wilderness, the decision was made to close those areas to motorized and mechanized uses, to maintain the wilderness characteristic including outstanding opportunities for solitude or primitive and unconfined recreation.

¹Regional Consistency for Management of Recommended Wilderness and Wilderness Study Areas, 2007

C) The Forest utilized the best available science in determining forest plan direction and analysis of effects in the FEIS, as documented in methodologies, literature cited, and the project record; and

D) See above, with answer to B.

Best Available Science: Category 280

Public Comment 92A: (Letter Number(s): 300, 312, and 321)

The Forest Service should consider the following scientific publications that indicate that road construction and timber harvest activities increase wildfire risk as well as decrease the ecological integrity of aquatic resources and forests. As a result, the Forest Service should stop building roads and instead, obliterate as many existing roads as possible. Consider the following in regard to the use of the best available science:

A) These publications support the argument that compared to inventoried roadless areas, highly roaded areas have a greater potential for catastrophic wildfires:

USDA, Forest Service. 2000. Forest Service Roadless Area Conservation DEIS. Washington Office. May 2000.

USDA, Forest Service. 1997. Evaluation of ICBEMP EIS Alternatives by the Science Integration Team. Volume I. General Technical Report PNW-GTR-406. May 1997.

USDA, Forest Service. 1996. Status of the Interior Columbia Basin: Summary of Scientific Findings. General Technical Report PNW-GTR-385. November 1996.

B) These publications support the argument that bull trout are sensitive to effects of roads and the conservation of this species should involve the protection of larger, less fragmented, and less disturbed habitats, and that roads and timber harvesting harms other aquatic resources as well:

USDA, Forest Service. 2000. Forest Service Roadless Area Conservation DEIS. Washington Office. May 2000.

Moyle, Peter B. and Theo Light. 1996. Fish Invasions in California: Do Abiotic Factors Determine Success? Ecology, Volume 77, No. 6, 1996.

USDI, Fish and Wildlife Service, NMFS and EPA. 1995. Advance Draft Aquatic Conservation Strategy at 11. Nov. 8, 1995).

USDA, Forest Service. 1996. Status of the Interior Columbia Basin: Summary of Scientific Findings. General Technical Report PNW-GTR-385. November 1996.

McIntosh, Bruce A., James R. Sedell, Jeanette E. Smith, Robert C. Wissman, Sharon E. Clarke, Gordon H. Reeves and Lisa A. Brown, 1994. Historical Changes in Fish Habitat for Select River Basins of Eastern Oregon and Washington, Northwest Science, Vol 68, Special Issue, 1994.

- Sedell, et al. 1990; Moyle and Sato 1991, Williams 1991, Frisell and Bayles 1996 (note that the commenter of letter #300 did not provide complete citations for these publications so their applicability could not be evaluated).
- Rieman, Bruce, Danny Lee, Gwynne Chandler and Deborah Meyers. 1997. Does Wildfire Threaten Extinction for Salmonids? Responses of Redband Trout and Bull Trout Following Recent Large Fires on the Boise National Forest. USDA Forest Service, Intermountain Research Station; Boise, Idaho. 1997.
- C) These publications support the argument that forests in roaded areas and in areas with timber harvesting rate low in forest integrity:
- USDA, Forest Service. 1996. Integrated Scientific Assessment for Ecosystem Management in the Interior Columbia Basin and Portions of the Klamath and Great Basins. General Technical Report PNW-GTR-382. September 1996.
 - USDA, Forest Service and BLM, 2000. Interior Columbia Basin Supplemental DEIS. March 2000.
 - USDA, Forest Service. 1996. Status of the Interior Columbia Basin: Summary of Scientific Findings. General Technical Report PNW-GTR-385. November 1996.
 - Huff, M.H., R.D. Ottmar, E. Alvarado, R.E. Vihaneck, J.F. Lehmkuhl, P.F. Hessburg, and R.L. Everett. 1995. Historical and Current Landscapes in Eastern Oregon and Washington. USDA Forest Service Pacific Northwest Research Station Gen. Tech. Rep. PNW-GTR-355.

Response 92A:

- A) All three of the publications that are cited by the commenter regarding this comment are broad scale assessments. Two are associated with the Interior Columbia Basin Ecosystem Management Project and one with the national Roadless Area Conservation project. At the scale that these assessments were conducted at, and to the degree that the findings in the assessments are applicable to the forest plan revision effort of the KNF, these publications are germane. Those assessments generally did find that wildfires were more numerous outside of inventoried Roadless areas than they were within. However, neither the revised Forest Plan nor the EIS includes any statements that contradict those general findings. In addition, the KNF did not claim that roads should be built into roadless areas in order to reduce wildfires. As described at length in the EIS, and articulated in the forest plan components, the KNF would like to see more wildland fire (including the use of unplanned, natural ignitions) used to accomplish multiple resource objectives when and where it is appropriate;
- B) The seven publications that are cited by the commenter associated with this comment do generally serve to describe the negative effects that roads and/or timber harvesting can have on aquatic resources, including bull trout. However, in numerous locations of the EIS the KNF acknowledges the same general point, that roads can have some of the greatest effects to watersheds and aquatic biota (e.g., see pages 136, 150, 170, 175, 176 in the DEIS as well as the individual aquatic species discussions in the DEIS). Therefore, the KNF generally agrees. The action alternatives are predicted to lead to the construction of few new roads and road construction would be greatly offset by the more numerous miles of road decommissioning (see page 171 of the DEIS). The aquatics section of the DEIS also acknowledges that timber harvest activities can have impacts to aquatic resources. The revised Forest Plan has numerous plan components that are designed to decrease the impacts that roads and timber harvesting can have on aquatic resources; and
- C) Most of the publications cited by the commenter for this comment are also used in the EIS, although for different purposes. In the revised Forest Plan the KNF uses those publications (and others) to help describe the historical and current conditions of the forest vegetation on the KNF.

The commenter uses the publications to argue that historical harvest practices in the Upper Columbia basin harmed the forests as a result of generally removing the large, old seral tree species that tended to be resistant to insects, disease and fire. We generally concur. However, as articulated in the revised Forest Plan components and in the EIS, the current harvest and treatment activities are emphasizing the retention of the tree species that are generally tolerant of insects and diseases, drought resistant, fire tolerant, and less common today than historically. The commenter also makes the point that logging can increase fire risk when the surface fuels are increased, the microsite is changed (e.g., forest floor is opened to increased wind speeds). Again, we agree that some logging practices that leave untreated slash can increase fire risks. However, the revised Forest Plan components emphasize the need to lower fuel loadings, not increase them. Regarding the issue over roads serving to spread non-native plants, we concur and describe those effects in the EIS (pages 113 and 118 DEIS).

Climate Change

Climate Change: Category 300

Public Comment 93: (Letter Number(s): 91, 92, 120, 154, 205, 258, and 321)

The Forest Service should consider the increased importance of travel corridors for wildlife species in light of potential impacts from climate change. In addition, the role that undisturbed forests, old growth, and soils play in carbon storage should be addressed.

The following science should be considered in addressing the importance that undisturbed forests and old growth have on sequestering carbon:

- Depro, Brooks M., Brian C. Murray, Ralph J. Alig, and Alyssa Shanks. 2008. Public land, timber harvests, and climate mitigation: quantifying carbon sequestration potential on U.S. public timberlands. *Forest Ecology and Management* 255: 1122-1134.
- Harmon, Mark E. 2001. Carbon sequestration in forests: addressing the scale question. *Journal of Forestry* 99:4: 24-29.
- Harmon, Mark E, William K. Ferrell, and Jerry F. Franklin. 1990. Effects of carbon storage of conversion of old-growth forest to young forests. *Science* 247: 4943: 699-702
- Harmon, Mark E, and Barbara Marks. 2002. Effects of silvicultural practices on carbon stores in Douglas-fir – western hemlock forests in the Pacific Northwest, USA: results from a simulation model. *Canadian Journal of Forest Research* 32: 863-877.
- Homann, Peter S., Mark Harmon, Suzanne Remillard, and Erica A.H. Smithwick. 2005. What the soil reveals: potential total ecosystem C stores of the Pacific Northwest region, USA. *Forest Ecology and Management* 220: 270-283.
- McKenzie, Donald, Ze'ev Gedalof, David L. Peterson, and Philip Mote. 2004. Climatic change, wildfire, and conservation. *Conservation Biology* 18:4: 890 -902.

Response:

General Response: As discussed on page 13 of the KNF DEIS, KIPZ prepared a comprehensive report on climate change (USDA, 2010). The report is over two-hundred pages in length and serves to compile and synthesize scientific information on past and projected trends in regional climate and climate-related impacts to forest resources. Possible management options to reduce ecosystem vulnerability to climate change are presented in the report as are options for increasing ecosystem resilience to both climate and non-climate stressors. The KIPZ Climate Change Report went through a science consistency review by specialists from two Forest Service Research Stations (Rocky Mountain Research Station and the Pacific Northwest Research Station), the U.S. Geological Survey and universities. An appendix to the KIPZ Climate Change Report provides a

list of the comments from those specialists and changes that were made in response (see pages 110-165 of that report). The project record contains a more detailed description of the science review process as well as the specific comments that were received during the review (2009KIPZSciRevProc.docx, 20090521KIPZSciConsRevLetter.pdf and 20090513KIPZSciConsRev.pdf).

The KIPZ Climate Change Report served to inform the development of the components in the draft Forest Plan and the report was cited throughout numerous resource sections of the DEIS. During the public comment period for the draft Forest Plan, the KIPZ Climate Change Report was available via the KIPZ website at:

http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5345936.pdf. Since the KIPZ Climate Change Report was completed in 2010, additional publications and research related to the topic of climate change and adaptation opportunities for national forests has been published and these were reviewed by KIPZ (e.g., Peterson et al. 2011, Daniels et al. 2012).

Specific Response: The KIPZ Climate Change Report acknowledged that habitat fragmentation and travel corridors are important elements to consider in regards to wildlife habitat, and that climate change may make it even more important to conduct planning efforts at landscape scales (see pages iv, vii, 92-94, 97, and 98 in the report). For example, one of the potential adaptation opportunities that was identified in the report to forestall ecosystem change was identified as “Adopt landscape management practices to enable species movements through larger management unit sizes, broader habitat corridors (north-south), and increased habitat continuity;” (page 93). Two other adaption opportunities to manage for ecosystem change included; “Promote connected landscapes to enable dispersal and migration, re-colonization, and genetic exchange;” and, “Evaluate/reduce fragmentation, plan cumulative landscape treatments to encourage defined corridors as well as widespread habitat availability;” (page 94). In response to these climate change adaptation opportunities, an analysis was conducted on connectivity and fragmentation and forest plan components were developed to respond. In the revised Forest Plan, see the following plan components: FW-DC-WL-17 and FW-GDL-WL-12 through 14. Additionally, there are desired conditions related to connectivity in the GA section of the revised Forest Plan. This geographic area direction related to connectivity was expanded between the draft and revised versions of the Forest Plan. The effects of the revised Forest Plan on connectivity were analyzed extensively in the wildlife specialist’s report (see the project file). Not only was a separate section in the wildlife specialist’s report dedicated to this topic, but connectivity was analyzed in the individual species’ sections as well. Climate change is also addressed in the individual species’ sections of the specialist’s report. Both connectivity and climate change were reoccurring themes that appear throughout the wildlife analysis, including for wide-ranging carnivores. A summary of this analysis can be found throughout the wildlife section in the FEIS. With regard to terrestrial Threatened and Endangered Species, connectivity and climate change were addressed in the Biological Assessment (see the project file) and were therefore part of the consultation with USFWS on the revision of the Forest Plan.

Regards to the need to preserve undisturbed forests in order to sequester more carbon and mitigate global warming, the KIPZ Climate Change Report contains an entire chapter on the subject of carbon sequestration and forest productivity (see pages 57-70). In addition, the KNF DEIS contains a discussion of carbon sequestration in the affected environment section (pages 72 and 73) and the environmental consequences (pages 94 and 95). As discussed in the KIPZ Climate Change Report, the rate of carbon sequestration and net ecosystem productivity generally peaks in a forest stand at an intermediate stage of stand development, and then declines as they get older. As discussed in detail on pages 64 and 65 of the KIPZ Climate Change Report, the idea of allowing the stands to get older (either by continued or increased fire suppression or by not harvesting them) in order to sequester more carbon can be problematic for a number of reasons.

For example, that strategy could increase the risk of carbon loss from wildfires, bark beetle outbreaks or even root disease pathogens (pages 64-65, 73-84 and 85-90 of the KIPZ Climate Change Report). As discussed in the DEIS (pages 71, 72, and 90-94) as well as the KIPZ Climate Change Report, one of the more substantial climate change adaptation options is to promote the resistance and resiliency of the forests to disturbance and stress agents. For example, the KIPZ Climate Change Report (page vi) states the following:

Increase the resilience of forest vegetation by reducing the potential severity of wildfire and insect outbreaks. Managing the density of trees can improve forest resiliency by reducing water stress, decreasing susceptibility to insect and disease mortality, and decreasing the likelihood of stand-replacing wildfires. Management actions that increase the diversity of stand ages, size classes, and tree species in currently homogenous landscapes can reduce the extent and severity of bark beetle outbreaks and wildland fires. Mechanical treatments, prescribed fire, and managing wildland fires for resource benefits are all potential tools for increasing the resiliency of forest vegetation to climate and other stressors. In addition, existing programs to reduce the vulnerability of whitebark pine and western white pine to white pine blister rust will also improve the resistance of these species to the added stresses associated with climate change.

Numerous forest plan components were developed to respond to this issue (e.g., vegetation Goal-01, FW-DC-VEG-01, 02, 03, 04, 05, 06, 11; FW-OBJ-VEG-01, FW-STD-VEG-01, 02; and FW-GDL-VEG-01).

In regards to the contention that there is no old growth related direction in the Forest Plan, on page 13 of the draft Forest Plan, there are three forestwide desired conditions (FW-DC-VEG-02, 03 and 05) that articulate the desire to increase the amount of forest occupied by the largest size class (including old growth) of forest stands, the desire to have old growth (and other lands being managed for old growth) that is more resistant and resilient to disturbances, and the desire to have larger patch sizes of the large size class on the landscape. On page 22 of the draft Forest Plan, there are two standards (FW-STD-VEG-01 and 02) and a guideline (FW-GDL-VEG-01) that preclude timber harvest or other vegetation management activities from occurring in old growth stands (and ancient cedar groves) UNLESS the treatments are being conducted in order to increase the resistance and/or resiliency of the stand to disturbances, AND the treatments would retain the characteristics of the stand that are necessary for it to meet the old growth definition in Green and others 1992, errata corrected 10/2008). As a result of numerous old growth related comments that were received, the old growth discussion was expanded substantially in the FEIS compared to the DEIS. Please see the old growth discussion in the FEIS for the additional information.

Concerning the six references that were cited in Public Comment 93 (Letter 0321, Comment 158), the following is a response as to their applicability to the issue of the preservation of undisturbed forests and old growth for carbon sequestration on the KIPZ:

1) Depro et al. 2008 (Public land, timber harvests, and climate mitigation: Quantifying carbon sequestration potential on U.S. public timberlands. *Forest Ecology and Management* 255: 1122-1134). This paper addresses carbon sequestration at the national (and to a lesser degree, regional) level for three general harvest level scenarios- “business-as-usual”, no harvesting, and harvesting at elevated levels similar to the 1980s. The authors found that the no harvesting alternative would result in more carbon stock at the end of the simulation period. However, as far as limitations of the author’s analysis, they state:

“This study provides a rough estimate of the potential from a relatively few, though wide-ranging, timber harvest policy alternatives. Forest and carbon management, however, is much more subtle than simply determining how much to harvest. Many forest management decisions from the time of stand establishment through mid-rotation

treatments to a timber harvest decision could be affected with carbon sequestration as a more accentuated objective. Of particular interest is the link between carbon management, fire management, and biofuel production, each of which can have a profound impact on the carbon balance, ecological integrity, and economic value of the forest. One research need is a better understanding of how such linkages are affected by the stochastic nature of certain disturbances such as fires. Future research should carefully evaluate these trade-offs and opportunities at regional, landscape, and individual forest scales.”

The discussion and analysis that is presented in the KIPZ Climate Change Report (pages 57-70) as well as the DEIS (pages 72, 73, 93 and 94), presents a much more thorough, specific analysis of this issue at the KIPZ scale. The KIPZ Climate Change Report and the DEIS considers the factors (such as disturbances) that the authors of Depro et al. 2008 do not consider, yet acknowledge are important factors. Therefore, Depro et al. 2008 is not as relevant as the analysis and discussions presented in the KIPZ Climate Change Report and KNF DEIS.

2) Harmon, 2001. (Carbon sequestration in forests: addressing the scale question. *Journal of Forestry* 99:4:24-29.) This paper addresses the importance of considering scale in determining the influence of management practices and natural disturbances on carbon balances and the sequestration potential of forests. The author’s views and conclusions do not conflict with those presented in the KIPZ Climate Change Report or DEIS. One of Harmon’s key points is that one should consider the long-term, landscape scale when examining effects on carbon sequestration from management practices and policies (see last paragraph on page 29 of the paper). That is exactly the kind of analysis and discussion presented in the KIPZ Climate Change Report and the DEIS.

3) Harmon et al. 1990 (Effects of carbon storage of conversion of old-growth forest to young forests. *Science* 247:4943: 699-702). The authors of this paper used a computer simulation to analyze the carbon storage dynamics of a Douglas-fir and hemlock forest common to the Pacific Northwest (see page 2 of the paper). There are major differences between the forests of western Washington, western Oregon and those of the KNF. The KNF and IPNF have forests that are much more prone to large scale disturbances (fire and insect/diseases) and an analysis that ignores the potential impacts of management practices on those disturbances is largely irrelevant to the KIPZ zone.

4) Harmon and Marks, 2002. (Effects of silvicultural practices on carbon stores in Douglas-fir-western hemlock forests in the Pacific Northwest, USA: results from a simulation model. *Canadian Journal of Forest Research* 32: 863-877). The authors of this paper used another model, STANDCARB, to examine the impacts of various stand treatments on carbon pools in forests typical of western Oregon and Washington. For reasons that are similar to those articulated above for Harmon et al. 1990, this paper has very limited applicability to the forests of the KNF. The analysis and discussion presented in the KIPZ Climate Change Report and DEIS used research and scientific papers that are much more applicable for the northern Rocky Mountains.

5) Homann et al. 2005 (What the soil reveals: potential total ecosystem C stores of the Pacific Northwest Region, USA. *Forest Ecology and Management* 200: 270-283). This paper considers the question of how much additional carbon could be sequestered in the Pacific Northwest region forests if land management and natural disturbance regimes allowed more of the forests to develop into old-growth conditions. For reasons that are similar to those discussed above for Harmon and Marks (2002), Harmon et al. (1990) and Depro et al. (2008), this paper has limited applicability to the forests on the KNF. Most of the region described in this paper occurs in wetter forests that are less prone to wildfire and large scale insect/disease disturbances than are the forests of the KNF. In addition, the authors of this paper simply did not consider how forest disturbance regimes affect carbon sequestration potentials, which is a crucial question at the heart

of the larger issue. The analysis and discussion presented in the KIPZ Climate Change Report and DEIS used research and scientific papers that are much more relevant to the northern Rocky Mountains and the KNF.

6) McKenzie et al. 2004 (Climate Change, Wildfire, and Conservation). This paper was cited and referenced in the KIPZ Climate Change Report (see pages 65, 87 and 188). However, this paper does not involve the topic of carbon sequestration at all. Therefore, it is not applicable to the public comment being expressed in comment 158 of letter 0321.

In regards to the function that forest soils play in carbon sequestration, the KIPZ Climate Change Report does include information on this topic (see pages 58 and 66).

Collaboration/Public Involvement

Availability of Information and Adequacy: Category 350

Public Comment 94: (Letter Number(s): 264)

The Forest Service should provide more detailed documentation regarding sites allocated to special management.

Response:

A) The KNF did provide documentation of sites allocated to special management areas (e.g., MA1b, MA2, and MA3). This information is in the DEIS or in the project record. Additional documentation regarding outstandingly remarkable values for wild and scenic river segments, wilderness evaluation, and descriptions of special areas is provided in the FEIS (see appendices). The example of analysis in the comment letter for the Green River in Utah was excerpted from an EIS on a suitability analysis for several wild and scenic rivers. This was not from a forest plan. A wild and scenic river suitability analysis is different from a forest plan, providing detailed site-specific analysis for each river segment and detailed analysis regarding suitability for inclusion in the wild and scenic river system. The Forest Plan is not determining suitability of rivers, but only eligibility.

Collaboration with Agencies: Category 351

Public Comment 95: (Letter Number(s): 312)

The Forest Service did not coordinate with affected county (local) governments in their planning process.

Response:

This is inaccurate. The KNF coordinated with county commissioners throughout the process. The forest supervisor and his staff kept county officials apprised of the progress on the Forest Plan revision, answered questions, and provided data and maps. The county commissioners participated in several collaborative groups working on the Forest Plan, providing input from a county government perspective.

Collaboration with Elected Officials: Category 352

Public Comment 96: (Letter Number(s): 15)

The Forest Service should clarify what collaboration with elected local officials occurred in developing the Forest Plan and whether they were in support of Alternative B.

Response:

The county commissioners were involved in each of the geographic area (GA) work groups. All three Lincoln County commissioners were on one or more GA work groups. They were at the table and helped to build the proposed plan that was released in 2006. The proposed plan was then used in developing Alternative B for the DEIS and draft Forest Plan.

Collaboration with Elected Officials: Category 352**Public Comment 96A:** (Letter Number(s): 344)

The Forest Service should work with municipalities in developing multiple use prescriptions in the Forest Plan for municipal watersheds as set forth in 36 CFR 251.9.

Response:

The Forest Plan includes multiple use prescriptions for all areas on the Forest. Each management area contains multiple use prescriptions (standards and guidelines) as required by the 1982 36 CFR 219.11(c). In addition to the multiple use prescriptions for each management area, the revised Forest Plan contains several desired conditions regarding water quality of public water systems and beneficial uses (FW-DC-WTR-02, FW-DC-WTR-04, FW-DC-WTR-05, GA-DC-WTR-TOB-01 and GA-DC-TOB-02). The definition for beneficial uses includes domestic water supplies (see revised Forest Plan glossary). The Forest Plan also provides guidelines to protect beneficial uses (FW-GDL-WTR-01, FW-GDL-WTR-03). Thus, the Forest Plan provides direction to protect water quality, public water systems, and beneficial uses.

The CFR cited has to do with special use permits to protect municipal watersheds. It states that “if a municipality desired protective actions or restrictions of use not specified in the forest plan, within agreements, and/or special use authorizations, the municipality must apply to the Forest Service for consideration of these needs.” If approved, this would then result in a special use authorization for the municipality to protect or restrict actions within the municipal watershed.

Collaboration with Public and Workgroups: Category 353

Public Comment 97: (Letter Number(s): 50, 51, 55, 60, 61, 66, 67, 69, 78, 79, 80, 81, 85, 88, 98, 100, 101, 103, 114, 118, 128, 130, 139, 141, 152, 159, 161, 183, 199, 205, 231, 242, 266, 277, 282, 283, 285, 290, 308, 317, 326, 332, 338, 340, 352, and 360)

The Forest Service should adopt the multi-use designations that resulted from the Three Rivers Challenge agreements, specifically, motorized and non-motorized designations in Northwest Peaks, Buckhorn Ridge, Roderick, and Mt. Henry.

Response:

The draft Forest Plan is consistent with the Three Rivers Challenge and contains many of the proposal’s features. Roderick is proposed wilderness in the Three Rivers Challenge and in the draft Forest Plan. Most of the non-motorized areas in the Three Rivers Challenge are allocated to MA5a in the draft Forest Plan. However, the Three Rivers Challenge resulted in different proposed management areas than those found in the 2006 Proposed Plan and brought forward into the draft Plan. This resulted in some differences in MA allocations between the draft Forest Plan and the Three Rivers Challenge. Northwest Peaks in the draft Forest Plan is a special area, in keeping with its long-held designation as a scenic area. In the Three Rivers Challenge, this area is split into a non-motorized special area and a winter motorized special area. In the Forest Plan, the backcountry MAs are applied primarily to IRAs, whereas the Three Rivers Challenge has a large winter motorized area in the Northwest Peaks area that is outside of an IRA. The draft Forest Plan allocated this area to MA6, which allows snowmobiling and also allows timber production. The

special management areas in the Three Rivers Challenge do not allow any timber harvest, whereas the draft Forest Plan allows timber harvest as a tool in the backcountry and special area MAs. The identification of winter motorized areas in the Three Rivers Challenge can be used in subsequent site-specific travel management planning in determining areas to be open or closed to snowmobiling (this type of decision is not made in the Forest Plan, with the exception of recommended wilderness and research natural areas). Furthermore, if Senator Tester's bill (which is based on the Three Rivers Challenge) is passed, the Forest Plan will be amended for this legislation.

Collaboration with Public and Workgroups: Category 353

Public Comment 98: (Letter Number(s): 132, 146, 154, 334, 356, and 357)

The Forest Service should consider the following regarding collaboration with the public and workgroups:

A) Alternative B does not reflect collaboration. The former forest supervisor made decisions that did not go along with collaborative results. The DEIS is lacking in displaying the records of public input, discussions, discoveries or decisions made at Forest Service sponsored meetings between 2002 and 2004;

B) Avoiding forcing motorized recreationists into consensus and collaborative processes that cannot by nature produce reasonable results and where they are guaranteed to lose; and

C) The draft Forest Plan recommendations do not seem consistent with a collaborative process; in particular, the Plan recommends an additional 36,300 acres of wilderness while the estimated timber production and recreational access is decreased.

Response:

A) Collaboration does not always result in consensus. Some work groups could not find areas of consensus, while others could. When there was no consensus, the forest supervisor needed to make the decision. Documentation of the work groups was posted on the web during development of the 2006 Proposed Plan. This documentation, as well as documentation of other public meetings, is in the project record;

B) Collaboration is a process to try to achieve consensus and agreement. During collaboration, no group has more influence or power than any other group and no group is guaranteed to lose. Consensus or agreement can often be reached in some areas and not in others. Where there is no consensus, the decision maker must make the decision; and

C) The acres in the DEIS for recommended wilderness for Alternative A omitted 26,000 acres in the 1987 Forest Plan that were recommended for wilderness within the wilderness study area. With these acres included, Alternative B shows an increase of 10,800 acres in recommended wilderness. Estimated timber production and access shows a slight decrease to Alternative A, mostly due to management of IRAs that is consistent with limited access and timber production.

Cooperation and Communication Involvement DC: Category 355

Public Comment 102: (Letter Number(s): 353)

The Forest Service should provide recreational and forest management opportunities that are supported by the majority of forest users. (If the residents of Lincoln and Sanders counties are the dominant users of the KNF, the Forest Service should make every attempt to implement science based management policies that are supported by the residents of Lincoln and Sanders counties).

Response:

The GA workgroup meetings strived to find consensus or agreement among the public interested in management of the KNF. The KNF applied the best available science in developing the forest plan direction and conducting the effects analysis.

General: Category 356**Public Comment 103:** (Letter Number(s): 330, 341, and 356)

The public involvement process was inadequate, failing to clearly inform the public of restrictions on public and private lands. The Federal Government did not adequately contact affected citizens and land owners. More of the public should be solicited, including the elderly and handicapped, through the use of trail rangers, newsletters, posting notices on and off site in the area where the action is to be located and public meetings that foster participation in the review process.

Response:

The Forest has made every attempt to involve the public during the long process of forest plan revision. News releases were sent to all local papers, mailing lists were built, newsletters were sent, web pages were developed, and public meetings were held in an attempt to keep the public informed of the planning process. The GA working groups had members from different backgrounds and included the county commissioners. Open houses were held after release of the draft Forest Plan and DEIS to answer questions and share information. The KNF planning staff has been available to talk to people, attend special group meetings, and share information.

Cultural Resources**DEIS General: Category 400****Public Comment 104:** (Letter Number(s): 316)

The Forest Service should not restrict climbing access to cultural and sacred sites without a thorough understanding of public use patterns and their effects on the specific cultural resources in these areas. Protection measure can be done to minimize access restrictions while protecting specific locations.

Response:

The Forest Plan does not make site-specific decisions limiting access to specific cultural or sacred sites. Laws, regulations, and forest plan direction require protection of cultural and sacred sites. How these sites are protected is determined at a project scale.

DEIS Environmental Consequences: Category 404**Public Comment 105:** (Letter Number(s): 384)

The social values the Tribes seek to safeguard begin with protection of, and access to, sacred sites and cultural resources located within the KNF. Extractive industrial uses of national forests take a tremendous toll on the integrity of those cultural values.

Response:

The Forest Plan does not make site-specific decisions for protecting or limiting access to specific cultural or sacred sites. Laws, regulations, and forest plan direction require protection of cultural and sacred sites. How these sites are protected is determined at a project scale. The Tribes are consulted on all projects.

Forest Plan General: Category 406

Public Comment 106: (Letter Number(s): 146 and 241)

Current management practices are not adequately protecting western culture and heritage; including historic mines, cabins, settlements, railroads, access routes, and other features used by pioneers, homesteaders, loggers, settlers, and miners. Furthermore, the Plan speaks of closing mines on a yearly basis; these should be left open for historic reasons.

Response:

Management direction for cultural resources is included in the Forest Plan as desired conditions (see FW-DC-CR-01 and FW-DC-CR-02) and objectives (see FW-OBJ-CR-01 through 04). This direction provides for protection and enhancement of cultural resource sites. Abandoned mines are proposed to be reclaimed because of human health and environmental degradation concerns (see FW-DC-MIN-01).

Forest Plan Goals: Category 407

Public Comment 107: (Letter Number(s): 212)

The Forest Service should consider adding Cultural Resources Goal-01 since resource and sacred site protection is of paramount importance to the Kootenai Tribe: Reduce looting, vandalism, and incidental damage through increased patrols to protect cultural resources and increased education about the importance of protecting cultural resources and the consequences for unlawful damage to or taking of cultural resources.

Response:

This goal has been added to the revised Forest Plan.

Forest Plan Objectives: Category 409

Public Comment 108: (Letter Number(s): 212 and 341)

The Forest Service should not limit FW-OBJ-CR-01, 02, 03, and 04 to a certain number. If such restrictions are necessary, then we recommend stating that the figures are minimums.

Response:

Our objectives in the draft Forest Plan were developed to move towards a variety of desired future conditions in the various resource areas. The quantity or amount of each objective was based largely on our current and recent past budget levels. We expect future budgets to stay relatively flat or decrease. It would be disingenuous to portray unrealistic objectives based on unconstrained or much higher budget levels. The objectives are realistic projections of what we expect to accomplish annually or over the life of the Plan. An explanation of the role of budget in developing objectives has been included in the revised Plan. Also, an explanation of the role of constrained budgets in completing the effects analysis has been included in the introduction to Chapter 3 of the FEIS.

Fire & Fuels

Wildland Urban Interface (WUI): Category 451

Public Comment 110: (Letter Number(s): 333 and 341)

When designing fuel reduction projects in the wildland urban interface (WUI), the Forest Service should consider how wildlife cover, connectivity, and forage would be affected. In addition, the potential for weed invasion should be considered. Due to their importance for wildlife species, old growth stands, cedar/hemlock stands, dense lodgepole stands, as well as dense stands in big game winter ranges should not be manipulated even if they occur in WUI areas.

Response (Public Comment 110):

When planning a site-specific hazardous fuel reduction project in the WUI (or any other type of project), the Forest Service is already required to determine how the proposal may impact important wildlife species such as those that are listed as threatened or endangered, or those that are on the regional foresters' Sensitive Species List. Often the site-specific analysis includes the consideration of wildlife habitat elements such as cover, connectivity, and/or forage. At the level of this broad programmatic Forest Plan, it would not be appropriate to include direction that was more site-specific in nature regarding what kind of forest stands should or should not be manipulated due to their potential wildlife value. Regarding the potential spread of weeds from hazardous fuel reduction projects in the WUI, that is also an issue that is considered at the site-specific planning level.

Public Comment 110a: (Letter Number(s): 333)

The responsibility for fire prevention in WUI areas should be shifted from the Forest Service to individual land owners and they should be encouraged to participate in the Firewise program.

Response (Public Comment 110a):

As was discussed on pages 122 and 126 of the DEIS, policy, regulation, and laws such as The National Fire Plan, The Healthy Forests Initiative, Healthy Forest Restoration Act, and the Federal Wildland Fire Management Policy directs the Department of Agriculture to reduce hazardous fuels. It is outside the scope of this Forest Plan for the KNF to consider relinquishing fire prevention or hazardous fuel reduction responsibilities on national forest lands. Regarding the encouragement of private land owners to participate in programs such as Firewise, the KNF certainly agrees. For example, see the KNF internet website at:

<http://www.fs.usda.gov/detail/kootenai/landmanagement/resourcemanagement/?cid=stelprdb5284148>).

Public Comment 110b: (Letter Number(s): 341)

The amount of area on the KNF that is within the WUI should be reconsidered as it does not comprise 40 percent of the Forest. The WUI area should only include concentrated residential areas, not single homes that occur near Forest Service-Private boundaries.

Response (Public Comment 110b):

As disclosed in the draft Forest Plan (page 7) and DEIS (page 126), approximately 30 percent of the lands on the KNF occur within the WUI as identified in the various county Community Wildlife Protection Plans (CWPPs). These community protection plans may be found at:

http://www.dnr.wa.gov/Publications/rp_burn_cwpp_lincolnco.pdf, http://lake-sanders-cskt-pdm.com/wp-content/uploads/2011/10/Appendix-E_Relevant-Plans.pdf,
http://www.idl.idaho.gov/nat_fire_plan/county_wui_plans/boundary/boundary_plan.htm,
http://www.idl.idaho.gov/nat_fire_plan/county_wui_plans/bonner/bonner_county_plan.htm).

Public Comment 110c: (Letter Number(s): 341)

Given the potential effects from climate change the Forest Service should consider how fuel treatments in the WUI may dry out the forest floor and further speed up the conversion of the areas toward drier sites.

Response (Public Comment 110c):

See the response to Public Comment 93 (specifically the section titled “General Response”) for a discussion of how KIPZ considered climate change in the revision process for the Forest Plan. Regarding the potential impacts that hazardous fuel reduction projects may have on the soil or forest floor moisture conditions within the WUI, that is an issue that would be more appropriate to consider at the site-specific planning level rather than in a forest plan.

Forest Plan Desired Conditions: Category 461

Public Comment 113: (Letter Number(s): 212)

The Forest Service should consider that the estimate of 2,600 acres per decade of stand replacing wildfire seems low and that it may be necessary to suppress wildfires in active management areas.

Response:

Between the draft and revised versions of the Forest Plan and EIS, additional modeling of disturbances was conducted using the SIMPPLLE model. The updated model simulations did predict a substantial increase in stand replacing wildfire. Part of the increase was a result of the prediction of drier and warmer future conditions from climate change, and part of the increase was a result of refining the fire suppression and fire growth logic within the model. The updated prediction is that on average, during the next 5 decades, the KNF will experience approximately 35,000 acres per decade of stand replacing wildfire. Regarding fire suppression efforts, we realize that in a lot of instances the appropriate action will be to suppress the fires.

Forest Plan Desired Conditions: Category 461

Public Comment 114: (Letter Number(s): 341)

The potential impact that the increased use of fire could have on human health and greenhouse gas emissions should be considered.

Response:

The draft Forest Plan contained two forestwide plan components (FW-DC-AQ-01 and FW-GDL-AQ-01, both on page 39) indicating that the Forest Service would cooperate with federal, state, tribal, and local air quality agencies as appropriate to meet air quality standards. The impacts that the various alternatives would have on air quality was discussed on pages 248-253 of the DEIS. The potential impacts on greenhouse gases are discussed in both the KIPZ climate change document (pages 57-70) as well as the DEIS (pages 72-73 and 94-95).

Forest Plan Objectives: Category 462

Public Comment 117: (Letter Number(s): 206 and 212)

The Forest Service should consider modifying the fire related objectives associated with the draft Forest Plan (FW-OBJ-FIRE-01 and FW-OBJ-FIRE-02) to increase the amount of fire that is used (both prescribed and natural, unplanned ignitions) to achieve the desired future conditions.

Response:

As noted on page 2 of the draft Forest Plan, one factor to consider in establishing objectives in a Forest Plan is the budget. Objectives should be realistic based on likely funding and staffing

levels. To set objectives at levels that obviously could not be achieved given likely budgets would only create false expectations and if used in the analysis of environmental effects, unrealistic predictions may be made regarding impacts. In addition to the brief information that was put into the draft Forest Plan on this topic, additional discussion was added to the revised Forest Plan and FEIS. See the response to Public Comment 48 for additional general information on how objective levels were determined.

The objective (FW-OBJ-FIRE-01) of treating fuels on approximately 5,000-15,000 acres annually was based less on how much was needed, and more on how much would be possible given the recent past budget levels and future levels. In order to achieve the desired future conditions that are articulated in the Forest Plan for both the vegetation and fire related resources, we agree that a higher number of acres would likely be needed. However, the issue over how much fire use is needed in order to meet desired conditions is also partially dependent upon how much wildfire (i.e., unplanned ignitions that escape suppression efforts) occurs in the future and what the effects of those fires are in combination with effects from the prescribed fires and the natural, unplanned ignitions that are allowed to burn. Between the development of the draft Forest Plan/EIS and the revised, additional modeling was conducted to predict how much wildlife might occur in the future, and how it would influence the attainment of the desired future condition for vegetation as well as wildlife habitat. That analysis has been added to the FEIS.

Public Comment 117a: (Letter Number(s): 341)

Utilizing forest debris rather than burning the material should be considered in order to avoid producing smoke from prescribed burns.

Response (Public Comment 117a):

The KNF does take advantage of economically feasible ways to utilize forest debris (biomass and tree boles that are typically not considered merchantable) that is left over from fuel reduction projects and other harvesting operations. The KNF has an aggressive utilization policy to reduce slash and support biomass markets. The amount of utilization that is feasible depends on costs for transport and markets. In addition, there are many ecological reasons for desiring to utilize prescribe fire (see pages 53-56 and 123 of the DEIS) as a resource management tool in reducing forest debris rather than using it as biomass for another purpose.

Direction regarding when, where, or how to utilize forest debris in order to avoid negative impacts of smoke production is not programmatic direction that should be included in the Forest Plan. These types of decisions are best made at the site-specific planning level.

Forest Plan Guidelines: Category 464

Public Comment 118: (Letter Number(s): 371)

Additional guidelines should be considered in order to avoid or lessen the effects that fire management activities can have on aquatic and other resources.

Response:

All of the suggested guidelines are already part of the existing management direction for the Forest Service.

Regarding the use of fire retardant, the “Implementation Guide for Aerial Application of Fire Retardant,” provides direction for the protection of aquatic resources when applying retardant aerially (USDA, 2012). Chapter 12 of the “Interagency Standards for Fire and Fire Aviation Operations” provides policy direction for the use of various types of chemicals (e.g., retardants, foams, gels) during ground based fire suppression efforts with respect to aquatic resources (USDA and USDI, 2012). Lastly, the INFISH retained existing decision contains a guideline for

the protection of aquatic resources from chemicals as a result of fire suppression activities. See guideline FM-3 on page 217 of appendix B of the KNF DEIS for more detail.

The use of minimum impact suppression tactics (MIST) is already part of policy for the Forest Service and the importance of using those tactics in and around water is emphasized (NWCG 2004, appendix I). In addition, there is already a guideline in the Forest Plan (see FW-GDL-RIP-03, page 38 of DEIS) stating that MIST should be used within riparian conservation areas (RCAs).

Guidance for the stabilization, rehabilitation, and restoration of wildfire control lines is already provided by Burned Area Emergency Response (BAER) direction in FSH 2509.13, FSM 2520, 2523 and the Interagency Burned Area Emergency Response Guidebook (USDI and USDA 2006). In addition, INFISH retained existing decision contains a standard that requires a rehabilitation treatment plan for wildfires in order to protection aquatic resources. See guideline FM-5 on page 217 of appendix B of the KNF DEIS for more detail. The stabilization of fire lines that are constructed for prescribe burns is one of the elements that would be considered in order to meet INFISH direction in the guideline FM-1 on page 217 of appendix B of the KNF DEIS.

Regarding the location of fire camps, helibases, etc., the INFISH retained existing decision contains a guideline for the protection of aquatic resources from these types of areas. See guideline FM-2 on page 217 of appendix B of the KNF DEIS for more detail.

Because the suggested guidelines are already part of the existing management direction, the KNF does not feel it is necessary to reiterate that direction in forest plan components. As indicated on page 2 of the draft Forest Plan (under the heading of Implementing the Forest Plan), the Forest Service will follow all existing laws, regulations, and policies relating to the management of the NFS lands, and the forest plan components are generally designed to supplement, not replace, existing direction.

Measures to protect range improvements from potential harm as a result of prescribed fire activities is an item that is best addressed at the site-specific level of planning rather than in a programmatic document.

Public Comment 118a: (Letter Number(s): 212)

A more thorough discussion of FW-OBJ-FIRE-01 should be provided to better understand the objective and how it would help the KNF meet restoration goals.

Response (Public Comment 118a):

The intent of FW-OBJ-FIRE-01 is to encourage agency administrators (e.g., district rangers and/or forest supervisors) and fire managers on the KNF to utilize unplanned, natural ignitions when the circumstances are appropriate to trend the Forest towards the desired conditions that are articulated in the Forest Plan.

Compared to the entire acreage on the KNF, the relatively small amount of prescribe fire and mechanical vegetation treatments that are predicted during the life of the Forest Plan is simply not enough to make substantial gains towards reaching the desired conditions. Budget and staffing levels will likely be too low given the large workload that is necessary to conduct the required environmental analysis and implement projects. Therefore, in order to make a moderate amount of headway towards the desired conditions during the life of the Plan, it will be necessary to use unplanned, natural ignitions as another tool.

Because of the potential risk of harm to people, private property, air quality, TES habitat, cultural resources, community infrastructure, water quality, and numerous other resources, we anticipate that the most appropriate action to take on most of the unplanned, natural ignitions will be to quickly suppress them. However, we foresee that for a relatively small percentage of natural unplanned fires, they will occur in a location and under circumstances that are conducive to managing the fire in ways that would help achieve desired conditions. Based on local experience

and knowledge, we estimate that roughly 10 percent of the natural, unplanned fire ignitions that occur on the KNF could be managed (rather than immediately suppressed) in ways that would help the Forest towards desired conditions. By allowing natural, unplanned ignitions to burn in some areas and under some circumstances, the desire is that the fires will help reverse the undesirable trends that have been occurring to the composition, structure and landscape pattern of forest vegetation across the KNF. Please see the DEIS for more information on this topic (primarily in the forest vegetation, wildlife, and aquatics sections).

When considering the use of a natural, unplanned ignition for resource objectives, the KNF would follow the extensive direction that currently exists for the use of these types of fires. For example, the Wildland Fire Use Implementation Procedures Reference Guide (NWCG 2005) would be followed as would the numerous other sources of existing direction that is relevant. During the life of the Forest Plan, some lightning caused fires may be allowed to burn until precipitation extinguishes them, while other fires may be allowed to burn in some directions while suppression activities occur on portions of the fire perimeter where values and risks warrant control measures.

Grazing

DEIS Cumulative Effects: Category 505

Public Comment 119: (Letter Number(s): 300)

The Forest Service should consider controlling livestock concentration, especially in sensitive riparian areas and upland ridge tops and swales in order to maintain soil porosity and bulk density (Warren, S.D., 1986; BNF soil monitoring reports).

Response:

The revised Forest Plan already contains components that are designed to protect and/or mitigate the impacts of grazing on soils and riparian resources. For example, as stated in FW-STD-RIP-03 (page 37 of the draft Forest Plan), all of the INFISH direction shall be applied. On page 215 of the draft Forest Plan, there are three applicable INFISH standards and guidelines concerning this issue- GM-1, GM-2, GM-3. Please refer to those components for more detail.

Forest Plan General: Category 508

Public Comment 120: (Letter Number(s): 219)

Why has cattle grazing stopped on national forest lands in the Yaak?

Response:

There are four vacant allotments in the Yaak area and all of them are planned for closure: Upper Ford, Yaak River, South Fork, and Seventeen Mile. They are planned for closure because of a combination of factors, including the lack of suitable forage, lack of demand, and issues over potential riparian impacts. The lack of active allotments in that area is not related to wolves or other predators.

Forest Plan Desired Condition: Category 513

Public Comment 122: (Letter Number(s): 371)

The Forest Service should include desired condition direction for the grazing resource that would provide protection to the various aquatic resources.

Response:

The watershed, soil, riparian, and aquatic species goals and desired conditions that are on pages 31-36 of the DEIS provide ample direction regarding desired conditions for those resources.

Forest Plan Guidelines: Category 513

Public Comment 123: (Letter Number(s): 371)

Grazing guidelines should be added to the Forest Plan that would provide protection to the various aquatic resources.

Response:

The watershed, soil, riparian, and aquatic species standards and guidelines that are on pages 37-39 of the DEIS, plus the INFISH retained existing decision (appendix B, page 215 of DEIS) already provide ample protections for those resources.

Inventoried Roadless Areas - IRAs

IRAs - Evaluation for Wilderness Potential: Category 550

Public Comment 124: (Letter Number(s): 62, 132, 146, 154, 224, 225, 235, 240, 245, 247, 266, 268, 279, 282, 283, 287, 289, 293, 301, 304, 308, 311, 314, 317, 319, 321, 335, 338, and 361)

The Forest Service should re-evaluate the wilderness potential of Inventoried Roadless Areas.

A) Not enough areas were recommended as wilderness, and that the evaluation was biased against wilderness. Wildlife concerns, fish, and sensitive plants were not adequately incorporated in the evaluation. Snowmobiling should not be included as an element in the evaluation and snowmobiling should not be allowed in IRAs. The wilderness need should not be evaluated using Kalispell as the population center;

B) Too many areas were recommended as wilderness; and areas with past timber harvest and roads should not have been recommended as wilderness, as they don't meet the definition of wilderness. Questions were raised on how areas with past management meet the definition and what mitigation measures would be used to prevent soil erosion in these areas. Questions were also raised on the qualifications of those completing the evaluation; and

C) The needs evaluation is not clear.

Response:

We agree that public opinions regarding the use of these areas vary greatly, and future management of roadless areas is a controversial and polarized issue. Please see appendix C of the FEIS for specific information on the suitability determination made for recommended wilderness. FSM 1909.12 outlines the recommended wilderness process, including that the recommendation is a preliminary administrative recommendation that will receive further review and possible modification by the Chief of the Forest Service, Secretary of Agriculture, and the President of the United States. Congress has reserved the authority to make final decisions on wilderness designation.

We disagree that the wilderness evaluation (appendix C of the FEIS) is biased or arbitrary. The process followed meets the intent of the 1964 Wilderness Act, and subsequent regulation, policy, and direction which interpret the law. The 1982 Planning procedures state that "roadless areas within the NFS shall be evaluated and considered for recommendation as potential wilderness areas during the forest planning process."

The KNF followed all handbook and manual direction on the inventory and evaluation of roadless areas. Inventoried roadless areas are undeveloped areas typically exceeding 5,000 acres that meet

the minimum criteria for wilderness consideration under the Wilderness Act. During the revised Forest Plan process, 11 areas with an additional 234,870 acres were added as IRAs. As specified in FSH 1909.12, Chapter 70, we are directed to carefully evaluate the potential addition of roadless areas to the National Wilderness Preservation System. An area recommended as suitable for wilderness must meet the tests of capability, availability, and need. In addition to the inherent wilderness quality it possesses, an area must provide opportunities and experiences that are dependent upon or enhanced by a wilderness environment. The ability to manage the area as wilderness is also considered.

Appendix C of the FEIS explains the KNF methodology used and rating elements including: capability (5 basic characteristics with 47 elements), availability (8 resource categories), and need (6 criteria). A number of elements were developed for each of the capability, availability, and need rating; this way no one element could be used to ‘arbitrarily’ eliminate an area. Once the evaluation rating was completed factors such as size and shape, ability to manage the area as wilderness, and comment from the public were considered in developing recommended wilderness by alternative.

We disagree that any one element, category, or evaluation rating of “High” indicates an area should be included as recommended wilderness. An IRA that rated low in any one test (capability, availability, or need) meant that the area did not meet the criteria as recommended wilderness, and was not rated as suitable. There were two IRAs (Northwest Peaks, Buckhorn Ridge), that were rated suitable, but not recommended as wilderness in any alternative. Explanations have been added to appendix C of the FEIS.

Areas not recommended for wilderness in the revised Forest Plan remain IRAs, and could still be considered for wilderness by Congress. IRAs within Montana will continue to be managed under the 2001 Roadless Area Conservation Rule, regulation, policy, and direction. Portions of IRAs within Idaho will be managed under the Idaho Roadless Rule. See Public Comment 4 for site-specific changes in motorized access.

Changes in the Whitefish Divide recommended wilderness area (Thompson Seton and Marston IRAs) were made to Alternative B Modified between draft and revision in response to public comment. The boundary for this recommended wilderness areas was changed to remove a portion of the area above the town of Eureka that is part of the public water supply, and Williams Creek which is popular for mountain biking and included some past timber harvest (outside of the IRA). These areas were changed from MA1b to MA5a, allowing the possibility of vegetation management and mechanized access.

General Response:

We agree that some IRAs (e.g., Thompson Seton, Marston, Ten Lakes contiguous area) include improvements such as early logging, roads, settlements, or mining. Direction for determining whether an area qualifies as an IRA states “areas do not contain forest roads (36 CFR 212.1) or other permanently authorized roads...” (FSH 1909.12, Chapter 70). 36 CFR 212.1 defines a Forest road as “determined necessary for the protection, administration, and utilization of the National Forest System and the use and development of its resources.” User created roads, skid trails, or roads that are no longer needed do not meet the 36 CFR 212.1 definitions of forest roads. In addition, direction outlines criteria for including improvements in potential wilderness inventory (FSH1909.12, Chapter 71.11). One of the criteria is “Timber harvest areas where logging and prior road construction is not evident. Examples include those areas containing early logging activities related to historic settlement of the vicinity, areas where stumps and skid trails or roads are substantially unrecognizable, or areas where clearcuts have regenerated to the degree that canopy closure is similar to surrounding uncut areas.”

The Roderick and Whitefish Divide recommended wilderness areas meet the criteria above and do not have forest roads or timber harvest in a significant percentage of their area. In Roderick

area there is evidence of past vegetation management and roads on the northern boundary. Some of these areas are within the Roderick IRA but below the ridge and outside of recommended wilderness. There are also areas on the southern faces with past wildlife burning. In the northeast part there are approximately 750 acres with past vegetation management and roads in Clay Creek, which is outside of the Roderick IRA, but included in recommended wilderness for manageability. This is approximately 3 percent of the total Roderick recommended wilderness area.

Whitefish Divide recommended wilderness area has been modified between draft and final EIS, excluding areas with past management in Williams Creek that were included in Alternative B of the DEIS. In the Whitefish Divide area there is evidence of past vegetation management and roads in Jiggs and Kopsi Creek. In Blue Sky Creek there is past vegetation management and roads, which is outside of the Thompson Seton IRA, but included in recommended wilderness for manageability. These areas with vegetation management and roads consist of approximately 13 percent of the total Whitefish Divide recommended wilderness area in Alternative B Modified that is located on the KNF. Appendix C of the FEIS has been updated to include descriptions of past management activities within the portions of the IRAs recommended as wilderness.

The Ten Lakes Wilderness Study Area boundary was established by the Montana Wilderness Study Act of 1977, and includes areas of past logging and roads. Information in the FEIS and revised Forest Plan has been updated to include the Ten Lakes WSA in discussion and tables addressing recommended wilderness.

Current information on TE&S wildlife species and sensitive plants was used to update rating elements in the FEIS. Changes made to rating elements are listed under the changes between draft and final in the Roadless section of chapter 3 in the FEIS. No rating of an individual IRA, as suitable as recommended wilderness, changed based on individual element updates. No changes to recommended wilderness occurred based on suitability rating changes between the DEIS and FEIS.

The qualifications of specialists evaluating IRAs are described in the “Methodology” section of appendix C of the FEIS.

Law, regulation, and policy for management of IRAs (2001 Roadless Area Conservation Rule, FSM and 1987 Forest Plan standards and guidelines) do not prohibit snowmobiling in IRAs. Areas of special interest, such as identified winter range, are currently closed to over-snow use. For IRAs not included as recommended wilderness, over-snow motorized use may continue until site-specific winter travel management planning is completed.

The KNF followed direction in rating the five characteristics identified in FSH 1909.12 and the expanded elements process as describe in appendix C. Specific features listed in an element (e.g., trail) may have been evaluated differently depending on the characteristic being addressed. A trail under “natural and free from disturbance” was defined as a minor disturbance. Under “primitive and unconfined recreation” two or more trails was defined as High opportunities to provide primitive recreation.

Cabinet Face West and Chippewa IRAs were not overlooked as recommended wilderness; portions of each IRA are included as recommended wilderness in Alternatives B, C and D. Government Mountain did not rate as suitable, was not recommended as wilderness, and will continue to be managed as an IRA. The KNF portion of Cube Iron IRA did not rate out as suitable as recommended wilderness. Less than 2 percent of Cube Iron IRA is on the KNF. As the Lolo National Forest, with 98 percent of the IRA, revises its Forest Plan they will evaluate Cube Iron and other IRA’s suitability.

The draft Forest Plan allocated 21 percent of IRAs to MA1b recommended wilderness.

Designation as MA1b is not the only way to protect, or provide, quiet human recreation. As described in the “Recreation” section of the FEIS, action alternatives provide over 62 percent of

the Forest, not just IRAs, in non-motorized recreation opportunity spectrum (ROS) settings. See the “Recreation” section on ROS in chapter 3 of the FEIS.

Response to Alternatives and Appendix C:

Documentation, including brief IRA history, has been added to appendix C of the FEIS. IRAs are allocated to various MAs by alternative (as shown in the table “Acres of Inventory Roadless Area Management Area Allocation by Alternative” in the “Inventoried Roadless Area” section of Chapter 3 of the FEIS). Although 13,468 of the 638,034 acres of IRA are allocated to MA6 (general forest) under Alternative B Modified, and acres in other MAs (MA5 and 3) allow vegetation management, all IRAs will continue to be managed in accordance with laws, regulations, and policy under the revised Forest Plan.

The FEIS considers a range of alternatives for managing roadless areas. An alternative considered but eliminated from detailed study with focus on roadless areas was KNF Managed as Roadless Area Complexes. Alternative C addresses additional recommended wilderness and backcountry MAs, and Alternative D addresses less recommended wilderness and backcountry MAs.

There is variety of research, depending on location, of over-snow motorized use effects on various wildlife species.

Response to Capability:

We agree with some capability rating changes proposed, and disagree with others. Changes made include:

- Thompson Seton Special Features category under capability, of the 4 elements only #16 refers to being unique in the Northern Rockies; the other questions are compared forestwide. Value uniqueness was changed to Medium, with scenic peaks (Krinklehorn, Deep) and views of Glacier National Park;
- Snowmobiling in Tuchuck IRA is minimal as the KNF portion of the IRA is mid slope to the ridge;
- Non-hunting outfitting in Thompson Seton is high with up to 5 outfitters being permitted in the last 5 years; big game populations are moderate, including moose, game fish was changed to moderate, and stock facilities installed at Blue Sky Creek were in response to project-level public comments to improve access;
- Northwest Peaks summary rating of #37 & #38 should be low; and
- Scotchman Peaks #37 Terrains is varied and should be medium;

Changes made in capability elements for IRAs did not result in a change in the overall rating for capability.

We disagree that the wilderness evaluation in appendix C rates snowmobiling as primitive recreation. See Public Comment 22.

Capability element 20 in appendix C considers threatened and endangered wildlife species.

Regarding linkage zones or habitat connectivity, there are several capability elements in appendix C that address the value of connectivity as a wilderness characteristic. This includes elements: 14- located adjacent to existing wilderness or other IRAs, 21- overall wildlife habitat integrity rating of high, and 22- provides critical linkage between wildlife areas or habitats. Need element 3 also addresses ‘larger reserve size beneficial for wildlife conservation or large habitat patches’.

Wildlife biologists have reviewed all current information on T&E species, and the FEIS and Forest Plan have been updated with that information. Wayne Kasworm's (USFWS) 2011 report on grizzly research for the Cabinet-Yaak Ecosystem (CYE) has been used to update presence of TE species for capability element 20 in appendix C. Although there were changes in this element for individual IRAs, no overall capacity rating changed due to these updates.

We agree that boundaries can and should be adjusted, or acquisition of lands is possible to make areas more manageable. Capability elements 39 and 40 are rated for whether the current boundary, as mapped in appendix C, is easily identifiable, or if it can be easily adjusted.

Capability element 42 Area Boundaries Promotes Remoteness was rated low if adjacent to farmland or mining operations not open roads.

We disagree that the draft Forest Plan protects only the bare minimum of wildlands because areas “hard to manage” are arbitrarily denied protection. Areas specified (Tuchuck, Marston Face, Thompson-Seton, Gold hill West, Cabinet Additions, McKay Creek, Chippewa, and Saddle Mountain) are included in various alternatives as Recommended Wilderness. Under FSM 1909.12, Chapter 70 the test of capability has five categories: environment, challenge, outdoor recreation opportunities, special features, and manageability. Of the 47 capability elements, manageability is rated in 4 categories with 9 elements. In rating the 43 IRAs for manageability a total of 18 category ratings out of 172 were low. This is not arbitrary denial based on hard to manage.

We disagree that the capability categories of Opportunity for Solitude and Natural and Free from Disturbance was taken to an extreme with ‘a building at a distance can be cause for low scores’, and that “management” (read as vegetation management) when assessing wilderness characteristics is totally inappropriate. Of the 8 elements in these two categories, #5 did describe low capability as “Area visible in surrounding foreground shows obvious human activity such as clear cuts or a town.” However no IRA had a low rating for Opportunity for Solitude or Natural and Free from Disturbance categories. While there are obvious human activity, such as clear cuts or towns, adjacent to IRAs they were not considered viewed in the foreground.

We disagree that in the capability category for Primitive and Unconfined Recreation, primitive and unconfined opportunities is given a back seat to recreation products. Of the 14 elements in this category; 5 address available features in the area (trails, camping site, trailhead, stock facility), 5 address terrain or ease of cross-country travel, 2 address the presence or absence of fish and wildlife, and 2 address accessibility by motor vehicles. The opportunities listed are defined a primitive recreation opportunities.

Response to Availability:

We disagree that the availability rating was weighted to value of the IRA according to the perceived “need” for treatment(s) or manager preferences for “active management” over wilderness protection. The determination of availability is conditioned by the value of and need for the wilderness resource compared to the value and need for other resources. Of the 8 availability elements within the 43 IRAs other resources values were rated as high compared to wilderness values in 17 of the possible 344 ratings. Of the 43 IRA’s evaluated, parts of 7 IRAs rated as low in availability.

Response to Need:

The potential wilderness inventory, defined as IRAs, was evaluated for need as described in appendix C. The 2003 Regional Needs Assessment is included as appendix G of the AMS.

We disagree that ecological need coverage was so “minimalist” that it is robbed of its effectiveness. Need is described in FSH 1909.12, Chapter 7 as an analysis of the degree to which an area contributes to the local and national distribution of wilderness. Chapter 7 provides a list of suggested factors for considering need. The factors considered in the Northern Region assessment are social and ecological. The social factors include current levels of use in designated wilderness in the Northern Region, National and local trends in outdoor activities, and population statistics. Ecological factors include representative vegetative cover types and ecological sections, fisheries, and wildlife.

The region compared the distribution of bull trout, Westslope cutthroat, and Yellowstone cutthroat trout to designated wilderness and inventoried roadless areas in the Northern Region. These particular species were used because the information was readily available (page 7, 2003 Wilderness Needs Assessment). We agree that Yellowstone cutthroat is not found on the KNF;

however the Need assessment ratings considered local and national levels. However, streams on the KNF do support both bull trout and Westslope cutthroat.

We disagree that there is no Need category for Threatened and Endangered species, especially the grizzly bear and no category for linkage zones/habitat connectivity. Needs Assessment question #3 address larger reserve size beneficial for wildlife conservation or to form large habitat patches. In the Northern Region, at-risk species considered to need of areas with limited human-related influences are the wolverine, fisher, wolf, grizzly bear, and others (pages 21-24 2003 Region Needs Assessment).

We agree that the presence of sensitive plants is a criteria of high importance, it is addressed in the Needs question #2. See appendix C for information on sensitive species.

We disagree that ratings for Need elements 4 and 5 in appendix C should not have been considered in the final scoring. In regards to the Need process for element 4, Ecological sections represented in wilderness, the rating was determined for the entire Forest, and only one rating was used for the KNF. On page G-39 of the 2003 R1 Wilderness Needs Assessment, the Flathead Valley Section is listed as having 82,891 ecological sections acreage in wilderness.

We disagree that human social needs have been elevated to top priority by the Forest. In the Needs Assessment, the social factor was address at the regional level. The KNF chose Libby Montana as its center, which is the largest community within the Forest and location of the Forest headquarters. The 2003 R1 Wilderness Needs Assessment options for population centers were either Kalispell (88 miles or Coeur d'Alene Idaho which is 130 miles from Libby by road). Selection of Kalispell as the population center for the Needs assessment resulted in all IRA's to rate as low for Need element #5 (number of wilderness acres within 100 miles of Kalispell) due to the Bob Marshall Wilderness Area on the Flathead National Forest.

We disagree that Needs question #3 having two parts was arbitrary. Question 3 was split based on whether the IRA was located adjacent to an existing wilderness boundary or (not located near existing wilderness) but located near another IRA – emphasis added for clarification. A rating was determined for either 3a or 3b, but not both. The need being address was larger sized areas beneficial for wildlife conservation or large habitat patches.

MA Allocation of IRAs: Category 552

Public Comment 125: (Letter Number(s): 146, 154, 163, 229, 277, 301, 323, 333, 338, 343, 360, and 364)

IRAs are special areas, should stay wild, and should be designated either as recommended wilderness or MA5.

Response:

We agree that IRAs can provide primitive recreation opportunities, migration corridors, wildlife habitat, and other benefits. All IRAs would be managed under the 2001 Roadless Area Conservation Rule regardless of the MA allocation. We have added FW-STD-AR-01 to highlight the rule's protection measures within IRAs. IRAs were reviewed as part of the forest planning process.

Appendix C of the FEIS describes in detail the process for wilderness evaluation of IRAs, and has been expanded to show the MA allocation by alternative for each IRA. See the response to Public Comment 124.

MA allocation of IRAs differed by action alternative addressing a range of management options. Specific MA changes proposed regarding IRA were reviewed and analyzed as follows: Allen Peak was allocated primarily to MA5b in Alternative B Modified, MA1b (70%) and MA5b in Alternative C, and MA6 in Alternative D.

IRAs adjacent to the Cabinet Mountains Wilderness (Barren Peak, Cabinet Face East, Cabinet Face West, Chippewa, McKay Creek, Rock Creek) were allocated primarily to MA1b (30%), MA2,3,4 or 5 (69%) in Alternative B Modified, MA1b (54%), MA2,3,4,5 (45%) in Alternative C; and MA1b (30%), MA 2,3,4,5 (69%) in Alternative D.

Whitefish Divide area (Marston Face, Thompson-Seton, Tuchuck) were allocated primarily to MA1b (37% and MA2,3,4,5 (58%) in Alternative B Modified; to MA1b (93%) and MA2,3,4,5 (6%) in Alternative C; and to MA5's (100%) in Alternative D.

Big Creek IRA was allocated primarily to MA2, 3, 4 or 5 in Alternative B Modified and D, and MA1b in alternative C. Gold Hill was allocated primarily to MA6 in Alternative B Modified and D, and MA2, 3, 4 or 5 in Alternative C.

While Cataract, Galena and Trout Creek IRAs did not have an evaluation of suitability for recommended wilderness, there is no change in their designation as IRAs. These IRAs were allocated primarily to MA5s in Alternatives B Modified and C, and MA6 in Alternative D.

DEIS General: Category 553

Public Comment 126: (Letter Number(s): 125 and 345)

The Forest Service should consider the following regarding IRAs:

- A) Providing IRAs for wildlife protection in all seasons of the year; and
- B) Ensuring IRAs provide connection to adjacent forests and wildlands in Canada.

Response:

Please refer to appendix C of the FEIS for detailed evaluation of each IRA. Several elements related to wildlife and adjacent areas were evaluated including; Capability Environmental Elements 12-14, Capability Variety and Abundance of Wildlife #19-22, Capability Manageability 41-43, and Need criteria 3, 4, 5.

Forest Plan General: Category 559

Public Comment 130: (Letter Number(s): 138 and 251)

The Forest Service should minimize motorized use in the KNF's established roadless areas to ensure connectivity across the landscape because it is crucial to the viability of many species found on the KNF, including federally listed threatened and endangered species like the Canada lynx and grizzly bear.

Response:

Please see responses to Public Comment 7, 4, and 125.

Lands/Special Uses

Acquisitions: Category 602

Public Comment 206: (Letter Number(s): 212)

The Legal and Administrative Framework for Lands/Special Uses (DEIS page 304) should include specific reference to the Treaty of Hellgate of 1855, Executive Order 13175 and USDA and USFS regulations and policies related to Tribal Treaty rights and the government-to-government relationship. The Tribal Forest Protection Act (25 U.S.C. § 3101 et seq.) and the Sacred Sites Policy (Executive Order 13007) are also necessary to a full analysis of impacts of landownership administration and adjustments and special uses of NFS lands. In addition, the DEIS fails to mention Tribes as recipients of special use authorizations.

Response:

The Hellgate Treaty of 1855 and Executive Orders 13175 and 13007 have been added to Lands and Special Uses Legal and Administrative Framework in the FEIS. The Tribal Forest Protection Act was not added as the KNF does not have any lands that are adjacent to Tribal lands; and thus, this act is not applicable to the Forest.

Forest Plan Guidelines: Category 612**Public Comment 208:** (Letter Number(s): 371)

The Forest Service should consider adding the following Lands and Special Uses forestwide guidelines:

A) FW-GDL-LND-03 as follows: Require instream flows and habitat conditions for hydroelectric and other surface water development proposals that maintain or restore riparian resources, favorable channel conditions, fish passage, and reproduction and growth. Coordinate this process with the appropriate state agencies. During re-licensing of hydroelectric projects, provide written and timely license conditions to the Federal Energy Regulatory Commission (FERC), that require fish passage and flows and habitat conditions that maintain/restore riparian resources and channel integrity. Coordinate re-licensing projects with the appropriate state agencies; and

B) FW-GDL-LND-04 as follows: Locate new hydroelectric ancillary facilities outside RHCAs. For existing ancillary facilities inside the RHCA that are essential to proper management, provide recommendations to FERC to assure that the facilities would not prevent attainment of the riparian management objectives and that adverse effects on inland native fish and aquatic species of concern are avoided. Where these desired conditions cannot be met, provide recommendations to FERC that such ancillary facilities should be relocated. Locate, operate, and maintain hydroelectric facilities that must be located in RHCAs to avoid effects that would retard or prevent attainment of the riparian management objectives and avoid adverse effects on inland native fish and aquatic species of concern.

Response:

The retained INFISH decision includes this direction. These guidelines are found as LH-1 and LH-2 within INFISH. This direction has been retained as part of the revised Forest Plan, so there is no need to duplicate the direction.

Management Areas (Chapter 3)**MA1a: Category 702****Public Comment 133:** (Letter Number(s): 86, 118, 144, 188, 221, 352, 353, 368, and 378)

The Forest Service should protect wilderness and keep the Cabinet Mountain Wilderness Area intact. The main goal of the Forest Plan should be to provide for and protect wilderness; these areas need to be protected for future generations.

Response:

The Cabinet Mountain Wilderness was designated by Congress, and cannot be altered in forest planning. The KNF does and will continue to protect the Cabinet Mountain Wilderness as directed by law, regulation, and policy. The 2009 Cabinet Mountain Wilderness management plan provides additional direction. Law enforcement also works to protect this area from illegal uses. The revised Forest Plan has several goals. Wilderness is one use of the Forest and its management is provided for under MA1a, designated wilderness.

MA1a: Category 704**Public Comment 135:** (Letter Number(s): 1, 132, and 316)

The Forest Service should consider the following suggested changes or modifications to uses to the designated wilderness MA (MA1a):

- A) Permitting the use of bicycles and other forms of human powered transport;
- B) Removing all proposed roads (from the proposed mines) into the wilderness area from the map; and
- C) Permitting the use of fixed anchors wherever climbing is allowed with appropriate level of use established on an area-by-area basis and strategically placed to minimize climbing impacts to fragile soils, vegetation, and wildlife in wilderness areas. The government has authority under the Wilderness Act to permit fixed anchors in wilderness, and this use should be permitted as climbing is one of the unique recreation opportunities wilderness is intended to provide. The Forest Service should develop a climbing management plan or rule to accommodate climbing with fixed anchor use while protecting wilderness values.

Response:

- A) The Wilderness Act of 1964 prohibits the use of “mechanical transport” (see Section 4(c) of the act). A bicycle is considered mechanical and is thus prohibited by the Wilderness Act;
- B) There are no proposed roads into wilderness; and thus, do not show up on the map; and
- C) There continues to be debate nationally on fixed anchors in wilderness, with fixed anchor rules expected in 2013. While there is some climbing in the Cabinet Mountain Wilderness (Ojibway/Elephant Peaks), the 2009 Cabinet Mountain Wilderness Management plan direction states that ‘climbing registers will not be removed’ (page 35). Current regulation does not require a permit on the KNF for fixed anchors in wilderness. The desired condition for the Koocanusa geographic area (GA-DC-AR-KOO-004) was modified to include additional recreation opportunities for rock climbing. Recreation opportunities could include an inventory of climbing areas, management plan, brochures, or site improvements.

MA1a: Category 706**Public Comment 137:** (Letter Number(s): 212)

The Forest Service should consider revising the (MA1a) wilderness standard MA1a-STD-AR-01, which contains restrictions on party size for access and recreation; Tribal members should not be restricted in this manner.

Response:

Tribal members may exercise their treaty rights.

MA1b: Category 708

Public Comment 138: (Letter Number(s): 4, 5, 6, 50, 55, 60, 61, 64, 66, 68, 69, 78, 83, 87, 88, 90, 91, 94, 98, 100, 101, 105, 118, 128, 139, 142, 150, 154, 159, 163, 168, 169, 180, 183, 184, 185, 189, 196, 199, 203, 204, 205, 206, 220, 234, 235, 239, 242, 244, 247, 250, 257, 259, 260, 262, 268, 273, 275, 277, 278, 282, 283, 285, 286, 288, 304, 305, 308, 315, 317, 319, 322, 323, 328, 329, 333, 338, 340, 346, 349, 352, 354, 360, 372, 378, and 382)

The Forest Service should consider the following suggested changes or modifications regarding the recommended wilderness MA (MA1b) allocation:

- A) Support for designation of recommended wilderness to Scotchman Peaks, Whitefish Divide, Roderick, and the Cabinet Additions. In addition, designate the following IRAs as recommended wilderness: Gold Hill West, Saddle, Grizzly, Zulu (at least the west-side of the IRA), and

Northwest Peaks, the entirety of the Roderick IRA, Tuchuck, Marston Face, Thompson-Seton, McKay Creek, Chippewa, Galena, Cataract Creek, and Buckhorn Ridge. These areas provide crucial roadless habitats for many species including elk, grizzly bear, and lynx. These areas also provide some of the highest potential for occasional human seclusion and have value to the society by knowing that they are there;

B) Bring forward the recommended wilderness areas from Alternative C into the final Forest Plan, with the following additions: Mount Henry, Big Creek, Gold Hill West, Saddle Mountain, and Northwest Peaks and providing linkage zones between them using other IRAs;

C) Designating Ten Lakes and the Ten Lakes Contiguous Areas as recommended wilderness as in Alternative C;

D) Designating the area between Baree Creek and Iron Meadows (the area proposed in Alternative B as 5b) as recommended wilderness;

E) Change designations of 5b in Rock Meadows corridor to 1b. This area does not need to be open to motorized vehicles. It currently is not open to motorized use;

F) Bring forward the recommended wilderness areas (MA1b) from Alternative C into the final Forest Plan and change all MA5a, 5b, and 5c to MA1b;

G) There should be more recommended wilderness in the Whitefish Divide, including the Thompson-Seton, Tuchuck, and Marston Face Roadless areas. These areas are already managed for quiet recreation (MA5a) and should be managed as wilderness in part to ensure connectivity to recommended wilderness on the Flathead National Forest. In light of recent conservation measures in British Columbia to protect the Crown of the Continent, it is imperative that the US show similar recognition and protection of our adjacent lands to the south. These lands are an important passageway for wildlife to move between Glacier National Park, Canada, and the Yaak. If not designated to MA1b, they should be designated as MA8, wildlife corridors;

H) The Roadless areas south and east of the Cabinet Mountain Wilderness should not be motorized. Those areas ought to remain non-motorized and include more recommended wilderness. This includes Cabinet Face East, Barren Creek, Allen Peak, and Galena IRAs. This designation provides important wildlife habitat protection and will mitigate the effect on grizzly bears from the two proposed mines. Existing legal motorized use on existing routes in this area such as Ramsey (#4781), Silver Butte (#594), and West Fork Canyon Creek (#892) could be maintained. Roads in the IRAs contiguous with the East Front of the CMW could be maintained as wilderness trails for non-motorized backcountry recreation;

I) Galena Creek IRA should be recommended wilderness. This area would provide additional security for small grizzly bear population in the southern Cabinet Mountains. The Cabinet Divide trail (#360) should always remain non-motorized. There are multiple access points to the trail and by making the Galena IRA motorized (MA5b), the Forest Service would be inviting motorcycle and ATV use on the trail;

J) McKay Creek IRA should be recommended as wilderness. The roadless area would provide security for wildlife that would be displaced by the Rock Creek and Montanore mines. The McKay Creek IRA in its entirety should be recommended as wilderness under the final alternative. At a minimum all lands in the McKay Creek IRA not receiving a 1b classification should at a minimum be MA5a (non-motorized);

K) Bring forward the recommended wilderness areas from Alternative C into the final Forest Plan, with the following additions: all MA5a (backcountry – non-motorized) and MA4 (research natural area) lands contiguous with any MA1a and/or MA1b;

L) Designate corridors within recommended wilderness that allow for motorized and non-motorized uses. This would be consistent with many other wilderness areas, is a good problem solving tool, and would be very beneficial at this stage of the forest planning in defining wilderness boundaries;

M) Retaining mountain bike access to Krinklehorn Peak, Mt. Marston, and the Ten Lakes Wilderness Study Area as shown in the preferred alternative. The KNF needs to ensure that Trail #26, the Whitefish Divide Trail, be preserved as a mechanized (bicycle) corridor on the edge of the MA1b designation. This is an important backcountry route, and could be preserved as a mechanized (bicycle) corridor on the edge of MA1b. Show Trail #26 and at least one of its important connector trails to the west as corridors by using the Backcountry management area designation to keep the trail alignment out of the RWA;

N) Designating Cabinet Face East IRA as recommended wilderness as shown in Alternative C;

O) The Cabinet Face West Roadless Area should be included as recommended wilderness. The notion the west face Cabinet wild lands would be “hard to manage” is questionable. This area, already proposed in Alternative B to be managed as non-motorized backcountry, could be added to the Cabinet Mountains Wilderness with the wilderness boundary being the same as the forest boundary; and

P) Support a much stronger, more manageable area of recommended wilderness for inclusion in the Cabinet Mountains Wilderness including all remaining wild lands on the Libby Ranger District. This area of the wild north and east Cabinets includes many of the most beautiful trails, wild lands, grizzly, wolverine, and lynx habitats and old growth forest including western hemlock, cedar, western white pine, and species only rarely found in wilderness.

Response:

A) The additional areas listed are managed as either recommended wilderness in Alternative C or as backcountry. Alternative C was considered in selecting the preferred alternative for the FEIS. Alternative B Modified allocates these areas to the backcountry MAs (MA5a, 5b, and 5c), with the exception of Gold Hill. The backcountry MAs protect the wildlife and other roadless values of these areas, as described in the revised Forest Plan and FEIS. The opportunity for seclusion is also high in the backcountry areas. MAs 5b and 5c allow for some motor vehicle use. MAs 5b and 5c both allow over-snow vehicle use. Thus, these areas may have motorized over-snow vehicle presence within certain areas during certain times (winter), but not on all acres. Areas allocated to MA5b allow motor vehicle use on designated routes and areas. Thus, some of these acres may have motor vehicle use on designated routes/areas during certain times of the year;

B) See the response to A above. Wildlife linkage zones are not needed for the protection of wildlife. See the response to Public Comment 439 for information on wildlife linkage zones;

C) Alternative C was considered in selecting the preferred alternative. The roadless character of this area is protected under Alternative B Modified. Management for the Wilderness Study Area (MA1c) provides protection of wilderness characteristics. The remainder of this area is allocated to either MA5a or 5b. See the response to item A above;

D) This area was recommended wilderness in Alternative C. Alternative C was considered in selecting the preferred alternative. These areas remain 5b in Alternative B Modified. Motor vehicle use is limited to designated routes and areas in 5b. Roadless values will be protected by this management area allocation (except over-snow vehicle use). See the response to items A above;

E) MA5b does not open areas to motorized use. As clarified in the revised Forest Plan and FEIS, MA5b allows motor vehicle use on routes and areas designated per 36 CFR Subpart B. Over-snow vehicle use is allowed within this MA. The revised Forest Plan does not change the existing motor vehicle use designation of any routes or areas currently displayed on the Forest MVUMs. Management area direction in the Rock Creek drainage does allow for motorized use on designated routes and areas; however, no changes are proposed for the East Fork Rock Creek Trail #935. This trail is a non-motorized trail. Any changes to allow or restrict motor vehicle uses

would require site-specific analysis and NEPA. The revised Forest Plan and ROD is not proposing to change use on this trail to allow motorized access;

F) See the response to items A above;

G) See the response to items A and B above;

H) Some of these areas were allocated to recommended wilderness in Alternative C. This alternative was considered in selecting the preferred alternative for the FEIS. These areas have been allocated to MA5b because of the existing motorized corridors within the area. As clarified in the revised Forest Plan and FEIS, MA5b allows motor vehicle use on routes and areas designated per 36 CFR Subpart B. Over-snow vehicle use is allowed within this MA. The revised Forest Plan does not change the existing designation of any routes or areas currently displayed on the Forest MVUMs. MA5b protects the roadless values mentioned. See the response to item A above;

I) This area has been allocated to MA5b in the revised Forest Plan. MA5b does not open areas to motorized use and does not invite illegal use. As clarified in the revised Forest Plan and FEIS, MA5b allows motor vehicle use on routes and areas designated per 36 CFR Subpart B. Over-snow vehicle use is allowed within this MA. MA5b protects roadless values. See the response to item A above;

J) The majority of this IRA was allocated to MA1b (recommended wilderness) in Alternative B. The remainder is in MA5a and MA5b. Only 1,690 acres of this IRA have been allocated to MA5b. Analysis on the proposed Rock Creek and Montanore mines is being handled at the project level and any needed mitigation will be determined by those analyses. MAs 5a and 5b protect roadless values. See the response to item A above;

K) The Doonan Peak recommended RNA (504 acres) is adjacent to the Cabinet Mountain Wilderness. There is also a small portion of the Lower Ross Creek RNA that is adjacent to the Scotchman Peaks recommended wilderness area. The RNA designation is appropriate for these areas. Alternative C was considered in selecting the preferred alternative for the FEIS. MA5a protects roadless values. See the response to item A above;

L) See the response to Public Comment 92. Motorized use is restricted in recommended wilderness in order to maintain the capability and availability of the area for wilderness designation;

M) Mountain bike access to Krinklehorn Peak, Mt. Marston, and the Ten Lakes WSA does not change under Alternative B Modified. Travel management in the Ten Lakes WSA, including mountain biking, is being address site-specifically in the Galton Project.

The only site-specific travel management decision in the revised Forest Plan is in MA1b and MA4, closure to mechanized and over-snow vehicle use. This will impact a portion of Whitefish Divide Trail #26;

N) Alternative C was considered in selecting the preferred alternative. Under Alternative B Modified, the 5a portion that lies between the two recommended wilderness areas in this area is to accommodate the potential development of the Treasure Mountain Ski Area. The entire east side of the Cabinet Mountain Wilderness is allocated to MA1b, MA5a, or MA5b. The roadless character of this area is protected under Alternative B Modified. See the response to item A above;

O) Most of this area was recommended wilderness under Alternative C, and was considered in selecting the preferred alternative. Under the revised Forest Plan, this area is allocated to MA5a, which protects roadless values and keeps the area non-motorized; and

P) Other recommended wilderness areas on the KNF contain the attributes listed in this comment, including portions of Scotchman Peaks and Roderick. IRAs adjacent to the Cabinet Mountain Wilderness are allocated to MA1b, MA5a, or MA5b. The MA5a and 5b allocations protect roadless values. See the response to item A above.

MA1b: Category 712

Public Comment 141: (Letter Number(s): 206, 287, 321, 335, 353, 357, and 386)

The Forest Service should consider the following comments regarding the recommended wilderness MA (MA1b):

- A) The Multiple Use Sustained Yield Act of 1960 (MUSYA) directs the Forest Service to consider wilderness as one of the multiple uses for which it manages the forest and grasslands. The Forest Service has a further obligation under the 1964 Wilderness Act to recommend areas for wilderness. Wilderness remains a vital component of sound, healthy ecological forest management. Roadless, undeveloped wild lands represent some of the rarest landforms on both Forests, and therefore one of their most valuable assets;
- B) Explaining in the FEIS why the number of acres recommended for wilderness is less than the individual IRA (see table 62 in the DEIS on page 299). In all cases the number of acres in an IRA proposed as MA1b is less than the total acres in an IRA and larger IRAs were reduced by several thousand acres;
- C) Explaining in the FEIS how the proposed MA1b areas meet the definition of wilderness, who conducted these wilderness “evaluations” on the KNF, and what elements were used in this evaluation. After reviewing aerial photographs and evaluating the historic vegetation management activities that occurred in the areas it becomes clear that that these areas do not meet any definition of wilderness;
- D) Explaining in the FEIS the reason for changing the name of the area being evaluated from Thompson Seton IRA to Whitefish Divide. The portion of the Thompson Seton IRA north of Deep Creek is referred to as “Whitefish Divide” in the draft Forest Plan and is recommended for designation as MA1b;
- E) Closing recommended wilderness areas will remove all motorized and mechanized use and in fact create Defacto Wilderness. This action sidesteps the authority of congress to designate wilderness and should not be allowed under law; and
- F) The Wilderness Needs Assessment should include criteria on the need for cedar and hemlock stands to be protected by wilderness.

Response:

- A) The Forest has allocated 105,300 acres as recommended wilderness under the revised Forest Plan. The remaining IRAs not allocated to recommended wilderness, are allocated to a backcountry MA (MA5a, 5b, or 5c) with the exception of Gold Hill (allocated to MA6). The backcountry MAs protects the roadless values. See the response to Public Comment 138, item A;
- B) The boundaries for recommended wilderness were drawn to be manageable and locatable on-the-ground. See Methodology Used for Evaluating Capability, Availability, and Need; Evaluation Findings in appendix C of the FEIS for an explanation of how the recommended wilderness boundaries were drawn;
- C) All areas allocated to recommended wilderness met the criteria of Forest Service handbook 1909.12, Chapter 70. See appendix C of the FEIS for detailed information;
- D) It is referred to as “Whitefish Divide” because the area allocated to recommended wilderness is comprised of more than one IRA;
- E) The Forest Service is directed to evaluate areas for recommended wilderness (1982 Rule 36 CFR 219.17(a)). See the response to Public Comment 92. Motorized use is restricted in recommended wilderness in order to maintain the capability and availability of the area as designated wilderness; and
- F) Cedar and hemlock were considered in the need for recommended wilderness. See the Need Process of appendix C of the FEIS.

MA1b: Category 713

Public Comment 142: (Letter Number(s): 1, 10, 13, 18, 74, 75, 95, 96, 107, 146, 177, 178, 186, 219, 226, 245, 269, 276, 295, 324, 325, 327, 332, 334, 335, 351, 353, 357, 358, 362, and 386)

The Forest Service should designate less (or no) areas to the recommended wilderness MA (MA1b) because:

A) Recommended wilderness in the draft Forest Plan prohibits the use of bicycles and other forms of human powered transport. This excludes bikes from numerous fantastic trails that offer healthy outdoor activities to people all over the world that come to this area to recreate;

B) There should be no areas recommended as wilderness. Areas designated as 1b under Alternative B can be protected as wildlands by other means, particularly through MA5 designations. Primitive and semi-primitive areas and wilderness opportunities can be, and should be, perpetuated without the rigid inflexibility of 'recommended Wilderness' designation which requires Congressional action to culminate (and Congressional inaction is to be expected) and potentially precludes some future management activities that might become acceptable or desirable given the inevitable unforeseen and ever-changing needs in our physical and social environment. Furthermore, the majority of our constituency does not support any additional wilderness in Lincoln County. It is important to provide access, recreation, and management of these areas as a legacy to the next generation. Furthermore, wilderness designation has a severe negative economic impact on local communities;

C) Recommended wilderness has a “let it burn” policy. No chainsaws or mechanized firefighting equipment would be allowed in these areas. Fire would spread and burn down surrounding areas. Because of this, no areas should be recommended as wilderness in the Yaak;

D) Recommending an additional 36,300 acres of wilderness while the estimated timber production and recreational access is decreased does not sound like the result of the collaborative process in which the KNF claims was a factor in the development of the preferred alternative. The KNF has not made an effort for balancing use. Therefore, no more wilderness areas should be added;

E) Documentation exists that supports the fact that there are as many, or more, people who oppose wilderness designation on the KNF than people who support it, and yet the KNF increased recommended wilderness in all three action alternatives. The KNF needs to explain why three of the four alternatives show increased recommended wilderness and how this is a requirement of plan revision;

F) Many of these areas show an evaluation for recommended wilderness rating of Medium in the classifications of “free from disturbance” and “improvements.” This demonstrates that these areas should not qualify as eligible in concordance with the 1964 Wilderness Act. They are not free from disturbance and are not untouched by man. Many of these areas that the KNF has recommended for wilderness do not meet the eligibility requirements;

G) Recommended wilderness reduces management options and prevents management that improves wildlife habitat. The managed portions of the KNF have threatened and endangered species population densities that are comparable to Glacier National Park and the Bob Marshall Wilderness. Lynx densities may actually be higher in some managed forests;

H) Recommending additional wilderness has no factual justification. Areas that the KNF has evaluated and have been found to rate high have not been recommended, and areas that have rated as low or medium have been proposed as wilderness in the new Plan. This arbitrary and capricious action on the part of the Forest Service is unacceptable and should be revisited; and

I) Given the demonstrated underutilization of existing wilderness areas, it is entirely reasonable to conclude that there is adequate wilderness area. Given that vast areas of our forests have been set

aside for the exclusive benefit of a relatively small group of quiet visitors, it is not reasonable to set aside more areas and trails for their needs.

Response:

A) It is true that the Forest Plan would close recommended wilderness areas to mechanized use. However, there are many areas that remain open to mechanized use on the Forest. All backcountry MAs allow mechanized use. The boundary of the Whitefish Divide recommended wilderness area was adjusted in Alternative B Modified, allowing mountain bike use to continue in a portion of this area;

B) The Forest Service is directed to evaluate areas for recommended wilderness (1982 Rule 36 CFR 219.17(a)). A small portion of the Forest (4.7 percent) is recommended wilderness under Alternative B Modified. The total acreage of recommended wilderness in the revised Forest Plan is 2,800 acres more than the current Forest Plan. The effect of this alternative on the local economy is displayed in the FEIS in the “Social and Economics” section of chapter 3.

C) There is no “let it burn” policy in recommended wilderness. Chainsaws are allowed in recommended wilderness for administrative purposes. The forest supervisor can issue emergency orders allowing motorized access, helicopters, etc. for suppression of wildfire in these areas. As with other areas on the Forest, the response to wildfires in recommended wilderness will be based on time of year, conditions on the ground, and weather.

D) When describing the acres of recommended wilderness under the 1987 Forest Plan, the DEIS did not include the acres of recommended wilderness within the Ten Lakes Wilderness Study Area. This amounts to 26,000 more acres of recommended wilderness in the 1987 Forest Plan. This has been updated in the FEIS. When comparing the recommended wilderness from the 1987 Forest Plan to Alternative B Modified, there is a 2,800 acre increase. A collaborative process was used in developing the Forest Plan. See Chapter 1 of the FEIS (under Public Involvement) for a description of the collaborative process;

E) Not all action alternatives show an increase in recommended wilderness acreage from the 1987 Forest Plan. Alternative D has 65,200 less acres in recommended wilderness than the 1987 Forest Plan. The Forest Service is directed to evaluate areas for recommended wilderness (1982 Rule 36 CFR 219.17(a)). Because of the public concern over recommended wilderness and the requirement to evaluate areas for recommended wilderness, evaluation of inventoried roadless areas was identified as a plan revision topic. Alternatives were built to address the desire for more AND the desire for less recommended wilderness. Alternative C had the most and Alternative D the least amount of recommended wilderness;

F) We disagree that the areas identified do not meet eligibility requirements. The criteria for identification of potential wilderness areas that satisfy the definition of wilderness is found in section 2(c) of the 1964 Wilderness Act, and further explained in FSH 1909.12, Chapter 70. Potential wilderness areas may contain improvement such as motorized trails, unauthorized and user-created roads, and evidence of historic logging activities where the use of mechanical equipment is not evident (FSH 1909.12, 71.11). We agree that the capability test has elements that captured where there has been past disturbance or improvements. See appendix C of the FEIS;

G) Areas allocated to recommended wilderness do not reduce habitat for threatened and endangered species. Some vegetation management is allowed within these areas. For example, fire (both planned and unplanned ignitions) is allowed within recommended wilderness. See the wildlife section of chapter 3 of the FEIS for the effect of recommended wilderness on wildlife habitat;

H) We disagree the wilderness evaluation (appendix C of the FEIS) is arbitrary. The process followed meets the intent of the 1964 Wilderness Act and subsequent regulation, policy, and direction which interpret the law. Once the evaluation rating was completed, factors such as size

and shape, ability to manage the area as wilderness, and comments from the public were considered in developing recommended wilderness by alternative (FSH 1909.12, 72 and 72.5). A full range of wilderness alternatives were developed so adequate consideration of wilderness options were available (FSM 1923.12, 1). See response to Public Comment 124; and

I) The Wilderness Act secures “for the American people of present and future generations the benefits of an enduring resource of wilderness.” Wilderness is a resource. In addition to offering primitive recreation opportunities, it is valuable for its scientific and educational uses, as a benchmark for ecological studies, and for the preservation of historical and natural features. The wilderness evaluation includes several elements, not just recreation use. See response to Public Comment 124.

MA1b: Category 714

Public Comment 143: (Letter Number(s): 43, 83, 152, 170, 254, 257, 309, 335, and 357)

The Forest Service should consider the following comments regarding management and types of uses allowed in recommended wilderness (MA1b):

- A) Establishing uses consistent with a wilderness designation. Certain uses have become established in areas recommended for wilderness that are not consistent with the Wilderness Act. As a result, a constituency for motorized and mechanized use has grown, specific to particular areas and trails, lessening both the suitability and political potential for these areas to be designated as wilderness. The MA1b designation will ensure that this does not happen;
- B) Permitting mountain bike use on KNF trails on MA1b land adjacent to the Cabinet Mountain Wilderness. Changing the use designations creates impacts on bicycle use and on current users. Trails frequently used by many local cyclists, such as Grambauer, Scenery and Taylor Peak Trails would no longer allow for mountain biking under most alternatives. However, the KNF allows the use of chainsaws to clear these trails due to the obvious increase in cost and time that is required when clearing trails by historical means (e.g., crosscut or axe). Wilderness is defined by the agency as “untrammeled by man,” yet we pounce on fires with full force and power tools; and now, we are going to make wilderness additions that prohibit mechanized use but not motorized use. The KNF needs to either allow bicycle use in MA1b or remove these important trails from MA1b designation;
- C) It is not necessary to prohibit mechanized use in recommended wilderness, as there is no damage occurring by this use that would preclude the area from designation as wilderness. Moreover, this decision is not quantified nor addressed in the DEIS in terms of trails. Many times there are only a few trails that local mountain bikers view as valuable experiences that fall within the boundaries of an RWA. Even more frequently there is only a portion of the trail that crosses into the RWA. There are many solutions to the issues such as adjusting the boundary of the RWA, designating particular trails within the area where mountain bicycle use is permitted, or even committing to funding reroutes of trails to avoid the areas where bicycles would be prohibited;
- D) Placing acreage into MA1b only decreases long-term management options because these lands will be managed as wilderness. If Congressional action is never taken are these areas just managed as wilderness without actually ever being designated as wilderness by Congress? The FEIS should explain why the KNF wants more acreage in this MA, who conducted these wilderness evaluations on the KNF and what qualifications they had, and what criteria was used to determine whether or not these areas met the definition of wilderness;
- E) Alternatives B and C show increases in acres of recommended wilderness (DEIS page 35). In the Analysis for Public Comment Report (on the 2006 Proposed Plan) it appears that there were just as many or more comments that opposed increasing wilderness designations on the KNF. The KNF needs to explain why Alternatives B and C proposed to increase recommended wilderness

and explain how these designations provide recreational opportunities to the citizens of the United States that do not already exist on the KNF;

F) Recommended wilderness has more restrictive management and reduced long-term management options. The KNF needs to explain why more restrictive forest management policies are needed in these areas. The areas proposed for this designation are areas that are relatively remote and difficult to access. These facts will not change regardless of what MA these areas are placed under;

G) Permitting historic motorized use. The snowmobile has been a historic use in the KNF and should continue being allowed in the areas that are now open. The MA1b designation should continue to allow the historic motorized use. Any closures of these areas are an illegal act by the KNF. The KNF must follow the intention of the Multiple Use Sustained Yield Act on all public forest land outside of congressionally designated wilderness areas; and

H) Mineral leasing should not be available in recommended wilderness.

Response:

A) Agreed, management area MA1b and the ROD eliminate non-conforming uses that may threaten the capability or availability of an area;

B) Hand-held motorized use is only for administrative purposes. This is not a public use. If designated as wilderness, the Forest Service would stop using chain saws in these areas. The elimination of public uses in recommended wilderness that are not allowed in wilderness helps to retain wilderness characteristics of the area and possible future designation as wilderness;

C) It is not physical damage from bicycles that may preclude designation as wilderness but non-conforming uses that could threaten the capability or availability of an area. If use becomes established that is not allowed in designated wilderness, this area may no longer be considered suitable as wilderness. The boundary for the Whitefish Divide recommended wilderness area was adjusted in Alternative B Modified, allowing mountain bike access to a portion of this area;

D) Recommended wilderness is managed to maintain wilderness characteristics. If Congress does not act to designate these areas as wilderness, these areas will be reviewed during the next forest plan revision. The FEIS presented a range of alternatives for recommended wilderness, with Alternative D having less, Alternative C having more, and Alternative B Modified having similar amounts of recommended wilderness as compared to the 1987 Forest Plan. See appendix C of the FEIS for a description of the evaluation process and qualifications of those conducting the analysis;

E) The FEIS presented a range of alternatives for recommended wilderness, with Alternative D having less, Alternative C having more, and Alternative B Modified having similar amounts of recommended wilderness as compared to the 1987 Forest Plan. The Forest Service is directed to evaluate areas for recommended wilderness (1982 Rule 36 CFR 219.17(a)). Allocation of areas to recommended wilderness is not just for recreational use. See appendix C of the FEIS for a description of the evaluation process and the types of factors considered in evaluating areas for recommended wilderness;

F) See response to item E above. The effect of allocating areas to recommended wilderness is described as part of the effects analysis in chapter 3 of the FEIS;

G) It is not illegal for the KNF to place restriction on public use. Restrictions or closures are site-specific decisions made after analysis and public comment. In areas allocated to MA1b in the revised Forest Plan, the decision made in the ROD would close the area to motorized and mechanized use. If a use becomes established that that could threaten the capability or availability of an area, the area may no longer be considered suitable as wilderness. Over-snow vehicle use is not allowed in designated wilderness. To protect wilderness characteristics and the ability for

Congress to designate these areas as wilderness in the future, the ROD would close recommended wilderness to over-snow vehicle use; and

H) Mineral leasing is allowed within recommended wilderness with stipulations that protect wilderness characteristics. A “no surface occupancy” stipulation would protect these characteristics. This has been clarified in the revised Forest Plan (see MA1b-GDL-MIN-01). Stipulations for mineral leasing will be determined at the site-specific level.

MA1b: Category 715

Public Comment 144: (Letter Number(s): 42, 45, 54, 56, 67, 69, 77, 82, 83, 92, 112, 117, 120, 128, 132, 135, 137, 149, 153, 158, 162, 183, 203, 206, 207, 208, 209, 221, 223, 239, 242, 247, 250, 270, 287, 289, 298, 307, 318, 326, 329, 333, 338, 340, 364, 367, and 371)

The Forest Service should consider designating more of the recommended wilderness MA (MA1b) because designating additional recommended wilderness acreage:

A) Provides secure winter habitats for lynx, mountain goat, and wolverine; and population strongholds and key refugia for listed or proposed species and narrow endemic populations due to their more natural undisturbed character. Providing additional lands would ensure these and other species would benefit from the protections afforded by MA1b designation; these areas also provide habitat for grizzly bears and bull trout and protection against climate change. The draft Forest Plan falls needlessly short of protecting those special wild land values on the KNF, especially in the Whitefish-Galton Range, Yaak River, and Cabinet Mountains Country. The KNF should protect as much area as possible as recommended wilderness;

B) Too much of the KNF allows motorized access. There should be a greater balance between motorized areas that allow timber management and non-motorized areas that don’t allow timber harvest. The KNF needs to provide opportunities for quiet recreation; these areas need to be preserved for future generations. These areas are also good for the local economy and tourism;

C) All roadless areas should be protected as recommended wilderness;

D) All of the 2.3 million acres of the KNF should be protected as recommended wilderness; and

E) Roughly half of the wild country east of the Bull River is within the Cabinet Mountains Wilderness. The existing wild, working natural mountain area of the Cabinets encompasses a much larger area than its designated wilderness core. Wilderness and adjoining wild lands share trails, streams, fish, wildlife, and many other resources –yet nowhere does this Forest Plan evaluate the wild character of the magnificent wild Cabinets as a whole.

Response:

A) Areas allocated to recommended wilderness do provide habitat for certain wildlife species. However, as described in chapter 3 of the FEIS, areas that allow active management provide opportunities for restoration of vegetation and watersheds, which improves habitat. See the wildlife section of chapter 3 of the FEIS for the effect of the alternatives on wildlife. See the response to Public Comment 439;

B) The alternatives provide different amounts of motorized use on the KNF. See the response to Public Comment 7;

C) This was considered in the Alternatives Considered but Eliminated from Detailed Study. See the “Wilderness/Roadless Related Alternatives” and “Recommending Additional Roadless Areas for Wilderness” in chapter 2 of the FEIS;

D) Much of the KNF is not appropriate and does not meet the criteria for recommended wilderness. See appendix C of the FEIS for a description of the evaluation process to identify areas suitable to be recommended as wilderness; and

E) All of the inventoried roadless areas surrounding the Cabinet Mountain Wilderness were evaluated for recommended wilderness. See appendix C of the FEIS.

MA1b Northwest Peaks: Category 718

Public Comment 146: (Letter Number(s): 68, 126, 273, and 343)

The Forest Service should consider designating Northwest Peaks IRA as MA1b to permanently protect all the wildlife and natural landscape features in this area.

Response:

This IRA was considered for recommended wilderness as part of the wilderness evaluation process. See appendix C of the FEIS for a description of this rating and why Northwest Peak is not suitable for recommended wilderness.

MA1b Rock Creek Meadows: Category 719

Public Comment 147: (Letter Number(s): 51, 54, 55, 61, 66, 67, 68, 78, 79, 81, 83, 84, 85, 88, 103, 114, 126, 130, 131, 141, 143, 150, 152, 159, 161, 168, 182, 185, 188, 196, 203, 205, 218, 221, 231, 235, 257, 281, 282, 285, 290, 291, 317, 323, 328, 336, 338, 343, 346, 350, 364, 367, 368, 369, 372, 373, 375, 377, 378, 379, and 382)

The Forest Service should consider the following comments regarding designation of Rock Creek Meadows as recommended wilderness (MA1b):

A) Rock Meadows should not include a proposed motorized corridor (the East Fork Rock Creek Road into Rock Creek Meadows is currently gated with no motorized access); this is an iconic landscape and should be maintained as non-motorized. That route should be changed and included in the recommended wilderness for Rock Meadows. Retain the recommended wilderness designation on the Rock Creek IRA. Keep the area non-motorized; and

B) Remove the Rock Creek corridor from recommended wilderness, or modify the corridor by reducing it to encompass only the trail and mine road itself as a backcountry corridor. Please respect this important recreational access.

Response:

A and B) Under the revised Forest Plan, management area direction in the Rock Creek drainage (MA5b) allows for motor vehicle use on routes and areas designated per 36 CFR Subpart B; however, no changes are proposed for the East Fork Rock Creek Trail #935. This trail is a non-motorized trail that receives some motorized administrative use and private, special-use permit motorized access to the proposed mine. The revised Forest Plan does not propose any change in travel management for this trail. Any changes to allow public motor vehicle use would require site-specific analysis and NEPA.

MA1b Roderick Mountain: Category 720

Public Comment 148: (Letter Number(s): 50, 51, 54, 55, 60, 61, 62, 66, 68, 78, 88, 105, 118, 128, 133, 139, 142, 183, 204, 205, 219, 231, 239, 242, 244, 256, 257, 259, 273, 277, 281, 285, 308, 326, 333, and 360)

The Forest Service should consider the following comments regarding designation of Roderick Mountain as recommended wilderness (MA1b):

A) Support for the inclusion of Roderick Mountain as recommended wilderness as it not only reflects the wildlife literature on the value of roadless areas, it also reflects consensus agreements (through the Three Rivers Challenge) and the inherent wilderness and quiet recreational values of those areas;

B) Designating the entire Roderick IRA as MA1b without buffer strips along roads and private property;

C) Designating a larger area around Roderick as recommended wilderness, including the entire Roderick IRA as well as Saddle Mountain IRA; and

D) Not designating Roderick Mountain as MA1b because it is adjacent to the 17 Mile county road and developed area, is not near the current Cabinet Mountain Wilderness, and is located in a highly forested area. Furthermore, this designation would be harmful to grizzly bears, encouraging human/grizzly bear encounters.

Response:

A) Thank you for your comment;

B) The boundary for Roderick was drawn to be identifiable on the ground and manageable. The boundary for the IRA met the criteria for IRAs, but not for recommended wilderness;

C) See response to item B. The Saddle Mountain IRA was recommended as wilderness under Alternative C. Alternative C was considered in selecting the preferred alternative for the FEIS; and

D) The wilderness evaluation of the Roderick IRA found the area to have high ratings for capability, availability, and need and determined to be suitable for recommended wilderness. See appendix C of the FEIS for an evaluation of the Roderick IRA. Alternative D did not include Roderick as recommended wilderness. Alternative D was considered in selecting the preferred alternative for the FEIS.

MA1b Scotchman Peaks: Category 721

Public Comment 149: (Letter Number(s): 32, 33, 34, 36, 37, 38, 39, 40, 41, 44, 48, 49, 50, 51, 52, 54, 55, 57, 58, 59, 60, 61, 62, 66, 68, 69, 72, 78, 83, 90, 105, 115, 121, 129, 131, 133, 136, 154, 157, 169, 180, 183, 189, 196, 204, 205, 206, 209, 220, 230, 235, 238, 244, 245, 249, 250, 256, 257, 259, 262, 272, 274, 277, 278, 281, 283, 285, 287, 291, 296, 297, 304, 308, 310, 317, 319, 323, 326, 328, 338, 341, 343, 347, 348, 349, 350, 352, 354, 360, 364, 367, 370, 372, 373, 374, 375, 376, 377, 378, 379, and 380)

The Forest Service should consider the following comments regarding designation of Scotchman Peaks as recommended wilderness (MA1b):

A) Support for designating Scotchman Peaks as MA1b because it offers the highest level of protection for this key area. The area has diverse communities of plants and animals, clear flowing streams and precious solitude. This would provide eco-tourism and have benefits to the local economy. It is important for the KNF to preserve this area for future generations;

B) Modifying the border to exclude the Savage Peak and the Dry Creek areas. These areas are considered centerpieces to the snowmobiling community. It makes more sense to change the designation of the Savage Peak area to either MA5c or MA3, like Northwest Peaks, which allows winter motorized use. The most recent data from MFWP indicates this area is no longer mountain goat habitat. The Dry Creek area has a long history of snowmobiling. This area needs to be modified so the MA1b boundary follows that found in the 1987 Plan and exclude Dry Creek from recommended wilderness;

C) Modifying the proposed Scotchman Peaks MA1b boundary to include additional lands along the southeastern boundary of Pillick Ridge and in the East Fork of Blue Creek because these areas were included in the 1987 Forest Plan as recommended wilderness and nothing has happened to warrant change, and they make defensible boundaries;

D) Designating the entire Scotchman Peaks IRA as MA1b because it ensures that a broader representation of primitive recreational opportunities is available across the landscape, and ensures that the beauty of this area and its solitude will be preserved for future generations to experience and enjoy;

- E) Support for including the Savage Basin as part of the recommended wilderness area. This designation will protect this remote and rugged basin that has high ecological value for many species of flora and fauna. Any existing legal snowmobile areas should be closed;
- F) Modifying the proposed Scotchman Peaks MA1b boundary to include the Cub Creek-Spar Lake area; this is an area where augmentation grizzly bears have been released, and it is wild and should be protected as such;
- G) Support for excluding the Drift Peak ridgeline from recommended wilderness, as shown in the preferred alternative. This area was not enforceable as being closed to motorized vehicles; proper enforcement needs to occur in this area;
- H) Modifying the proposed Scotchman Peaks MA1b boundary to include the Drift Peak area. These three “lobes” of the Drift Peak area were included as recommended wilderness in the 1987 Plan. Removing this area from recommended wilderness is to open them up to snowmobiling, which would be a serious threat to mountain goat habitat. A 1980 MOU between the KNF and MDFWP agrees to manage this area, along with the “Savage Basin” area to preserve mountain goats and their habitats. Specifically this MOU prohibits road construction and any kind of motorized recreation (summer or winter). Opening up this area to snowmobiling (as would potentially be done by the MA5c designation in Alternative B) would need to have the approval of MDFWP in order to be in compliance with the existing MOU. A further problem with currently proposed designation of this area is the question of compliance with the Lynx Amendment. To be in compliance with NLRMD, areas closed to over-snow motorized use during the baseline period of 1998-2000 cannot be allocated to MA5c; and
- I) Not designating Scotchman Peaks to MA1b because of its mineral value. A report by Harrison (1972) shows great mineral potential for this area.

Response:

- A) Thank you for your comment;
- B) We recognize the desire to have over-snow vehicle use in these areas. However, the Savage Peak and Dry Creek areas are important parts of the Scotchman Peaks recommended wilderness area. The Savage Peak area has been closed to over-snow vehicle use since the 1987 Forest Plan was adopted. The Dry Creek area is an access point for snowmobiling into the interior of the recommended wilderness area. A definable boundary is road 2291 at the base of the recommended wilderness area. The Drift Peak area has been allocated to management area MA5c to allow snowmobiling in areas just north of the Scotchman Peaks recommended wilderness area. See the response to Public Comment 19;
- C) Under the revised Forest Plan, the boundary for the Scotchman Peaks recommended wilderness area was drawn to be identifiable on the ground and manageable;
- D) The boundary for Scotchman Peaks was drawn to be identifiable on the ground and manageable. The boundary for the IRA met the criteria for IRAs, but not for recommended wilderness. Alternative C allocates the most of this IRA to recommended wilderness. Alternative C was considered in selecting the preferred alternative for the FEIS;
- E) Thank you for your comment;
- F) See the response to item C above;
- G) Thank you for your comment;
- H) These areas were included as recommended wilderness under Alternative C. Alternative C was considered in selecting the preferred alternative for the FEIS. For information on the mountain goat, see response to Public Comment 452; and
- I) The high mineral value for this IRA was recognized in the wilderness evaluation (appendix C of the FEIS). However, the area rated as suitable for recommended wilderness based on High

capability and availability ratings, Moderate needs rating, and public support as recommended wilderness.

MA1b Trail #892: Category 722

Public Comment 150: (Letter Number(s): 51, 55, 60, 61, 66, 78, 105, 204, 205, 171, and 285)
The Forest Service should consider the following comments regarding Trail #892 in the Galena IRA if designation is changed to recommended wilderness (MA1b):

- A) Allowing for continued motorized use on Trail #892 in West Fork Canyon Creek, within the Galena IRA because it is a popular trail. Allow motorized use to continue as long as the KNF and other resources are not being damaged; and
- B) Closing of Trail #892 to motorized use in West Fork Canyon Creek, within the Galena IRA.

Response:

Under the revised Forest Plan, management area direction in the Galena IRA (MA5b) allows motor vehicle use on routes and areas designated per 36 CFR Subpart B. Trail #892 is a designated motorized trail. The revised Forest Plan does not make any travel management decisions to motorized routes or areas. Any changes to restrict motorized use would require site-specific analysis and NEPA.

MA1c: Category 723

Public Comment 151: (Letter Number(s): 335, 351, and 353)

The Forest Service should consider the following suggested allocation changes to the Ten Lakes Wilderness Study Area (MA1c):

- A) Expanding the Ten Lakes Scenic area to include more of the appropriate areas of the WSA and reclassifying it as a National Recreation Area or a Special Interest Area to better represent the interests of the Ten Lakes Area. This classification also allows the creation of local advisory committees to assist in developing and overseeing management plans specific to the area;
- B) Not changing the allocation to recommended wilderness, as shown in Alternative C. Managing the Ten Lakes Area as a scenic recreation area because it is such a popular recreational destination that it is the last place a person wants to go in northwest Montana seeking the "solitude" of a true wilderness experience. Its popularity as a recreational destination is unmatched in Lincoln County Montana. The Ten Lakes Areas is a scenic recreation area, similar in nature to the Northwest Peaks Scenic Area in the northwest corner of the Forest, and should be managed as such; and
- C) The Forest Service preferred alternative is inconsistent with EO #13575 to "expand outdoor recreational activities on public lands." The draft Forest Plan would impose more restrictive forest management on the Ten Lakes Area and thousands of acres adjacent to the TLA, effectively reducing the diversity of recreational opportunities available in the second most popular recreational area on the KNF. Also, many of the comments found in the Analysis of Public Comment report (on the 2006 Proposed Plan) advocate increased access to the Forest, and increased recreational opportunities. With this in mind, why is the Forest Service preferred alternative proposing to reduce access to the Forest and reduce recreational opportunities in many areas?

Response:

A and B) The Ten Lakes Wilderness Study Area was designated as a wilderness study area by Congress in 1977. This area will remain as a wilderness study area until Congress acts and either designates it as wilderness or removes the wilderness study designation. As such, the KNF is unable to change this area from MA1c, wilderness study area, to other management area

allocations. If and when Congress removes the wilderness study designation, the Forest will work with our publics in determining management of this area. See response to Public Comment 436.

MA1c Ten Lakes WSA: Category 724

Public Comment 152: (Letter Number(s): 2 and 366)

The Forest Service should consider retaining the Ten Lakes area as a Wilderness Study Area MA (MA1c), as shown in the preferred alternative, because this designation ensures that the currently permitted uses in this area, such as motorized (snowmobile) and mechanized (mountain bike), can continue. This area is an important multiple-use recreational area for local people and should not have further restrictions. It offers open areas for snowmobile use in the winter, easily accessible berry picking areas for day hikers (important to less ambulatory elderly people), and numerous old logging roads that have been converted to trails for mountain bike use.

Response:

The WSA is determined by law; decisions made in the ROD and revised Forest Plan cannot change this. See Public Comment 436.

MA1c Ten Lakes WSA: Category 725

Public Comment 153: (Letter Number(s): 6, 50, 51, 54, 55, 60, 61, 66, 67, 68, 69, 78, 79, 81, 84, 85, 88, 89, 91, 101, 103, 105, 113, 114, 116, 126, 130, 131, 132, 133, 141, 147, 150, 152, 153, 154, 155, 156, 159, 161, 162, 172, 185, 189, 196, 205, 218, 220, 221, 225, 231, 247, 251, 255, 270, 277, 278, 281, 282, 283, 285, 288, 290, 304, 308, 311, 326, 328, 333, 338, 345, and 360)

The Forest Service should consider designating the Ten Lakes WSA as recommended wilderness (MA1b) because it:

A) Needs to be protected as MA1b as was the case in the 1987 Forest Plan. There are outstanding wild places in this WSA and to have a congressionally designated WSA that is not recommended wilderness in the forest plan would be a significant break with past planning efforts. Ten Lakes is part of Montana's larger Crown of the Continent ecosystem and provides habitat for vulnerable wildlife species, such as bull trout, grizzly bears, and wolverines. To protect the wilderness attributes for why it was designated a WSA, motorized use must be prohibited in this area. The roadless lands surrounding the WSA also need to be designated as recommended wilderness, as shown in the 1987 Forest Plan; and

B) Removing the MA3 designation for the core of the Ten Lakes WSA, and designating the Ten Lakes and its "contiguous area" as MA1b because this allocation in the final Plan will allow the community to eventually find the appropriate political solution regarding this area.

Response:

A) The WSA and surrounding IRAs were recommended as wilderness under Alternative C. Alternative C was considered in selecting the preferred alternative for the FEIS. Management as a wilderness study area protects the wilderness characteristics until Congress makes a determination for this area. Management area allocations and the revised Forest Plan provide protection for wildlife. See the response to Public Comment 439; and

B) The scenic area (MA3) within the WSA was designated by the regional forester in 1964. It's designation as a scenic area will continue under the revised Forest Plan. This MA recognizes the scenic values within the Ten Lakes area and is not in conflict with the existing Wilderness Study Area. The scenic area is proposed to be expanded because of the unique scenic values of the area. See the response to A above.

MA1c: Category 726

Public Comment 154: (Letter Number(s): 335)

According to the language in the Wilderness Act, the Ten Lakes Area does not meet the definition of a wilderness area. However, if motorized uses like snowmobiling were allowed prior to 1977, and yet it was determined that the Ten Lakes Area had sufficient wilderness characteristics to be declared a Wilderness Study Area, then how would snowmobiling in 2012 alter those characteristics any more than snowmobiling in 1977 did?

Response:

Under the revised Forest Plan, management of the Wilderness Study Area will follow the Wilderness Study Act, Forest Service Manual Direction (Regional Supplement to FSM 2329.3), and court rulings. The direction in the revised Forest Plan allows uses to continue that were established prior to the 1977 Wilderness Study Act that are in compliance with the Montana Wilderness Study Act. What those uses are is being evaluated in the Galton project. Future court rulings could also further define those uses.

MA1c: Category 727

Public Comment 155: (Letter Number(s): 113 and 160)

The Forest Service should consider the following suggestions regarding the WSA MA (MA1c) designation:

- A) Clearly demonstrating how wilderness character is being maintained in the Ten Lakes WSA. This is required in NEPA and should be fully explained in the FEIS; and
- B) Page 133 of appendix C of the DEIS states “Boundaries must be identifiable on the ground.” The KNF needs to explain what features allow people to identify on the ground, the eastern, western, and southern boundaries of the Ten Lakes Wilderness Study Area.

Response:

A) In 1977, Congress passed the Montana Wilderness Study Act designating the Ten Lakes Wilderness Study Area. The act requires the Forest Service to administer these acres to “maintain their presently existing wilderness character and potential for inclusion in the National Wilderness Preservation System,” meaning the character that existed in 1977 when the Act was passed. A 2007 settlement agreement with the Montana Wilderness Association commits the Forest Service to develop summer and winter travel plans for the Ten Lakes Wilderness Study Area. The Forest Service agreed to begin planning efforts in January of 2008, with the Galton DEIS expected in 2013. The Galton project will analyze the wilderness character of the WSA and implement any decisions needed to ensure the wilderness character that existed in 1977 is maintained. Following R1 Supplement 2300-2008-1, 2329 2.a., the appropriate time to evaluate the wilderness character of Ten Lakes MWSA, as it existed in 1977, is at the project level.

Forest Plan direction protecting wilderness character, as it existed in 1977, in the MWSA is included in MA1c desired conditions, standards, or guidelines for: vegetation, fire, watershed and water quality, wildlife, timber, minerals, grazing, special forest projects, and access and recreation.

Forest Plan Monitoring element MON-WLDN-02 includes assessment of wilderness characteristics in the WSA. Agency protocols being developed for minimum Wilderness Character Monitoring (USDA, Gallatin National Forest, Wilderness Character monitoring Report, 2012) will be used to develop a monitoring plan and baseline for Ten Lakes MWSA. Non-conforming uses and wilderness characteristics found degraded, would be addressed as outlined in the R1 Supplement 2300-2008, 2329, or subsequent direction; and

B) The boundaries for the Ten Lakes Wilderness Study Area were defined by Congress in 1977 as part of the designation of Ten Lakes as a WSA.

MA1c: Category 728

Public Comment 156: (Letter Number(s): 109 and 110)

The Forest Service should remove all designations to WSA MA (MA1c).

Response:

The Ten Lakes Wilderness Study Area was designated by Congress. The Forest Service cannot remove this congressional designation. Only Congress can change the designation.

MA1c: Category 729

Public Comment 157: (Letter Number(s): 112, 113, 130, 135, 137, 158, 224, 225, 247, 254, 257, 312, and 359)

The Forest Service should consider the following regarding types of uses in the WSA MA (MA1c):

- A) The KNF should not encourage the illegal use of snowmobiles in this area because snowmobile use in this area currently exceeds the standard established by the Montana Wilderness Act of 1977 that designated this area as a WSA. Continued and increasing snowmobile use in the area reduces the potential for Congressional designation as wilderness;
- B) Allowing increased motorized use in a WSA is inappropriate because it decreases opportunities for solitude in a WSA and threatens wildlife security in winter. The December court ruling on the Gallatin NF clearly stated that the Forest Service must maintain the same opportunities for solitude in a WSA as existed in 1977, and any sign that the KNF would allow for increased motorized use in Ten Lakes would be inconsistent with that mandate. The court ruling also held that the Forest Service erred when they did not demonstrate that they had considered increased volume and intensity of motorized use;
- C) Clarifying and ensuring mechanized use is allowed within MA1c. The MA1c-STD-AR-02 states: Mechanized use is not allowed (e.g., mountain bikes and other wheeled equipment) accept where it maintains the wilderness character as it existed at the time of designation (1977) and the potential for inclusion in the National Wilderness Preservation System. This language is unclear. Does this mean an absolute prohibition? Could select trails be designated as open mountain bicycles? Please clarify this in the final Forest Plan;
- D) Allowing motorized use in the WSA because this use prior to designation as such did not prevent such a designation. Therefore these uses should not be disallowed in current plans for wilderness designations; and
- E) Exploring whether allowing a use that didn't exist in 1977 to be established in the WSA is an appropriate management decision, and whether there are better locations for expanding mountain bicycling opportunity elsewhere on the Forest.

Response:

- A and B) Snowmobile use is not illegal in this area. The Galton project will analyze and determine the acceptable uses for the Ten Lakes WSA;
- C) This has been rephrased in the revised Forest Plan. Mountain biking is allowed where it maintains wilderness characteristics as it existed in 1977 and will be analyzed in the Galton project;
- D) See response to Public Comment 154; and

E) Under regional direction in WSA management of new uses: mountain bikes may be allowed on trails that had established motor-bike use in 1977, or on non-motorized trails as long as the aggregate amount of mountain bike and motorcycle use maintains the wilderness character of the WSA as it existed in 1977 and the area's potential for inclusion in the National Wilderness Preservation System (R1-FSM2329.3).

MA2: Category 735

Public Comment 162: (Letter Number(s): 236 and 257)

The Forest Service should consider the following regarding eligible wild and scenic rivers (MA2):

- A) Change the way management prescriptions are written in the draft Forest Plan for Wild and Scenic eligible stream segments. The method employed in the draft Forest Plan does not meet the mandate of the Wild and Scenic Rivers Act. For example, MA2-GDL-AR-07 allows road construction along scenic and recreational rivers. Road construction should not be allowed along a WSR of any classification if the road would diminish or fail to “protect and enhance” the specific ORVs. Another example is MA2-DC-VEG-02, which states that “non-native plants are rare” and attributes this only to wild segments and MA2-GDL-VEG-01 which allows treatment of non-native invasive plants along wild segments only. We ask that the final Forest Plan describe the specific ORVs unique to each stream and require that these values be protected and enhanced. This statutorily defined non-degradation mandate may be supplemented with (and must be given supremacy over) broader management guidance like that contained in table 12 in the draft Forest Plan; and
- B) Clarify the conflicting and confusing information regarding bicycle use on the Blue Sky Creek Eligible River Corridor.

Response:

- A) Additional management direction for eligible wild, scenic, and recreational rivers is found in FSH 1909.12, Chapter 80. This direction is not repeated in forest plan direction; and
- B) Under Alternative B Modified, Blue Sky Creek is no longer allocated to eligible wild and scenic rivers (MA2). However, this creek is still within the Whitefish Divide recommended wilderness area (MA1b), and mountain bike use is not allowed.

MA2: Category 736

Public Comment 163: (Letter Number(s): 269, 335, 351, 353, 362, 363, and 381)

The Forest Service should consider designating less of the eligible wild and scenic rivers MA (MA2) because:

- A) Designation of MA2 on Grave Creek threatens the water supply for Eureka and other communities in the county as a result of its restrictive management;
- B) Designating streams in the Grave Creek drainage to MA2 is not needed. These streams are already adequately protected as a result of its designation as a Bull Trout spawning drainage, adjacency to critical grizzly bear habitat, adjacency to proposed wilderness, and BMP streamside regulations. In addition, there is questionable eligibility criteria applied to the selection of the streams in the Grave Creek drainage for "wild, scenic, or recreational" designation and unknown consequences of a Congressional designation of wild, scenic, or recreation status;
- C) Designating lands to MA2 reduces management options. The KNF needs to provide the science that proves current forest management policies is negatively impacting the resources in those areas. In addition, many of the proposed streams/rivers do not meet the requirements that

were the spirit of the Wild and Scenic Rivers Act. The KNF needs to describe the public benefits in adding restrictions to these areas;

D) Designating lands to MA2 has the potential to close roads and reduce access to important recreational and cultural sites; and

E) It is unreasonable that all action alternatives include additional MA2 lands. This presents additional restrictions with no apparent reason.

Response:

A) There is no restrictive management from eligible recreational rivers MA (MA2 – recreational) that would threaten public water sources. Suppression of wildfires and mechanical treatment of vegetation is allowed within this MA. However, the Grave Creek eligible recreation river system is removed from Alternative B Modified. See the response to item B;

B) Allocation of the Grave Creek System as eligible recreational river has been dropped in Alternative B Modified. Based on public comment, the KNF reviewed the eligible wild, scenic, and recreational river inventory between draft and final. River segments that were found to have only bull trout and sensitive plants as the “outstandingly remarkable value” for which designation was appropriate were determined to be ineligible. Direction in the Forest Plan provides protection for bull trout and sensitive plants where ever they occur on the Forest, and designation as eligible WSR does not further their protection. The Grave Creek System was identified as an eligible recreational river because of the presence of bull trout and sensitive plants. Thus, this river system has been removed from the eligible WSR;

C) The KNF followed law, regulation, and policy in allocating management to WSRs (MA2). See appendix F of the FEIS for a description of the process;

D) The Forest Plan does not make any travel management decisions on roads. Any future restrictions to roads would need to go through site-specific NEPA with public involvement.

Nothing in the management area direction for MA2 shows a desire or need to close roads; and

E) Through two public scoping, numerous collaborative meetings, and comments on the 2006 Proposed Plan, wild and scenic rivers were never identified as a public concern or a need for change. No comments were received on this topic in scoping and only a few public comments on the 2006 Proposed Plan. The KNF followed the inventory process outlined in FSH 1909.12, Chapter 80 and included all eligible WSRs in the action alternatives for the DEIS. This inventory was reviewed between draft and final and changes made to Alternative B Modified to address public comment and provide appropriate management to these river segments.

MA2: Category 738

Public Comment 164: (Letter Number(s): 154, 205, 236, and 371)

There is support for the recommended WSR designations in the draft Forest Plan (table 10). In addition, the Forest Service should consider designating the following as eligible wild and scenic rivers MA (MA2):

A) The Wigwam River and its tributaries. This river system encompasses one of North America’s premier bull trout fisheries and is a transnational river. It merits protection as a WSR; and

B) Callahan Creek, Granite Creek, Libby Creek, Rock Creek, Ross Creek, Swamp Creek, Star Creek, and Wigwam River. Please refer to our Wild and Scenic River Eligibility Report (appendix 1) for details on each of these streams and their outstandingly remarkable values. As we have shown in our report, each of these streams unequivocally possesses outstandingly remarkable values that are unique to the region and the nation. In addition to our request that each of these streams be found eligible for wild and scenic designation, we ask that the ORVs we recommend for all streams in our eligibility report be integrated into the Forest’s eligibility inventory.

Response:

- A) Direction in the Forest Plan already provides protection for bull trout. See the Biological Opinion; and
- B) An Alternative Considered but Eliminated from Detailed Study has been added to the FEIS to address your eligibility report. See the Additional Wild and Scenic River Designation alternative in chapter 2 of the FEIS.

MA2: Category 739**Public Comment 165:** (Letter Number(s): 309 and 335)

The Forest Service should consider the following regarding the eligible wild and scenic rivers MA (MA2) guidelines:

- A) Changing the eligible wild and scenic rivers MA (MA2) standard MA2-STD-MIN-01 to prohibit removal of mineral materials in eligible scenic river segments; and
- B) Explaining how firewood cutting (MA2-STD-SFP-01) would diminish the outstandingly remarkable values.

Response:

- A) Removal of mineral materials is only allowed if the values for which the river may be included in the National System are protected. See FSH 1909.12, Chapter 80 for management guidelines for WSRs; and
- B) Commercial firewood cutting would not be appropriate within WSRs in order to protect, restore, or enhance the river environment, including the long-term scenic character. Personal use is allowed.

MA2: Category 740**Public Comment 166:** (Letter Number(s): 309)

The Forest Service should consider the following regarding the eligible wild and scenic rivers MA (MA2) guidelines:

- A) Changing MA2-GDL-AR-03 and MA2-GDL-AR-07 because road construction should not occur in eligible scenic river segments;
- B) Changing MA2-GDL-AR-06 because motor vehicle use should not be allowed in eligible scenic river segments;
- C) Changing MA2-GDL-TBR-01 because trail maintenance isn't necessary;
- D) Changing MA2-STD-MIN-01 because removal of mineral materials should not be allowed in eligible scenic river segments;
- E) Changing MA2-GDL-MIN-01 because mineral leasing should not be available in eligible wild river segments or eligible scenic river segments;
- F) Changing MA2-GDL-MIN-02 because removal of mineral materials should not be allowed in eligible scenic river segments; and
- G) Changing MA2-GDL-AR-02 because wheeled motor vehicles should not be allowed at eligible wild or scenic rivers.

Response:

- A – G) Based on Forest Service handbook direction, these uses are allowed if they fully protect river values (FSH 1909.12, Chapter 80).

MA3: Category 741**Public Comment 167:** (Letter Number(s): 140, 154, 189, 206, 245, 321, 371, and 387)

The Forest Service should consider the following recommendations regarding the allocation of the Special Areas - Botanical, Geological, Historical, Recreational, Scenic or Zoological Areas MA (MA3):

A) Designating the following areas/acres to MA3: Fortine Creek Meadows (37 acres), Hamilton Gorge (144 acres), Kerr Meadows (58 acres), Lower Brimstone (39 acres), Magnesia Fen (12 acres, particularly critical high diversity areas), Napi Knob (18 acres), North End Alkali Ecosystem (21 acres), Sterling Forest (127 acres, particularly critical high diversity areas), Swamp Mountain Meadows (34 acres, particularly critical high diversity areas), White Creek Fen (14 acres) and 494 Bedrock Meadow (35 acres, particularly critical high diversity areas). The draft Forest Plan dropped these areas from the 2006 Proposed Plan without sufficient explanation in the EIS and placed them under “general forest” category. We would recommend that the final Forest Plan retain the MA3 special use botanic allocation for these ten areas. They are not very large in size but each represents areas of significant botanic interest and high level of unique biodiversity not well represented in other areas where conservation is a main focus;

B) There are many discrepancies between the lists of existing/established and recommended special areas included in the draft Forest Plan and DEIS and the lists of existing and proposed special areas in the 2006 CER. The discrepancies include the fact that 2006 CER table S-2 includes 35 existing areas, rather than only 13 as indicated in the draft Forest Plan and DEIS. Nine of the 22 special areas missing from table 13 in the DEIS have been re-categorized and included on the “recommended” list in the DEIS. There are an additional 14 existing special areas which have apparently lost their designation as special areas as they do not appear in table 13 in the draft Forest Plan. The FEIS needs to explain the non-designation of the special areas listed in the CER as existing special areas and why special areas are on the draft Forest Plan’s recommended list; and

C) Several areas deleted from the 2006 Proposed Plan and/or the 1987 Plan should be added back into the final Forest Plan. Please include the following areas as MA3: 1) Devil Gap – this area was part of MA21 of the 1987 Plan. It was an area that the district wanted to recognize then and has continued to advocate. 2) East Fork Bull River – this area is a botanical area. It is the most southern location of the northern beech fern on the Kootenai. 3) The Narrows on the Vermilion River would also be good to list. 4) 494 Road Bedrock Meadow – This site is a ridge-top meadow not a riparian meadow. It is the only known location of Nevada bitterroot on the KNF. It is also the location for a new species to Montana (Harkness’ linanthus). Nothing in the standards and guidelines gives this site any protection. 5) Swamp Mountain Meadows – This is another upland grassy opening. It is described as extraordinarily pristine and representative of an unusual cover type. There is nothing in the standards and guidelines that give this site any protection. 6) Hamilton Gorge – This is the only gorge that has been identified on the Forest; and D) The Northwest Peaks MA3 is also very important to the snowmobile community. We want that designation to remain unchanged.

Response:

A) The draft Forest Plan did drop several special areas that had been included in the 2006 Proposed Plan. These areas were dropped because they were either not unique, not areas that required special management (i.e., forest plan direction already protected them), or were areas that were not appropriate for public use. Based on FSM 2370, the objective of special areas is to protect and manage for public use and enjoyment, special recreation areas with scenic, geological, botanical, zoological, paleontological, archaeological, or other special characteristics or unique values (FSM 2372.02). In response to public comment, the following special areas were added to Alternative B Modified: Devil Gap, East Fork Bull River, 494 Bedrock Meadow, Swamp

Mountain Meadows, and Hamilton Gorge. See the “Special Area” section of chapter 3 of the FEIS for a description of why these areas were added back into Alternative B Modified;

B) It was found that many of the special areas listed as “existing” in the 2006 CER were not appropriately designated. Some of these areas were designated by the district ranger. However, manual direction indicates that only the regional forester or the Secretary of Agriculture may designate special areas. The FEIS describes the existing special areas and the recommended areas for each alternative;

C) Devil Gap, East Fork Bull River, 494 Bedrock Meadow, Swamp Mountain Meadows, and Hamilton Gorge have been added to Alternative B Modified. The Narrows was not added as this is not a unique feature on the Forest and no special management was needed for this area; and

D) Alternative B Modified retains Northwest Peak as a special area.

MA3: Category 742

Public Comment 168: (Letter Number(s): 132 and 154)

The Forest Service should consider the following regarding the Special Areas - Botanical, Geological, Historical, Recreational, Scenic or Zoological Areas MA (MA3):

A) Defining the MA3 designation better because it has too broad of a definition which makes reading associated maps difficult. It should explain why an area is special and how it is to be managed. At the very least a key should be attached to maps that allows for description of the individual areas; and

B) Removing the Ten Lakes Scenic area from proposed MA3 designation because it appears redundant to and in conflict with the higher authority of Congress, which has already designated the Ten Lakes area as a WSA. The added management emphasis of MA3 is redundant and not needed. Furthermore, it appears the MA3 designation was made to allow for snowmobiling in that area, which is in conflict with the WSA designation.

Response:

A) Appendix F has been added to the FEIS that describes the special areas, provides a forestwide locator map, and detailed maps for each special area; and

B) The Ten Lakes Scenic Area is not in conflict with the WSA designation. This area was designated as a special area in 1964. This MA is important to recognize the scenic values within the Ten Lakes area. The MA3 designation has nothing to do with the snowmobiling that currently occurs in the WSA.

MA3: Category 743

Public Comment 169: (Letter Number(s): 295 and 335)

The Forest Service should consider the following regarding management and types of uses in the Special Areas - Botanical, Geological, Historical, Recreational, Scenic or Zoological Areas MA (MA3):

A) Justifying the recommended additions into MA3 designation and explaining how current management activities would change. The KNF should explain how management will change with respect to motorized and other recreational opportunities, how this change in management will become more restrictive and decrease long-term management options, and why the KNF feels these areas need protection. The KNF also needs to explain the benefits of this designation to the resources present and to the KNF users;

B) For each special area to be designated under the revised Forest Plan, the KNF needs to explain the special attributes that are present and justify why more restrictive management is necessary

for each area. The KNF needs to explain the threats to the special resources to each area that results in requiring more restrictive management; and

C) The Northwest Peaks and Ten Lakes scenic areas should allow snowmobiling, as these areas currently receive existing motorized winter use.

Response:

A - B) Special areas have been identified that meet the descriptions in FSM 2370. These areas are identified to “protect and manage for public use and enjoyment, special recreation areas with scenic, geological, botanical, zoological, paleontological, archaeological, or other special characteristics or unique values” (FSM 2372.02). Additional information has been provided in the FEIS on management of special areas. In addition, appendix F has been added to the FEIS, including a description of each special area and detailed maps; and

C) These areas allow over-snow vehicle use in the revised Forest Plan. However, the over-snow vehicle use within the Ten Lakes WSA (which overlaps the Ten Lakes scenic area) is limited to use levels prior to designation as a WSA in 1977.

MA3: Category 745

Public Comment 170: (Letter Number(s): 8)

The Forest Service should consider designating two new Special Areas - Botanical, Geological, Historical, Recreational, Scenic or Zoological Areas MA (MA3): Loveland Face (geological) on Cabinet RD and Standard Lake March (botanical) on Libby RD.

Response:

These areas were reviewed. These areas do not require special management to maintain their attributes and they are not areas to “protect and manage for public use and enjoyment” (FSM 2372.02).

MA3: Category 746

Public Comment 171: (Letter Number(s): 333)

The Forest Service should clarify consistency between desired conditions and guidelines for the special areas - Scenic Areas MA (MA3). The desired condition of a scenic area is shown as “primitive to semi primitive non-motorized” yet the guideline states that motorized use is allowed in scenic areas. Snow machines should not be allowed in the Northwest Peaks Scenic Area.

Response:

The listing of ROS for scenic areas was incorrect in the draft Forest Plan. This has been corrected in the revised Forest Plan, indicating “semi primitive motorized” for scenic areas. Over-snow vehicle use is allowed within this classification of MA3.

MA3: Category 748

Public Comment 57: (Letter Number(s): 309 and 387)

The Forest Service should consider changing the guideline MA3-GDL-AR-05 for MA3 because road construction should not be allowed in scenic areas.

Response:

We disagree. Road construction should be allowed if it meets the objective of special areas, which is to protect and manage for public use and enjoyment (FSM 2372.02).

MA3: Category 748

Public Comment 173: (Letter Number(s): 309)

The Forest Service should consider changing the guideline MA3-GDL-AR-02 for MA3 because motorized use should not be allowed in scenic areas.

Response:

We disagree. Motorized use is allowed if it meets the objective of special areas, which is to protect and manage for public use and enjoyment (FSM 2372.02).

MA4: Category 751

Public Comment 175: (Letter Number(s): 335)

The Forest Service should explain the statement for the special areas (MA3) and research natural areas (MA4) that states, “Allocation of these MAs will remain constant for all action alternatives” because Alternatives B-D allocate more lands to these MAs than Alternative A.

Response:

The action alternatives are Alternatives B through D. These alternatives all have the same lands allocated to MA3 and MA4. These areas sometimes become overlapped with other management areas, such as recommended wilderness, changing the acres listed by alternative in tables that describe MA acres with no overlap (for example, table 5 in the DEIS). However, all action alternatives in the DEIS contained the same MA3 and MA4 areas. Alternative A is the no action alternative, so it is not included in this statement.

MA4: Category 753

Public Comment 176: (Letter Number(s): 335)

The Forest Service needs to justify the recommended additions into MA4 designation and explain how current management activities would change. The KNF should explain how management will change with respect to motorized and other recreational opportunities, how this change in management will become more restrictive and decrease long-term management options, and why the KNF feels these areas need protection. The KNF also needs to explain the benefits of this designation to the resources present and to the KNF users.

Response:

The draft Forest Plan contains the management direction for this MA, describing the motorized and recreational opportunities. The DEIS describes why the Forest established RNAs, the management under this designation, and describes the recommended additions. The DEIS also describes the effects to recreation from the recommended RNAs (see page 332 of the DEIS). An appendix has been added to the FEIS (appendix F) to further describe RNAs and why these three areas are recommended as RNAs.

MA5a: Category 757

Public Comment 178: (Letter Number(s): 60, 83, 101, 118, 128, 131, 139, 154, 183, 188, 242, 235, 244, 256, 268, 295, 308, 317, 319, 321, 323, 328, 338, 346, 350, 367, 373, 375, 377, 378, and 379)

The Forest Service should consider the following recommendations regarding the allocation of the backcountry non-motorized summer and winter MA (MA5a):

- A) Allocate areas to MA5a in the Yaak that are shown as non-motorized special management areas in the Three Rivers Challenge because there was agreement between the non-motorized and motorized recreation communities and these areas provide valuable habitat for grizzly bears, wolverines, and wildlife populations;
- B) Changing Rock Creek Meadows to non-motorized (MA5a) as it has been for the last 25 years;
- C) Changing the designation of the upper Dry Creek drainage from MA5c to MA5a to maintain or enhance habitat for bears, elk, wolverine, mountain goat, fisher, and other animals;
- D) Changing the designation of the area south and east of the Cabinet Mountain Wilderness, including the Silver Butte watershed, from MA5b to MA5a; these areas need to be non-motorized, which will help balance the impact from the proposed mines. This would provide a very valuable large block of lands with great value for backcountry recreation and secure wildlife habitat for those native species that are vulnerable to disturbance from motorized use and more human impacts;
- E) Designating Gold Hill IRA as MA5a to protect its roadless values;
- F) Support for the draft Forest Plan's designations of MA5a in several IRAs, including the West Fork Yaak and Robinson Mountain IRAs because non-motorized recreation allows for connectivity in the Yaak along the US/Canada border and wildlife can move freely with minimum stress; also support for designating Trout Creek and Cataract Creek IRAs as backcountry;
- G) Changing the designation of land along the south side of East Fork of the Bull and across the river to the west (designated MA6 under the draft Plan) to MA5a. Road 2278 is currently closed to motorized traffic about 1/2 mile from the guard station. It would seem a shame to open that road to motorized travel beyond its present gate. This area provides a wildlife corridor from the Cabinets to Pilik Ridge with a ford at the junction of the East Fork and the Bull;
- H) Changing some MA5b areas to MA5a along the Wigwam River in order to protect threatened and endangered species, such as bull trout. In addition, two tributaries (Foundation and Divide) and part of a third Tributary to Grave Creek are designated MA5b, in spite of their proposed designation as Wild and Scenic Rivers. Grave Creek is also an important and productive bull trout stronghold. Motorized use should NOT be allowed in its tributaries;
- I) Designating road corridors, such as the Grave Creek Road corridor and its subsidiary road corridors that it intends to keep in the road system and the immediate vicinity of these roads, as MA5b or 5c;
- J) Designating the Zulu IRA to MA5a since during the Yaak GA collaborative workgroup meetings that occurred about 5-6 years ago, a diverse group of participants discussed and tentatively agreed that this IRA would be managed as backcountry MA5a;
- K) Designating the Northwest Peaks area as non-motorized (MA5a);
- L) Combining MA5a, MA5b, and MA5c into a single MA 5 backcountry MA because the decision on where motorized (summer or winter) and non-motorized use should occur needs to be made through travel management planning and not through the Forest Plan; and
- M) Support the MA5a designation in the South Callahan/Glad Creek area. The Glad Creek in particular is an outstanding backcountry ski area because of the elevation, aspect and variety in terrain. For backcountry skier access it would be desirable to continue to permit snowmobile use on the decommissioned roadway (Road 4541), but not permit snowmobile use off that roadway. We would prefer to see that the MA5a designation be expanded to include all of the off-road areas of upper South Callahan, including the Smith Mountain and Smith Patrol areas.

Response:

- A) See the response to Public Comment 97;
- B) See the response to Public Comment 147;

C) Under the revised Forest Plan, most of the Dry Creek area is allocated to MA1b. The portion allocated to MA5c will not impact wildlife habitat. This area is outside winter range for most species. See the discussion in the “Wildlife” section of chapter 3 of the FEIS for the effect from snowmobiling;

D) This area was allocated to MAs 1b and 5a in Alternative C. Alternative C was considered in selecting the preferred alternative for the FEIS. The allocation to management area MA5b in the revised Forest Plan allows motor vehicle use year-round on designated routes and areas and over-snow vehicle use in the winter. The Forest Plan will not change motorized access to this area. Allocation to MA5b allows management flexibility and the possibility of motorized trails in the future. This allocation is consistent with the GA desired conditions to provide opportunities to improve trail systems and over-snow vehicle use (see GA-DC-AR-LIB-01, GA-DC-AR-LIB-03, and GA-DC-AR-LIB-04). Any changes to motorized access require site-specific NEPA and public involvement;

E) This IRA was allocated to MA6 because it is a small, isolated IRA with low wilderness attributes. An allocation to MA6 allows flexibility for possible vegetation management adjacent to Lake Koocanusa. Any vegetation management projects within this IRA would need to meet requirements in the 2001 Roadless Rule (36 CFR 294) and would require site-specific NEPA and public involvement;

F) Thank you for your comment. These allocations remain the same in the revised Forest Plan;

G) The Forest Plan does not make travel management decisions and will not close or open any roads. This area is outside of an inventoried roadless area. It was allocated to MA6 to allow for possible future vegetation management. The revised Forest Plan provides direction for wildlife corridors. See the Bull GA desired conditions for wildlife. The junction of the Bull River and the East Fork of the Bull is allocated to MA2, wild and scenic rivers;

H) This area is allocated to MA5b because of the existing roads within the area. Bull trout and other threatened and endangered species are protected under MA5b;

I) The suggestion is similar to the management area allocation for this area. The area adjacent to Grave Creek and Wigwam contains open roads, which led to an allocation of MA5b. Management area 5b allows motor vehicle use on designated routes and areas, as shown on the Forest MVUM;

J) Alternative C has this area mapped as MA5a. Alternative C was considered in selecting the preferred alternative for the FEIS. There was no consensus by the collaborative groups on the management of this IRA. A portion of this IRA has over-snow vehicle use and the KNF desires to retain this opportunity;

K) This IRA has over-snow vehicle use and the KNF desires to retain this opportunity;

L) The KNF will continue to use MAs 5a, 5b, and 5c to show the desired condition for future winter travel management planning; and

M) This area was allocated to MA5a in Alternative C. Alternative C was considered in selecting the preferred alternative for the FEIS. This area has over-snow vehicle use the KNF desires to retain this opportunity. The specific request to permit snowmobile use on decommissioned road but not off the road is a site-specific travel management request. The Forest Plan does not make this kind of decision.

MA5a: Category 759

Public Comment 179: (Letter Number(s): 256)

The Forest Service should consider the following regarding backcountry non-motorized summer and winter (MA5a):

- A) Providing areas for backcountry skiers that are closed to snowmobiles; snowmobiles track up slopes and tracks may persist for days or weeks and seriously degrade the quality of skiing on ski slopes until there is sufficient new snow to bury the old tracks;
- B) Designating Cataract Creek as MA5a or wilderness to prevent future development; and
- C) Designating the areas that surround the existing Cabinet Wilderness as mapped in Alternative C as backcountry MA5a.

Response:

- A) This has been done through the allocation of MAs 5a and 1b, which are non-motorized year round;
- B) This area is designated as MA5a under the revised Forest Plan; and
- C) The area surrounding the Cabinet Mountain Wilderness is a mix of MAs 1b, 5a, and 5b. See the response to Public Comment 138(A).

MA5a: Category 760

Public Comment 180: (Letter Number(s): 75 and 353)

The Forest Service should not designate any backcountry non-motorized summer and winter (MA5a) and not impose any further restrictions on forest use. The KNF needs to explain why three of the four alternatives in the draft Forest Plan propose to increase the land managed as backcountry non-motorized.

Response:

Areas that have been allocated to MA5a, non-motorized year-round are currently without roads and are within an IRA. Management activities within IRAs are limited by the 2001 Roadless Rule (36 CFR 294). There is a desire for non-motorized areas on the Forest. Alternative D does not increase backcountry areas over Alternative A.

MA5a: Category 761

Public Comment 181: (Letter Number(s): 321)

The Forest Service should indicate in the FEIS which “backcountry” areas that are currently non-motorized are proposed to be converted to MA5b and 5c.

Response:

Areas that are currently non-motorized are designated as such through our MVUM and our over-snow vehicle closures. There is no change to motorized vehicle use with the exception of over-snow vehicle use. The MVUM displays routes and areas designated for motor vehicle use and there is no change by alternative. The only changes that allow motorized use in backcountry areas currently closed to over-snow vehicle use are in areas that are no longer recommended as wilderness as in the 1987 Plan. These areas (approximately 15,000 acres in Alternative B Modified) would be released to closure to over-snow vehicle use. See the “Access and Recreation” section of the FEIS for a discussion of this by alternative.

MA5b: Category 765

Public Comment 184: (Letter Number(s): 195, 215, and 222)

The Forest Service should consider the following recommendations regarding the allocation of the backcountry motorized summer and winter MA (MA5b):

- A) Changing the MA5a designation of the area east of Freezeout to the Cabinet district boundary and the area east of Swamp Creek to MA5b to allow for existing snowmobile use; and

B) Keeping the area east of the Black Mt. Trail, currently open for winter motorized use; continue to be open for winter motorized use.

Response:

A) These two MA5a areas are heavily treed. Snowmobiling may occur in areas adjacent to these two areas, but not within. Alternative B Modified retained these areas as MA5a; and

B) This area is mapped as MA5b, which has a desired condition to allow snowmobile use.

MA5b: Category 771

Public Comment 189: (Letter Number(s): 268)

The Forest Service should change the direction for the backcountry MAs 5a and 5b that states that roads can be built if “a road is needed in conjunction with the continuation, extension, or renewal of a mineral lease on lands that are under lease by the Secretary of the Interior or for a new lease issued immediately upon expiration of an existing lease” (MA5a, b, c-STD-AR-01). This road building exemption is not part of the 1872 Mining Law and the Forest Service should not be required to build a road in MA5a or MA5b.

Response:

This direction is consistent with the 2001 Roadless Rule (36 CFR 294.12(b)(7)).

MA5c: Category 773

Public Comment 190: (Letter Number(s): 245, 295, 302, and 386)

The Forest Service should consider the following recommendations regarding the allocation of the backcountry non-motorized summer, motorized winter MA (MA5c):

A) Designating the Roberts, Mount Henry, and the bottom half of the Saddle IRA's as MA5c to allow continued use of these areas by snowmobilers;

B) Adjusting the Flagstaff IRA boundary to allow continued snowmobile access. Snowmobilers currently access the MA5c portion of Flagstaff from Quartz Creek, which is designated as MA5a. There needs to be a 200 foot corridor or buffer as MA5c along the ridge;

C) Designating the Trout Creek IRA as MA5c to reflect current use from both the Idaho and Montana snowmobile communities;

D) Including an additional portion into the Willard Estelle IRA as MA5c. The head end of Callahan Creek where the pink area of Callahan Cr. and Glad Cr. form the top of a T, the portion that connects the Benning area and major portion of Willard Estelle needs to be a MA5c. This area has current and historical use by both the Idaho and Montana snowmobilers;

E) Change all MA5a to MA5c in the Yaak GA. Several of the MA5a designations, particularly along the border of the IPNF and KNF receive existing snowmobile use from both the Idaho and Montana sides. This needs to be maintained and continue;

F). Keep all areas designated as MA5c in Alternative B in the final Plan; and

G) Change all MAs 5a to 5b or 5c

Response:

A) The mapping for Saddle Mountain IRA did take into account existing snowmobile use. Any snowmobiling on the southern portion of Mount Henry IRA (as shown in the proposed Forest Jobs and Recreation Act) or within the Roberts IRA could be addressed during site-specific winter travel planning;

B) Quartz Creek is not designated as MA5a. In Alternative B Modified, this area is MA6. Any adjustments needed for access could be addressed during site-specific winter travel planning;

- C) The portion of the Trout Creek IRA that is allocated to MA5a is currently closed to motor vehicle use year-round, including over-snow vehicles. This closure will continue under the revised Forest Plan;
- D) The boundaries for these management areas appear correct. Any adjustments needed for access could be addressed during site-specific winter travel planning;
- E). Most of the border between Idaho and Montana was mapped as either MA5c or MA3 to allow snowmobiling. Most of the areas mapped as MA5a in the Yaak do not receive snowmobile use. Alternative D mapped some of the MA5a areas as MA5c. Alternative D was considered in selecting the preferred alternative for the FEIS;
- F) These areas were retained in Alternative B Modified; and
- G) There is a desire for some backcountry areas to be managed as non-motorized year-round, which led to the MA5a designation. Alternative D had the least amount of MA5a. This alternative was considered in selecting the preferred alternative for the FEIS.

MA5c: Category 776

Public Comment 191: (Letter Number(s): 256)

The Forest Service should consider moving the MA5c designation boundary in Poorman Creek (Cabinet Mountain Wilderness Area) back down the valley about ½ mile to reduce unintended wilderness incursion by snowmobiles.

Response:

This is a law enforcement and implementation issue. Other strategies could prevent this incursion, such as better signing and increased law enforcement. Site-specific winter travel planning could address this desire to limit snowmobiling adjacent to the Cabinet Mountain Wilderness Area.

MA6: Category 781

Public Comment 192: (Letter Number(s): 9, 195, and 215)

The Forest Service should consider the following recommendations regarding the allocation of the general forest MA (MA6):

- A) Looking at all backcountry areas on-the-ground to determine if there are areas within them that could be designated as general forest (MA6);
- B) Designating most of the MA5a, 5b, and 5c areas on the Cabinet Ranger District as MA6 to open the areas to logging and allow recreation. Many of these areas have open roads and/or snowmobiling as well as beetle kill. This includes the following areas: north of Vermilion River from Lyons Creek to Willow Creek (Galena IRA); the area of Vermillion, from Bear Creek to Miller Creek (Government Mtn, McKay Creek, Galena, and Catarack Creek IRAs); Jacks Gulch area, southwest of Heron (West Fork Elk IRA); Lost Cabin Gulch, Butte Creek, and Cascade Creek area (East Fork Elk IRA); the area east and south of Scotchman Peaks; the area east of Black Creek Trail (Trout Creek IRA); all areas south of the Clark Fork River); and
- C) Designating the areas of the proposed Montanore mine to MA6, which would be more conducive to mineral development.

Response:

- A) All MA allocations will be reviewed during site-specific project NEPA;
- B) This type of allocation is found in Alternative D. This alternative was considered in determining the preferred alternative for the FEIS; and
- C) Mineral development is allowed within MA5b. The designation of MA5b is more appropriate, as the proposed mine is within an IRA.

MA6: Category 784

Public Comment 194: (Letter Number(s): 154)

The Forest Service should consider allocating fewer acres to the “General Forestry” (MA6) area of the KNF because further budget reductions are likely; fewer acres in MA6 reduce the cost to the US tax payer.

Response:

There is no reduction in cost by changing MA6 to any other MA. The MA6 allocation doesn’t require any investment or activities.

MA6: Category 785

Public Comment 195: (Letter Number(s): 268, 299, and 371)

The Forest Service should consider making the following changes to management of the general forest MA (MA6):

- A) The general forest should provide ample opportunity for timber harvesting. To avoid expensive and time-consuming litigation, the revised Forest Plan should provide for the following: 1) Leaving mature ponderosa pine uncut, the species is in decline, are fire resistant, and provide significant habitat for numerous bird species; 2) Minimizing road building. Roads are necessary but do promote weed introduction and are expensive to maintain; 3) Prohibiting timber harvest in all MA1b, MA1c, MA2, MA3, MA4; 4) Prohibiting harvest of all old growth, including cedar/hemlock; and 5) Prohibiting road building and excessive harvesting to meet the grizzly bear recovery plan target of 100 bears; and
- B) Support for the KNF general forest designations, although timber harvest and salvage operations in RHCAs should be limited to situations where those operations are needed to attain or maintain riparian and aquatic habitat desired conditions or meet safety needs; and
- C) Ensuring MA6 includes direction to provide connectivity or linkage of wildlife habitat.

Response:

- A) The vegetation desired condition is to increase the amount of ponderosa pine and the amount of large size class. There will be no forest direction limiting the harvest of ponderosa pine. However, movement towards desired condition will increase this species. Road building has been and will continue to be minimized, based on funding and ecological reasons. Timber harvest is not allowed in the MAs listed except for portions of MA2 (scenic and recreational segments) and MA3. Timber harvest is allowed as a tool to maintain or restore the values for which these areas were identified as MA2 or 3. There is forest direction that harvest is not allowed in old growth if it would likely modify the stand to where it no longer met the definition of old growth (FW-STD-VEG-01). See the discussion on old growth in the vegetation section of the FEIS. Management direction for grizzly bears is contained in the retained decision from the Grizzly Bear Access Amendment;
- B) The retained decision on INFISH contains direction limiting timber harvest in RHCAs; and
- C) See the response to Public Comment 439.

MA6: Category 786

Public Comment 196: (Letter Number(s): 312, 325, and 335)

The Forest Service should consider adding more of the general forest MA (MA6) because it is the most flexible MA from a management prospective, and provides the widest range of both short- and long-term forest management options. This MA also provides the greatest access and availability of raw materials.

Response:

The alternatives presented different amounts of MA6. Alternative D contains the most, at more than 75 percent of the Forest. This alternative was considered in selecting the preferred alternative for the FEIS. See the draft ROD for rationale as to why the decision-maker chose Alternative B Modified.

MA7: Category 790

Public Comment 198: (Letter Number(s): 216)

The Forest Service should consider including a desired future condition in the revised Forest Plan to develop a comprehensive recreation plan for Lake Koocanusa because this has been a major discussion on the Forest for the past 30 years.

Response:

This is program management and implementation and will not be included as forest plan direction.

MA7: Category 795

Public Comment 201: (Letter Number(s): 216 and 387)

The Forest Service should consider making the following changes to the standards for MA7:

A) Changing standard MA7-STD-TBR-01 to require the involvement of a certified landscape architect along with a silviculturalist to protect recreational values when conducting timber harvesting adjacent to recreational sites; and

B) There should be a standard or guideline for artifacts in the drawdown area northwest of Eureka.

Response:

A) Scenery is considered when doing timber harvest. Forest direction (MA7-DC-VEG-01) considers the natural-appearing landscape. While scenery management has typically been the role of landscape architect, is it not always feasible to involve a landscape architect in every project. The role of interdisciplinary teams, regardless of the mix of specialized skills, is to consider the planning, design, implementation, and monitoring of projects (including recreation and vegetation treatments). Resources available during project planning include: Landscape Aesthetics - A Handbook for Scenery Management, Appendix K Project Level Scenery Analysis Outline, and Northern Region Scenic resource Mitigation Menu and Design Considerations for Vegetation Treatments (2011); and

B) Artifacts are protected forestwide (FW-DC-CR-02).

MA7: Category 796

Public Comment 202: (Letter Number(s): 309)

The Forest Service should consider making changes to the guideline MA7-GDL-MIN-01, DLRMP page 69 for the Primary Recreation Areas MA (MA7) by not allowing mineral leasing at Turner Mountain or Lake Koocanusa.

Response:

Mineral leasing is allowed within recommended MA7. Site-specific analysis is required prior to approval of leasing and stipulations applied that would protect recreational values in this MA.

MA7: Category 796

Public Comment 203: (Letter Number(s): 309)

The Forest Service should consider making changes to the guideline MA7-GDL-MIN-02, DLRMP page 69 for the Primary Recreation Areas MA (MA7) by not allowing removal of mineral materials at Turner Mountain or Lake Koocanusa.

Response:

Mineral materials may be removed in certain areas, particularly within the Lake Koocanusa area.

Minerals

DEIS Cumulative Effects: Category 853

Public Comment 209: (Letter Number(s): 268 and 346)

The Forest Service should consider that the wildlife protection mitigations for the Rock Creek and Montanore projects may not be adequate and consider allocating more 1b (recommended wilderness) and 5a (backcountry non-motorized) in the Cabinet Mountains to reduce the impacts from these projects.

Response:

The Rock Creek and Montanore projects are undergoing site-specific NEPA. These projects will not be able to go forward without adequate mitigation for wildlife. The Forest Plan does not result in any increased summer motorized access in this area. The Forest Plan does not make decisions on changes to summer motorized access. No changes to summer motorized access are expected in this area, with the majority of the area allocated to backcountry management areas (5a or 5b).

DEIS Environmental Consequences: Category 854

Public Comment 210: (Letter Number(s): 346)

It's incredibly interesting and quite backwards that in the “Minerals” section of the DEIS, the needs of wildlife are listed as affecting mineral exploration/development (DEIS 382). Shouldn't it be the other way around - mineral development affects wildlife habitat? The Forest Service should consider the effects of air, noise, and water pollution associated with mining activities on wildlife habitat.

Response:

The effects section for all resources are written as “effects from” and not as “affects to” a resource. These effects were included in the wildlife specialist report for the DEIS. These effects are now included under the wildlife section of the FEIS.

Forest Plan Desired Conditions: Category 858

Public Comment 212: (Letter Number(s): 371)

The Forest Service should consider revising the desired condition for minerals to include direction for protecting other resources and reclaiming abandoned mine sites for more reasons than just human health risks. Suggest revising FW-DC-MIN-01 as follows: “The Forest continues to contribute to the economic strength and demands of the nation by supplying mineral and energy resources while assuring the land’s capability to sustain ecosystems. Mineral materials are made available based upon public interest, material availability, in-service needs, and protection of other resource values, including consistency with desired conditions for other resources.

Geologic features are conserved for their intrinsic values and characteristics. Reclamation of abandoned mine sites to address human health and environmental degradation risks should occur, with reclamation priority given to mine sites with human health risks.”

Response:

We agree with your suggested edits. This has been changed in the revised Forest Plan.

Forest Plan Goals: Category 861**Public Comment 213:** (Letter Number(s): 371)

The Forest Service should include guidelines in the Forest Plan for mineral development to ensure that other resources, particularly water quality and aquatic resources are protected. The following guidelines should be added:

A) FW-GDL-MIN-01: Minimize adverse effects of mineral operations on water quality and inland native fish and aquatic species of concern. If a Notice of Intent indicates that a mineral operation would be located in an RHCA, consider the effects of the activity on water quality and inland native fish and aquatic species of concern in the determination of significant surface disturbance pursuant to 36 CFR 228.4. For operations in a RHCA ensure operators take all practicable measures to maintain, protect, and rehabilitate fish and wildlife habitat which may be affected by the operations. Reclamation bonds are adequate to ensure long-term chemical and physical stability; successful reclamation of the area of operation; and necessary treatment and remediation of mine wastes over the long-term;

B) FW-GDL-MIN-02: Locate and design mine facilities and mine water management to minimize surface disturbances, control water runoff, minimize erosion and sedimentation, protect hydrologic function and integrity, and prevent the release of acid or toxic or hazardous materials to surface or ground waters;

C) FW-GDL-MIN-03: Locate structures, support facilities, and roads outside RHCAs. Where no alternative to locating mine facilities in RCAs exists, locate and construct the facilities in ways that avoid impacts to RHCAs and streams and adverse effects on inland native fish and aquatic species of concern. Where no alternative to road construction exists, keep roads to the minimum necessary for the approved mineral activity. Close, obliterate, and revegetate roads no longer required for mineral or land management activities;

D) FW-GDL-MIN-04: Prohibit solid and sanitary waste facilities in RHCAs. If no alternative to locating mine waste (waste rock, spent ore, tailings) facilities in RHCAs exists, and releases can be prevented and stability can be ensured, then: Analyze the waste material using the best conventional sampling methods and analytic techniques to determine its chemical and physical stability characteristics. Locate and design the waste facilities using the best conventional techniques to ensure mass stability and prevent the release of acid or toxic materials. If the best conventional technology is not sufficient to prevent such releases and ensure stability over the long term, prohibit such facilities in RHCAs. Monitor waste and waste facilities to confirm predictions of chemical and physical stability, and make adjustments to operations as needed to avoid adverse effects on inland native fish and aquatic species of concern. Reclaim and monitor waste facilities to assure chemical and physical stability and revegetation to avoid adverse effects on inland native fish and aquatic species of concern. Require reclamation bonds adequate to ensure long-term chemical and physical stability, water treatment, and successful revegetation of mine waste facilities;

E) FW-GDL-MIN-05: Permit sand and gravel mining and extraction within RHCAs only if no alternatives exist, and if the action(s) would not retard or prevent attainment of watershed, riparian and aquatic habitat and aquatic species desired conditions, and would avoid adverse effects on inland native fish and aquatic species of concern;

F) FW-GDL-MIN-06: Develop inspection, monitoring, and reporting requirements for mineral activities. Evaluate and apply the results of inspection and monitoring to modify mineral plans, leases, or permits as needed to eliminate impacts that prevent attainment of watershed, riparian and aquatic habitat and aquatic species desired conditions, and avoid adverse effects on inland native fish and sensitive aquatic species; and

G) FW-GDL-MIN-07: Active and abandoned mines on the Forest that pose risks of environmental degradation, particularly acid mine drainage or mobilization and transport of toxic or hazardous materials shall be identified and prioritized for restoration. (Note that the Montana DEQ has mine site map resources that may assist with locating abandoned mine sites).

Response:

A – E) Suggested guidelines MIN-01 through MIN-05 are included in the retained direction from INFISH. Page 4 of the draft Forest Plan describes plan direction that is to remain in place as part of the revised Plan. The decision on the Inland Native Fish Strategy (July 1995) is included in the revised Forest Plan and is found in appendix B of the draft Forest Plan.

The state and USACOE have a strict permitting process for in-stream mining operations;

F) The Forest Service already has regulation and manual direction for inspecting, monitoring, and reporting requirements for mineral activities (36 CFR 228.43 and FSM 2850). As indicated on page 2 of the KNF draft Forest Plan (under the heading of Implementing the Forest Plan), the Forest Service is required to follow all existing laws, regulations, and policies relating to the management of NFS lands, and the Forest Plan direction is designed to supplement existing direction and not repeat them; and

G) The Forest already uses a program for prioritizing mines for restoration (the AML program). The abandoned mines inventory has been completed and can be found in the Montana Bureau of Mines and Geology open-file report 395, Abandoned-Inactive Mines for the KNF-Administered Land, December 1999.

Mines/Mining: Category 862

Public Comment 214: (Letter Number(s): 101, 132, and 309)

The Forest Service should prohibit mining on the entire KNF because of the detrimental effects to all resources.

Response:

Mining is an allowed use on national forests. Mining activities must follow laws, regulations, and policy as well as forest plan direction that protect other resources.

Mines/Mining: Category 862

Public Comment 215: (Letter Number(s): 268)

There is concern that changes made in the Forest Plan would alter the dynamics of the mitigation plans for grizzly bears for the Rock Creek, Montanore, and Troy mines.

Response:

No decisions made in the Forest Plan will affect the mitigation plans for these projects.

Mines/Mining: Category 862

Public Comment 216: (Letter Number(s): 268)

The Forest Service should ensure that access to any mine granted within an IRA or MA1b be limited to foot travel only. A basic Plan of Operations for all proposed projects needs to be

generated and made available for public scrutiny. While the right to access public lands for mineral exploration is guaranteed and not at the discretion of the Forest Service, that “right” does not extend to impacts to wildlife, and the degradation of water and air quality resources.

Response:

Access for mining will follow the standards and guidelines presented in the Forest Plan. These standards and guidelines do not allow motorized access to MA1b. Any access to IRAs will be limited to existing roads and motorized trails, as indicated by the MVUM. Forest plan direction, along with laws and regulations, protect wildlife, water, and air resources.

Mines/Mining: Category 862

Public Comment 217: (Letter Number(s): 384)

The Forest Service should consider that mining is a significant concern for the Confederated Salish and Kootenai Tribe, particularly the ongoing development of the Rock Creek and Montanore mining projects. Both mines would impact the sacred Chicago Peak and degrade the Cabinet Mountain Wilderness, thus disturbing opportunities to exercise treaty hunting and gathering and traditional ceremonial uses of the area. The draft Forest Plan also notes that these mining projects could potentially require utility rights of way, further disturbing the area (see appendix D, table D-1). The Tribes have long opposed these two mining projects, and hope to limit mineral development throughout the KNF. As written, the draft Forest Plan does nothing to limit or scale back the development of mineral resources. Rather it notes that a goal of the KNF is "...exploration and development opportunities for mineral resources..." (see page 42-Social and Economic Systems, draft Forest Plan).

Response:

Mining is an allowed use on the Forest and an important resource that is developed in response to national and international demand, providing jobs and income to local communities. All hard rock mining projects undergo site-specific analysis and follow the NEPA process. The Tribes are consulted as part of these projects. Because the Forest Service doesn't promote or advertise areas for mineral development, the social and economic goal has been re-written in the Forest Plan to remove the language regarding exploration and development opportunities. However, in keeping with the law, the Forest will continue to be responsive to future requests for development and exploration. As part of site-specific NEPA, the Forest will continue to work with public concerns regarding specific projects.

Miscellaneous

Incorporate by Reference: Category 901

Public Comment 219: (Letter Number(s): 71, 160, 228, 258, 265, 303, 311, 341, and 365)

The Forest Service received several comment letters that contained support for or agreement with comments made by other organizations and/or individuals.

Response:

Thank you for your comment. See the responses to comments for the letters that you indicated support for.

Miscellaneous: Category 903

Public Comment 221: (Letter Number(s): 146)

The Forest Service should ensure all impact analyses in all resource areas compare the relative magnitude of man-caused impacts to the background level of naturally occurring impacts or management actions such as the “Let it burn” policy.

Response:

The effects analysis in the EIS is focused on the effects from Forest Service management actions. Natural disturbance events are unpredictable, with type, size, and timing of events unknown. However, the effects from natural disturbance are described in various resource sections, where applicable.

Monitoring

Adaptive Management: Category 950

Public Comment 223: (Letter Number(s): 98, 128, 273, 324, 327, 358, and 371)

The Forest Service should consider the following in regards to adaptive management on the KNF:

- A) Monitoring is integral to adaptive management; there must be fully-funded strict monitoring protocols in place;
- B) The policy for adaptive management needs to be available for public review; and
- C) Using a conservation approach to management rather than the proposed restoration approach because restoration implies restoring something to its original condition which is not an applicable concept for managing our national forests. A conservation approach allows for adaptive management at a landscape level to adjust to environmental changes rather than forcing the return of the forest back to an imaginary previous condition.

Response:

- A) The KNF agrees that monitoring is key to adaptive management. See pages 5 and 96 of the draft Forest Plan. Funding will need to be available to complete the forest plan monitoring required to assist with adaptive management;
- B) The draft Forest Plan describes adaptive management, and has been out for public review. The draft Plan has used the best available science. As this science changes, or new information is collected, adaptive management enables changes in management direction to incorporate this new information and improve management results; and
- C) Restoration is the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed. Ecological restoration focuses on re-establishing the composition, structure, pattern, and ecological processes necessary to facilitate terrestrial and aquatic ecosystem sustainability, resilience, and health under current and future conditions. In recent years, the Forest Service has been emphasizing restoration. The draft Plan is consistent with this national emphasis on restoration.

Adaptive Management: Category 950

Public Comment 224: (Letter Number(s): 341)

The Forest Service should disclose if five year management outcome reports will still be used and what the timeline is for KNF Plan revisions.

Response:

The timeframe for developing monitoring and evaluation reports is dependent upon the forest planning regulations. The 1982 planning regulations have a requirement to “review the conditions on the land covered by the plan at least every 5 years to determine whether conditions or demands

of the public have changed significantly” (1982 regulations 36 CFR 219.10(g)). Under the 2012 planning regulations, there is a requirement for a biennial evaluation (36 CFR 219.12(d)). The 2012 planning regulations also require a plan that was revised under prior planning regulations to modify the monitoring program within four years or as soon as practicable to meet the monitoring requirements of the 2012 regulations (36 CFR 219.12(c)). The forest plan monitoring program is described in chapter 5 of the revised Forest Plan. This chapter has been updated to include information on consistency with the 2012 planning regulations while meeting requirements under the 1982 Planning Rule.

The 2012 planning regulations require forest plans to be revised every 15 years or when the responsible office determines that conditions on a plan area have changed significantly such that a plan must be revised (36 CFR 219.7(a)).

General: Category 952

Public Comment 225: (Letter Number(s): 242, 258, 277, 294, 321, 341, and 371)

The Forest Service should ensure that scientifically credible, site-specific monitoring is required to accurately determine effects from management. There are no monitoring measures to determine if the Forest is achieving increased ecological integrity and resiliency. Funding for monitoring must be ensured. Reports should be made available for public review.

Response:

The KNF uses best available science in determining monitoring measures. Chapter 5 of the Forest Plan outlines monitoring questions, their link to forest plan direction, and measures for answering the questions. Changes have been made in the revised Forest Plan to improve the forest plan monitoring, with some revised questions, updated measures, incorporation of links to the forest plan direction, frequency of measurement, precision and reliability, and the time when evaluation will be reports. Funding the monitoring program is critical to understand the effectiveness of the Plan and movement towards desired conditions.

As has been the case with the 1987 Forest Plan, all forest plan monitoring and evaluation reports will be made available to the public.

Monitoring under the revised Forest Plan will take a systems approach, identifying measures to monitor movement towards plan desired conditions and achievement of plan objectives. For example, monitoring for wildlife under the revised Plan focuses on species that will monitor change in habitat and movement towards ecological desired conditions. The systems approach provides answers to movement towards desired condition. Desired conditions were developed to improve the Forest’s resistance and resiliency to stress. Movement towards desired condition will be an indication of the Forest’s ecological integrity and resiliency.

Monitoring items in chapter 5 of the Forest Plan include measures to monitor movement towards desired condition. The monitoring questions under vegetation, wildlife, and watershed all measure movement towards the Forest Plan’s desired conditions. Desired conditions were developed to improve the Forest’s resistance and resiliency to stresses under climate change. Movement towards desired condition will be an indication of the Forest’s ability to adapt to climate change.

General: Category 952

Public Comment 226: (Letter Number(s): 321)

The Forest Service should cite 36 CFR 219(k) and include required components for monitoring and evaluation of forest plan implementation.

Response:

The forest plan monitoring program can be found in chapter 5 of the revised Forest Plan. The draft Plan did cite 36 CFR 219 (k) (see page 96). In keeping with this requirement, this chapter described the “action, effects, or resources to be measured,” as directed under item 4 (36 CFR 219 (k)(4)). Chapter 5 of the revised Forest Plan has been updated to include all the required components, including the frequency of measurement, precision and reliability, and the time when evaluation will be reported.

Access & Recreation Questions: Category 953**Public Comment 227:** (Letter Number(s): 146)

The Forest Service should develop a corrective action and over-arching mitigation plan that will undo the significant impact that all cumulative motorized access and motorized recreational closures has had on motorized recreationists over the past 35 years and a monitoring program provided by an unbiased third-party to assure that this correction occurs.

Response:

This is outside the scope of forest plan revision.

Access & Recreation Measures: Category 954**Public Comment 228:** (Letter Number(s): 258)

The Forest Service should explain how the KNF will quantitatively monitor sedimentation, impacts to ecological and riparian function, and impacts to TES species by the transportation system and from recreational use.

Response:

The revised Forest Plan (including the retained decisions) contains direction in the form of standards and guidelines that limit the location and amount of roads. Projects must be consistent with all standards and guidelines. The monitoring program has been updated in the revised Forest Plan (see chapter 5). Monitoring of impacts of roads on streams is addressed within the watershed measures. See item MON-WTR-01.

American Indian Rights Questions: Category 955**Public Comment 229:** (Letter Number(s): 212)

The Forest Service should consider the following regarding the American Indian Rights and Interests Monitoring Questions:

A) Monitoring compliance with the Forest Service’s Treaty and trust responsibilities is difficult, but should include more than number of contacts or policies. For example, monitoring increases in wildlife, plants, and fisheries to maintain and enhance Treaty harvest may be an appropriate metric; and

B) Including monitoring of special forest and botanical products in the Monitoring Program; doing so is an essential step in managing these resources and assuring Treaty harvest.

Response:

A) The monitoring program in the revised Forest Plan has been updated. While the monitoring measures under American Indian Rights and Interests remain focused on development of consultation protocols, agreements, and management plans; the monitoring measures under other

resource areas address vegetation condition, aquatics, and wildlife habitat. All of these measures reflect condition of Treaty rights; and

B) This is an implementation issue and not a forest plan monitoring item. The Forest will continue to work with the tribes in managing special forest and botanical products.

Watershed/Aquatic Species Questions: Category 969

Public Comment 233: (Letter Number(s): 321 and 341)

The EIS needs to provide clarification as to what watershed attributes and parameters are required to be measured, how often they will be measured, and how the information will be summarized.

Response:

The monitoring chapter (chapter 5) has been updated for the revised Forest Plan and provides a better description of monitoring items that will show movement towards desired conditions and how often those parameters will be measured. Information that is collected will be summarized in periodic monitoring reports, as described in chapter 5. Effectiveness of the Forest Plan will be evaluated at the subwatershed scale (HUC 6) using an assessment of watershed condition based on the methodology described in the EIS or through the monitoring of the implementation and effectiveness of best management practices (BMPs), as examples. See also response to Public Comment 236.

Watershed/Aquatic Species Questions: Category 969

Public Comment 234: (Letter Number(s): 300 and 321)

The draft Forest Plan contains no limitations on the extent of soil damage that occurs from land management activities and contains no binding direction that protects soil structure, function, or productivity as did the 1987 Forest Plan.

Response:

The Forest has a documented record of accomplishment of protecting soils under the 1987 Forest Plan (see Forest Plan monitoring reports). Revised Forest Plan direction continues to provide protective measures for soil productivity and incorporates more effective goals, objectives, standards, and guidelines than the 1987 Plan had. They are as follows:

GOAL-SOIL-01, FW-DC-SOIL-01, FW-DC-SOIL-02, FW-DC-SOIL-03, FW-DC-SOIL-04, FW-OBJ-SOIL-01, FW-GDL-SOIL-01, FW-GDL-SOIL-02, FW-GDL-SOIL-03, FW-GDL-SOIL-04, FW-GDL-SOIL-05

The Forest is also required to maintain Regional Soil Quality Standards (FSM, R1 Supplement No. 2500-99-1) and it is the agency's full intent to protect soil resource in combination with its multiple use objectives. See also the definitions of standards and guidelines for the Forests intent to comply with all guidance in the Forest Plan.

Watershed/Aquatic Species Measures: Category 970

Public Comment 235: (Letter Number(s): 300 and 371)

The Forest Service should consider the following regarding the soils monitoring measures:

A) Adding mycorrhizae monitoring as part of soil condition assessments; and

B) Determine if there is a need to monitor hydrophobic soils following prescribed burns.

Response:

- A) The Forest recognizes the importance of all ecological components associated with soil productivity, including mycorrhizae, when conducting land management activities. Minimizing soil compaction during project implementation will reduce potential effects to mycorrhizae and subsequent issues associated with regeneration; and
- B) Prescribed burns are typically of low to medium intensity and conducted when soil moisture is relatively high (i.e., in the spring) and such that hydrophobicity will not occur, to the extent that soil productivity will be lost. Evaluation of prescribed burning projects is conducted at the project level and any need to consider monitoring for hydrophobicity may occur at that time.

Watershed/Aquatic Species Measures: Category 970**Public Comment 236:** (Letter Number(s): 321 and 371)

The Forest Service should consider the following regarding the watersheds and aquatic species monitoring measures:

- A) Clarify whether the aquatic habitat attributes and parameters targeted for monitoring under INFISH RMOs will be monitored to determine whether they are in compliance with INFISH RMO numeric standards;
- B) Best management practices (BMPs) need to be monitored to evaluate their effectiveness and should be revised, if found to be ineffective;
- C) Encourage adequate monitoring budgets;
- D) Include aquatic monitoring in projects, using aquatic monitoring parameters such as channel cross-sections, bank stability, width/depth ratios, riffle stability index, pools, large woody debris, fine sediment, pebble counts, macroinvertebrates, etc.; and
- E) Biological monitoring can be particularly helpful, since monitoring of the aquatic biological community integrates the effects of pollutant stressors over time; and thus, provides a more holistic measure of impacts than grab samples.

Response:

A) Numeric criteria for INFISH riparian management objectives (RMOs) are objectives not “standards.” INFISH validation and effectiveness monitoring is conducted by the PACFISH/INFISH Biological Opinion Effectiveness Monitoring (PIBO EM) team and is intended to cover the entire activity area for the INFISH biological opinion (see page 169 of the draft EIS). See also the following website, which contains all information associated with that effort: <http://www.fs.fed.us/biology/fishecology/emp>.

The revised Forest Plan includes direction (FW-DC-AQH-05) that stream channels possess the required structure to provide aquatic species the necessary habitat attributes. Pages A-2 through A-3 of the INFISH decision notice (USFS 1995) describe the purpose and intent of the interim RMOs and explain that “all of the described features may not occur in a specific segment of stream within a watershed” (page A-2, USFS 1995).

The intent of the revised Forest Plan is to meet the desired conditions for these habitat features through the application of conservation and restoration concepts, along with INFISH direction, that will allow for natural recovery and attainment of RMOs. Current management of riparian areas, as described within INFISH direction is meant to provide protections necessary for stream ecosystems to reach their natural potential. Reach monitoring may be conducted at the project level to evaluate baseline conditions and to assess existing RMOs and, if appropriate, how a given project may affect those resources;

B BMPs are a component of validating implementation of the Forest Plan, as well as project level implementation, and are reviewed for effectiveness. The revised monitoring chapter (chapter 5) contains an indicator of BMPs for addressing the following monitoring question: “Are soil, water

quality, and riparian and aquatic habitats protected and moving towards desired conditions?” The indicator for this question is “number of Best Management Practices (BMP) evaluations conducted and the percent of BMPs that were implemented correctly and the percent that were effective.”

C) The Forest Plan does not direct budget allocations, although there is a budget line item (NFIM) that provides a funding mechanism to support monitoring associated with Forest Plan implementation;

D) Monitoring of aquatic parameters may be included for project level implementation, if necessary to support an analysis of environmental effects to those resources. See also A above; and

E) Biological monitoring is conducted through cooperative efforts with Montana Fish and Game. See the 1987 Forest Plan monitoring reports for examples of this type of monitoring.

Wildlife Questions: Category 973

Public Comment 237: (Letter Number(s): 321)

What is the planned monitoring program for management indicator species (MIS), threatened, endangered, and sensitive species? The Forest should monitor MIS, threatened, endangered, and sensitive species population trends.

Response:

Certain habitat parameters for MIS and T&E species would be monitored under the revised Forest Plan. Chapter 5 in the FEIS has been updated from what was in the DEIS. The monitoring questions and measures for wildlife have been changed to better tie to the objectives in the “Wildlife” section of the forestwide direction in the Plan. There is an objective for both of the terrestrial MIS (elk and the landbird assemblage). There is also a more general objective for the maintenance and restoration of wildlife habitat with an emphasis on TES species. The measures for the wildlife monitoring questions in chapter 5 also tie to the vegetation and fire monitoring questions/measures. This is due to the role the vegetation and fire direction in the Plan plays in the maintenance or restoration of wildlife habitat.

In order to provide for viability of species on the KNF, the Plan relies on a coarse and fine filter approach. The coarse filter is based on the idea that the species on the Forest evolved with the disturbance processes (e.g., fire, insects, and disease) that shaped the habitats that are found on the KNF. The desired conditions for vegetation in the revised Forest Plan are based on those natural disturbance processes and the resulting habitat conditions. By maintaining or moving towards those desired conditions the species that evolved here with those conditions would continue to have habitat on the Forest. For those species that needed additional direction in the Plan to maintain/restore habitat, then additional desired conditions, standards, and guidelines were developed as part of a fine filter approach to viability. The fine filter approach narrows the focus to those species that require habitat that may be outside the natural range of variation and would not be covered by the coarse filter. In addition, there are species whose populations have been reduced to levels requiring special management considerations (e.g., species listed as threatened, endangered, or sensitive). This coarse filter/fine filter approach to viability is also discussed in the introduction of the wildlife specialist’s report and the introduction of the wildlife section in the DEIS/FEIS.

The Forest contracted with Ecosystem Resources Group (ERG) to analyze habitat changes over the next 50 years under different scenarios. These scenarios were based on the alternatives, the level of fire suppression, differences in climate (normal verses warmer), and budgets (with and without budget constraints). The species included in the analysis were those that could be tied to vegetative changes as the Forest trended towards the desired conditions for vegetation and fire.

These included some of the TES and MIS analyzed in the wildlife specialist's report and DEIS/FEIS. ERG's analysis determined that sufficient habitat would be maintained for all the species they analyzed to support their viability. The KNF would monitor the movement towards the desired conditions for vegetation and fire in the Forest Plan, and as the ERG report (ERG 2012) and the wildlife specialist's report determined, movement towards those desired conditions would provide sufficient habitat to support viability of TES species on the KNF.

The MIS were not selected for a viability concern. The introduction of the terrestrial MIS section in the wildlife specialist's report and the FEIS has been updated from what was in the DEIS. This includes rewording the table in that introduction displaying the terrestrial MIS. The landbird assemblage was selected to provide a tool to help measure our progress towards the desired conditions for vegetation and fire. This is based on the idea that the desired conditions for vegetation and fire would maintain or restore sufficient habitat for these landbird species on the KNF. These species were chosen to represent different habitat components (e.g., large trees, mature stands, openings). Therefore the monitoring for the landbird assemblage is tied to the vegetation and fire monitoring questions/measures in chapter 5. As shown by ERG's analysis, we expect a trend towards the desired conditions for vegetation and fire to result in the maintenance/restoration of habitat for the landbird assemblage.

The focus on monitoring the movement towards the desired conditions for vegetation and fire is reflective of the Forest's systems approach to ecological sustainability.

Elk was selected as an MIS specifically for elk security areas and to measure progress towards the objective (FW-OBJ-WL-02) and guideline (FW-GDL-WL-10) in the Plan that provides direction for elk security. Population monitoring for the MIS elk is best done by the experts in that arena: the state agencies. The best population data for elk would come from the state and there is no value in the Forest attempting to collect the same data as that already collected by other agencies, agencies that have a long history of collecting that kind of data. The Forest could request the best available information from state agencies for those hunting units overlapping the KNF rather than duplicating those monitoring efforts.

There is ongoing population monitoring efforts related to landbirds within Region 1 of the Forest Service. This includes transects on the KNF. The five species within the Forest's landbird assemblage MIS are detected in that monitoring effort. That data and analysis is available to the Forest. Again, as with elk, there is no value in duplicating that monitoring effort. As budgets allow, the Forest could contribute towards the funding of this monitoring effort in order to boost sampling on the Forest and improve KNF specific data.

Commenters stated that because wildlife populations are impacted not only by habitat availability and quality, but also by weather, predation, diseases, or hunting/trapping that monitoring habitat trends does not always reflect population trends. Commenters stated that populations should be monitored instead. Unfortunately, because of those factors mentioned previously, monitoring populations may not accurately reflect changes in habitat due to management actions. Populations may change due to factors outside the KNF's control, and these factors may not be easily pinpointed. Therefore, to get the most utility out of our MIS, the KNF has chosen them to be measurement tools to measure progress towards specific direction in the revised Forest Plan and measure differences among the alternatives. The landbird assemblage was chosen to measure progress towards the desired conditions for vegetation and fire because habitat for those species is expected to be maintained/restored as we move towards those desired conditions. The ERG report (ERG 2012) shows that the KNF does make progress towards those desired conditions and habitat for the landbird assemblage is maintained/restored. The KNF has a guideline and objective for elk security habitat, so elk is a MIS and progress towards that objective would be monitored.

Commenters also are concerned that threatened and endangered species would not be monitored. Lynx habitat was analyzed in the ERG report (ERG 2012) as well and is expected to increase over

time as we move towards the desired conditions for vegetation and fire. Threatened and endangered species habitat is monitored as per the Biological Opinions and RODs for the Northern Rockies Lynx Management Direction and the Access Amendment for grizzly bear (Forest Plan Amendments for Motorized Access Management within the Selkirk and Cabinet-Yaak Grizzly Bear Recovery Zones). See chapter 5 in the revised Forest Plan for the KNF's monitoring plan regarding T&E monitoring.

Sensitive species are not specifically mentioned in the chapter 5 monitoring table of the revised Forest Plan. The KNF does implement habitat maintenance/restoration projects that benefit some sensitive species on the Forest, and the acres of wildlife habitat maintained/restored would be monitored as shown in the chapter 5 monitoring table.

Commenters cited concerns over old growth and a lack of an old growth MIS in the draft Forest Plan. These commenters were concerned that old growth and the effects of management actions would not be monitored. See the vegetation section in the table in chapter 5 of the revised Forest Plan where it shows that old growth would indeed be monitored under the revised Forest Plan.

Commenters specifically claimed that pileated woodpecker, northern goshawk, black-backed woodpecker, fisher, and flammulated owl represented old growth habitat. While each of these species, except black-backed woodpecker, is associated with large and older forest conditions, none are considered old growth dependent species (see the science-based habitat descriptions for individual species in the wildlife specialist's report, FEIS, ERG 2012, KIPZ MIS selection paper and supporting documentation [i.e., USDA 2011 MIS Considerations for the IPNF], Samson 2006, McGrath et al. 2003, and USDI 1998). See the MIS selection paper that was prepared as part of the forest plan revision process, and the response to PC 449, for a description of why the KNF chose the MIS species we did. Regardless, the ERG (ERG 2012) report did analyze the effects of the revised Forest Plan on all these species. As with the other species analyzed, ERG determined that habitat would be maintained or improved for these species under the proposed action and viability would be retained as the KNF trends toward the desired conditions in the revised Forest Plan.

Commenters are concerned that the KNF would not monitor the effects of logging or other management activities on habitat. See the table in chapter 5 of the revised Forest Plan.

Mechanical treatments would likely have an impact, even if a small one, on movement towards the desired conditions for vegetation. The KNF would indeed monitor progress towards these desired conditions. Acres treated would be monitored as described in chapter 5, as would acres of dominance type, size class, old growth, and snags per acre and would be compared to the desired conditions.

Wildlife Measures: Category 974

Public Comment 238: (Letter Number(s): 341)

The management areas are inadequate for use as monitoring guidelines of forest habitat for wildlife. Winter range, old growth, known wildlife corridors, and riparian zones need special designation and standards and guidelines to judge the effects of site-specific and cumulative effects on habitat.

Response:

The management areas were not intended to drive the wildlife monitoring program (see chapter 5 in the FEIS for an updated monitoring program). The forestwide direction in the revised Forest Plan was the driver in developing the wildlife monitoring program (see response to Public Comment 237 for more discussion on the monitoring program).

Management of winter range, old growth, wildlife connectivity, and riparian areas are all covered under the forestwide direction in the Plan, and some of those topics are also covered under the

MA and GA direction. The forestwide direction applies to all the MAs, including the direction for winter range, old growth, wildlife connectivity, and riparian areas. See the section titled “Consistency with the Forest Plan” in chapter 1 of the Forest Plan for more information on how site-specific projects must be consistent with the direction in the Forest Plan.

NEPA

Cumulative Effects: Category 1001

Public Comment 240: (Letter Number(s): 237, 268, 284, 320, 332, 341, and 357)

The Forest Service should consider the following regarding cumulative effects:

- A) The cumulative impact evaluation needs to include the direct environmental consequences of projects such as the Rock Creek and Montanore mines plus the Way-Up, Fourth of July, and numerous other projects;
- B) Display the cumulative benefits from non-suitable acres, such as linkage zones connecting old growth, providing wildlife travel corridors as well as other wildlife habitat, and water quality benefits; all of the benefits from these lands should be portrayed visually and numerically;
- C) Providing a baseline and describing historic changes that have cumulatively affected management on the KNF; and
- D) Including a specific cumulative effects process in the Forest Plan with clear standards.

Response:

- A) The effects on resources from projects, such as mining, are included in the direct and indirect effects section and/or the cumulative effects for appropriate resources;
- B) The acres not suitable for timber production were considered in the effects analysis for other resources, such as wildlife and watershed. The acres not suitable for timber production have a different desired condition, depending on the management area, from those that are suitable. The acres not suitable for timber production are quantified in the EIS and appendix B to the EIS. They are not broken out by resource type (e.g., old growth, riparian areas, etc.) because of the overlap associated with these resources. Maps of lands suitable for timber production are included in appendix B of the FEIS;
- C) The effects that past activities have had on resources are discussed in the “Affected Environment” sections and reflected in the current conditions. Past activities are also described in other supporting documentation to the EIS, such as the Analysis of the Management Situation and the Comprehensive Evaluation Report; and
- D) The process for completing cumulative effects analysis is found in direction from the Council on Environmental Quality as direction for implementing NEPA. This is not direction to be included in the Forest Plan.

Decision Making: Category 1002

Public Comment 241: (Letter Number(s): 146 and 356)

The Forest Service should make decisions that are balanced by the needs and opinions of the public for multiple use opportunities; decisions should not be based on pressure from environmental groups and other foundation-funded organizations and their litigation.

Response:

The decision maker considers all points of view in making his or her decision. The decision maker strives for balance and proper management of all resources. See the Record of Decision for documentation on the rationale for the decision.

Decision Making: Category 1002

Public Comment 242: (Letter Number(s): 146 and 356)

The Forest Service should recognize that the intent of NEPA is not to make decisions using comments as a voting process but to make decisions that address the needs of all citizens.

Response:

The KNF does not regard comments on the Forest Plan as “a vote.” Direction regarding commenting that was distributed with the draft documents stated the following: “This is not a voting process. Comments are considered on basis of content, not quantity.” See the response to Public Comment 241.

Public Comment 243: (Letter Number(s): 294, 313, and 321)

The Forest Service should consider the draft Forest Plan alters the procedures for making decisions. Without specific and measurable standards in line with NEPA, the decision making is to the Forest Service’s discretion. The draft Forest Plan allows the Forest Service to make important decisions behind closed doors without public review and can easily favor special interests that have historical ties to the Forest Service.

Response:

The draft Forest Plan does nothing to alter project level decision-making. The standards in the draft Forest Plan are specific and measurable. Any discretion by the Forest Service in decision making on projects undergoes public scrutiny and comment through the NEPA process. The Forest Service strives to balance public input but is the ultimate decision maker. Nothing in the revised Forest Plan will change the NEPA process. The Forest Plan has had extensive public review and does not favor special interests.

Funding: Category 1005

Public Comment 245: (Letter Number(s): 273 and 335)

The Forest Service should consider the following regarding funding:

- A) Clarify why the KNF would want to develop a wild and scenic rivers management plan when it is so costly; and
- B) Allocate money for prevention, monitoring, and control of weeds.

Response:

A) The KNF followed law, regulation, and handbook direction in determining streams and rivers that were eligible for wild and scenic river designation. The Forest Plan provides direction to protect the outstandingly remarkable values for these stream and river segments until a suitability analysis is completed. If Congress decides to designate a suitable stream or river as a wild and scenic river, then the Forest would be required to develop a management plan. Funding would then be required to complete the management plan. This is no different than many other studies, assessments, and plans the Forest Service is required to complete in order to follow law, regulation, and policy.

B) The Forest Plan does not allocate money to different resource areas. However, the Forest Plan does contain direction to prevent, control, and monitor weeds. The Forest Plan contains a desired condition (FW-DC-VEG-10) and an objective (FW-OBJ-VEG-02) for the control of weeds. The Forest Plan monitoring program includes monitoring for weeds.

Funding: Category 1006

Public Comment 246: (Letter Number(s): 212, 267, and 321)

The Forest Service should consider the following regarding the plan direction:

A) Treating guidelines as guides and not requirements; a Forest Plan amendment should not be required if the guidelines are generally followed;

B) The meaning of consistency with guidelines is loophole-ridden: “When the project design varies from the exact wording of a guideline, project documentation must specifically explain how the project design is as effective in contributing to the maintenance or attainment of the guideline.” This would be up to the discretion of the Forest Service, and thus be insulated from outside challenges;

C) Recognizing that standards that were in place for wildlife and many other resources, such as those that would ensure viable populations of native species, and ones that were in place to reduce environmental damage from logging are lacking in the draft Forest Plan; it appears they have been replaced by desired future conditions, goals, objectives and guidelines that are vague, non-binding and full of loopholes to avoid having to adjust actions to bring projects into compliance with the Forest Plan;

D) Recognizing that there will be no accountability for not meeting any of the stated conditions under desired conditions because they are worded in such a way that they are riddled with loopholes or so vague that they are subject to broad interpretation; and

E) Addressing the need for developing an MA that emphasizes wildlife values.

Response:

A) The KNF disagrees. In order to provide protection of resources, projects must follow all guidelines. Guidelines are an important component of plan direction, allowing some flexibility (with proper documentation) while still providing guidance to protect resources;

B) Guidelines are commitments that the Forest will follow during plan implementation. As with the rest of our analysis that is required for NEPA, this documentation will be available for public scrutiny and not insulated from outside challenge;

C) The revised Forest Plan does have fewer standards than were found under the 1987 Forest Plan. Some of these standards are covered under law, regulation, Forest Service manual, Forest Service handbook, or other direction. The 1987 Plan reiterated much of this direction, resulting in redundancy in restating other direction. The revised Forest Plan removes this redundancy. As indicated on page 2 of the KNF draft Forest Plan (under the heading of Implementing the Forest Plan), the Forest Service is required to follow all existing laws, regulations, and policies relating to the management of national forest lands, and the Forest Plan direction is designed to supplement existing direction and not repeat them. In addition, the revised Forest Plan retains the following decisions: 1) Inland Native Fish Strategy; 2) Northern Rockies Lynx Management Direction, and 3) Grizzly Bear Access Amendment. As described on page 12 of the revised Forest Plan, this direction is retained and projects and activities must be consistent with the direction carried forward from these decisions. This direction is found in appendix B of the Plan. If a standard has been replaced by a guideline or a desired condition (as described by the commenter), the Forest has to meet this direction. See the definitions of desired conditions and guidelines on page 10 and consistency direction on pages 11 – 12 of the revised Forest Plan. All project and activities must be in compliance with the Forest Plan. If a project or activity is not consistent with the Forest Plan (as described on page 3 of the revised Forest Plan), an amendment must be made to the Forest Plan prior to implementation of the project/activity. For more information on how the revised Forest Plan provides for viability, see the response to public comment 449(B);

D) The Forest Plan is a strategic document (see page 2 of the Forest Plan). Desired conditions were written to be as specific as possible and provide direction at a strategic level. Projects may

not be able to make progress towards all desired conditions in the Forest Plan. The project-level analysis will indicate how the project is meeting the Forest Plan consistency requirements as described on page 3 of the Forest Plan. Forest Plan monitoring will provide the land managers and the public with information on how the Forest is progressing towards desired conditions and if any changes in plan direction is needed; and

E) Wildlife values are protected throughout the Forest and do not require their own management area. Forestwide and management area direction provides emphasis for managing and protecting wildlife habitat. Various resource conditions, such as winter range and old growth, are mapped and will be used for project development.

Laws, Regulations, and Policy: Category 1008

Public Comment 248: (Letter Number(s): 146 and 357)

The Forest Service should follow the intent of the 2001 OHV Record of Decision and Plan Amendment for Montana, North Dakota, and portions of South Dakota and the 2005 Travel Management Rule (36 CFR 212) and complete site-specific planning using comprehensive inventories of existing routes for motorized route designation. The Forest Service should honor the motorized recreation community's cooperation and not use these rules inappropriately as to create wholesale motorized closures and a wholesale conversion of motorized to non-motorized routes.

Response:

The 2001 Off-Highway Vehicle Record of Decision and Plan Amendment for Montana, North Dakota, and Portions of South Dakota (also known as the Tri-state OHV Amendment) amended nine forest plans, including the 1987 KNF Plan to prohibit cross-country motor-vehicle use. The decision directed the forests to prioritize areas across each unit for site-specific planning where roads and trails would be inventoried, mapped, and analyzed to the degree necessary to evaluate and designate the roads and trails as open, seasonally open, or closed (FEIS). The decision was consistent with the 2001 Roads Rule which provided a process (roads analysis) for resolving the disposition of user-created roads and trails (36 CFR 212 subpart A) through site-specific planning.

Subsequently, the 2005 Travel Management Rule (36 CFR 212 subpart B) expanded the 2001 Roads Rule requiring the designation of those roads, trails, and areas open to motor vehicle use on all NFS lands; and similar to the Tri-state OHV Amendment, prohibits the use of motor vehicles off the designated system (prohibits cross-country motor vehicle use with the exception of over-snow vehicle use).

Neither the Tri-state OHV Amendment nor the regulations at 36 CFR 212, require a comprehensive inventory of all existing routes, nor reconsideration of existing travel management decisions or designations. The inventory for site-specific planning is to be commensurate with the analysis needs, issues, desired resource conditions, and resource management objectives for the area and is dependent on the availability of funds and resources (Tri-State OHV Amendment appendix B). The requirements for site-specific planning are met during the project level travel analyses, which have been occurring across the forest since 2001. Travel analysis includes consolidating existing direction (past decisions that guide motor vehicle use) and an accurate inventory of NFS roads, trails, and areas managed for motor vehicle use, but not a full inventory of unauthorized routes (FSM 7700/FSH 77709.55). If project-level travel analysis recommends additions or changes to route or area designations, those changes are subject to full public participation and involvement under NEPA.

The KNF has published motor vehicle use maps (MVUMs), which display those roads, trails, and areas designated for motor vehicle use in compliance with 36 CFR 212 Subpart B. As mentioned

in the 2001 ROD for the Tri-State OHV Amendment, the steep terrain and dense vegetation on the KNF precludes the use of OHVs across much of the landscape. The KNF MVUMs published annually since 2009 generally include the same motorized recreation opportunities as existed when the ROD was signed in 2001 and “wholesale motorized closures” did not occur. The revised Forest Plan will not close any roads, trails, or areas currently open to motorized recreation, with the exception of over-snow motorized vehicle use in recommended wilderness and research natural areas. Additional travel management designations or modifications are outside the scope of the revised Forest Plan. Any future site-specific travel management planning will comply with 36 CFR 212 and NEPA requirements for public involvement.

Public Comment 249: (Letter Number(s): 146, 237, 294, 314, 324, 335, and 286)

The Forest Service should consider the following regarding laws, regulations, and policies:

A) The KNF is creating de-facto wilderness. Wilderness study areas and non-motorized areas are managed as wilderness areas and are simply a mechanism to evade the measures set forth in the Wilderness Act. Only Congress can designate wilderness. The KNF must follow the laws set for in the Wilderness Act in creating wilderness;

B) The Federal Land Policy and Management Act must be followed and any language in existing management plans for multiple-use areas that does not support multiple-use is inconsistent with directives from Congress, the needs of the public, and should be struck;

C) There are no requirements or standards anywhere in the watershed, soil, riparian and aquatic resources section that show compliance with NFMA fisheries laws. There are no remedies proposed or language in the draft Forest Plan that would guarantee compliance with the Clean Water Act. The draft Forest Plan does not comply with the federal laws that protect our environment;

D) Clarifying why all alternatives propose “recommended wilderness” management area designations in areas that “do not” meet the definition of wilderness that is provided in The Wilderness Act and why all alternatives propose wild, scenic, and recreational river designations on creeks which “do not” meet the definition of a wild and scenic river as defined in the Wild and Scenic River Act, and possess a “outstandingly remarkable value which is a unique, rare, or exemplary feature that is significant at a comparative regional or national scale”;

E) Clarifying why none of the proposed alternatives to the draft Forest Plan appear to expand outdoor recreational activities on public lands when EO #13575 – Establishment of the White House Rural Council dated June, 9th, 2011 states under Section 1. Policy “The Federal Government has an important role to plan in order to expand access to the capital necessary for economic growth, promote innovation, improve access to health care and education, and expand outdoor recreational activities on public lands”;

F) Clarifying why the Forest Service believes that more restrictive management policies are warranted in wild and scenic river areas to protect river values, including an explanation of the science proving that current management policies are negatively impacting those areas (see section 12(a) Management of Adjacent Federal Lands in the Wild and Scenic Rivers Act);

G) Ensuring that resource allocation include access to an equal number of quality recreational opportunities including alpine lakes, rivers, streams, and overlooks. We are not aware of any law that precludes motorized recreationists from enjoying equal access and allocation of the same resources that non-motorized recreationists enjoy. Equal opportunity laws, case law precedents and agency guidance have clearly established that the goal for the agency should be equal opportunity for all visitor groups. Equal opportunity in a travel plan should be defined as 50/50 sharing of motorized to non-motorized trails; and

H) The enabling legislation for the Forest Service has not changed very much over time. However, the KNF is now only responsive to the Endangered Species Act. Community stability,

multiple use management, and non-declining timber management are not reflected in current KNF management.

Response:

A) The KNF followed all law, regulation, manual, and handbook direction in recommending areas as wilderness. Recommending lands as wilderness is required under the 1982 regulations (36 CFR 219) for forest planning. These areas are recommended to Congress for wilderness designation. Based on law, regulation, and policy, these areas are to be managed to protect wilderness characteristics until Congress determines whether to designate these areas as wilderness or not. Wilderness study areas are different from recommended wilderness; these areas are designated by Congress as areas to be studied for future wilderness designation. The KNF has one wilderness study area, the Ten Lakes area, which was designated by Congress as a Wilderness Study Area in 1977. Non-motorized areas (such as MA5a) are not managed as wilderness on the KNF. These areas allow activities that are not allowed in wilderness or in recommended wilderness;

B) Direction contained in the Forest Plan is compliant with the Federal Land Policy and Management Act (FLPMA). This act provides direction to management of public lands administered by the Bureau of Land Management (BLM), including provisions on federal land withdrawals, land acquisitions and exchanges, rights-of-way, advisory groups, range management, and the general organization and administration of BLM and the public lands. The FLPMA does have application to some activities under the Forest Service Lands Program, including land acquisitions and exchanges and rights-of-ways. Direction for the Lands Program in the Forest Plan is consistent with this act;

C) Direction contained in the Forest Plan provides protection for aquatic habitat and fish (in the draft Forest Plan, see pages 31 – 38 for forestwide direction and pages 207-348 for direction retained from the Inland Native Fish Strategy decision). The Forest Plan complies with all law (including the Clean Water Act), regulation, and policy that protect the environment;

D) The processes used in determining areas for recommended wilderness and areas eligible as wild, scenic, and recreational river (WSR) segments followed all law, regulation, manual, and handbook direction. The KNF followed Forest Service Handbook 1920, Chapter 70 in inventorying and evaluating areas for recommended wilderness. The evaluation process is documented in appendix C of the EIS. This appendix has been edited in the final EIS to better display information on the evaluation process by roadless area. To identify eligible wild, scenic, and recreational river segments, the KNF followed Forest Service Handbook 1920, Chapter 80. The evaluation process is documented in appendix F of the EIS. Based on public comment, additional information on the inventory and evaluation process has been added to this appendix in the final EIS. The KNF reviewed this inventory after the draft EIS was released and made some changes. River segments that were found to have only bull trout and sensitive plants as the “outstandingly remarkable value” for which designation was appropriate were determined to be not eligible. Direction in the Forest Plan provides protection for bull trout and sensitive plants where ever they occur on the Forest, and designation as eligible WSR does not further their protection;

E) All alternatives provide a mix of opportunities for outdoor recreation. As population increases, there is expected to be increased recreation on the Forest. The Forest Plan does not make any site-specific decisions to develop recreational facilities, such as campgrounds or trails. This development would occur at a site-specific level, following NEPA and public involvement. Furthermore, the revised Forest Plan will not close any roads, trails, or areas that are currently open to motorized recreation, with the exception of over-snow motorized vehicle use in recommended wilderness and research natural areas. The action alternatives display different

amounts of recommended wilderness, with Alternative D having fewer acres than currently designated in the 1987 Forest Plan (Alternative A). Additional travel management modifications are outside the scope of the revised Forest Plan. Any future site-specific travel management planning will comply with 36 CFR 212 and NEPA and public involvement;

F) See the response to item D above. Some changes have been made to eligible WSR designations in the final EIS and revised Forest Plan. The remaining eligible WSR segments have recreational and scenic values that will be protected until a suitability study is completed and a determination made on their suitability for WSR designation. There is no science requiring protection. Rather, protection is required by law. As stated in the FEIS (chapter 3, Introduction to “Wild and Scenic Rivers” section), Congress enacted the Wild and Scenic Rivers Act in 1968 to preserve select river’s free-flowing condition, water quality, and outstandingly remarkable values. The most important provision of the Wild and Scenic Rivers Act is protecting rivers from the harmful effects of water resources projects. To protect free-flowing character the Federal Energy Regulatory Commission (which licenses non-federal hydropower projects) is not allowed to license construction of dams, water conduits, reservoirs, powerhouses, transmission lines, or other project works on or directly affecting wild and scenic rivers. The Wild and Scenic Rivers Act also directs that each river in the National Wild and Scenic Rivers System be administered in a manner to protect and enhance a river’s outstanding natural and cultural values. It allows existing uses of a river to continue and future uses to be considered, so long as existing or proposed use does not conflict with protecting river values. Thus, the designation as eligible wild and scenic river (MA2) protects the streams or rivers from any type of development that would impact their free-flowing character and outstandingly remarkable values. This protection is not afforded in other management area designations. For example, in MA6, a diversion, dam, or other water project may be allowed on some rivers and streams, as determined through site-specific NEPA. If the eligible rivers or streams are found to be suitable, those segments will continue to be managed to protect their outstandingly remarkable values;

G) The purpose and need for this project is to revise the Forest Plan, and not develop a travel plan. The revised Forest Plan does not make any site-specific travel management decisions, with the exception of closing areas in recommended wilderness or research natural areas to over-snow vehicle use. See the response to Public Comment 248. The Forest Plan provides a mix of recreational opportunities; and

H) The Forest Plan follows all law, regulation, and policy direction and seeks to provide outputs and uses that contribute to the social and economic well-being of local communities. For example, the Forest Plan provides a mix of recreation opportunities, timber harvest levels similar to current levels (based on limited budgets), and restoration activities that result in local jobs and income and contribute to the quality of lifestyles found in the planning area. See the “Social and Economic” section of chapter 3 of the FEIS.

Management of National Forest Lands, Multiple Uses: Category 1009

Public Comment 256: (Letter Number(s): 74, 75, 102, 146, 154, 174, 185, 195, 205, 213, 226, 239, 262, 273, 276, 287, 290, 295, 324, 327, 334, 356, 358, 362, 363, and 377)

The Forest Service should consider the following regarding multiple-use on NFS lands:

A) There is support for multiple-use on the Forest because it is good for the land and the economy, there is no damage from access, there is room for all the uses and they should be given more allowance in the alternatives. The KNF needs to follow the law regarding multiple use (such as the Multiple Use Sustained Yield Act of 1960 and the Federal Land Policy and Management Act of 1976);

B) Wilderness criteria and standards should not be applied to multiple-use lands, since wilderness is closed to motorized vehicles and equipment and multiple-use lands should be open to motorized vehicles and equipment;

C) All of the remaining public lands, including roadless areas, must be managed for multiple-uses in order to avoid contributing further to the excessive allocation of resources and recreation opportunities for exclusive non-motorized use. The proposed Forest Plan does not meet the basic needs of the public for multiple-use opportunities, does not provide a proper allocation of multiple-use recreation opportunities, and does not meet the laws requiring multiple-use management of these lands;

D) The KNF should manage the forest for balanced national priorities. This includes jobs, watershed, wildlife, and recreation;

E) National forests should be multiple-use environments and balance diverse public interests, including timbering and mountain-biking, but the KNF has very little protected wilderness. We need wilderness areas along with other areas for multiple-use; and

F) Restoring the concept of managing national forest lands for the “greatest good for the greatest number of people”, the document should address restoration of this concept and take steps to restore reasonable multiple-use management and decision-making to public lands because the resources from the forest and the jobs that come with the management of them are needed.

Response:

A – F). All alternatives in this FEIS are consistent with the Multiple-use Sustained Yield Act. Multiple-use is provided across the Forest. However, multiple-use does not mean every acre allows timber harvest and motorized access. The act allows for broad discretion and there is a wide range of opinions about what mix of goods and services constitutes “multiple-use.”

Wilderness management is multiple-use management. Many different uses are allowed in designated wilderness, and the framers of the Wilderness Act had to consider how the intent of wilderness could be interwoven with the intent of the Multiple-Use Sustained-Yield Act of 1960. Section 4 (a) (1) of the Wilderness Act of 1964 states “Nothing in the act shall be deemed to be in interference with the purpose for which national forests are established as set forth in the in the Act of June 4, 1897 (30 Stat. 11), and the Multiple-Use Sustained-Yield Act of June 12, 1960 (74 stat. 215).” The revised Forest Plan provides for balance in acres to be managed for wilderness and acres open to timber harvest and motorized use. Also see the response to Public Comment 249 item H.

For an explanation of FLPMA and the revised Forest Plan, see the response to Public Comment 249 item B.

Maps: Category 1010

Public Comment 258: (Letter Number(s): 195, 295, 335, and 356)

The Forest Service should consider the following regarding maps:

A) Creating more specific maps to be used for public comment;

B) Realizing that not everyone has access to high speed internet to view or print the maps; and

C) Explaining where the map is for Alternative A that is comparable to Alternatives B – D.

Response:

A) The KNF provided as much information as possible on the alternative maps. It is not possible to produce readable maps with additional details, such as roads and section lines. Townships and ranges were included, as well as streams and mountain peaks. Detailed maps were provided upon request for publics interested in specific areas;

B) Hard copy maps were also available. See the response to item A; and

C) There is no map of Alternative A that compares to Alternatives B – D because there is not a one-to-one crosswalk of the Alternative A management areas to those used in Alternatives B – D. Maps of Alternative A showing the 1987 Forest Plan management areas were available.

Need For Change Revision Topics: Category 1011

Public Comment 259: (Letter Number(s): 312, 335, and 341)

The Forest Service should consider the following regarding the identified revision topics:

- A) The DLRMP has a biased, one-sided, ecology-oriented direction as indicated in the section "Need for Change": "The first is to establish management direction that recognizes and emphasizes watershed restoration activities";
- B) Clarifying what watershed restoration activities are referred to in the sentence "The first is to establish management direction that recognizes and emphasizes watershed restoration activities" and considering that road obliteration is not a viable or effective watershed restoration activity; and
- C) In spite of regulations, the KNF failed to produce a 10-year Forest Plan revision, failed to produce a promised 1998 Forest Plan revision, and in 2000 adopted an interim strategy that ended all standards and guidelines.

Response:

A) This sentence is taken out of context. This is found under the need for change for the watershed and aquatic species revision topic. Here is the full text: "There are two primary reasons that the 1987 Forest Plan needs to be revised for watershed and aquatic dependent resources. The first is to establish management direction that recognizes and emphasizes watershed restoration activities, and the second is to address changes in the physical and biological components of the aquatic ecosystem, such as water quality impairments; threatened, endangered, and sensitive species; soil productivity; and habitat conditions." This is describing one of two reasons why management direction needs to be revised for the watershed and aquatics sections of the Forest Plan;

B) Watershed restoration activities are described on page 176 of the DEIS. This section describes active and passive watershed restoration. Active restoration is described as "the direct manipulation of ecosystems to re-establish or facilitate the improvement of selected ecosystem processes. It is generally applied through the use of integrated treatments strategically located and implemented at the watershed scale. Active restoration relies on identifying and treating root causes that have contributed to the loss of aquatic ecosystem health." Appendix A of the revised Forest Plan describes activities that may occur through implementation of the Forest Plan. Under watershed and aquatic species, several activities are listed, including "removal, reconstruction, or improved maintenance of stream-side roads to increase water infiltration and reduce chronic sediment delivery to stream channels." Many other types of activities are listed as well; and

C) The KNF has followed all regulations in revising the Forest Plan. No interim strategies were adopted. The Forest followed several different planning rules in developing the revised Forest Plan and FEIS. See pages 9 and 10 of the DEIS for a description of the planning process under the different planning rules. The revised Forest Plan does include standards and guidelines.

Planning Rule: Category 1013

Public Comment 262: (Letter Number(s): 258)

The Forest Service should clarify why the KNF chose to use the 1982 Forest Planning Rule to guide the 2012 Forest Plan and management decisions into 2030.

Response:

The Notice of Intent to revise the KNF Plan published in March of 2010 explains the use of the 1982 procedures as allowed under the 2000 Rule. This information was also provided on the Forest Plan revision web page (www.fs.fed.us/kipz), at public meetings and open houses. The revised Forest Plan is consistent with many facets of the 2012 rule, including utilizing best available science, collaboration, incorporating climate change, emphasizing restoration, and monitoring.

Process (Significant Issues): Category 1014

Public Comment 263: (Letter Number(s): 146, 154, 236, 258, 262, 293, 301, 330, 335, 356, and 357)

The Forest Service should consider the following regarding the NEPA process:

A) Implementing a NEPA public involvement program that adequately identifies the significant issues and needs of motorized recreationists. Most motorized recreationists have given up on the public involvement process. The draft documents are overwhelming to review. It is difficult for the average citizen to participate, review the documents, and comment. Given this, the needs of the overall public must be carefully determined. The most equitable alternative to meet the public's needs would be a reasonable multiple-use alternative. Meeting the unanswered needs and frustrations of over 50 million motorized recreationists is the most significant issue at hand for this proposed action;

B) Developing a starting benchmark alternative that identifies all of the existing roads and trails available to motorized recreationists and those additional routes required to meet the needs of the public to comply with the NEPA requirement for adequate disclosure of the potential impacts of a proposed action as stated in CEQ Sec. 1500.1;

C) Considering all significant issues involving the human environment for motorized recreationists during the evaluation and decision-making process;

D) Alternative B would allow snowmobiling on over 84 percent without sufficient NEPA analysis of impacts;

E) The KNF has failed to consider alternatives and information presented by the public and river-specific organizations regarding eligibility for wild and scenic rivers. Both Forest Service policy and NEPA require forests to take a fresh and “hard look” at the eligibility of a Forest's streams during the planning process;

F) Clarifying why the decision was made to design the new forest management plan around a set of unresolved current controversies rather than upon the principles of ecosystem science. The KNF should design a 20-year plan to maintain an ecologically-intact and functioning forest system capable of providing for multiple uses and sustainable ecosystem services that would address the issues in the context of management for sustainable ecological integrity rather than having the issues driving the management;

G) Incorporating the suitability analysis into the GAs and dropping the separate “Management Area” section because it would strengthen the Plan and more clearly identify management goals and the scientific rationale for those goals and the Plan could then describe how each of the core issues will be addressed in each GA;

H) Realizing that lacking a sufficiently reasoned explanation for why wilderness quality lands were suggested and then not better protected leads to questions of due process and validity of the decision making process. All of the KNF action alternatives favor logging, roading, and motorized recreation at the expense of wilderness, wildlife, and landscape connectivity;

I) Revising the criteria used to determine if a project is consistent with the Forest Plan because they are so broad and open to individual decision-maker interpretation that virtually anything could be judged consistent with the Forest Plan;

J) The process to develop the alternatives is in violation of NEPA and may be in violation of FLPMA and NFMA because it fails to address the issue of forest fires and fuels management in the municipal watershed of the town of Eureka Montana and it fails to address the issue related to the Department of Homeland Security's obligation to patrol and secure the northern border of the United States of America where that border exists on the KNF;

K) The range of alternatives is unreasonably narrow because there are no alternatives proposed that offered increase motorized access, and fewer acres in less restrictive management areas as reflected in the contents of the Analysis of Public Comment Report which was published by the KNF in 2007. The effects on the citizens, economy, public safety, or forest biology have not been adequately displayed in the DEIS;

Response:

A) The public was invited to participate in the Forest Plan revision process. Many of the public who participated are motorized recreationists and those desiring multiple-use. Their views have been heard and incorporated into the decision making process and plan. The major revision topics of "access and recreation" and "timber" were built around their concerns. The range of alternatives included an alternative with more motorized access and more timber harvest and less recommended wilderness (Alternative D). This alternative was considered in selecting the preferred alternative. The Forest agrees the documents for the draft Forest Plan and draft EIS are large and complex. Forest staff has been available to assist the public in understanding the documents and the process;

B). The revised Forest Plan will not close any roads, trails, or areas currently open to motorized use, with the exception of over-snow motorized vehicle use in recommended wilderness and research natural areas. This revised Forest Plan is not a travel planning document and does not make decisions on individual roads or trails. Thus, this type of assessment is not needed for the KNF Plan revision;

C) Motorized recreationists were included as part of the human environment. See the social and economic environment under chapter 3 of the EIS;

D) Although the DEIS stated that 84 percent of the Forest is not closed to snowmobiling under Alternative B, this does not mean that 84 percent of the Forest is actually used for snowmobiling. Areas where snowmobiling occurs are limited based on vegetation, terrain, and elevation. The impact of snowmobiling was addressed in the effects analysis presented in chapter 3 of the EIS;

E) The KNF completed an inventory of all named rivers and streams to determine additional segments that may be eligible as wild and scenic rivers. This is documented in appendix F of the EIS. Additional information has been included in the final EIS to better describe the inventory process and results. The KNF went through two scoping periods and a comment period on a Proposed Plan (released in 2006). This scoping and the comment period on the Proposed Plan did not bring forward wild and scenic rivers as a public issue, nor did they result in any additional streams or rivers to consider for eligibility. The final EIS contains an alternative not analyzed in detail addressing the concern for additional eligible rivers and streams;

F) The Forest Plan revision process followed procedures described in planning regulations (the 1982 regulations under 36 CFR 219) and NEPA. The Forest Plan revision process and NEPA are issue driven. The revised Forest Plan incorporated the scientific issues of sustainability and restoration to improve ecological integrity and resistance to changing climate and other stressors;

G) The KNF has chosen to use management areas for describing management for specific areas on the Forest to facilitate development of alternatives and provide management direction that is consistent forestwide;

H) The KNF presented a range of alternatives for recommended wilderness. Alternative C included the most recommended wilderness. This alternative was considered in selecting the

preferred alternative. The Forest Plan revision process has followed NEPA and given full consideration to recommended wilderness, wildlife habitat, and other resource concerns. Under Alternatives B and C, timber harvest is a result of the desire to move vegetation towards desired condition. Only under Alternative D was timber harvest considered first and movement towards desired condition considered second;

I) The criteria for project consistency with the revised Forest Plan are appropriately stringent to provide for implementation of the Forest Plan. If a project is found to be inconsistent with plan direction, the project must be redesigned to be compliant or amend the Forest Plan. Compliance with the Forest Plan is described in the site-specific NEPA, and subject to public review;

J) The KNF went through two scoping periods and a comment period on a proposed plan (released in 2006). This scoping and the comment period on the proposed plan did not bring forward the issues of fuel management in the watersheds surrounding the town of Eureka or Border Patrol access. The issue with Border Patrol access was included in the plan revision, with incorporation of plan direction to coordinate with the Border Patrol on projects. The revised Forest Plan will not close any roads, trails, or areas currently open to motorized use, with the exception of over-snow motorized vehicle use in recommended wilderness and research natural areas. These areas (recommended wilderness and research natural areas) are not found along the northern border with Canada. The concern regarding possible fuel treatment in the watersheds surrounding Eureka has been partially addressed in Alternative B Modified in the FEIS. Any fuels treatment decisions would be made by site-specific projects. The plan revision is consistent with all NEPA and NFMA requirements. For an explanation of FLPMA and the revised Forest Plan, see the response to Public Comment 249B; and

K) Alternative D provided more motorized access than under all alternatives including Alternative A (the No-action), thus addressing public comment for increased access. See the “Access and Recreation” section of chapter 3 of the EIS. In addition, there was an alternative not considered in detail in the DEIS that looked at additional motorized access (see page 30, the Access and Roads Alternative). The effects of the alternatives have been described in chapter 3 of the EIS.

Public Comment 264: (Letter Number(s): 146, 246, and 295)

The Forest Service has not completed the site-specific analysis as required by NEPA. Site-specific analysis is required at the point when an irrevocable commitment of resources is made (40 CFR § 1502.24). The application of the various management area directions, standards, and guidelines mandate the closing of routes and/or closed snowmobiling areas, representing site-specific decisions. The effects and rationale for that decision must be disclosed and cannot be deferred.

Response:

The revised Forest Plan will not close any roads, trails, or areas currently open to motorized use, with the exception of over-snow motorized vehicle use in recommended wilderness and research natural areas. The closing of these areas to over-snow motorized vehicles is site-specific and effects have been disclosed in the EIS. No other routes or areas on the Forest will be closed to motorized access because of forest plan management area direction, standards, or guidelines. The KNF has published motor vehicle use maps (MVUMs) which display those roads, trails, and areas designated for motor vehicle use in compliance with 36 CFR 212 Subpart B. Additional travel management designations or modifications are outside the scope of the revised Forest Plan. Any future site-specific travel management planning will comply with the 36 CFR 212 and NEPA and public involvement.

Purpose and Need: Category 1015

Public Comment 265: (Letter Number(s): 146)

The “Purpose and Need” section did not adequately address the needs for motorized recreation. The population is aging and desires adequate motorized access. There is a need for increased motorized opportunities and recognition of the positive impact on the quality of the human environment. The purpose and need must follow through on the final OHV Rule as a route designation process.

Response:

One of the revision topics is “access and recreation.” The revision topics are the major issues that identify where resource conditions, technical knowledge, or public perceptions of resource management have created a potential “need for change.” These topics are included in the purpose and need for revising the Plan (see chapter 1 of the FEIS). This access and recreation issue is reflected in the range of alternatives, with more motorized access under Alternative D and less motorized access under Alternative C. This revised Forest Plan does not make any decisions on route designations. The Forest Plan revision is not a travel management planning document. See the response to Public Comment 264.

Relationship to Other Entities: Category 1016

Public Comment 266: (Letter Number(s): 212)

The Forest Service should coordinate and cooperate with the Tribes regarding wildlife, fisheries and plants in the same manner as the USFWS, IDFG and WDFW (page 7 of the draft Forest Plan). Coordinating with Canadian and British Columbia agencies is also essential to ecosystem-based management the Plans promote. Tribal plans must be used and incorporated into supporting analysis of the Plans. (36 C.F.R. § 219.7© and (d) 1982 Planning Rule requiring review and consideration of planning and land use policies of Indian tribes and consultation with Indian tribes).

Response:

The KNF has consulted with the Tribes in developing the revised Forest Plan. The Plan has been updated to include the Tribes when referring to coordination and consultation on page 7 of the revised Forest Plan.

The Forest’s relationship with Canada is recognized in the revised Forest Plan and FEIS. See response to Public Comment 269 for forest coordination with Canadian agencies.

Public Comment 267: (Letter Number(s): 267, 314, and 335)

The Forest Service should disclose how the new non-motorized management area designations on the northern border of the KNF will affect the United States Department of Homeland Security’s ability to patrol and secure that border. The KNF also needs to describe the effects of unrestricted use by the Border Patrol, which negates the security values of gated roads and non-motorized areas.

Response:

The revised Forest Plan does not make any travel management decisions except for the closure of recommended wilderness and research natural areas to over-snow motorized and mechanized use. The KNF revised Forest Plan does not recommend any wilderness or research natural areas along the northern border of the Forest. The revised Forest Plan has direction to coordinate with the Border Patrol on projects along the northern border. The effects of border patrol actions on wildlife security and the access issues for patrolling the northern border will be addressed through

site-specific projects and travel planning. The Forest Service met with and briefed the Border Patrol several times regarding forest plan direction, management area allocations, and decisions made in the Forest Plan.

Public Comment 268: (Letter Number(s): 312)

The Forest Service should coordinate with county governments; failure to do so is in violation of federal law which requires coordination during the planning process.

Response:

The KNF has coordinated and continues to coordinate with the elected county officials during the Forest Plan revision process. The forest supervisor and staff met with elected county officials throughout the Forest Plan revision process (meetings are documented in the project record). In addition, elected county officials were members of the GA working groups.

Relationship to Other Assessments or National Policy: Category 1017

Public Comment 269: (Letter Number(s): 91)

The Forest Service should recognize the importance of the transboundary Flathead River Basin that lies within the Crown of the Continent Ecosystem and is adjacent to the Elk River Basin within KNF and disclose impacts on forest resources from activities taking place or planned to take place in Canada. The KNF should demonstrate a firm commitment to the remaining wildness and conservation of the transboundary area by designating more areas as recommended wilderness rather than the “backcountry” category which has no legal meaning and is more of a descriptive phrase for a current condition.

Response:

Although the KNF is not within the transboundary Flathead River Basin, the FEIS includes this MOU in the effects analysis. The relationship of Canada to the resources on the KNF and potential effects is described in the FEIS. The KNF considered more recommended wilderness under Alternative C in the DEIS. This alternative was considered in selecting the preferred alternative. The “backcountry” management areas provide desired conditions for motorized or non-motorized use, standards for limited vegetation management, and standards for limited road construction. The “backcountry” management areas provide for conservation of this area through limited vegetation treatments while providing motorized and non-motorized access.

Public Comment 270: (Letter Number(s): 146)

The Forest Service should ensure that this project includes proper interpretation of the 2001 Roadless Area Conservation Rule. The roadless rule should not be used to close existing motorized routes in IRAs. The cumulative negative impacts from the Roadless Rule on motorized recreationists needs to be included in the effects analysis for this project.

Response:

The revised Forest Plan will not close any roads, trails, or areas currently open to motorized use, with the exception of over-snow motorized vehicle use in recommended wilderness and research natural areas. The KNF has published motor vehicle use maps (MVUMs) which display those roads, trails, and areas designated for motor vehicle use in compliance with 36 CFR 212 Subpart B. Additional travel management designations or modifications are outside the scope of the revised Forest Plan. The affects from the 2001 Roadless Rule has been included in as part of the current condition in the Affected Environment and in cumulative effects discussions where applicable in the FEIS.

Retained Existing Forest Plan Direction Grizzly Bear Access Amendment: Category 1018

Public Comment 273: (Letter Number(s): 312 and 321)

The Forest Service should not incorporate the 2011 Forest Plan Amendments for Motorized Access Management within the Selkirk and Cabinet-Yaak Grizzly Bear Recovery Zones - Record of Decision (USDA Forest Service) (“Motorized Access Amendments”) because the ROD and FEIS for the 2011 Motorized Access Amendments have been administratively appealed and incorporating the amendments before the judicial review is complete is premature, nor should the grizzly bear management language be incorporated into the draft Forest Plan until the judicial review is complete.

Response:

The 2011 Motorized Access Amendment is under litigation. However, the amendment is still in effect until the courts decide differently. We have a signed decision that we are adhering to.

Retained Existing Forest Plan Direction INFISH and Bull Trout Biological Decision: Category 1019

Public Comment 274: (Letter Number(s): 321)

The Forest Service should explain why they are retaining the INFISH direction, when it was developed as an interim strategy. Furthermore, INFISH has not been revised to reflect new information. Forest Plan direction is not consistent with INFISH direction, allowing short term negative effects even though INFISH states “actions that reduce habitat quality would be inconsistent with the purpose of the interim direction.”

Response:

PACFISH and INFISH were intended to be interim strategies because permanent strategies were expected to be brought forward in the Interior Columbia River Basin Ecosystem Management Project decision, which was being developed at the time. That project eventually evolved into the Interior Columbia Basin Strategy but did not produce a Record of Decision. The decision was eventually made to keep PACFISH, INFISH, and the associated Biological Opinions in place until forest plans were revised. Memorandums such as the Coordination and Accountability of PACFISH and INFISH, 1998 NMFS and USFWS Opinions, and 2003 USFWS Opinion (Jarbridge) (BLM/FS/FWS/EPA/NOAA Fisheries Memorandum, November 16, 2004) acted to ensure the PACFISH, INFISH, and the Biological Opinions “remain durable until replaced by local Forest Plan revisions.”

The associated Biological Opinions recognized the lack of formal restoration strategies for both PACFISH and INFISH. The Analysis of the Management Situation Technical Report reiterated this (see KIPZ AMS Technical Report, p. 81), noting that INFISH is a protection strategy and that, “although INFISH allows for and even encourages that watershed restoration be done, it lacks any specific direction or priority to do so.” The need for change recognized opportunity to build on past efforts (such as INFISH) by developing restoration strategies in the revised Forest Plan.

INFISH was reviewed several times during the revision process to ensure that it still complied with best available science, most recently in 2009 while preparing to determine whether the decision and biological opinion should be brought forward as a retained decision (see 03_23_09 INFISH and the KIPZ Planning Effort). The reviews have shown that the direction in INFISH is still relevant and there has not been new information or new science that contradicts that direction. Therefore, INFISH was brought forward as a retained decision. In addition to retaining

INFISH, the Forest Plan contains direction that builds on INFISH protections by providing restoration strategies, thereby addressing the concerns in the biological opinion and answering the need for change in the AMS.

We disagree that forest plan direction is inconsistent with INFISH. Short-term negative impacts are allowable under INFISH and in this Plan as long as there are long-term positive impacts. This standard has been edited in the revised Forest Plan to include a general timeframe for the terms “short-term” and “long-term.”

Retained Existing Forest Plan Direction – Lynx Amendment: Category 1020

Public Comment 275: (Letter Number(s): 321)

The Forest Service should consider the following regarding the Northern Rockies Lynx Management Record of Decision (NRLMD):

A) The NRLMD contains exemptions from NRLMD Veg Standards S1, S2, S5, and S6. In particular, fuel treatment projects may occur in the WUI even though they will not meet standards Veg S1, S2, S5, or S6, provided they do not occur on more than 6 percent of lynx habitat on each national forest. The agency cannot simply set a cap at 6 percent forestwide without looking at the individual characteristics of each LAU to determine whether the Forest Plan has the potential to appreciably reduce the conservation value. The ESA requires the use of the best available science. It does not allow the agencies to make a gross determination that allowing 6 percent of lynx habitat to be destroyed forestwide will not appreciably reduce the conservation value; and
B) The draft Forest Plan and DEIS do not demonstrate that they are consistent with all standards contained in the Lynx Conservation and Assessment Strategy (LCAS) for lynx critical habitat. The LCAS require that the FS: maintain suitable acres and juxtaposition of lynx habitat through time and design vegetation treatments to approximate historical landscape patterns and disturbance processes. If the landscape has been fragmented by past management activities that reduced the quality of lynx habitat, management practices must be adjusted to provide forest composition, structure, and patterns similar to those that would have occurred under historical disturbance regimes. Furthermore, the LCAS sets mandatory standards that the KNF has thus far not accomplished, such as developing and protecting key linkage areas, map and monitor snow compacting activities, and maintaining old growth to provide lynx denning habitat.

Response:

A) The effects of the exemptions to NRLMD Veg Standards S1, S2, S5, and S6 were disclosed in the analysis for the NRLMD itself. For more information please see the discussion beginning on page 43 of the BO for the NRLMD (USFWS 2007). For additional information regarding the effects of the revised Forest Plan on lynx and lynx critical habitat, please see the BA and BO for the revised Forest Plan as well as the lynx sections of the wildlife specialist’s report and FEIS. The ERG Report (ERG 2012) determined that under the revised Forest Plan and NRLMD the acres of multi-story foraging habitat, which is the most important foraging habitat for lynx on the KNF, are expected to at least double over the next several decades; and
B) The revised Forest Plan does not have to be consistent with the LCAS. It is consistent with the NRLMD, however. Please see page 2 in the NRLMD ROD where it states the Purpose and Need as, “...to incorporate management direction in the land management plans that conserves and promotes recovery of Canada lynx, by reducing or eliminating adverse effects from land management activities on NFS lands, while preserving the overall multiple-use direction in existing plans...” Also on page 2 of the NRLMD ROD is a statement that the management direction in the NRLMD is based upon science and recommendations in the LCAS as well as other publications. Again, for additional information on the effects of the revised Forest Plan on

lynx and lynx critical habitat, please see the BA and BO for the revised Forest Plan as well as the lynx sections of the wildlife specialist's report and FEIS. For more information on the NRLMD, please see the NRLMD ROD, FEIS and associated BO.

Scope of Analysis/Decision: Category 1021

Public Comment 276: (Letter Number(s): 132, 225, 323, and 324)

The Forest Service should consider the following regarding the scope of analysis/decision:

- A) The draft Forest Plan has no standards and few goals and objectives; the public must read between the lines to see where the future conditions are headed;
- B) The DEIS violates NEPA because it does not have a reasonable range of alternatives for recommended wilderness;
- C) Considering that conversion of lands from a currently roadless designation, or non-motorized use, to motorized use, "general forest," or even to MA5a with the possibility of helicopter logging, is an irreversible and irretrievable commitment of resources because once the wild character is gone it's gone for good; and
- D) Using terms like "may likely" or "possibly" in describing actions embedded in an appendix leaves options completely open and provides little indication of intended plans.

Response:

- A) The Forest Plan does have standards, as well as guidelines. There are overarching goals, with desired conditions that are more detailed. Objectives describe activities and outputs that will help us trend towards desired conditions. Desired conditions were written to be as specific as possible while still providing strategic, programmatic direction;
- B) The EIS does have a broad range of alternatives for recommended wilderness. Alternative C recommends 242,800 acres for wilderness while Alternative D only recommends 37,300 acres for wilderness. The 242,800 acres recommended for wilderness in Alternative C is more than 35 percent of the inventoried roadless areas (IRAs) on the Forest. Not all IRAs are suitable for wilderness designation. In addition, the KNF considered two alternatives not analyzed in detail regarding additional recommended wilderness (the "Wilderness/Roadless Related Alternatives" and "Recommending Additional Roadless Areas for Wilderness");
- C) The allocation of management areas does not result in a conversion of lands from a currently roadless designation. The Forest Plan does not make any decisions on site-specific projects or travel management. No roads, trails, or areas are open or closed as part of the Forest Plan decision, with the exception of closing recommended wilderness and research natural areas to over-snow motorized or mechanical use. The Forest Plan does not make any decisions on management activities, such as timber harvest with or without helicopter logging. Management activities can only occur following site-specific NEPA. The site-specific NEPA then discloses any irreversible and irretrievable commitments of resources.
- D) The appendix referred to is appendix A of the revised Forest Plan on "Possible Actions." This appendix describes the proposed and possible actions "that the Forest anticipates to occur over the life of the Forest Plan that show the variety of multiple use opportunities or resource management programs that the Forest expects to provide" and is required by 1982 planning procedures (36 CFR 219.11(c)). The revised Forest Plan is a strategic, programmatic document that does not make decisions about site-specific activities. Project level analysis and site-specific NEPA is used in determining activities that will occur on the ground.

Geographical Areas – General Comments: Category 1022

Public Comment 277: (Letter Number(s): 341)

The Forest Service should consider that the GAs are oddly drawn. For example, the lower portion of the Bull River is cut off and placed in the Clark GA. The areas should at least be kept geographically whole and scientifically justifiable; perhaps more GAs are needed.

Response:

The GAs are composed of groups of watersheds and were drawn to define a landscape that people can identify with and reflect community values and local conditions within the area. They were not built to follow a single river its entire length.

Non-native Invasive Plants

DEIS General: Category 1050

Public Comment 278: (Letter Number(s): 146)

The Forest Service should, in the DEIS, consider all sources and uses that contribute to the noxious weed problem, including hikers, mountain bikers, equestrians (non-use of weed-free hay), natural processes, and wildlife.

Response:

Pages 112-120 of the KNF DEIS provides an effects analysis for noxious weeds (and other non-native invasive plants) and in that discussion there is an acknowledgement of the numerous sources of potential weed introduction and spread, including those associated with non-motorized recreational uses and natural (e.g., wildlife, wind, water) vectors.

DEIS Alternatives: Category 1052

Public Comment 280: (Letter Number(s): 351)

In order to strengthen the noxious weed treatment program on the KNF, the Forest Service should increase the number of acres that are listed as an objective for the treatment of noxious weeds and other non-native invasive plants.

Response:

As discussed in more detail in the response to Public Comment 48, the level of activities that are included as objectives in the Plan are heavily dependent upon budget levels. Since 2006, budgets for noxious weed and other non-native invasive plant treatments have decreased substantially. As a result, the objective was lowered. There is little doubt that there is a greater need for treatments than the budget will allow.

DEIS Environmental Consequences: Category 1054

Public Comment 281: (Letter Number(s): 321)

The Forest Service should consider the following regarding the environmental consequences of non-native invasive plants:

A) Disclosing how the productivity of the land has been affected on the KNF due to noxious weed infestations, the Sheep Creek Salvage FEIS (USDA Forest Service, 2005a) states at page 173: “Noxious weed presence may lead to physical and biological changes in soil. Organic matter distribution and nutrient flux may change dramatically with noxious weed invasion. Spotted knapweed (*Centaurea biebersteinii* D.C.) impacts phosphorus levels at sites (LeJeune and Seastedt, 2001) and can hinder growth of other species with allelopathic mechanism. Specific to spotted knapweed, these traits can ultimately limit native species’ ability to compete and can have direct impacts on species diversity (Tyser and Key 1988, Ridenour and Callaway 2001);”

- B) Disclosing how that situation is expected to change in the coming years; and
 C) Considering that the long-term costs associated with noxious weeds are never adequately taken into account.

Response:

The KNF DEIS contains an acknowledgement that non-native invasive plants can affect soil productivity as well as other resources (6th paragraph on page 113). While the DEIS did not provide a detailed analysis on how weeds may impact the productivity of the soil, other documents that were referenced do contain additional information on this issue. For example, in 2007, the KNF completed an integrated weed management plan (titled “Kootenai National Forest Invasive Plant Management Final Environmental Impact Statement”) for the Forest and in that document (pages 3-98 through 3-104) a discussion was presented on how invasive plants can influence soil productivity as well as how weed treatment activities may impact soils. For the programmatic Forest Plan, the Forest does not feel that it would be appropriate or helpful to conduct a more thorough analysis of the potential impacts of weeds on soil productivity. Depending upon the nature of the proposed projects, site-specific NEPA documents that are developed for individual projects on the Forest may consider this issue in more depth. In regards to the potential budget that the KNF may receive in the future for the treatment of non-native invasive plants, please see the response for Public Comment 280.

Forest Plan General: Category 1056

Public Comment 282: (Letter Number(s): 87, 98, 118, 128, 183, 242, 266, 273, 277, and 333)
 The Forest Service should:

- A) Increase the amount of monitoring, prevention, and mitigation that occurs for the control of non-native invasive plants;
 B) Place a higher priority and more attention on controlling invasive plants;
 C) Avoid using herbicides and more specifically, aerial applied herbicides for controlling weeds;
 D) Increase the use of the herbicide clopyralid because it is very selective; and
 E) Utilize strategies such as winter logging or the use of vegetative buffers in order to reduce weed spread.

Response:

A) The KNF recognizes the importance that monitoring, prevention, and mitigation measures have in an integrated weed management strategy and program. This is clearly acknowledged in the existing 2007 Kootenai National Forest Invasive Plant Management ROD and FEIS. For example, pages 7, 13, 18, 19, and appendix A and D (Design Criteria and Monitoring Plan) in the ROD discuss the importance and commitment to monitoring, prevention and mitigation. The FEIS for that plan contains additional information on this topic on pages iii, 1-11, 2-5, 2-13, 2-14, 2-16, 2-17, and within appendices A and I. Lastly, since the 2007 Plan was developed, Region One of the Forest Service (which includes the KNF) adopted other prevention and control measures (R1 Supplement to FSM 2080) that are used to help prevent and mitigate the spread and introduction of non-native invasive plants. Additional information on the 2007 Kootenai National Forest Invasive Plant Management Plan can be found at: <http://www.fs.fed.us/nepa/fs-usda-pop.php/?project=9851>. Because there is amply existing direction for the KNF regarding prevention, monitoring, and mitigation, the Forest does not feel it is necessary to include much more direction in the Forest Plan. Regarding monitoring, the draft Forest Plan contained monitoring items related to noxious weeds (see page 97). The revised Forest Plan contains some small changes to the original weed-related monitoring items, but the changes are fairly minor;

B) In regards to the emphasis that the KNF places on the non-native invasive plant program, as the response to Public Comment 280 indicates, the budget level that the KNF receives for this program largely dictates how much and what kind of weed related activities that the staff on the Forest can accomplish. The amount of funds available to the Forest for this program has been decreasing substantially in the last several years and this trend is not likely to change in the near future;

C) Although the Forest realizes that the use of herbicides for weed control can be controversial, especially the application of herbicides using aerial means, the benefits of reducing weeds through those means are believed to outweigh the risks. As disclosed in depth in the 2007 Kootenai National Forest Invasive Plant Management FEIS, the alternative of not using herbicides at all would result in large increases in weed spread (see pages 3-36 through 3-39).

D) Transline (one for formulation of the herbicide clopyralid) is one of the herbicides that is currently used by the KNF for the treatment of non-native invasive plant species and it does have an advantage over some other herbicides in it is more selective in the types of plants that it kills than are some of the other herbicides. Transline only affects members of three plant families: composites (Asteraceae), legumes (Fabaceae), and buckwheats (Polygonaceae). This selectiveness makes this herbicide very useful for killing knapweeds while protecting native plant species. Kootenai National Forest Invasive Plant Management provides more details and direction on the herbicides that are authorized for use on the Forest and the circumstances in which they are used; and

E) Harvesting trees in the winter when the soil profile is frozen and/or when snow depths are substantial can reduce soil compaction from heavy equipment but care must be exercised when weather conditions change or where water/moisture may occur under snow layers as the soils in these areas could be harmed. The draft Forest Plan contains goals (Goal-02, page 31) and desired conditions (FW-DC-Soil-01, 02, and 03, page 32) for the protection of soils and in addition, there is a substantial amount of existing direction in Forest Service directives and policies (e.g., FSH 2509.18,5/1/94; updated 1999, FSM 2500 - Watershed and Air Management, R-1 Supplement 2500-2009 -1, Chap 2550-Soil Management Amendment and Region 1 Approach to Soils NEPA Analysis Regarding Detrimental Soil Disturbance in Forested Areas, A technical Guide). In regard to the use of vegetative buffers to slow or prevent noxious weed seeds from blowing into adjacent disturbed areas, we are not aware of how effective that strategy would be or its applicability.

Forest Plan Standards: Category 1060

Public Comment 284: (Letter Number(s): 321)

The Forest Service should include standards for noxious weed management that address the cause of the problem through prevention. For example, the Forest Plan could have included standards that limit management activities in areas that are currently not infested by noxious weeds. By not including such standards the Forest Service is violating NFMA because it has failed to ensure native plant diversity and prevent irreversible soil damage.

Response:

Please see the response to Public Comment 282 (item A) for a summary of why the KNF does not feel it is necessary to have other forest plan components (e.g., standards) related to non-native invasive plants. As noted in that response, currently there are numerous prevention and control measures (see R1 Supplement to FSM 2080 and the 2007 Kootenai National Forest Invasive Plant Management ROD and FEIS) already in place that are required. As described in more detail in the response to Public Comment 61, the KNF does not feel it is necessary to reiterate requirements in this Forest Plan that already exist elsewhere. As indicated on page 2 of the draft Forest Plan (under the heading of Implementing the Forest Plan), the Forest Service will follow all existing

laws, regulations, and policies relating to the management of the NFS lands, and the forest plan components are generally designed to supplement, not replace, existing direction.

Forest Plan Guidelines: Category 1061

Public Comment 285: (Letter Number(s): 371)

The Forest Service should develop guidelines that prioritize non-native invasive plant management techniques that focus on non-chemical treatments first, with reliance of chemicals being the last resort, and add the following:

FW-GDL-VEG-09 as follows: Integrated weed management techniques shall be favored to treat and reduce noxious weed infestations, and new noxious weed invasions shall be contained after discovery within the discovered site; and

FW-GDL-VEG-10 as follows: Herbicides, pesticides, and other toxicants and chemicals shall be used in a safe manner in accordance with federal label instructions and appropriate restrictions that avoid public health and safety problems, and allow protection and maintenance of water quality standards and avoid adverse effects to inland native fish and aquatic species of concern from weed control chemicals.

Response:

Direction already exists for the additional guidelines that are suggested. It is already required that the Forest Service use integrated pest management practices (e.g., USDA Department Regulation 9500-4, FSM 2902) and the draft Forest Plan (see page 15) already contains a component that both requires the use of integrated pest management approaches as well as indicates that infestations of new species would be contained or eradicated (FW-DC-VEG-10). The safe use of herbicides, pesticides, and other toxicants is already required by federal law and the protection of water quality and other aquatic resources from chemicals is addressed in the retained existing decision for the INFISH (see FW-STD-RIP-03 on page 37 of draft Forest Plan and the standard RA-3 on page 218 of appendix B in the draft Forest Plan).

Forest Plan Guidelines: Category 1061

Public Comment 286: (Letter Number(s): 371)

The Forest Service should recognize that adding a guideline for implementing an effective policing and enforcement program for motorized access would help reduce weed spread from unauthorized motorized uses.

Response:

The KNF has MVUMs that indicate what roads and trails are open to motor vehicle use. Off road or trail use of motorized vehicles is not allowed (with the exception of over-snow vehicles outside of site-specific prohibitions) and the law enforcement program has recognized this issue as having a very high priority. Prevention and enforcement action plans have been developed for this issue and have identified the spread of invasive species by the illegal use of off-highway vehicles as one of the undesirable impacts that this can have on the Forest resources. The Kootenai National Forest Law Enforcement Plan provides more information regarding enforcement. Lastly, existing Forest Service direction at the national level already requires that forests address this issue in their law enforcement plans (see FSM 5310 in general, and specifically, FSM 5311.12). Therefore, an additional guideline in the KNF Forest Plan is not necessary.

Possible Actions (Plan – Appendix A)

Access and Recreation: Category 1100

Public Comment 287: (Letter Number(s): 335)

The Forest Service needs to describe what they mean by an “unsustainable recreational program, as referred to in appendix A of the draft Forest Plan.

Response:

This has been clarified in the revised Forest Plan. An unsustainable recreation program would be recreation site(s) that do not meet all of the following criteria, or fall sufficiently short in one or more of the criterion so as to render the capability of meeting it unsustainable. Criteria: meet Forest Recreation Niche, environmentally sustainable, supported by local communities, has sustainable management cost/benefit ratio.

American Indian Rights: Category 1101

Public Comment 288: (Letter Number(s): 212)

The Forest Service should consider Possible Actions for Tribal relations that include ongoing government-to-government and staff consultation for each federally recognized tribe with historical or treaty interests in forest land regarding cultural resource and sacred site protection and access to the Forests for cultural and religious practices, through a cooperatively established communications policy.

Response:

This possible action is already included in appendix A, but with less detail regarding what would be consulted on. The Forest prefers to leave this possible action more general and not just confined to “regarding cultural resource and sacred site protection and access to the Forests for cultural and religious practices.” The tribes may wish to consult on more than just cultural resources, sacred sites, and access for cultural and religious practices.

Fire Management: Category 1102

Public Comment 289: (Letter Number(s): 341)

In maintenance or restoration of wildlife habitat, the Forest Service should be more honest to reflect sustainability and restoration of snags, cedar old growth forests, and riparian zones. Burning is rarely used for habitat restoration purposes.

Response:

We disagree. Burning is a tool that we use to enhance wildlife habitat. The revised Forest Plan includes direction to protect old growth (including cedar), riparian areas, and to retain snag levels.

Watersheds: Category 1110

Public Comment 293: (Letter Number(s): 335, 336, and 341)

The Forest Service should consider the following Possible Actions for Watersheds (water, soil, & riparian) and Aquatic Species:

- A) Describing the process of determining if stream-side roads are out of compliance with Montana BMPs and how to fix them to comply with the water standards short of obliteration because that is not an acceptable mitigation;
- B) An additional action would include collaborating with MFWP and other agencies and public to reintroduce native fish species to their historic habitat; and
- C) Describing restoration techniques to reshape stream banks to stable slopes because enforcing with rock (rip rap) is the only way most people know about.

Response:

A) This appendix is possible actions. They are not actual actions. If any roads are identified that are a problem within a riparian area, maintenance work will correct the problem. If the road needs to be removed, it would require site-specific NEPA and public involvement;

B) This has been added to appendix A; and

C) Appendix A does not refer to reshaping stream banks.

Wildlife: Category 1111**Public Comment 294:** (Letter Number(s): 335)

The Forest Service needs to explain what the term “site-specific improvement of motorized access densities” means and how the Forest will accomplish it because that sounds like more restrictions on motorized access. Also describe what constitutes travel management.

Response:

This has been clarified in the revised Forest Plan.

Rare Plants**DEIS Affected Environment: Category 1151****Public Comment 295:** (Letter Number(s): 212)

The Forest Service should conduct an analysis to determine how the proposal would impact plants of cultural importance to the Kootenai Tribe.

Response:

The analysis that was conducted for rare plants included all threatened, endangered, and sensitive plants (TES); and therefore, any of the plant species on the Kootenai Tribe list that are TES were evaluated in the DEIS. The coarse-filter analysis of forest vegetation that was conducted focused on tree species. Of the 12 tree species on the Kootenai Tribes list, 11 were considered in the DEIS. White spruce was not analyzed as we are not aware of any locations of it on the Forest where it is pure. That spruce often hybridizes with Englemann spruce and it is believed that most of the spruce trees on the KNF are to some degree, hybrids between the two species (Pfister et al. 1977). Regarding the other plant species on the Kootenai Tribe of Idaho list, they evolved under the historic range of variability (HRV) and as discussed on pages 47-49 of the KNF DEIS, the broad approach that the KNF is taking in the Plan is to trend the vegetation towards the HRV (while considering potential climate change). Therefore, compared to the 1987 Forest Plan the effects to the other native plants on the Tribes list should generally be beneficial.

Social & Economic**Economic General: Category 1250**

Public Comment 296: (Letter Number(s): 8, 24, 74, 75, 122, 123, 146, 153, 154, 178, 201, 212, 219, 237, 239, 241, 243, 245, 261, 276, 277, 284, 287, 298, 320, 325, 327, 332, 334, 342, 353, 356, 358, and 369)

The Forest Service should consider the following regarding economics:

A) There currently isn't enough forest products infrastructure to accomplish the restoration activities needed to meet the Forest Plan desired conditions. The Plan needs to provide for strong functioning infrastructure to complete the restoration work needed to achieve desired conditions. The annual predicted timber volume sold should support the existing infrastructure. Furthermore,

the forest products infrastructure provides for jobs with livable wages and supports local economies. The importance of the forest products industry and its impact on local economies needs to be analyzed in the EIS;

B) The local economies rely on sustainable natural resource extraction, recreation (including snowmobiling), mining, and tourism. More restrictions on access, through increased amounts of recommended wilderness and wild and scenic rivers, reduces these opportunities. Restricting access and utilization of the Forest will increase the economic hardship to the local area;

C) OHV recreation has a large positive economic benefit to the local economies. Developing ATV trails will increase motorized recreation and jobs and income. The Forest needs to recognize this positive economic benefit and conduct a benefit-cost analysis of non-motorized versus motorized trail use;

D) Wilderness, watchable wildlife, and fishing have a large positive economic benefit to the local economies. Furthermore, managing areas for wilderness decreases budget costs while providing for restored ecosystems in a cost efficient manner; and

E) Implementing the further restrictions under the Forest Plan Amendments for Motorized Access Management within the Selkirk and Cabinet-Yaak Grizzly Bear Recovery Zones will hurt local economies in Sanders and Lincoln counties.

Response:

A) There continues to be local demand for stumpage from the Forest, as evidenced by the amount of timber sales sold on the KNF in recent years. Most sales offered have been sold with strong competition. The KNF works to ensure sale feasibility of all commercial timber sales. The amount of restoration work and vegetation treatment proposed under the Forest Plan is feasible, given current budget levels. Sale of stumpage will continue to contribute to the viability of the forest products infrastructure. The social and economic section of the FEIS highlights the importance of forest outputs on local economies and communities within the analysis area;

B) The value of activities, outputs, and uses of the Forest is recognized in the social and economic section of the FEIS. This section describes the social and economic environment and provides an analysis of the jobs and income generated by alternative;

C) The value of OHV recreation is recognized in the “Social and Economic” section of the FEIS. See the response to B. This type of recreation is a subset of the activities, outputs, and uses that generate jobs and income. The revised Forest Plan does not make any decisions on development of ATV trails. This would be decided through a site-specific project following NEPA. An analysis of economic efficiency was completed for each alternative. The revised Forest Plan does not make decisions on non-motorized versus motorized roads; thus, a benefit cost analysis of non-motorized versus motorized trails is outside the scope of the Forest Plan revision;

D) The value of these activities is included in the social and economic section of the FEIS. The jobs and income analysis section includes these types of activities, as well as other activities, uses, and outputs of the Forest. The cost of managing areas for wilderness is lower compared to areas with active management and treatments. However, management of areas as wilderness does not necessarily result in restored ecosystems. Some areas are in need of planting white pine to restore this species that has been decimated by blister rust. Other areas require openings to restore the amount of seedlings and saplings in the vegetation desired conditions. Thus, no management does not equate to restoration of ecosystems; and

E) The effects on the local economy from this amendment was analyzed and displayed in the final Supplemental EIS to the Forest Plan Amendments for Motorized Access Management within the Selkirk and Cabinet-Yaak Grizzly Bear Recovery Zones (November, 2011).

Economic General: Category 1250

Public Comment 297: (Letter Number(s): 356)

The Forest Service should give greater consideration to those impacted locally by management actions such as adjacent private landowners, individuals or business that derive the livelihood from the use of public land, local public land users; sportsmen, campers, bikers, off road vehicles, and recreation users.

Response:

The Forest Service considers all substantive comments in developing the revised Forest Plan. The decision-maker considers the potential effects on the local, social, and economic environment in making the decisions for the revised Forest Plan.

Environmental Justice: Category 1251

Public Comment 298: (Letter Number(s): 146)

The Forest Service should consider that motorized recreationists have been affected in a disproportionately high and adverse manner by the significant impact that has occurred from all cumulative closures of motorized access and motorized recreational closures resulting in an environmental justice issue. A social impact analysis needs to be completed.

Response:

As required by EO #12898, all federal actions must consider potentially disproportionate effects on minority or low-income communities. Environmental Justice is defined as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies” (EPA website). The Council on Environmental Quality (CEQ) (1997) provides the following definitions regarding Environmental Justice requirements:

Minority population: Minority populations should be identified where either: (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis...

Low-income population: Low-income populations in an affected area should be identified with the annual statistical poverty thresholds from the Bureau of the Census' Current Population Reports, Series P-60 on Income and Poverty. In identifying low-income populations, agencies may consider as a community either a group of individuals living in geographic proximity to one another, or a set of individuals (such as migrant workers or Native Americans), where either type of group experiences common conditions of environmental exposure or effect.

Road closures do not cause disproportionate impacts – the road is closed equally to all people. Throughout the plan revision process, all people were afforded fair treatment, provided opportunities for meaningful involvement, and given access to the process of transportation and road management. The comprehensive collaborative process undertaken for the Plan did not identify any concerns regarding disproportionate impacts to low-income or minority populations (Kootenai DEIS page 426). Additionally, activities such as firewood cutting, huckleberry picking, hunting, and fishing are not limited to a specific area – they can be conducted in a variety of places. Thus road closures do not cause a disproportionate impact to people utilizing these resources.

A social analysis was included as part of the effects analysis for the economic and social environment. The DEIS references social assessments (Russell and Downs 1995; Russell and Adams-Russell 2003; Parker, Wulforst, and Kamm 2002) as well as an analysis on conditions

and trends (Russell et al. 2006). These references were used in developing the social impact analysis for the DEIS.

Environmental Justice: Category 1251

Public Comment 299: (Letter Number(s):237 and 332)

The Forest Service should consider that the current KNF management direction results in environmental justice issues and possible violations of the executive order establishing environmental justice standards because the current direction favors higher income out-of-area residents over local lower income residents. For example, road closures to provide habitat for wildlife have a disproportionate effect on low income residents who use the Forest for subsistence activities (such as firewood cutting, huckleberry picking, hunting, and fishing).

Response:

See the response to Public Comment 298.

Jobs: Category 1253

Public Comment 300: (Letter Number(s): 74, 75, 96, 108, 213, 219, 226, 232, 237, 250, 284, 287, 320, 351, 353, and 363)

The Forest Service should consider the following regarding jobs:

A) Changes in land management have resulted in job losses with a decline in the logging industry. Extractive industries had higher paying jobs and these are being replaced by low-paying service industry jobs;

B) Recognizing that more restrictions result in less recreation and fewer jobs;

C) The impact on local economies and businesses has not been accurately analyzed in the draft Forest Plan and that under any of the alternatives the local economies will suffer;

D) Recognizing that jobs would be created with restorative forestry, thinning, planting and the removal of roads; and

E) Recognizing that the quality of life provided by the surrounding natural areas attracts people who want to live in the area who bring their personal assets and incomes with them and that their buying power creates new jobs in the area.

Response:

The impacts of forest management on jobs and income are described in the “Social and Economic Environment” section of the FEIS. This section includes an analysis of the change to jobs and labor income based on expected outputs and activities for each alternative. This includes timber and recreation uses as well as restoration activities. See the tables entitled “Employment by Program for Current Management and by Alternative (average annual, decade 1)” and “Labor Income by Program for Current Management and by Alternative (average annual, decade 1; Thousands of Dollars)” in the environmental consequences section of the Social and Economic Environment section of Chapter 3 of the FEIS. These tables display jobs and income by resource area for each alternative. Based on expected activities, uses, and outputs, the impact on local economies has been accurately analyzed and displayed. The expected activities, uses, and outputs are described under the individual resource areas in the FEIS.

All alternatives that were analyzed in detail provide a range of recreation opportunities. Based on the projected change in population over the next decade, recreation use is expected to increase under all alternatives for both motorized and non-motorized. Because of the overall size of the Forest and the availability of alternate areas for use, the change in access opportunities by management area for each alternative are not expected to result in any decrease in motorized or non-motorized use. Users will have areas to recreate under all alternatives analyzed. However,

satisfaction with use will vary by alternative. For example, those valuing motorized recreation opportunities will have the potential for more opportunities and higher satisfaction under Alternative D than they would under Alternative C. Those valuing non-motorized opportunities will have the potential for more opportunities and higher satisfaction under Alternative C than they would under Alternative D. Alternative B Modified provides a range of opportunities for motorized and non-motorized use. This is explained on page the Social and Economics section in Chapter 3 of the FEIS.

Quality of life factors are also described in the “Social and Economic Environment” section of the FEIS. The natural areas and outdoor recreation opportunities provide a draw to the area and are also highly valued by local residents. The social assessments conducted to support forest plan revision recognized the in-migration that has been occurring in this area. This in-migration is a source of change to the communities. This influx of new residents is described under the “Communities and Change” section of the Social and Economics in the FEIS. This section of the FEIS has been updated to recognize the potential for new jobs associated with in-migration.

Payments to Counties: Category 1254

Public Comment 301: (Letter Number(s): 104, 212, 237, 351, and 362)

The Forest Service should complete additional analysis of the effects changes to the Secure Rural Schools and Community Self-Determination Act may have on local governments. A return to sharing 25% of forest revenues under today’s diminished timber program would be devastating to the local counties.

Response:

A return to the 25% Payments would result in a large reduction in federal payments to the counties within the analysis area. The effects of this change in returns to counties was described in the DEIS. The FEIS describes the change to payments to counties by alternative, as well as the reduction in jobs and income from a return to the 25 % Payments (see the “Employment and Income” and the “Payments to Counties” sections within the Environmental Consequences of the Social and Economic Environment of Chapter 3).

Economic General: Category 1250

Public Comment 302: (Letter Number(s): 237 and 332)

The 1987 Forest Plan should be the baseline against which the social and economic effects from the draft Plan should be evaluated.

Response:

There is no requirement that the 1987 Forest Plan should be the baseline against which the social and economic effects from the revised Forest Plan should be evaluated. NEPA requires a No-action Alternative to be analyzed in detail and included in alternative comparisons. The No-action Alternative for the Forest Plan was identified as the current management that is occurring under the 1987 Forest Plan, which includes all amendments to date. Significant amendments, such as the Grizzly Bear Access Amendment and INFISH, underwent NEPA and analyzed the social and economic effects from the amendment. Thus, these effects have already been analyzed. The correct “baseline” is the No-action Alternative as identified in the FEIS.

Social General: Category 1256

Public Comment 303: (Letter Number(s): 35, 287, and 383)

The Forest Service should protect and preserve the Forest and its resources for future generations. Social values must be considered in recommending wilderness, demonstrating public support, and prompting Congress to take action on Agency recommendations.

Response:

The mission of the Forest Service is to sustain the health, diversity, and productivity of the forests to meet the needs of present and future generations. The Forest Plan provides for restoration of vegetation and aquatic resources while generating sustainable outputs and uses. The Forest Plan also provides for protection and conservation of resources. The revised Forest Plan desired conditions, standards, and guidelines provide protection for resources and chapter 3 of the FEIS describes the effects by resource.

In addition to resource restoration and protection, the revised Forest Plan recommends areas to Congress as wilderness. Social values were considered in recommending wilderness. The wilderness evaluation, documented in appendix C of the FEIS, contains an assessment of the capability, availability, and need for each inventoried roadless area. As described in appendix C, once the assessment is complete, factors such as size and shape, manageability, and comments from the public were used in determining areas to be recommended to Congress as wilderness.

Social General: Category 1256

Public Comment 304: (Letter Number(s): 146)

The Forest Service should include a socio-economic analysis that includes the following:

- A) Impacts on the public owning OHVs and looking for opportunities to use them and landowners who purchased property with the intent of being able to access and recreate using motor vehicles and clarify to the public; and
- B) An evaluation of conditions contributing to learned helplessness including the lack of recognition and attention to the needs of motorized recreationists and the significant social problems that result from these conditions.

Response:

Both of these comments are outside the scope of our analysis.

Social General: Category 1256

Public Comment 306: (Letter Number(s): 341)

Socioeconomic Goals: There is no mention of "commercial harvest" diversity, so that this is no prescription for improved future conditions. The key to rural development from the many years of rural development research is that diversity, more than quantity, is the key to a healthy local economy. The Forest Service needs to promote small sales geared for high quality product removal in small volumes for a diversified wood product industry and the provision of local construction materials. Most of the jobs and money to be made in the proposed plan will go out of the area and not to local workers because there is no appropriate attention to the scale of needed timber sales.

Response:

Although the goal under timber does not mention a diversity of commercial harvest, the first desired condition (FW-DC-TBR-01) includes a desire for “a sustainable mix of timber products ... is offered under a variety of harvest and contract methods...” This provides direction for a diversity of commercial harvest. The direction is to provide different sized sales, which would include small sales, utilizing different contract methods, which would include stewardship sales. Actual types of products and sale size will be determined at the project level.

DEIS General: Category 1257

Public Comment 305: (Letter Number(s): 154)

The Forest Service should consider that the DEIS does not accurately portray the likely employment numbers that would derive from each alternative, and thus misleads the public on the benefits of the various alternatives. Table 101 (DEIS, page 421) lists employment by alternative. Only the timber program produces a difference in labor numbers according to this table. This is also the case with the economic efficiency analysis. The spread of present net value between alternatives is negligible. The DEIS misleads the public of the net benefits of the various alternatives.

Response:

Employment and income figures were based on expected output, activity, and use levels. Most outputs and uses are not expected to change between alternatives. Range use (in the form of head months), mineral production, and recreation use figures are constant for all alternatives. Returns to counties and timber production levels do vary by alternative. However, under a limited budget, the amount of timber predicted to be sold does not fluctuate greatly by alternative. This limited change between alternatives results in only slight variations in jobs and income. Under all alternatives, jobs and income are similar and increase above current levels because of an expected increase in recreation use.

As described in the FEIS (under the “Lifestyles, Attitudes, Values, and Beliefs” section of the Social and Economic Environmental Consequences), recreation use is expected to increase under all alternatives. Based on the projected change in population over the next decade, recreation use is expected to increase under all alternatives for both motorized and non-motorized. Because of the overall size of the Forest and the availability of alternate areas for use, the change in access opportunities by management area for each alternative are not expected to result in any decrease in motorized or non-motorized use. Users will have areas to recreate under all alternatives analyzed. Use numbers by type of recreation is not expected to change; however, satisfaction with use would vary by alternative. See the response to Public Comment 300.

Because of the constancy of recreation, range, and mineral production between alternatives and only small changes in timber production given current budget levels, the projected jobs, income, and present net value does not vary greatly by alternative.

DEIS Affected Environment: Category 1258

Public Comment 307: (Letter Number(s): 221)

The Forest Service should consider the following in describing the affected environment for the socio-economic analysis:

- A) Clarifying whether the Kootenai Tribe is included as part of the government sector or another category; and
- B) Clarifying what is included in the various categories in table 119 and table 122 and defining the “Government” sector, what is included in the categories in table 119 and the definition of “Intergovernmental Revenue” as used in table 122.

Response:

The information on employment by industry was obtained from the Bureau of Economic Analysis. Both of these sources classify all government-owned enterprises into one or more government sectors. This includes all tribal enterprises.

The “% Wildland Government” values found in table 119 of the DEIS reflect the percent of total county labor income that is associated with the labor income paid to employees (and the multiplier effect of the spending of those employees in the economy) of federal land management

agencies, such as the USDA Forest Service and Soil Conservation Service, USDI Bureau of Land Management, Fish and Wildlife Service, National Park Service, Bureau of Indian Affairs and a portion of the Army Corps of Engineers.

For the other categories in table 119, grazing is the labor income connected to the IMPLAN sectors of ranch and range fed cattle, and sheep, goats, and lambs. The category of “timber” includes the labor income associated with all of the primary timber processing sectors of the economy, such as logging, sawmills, pulp mills, etc. It does not include secondary processing, such as wood furniture manufacturing, windows, and doors, etc. Mining includes the primary processing of minerals and ores, such as copper, silver, gold, coal, sand, and gravel, etc. Finally, the recreation category includes the labor income associated with recreation visits on federally managed lands. Given these definitions, tribal enterprises connected with any of these activities would be included. Recreation on tribal lands would not be included.

The definition of intergovernmental revenue, as used in table 122 of the DEIS, is unclear. According to the US Census Bureau, there is ongoing dialogue surrounding where to include revenues coming into a county from tribal lands. Some of this revenue shows up as intergovernmental revenue and some under miscellaneous revenue. For the definitions of the categories used in table 122, see Section 4.3, Chapter 4 of the US Census Bureau publication, Government Finance and Employment Classification Manual, and (http://www2.census.gov/govs/pubs/classification/2006_classification_manual.pdf).

DEIS Alternatives: Category 1259

Public Comment 308: (Letter Number(s): 146 and 330)

Economic and social analyses should be given equal consideration as ecological analyses.

Response:

The projected consequences to the economic and social environment, along with the ecological consequences, are given consideration by the decision maker in making her decision. The Record of Decision documents the rationale for the decision and includes the consideration of effects to the social and economic environment.

DEIS Environmental Consequences: Category 1261

Public Comment 309: (Letter Number(s): 312)

The effects on private property rights and values are inadequately addressed in the DLMP and EIS. For example, landowners with property inside the "buffer zones" along proposed wild & scenic river designations were not contacted and should have been.

Response:

The Forest Plan will not affect private property rights and values. The Forest Plan does not make any decisions regarding use of private property. Information has been provided the public, including landowners adjacent to Forest boundaries, regarding the forest plan revision, with invitations to attend open houses and submit comments on the Forest Plan and DEIS.

DEIS Cumulative Effects: Category 1260

Public Comment 310: (Letter Number(s): 146, 312, 330, 332, and 357)

The effects on local economies are not adequately addressed. The Forest Service must consider the cumulative negative impacts to the local social and economic environment from past and present actions. The social and economic analysis needs to include historic data and not just a three-year average.

Response:

The FEIS did consider the cumulative negative impacts to the social and economic environment. The FEIS has included historic data for most items used to describe the local social and economic environment. For example, local employment and income was described as far back as 2001. Unemployment figures were shown back to 1999. This shows how conditions have changed over the last decade or so. To understand the projected change from current condition to jobs and income, a recent three-year average was used to define “current” in order to smooth some fluctuations that occur from year to year. This “current” condition was then used to compare to projected effects under the alternatives.

DEIS Environmental Consequences: Category 1261**Public Comment 311:** (Letter Number(s): 146, 237, and 332)

The DEIS does not adequately reflect functional economic areas. Neither the Spokane Economic Area nor the Missoula Economic Area fit the Kootenai analytical problem well. Both are too large and trade is too geographically dispersed due to distance, low population density and poor roads. Given the dispersed trading pattern for this area, regional models do not accurately reflect economic conditions on the ground. Furthermore, the IMPLAN model is highly inaccurate. Primary field data should be collected and used in community-based economic input-output modeling. The IMPLAN model does not include any seasonal home spending and it should.

Response:

The impact zone for the KNF did not include either the Spokane or Missoula economic areas. As stated on page 400 of the DEIS, the impact area for the KNF included Lincoln, Sanders, and Flathead counties in Montana and Boundary and Bonner counties in Idaho. These counties were selected based on the concept of a functional economy. Documentation on page 399 explains these counties were also selected based on the potential impact KNF management may have on local communities.

The IMPLAN data are highly accurate. There are few data sets that have undergone the intensity of scrutiny that the IMPLAN data have experienced since the 1980s. The IMPLAN data and software are in wide use by rural development agencies, consultants, universities, state and local governments, and federal agencies, and numerous studies using IMPLAN have been peer reviewed. The IMPLAN data come from highly regarded sources (see table below) and have the great benefit of consistent methodology over time as well as consistency across the country. As the national datasets are put together each year, the data are controlled to the state level and checked against the Bureau of Economic Analysis’ Regional Economic Information System (REIS) data. As the data are estimated down to the county level, a consistent method is used to fill in non-disclosed data. Using nationally consistent datasets that use scientifically defensible data collection methods allow for consistent analysis and procedures to be used for forest planning efforts across the county. More information on the IMPLAN data set can be found at www.implan.com.

Data Type	Source Data	Comments
Industry Sales	<ul style="list-style-type: none"> ▪ U.S. Bureau of Census (Census) economic censuses ▪ U.S. Bureau of Economic Analysis (BEA) output estimates ▪ U.S. Bureau of Labor Statistics (BLS) employment projections 	Total Industry Output equals the value of all sales to intermediate (business to business) and final (consumers, exports) demand

Employment (jobs)	<ul style="list-style-type: none"> ▪ BEA: Regional Economic Information System (REIS) ▪ BLS: ES202 employment security data ▪ Census: County Business Patterns 	Employment (jobs) is defined as average annual employment. It includes full and part time, temporary, and seasonal jobs as well as multiple jobs held by a single person
Labor Income	<ul style="list-style-type: none"> ▪ Employee compensation: <ul style="list-style-type: none"> ○ BLS ES202 ○ BEA REIS data. ▪ Proprietor's Income: Federal tax forms 	Labor Income includes: <ul style="list-style-type: none"> ▪ Employee compensation: the value of wages <u>and</u> benefits ▪ Proprietor's income: Any income received for payment of self-employed work

Primary field data was not used for this analysis. For forest plan revisions, the starting point for developing the economic area of influence is generally the national forest as a whole, encompassing one or more counties. It is normally not necessary, or even desirable, to model down to the community level. Forest Service data (recreation visits, head-months, timber harvest, etc.) are available at a similar scale. When estimating the economic contribution of natural resource management on the Forest, county level IMPLAN data are used, matching the scale of the economic analysis area.

Analysis at a sub-forest level often requires collection of primary data, a time consuming and expensive process. Additionally, small communities often have little infrastructure to capture direct expenditures; therefore, much of the economic activity “leaks” out of these smaller areas. For example, results from a study in Priest Lake, ID suggest that the majority of economic stimulus introduced to the community is lost to other areas. This makes sense due to the relative size of the economy in comparison to nearby cities and towns. In order to capture the whole economic contribution of natural resource management on the national forests, larger analysis areas must be selected.

The annual datasets for IMPLAN capture all production, sales and consumer spending for a year in a specified area. Any spending in the area associated with second home owners is also captured as they purchase goods and services, pay for utilities, etc. in the area. The IMPLAN dataset contains information on sales (Total Industry Output (TIO)) and purchases (Personal Consumption Expenditures (PCE)) down to the county level. It is not possible, however, to discern what percentage of local TIO and PCEs are contributed by second home owners as their activity is rolled up into the total.

In the development of the “Social Accounting Matrix” that is the IMPLAN dataset; local information on place of work versus place of residence income is used to account for in- and out-commuting. In this way, IMPLAN accounts only for income spent locally.

FP General: Category 1263

Public Comment 312: (Letter Number(s): 83)

The Forest Service should consider that the existing Forest Plan was completed in 1987, is outdated because there have been several social, ecological, and economic changes that have occurred, and the existing management direction no longer best serves the needs of the public.

Response:

Agreed, this is one reason for revising the Forest Plan. See the “Purpose and Need” discussion in Chapter 1 of the FEIS.

FP General: Category 1263

Public Comment 313: (Letter Number(s): 258)

The Forest Service should include the real economic benefit of ecosystem services and restoration activities. While timber production is an important component of local economies, it is not the only economic value of the KNF to local communities and the only section of the Forest Plan that formally addresses benefit to communities is the timber section.

Response:

All activities and uses that could be quantified and valued were included in the social and economic analysis. See the “Social and Economic Environment” section of chapter 3 of the FEIS. See the tables entitled “Employment by Program for Current Management and by Alternative (average annual, decade 1)” and “Labor Income by Program for Current Management and by Alternative (average annual, decade 1; Thousands of Dollars)” in the environmental consequences section of the Social and Economic Environment section of Chapter 3 of the FEIS. These tables display jobs and income by resource area for each alternative. This analysis included jobs and income from recreation visits, mineral production, grazing, timber production, forest expenditures (including restoration activities), and returns to counties. See appendix B of the FEIS for more information on how the analysis was conducted.

FP Desired Condition: Category 1265

Public Comment 314: (Letter Number(s): 341)

The Forest Service should consider adding a desired future economic condition that responds to the years of efforts by local environmentalists to encourage the KNF to maintain a growing sales program to replace its reliance on massive timber sales to massive timber companies with diverse, sustainable, and collaborative efforts at management and is desirable from the standpoint of forest and socioeconomic diversity and reality.

Response:

See response to Public Comment 306.

Special Areas

Special Areas - DEIS: Category 1300

Public Comment 315: (Letter Number(s): 321 and 335)

The Forest Service should provide an explanation for the following regarding special areas (MA3) in the DEIS:

- A) How allocation of special areas (MA3) will remain constant for all alternatives, as stated in the DEIS in table 1 on page iv, when Alternatives B-D allocate more lands to MA3 than Alternative A;
- B) Detailed explanation for eliminating many designated and proposed MA3 areas in the draft Forest Plan as compared to those designated and proposed in the 2006 CER;
- C) How boundaries were modified and areas increased from the 1987 Forest Plan ROD (see discussion under Alternative A, page 336 of the DEIS); describe the process used and if there was public comment; and
- D) The Ten Lakes Scenic Area is already managed as a WSA. The KNF needs to explain the implications of adding a scenic area to an area that is already managed as a WSA and explain why additional restrictions are needed to protect the scenic resources. The KNF also needs to explain why it is necessary to add 8,403 acres to the existing 6,542 acres of Special Area designation

within the Ten Lakes WSA. This area has a diverse amount of recreation and should be designated as “recreation/scenic.” The KNF needs to explain why this area isn’t referred to as the Ten Lakes Wilderness Study Area in table 76 of the DEIS.

Response:

A) The statement on page iii of the DEIS is that special areas will remain constant for all action alternatives. Alternative A is the no action alternative (the 1987 Forest Plan as amended), while Alternatives B – D are action alternatives. Special areas were constant for Alternatives B, C, and D. In response to public comment, some adjustments were made to special areas for Alternative B Modified in the FEIS;

B) This information has been provided in the FEIS. See the “Environmental Consequences” section of Special Areas in chapter 3 of the FEIS; and

C) Under the 1987 Forest Plan, some boundaries were adjusted and areas increased following site-specific analysis resulting in minor changes to management area boundaries. Adjustments were made as non-significant forest plan amendments. For the action alternatives (Alternatives B – D, these areas have been reviewed during forest plan revision and some areas dropped and others added, with public review and comment on the DEIS. Based on public comment, adjustments have been made to add some areas and delete others under Alternative B Modified and documented in the FEIS; and

D) The Ten Lakes Scenic Area was designated by the regional forester as a special scenic area in 1964 and has been managed as such ever since. This MA recognizes the scenic values within the Ten Lakes area and is not in conflict with the existing Wilderness Study Area. The area is proposed to be expanded because of the unique scenic values of the area. Because the area is already a wilderness study area, there are no additional restrictions for the scenic area. See the standards and guidelines for MA3 for scenic areas. The name in the table matches the name of the scenic area.

Special Forest Products & Botanical Products

Forest Plan Goals: Category 1357

Public Comment 316: (Letter Number(s): 212)

The Forest Service should consider adding Special Forest and Botanical Products Goal-01 (see DEIS p. 449): The KNF considers ‘treaty rights, customary and traditional uses (including subsistence and other historical uses of plant material by Tribes), the federal trust responsibility to Tribes, and competitive market demands in determining which products would be excluded from or allowed for sale to commercial harvesters. When there is a shortage of any particular special forest product for tribal use, commercial permits will be issued only to the extent that the tribal use can be accommodated (the page cited is from the IPNF DEIS).

Response:

The KNF considers this proposed plan component more of an implementation type item than something that would be appropriate to add to the revised Forest Plan. The Forest will continue to discuss and consult on this issue to provide treaty rights but does not believe an additional plan component is necessary

Timber

Spectrum Model: Category 1402

Public Comment 322: (Letter Number(s): 320 & 324)

The Forest should include a projected sale schedule in the final Forest Plan. Also, the Forest Service should include information on the modeling parameters and the model output from Spectrum.

Response:

An appendix on proposed and possible actions is included in the Forest Plan (see appendix A). In addition, the Forest annually develops a 3 to 5 year timber sale action plan to look at sale opportunities and manage the timber program. This information is available to timber industry and the public.

The Spectrum modeling parameters and model outputs were documented in the draft EIS. See appendix B of the DEIS, pages 19 – 39. This appendix was referenced under the “Timber” section of chapter 3 of the DEIS (page 363).

Spectrum Model: Category 1402

Public Comment 322A: (Letter Number(s): 212)

The Spectrum modeling was constrained by operational and logistical limitations showing only 5,000 acres per year could be feasibly thinned. We are concerned that this limitation will only provide failure to meet the desired conditions and objectives for forest resilience and hope that this numerical constraint will not be used as a production gate on the Forest. The Plan states the objective to treat 250,000 acres over the life of the Plan. Given the current backlog of thinning acres, this would indicate the need for greater thinning to achieve protection and restoration than the 5,000 acres modeled.

Response:

The constraint on thinning in the Spectrum model was based on operational feasibility. Given current budget and workforce, it isn't possible to provide for a higher level of thinning on the Forest. However, this modeling constraint is not a limitation on the actual amount of acres the Forest may thin. This is just a modeling assumption, to improve the ability of the model to provide realistic results regarding effects to vegetation. The forest plan objective to treat 250,000 acres over the plan includes all vegetation treatments, including prescribed burning, commercial timber harvest, and treatment of noxious weeds, as well as precommercial thinning. All of these treatments will provide for forest restoration.

Suitability: Category 1403

Public Comment 323: (Letter Number(s): 247, 284, & 321)

The Forest Service should consider the following regarding timber suitability:

A) The Roadless Rule withdrew land in IRAs from timber production. It states that “[t]imber may not be cut, sold, or removed in inventoried roadless areas of the National Forest System” (36 C.F.R. § 294.13(a)). It is not clear whether the KNFs suitable acres for timber production are in Montana, Idaho, or both states. If the acres identified in the DEIS are in Montana, they are subject to the provisions of the Roadless Rule, and they must be withdrawn from the acreage identified as suitable for timber production;

B) If an area is not roaded or accessible, it should be removed from the suitable timber base; and

C) Table 5 in the DEIS reveals that MA5a – backcountry non-motorized year-round - would be reduced by more than 116,000 acres: from 343,800 acres (15.5% of the KNF) to 227,600 acres (10.3% of the KNF) as a result of implementing preferred Alternative B. Table 6 in appendix B indicates that the number of acres where ‘management precludes timber production’ will be reduced by 52,100 acres, increasing suitable acres by that amount. Please disclose in the FEIS

how those acres are currently designated (i.e., what “management” category or categories these areas currently are that precludes them from being suitable timber in the current Forest Plan).

Response:

A) The citation from 36 C.F.R. § 294.13(a) goes on to say “except as provided in paragraph (b) of this section. (b) Notwithstanding the prohibition in paragraph (a) of this section, timber may be cut, sold, or removed in inventoried roadless areas if the Responsible Official determines that one of the following circumstances exists. The cutting, sale, or removal of timber in these areas is expected to be infrequent.” The regulation goes on to explain the circumstances when timber harvest would be allowed. Page 367 described the acres suitable for timber production that are within an IRA for each alternative. Given the complete citation, timber harvest is allowed in IRAs. The alternatives have very little acreage that is suitable for timber production. Alternative D has the most, with 61,200 acres, or 7 percent of the suitable timber base. The preferred alternative (Alternative B) has only 4,900 acres, or less than 1 percent of the suitable timber base. This has a negligible effect. For the predicted timber volume sold, no harvest would occur within the IRAs;

B) The process to determine suitable timber lands is described under NFMA and the 1982 Rule procedures. There is no law or regulation to remove inaccessible areas from suitable timber lands. However, most of the suitable timber base on the Forest is roaded; and

C) There is no clean crosswalk of Alternative A to the management areas in the action alternatives. Table 5 in the DEIS shows that 343,800 acres in backcountry under Alternative A are split between 5a and 5b (see footnote 2 to the table). The 1987 Forest Plan was not definitive on whether management areas were motorized or non-motorized, and thus the acreage is lumped between 5a and 5b. Thus, there is no comparison for 5a between the Alternatives A and B. The total for 5a and 5b under Alternative B is 391,400 acres, or a 13 percent increase over Alternative A. Additional information has been provided in appendix B of the FEIS describing the difference in timber suitability between Alternative A and Alternative B Modified.

Supply - ASQ & Predicted Sale Volume: Category 1404

Public Comment 324: (Letter Number(s): 95, 195, 208, 214, 225, 237, 284, 287, 320, 332, 334, 351, 362 & 366)

The Forest Service should increase timber harvest to improve forest health, reduce fuel risk, and achieve desired condition. The Forest grows much more than is being harvested. The ASQ should be increased. The objective for timber harvest in the Forest Plan should reflect the ASQ and not the predicted volume sold. Budget should not be a consideration in the objective for timber.

Timber harvest levels need to be sustainable and reliable. The FEIS needs to display the adverse effects on forest health and wildfires from managing at the minimum sale level.

Response:

An analysis was completed to determine the sustainable level of timber harvest in response to desired conditions and management requirements. The results are outlined in the EIS and Plan as the ASQ (unlimited budget) and the predicted volume sold (constrained to current levels of budgets). This analysis process is outlined in appendix B of the EIS. If budgets increase, the Forest has the ability to increase timber volumes above the predicted timber volume sold up to the ASQ level. The ASQ level is the maximum that would be sustainable, given constraints and management requirements for other resources. The Forest cannot harvest what is grown because of limitations from other resources, such as grizzly bear, water quality, and old growth. The EIS does describe the effects on forest health and vegetation composition from management under

current budget levels (see the discussion under the “Environmental Consequences” section of Vegetation in chapter 3 of the EIS).

Our objectives in the Forest Plan were developed to move towards a variety of desired future conditions in the various resource areas. The quantity or amount of each objective was based largely on our current and recent past budget levels. We expect future budgets to stay relatively flat or decrease. It would be disingenuous to portray unrealistic objectives based on unconstrained or much higher budget levels. The objectives are realistic projections of what we expect to accomplish annually or over the life of the Plan. An explanation of the role of budget in developing objectives has been included in the revised Forest Plan.

Supply - ASQ & Predicted Sale Volume: Category 1404

Public Comment 324A: (Letter Number(s): 88)

The allowable sale quantity (ASQ) for Alternative C is below the long-term sustained yield capacity, but is well above the predicted volume for any of the alternatives. This suggests that the predicted volume of timber production for any scenario described in the Forest Plan could be met while maximizing wilderness and non-motorized recreation areas on the Forest, providing suitable incentives are available to accomplish this. In other words, it would be possible to designate all the areas in recommended in Alternative C as wilderness while increasing annual timber production from the current average of 44.4 MMBF to nearly 68.6 MMBF, given sufficient resources.

Response:

You are correct, that the ASQ under Alternative C is above the predicted volume for any alternative. However, the opportunity for timber harvest under Alternative C is more limited than under the other alternatives. There are slightly more harvest opportunities under Alternative B. This is one tradeoff between the alternatives. There are other tradeoffs that are described in the other resource section, such as the reduction in areas for motorized recreation and reduction in areas available for active management to improve vegetation and watersheds under Alternative C.

DEIS General: Category 1405

Public Comment 317: (Letter Number(s): 206)

The Forest Service should establish guidelines for determining ecologically sustainable locations and levels of biomass removal.

Response:

The amount of biomass removed is determined by site-specific analysis. Removal considers standards and guidelines for retention of coarse woody debris, soil productivity, and impacts to watershed conditions.

DEIS General: Category 1405

Public Comment 327: (Letter Number(s): 112, 137, 154, & 321)

Timber harvest should not occur in Inventoried Roadless Areas. As stated in the DEIS, costs are much higher to access timber in the IRAs. Because of the higher costs and potential damage to watersheds, the Forest should not allow timber harvest in IRAs. The draft Forest Plan and DEIS are biased towards timber production. Timber production should be brought into balance with other resources.

Response:

Under the predicted timber volume sold level (with constrained budgets), there is no anticipated timber harvest in IRAs. With higher budgets, there may be some harvest, but it is limited. Timber harvest is a tool for moving our landscapes towards vegetation desired condition, and we do not want to eliminate the use of this tool in IRAs. The analysis on timber harvest levels included the management requirements for other resources.

DEIS General: Category 1405

Public Comment 328: (Letter Number(s): 219)

House logs were not included in the products listed in appendix B of the DEIS (page 42). This has been a large component of sales in the Yaak for years. House logs should be included in the list of products.

Response:

House logs were included as part of the saw log value. This has been clarified in the FEIS.

DEIS Environmental Consequences: Category 1409

Public Comment 329: (Letter Number(s): 242)

The Forest should edit a paragraph in the “Timber” section of the DEIS, which states: “Under Alternatives B and C, where there are more acres in recommended wilderness and backcountry management, there is a greater potential for infestations from insects and disease. There is also the potential for more wildfire. This could result in a short-term increase in timber harvest through salvage sales” (DEIS 368). This statement is confusing and misleading in several ways. The statement makes unqualified assumptions and also brings recommended wilderness into the discussion (an area where salvage sales are prohibited). This paragraph should be removed from the analysis.

Response:

The paragraph has been edited to clarify that the potential salvage sale would occur on lands where timber harvest is allowed.

Forest Plan General: Category 1411

Public Comment 330: (Letter Number(s): 333)

There is concern that landings are not rehabilitated on the Forest.

Response:

This is an implementation issue. Forest direction to reduce weeds and limit soil compaction also applies to landings. These areas are normally rehabilitated as part of the project.

Forest Plan Goals: Category 1412

Public Comment 331: (Letter Number(s): 327, 334, & 358)

The timber goal (Goal-01) on page 24 of the draft Forest Plan states: "Provide a sustainable level of timber products for current and future generations. Production of timber from NFS lands contributes to an economically viable forest products industry." The current and predicted volume does not come close to meeting the demands for current and future generations. Local sawmills could use 100 percent of the sawlogs sold by the KNF annually and still not fulfill their annual

consumption. A more predictable and sustainable flow of sawlogs is needed from the KNF to maintain an economically viable infrastructure.

Response:

The timber goal states production from NFS lands “contributes to an economically viable forest products industry.” National Forest System land is not the only contributor to economic viability of the forest products industry. Production from corporate timberland, state land, private, and other land also contribute to economic viability. The predicted timber volume level reflects the amount of timber that can be produced from the KNF, given current budget levels. Because budgets have been relatively flat, this is the anticipated level. If budgets increase, the KNF can produce up to the ASQ level, which is the maximum sustainable level of timber.

Forest Plan Desired Condition: Category 1413

Public Comment 332: (Letter Number(s): 334 & 338)

Strategic guidance and direction for the forest timber program should not include an emphasis on non-sawlog product removal. FW-DC-TBR-01 (page 24) of the draft Forest Plan states: “A sustainable mix of timber products (including both timber and non-saw timber) is offered under a variety of contract methods in response to market demand.” A better response to market demand must be taken by the KNF with regards to area sawmills, especially when it comes to contract modifications and A-2 specifications such as minimum piece specifications when viable markets do not exist on a scale large enough to handle the amount of product being sold.

Response:

Removal of non-saw timber is important for reducing fuels and restoring forests. There are markets for non-saw materials. The improved utilization specifications result in reduced brush disposal deposits collected and the amount of burning to reduce fuels. The reduced burning helps to address air quality concerns. Utilization of non-saw material is in keeping with National and Regional Forest Service direction to increase availability and utilization of biomass.

Forest Plan Desired Condition: Category 1413

Public Comment 333: (Letter Number(s): 188, 277, 308, 309, 333, 353, & 364)

The Forest heard different things about the use of logging to achieve desired condition. Some felt the use of logging to achieve the desired future condition was acceptable. In general, the timber harvest should pay for itself, but if necessary to improve forest health, appropriated funds may be used. Helicopters should be used in unroaded areas. Some suggested increasing thinning to improve forest health and provide jobs. Others felt the Forest should use passive means to achieve the desired condition, especially in backcountry areas or general forest areas not likely to be logged. Still others felt there should be no clearcutting and no timber harvest on the Forest.

Response:

Under the action alternatives, timber harvest is a tool for moving vegetation towards desired conditions. The level of timber harvest displayed for Alternatives B, C, and D reflect this goal. The possible use of other funding to pay for timber harvest is outside the scope of the Forest Plan. That would be determined at the project level. The use of helicopters in unroaded areas is also a project level decision and will not be determined at the Forest Plan level, as this is specific to ground conditions and location of other roads, etc.

Thinning is included as a tool under the revised Forest Plan for improving vegetation. The amount of pre-commercial thinning is directly linked to budget levels. The amount of commercial thinning is determined at the site-specific project level.

Passive management does not necessarily result in restored ecosystems. Some areas are in need of planting white pine to restore this species that has been decimated by blister rust. Other areas require openings to restore the amount of seedlings and saplings in the vegetation desired conditions. Thus, no management does not equate to restoration of ecosystems.

Because budgets are limited, there are many acres on the Forest that cannot be actively managed. This results in a mix of management activities (such as timber harvest, pre-commercial thinning, and prescribed burning) with no management (resulting in natural processes, such as succession, and wildfires) which moves the Forest towards desired conditions.

Clearcutting is a silvicultural tool for vegetation management. Clearcutting is allowed on the Forest and will be used where appropriate, as determined through site-specific projects. Timber harvest is an allowed use on the Forest and will be used to move the Forest towards desired conditions.

Forest Plan Desired Condition: Category 1413

Public Comment 334: (Letter Number(s): 262)

The Forest Service should consider the following suggestions to mitigate the restraints that budgets place on timber production and achieving the ASQ:

- A) Modify the Forest Plan to realign the suitable timber base so that there are fewer conflicts with sensitive species and old growth;
- B) Include some form of community collaboration which would reduce the potential for project level conflict and legal challenges;
- C) Make the 5 year plan process a part of the Forest Plan and make it collaborative which would help reduce conflict if a broader scale vision was agreed upon by diverse interests;
- D) Include a human resources evaluation as part of the Forest Plan which addresses two main questions; is the agency operating as efficiently as it can, and are planning resources receiving the priority they need to complete the projects that are envisioned as necessary to achieving desired conditions; and
- E) Focus on projects that involve stewardship contracting, or other mechanisms that return the project dollars to the local forest because if projects pay for themselves, or if the needed subsidies are reduced, then constrained budgets should have less of an impact on goals.

Response:

A) Sensitive species and old growth were considered in determining lands suitable for timber production. Old growth, grizzly bear core areas, and riparian areas are not suitable for timber production. See appendix B of the EIS for a description of the analysis in determining lands suitable for timber production; and

B – E) These suggestions are outside the scope of the Forest Plan revision. The 3 to 5 year timber sale action plan is updated annually and will not be included in the Forest Plan. The Forest shares the 3 to 5 year timber sale action plan with the public and communicates with the Stakeholder group on planned sales. The Forest continues to collaborate and work with various stakeholders in developing timber sales. Stewardship contracting is a mechanism that is used when appropriate, based on sale attributes.

Forest Plan Desired Condition: Category 1413

Public Comment 336: (Letter Number(s): 320 & 341)

Regarding the timber forestwide desired condition 2 (FW-DC-TBR-02) which directs the Forest to increase spacing:

- A) Increased spacing may be good for growth, but results in knotty wood. Tighter spacing prevents limb growth and results in increased height; and
- B) The Forest should take into account the long-term needs of the stands and make sure they are adequately opened up to maximize future growth potential.

Response:

Pre-commercial thinning is a tool for reducing competition and improving tree growth and vigor. As stated in the desired condition, this silvicultural tool will be used where appropriate. Analysis at the project scale will look at timber harvest to meet the project's purpose and need, including those opportunities to maximize future growth.

Forest Plan Guidelines: Category 1416

Public Comment 342: (Letter Number(s): 371)

The Forest Service should consider adding the following guidelines to provide additional aquatic resource protection for timber management as follows (although these could as easily be incorporated into watershed, water quality and aquatics guidelines):

- A) FW-GDL-TBR-02 as follows: Vegetation and/or fuel management prescriptions in RHCAs will be for the purpose of restoring, enhancing, or protecting the physical and biological characteristics of the RHCA including riparian management objectives. Vegetation and/or fuel treatments, for the purpose of protecting urban interface, private property and other investment, and public safety in RHCAs shall be designed so as not to prevent the attainment of desired stream function. Fuelwood cutting and salvage in RHCAs is allowed where it will not prevent or retard attainment of watershed, riparian and aquatic habitat and aquatic species desired conditions; and
- B) FW-GDL-TBR-03 as follows: Minimize erosion and sediment production and adverse impacts to soils during timber harvest by consideration of measures such as use of existing skid trails wherever possible; restrictions on skidding with tracked machinery in sensitive areas; using slash mats to protect soils; constructing water bars; creating brush sediment traps; adding slash to skid trail surfaces after recontouring and ripping; seeding/planting of forbs, grasses or shrubs to reduce soil erosion and hasten recovery; as well as recontouring, slashing and seeding of temporary roads and log landing areas following use.

Response:

- A) The retained INFISH decision includes this direction. Under INFISH, vegetation treatment in riparian areas is not allowed unless there is a defined riparian management objective. This is also discussed in the riparian habitat standards in the Forest Plan, FW-STD-RIP-01, 02, and 03; and
- B) The Soil and Water Conservation Practices (SWCP) handbook for the Northern Region directs the Forest to implement best management practices for all management activities such as those described by the commenter (ref: Region 1 SCWP Handbook FSH 2509.22).

Salvage Sales: Category 1417

Public Comment 325: (Letter Number(s): 87, 98, 118, 124, 128, 242, 273, & 333)

The Forest Service should consider prohibiting salvage timber sales:

- A) In the backcountry management areas (MA5a, 5b, and 5c) because these areas provide new habitat for many insects, birds and other wildlife, and the trees need to be left to nourish the land's recovery;

B) Forestwide because it is extremely difficult to salvage timber without negative impacts such as importing weeds, compacting soils, and degrading water quality. Recent scientific studies suggest that salvage logging after forest fires substantially reduces tree seedling regeneration and (paradoxically) increases the fuel loads that raise the risk of future fires (Donato, D. C., J. B. Fontaine, J. L. Campbell, W. D. Robinson, J. B. Kauffman, and B. E. Law. 2006. Post-Wildfire Logging Hinders Regeneration and Increases Fire Risk. *Science* 311:352). In addition, salvage logging does not reduce risk of beetle infestation; and

C) In areas that are not suitable for timber production; the draft Forest Plan allows salvage logging in areas not previously slated for harvest (FW-DC-TBR-03).

Response:

The silvicultural practice of salvage cutting (or salvage logging) is defined as the removal of dead trees or trees being damaged or dying due to injurious agents other than competition, to recover value that would otherwise be lost (see the glossary in the Forest Plan). This practice is typically used on the Forest in situations where trees have been blown down or broken by storms, killed or injured by insects or diseases, or have died as a result of fire. In addition to the objective of recovering some of the economic value of the trees, there are certainly other reasons for that this practice may be used as well. For example, removing damaged or blown down trees in a campground or other administrative site could help to reduce safety hazards. In certain situations, by removing blown down trees the salvage activity could reduce the chance that bark beetles (e.g., Douglas-fir or spruce bark beetles) would breed and multiply in the damaged timber and populations subsequently attack adjacent, otherwise healthy trees. Lastly, by capturing some of the economic value of the dead or dying timber, it is sometimes possible to utilize those funds for other needed restoration activities.

Regarding the removal and utilization of trees that are killed by wildland fires, the impacts would be evaluated on a site-specific, project basis. As required by NEPA, the ecological as well as the economic and social impacts would be considered prior to using this or other silvicultural practices to respond to fire killed timber. At the programmatic level of this Forest Plan, the KNF does not believe it would be appropriate to place a restriction or prohibition on the use of salvage cutting in general, or more specifically, the use of salvage cutting following fires. The authors of the Donato et al. (2006) paper presented preliminary results from a post-fire study conducted in the 2002 Biscuit Fire area of southwestern Oregon and concluded “that postfire logging, by removing naturally seeded conifers and increasing surface fuel loads, can be counterproductive to goals of forest regeneration and fuel reduction.” However, that study occurred in a different region and within a different type of forest and furthermore, there was a substantial amount of disagreement between other scientists’ as to the validity of the study and conclusions (e.g., see Baird 2006 and Newton et al. 2006).

After a fire occurs on the Forest where the use of salvage cutting is being considered, the KNF will consider information such as the studies and viewpoints that are noted above, determine their applicability to the specific post-fire conditions and the overall multiple-use Forest Plan direction for the KNF, and determine how to proceed.

At the programmatic level of this Forest Plan, the KNF does not believe it would be appropriate to place a prohibition on the use of salvage cutting in general, or more specifically the use of salvage cutting following fires and/or the use of salvage cutting in backcountry MAs. In the backcountry MAs (5a, 5b and 5c), the desired condition plan components and standards (e.g., see MA5a, b, c-DC-VEG-01, MA5a,b, c-DC-TBR-01, MA5ak, b, c-STD-TBR-01, pages 62-64 draft Forest Plan) indicate that timber harvesting would be limited in these MAs and that natural ecological processes would be the primary forces affecting the forests.

As far as allowing the practice of salvage cutting on unsuitable timber land, that practice is specifically allowed in the 1982 Forest Plan, planning regulations. Those regulations say: “No timber harvesting shall occur on lands classified as not suited for timber production pursuant to Sec. 219.14 except for salvage sales (emphasis added), sales necessary to protect other multiple-use values or activities that meet other objectives ...” (36 CFR 219.27). The distinction between suitable and unsuitable timber lands is described at length on pages 358-359 of the KNF DEIS, as well as in appendix B (pages 16-17) to the KNF DEIS. Lastly, some quantitative information was added to the FEIS regarding how many acres on the Forest are suitable for timber production, how many acres are not suitable for timber production but where some timber harvest could occur for other reasons, and how many acres could not have any form of timber harvest on them for any reason (see the “Timber” section of the DEIS).

Salvage Sales: Category 1417

Public Comment 326: (Letter Number(s): 357 & 364)

The Forest Service should allow salvage timber sales because so much of the Kootenai Forest is dead or dying and this is not the time in our history to be wasting this vast amount of renewable resources.

Response:

The Forest Plan includes direction allowing salvage logging. See FW-DC-TBR-01 and FW-GDL-TBR-01.

Vegetation

Carbon Sequestration: Category 1450

Public Comment 343: (Letter Number(s): 327)

The Forest Service should reconsider the analysis that was conducted to determine how the alternatives would impact carbon sequestration. Alternatives that harvest the most timber do not sequester the least amount of carbon. Carbon is sequestered best inside forest products such as dimensional lumber and boards. Younger, more vigorously growing trees that come in after manipulation sequester more carbon than dense stagnant forests which are performing primarily maintenance respiration. As trees die, fall and decompose, or are burned, they release carbon back into the atmosphere. Trees that are harvested and turned into forest products store that carbon throughout their effective life. The following quote is taken from the USDA Forest Service website: “Sustainable forestry practices can increase the ability of forests to sequester atmospheric carbon while enhancing other ecosystem services, such as improved soil and water quality. Planting new trees and improving forest health through thinning and prescribed burning are some of the ways to increase forest carbon in the long run. Harvesting and regenerating forests can also result in net carbon sequestration in wood products and new forest growth.”

Response:

As indicated on page 73 of the KNF DEIS: “On the KNF, carbon stocks will vary over coming decades in response to complex and uncertain interactions between climate variability and change, age structure, disturbance-recovery processes, and possible effects of carbon dioxide concentrations on forest productivity. High severity fires or large scale tree mortality from bark beetles will affect the amount of carbon sequestered by the KNF. An increase in root disease, with its associated limitation on the growth of stands, could lead to a reduction in the ability of the

Forest to store carbon. In addition, timber harvesting will affect the amount of carbon stored and the short-term net flux of carbon with the atmosphere.”

As indicated by that paragraph in the DEIS, there are many factors that influence carbon sequestration in a forest and those factors often interact among one another in complicated ways. It would be entirely too simplistic to say that a management alternative that harvests more timber would sequester less carbon compared to an alternative that harvested less. Neither in the DEIS nor in the primary document that was referenced (the KIPZ Climate Change Report that contained a section related to carbon sequestration) was that conclusion reached. Rather, those documents discuss the many factors that influence the ability of a forest to sequester and store carbon and present some general estimates of how much carbon might be sequestered in the future based on modeling the various management scenarios associated with the alternatives. However, as the KIPZ Climate Change Report indicates (see pages 62-63 in that document), there are many key sources of uncertainty in projections on future carbon sequestration trends. Generally, young trees do accumulate carbon at a greater rate than do older ones. However, when considering both above and below ground carbon levels, young stands of trees tend to act as a carbon source (i.e., they give off more carbon than they take in) rather than a sink (i.e., they take in more carbon than give off). This is explained in more detail in the KIPZ Climate Change Report (see figure 27 on page 69). This process is largely a result of all of the decomposition of the dead organic matter that occurs when an older stand has a stand replacing type disturbance (e.g., from harvesting, fire, blow down, bark beetles) and the organic material (both above and below ground) from the original stand decays. Regarding the quote on the Forest Service website (<http://www.fs.fed.us/ecosystemservices/carbon.shtml>) the KNF whole-heartedly agrees with the message in that quote as well as the other information on that site. For example, on that same website, it also says; “The sink of carbon sequestration in forests and wood products helps to offset sources of carbon dioxide to the atmosphere, such as deforestation, forest fires, and fossil fuel emissions.” We concur with that statement as well.

Forest Composition: Category 1451

Public Comment 344: (Letter Number(s): 219 and 273)

The Forest Service should consider that cedar is a worthy resource and restore the cedar and hemlock forests instead of removing them in favor of other species.

Response:

As indicated on page 11 of the draft Forest Plan, and on page 61 of the DEIS, the desired condition is to have less of the Forest dominated by tree species that are shade-tolerant, fire-sensitive, drought intolerant, and fairly susceptible to insects and diseases. Among others, this includes western redcedar and western hemlock. However, as illustrated in figure 2 (page 12) of the draft Forest Plan, the desire is only to reduce the amount of those species to a small degree. Currently, approximately 11.4 percent of the KNF is dominated by cedar, western hemlock and/or grand fir. The desire is to have those species occupy somewhere between 5 and 11 percent. There are two primary reasons for selecting the specific desired ranges that are depicted in figure 2. First, it is generally recognized in the scientific literature that the most effective approach to maintaining biodiversity, and therefore the sustaining forest ecosystems, is to manage them so that the conditions and processes approximate the range of conditions that occurred historically and with which all of the native species and communities evolved under. Second, when considering how climate change may affect forest vegetation, the same general goals regarding what the desired forest composition should be are appropriate. That is, relative to the current conditions, the desire is that the forests contain a greater abundance of tree species that demonstrate more of the following traits: less susceptibility to being killed by forest insects and

diseases, more resistance to fire, more tolerance of drought, relatively long-lived, and being more productive.

On very moist sites or wet sites, as described on page 18 of the draft Forest Plan, the desire is to have "...an abundance of large, old, mature forests occur and are often dominated by the climax western hemlock and western red cedar." It is mainly on the drier aspects within the warm/moist biophysical setting, that we would like to see the amount of cedar and western hemlock decreased. On those drier sites, those species tend to be more susceptible to periodic droughts and insect/diseases.

Forest Size Class: Category 1453

Public Comment 346: (Letter Number(s): 321)

The Forest Service should clarify what action or natural event led to the distribution of size classes that currently exists on the Forest as indicated in figure 8, including information regarding the percent of seed/sap, small and medium size classes that are the result of: 1) mechanical removal (logging); 2) prescribed burning; 3) wildfire; and 4) disease (bug kill, root rot, etc.) and what percent of the decrease in large trees is due to each of the four factors.

Response:

The natural disturbance events, ecological processes as well as the human actions that have created the current distribution of tree size classes are described at length in the DEIS (pages 46-60). In addition, more general information is contained in the AMS (both the AMS and the accompanying Technical Report for the AMS) on this topic.

While it is possible to qualitatively characterize the key factors that were responsible for creating the various size classes of trees, a quantitative estimate of each of the size classes that resulted from the various natural and human actions is not available and a precise estimate is not possible. In many instances, the current size class of an individual stand is a function of more than one natural disturbance and/or human action (or inaction), as well as interacting ecological processes (e.g., plant succession) and environmental site factors (e.g., moisture, temperature, soil types). As an example, a specific stand that is currently in the medium size class and that is even-aged, may have established itself after a stand replacing wildlife in the early 1900s, but it may be in the medium size class now because fire suppression activities prevented an intense wildfire from burning it up and "cycling" it back into a seedling size stand. Therefore, is that medium size class stand a result of a natural wildfire or is it a result of the human action of fire suppression? Along those same lines, that same stand may have developed into the large size class by now if it had been "thinned" (either by a human activity or by a natural disturbance event that only killed some of the trees) in the past, thereby reducing the density of trees in the stand and giving the remaining ones more resources (sunlight, water and nutrients) to grow larger.

A large proportion of the forest stands that are currently in the seedling/sapling or small size classes occurred as a result of wildfires or regeneration harvest prescriptions. A smaller amount was likely a result of heavy bark beetle or root disease mortality. An even smaller amount was probably created from windstorms, ice storms, and/or heavy wet snow storms. Flooding, avalanches, mass landslides, may have also been responsible for a very small percentage of the stands in these size classes. Lastly, some (likely a small amount) of the stands in the small size class may have otherwise re-burned in wildfires had it not been for fire suppression activities; and therefore, the reason that they are in the small size class rather than the seedling/sapling size class is because of fire suppression.

Many of the stands in the medium size class most likely developed after wildfires in the early part of the 20th century (i.e., after the 1910 wildfire or fires in the 1920s or 30s) or even late in the 19th century (1890s). Although some of those stands were likely a result of early regeneration

type harvest practices, most probably developed after wildfires. A smaller amount was likely a result of heavy bark beetle mortality and/or one or more of the other natural disturbance types discussed in the paragraph above. One reason that there are currently a greater percentage of medium size class stands than the HRV (historic range of variability), has to do with fire suppression. Without wildfire suppression, some of the medium sized stands would undoubtedly have had stand replacing fires which would have cycled them back into the seedling/sapling size class, while other medium sized stands would have experienced mixed or low intensity wildfires which could have acted like a thinning disturbance in which they may have grown into a large size class stand by now.

In regard to the reason why the current amount of the large size class is below the HRV; the primary reasons are likely fire suppression, older timber harvest practices, the lack of enough mechanical or prescribed burning “thinning” type treatments in the medium size class, the introduction of white pine blister rust disease, and the increased susceptibility and vulnerability of the large size class to other insects/diseases as a result of changes to the historical species composition.

Suppressing wildfires that would have burned at low to moderate intensities has prevented some of the medium size class stands (especially those on the drier sites) from moving into the large size class. On the other hand, to some degree, fire suppression has likely prevented the loss of some of the large size class to stand replacing wildfires. However, because low and mixed-severity fires generally occurred two or three times as often as stand replacing fires, and because it is difficult to suppress stand replacing fires relative to lower severity fires, is it probable that fire suppression has had the overall impact of reducing the amount of stands in the large size class.

Older timber harvest practices focused on cutting the largest trees; and therefore, stands in the large size class were more often logged than stands in the smaller classes. As a result of the introduction of the white pine blister rust disease, some stands that would have been classified as being in the large size class due to the number of large diameter western white pine trees, were reduced to the medium (or even the smaller classes) size class as the large white pine died out in the mixed species stands. Another reason for the large size class being less than the HRV, is due to budget constraints that limit treatment (either through mechanical means or the use of fire) of the medium size class stands to trend them towards the large size class, as the historical fire regime may have done. Funding and other issues have prevented the KNF from conducting a lot of these treatments. Lastly, as the composition of the forests have trended towards tree species that are more susceptible to drought, insect and diseases (e.g., root diseases, bark beetles and defoliators) and wildfire mortality, the overall rate and probability of medium size stands transitioning into the large size class stands has likely decreased.

Historic Range of Variability (HRV): Category 1454

Public Comment 347: (Letter Number(s): 212)

The Forest Service should consider traditional ecological knowledge (TEK) along with Western science (also known as scientific ecological knowledge or SEK) when assessing forest health and productivity.

Response:

The KNF understands that TEK and SEK can be complementary to one another in efforts to understand ecological relationships and connections between humans, other living things, and their physical environment. As discussed at length in Mason et al. (2012) and other papers, the idea that these two methods might be combined to produce a stronger resource management approach than either could provide alone is gaining more acceptance (e.g., Pierotti and Wildcat

2000, Michel and Gayton 2002 and Kimmerer 2002). The KNF looks forward to opportunities that may arise in the future to learn about TEK that is held by the Kootenai Tribe of Idaho that could be used to improve the management of the Forest.

Historic Range of Variability (HRV): Category 1454

Public Comment 348: (Letter Number(s): 321)

The Forest Service should provide more information on the FIA data that was used to quantify the current tree species and size classes, and should provide an explanation on why the information in figure 9 of the DEIS cannot be used to determine old growth amounts.

Response:

The FIA information that was used to depict the current condition of the forest composition and size class on the KNF was collected between 1993 and 1995 and covered the entire forested area. The inventory procedures are described in detail in the project record and on the internet at <http://www.fia.fs.fed.us/>. Since the FIA plots on the KNF were last inventoried, a relatively small amount of the plots on the Forest may have changed in their composition and/or size class due to a number of factors. Timber harvests and/or wildfires are probably the most likely causes. During the analysis of the FIA information, plots that may have been modified by harvesting or fires since they were inventoried were removed from the sample. A total of 2,357 plots occurred on the KNF with 258 being removed from the analysis due to harvest and/or fire disturbances occurring in the area since they were inventoried, and 171 plots were removed because they were very sparsely treed. Therefore, a total of 1,928 plots were used to describe the composition and size class distribution on the Forest. At the scale of the entire Forest, the 90 percent confidence intervals around the means are general 1 or 2 percent. Project file documents contain more detailed information. As described on pages 49-50 of the DEIS as well as in project file documents, the FIA data was used to describe the forest composition and size class when non-spatial analysis was conducted.

The methods that the KNF uses to determine how much old growth exists on the Forest are described on pages 64 and 65 of the DEIS. Additional information is also referenced on those pages. Figure 9 (page 64 of the DEIS) cannot be used to determine old growth because, as described in more depth on page 64 of the DEIS, the old growth criteria are specific to forest type and habitat type group, and are defined by a minimum number of trees of a minimum age and diameter, with a minimum stand density. Figure 9 only contains information on stand age; it simply does not contain all of the necessary information that is required to determine old growth. The purpose of figure 9 is to display the approximate age distribution of forest stands on the KNF. The age information displayed in that figure was derived from FIA data. FIA plots that occurred in areas that had timber harvesting, wildfires, and/or land exchanges since the plot data was collected were removed from the analysis sample. More specific information and methodology (i.e., confidence intervals and other statistical measures) that was used or generated from that analysis is included in project records.

Historic Range of Variability (HRV): Category 1454

Public Comment 349: (Letter Number(s): 321)

The Forest Service should expand the HRV analysis to include population levels of wildlife, fish, and avian species and should consider publications such as Frissell and Bayles (1996) and Noss (2001) when conducting the HRV analysis.

Response:

On page 47 of the KNF DEIS, we state: “The broad vegetative management approach that is being used in the draft Forest Plan is one of providing ecological components, patterns, and processes at multiple scales on the landscape, and thereby providing the full spectrum of habitats and conditions needed for all the biological organisms associated with the various ecosystems.” On pages 47-49 of the DEIS, a substantial discussion is presented as to why we used the HRV strategy as a “coarse-filter” approach for ecosystem management. The introduction to the Vegetation Affected Environment section of the FEIS, the AMS (see pages 9-11), and the Forest Vegetation Specialist Report in the project record, provide more information on that general topic. In the “Methodology and Analysis” section of the Forest Vegetation Specialist Report, we provide the following paragraph that provides additional explanation on how HRV was used:

“The HRV analysis focuses on forest composition, structure, landscape pattern, and processes (disturbance and succession). Not only was the HRV considered in revising forest plan direction, but the potential impacts that climate change might have on the future range of variability was contemplated. The concept of comparing current vegetation conditions to both the historical as well as the potential future conditions is described by Gärtner et al. (2008). In summary, this approach is designed to provide insights into how ecosystems have changed, as well as how they may change in the future. The knowledge gained from this approach can then be used to “inform” management decisions regarding how climate change may affect future landscape conditions (Keane et al. 2008). Given these insights, climate change adaptive strategies such as fostering “resistance” and “resiliency” in the forest ecosystems can be considered.”

Within the Forest Vegetation Specialist Report in the introduction to the “Affected Environment” section, there is a more thorough discussion of the biological and ecological concepts behind the use of the HRV concept as well as rationale for why forest vegetation provided the focus for the HRV analysis. Lastly, that section also indicates how climate change and the potential future range of variability (FRV) was considered in establishing desired conditions for forest vegetation and other ecological aspects of the Forest Plan. Please see the various sections of the DEIS, AMS, and Specialist Report that are noted above for more information.

It is recognized that managing for HRV, or the “coarse-filter” approach, may not adequately provide for specific habitat components for certain species (pages 187-188 in the DEIS). The “fine-filter” approach was used to ensure that specific habitat requirements for specific species would be maintained or improved, if those habitat requirements would not be adequately provided by the “coarse-filter” approach. Examples of the “fine-filter” approach to providing viability can be seen in the form of species-specific direction in the revised Forest Plan. The Wildlife Specialist’s Report analyzed, in-depth, how managing for HRV for vegetation (“coarse-filter”) and the species specific direction in the revised Forest Plan (“fine-filter”) would provide viability for specific species.

Regarding Frissell and Bayles (1996), this is an opinion paper written by authors who propose watershed reserves/refugia for the maintenance of aquatic diversity and sustainability. For example, in the abstract for their paper, they state: “To provide for rational, adaptive progress in ecosystem management and to reduce the risk of irreversible and unanticipated consequences, managers and scientists must identify catchments and aquatic networks where ecological integrity has been least damaged by prior management, and jointly develop means to ensure their protection as reservoirs of natural biodiversity...” The authors present cautionary arguments in their paper regarding the use of the natural range of variability approach for ecosystem management, and we believe we have considered their points along with the more recent, and numerous papers on the general topic of using HRV.

The report written by Noss (2001) titled “Biocentric Ecological Sustainability - A Citizen’s Guide,” focuses on the general topic of ecological sustainability. The KNF provided a substantial discussion of this topic in the AMS (see pages 7 and 9-11), the DEIS (see page 47) and within the Forest Vegetation Specialist Report (pages 6-8). The KNF agrees that ecosystems have three basic components: composition, structure, and function. We further agree that ecosystem composition includes all the species.

Landscape Pattern: Category 1455

Public Comment 350: (Letter Number(s): 333)

The Forest Service should lay out cutting units in much more creative patterns than has previously been the case, with irregular borders and leave islands, for both ecological (i.e., connectivity) and aesthetic purposes.

Response:

Forest plan components in the draft Forest Plan for the KNF provide general direction for aesthetics and landscape patterns (see FW-DC-AR-02 on page 9, FW-GDL-AR-01 on page 11, FW-DC-VEG-05 on page 13, and FW-DC-VEG-11 on page 16). In addition, substantial management direction already exists on the topic of aesthetics in Forest Service Manual FSM 2380 and Agricultural Handbook HB 701 (Landscape Aesthetics, a Handbook for Scenery Management). In regards to the specific issue of how scenery is managed when harvesting timber or conducting other vegetation management activities, there is a separate 223 page handbook dedicated to that topic (Agriculture Handbook 559). Given the existing handbook and manual direction, as well as the forest plan direction that was included in the draft Forest Plan, the KNF does not feel any additional direction is necessary.

Old Growth General: Category 1456

Public Comment 351: (Letter Number(s): 128, 250, 268, 273, 294, 321, 333, and 384)

The Forest Service should consider the following regarding old growth:

- A) The need to project more old growth stands;
- B) Only allowing treatments within dry old growth stands;
- C) Establishing a robust monitoring plan for old growth stands that is treated;
- D) Prohibiting all logging in old growth stands;
- E) Prohibiting road construction in old growth stands;
- F) Requiring that only stands that meet the definition of old growth be included in the minimum requirements for old growth retention;
- G) Designating a specific MA for old growth;
- H) Prohibiting logging next to old growth stands to minimize edge effect;
- I) Establishing a requirements to protect the largest, oldest live trees from logging;
- J) Designating recruitment old growth;
- K) Establishing requirements for minimum old growth stands or patch sizes;
- L) A requirement that old growth inventories continue;
- M) Maintaining the standards in the 1987 Forest Plan for minimum old growth amounts, distribution etc.; and
- N) Establishing a requirement regarding the distribution of old growth on the Forest.

Response:

To address the numerous comments that the KNF received regarding old growth, a substantial amount of additional information was included in the revised Forest Plan. Please see the old

growth subsection of the “Vegetation” section in the FEIS for additional details on many of the responses that are provided below.

A). Please see the response below for Item M.

B) and D) The KNF disagrees with the idea of including a component into the Revised Forest Plan that would prohibit logging in all old growth stands under any circumstances, or limit treatments in old growth stands to just stands that occur on dry sites. Please see the discussion of this issue in the forest vegetation section of the FEIS for more information.

C) Chapter 5 (pg 97) of the draft Forest Plan included inventory and monitoring components associated with old growth. Those components are essentially representing a summary of how the Forest has been monitoring and reporting on old growth for many years. After releasing the Draft plan and DEIS, edits and modifications were made to the old growth related monitoring components. However, the basic intent remained the same. In Chapter 5 of the revised Forest Plan, there are three monitoring components (MON-VEG-01-04, MON-VEG-01-05 and MON-VEG-01-06) that address old growth management. Those components indicate that both the FIA data as well as the Forests’ stand inventory information would be used to monitor old growth, and the Forests’ stand inventory information would also be used to monitor recruitment potential old growth (currently called replacement old growth). Lastly, MON-VEG-01-06 indicates that old growth that is treated would be monitored as well.

E) The draft Forest Plan (page 22) contained direction in FW-GDL-VEG-02 that relates to road construction or other developments in old growth. That direction remains the same in the revised Forest Plan. The direction indicates that both road construction (either temporary or permanent) as well as other developments should generally be avoided in old growth stands unless the road construction was needed to implement activities that were designed to increase the resistance and/or resilience of the stands to disturbances. This direction is generally more restrictive than direction in the 1987 plan.

F) In the Revised Forest Plan and FEIS, we use the term old growth for those stands that meet the Green et al. 1992 definitions. We use the term Recruitment Potential Old Growth for stands that we previously called Replacement Old Growth. Please see the forest vegetation discussion in the FEIS for more information.

G) The IPNF does not believe assigning old growth stands to a specific MA is necessary nor would doing so be helpful in the management of the old growth resource. The revised Forest Plan contains direction for old growth stands in a number of plan components and we fail to see how assigning these stands to a specific MA would provide any additional value in doing so.

H) We realize that timber harvesting or other activities that occur near old growth stands can have the potential to affect the old growth through blowdown events or other causes. This may occur when conducting prescribed burning near old growth stands or when allowing natural, unplanned fires to burn in and around old growth stands. We did not include plan components in the revised plan because there are simply too many variables and it would be difficult to write specific language for all the circumstances that would be meaningful.

I) Essentially the KNF is “protecting” the largest, oldest trees on the Forest with the new Forest Plan components that are part of the Action Alternatives. See the forest vegetation section of the FEIS for more information on the differences between the 1987 Forest Plan direction regarding old growth and the revised direction.

J) As discussed in the FEIS, potential recruitment old growth is going to be managed in the general way that it has been in the recent past. For reasons that are articulated in the FEIS, large old growth “reserves” are not going to be established as they were in the Northwest Forest Plan.

K) While large stands or blocks of old growth are certainly more valuable for wildlife species that prefer or require interior habitat, smaller stands can have other important ecological and social values. For example, some of the cedar groves are much smaller than 25 acres in size but

represent truly unique stands and are irreplaceable within our life spans. The Region One definitions of old growth (i.e. Green et al., 1992) do not specify criteria for minimum patch or stand size. For many situations, it might be reasonable to use 5 acres as the lower limit as suggested by Bollenbacher and Hahn (2008).

L) See the response for Item #C above.

M) Additional information was added to the FEIS to expand on the discussion of what the 1987 Forest Plan direction was for old growth, and why it has been changed in the Revised Forest Plan. Please see the forest vegetation section of the FEIS for details.

N) Old growth stands (and replacement old growth stands) are currently well distributed across the KNF according to the existing Forest Plan standards and other direction (USDA Forest Service 2011, Bush and Reyes, 2013). In addition, regarding direction in the Revised Forest Plan, additions were made to the forestwide component FW-DC-VEG-03 that was presented in the Draft Forest Plan. That component now expresses the desire to have old growth stands well distributed across the various Geographic Areas on the Forest. The KNF has decided that the scale of the GA's is a better scale at which to manage the old growth resource compared to the third order drainage or timber compartments. This item is discussed at more length in the body of the FEIS in the sections concerning old growth.

Snags: Category 1458

Public Comment 355: (Letter Number(s): 273, 321, and 333)

The Forest Service should do more to protect snags from illegal firewood cutting activity, prohibit firewood cutting in old growth stands, and provide clarification on certain aspects of the snag analysis that was conducted.

Response:

While most of the firewood cutting that occurs on the KNF is done legally, the Forest certainly acknowledges that some illegal firewood related activities do occur. As illustrated in the KNF Law Enforcement Plan (see project record), the Forest places a relatively high priority on the issue of timber and other forest product theft and related issues. The Forest Product Removal Permit (FS-2400-1) that is issued to individuals for the purchase and removal of firewood contains approximately 30 conditions and these are enforced by Law Enforcement Officers, Forest Protection Officers, and other employees on the Forest. In recognition that snags may be cut by firewood cutters, even if they should not be cut due to one or more of the conditions of the firewood permit, direction in the revised Forest Plan (see FW-GDL-VEG-05 on page 23 of the draft Forest Plan) says: "Retain snags far enough away from roads or other areas open to public access to reduce the potential for removal (generally more than 150 feet)." The Forest does not feel that additional direction in this programmatic Forest Plan is needed for this issue.

Regarding the suggestion that firewood cutting be prohibited within old growth stands, the Forest does not believe this is necessary. A recent (see project record) analysis that was done across the Forest indicates that only approximately 7 percent of the old growth stands (this includes recruitment potential old growth as well as stands that currently are old growth) occur within 200' of open Forest Service roads. Therefore, the vast majority of old growth stands are not subject to firewood cutting. While a prohibition on firewood cutting in old growth stands could potentially help to protect snags on 7 percent of the total old growth acres, the administrative and law enforcement activities that would be required to implement that prohibition would be substantial. All old growth stands would have to be signed along roads and maps would have to be developed and provided to the public. Limited law enforcement resources would have to be dedicated to this effort to enforce the prohibition and it would impact the time spent on other issues. Lastly, from the standpoint of snags and their function as wildlife habitat, a recent broad scale wildlife analysis

indicates that wildlife species that tend to require or use snags during their lifecycles will likely have ample habitat in the future on the Forest. The analysis considered natural disturbance events and processes as well as management activities.

While the wilderness/roadless areas on the KNF tend to be higher in elevation on average than other areas of the Forest, by separating the snag information by habitat type groups like was done in table 10 on page 67 of the DEIS, we are essentially compensating for the site factors that generally influence snag size and numbers. For example, on average, we would expect a low- to mid-elevation moist site outside of the wilderness/roadless area to have historically had a similar number and size of snags on a low- mid-elevation moist site in the wilderness/roadless area.

DEIS Affected Environment: Category 1460

Public Comment 356: (Letter Number(s): 321)

The Forest Service should disclose in the FEIS what years the data in the Region 1 Vegetative Map Project was gathered and when the project was completed.

Response:

As disclosed in appendix B (page 18) of the DEIS, the Region 1 Vegetation Map Project was completed in 2004. As described in detail in Brewer et al. (2004), Landsat TM imagery was used for the project and images were acquired in 2002. A detailed description of the methodology that was used to process the imagery and produce the various products created during the project is disclosed in that document and the five associated appendices.

Forest Plan Desired Conditions: Category 1467

Public Comment 359: (Letter Number(s): 206)

The Forest Service should revise FW-DC-VEG-03 to include a stated desired condition for managing areas with an emphasis on old growth recruitment in order for old growth stands to be resilient to disturbances and climate change.

Response:

FW-DC-VEG-03 was revised and a number of edits were made. In the draft Forest Plan in FW-DC-VEG-03 we used the phrase “other lands managed for old growth” to represent what is called “Old Growth Recruitment” in this comment. However, after considering this and other comments, reference to recruitment old growth or other lands managed for old growth was removed from this desired condition for the following reasons. The desire is to increase the amount of old growth on the KNF relative to existing levels. Managing for recruitment old growth is a potential strategy that could be considered to develop more old growth; it is not a desired condition. However, in the FEIS, additional information was provided to discuss ways that could be used to try and encourage the development of more old growth stands on the KNF. Please see the old growth subsection on the “Vegetation” section in the FEIS for additional details.

Forest Plan Desired Conditions: Category 1467

Public Comment 360: (Letter Number(s): 206)

The Forest Service should revise FW-DC-VEG-10 by eliminating “where feasible and appropriate” those words imply that the use of non-native plants might be appropriate, and there are no circumstances where native plants would not be appropriate.

Response:

FW-DC-VEG-10 was revised to eliminate any reference to revegetation and native plants. After considering this comment and existing Forest Service direction regarding the use of native plants for revegetation, restoration, and rehabilitation activities, it was decided that additional direction in this desired condition was not needed. National direction in FSM 2070 establishes policy regarding the use of native plants for these purposes and reiterating that direction in the Forest Plan is not necessary. At the national level of the Forest Service, a strategic framework has been established for the use of native plant materials. Information on that strategy can be found on the following internet site:

http://www.fs.fed.us/wildflowers/nativeplantmaterials/documents/NativePlantMaterialsPolicy_Sept2012.pdf. Lastly, for examples of what kind of activities have been going on within Region One of the Forest Service, and on the KNF, please go to the following internet site:

<http://www.fs.fed.us/wildflowers/nativeplantmaterials/documents/npmreports/fy2011/R1/2011NPMAnnualReportRegionOne.pdf>.

Forest Plan Desired Conditions: Category 1467

Public Comment 361: (Letter Number(s): 206)

The Forest Service should include a more complete description of the desired conditions for alpine (not just sub-alpine) settings in FW-DC-VEG-11.

Response:

The biophysical settings and the vegetation response units (VRUs) that they include were designed as ecological classification systems for forested areas. The DEIS (pages 51 and 52) provide more information on biophysical settings and USDA 1999 provides detailed information on VRUs. The scope of those classification systems does not include non-forested plant communities such as those that occur in alpine environments. As described in the DEIS (pages 5 and 6) and in the AMS, the focus of the vegetation Forest Plan revision topic was forested areas. While the KNF certainly recognizes the ecological importance of non-forested plant communities, they were not emphasized to the degree that a detailed classification system nor a discussion of them was warranted in the Plan or EIS. However, in some situations, rare plants listed on the regional sensitive species list or USFW threatened and endangered list occupy non-forested areas. In that situation, those specific plants are discussed in the rare plant section of the EIS and some forest plan components include direction for them.

Forest Plan Desired Conditions: Category 1467

Public Comment 362: (Letter Number(s): 212)

The Forest Service should provide additional information on western white pine blister rust resistant planting stock and anticipated mortality levels in the future.

Response:

We are highly confident that blister rust resistant western white pine (WWP) seedling stock will be available for the KNF to use in WWP restoration efforts during the life of the Plan. Regarding potential mortality levels from blister rust on rust resistant stock, a fairly recent and comprehensive report was written on this topic (Kearns et al. 2012). After monitoring 22 tree plantations in northern Idaho for 11 years, Kearns et al. found that 22.4 percent of the planted F2 Stock (which is the type of stock being planted today) had been killed by blister rust, versus between 46.9 and 94.7 percent for natural white pine seedlings. However, as the authors of that

report note, it is not known what level of mortality may be expected through the life of the plantations.

Forest Plan Desired Conditions: Category 1467

Public Comment 363: (Letter Number(s): 242)

The Forest Service should consider adding an objective, standard, or guideline to ensure progress towards reaching the desired condition for structural stages (size class distribution).

Response:

In the description for FW-DC-VEG-02 we clearly articulate that the desire is to trend the distribution of the size class of the Forest from the current condition towards the desired condition shown in figure 3 (page 13 of the draft Forest Plan). In addition, FW-OBJ-VEG-01 (page 22 of the draft Forest Plan) contains two distinct elements to it. The second bullet item includes the objective of treating approximately 250,000 acres to “...maintain and/or improve forest resilience, natural diversity...” Treatments that were conducted that trended the size class distribution towards the desired condition would qualify to meet that objective. Lastly, the monitoring program for the Forest Plan (see chapter 5 in the Forest Plan) contains a monitoring question with associated measures that will be used to measure progress towards trending the Forest towards the desired distribution of size classes. For all of these reasons, KNF does not believe it is necessary to create additional plan components for this purpose.

Forest Plan Desired Conditions: Category 1467

Public Comment 364: (Letter Number(s): 341)

The Forest Service should consider that reducing canopy layers, as identified in FW-DC-VEG-04, leads to drought and poor wildlife cover.

Response:

Fire suppression efforts, and to a lesser degree, historical logging practices such as “high-grading,” have generally increased the canopy layers and “understories” in forest stands on the KNF. This, along with a general increase in tree densities, has predisposed more of the forest stands to disturbances such as wildfires, insect/diseases, and moisture stress. The general intent of FW-DC-VEG-04 is to express the desire to reverse this trend. We acknowledge that some wildlife species (and other organisms) require dense, multi-canopied forests and the intent of this desired condition is not to suggest that all stands should be manipulated to decrease density and canopy layers. Rather, the intent is to trend the forests towards having a structure that more closely approximates historical conditions and is also more resistant and resilient towards potential climate change stressors and other disturbances.

Forest Plan Objectives: Category 1468

Public Comment 365: (Letter Number(s): 212)

The Forest Service should edit FW-OBJ-VEG-01 to include a caveat that these species are susceptible to insect and disease mortality, rather than “insect/disease resistant species dominant types” (page 20).

Response:

Western white pine and whitebark pine can certainly be killed by the mountain pine beetle or the non-native white pine blister rust fungus. However, in general, compared to the other species such

as grand fir, Douglas-fir, western hemlock, the western white pine, and whitebark pine are fairly resistant to insects and diseases such as root rots and defoliating insects.

Forest Plan Standards: Category 1469

Public Comment 368: (Letter Number(s): 206 and 212)

The Forest Service should include details in the vegetation standards and guidelines related to the management of the landscape in ways which will benefit whitebark pine because whitebark pine was added to the Region 1 list of sensitive species in 2011 and is a candidate for listing under the Endangered Species Act, further underscoring the need to emphasize the specific goals and actions that the Forest Plan will undertake to assure recovery of this species. Whitebark pine was not included in the list of sensitive plants in the EIS, the final Forest Plan should take note of the fact that it is now on the Region 1 sensitive species list.

Response:

Updates were made to the FEIS in recognition that the status of whitebark pine (WBP) has changed and now that tree species is on the regional sensitive species list and has been classified as a “Candidate” species by the U.S. Fish and Wildlife Service for potential listing on the threatened and endangered species list. See the “Vegetation” section of the FEIS for more details. Regarding the forest plan components that address WBP, there were numerous ones created for the draft Forest Plan to emphasize the desire and need to conduct management activities for this species. For example, FW-DC-VEG-01 articulates the desire to increase the amount of WBP (along with some other tree species) on the Forest. FW-DC-VEG-03 indicates a desire to increase the amount of old growth stands that contain WBP. FW-DC-VEG-09 expresses that desire for all sensitive plant species, including WBP, that ecological conditions and processes be retained or restored, and that geographic distributions are maintained. The forestwide objective FW-OBJ-VEG-01 includes the goal of increasing the amount of certain tree species, including WBP by 120,000 to 150,000 acres during the life of the Forest Plan. In addition to the forestwide plan components associated with WBP that are noted above, most of the individual Geographic Areas (GAs) that are discussed in chapter 4 of the Forest Plan also contain desired condition plan components to increase the amount of WBP where the habitat exist for it in the GAs. The “Vegetation” section in the FEIS also contains a summary of the type of activities that the KNF (and other forests in the region) have been conducting in the past to restore this species. However, as described in that section, both the Canada lynx and grizzly bear have habitat that overlaps the whitebark pine sites. The presence of habitat for those species makes it difficult to aggressively implement restoration activities that are needed for the whitebark pine. Other challenges have been the limited funds that have historically been available as well as the difficult access to many of these remote, high elevation sites. Despite these challenges, the KNF has been and will, continue to conduct restoration projects for this tree. The Forest does not believe additional direction in the Forest Plan would further serve to help the restoration of this species. Please see the whitebark pine discussion in the “Vegetation” section of the FEIS for additional information on the restoration efforts that have been, and continue to occur on the KNF and elsewhere in the region.

Forest Plan Standards: Category 1469

Public Comment 369: (Letter Number(s): 206)

The Forest Service should add standards and/or guidelines for vegetation that would direct activities to limit construction of new roads because they are vectors for the introduction of noxious weeds, include a statement of intent for guidelines for complete pre-project botanical

surveys, and include a set of guidelines for implementing post project monitoring for invasive species.

Response:

Regarding the comment concern for pre-project botanical surveys, please see the response to Public Comment 375.

Monitoring of non-native invasive species is described in chapter 5 (pages 96-99) of the draft Forest Plan. In addition, there is an existing requirement that at least 50 percent of treatments involving the use of herbicides are monitored and that all management activities be monitored for the "...potential spread or establishment of invasive species in aquatic and terrestrial areas of the NFS." (FSM 2903 – item 9 on page 12). For these reasons, the KNF does not feel it is necessary to add or reiterate existing monitoring items in the forest plan components. Lastly, please see the response to Public Comment 282 (A) for additional information on other weed monitoring aspects.

Regarding road activities and their influence on weed spread, please see responses to Public Comment 284 and 61. As discussed in more depth in those responses, there is already substantial direction regarding required prevention and control measures for road related activities. Specifically, pages 3-5 of FSM 2081.2. The KNF does not feel it is necessary to reiterate or add additional requirements to this programmatic plan for this issue.

Forest Plan Standards: Category 1469

Public Comment 370: (Letter Number(s): 212 and 341)

The Forest Service should provide a better description of Green's (1992) description of old growth in STD-VEG-01 so the public can tell what is planned.

Response:

The Green et al. (1992 errata corrected 2008) document that defines old growth forest types for the Northern Region of the Forest Service (including the KNF) is approximately 68 pages long. This includes four appendices as well as lengthy errata corrections. For western Montana, which includes the KNF, there are eight old growth types described in that document. The document and definitions for the various old growth types are too lengthy to include in the revised Forest Plan or FEIS. The entire document is contained in the project record. In the DEIS for the draft Forest Plan (page 64) there is a brief description of the most common old growth forest types.

Forest Plan Old Growth Standards and Guidelines: Category 1470

Public Comment 371: (Letter Number(s): 92, 117, 120, 206, 242, 300, 321, and 323)

The Forest Service should strengthen the standards and other forest plan components to protect remaining old growth and provide for recruitment of future old growth.

Response:

In the FEIS, the discussion on old growth has been expanded to address these comments as well as other old growth related comments. Please see the old growth sections in the FEIS for more information.

Forest Plan Old Growth Standards and Guidelines: Category 1470

Public Comment 373: (Letter Number(s): 242)

The Forest Service should consider including what the desired quantity of old growth is in the vegetation desired condition FW-DC-VEG-03.

Response:

In the FEIS, the discussion on old growth has been expanded to address this comment as well as other old growth related comments. Please see the old growth sections in the FEIS for more information.

Forest Plan Guidelines: Category 1471**Public Comment 375:** (Letter Number(s): 206)

The Forest Service should consider making FW-GDL-VEG-07 a standard rather than a guideline.

Response:

This plan component was made a guideline rather than a standard due to the second sentence that reads: “If needed, conduct field review and provide mitigation or protection to maintain high-quality occurrences (those intact, sustainable habitats) over time.” Not all proposed management activities or projects require that field reviews be conducted for TES plant species or that mitigation/protection measures are identified. Therefore, this portion of the plan component is discretionary in nature and relies on conclusions that are reached when the first part of the plan component is fulfilled, that is: “Evaluate proposed management activities and project areas for the presence of occupied or suitable habitat for any plant species listed under the Endangered Species Act or on the Regional sensitive species list.” For this reason, the KNF believes this plan component fits the description of a guideline better than it does a standard. The general nature of a standard versus a guideline was presented on pages 3 and 4 of the draft Forest Plan.

Forest Plan Guidelines: Category 1471**Public Comment 376:** (Letter Number(s): 242 and 341)

The Forest Service should consider the following regarding the vegetation guideline FW-GDL-VEG-01: limiting the potential treatments in old growth stands to those that occur in the warm/dry biophysical setting, providing more information and clarification on the types of treatment activities that could be proposed to increase the resistance and/or resiliency towards disturbances and stressors, and prior to conducting treatments in old growth, consider other (other than the criteria listed in Green et al. 1992) processes, functions, and organisms such as nutrient cycling and microbial communities that are discussed in Binkely et al. (2007) and Rapp (2003).

Response:

In the FEIS, the discussion on old growth has been expanded to address these and other comments associated with old growth and the potential examples of treatment activities that could be considered in order to increase the resistance and/or resiliency of old growth stands to disturbances and stressors. Please see the old growth sections in the FEIS for more information.

Forest Plan Guidelines: Category 1471**Public Comment 377:** (Letter Number(s): 321 and 341)

Regarding the plan components associated with the management of snags, the Forest Service should: explain how the snag retention numbers provided in table 4 in FW-GDL-VEG-04 were developed (page 23 of the draft Forest Plan), adopt the snag retention amounts that are provided in the Upper Columbia River Basin draft EIS in place of those proposed in table 4 in FW-GDL-VEG-04, and modify the language in the guideline to insure that the largest available snags are retained.

Response:

The desired condition for snags is articulated in FW-DC-VEG-07 (page 14 of the draft Forest Plan). In addition to a narrative, the desired condition includes a table (table 2) that was developed as a result of an analysis done by Bollenbacher et al. (2009). As indicated on page 66 of the DEIS, “To determine historic snag densities, the snag analysis separated the forest inventory data into two categories; areas that occurred in wilderness or roadless areas, and the rest of the Forest. The assumption was that snag levels and distribution patterns in the wilderness/roadless areas provide a better “picture” of historic snag conditions, and represent the best available information as to the historic range and distribution of snags.” The snags per acre information by diameter class in table 2 represent the lower and upper bounds of the 90 percent confidence intervals of the existing snags in the roadless/wilderness areas of the KNF. While snag information in the Upper Columbia River Basin draft EIS may be somewhat relevant to the KNF, we believe the information specifically developed on the KNF provides a better, more site-specific estimate of the historic and desired snag conditions. The snag information presented in FW-GDL-VEG-04 in table 4 was developed in a similar fashion as was the information in table 2 of FW-DC-VEG-07, but the information in table 4 was more separated by seral stage. The snag and live tree numbers in table 4 of the draft Forest Plan came from those presented in table 11 of the DEIS (pg 68), with the only difference being that the numbers provided in table 4 were rounded off to the nearest 0.5 snags per acre as compared to those provided in table 11. A much more detailed description of the snag information is presented in the DEIS on pages 65-68, and in Bollenbacher et al. (2009).

Regarding the comment, needing to modify the language in the guidelines to ensure that the largest snags are retained, direction is already provided. Guideline FW-GDL-VEG-05 (page 23 of the draft Forest Plan) says: “Emphasize retention of the largest snags and live trees ...” Therefore, the Forest does not believe modifications to the language are necessary.

Forest Plan Guidelines: Category 1471**Public Comment 380:** (Letter Number(s): 341)

The Forest Service should consider modifying the language in vegetation guideline FW-GDL-VEG-05 because cottonwood snags should not be considered as generally being persistent.

Response:

Language in FW-GDL-VEG-05 was modified in the revised Forest Plan to reflect this comment.

Watersheds, Soils, Riparian & Aquatic Habitat/Species

Aquatics General: Category 1500**Public Comment 381:** (Letter Number(s): 336)

The Forest Service should seek site-specific restoration opportunities within conservation/restoration subwatersheds to protect aquatic resources.

Response:

The Forest will pursue restoration opportunities wherever they are appropriate, but priority or emphasis will be in those areas that protect or maintain native species populations regardless of scale. Subwatersheds (6th code HUCs) were simply used in the EIS to quantify effect for purposes of the analysis and provide a context for framing the discussion. Site-specific restoration opportunities are not precluded based on the results of the analysis.

Bull Trout: Category 1501

Public Comment 382: (Letter Number(s): 159, 238, 300, 321, and 371)

The Forest Service should consider the following to protect bull trout and restore water quality:

- A) Include standards and directives that would result in meeting the habitat needs of bull trout and other native species, while protecting riparian areas and water quality. In the draft Forest Plan, there are no standards and only two guidelines for aquatic habitat or aquatic species. Aquatic Species Guideline, FW-GDL-AQS-01, allows activities to disturb native salmonids and deliver sediment to their sediment to their habitats with only limitation being the time period for sediment delivery to streams. It is not clear how these few limitations or requirements and operational practices and procedures will promote attaining the Aquatic Habitat and Aquatic Species desired conditions;
- B) Reducing total road densities to below 1.0 miles per square mile in all key, priority, and special emphasis area watersheds containing bull trout and to prevent any increase in road densities;
- C) Reducing roaded areas and increasing wilderness areas; and
- D) Extending critical bull trout habitat to the boundaries of the watershed to enhance the clean water the bull trout needs to survive.

Response:

A) The Forest protects water quality and bull trout and their habitats during project implementation, including timber sales and effects from the existing road network (i.e., barriers and sediment). Some projects such as stream crossing or river restoration projects that disturb soils have the potential to affect aquatic habitats and the Forest mitigates those potential effects to the maximum extent practicable. The intent is not to allow for sediment delivery for all projects, but to recognize the potential and provide operating windows in which to limit the effects of projects on aquatic species and habitats. The direction in FW-GDL-AQS-01 provides this protection. See also response to Public Comment 387.

In addition, the Forest coordinates with US Fish and Wildlife Service (USFWS) under Section 7 of the Endangered Species Act, to reduce or eliminate effects to the species and aid with recovery efforts. The Biological Assessment for the revised plan documents the Forest's intent to protect bull trout and their habitats and help aid in recovery of the species; and is also an example of coordination efforts with USFWS. In addition to the protections for bull trout, under INFISH, Endangered Species Act, Clean Water Act, National Forest Management Act, state laws and regulations, and other agency policy and direction, the revised Forest Plan provides additional conservation and restoration measures for all aquatic species, including bull trout that will protect the species and its habitat from land management activities. See the following for revised Forest Plan direction:

GOAL-WTR-01, FW-DC-WTR-01, 02, 03, 06, and 07, FW-OBJ-WTR-01, 02, FW-GDL-WTR-01, 02, 03, GOAL-SOIL-01, FW-DC-SOIL-01, 02, 03, FW-OBJ-SOIL-01, FW-GDL-SOIL-01, 04, 05, GOAL-RIP-01, FW-DC-RIP-01, 02, 03, 04, and 05, FW-OBJ-RIP-01, FW-STD-RIP-01, 02, 03, 04, and 05, FW-GDL-RIP-01, 02, 03, 04, and 05, GOAL-AQH-01, FW-DC-AQH-01, 02, 03, 04, and 05, FW-OBJ-AQH-01, 02, 03, GOAL-AQS-01, FW-DC-AQS-01, 02, 03, 04, 05, and 07, FW-OBJ-AQS-01, FW-GDL-AQS-01, 02;

B) Although the BO does not specifically require or direct agencies to comply with a road density of 1.0 mi/sq. mi., the Forest will continue to seek opportunities to reduce road densities or address road issues, where appropriate, for the conservation and recovery of bull trout; especially in conservation and active restoration subwatersheds as described in the draft EIS;

C) The Biological Assessment for bull trout provides an in-depth discussion of effects on bull trout and bull trout designated critical habitat because of different management area designations under the revised Forest Plan. Additionally, most forestwide direction for watershed, soils,

riparian, aquatic habitat, and aquatic species will inherently protect the species as will future recovery planning efforts by the US Fish and Wildlife Service; and

D) Designation of critical habitat for bull trout is under the authority of the USFWS.

Riparian General: Category 1509

Public Comment 384: (Letter Number(s): 242, 341, and 353)

The Forest Service should consider the following to protect riparian areas:

A) Providing more information on how the riparian habitat is trending toward the desired condition in the presence of continued timber harvests; and

B) Consider management direction that protects wetlands, marshes, and bogs.

Response:

A) Timber harvest is not allowed in riparian habitat conservation areas unless it maintains or improves riparian management objectives. Effects of past land management practices are considered in the cumulative effects discussion. The Forest has many successful practices and capitalizes on the information gained from past experiences; with the implementation of INFISH and the limited activities allowed within riparian areas it is our professional opinion that in general these areas are improving relative to historic land management practices; and

B) Wetlands and bogs are considered in the Plan and direction is inherent through much of goals, desired conditions, objectives, and standards and guidelines for watersheds and riparian habitat. Wetlands and bogs are included in FW-DC-WTR-01, FW-DC-WTR-02, GOAL-AQH-01, and FW-DC-AQH-01. There is also direction under the vegetation section for peatlands (FW-DC-VEG-12 and FW-GDL-09).

Riparian Habitat Conservation Areas (RHCAs): Category 1510

Public Comment 385: (Letter Number(s): 341 and 371)

The Forest Service should ensure use of riparian conservation areas (RHCAs), which buffer streams from management activities.

Response:

The direction in INFISH, including Riparian Habitat Conservation Areas (RHCAs), is retained in the revised Forest Plan, along with additional direction under Watershed, Soils, Riparian, Aquatic Habitat, and Aquatic Species. See appendix B of the revised Forest Plan for retained INFISH direction. See also response to Public Comment 382.

Soils General: Category 1512

Public Comment 387: (Letter Number(s): 146, 242, 258, 300, and 321)

The Forest Service should consider the following to protect the soil resources:

A) Conduct sediment analyses to evaluate effects from land management activities, during project implementation;

B) Amend the soils section to include research that shows the impact of roads and importance of recontouring closed roads on future soil productivity as well as the impacts of roads, open and closed, on hydrological processes, such as runoff and water storage;

C) Include guidelines to maintain coarse woody debris and other organic matter to maintain soil productivity;

D) Include agency handbook and manual direction in the Forest Plan to ensure detrimental effects to soils do not occur;

- E) Include an inventory of where highly damaged soils occur; and
 F) The Forest Service should amend standard FW-DC-SOIL-03 to include limiting compaction to no more than 15 percent of treatment units because it is a regional soil standard that has to be met.

Response:

A) Effects from land management activities related to sediment are analyzed at the project level. In forest plan revision, sediment is addressed at a broad general scale in order to guide future actions which protect, maintain, or improve conditions at the watershed scale. Site-specific, or project level analysis is the appropriate scale for describing existing (including historic and current data), conditions and analyzing potential changes to sediment levels in streams resulting from implementation of the proposed actions;

B) Effects from roads are addressed throughout the “Watershed” section of the EIS, which includes soils. The Forest recognizes the importance of selecting the appropriate treatment for a given road segment and those considerations are taken into account at the project level or during travel management decisions;

C) The revised Forest Plan includes a guideline (FW-GDL-SOIL-02) and desired condition (FW-DC-VEG-08) to address the importance of leaving organic matter on site, during vegetation management projects, for soil productivity purposes. See also response to Public Comment 235;

D) The Forest is required to implement handbook and manual direction for soils (Forest Service Manual 2500, Chapter 2550 – Soil Management), which includes an assessment of detrimentally disturbed soils when analyzing the effects of projects in accordance with NFMA requirements. The Forest did not include agency handbook and manual direction in the revised Forest Plan, as those policies are inherently required for compliance. Additional direction for protection of the soil resource is provided for in “Watershed, Soils, Riparian, Aquatic Habitat, and Aquatic Species” section of the revised Forest Plan. The Forest is required to meet standards and guidelines (see definitions in chapter 1 of the revised Forest Plan). See also response to Public Comment 235;

E) The revised Forest Plan is a programmatic document and it would be difficult to provide a meaningful analysis of forestwide detrimentally disturbed soil conditions or productivity, given the lack of site-specific data for many areas and scale of forestwide GIS data. Analyses of specific soil conditions are more appropriate during implementation of the Forest Plan at the project level and the Forest does consider detrimental disturbance and productivity during those analyses; and

F) That requirement is not included in the Forest Plan because it is contained in other direction that the Forest must follow. As indicated on page 2 of the KNF draft Forest Plan (under the heading of Implementing the Forest Plan), the Forest Service is required to follow all existing laws, regulations, and policies relating to the management of NFS lands, and the forest plan direction is designed to supplement existing direction and not repeat them.

303d Listed Streams/TDML: Category 1513

Public Comment 389: (Letter Number(s): 371)

The Forest Service should include detailed information related to 303(d) impaired streams and associated TMDLs if available for those waterbodies and describe how 303(d) streams water quality impairment listings factor into selection of Priority Watersheds and passive and active Restoration Watersheds.

Response:

Priority watersheds is a term used in INFISH, but has been adapted in the revised Forest Plan as conservation and restoration subwatersheds. Restoration watersheds were determined through a process described on page 151 of the DEIS and appendix E of the draft EIS. 303(d) listed

waterbodies were not part of the methodology for generating a watershed condition rating; however, the final watershed condition rating can be adjusted by resource specialists with local ground based, or site-specific knowledge.

The State of Montana 303(d) list is available at (<http://cwaic.mt.gov>); the Forest did not duplicate that information in the EIS, as it is generated and maintained by the State and is readily available to the public.

The TMDLs are site-specific direction related to impaired water quality. Although TMDLs are valuable in guiding management of water quality, this information was not included in the revised Forest Plan, because they differ by waterbody or assessment unit. The goals and direction of TMDLs are typically incorporated in project level analysis and decisions.

Watershed Condition: Category 1514

Public Comment 390: (Letter Number(s): 89, 94, 188, 242, 314, 321, 335, 336, 344, and 371)

The Forest Service should consider the following to protect watersheds:

- A) Managing watersheds as a top priority;
- B) Utilize site-specific monitoring and other ecological information to improve the Watershed Condition Rating;
- C) Describing if watershed scale monitoring successfully measures project success at the stream level;
- D) Describe the effects of road density and goals for reductions of roads on each GA because they are very important to watershed health;
- E) Identifying source water protection areas in each GA;
- F) Utilize stewardship authority as a primary tool for restoration; and
- G) The draft Forest Plan does not meet the direction of 36 CFR 251.9, paragraph a, which states: “The Forest Service shall manage National Forest watersheds that supply municipal water under multiple use prescriptions in forest plans.” Municipal watershed need to be protected from catastrophic wildfire through vegetation and fuels treatments.

Response:

- A) Guidance in the revised Forest Plan for Watershed, Soils, Riparian, Aquatic Habitat, and Aquatic Species takes a watershed-based approach to restoration and protection of watersheds. Also, the EIS provides a thorough discussion on the intent to restore and protect water resources;
- B) The watershed characterization effort was used to identify general subwatershed conditions across a large landscape in order to make determinations of resource condition and effects at a large scale. It would be difficult to incorporate smaller scale information that may not have been collected similarly across the entire planning area, and is it likely that this kind of information is available everywhere across the Forest. The characterization model does however take into account both ECA for the entire subwatershed, as well as riparian ECA;
- C) Monitoring watershed scale information is intended to address implementation and effectiveness of implementing the revised Forest Plan and does not measure project level success of stream restoration projects. Project level implementation and effectiveness would be monitored separately if deemed necessary and identified at the project planning level;
- D) The watershed characterization included road densities in evaluating 6th code HUCs (see appendix E of the DEIS). The 6th code HUC can be aggregated to the GA level, if needed. However, this aggregation would not change the effects analysis or forest plan direction;
- E) Source water protection areas will be identified during project implementation, in order to avoid impacts to domestic water supplies;
- F) Although the agency supports the use of the stewardship contracting authority (Section 323 of Public Law 108-7), the use of that authority is determined at the project level, depending on the

restoration needs of a given project. The revised Forest Plan is programmatic in nature and does not make project level decisions on the appropriate mechanism for doing restoration work on the ground; and

G) See response to Public Comment 96A regarding 36 CFR 251.9 and multiple use prescriptions in the Forest Plan. Vegetation and fuel treatments are allowed within municipal watersheds, following forest plan direction and requirements under laws and regulations, such as the 2001 Roadless Rule. The revised Forest Plan provides direction to protect public source water areas (see FW-DC-WTR-04, FW-STD-WTR-01, GA-DC-WTR-02, GA-DC-WTR-LIB-04, and GA-DC-WTR-BUL-02).

Water Quality/Quantity: Category 1516

Public Comment 392: (Letter Number(s): 132, 287, and 349)

The Forest Service should consider the following to protect water quality and quantity:

- A) Maintaining more roadless areas; and
- B) Preserving the water quality of the Scotchman Peak region.

Response:

A) The Forest Plan and associated EIS contain several alternatives considering the protection and management of inventoried roadless areas. Alternatives considered in detail give full consideration to the values of inventoried roadless areas on the Forest; and

B) The revised Forest Plan contains goals, desired conditions, objectives, standards, and guidelines specific to water quality. At the forest planning scale, water quality is addressed at a broad scale in order to guide actions which protect, maintain, or improve water quality. The Scotchman's Peak is designated as MA1b (recommended wilderness) and protect water quality. Projects that might occur within the Scotchman Peak region would be addressed at the site-specific, or project level of analysis.

DEIS General: Category 1517

Public Comment 393: (Letter Number(s): 333 and 371)

The Forest Service should consider the following in the DEIS to protect watersheds:

- A) Explain in more detail how restoration is accomplished through timber harvests; and
- B) Describe in more detail how unconstrained and constrained budget levels might influence projected results and outcomes and attainment of desired conditions for watersheds, water quality, aquatic habitat and species.

Response:

A) Restoration is associated with vegetation management activities because the vegetation treatment moves vegetation towards desired condition, improving resistance and resiliency to disturbance. This, in turn, improves watershed condition. In addition, receipts from commercial activities may be used to conduct other watershed restoration activities, such as decommissioning of roads, replacement of culverts, etc.; and

B) Unconstrained budget levels would lead towards a more rapid attainment of desired conditions, or at least a faster paced trajectory of moving towards desired conditions because of the ability to do more management activities. In developing objectives and most effects analyses, the Forest used a constrained, realistic budget level. Thus, the effect analysis indicates what is most likely to occur, given current budget levels. Considering an unconstrained budget would be unrealistic and could lead to a misrepresentation of the Forest's capacity to attain desired conditions.

DEIS Affected Environment: Category 1518

Public Comment 394: (Letter Number(s): 98, 212, 321, 336, and 371)

The Forest Service should consider the following in regards to the watershed affected environment:

- A) Prioritizing watersheds at high risk to ecosystem function/process rating instead of commodity based values;
- B) Including the specific reference to the Treaty of Hellgate of 1855, Executive Order 13175 and USDA and USFS regulation and policies to recognize the importance of the watersheds and riparian and aquatic species to Tribal hunting, fishing, and gathering and as a domestic water source to the Legal and Administrative Framework for this section of DEIS chapter 3 (Affected Environment and Environmental Consequences) (DEIS pages 138-139);
- C) Including the name of major streams in each subwatershed in figures 17, 19, and 21 (DEIS at 138, 140, 143) so that future monitoring reports can be evaluated in terms of improving watershed conditions; and
- D) Updating native salmonid distribution maps, based on existing or new information and clarifying the conserve/restore watersheds. Upper Libby Creek and Big Cherry Creek may be an overstatement as conservation watersheds, and it is not clear why Upper Grave Creek received no designation.

Response:

- A) Ecological consideration was taken into account, when analyzing for watershed condition, which was then tiered to a biological component to develop priority subwatersheds (i.e., conservation and restoration subwatersheds). The methodology did not take into account commodities. See appendix D of the FEIS;
- B) The Hellgate Treaty and Executive Order 13175 were not added, as they are not directly related to the Watershed and Aquatics topic. It was not clear what USDA and USFS regulations were requested to be added regarding fishing. All legal requirements will be followed by management activities on the Forest;
- C) The scale of the figures in the document does not lend themselves to including the names of all subwatersheds. This information is available in the project record. The watershed characterization spreadsheet is also part of the project record and identifies specific subwatersheds that may be used to evaluate the trend towards desired conditions. Not every subwatershed on the Forest will be monitored, due to logistical constraints and improvements will be based on project level or information that supports changes in watershed condition, based on factors such as road decommissioning or improvements in species distribution;
- D) Distribution of native species is based on the Forest's current knowledge of the species. Upper Libby Creek and Big Cherry Creek were considered as having a watershed condition of "low" (i.e., relatively good condition) and populations of bull trout, westslope cutthroat trout, and interior redband trout and therefore received a priority designation of "conservation." That determination is based on assumptions in the watershed characterization spreadsheet and salmonid assessment spreadsheet, as described in the "Methodology" section of the EIS. Upper Grave Creek was considered secure without a watershed designation, so none was given. Our current knowledge of the species does not indicate that redband trout are present in either the Upper or Lower Lake Creek drainages, as reflected in the salmonid assessment spreadsheet. Redband trout are in the Keeler Creek drainage, a tributary to Lake Creek, according to our current knowledge of the species' distribution.

DEIS Affected Environment: Category 1518

Public Comment 395: (Letter Number(s): 212)

The Forest Service should consider additional analysis on water quality as it relates to water supplies for Kootenai Tribe of Idaho lands since the water used originates on the Forest.

Response:

The water quality protection measures outlined in the Forest Plan would not violate water quality standards under any existing regulations. The agency is required to meet the intent of the Clean Water Act, which includes compliance with state water quality regulations in accordance with EPA direction. If TMDLs are developed in coordination with tribes and water quality limitations can be addressed by neighboring USFS lands, the agency would have to comply with those TMDL requirements. Any land management activities that affect Kootenai Tribe of Idaho lands are consulted on with the tribe.

DEIS Cumulative Effects: Category 1520

Public Comment 253: (Letter Number(s): 300)

The Forest Service should complete a cumulative effects analysis that truly quantifies the effects to watershed health from soil erosion, the road systems, and management activities.

Response:

Watershed condition was taken into account by looking at relative cumulative effects of watershed sensitivity and past land management activities, such as road densities and past vegetation management activities. See appendix D of the FEIS, which provides documentation of what was considered in the overall assessment of watershed condition and the modeled effects of different land management activities to watersheds, soils, and fisheries resources at the landscape scale. The watershed characterization spreadsheet is part of the project record and available upon request and was not included in the FEIS, because of its large size. Furthermore, cumulative effects will be considered during project implementation that will address effects of projects implemented under the revised Forest Plan.

DEIS Environmental Consequences: Category 1521

Public Comment 396: (Letter Number(s): 212, 294, 335, 336, and 371)

The Forest Service should consider the following in regards to the watershed environmental consequences:

- A) Analyzing in more detail the effects of dams and diversions;
- B) Creating a comprehensive management plan to address stream erosion and sediment from high run off events effects on bull trout habitat;
- C) Including more detail on how the watersheds are classified for priority designation;
- D) Describe both historic and current effects from livestock grazing;
- E) Clarifying the inconsistent statements regarding overall watershed and aquatic species effects of the programmatic management alternatives by contrasting active restoration against reducing management; and
- F) Clarifying how the watershed condition trend is classified and by what subject matter expert.

Response:

A) Dams and diversions were not considered to be a major management activity affecting NFS lands and the Forest did not feel that it was necessary to conduct a detailed analysis of those

effects, beyond what was acknowledged on page 180 (“Effects from Dams and Diversions”) of the DEIS;

B) The revised Forest Plan does not require development of a comprehensive management plan for any species. See page 9 of the revised Forest Plan for a listing of the guidance provided in a forest plan;

C) Appendix D provides a detailed explanation on how individual “conservation” and “restoration” subwatersheds were identified. Both the watershed characterization and salmonid assessment spreadsheets are available upon request. The spreadsheets were not included in the DEIS, due to their relatively large size;

D) The effects of grazing are both historic and current and those effects are described in the EIS (page 181);

E) Inconsistencies in the draft EIS were clarified in the FEIS; and

F) Watershed condition is assessed using the methodology outlined in the appendix E of the FEIS. Assessments of watershed condition will be conducted by the appropriate specialists, i.e., fisheries biologists, hydrologists, or soil scientists on a periodic basis (every 5 years) as part of forest plan monitoring.

Forest Plan General: Category 1523

Public Comment 397: (Letter Number(s): 253, 321, and 341)

The Forest Service should consider the following in regards to watersheds in the Forest Plan:

A) Develop specific goals and benchmarks to reduce the declining trend in watershed health;

B) Monitor stream temperature and sediment loading in order to achieve the desired conditions; and

C) Include requirements of 36 CFR 219.19 for maintaining viable populations of native fish and wildlife species.

Response:

A) Neither the draft EIS or the draft Forest Plan describe that there is a declining trend in watershed health and to the contrary, notes that there have been and will continue to be improvements since the implementation of the 1987 Forest Plan. The standards and guidelines for watersheds, soils, riparian and aquatic habitat/species were designed to protect and improve soil and aquatic resources and objectives for these resources will be used to measure improvements in overall watershed health;

B) Water temperature data and stream habitat parameters will not be collected for each subwatershed. Temperature and habitat data may however be collected for project specific analysis, depending on the nature of projects effects and if temperature or aquatic habitat could be affected and those effects would be disclosed. The Forest continues to monitor stream temperature across the entire Forest, although not for every subwatershed, and that data is available upon request. Sediment loading has also been monitored across the entire Forest at strategic locations and may be monitored at the project scale, depending upon the nature of potential effects. That sediment data is also available upon request although data is not available for all subwatersheds.

Chapter 5 of the Forest Plan describes the KNF monitoring program. The Plan states, “The monitoring program forms a basis for continual improvement and adaptive management.” Chapter 1 of the Forest Plan also states “The Land Management Plan is an integral part of an adaptive management cycle that guides future management decision and actions... This adaptive management cycle enables the Forest to identify and respond to changing conditions, changing public desires, and new information, such as that obtained through research and scientific

findings. The Forest’s monitoring program is an integral part of this adaptive management cycle, consisting of monitoring questions and performance measures”; and

C) The revised Forest Plan does meet the direction of 36 CFR 219.19, as evidenced by the effects analysis and the biological assessment for bull trout. The forest plan direction provides the protections necessary to provide habitat for aquatic species. Additionally, the Region 1 Salmonid Multi-Scale Assessment (V6.5) was used to evaluate the status of salmonids within the planning area (appendix E, DEIS).

Forest Plan General: Category 1523

Public Comment 398: (Letter Number(s): 321)

The Forest Service should consider changing soils direction from guidelines to standards.

Response:

The Forest is accountable for all direction in the Forest Plan and guidelines are no less binding than standards but do allow for more operational flexibility. See definitions of plan components on pages 2-4 of the draft Forest Plan.

Forest Plan Desired Condition: Category 1525

Public Comment 400: (Letter Number(s): 212)

The Forest Service should amend standard FW-DC-AQS-04 to recognize the Kootenai Tribe’s co-management authority as was done with standard FW-DC-AQS-06 as a good example of government to government relationships.

Response:

The term “tribes” has been added to FW-DC-AQS-04 in the revised Forest Plan as follows “Coordination with stakeholders, such as tribes, state, and other federal agencies, and adjacent land owners, is emphasized.”

Forest Plan Desired Condition: Category 1525

Public Comment 402: (Letter Number(s): 242, 294,364, and 371)

The Forest Service should consider the following in regards to the watershed desired condition:

- A) Clarifying how the desired condition will be met, without specific standards and guidelines, for aquatic resources, including water quality;
- B) Clarifying that the plan objectives will trend soil and aquatic resources towards desired connections; and
- C) Listing conservation and restoration watersheds in each GA.

Response:

A) Desired conditions are to be achieved through implementation of the direction included in goals, objectives, standards, and guidelines in addition to applicable laws, regulations and policies. Please reference the definitions found in chapter 1 of the draft Forest Plan (pages 2-4) and specific standards for soil and aquatic resources beginning on page 31 of the draft Forest Plan. See also response to Public Comment 382.

The EIS lists applicable laws, policy, and regulations (page 132-134 of the DEIS) but does not try to restate them in the Plan content. The KNF is required to follow laws, regulations, and policies that relate to managing NFS land. The Plan is designed to supplement, not replace, direction from these sources. The Clean Water Act is one of the many laws the KNF is required to follow and the Forest Service is required to protect water quality and abate or mitigate adverse water quality

impacts while meeting other resource goals and objectives (FSH 2509.22). The KNF addresses this mandate by implementing the iterative best management practices (BMPs) process outlined in the Soil and Water Conservation Handbook (FSH 2509.22) at the project level of analysis and implementation. BMPs are mechanisms to develop and apply detailed, site-specific prescriptions and solutions.

The Forest Plan and EIS were reviewed by and comments received from regulatory agencies including the EPA for compliance with the Clean Water Act;

B) Objectives related to watersheds, soils, riparian and aquatic habitat/species were reviewed to ensure they met the definition of an objective found in chapter 1 of the Plan (page 3) and are fully intended to trend soil and aquatic resources towards the desired conditions described. Also, please reference the definition of desired conditions in chapter 1 of the Forest Plan (page 3); and

C) Subwatersheds were not listed for each GA as they are subject to change as the Plan is implemented based on the objectives described in the watershed, soil, riparian and aquatic resources section of the Forest Plan. The designation of “conservation” or “restoration” subwatersheds is available in the project record and can be provided for any scale requested by the public.

Forest Plan Desired Condition: Category 1525

Public Comment 403: (Letter Number(s): 321)

The Forest Service must comply with the 1998 bull trout biological opinion as implementing INFISH will not lead to the recovery of bull trout.

Response:

INFISH direction (i.e., the 1998 BT BiOp) is a retained decision under the Forest Plan and the Forest will comply with that decision. Projects will also be consulted on individually and will be compliant with the Endangered Species Act. See also the biological assessment for the revised Forest Plan and the agencies approach and intent to protect bull trout and trend towards recovery of the species and additional direction beyond INFISH to aid in recovery of the species.

Forest Plan Desired Condition: Category 1525

Public Comment 404: (Letter Number(s): 321, 336, and 371)

There are no mandatory objectives, standards, and guidelines that will ensure progress towards the desired condition for soil and aquatic resources.

Response:

Objectives are designed to help move the Forest towards desired conditions and all standards and guidelines are mandatory. See definitions of desired conditions, objectives, standards, and guidelines in the revised Forest Plan. See also response to Public Comment 402.

Forest Plan Objectives: Category 1526

Public Comment 406: (Letter Number(s): 341)

Large organic debris should be considered as a desired condition.

Response:

The desired conditions for riparian habitat do address the importance of the large wood (large organic debris) recruitment. See also response to Public Comment 236 for RMOs. One purpose of RHCA is to encourage large organic debris recruitment.

Forest Plan Objectives: Category 1526

Public Comment 409: (Letter Number(s): 242, 336, 341, and 371)

The Forest Service should consider the following in regards to the Forest Plan objectives:

- A) Disclosed restoration capacity in terms of current and unrestrained budgets;
- B) Restoring native fisheries and removing exotic fisheries where possible;
- C) Clarifying the language provided for in FW-OBJ-AQH-02 to include the word ‘aquatic’;
- D) Clarifying that a representative assemblage is not the same thing as maintaining biological diversity; and
- E) Explaining what is meant by “enhance” under FW-OBJ-AQH-01.

Response:

A) Objectives in the draft Forest Plan were developed to move towards a variety of desired conditions in all resource areas. The quantity or amount of each objective was based largely on current and recent historic budget levels and the Forest expects future budgets to stay relatively flat or decrease. It would be disingenuous to portray unrealistic objectives based on unconstrained or much higher budget levels. The objectives are realistic projections of what is expected to be accomplished annually or over the life of the Plan. An explanation of the role of budget in developing objectives has been included in the revised Forest Plan. Also, an explanation of the role of constrained budgets in completing the effects analysis has been included in the introduction to Chapter 3 of the FEIS;

B) The state of Montana has jurisdiction over fish populations and manages for population objectives and restoration efforts towards native species recovery and non-native species will be coordinated with Montana Fish Wildlife and Parks as described in FW-DC- AQS-03;

C) The term “aquatic” was added to the objective FW-OBJ-AQH-02 to improve the context of the objective;

D) The objective is intended to be a measure of water quality and indicator of relative aquatic ecosystem health and not an indicator of biodiversity; and

E) Enhance means to improve stream habitat. This is accomplished through activities such as reshaping stream banks to stabilize slopes, removing streamside berm material that disconnects streams from floodplains, etc. See appendix A of the revised Forest Plan for more examples of stream enhancement activities.

Forest Plan Objectives: Category 1526

Public Comment 412: (Letter Number(s): 371)

The Forest Service should revise standard FW-OBJ-AQH-02 to incorporate the Montana Dept. of Environmental Quality’s new Montana macroinvertebrate assessment model and change FW-OBJ-AQH-02 to maintain a score of between 0.80 and 1.20 scores at all sites monitored.

Response:

We agree and the objective FW-OBJ-AQH-02 has been rewritten in the revised Forest Plan as suggested by the commenter.

Forest Plan Standards: Category 1527

Public Comment 413: (Letter Number(s): 294 and 371)

The Forest Service should consider the following in regards to the watershed standards:

- A) Defining the terms short-term and long-term effects; and

B) Including interagency cooperation and coordination during watershed restoration to achieve the desired condition.

Response:

A) The use of these terms has been clarified and reworded in FW-STD-WTR-01 and FW-STD-RIP-01 in the revised Forest Plan; and

B) Watershed desired condition FW-DC-WTR-06 addresses interagency cooperation. In addition, as standard operating procedures, the Forest cooperates with other agencies, when conducting restoration efforts. As an example, see EPA success stories for Montana at:

<http://water.epa.gov/polwaste/nps/success319>, which provides obvious examples of successful cooperation in attaining water quality goals at multi-state and federal levels.

Forest Plan Standards: Category 1527

Public Comment 417: (Letter Number(s): 371)

The Forest Service should address additional activities and situations within standards and guidelines in order to provide clearer and more comprehensive direction for watershed and water quality protection to achieve desired conditions.

Response:

The Forest must follow all law, regulation, and policy direction. The KNF must comply with the Clean Water Act, State regulations, and Forest Service handbook and manual direction. This direction has not been repeated in standards or guidelines. The Forest Plan direction supplements this existing direction. The KNF feels the direction in the revised Forest Plan is clear and will, along with additional law, regulation, and policy, provide protection for watersheds and water quality that will move the Forest towards desired conditions.

Forest Plan Guidelines: Category 1528

Public Comment 421: (Letter Number(s): 341)

The Forest Service should consider revising soil guideline FW-GDL-Soil-03 so that tops, limbs, and needles must be left through 1.5 years instead of 6 months to get microbial interaction.

Response:

The timeframe in the guideline is to leach potassium and not to reach natural decomposition rates for microbes. A longer timeframe would present problems with fuels.

Forest Plan Guidelines: Category 1528

Public Comment 422: (Letter Number(s): 371)

The Forest Service should revise watershed guideline FW-GDL-WTR-01 as follows: At the end of existing guideline add: “The KNF shall work cooperatively with the state, EPA, Tribes, and local watershed groups to support development of TMDLs and water quality restoration plans, assess and validate listings of impaired waters, and prioritize impaired waters on the KNF for restoration.” This will aide in achieving the desired condition.

Response:

The Forest is already required to coordinate with the entities listed in developing TMDLs and implementing the Clean Water Act.

Forest Plan Guidelines: Category 1528**Public Comment 423:** (Letter Number(s): 371)

The Forest Service should consider adding the following watershed guideline, FW-GDL-WTR-03: Ground-disturbing activities in watersheds without water quality impaired waterbodies shall be planned, designed, and implemented to protect and maintain project area watershed conditions and water quality to maintain continued support of beneficial uses.

Response:

This direction is inherent throughout many of the other language in “Watersheds, Soils, Riparian and Aquatic Habitat/Species” section of the Plan, as well as regulatory requirements to comply with the Clean Water Act.

Forest Plan Guidelines: Category 1528**Public Comment 424:** (Letter Number(s): 371)

The Forest Service should consider adding the following watershed guideline FW-GDL-WTR-04: Ground-disturbing activities in watersheds with water quality impaired waterbodies where there are approved TMDLs shall be planned, designed, and implemented to be consistent with TMDLs and water quality restoration plans, and thereby promote improved watershed conditions and water quality and restoration of full support of beneficial uses.

Response:

The Forest must comply with state water quality direction in TMDL assessments and there is no need to add additional language in the Forest Plan when there is already regulatory authority to do so.

Forest Plan Guidelines: Category 1528**Public Comment 425:** (Letter Number(s): 371)

The Forest Service should consider adding the following watershed guideline FW-GDL-WTR-05: The KNF shall consider state listings of 303(d) water quality impaired waters along with fisheries needs as watershed and water quality restoration needs and monitoring activities are prioritized, and restoration activities planned and conducted in restoration watersheds.

Response:

Consideration of listed waters is taken into account at the project implementation level for all watersheds as required by state and federal laws and regulations. The Forest may prioritize work in restoration subwatersheds that may not have water quality impaired segments, depending on site-specific conditions and the project purpose and need.

Forest Plan Guidelines: Category 1528**Public Comment 426:** (Letter Number(s): 371)

The Forest Service should consider adding the following watershed guideline FW-GDL-RIP-07: Wetlands should be flagged and marked on the ground and on maps to facilitate avoidance of disturbance to wetlands.

Response:

Wetlands are identified prior to or during project implementation and required under standard contract provisions for timber sales. This is also required as part of INFISH.

Forest Plan Guidelines: Category 1528

Public Comment 427: (Letter Number(s): 371)

The Forest Service should consider adding the following watershed guideline FW-GDL-RIP-08: Consider including fisheries biologist and/or hydrologist when laying out treatment units and marking trees within riparian areas along streams to ensure adequate riparian and stream protection.

Response:

Treatment units and streamside management zones considered during project level planning and specialists contribute to project development in interdisciplinary settings during the NEPA process. Fisheries biologists and hydrologists are generally included in an interdisciplinary team.

Forest Plan Guidelines: Category 1528

Public Comment 428: (Letter Number(s): 371)

The Forest Service should consider adding the following watershed guideline FW-GDL-RIP-09: Prohibit storage of fuels and other toxicants within RHCAs. Prohibit refueling within RHCAs unless there are no other alternatives. Refueling sites within an RHCA must be approved by the Forest Service and have an approved spill containment plan.

Response:

This is INFISH direction, RA-4. This direction has been retained in the revised Forest Plan and is listed as direction in appendix B. See page 13 of the revised Forest Plan for an explanation of the retained direction in INFISH.

Forest Plan Guidelines: Category 1528

Public Comment 429: (Letter Number(s): 371)

The Forest Service should consider adding the following watershed guideline FW-GDL-AQH-01: Plan, design, and implement new projects and activities wherever possible to maintain or restore structure, composition, and function of habitat for fisheries and other aquatic species, including overwintering, spawning, cover, rearing, and feeding habitat.

Response:

This direction is inherent throughout much of the other Forest Plan direction and with the retained decision INFISH.

Forest Plan Guidelines: Category 1528

Public Comment 430: (Letter Number(s): 371)

The Forest Service should consider adding the following watershed guideline FW-GDL-AQH-02: Require instream flows and habitat conditions for hydroelectric and other surface water development proposals to maintain or restore riparian resources, favorable channel conditions, fish passage, reproduction, and growth. Coordination will occur with the USFWS, MDFWP, and other federal, state, and local agencies. During re-licensing of hydroelectric projects, provide written and timely license conditions to the Federal Energy Regulatory Commission (FERC), that require fish passage and flows and habitat conditions that maintain/restore riparian resources and channel integrity. Coordinate re-licensing projects with the appropriate state agencies.

Response:

This is INFISH direction, LH-1. This direction has been retained in the revised Forest Plan and is listed as direction in appendix B. See page 13 of the revised Forest Plan for an explanation of the retained direction in INFISH.

Forest Plan Guidelines: Category 1528**Public Comment 431:** (Letter Number(s): 371)

The Forest Service should consider adding the following watershed guideline FW-GDL-AQS-03: The KNF shall evaluate the risks of aquatic nuisance/exotic species introduction as part of project analysis.

Response:

As part of moving towards desired conditions, the Forest may consider aquatic nuisance species for project analysis as appropriate. There is no need to require that consideration for all projects, which may not involve live water.

Forest Plan Guidelines: Category 1528**Public Comment 432:** (Letter Number(s): 371)

The Forest Service should consider adding the following watershed guideline FW-GDL-AQS-04: Provide and maintain fish passage at new, replacement, and reconstructed road crossings of existing and potential fish-bearing streams, unless barriers are determined beneficial for native fish and/or sensitive aquatic species conservation.

Response:

The recommended direction is inherent in the INFISH standards and guidelines for roads management. This direction has been retained in the revised Forest Plan and is listed as direction in appendix B. See page 13 of the revised Forest Plan for an explanation of the retained direction in INFISH.

Wilderness**DEIS Affected Environment: Category 1554****Public Comment 436:** (Letter Number(s): 113, 154, and 247)

The Forest Service should consider the following regarding the “Wilderness Affected Environment” section of the DEIS:

- A) Proposed Alternative B retreats significantly from the 1987 Plan’s recommended wilderness for Ten Lakes WSA and its “contiguous area” and misrepresents the facts. The DEIS on page 302 states, “The Ten Lakes contiguous area... and wilderness study area... remain open to snowmobiles in winter while the other recommended wilderness areas are closed to vehicles year-round.” It is problematic that the KNF perpetuates the myth that the Ten Lakes WSA is “open to snowmobiling” when the courts have ruled that that use is limited to 1977 levels;
- B) Clarifying the KNF’s responsibility with respect to snowmobiling in the Ten Lakes WSA per the Court’s ruling and Forest Service policy with respect to WSA management. The KNF has drifted almost 180 degrees off of the publicly stated, NEPA-determined objective for the Ten Lakes WSA. Recognizing that the prevailing social and recreational uses have changed in the Ten Lakes WSA and surrounding forest - in spite of Congress’ intent - the KNF should disclose how far it has drifted from its published 1987 Plan and its intended management;

C) Disclosing the Ten Lakes’ wilderness character and the management actions it is taking to maintain this character in the FEIS because a more explicit discussion is required under NEPA. Specifically, the KNF should be able to demonstrate unequivocally that it is maintaining existing motorized use at 1977 levels, and the FEIS and final Plan should reflect this in the allocation of land within the Ten Lakes WSA for snowmobile and mountain bicycling recreational use; and D) Disclosing the impact of this expanded footprint to wilderness character because of the “difference in use” that has occurred since 1977 due to new technology that has allowed snow machines to access new, higher altitude terrain. The KNF also needs a more robust discussion of mountain bike access. If the KNF is allowing new uses like mountain bicycling in the Ten Lakes WSA, the FEIS needs to at minimum explicitly discuss how these new uses will be offset by a reduction in existing historic uses to ensure there is no loss of wilderness character and that recreation remains at or below 1977 levels.

The revised Forest Plan differs significantly from the 1987 Forest Plan recommended wilderness for the Ten Lakes area. The DEIS does not disclose the Ten Lakes wilderness character or clarify snowmobile management which would maintain the wilderness character as it existed in 1977.

Response:

We agree that the DEIS Alternative B and revised Forest Plan differs from the 1987 Forest Plan recommended wilderness in the Ten Lakes area. The 1987 Plan describes recommended wilderness in both MA8 and part of MA9. In the DEIS chapter three, and revised Forest Plan, the Ten Lakes WSA is allocated to MA1c Wilderness Study Area. Management of the WSA is determined by law, whereas management of recommended wilderness is determined by the revised Forest Plan. The MA1c acreage A is constant for all DEIS alternatives and in the revised Forest Plan. The Forest planning process does not change the status of the Ten Lakes WSA, only Congress can either release from or designate wilderness. Once Congress acts on the MWSA, a forest plan amendment would be required to allocate the Ten Lakes WSA to the appropriate MA. The DEIS does display a range of alternatives for the area surrounding the Ten Lakes WSA, referred to as the Ten Lakes Contiguous Area. Chapter 3 discussion and tables in the FEIS, and appendix C of the FEIS, have been updated to clearly show MA1c (WSA) and recommended wilderness (MA1b). Under the 1987 Forest Plan snowmobiling was ‘permitted’ in portions of the Ten Lakes WSA and contiguous area, while snowmobiling was prohibited in the Scotchman Peaks and Cabinet Additions (MA8). See the “Recommended Wilderness” section of the Affected Environment of the Inventoried Roadless Area section of Chapter 3 of the FEIS.

Standards in the revised Forest Plan include: MA1c-STD-AR-01, Motor vehicle use is allowed where it maintains the wilderness character as it existed at the time of designation (1977) and the potential for inclusion in the National Wilderness preservation system. Under a settlement agreement and stipulation for dismissal to the Montana Wilderness Association lawsuit, pending completion of site-specific travel management plans, the KNF will manage the Ten Lakes WSA in accordance with applicable laws and policy (DEIS page 313). Alternatives considered but eliminated from detail study in the DEIS included site-specific travel management. Travel management, and maintaining the wilderness character as it existed in 1977, in the Ten Lakes WSA will be analyzed in the Galton Project. The 9th Circuit Court of Appeals’ December 2011 ruling on the Gallatin National Forest’s Plan for managing the Hyalit-Porcupine-Buffalo Horn WSA regarding volume of use estimates, will be address in the Galton DEIS. The Galton DEIS is expected in 2013.

DEIS Key Indicators: Category 1558

Public Comment 438: (Letter Number(s): 323)

The Forest Service should explain why the only measure, or “Key Indicator,” of wilderness is “Acres of recommended wilderness” in the DEIS because while this is certainly one way to compare alternatives, it falls short of getting at the relative value of placing the boundaries one place or another. In addition, consider that these areas are not just “acres”, that each area has its own characteristics that will be changed forever or protected depending on which alternative is chosen, and another good “Key Indicator” would be something like: “Does this place stay wild or not?”

Response:

We agree that using the key indicator of “Acres of Recommended Wilderness” is one measure to compare alternatives. Appendix C of the DEIS goes into the detail of each of the 43 IRAs characteristics including capability- basic characteristics that make it suitable for wilderness recommendation. The basic characteristics identified in FSH 1909.12, Chapter 70 were broken down into elements, activities, or features that describe the characteristic and provide a basis for rating. A total of 47 criteria were established and used in rating each of the 43 IRAs. A description of each area has been added to appendix C of the FEIS.

The table entitled “Acres of Inventoried Roadless Area Management Area Allocation by Alternative” in the Environmental Consequences section of the Inventoried Roadless Area section of Chapter 3 of the FEIS show that approximately 80 percent of IRAs are allocated to MA1b, 2, 3, 4 or 5 (backcountry). The table entitled “Inventoried Roadless Area management Area Allocation by Alternative” displays which MAs each IRA is allocated to. Appendix C of the FEIS IRA description shows the number of acres allocated to each MA by alternative.

Wildlife

Linkage Zones/Corridors: Category 1600

Public Comment 439: (Letter Number(s): 98, 112, 116, 128, 132, 135, 137, 139, 146, 149, 154, 158, 165, 169, 185, 189, 205, 224, 225, 233, 240, 242, 258, 265, 268, 271, 277, 296, 299, 301, 311, 321, 333, 341, 346, 361, and 364)

Wildlife connectivity should be a high priority in the revised Forest Plan.

- A) Create a new linkage area MA and consider the importance of wilderness and non-motorized areas for connectivity;
- B) Adding additional direction in the Forest Plan for connectivity;
- C) The KNF should work with other agencies and groups on maintaining/restoring connectivity;
- D) Describing how the science behind wildlife travel corridors benefits wildlife populations; and
- E) Creating a forestwide connectivity map for the lynx and other species.

Response:

Wildlife connectivity was indeed a high priority for the revised Forest Plan and the analysis in the wildlife specialist’s report. This is evidenced by the fact that the word “connectivity” appears over 300 times in the wildlife specialist’s report. The DEIS provided a summary of the full connectivity analysis from the specialist’s report. Additionally, connectivity was addressed in individual species’ sections in the specialist’s report, FEIS, Biological Assessment, and Biological Opinion. The report from Ecosystem Research Group (ERG 2012) also analyzed connectivity and how it is impacted by moving towards the desired conditions in the revised Forest Plan. The connectivity direction in the revised Forest Plan is not species specific, although in some GA direction some species may be highlighted as examples.

The effects of motorized use on connectivity were discussed in the wildlife specialist's report and FEIS in individual species' sections, as well as the general connectivity section. Alternatives B Modified, B, and C would result in fewer acres open to motor vehicle use on the KNF compared to the existing condition, so all of those alternatives would improve connectivity for wildlife.

A) Some commenters suggested that a separate MA be created specifically for connectivity, and that the KNF should consider the importance of wilderness and non-motorized areas for connectivity. One commenter even submitted a map of their proposed connectivity MAs. When this map was analyzed by the KNF and compared to the direction in the revised Forest Plan it was determined that the direction in the revised Forest Plan, particularly the GA direction specific to connectivity that had been added since the draft Forest Plan, covered these areas proposed by the public. There was no need to have a separate MA designation because of the direction already present in the revised Forest Plan. Commenters felt that a separate connectivity MA was important because the KNF should show a commitment to connectivity. The KNF has this commitment, which is evidenced by the fact that the connectivity direction found in the forestwide and GA sections apply regardless of MA. Additionally, there is already MA direction in the revised Forest Plan that specifically states that certain MAs contribute to wildlife movement and security. This MA direction includes MA1a-DC-WL-01, MA1b-DC-WL-01, MA1c-DC-WL-01, MA3-DC-WL-01, and MA5a,b,c-DC-WL-01. This includes wilderness, recommended wilderness, and wilderness study areas. The MA5 backcountry also contributes to connectivity. Most IRAs are located within these MAs and therefore would contribute to connectivity and security. See the connectivity section and individual species' sections in the wildlife specialist's report and the FEIS for more discussion and analysis regarding the connectivity direction in the revised Forest Plan.

A commenter provided maps of connectivity mapping efforts in adjacent British Columbia. These maps were examined and the KNF determined that the connectivity direction in the revised Forest Plan allowed connectivity to/from these areas in British Columbia. The direction in the revised Forest Plan was therefore compatible with those efforts in British Columbia. The KNF connectivity direction may even be more flexible in that it is better suited for the dynamic nature of the habitats on the KNF and is more consistent with natural disturbance processes rather than being static, permanent, inflexible, mapped polygons. As shown in the example in the ERG report which used marten habitat (ERG 2012), static, permanent, inflexible, mapped polygons are not well suited for our natural disturbance processes found here on the KNF.

An analysis of wilderness areas, Inventoried Roadless Areas (the roadless nature of which would be maintained in the revised Forest Plan), and motorized vs. non-motorized areas played a role in the development of the connectivity analyses in the wildlife specialist's report and the FEIS (see the connectivity section and individual species sections, such as the individual sections for grizzly bear and lynx). One commenter cited Schwartz et al. (2010) as a reason to reduce road densities in their proposed linkage zone MA. Schwartz concluded that security habitat and road densities in non-security habitat can impact grizzly bear survival. The grizzly bear Access Amendment addressed security areas (core habitat) and road densities (open motorized route density [OMRD] and total motorized route density [TMRD]) within the Cabinet-Yaak recovery zone. Additionally, the Access Amendment set limits on total miles of open and total roads in the Bears Outside of Recovery Zone (BORZ) polygons. Some of these BORZ polygons lie between the NCDE and the Cabinet-Yaak (and therefore could contribute to connectivity). Please see the "Wildlife" specialist's report, particularly the effects section for grizzly bear and the separate connectivity section, for further analysis related to roads and connectivity.

One commenter cited the grizzly bear home range maps shown in Kasworm et al. (2011) as an example of the importance of IRAs for grizzly bear connectivity. The commenter wanted more IRAs recommended as wilderness for this reason. The maps contained in Kasworm et al. (2011),

and similar maps in Kasworm et al. (2009, 2010, and 2012), do indeed show a lot of overlap with the IRAs on the KNF. The KNF recognizes the importance of providing secure habitat for grizzly bears and areas with limits on road density, which is why the Access Amendment would be implemented through FW-STD-WL-02 in the revised Forest Plan. The commenter stated that the MAs in the revised Forest Plan that overlap IRAs would in some cases cause fragmentation because the MAs allow motorized use. This is not the case. MA5b allows motorized use year-round, but motor vehicle use is only allowed on designated routes/areas (except over-snow vehicles). Those designated routes/areas are shown on the KNF's Motor Vehicle Use Map (MVUM). MA5b does not allow motor vehicles to travel off-route during the summer. Only designated routes/areas are open to summer motorized use, and the revised Forest Plan does not change the status of individual roads/trails. MA5b is a MA where motorized routes are allowed to be designated, but it does not mandate that all roads/trails are designated as open, nor does it mandate that roads/motorized trails must be built there. This is compared to MA5a or 5c where the designation of motorized routes is not the desired condition for these MAs. Regardless, the roadless integrity of IRAs would be maintained in any MA. The MA designation would not change the function of these IRAs as security or connectivity habitat. Additionally, the GA and forestwide connectivity direction in the revised Forest Plan would allow connectivity between IRAs. Please see the Roadless Area section of the FEIS for more discussion on the IRAs and MA overlap. Also see the grizzly bear section and connectivity section of the wildlife specialist's report and FEIS for more information specific to connectivity and grizzly bears. This same commenter cited a need to connect the Ten Lakes area with grizzly bear populations in Canada. The GA direction provides this connection. Again, see the wildlife specialist's report and FEIS sections on grizzly bear and connectivity.

One commenter cited a personal communication from Michael Proctor regarding the ability to map predicted linkage zones (e.g., across highways or valley bottoms) and noted that Proctor's results would be published in 2012. As of January 2013 the work appears not to have been published, yet. Other published research by Proctor et al. (2012), a presentation about ongoing research by Kasworm (2012) and a webinar presentation on ongoing research by Proctor and Servheen (2012) were examined and referenced in the grizzly bear section of the wildlife specialist's report when discussing connectivity of grizzly bear populations. This webinar by Proctor and Servheen (2012) appears to provide a preview of what will be disclosed in the anticipated published document noted by the commenter. As discussed in the analysis of the effects from GA direction in the grizzly bear section of the wildlife specialist's report, the GA direction overlaps the linkage areas identified in the ongoing research (Kasworm 2012, Proctor and Servheen 2012). The GA direction contains desired conditions to provide connectivity, and those areas identified in the GA desired conditions overlaps the presented linkage maps in the presentations/webinars by Kasworm (2012) and Proctor and Servheen (2012). Additionally, the GA direction overlaps linkage areas identified in Servheen et al. (2003) for grizzly bears and the NRLMD (2007) for lynx. Therefore, the direction in the revised Forest Plan relative to connectivity is consistent with the published and ongoing linkage/connectivity studies identified above;

B) Additional direction has been added to the revised Forest Plan since the draft Forest Plan. These additions were in the form of GA desired conditions, similar to those that were in the draft Forest Plan for some of the GAs. These GA desired conditions provide connectivity within the KNF and to adjacent NFS lands as well as the border with Canada.

Commenters stated that timber harvest should be restricted in connectivity habitat. This is inconsistent with the findings in the ERG report (ERG 2012) and the connectivity analysis in the wildlife specialist's report and FEIS. Such restrictions would not help the KNF maintain or improve habitat connectivity.

The direction for connectivity in the revised Forest Plan is not specific to species in order to match the forestwide desired conditions for vegetation and fire and the “coarse filter” approach to viability. Connectivity for some species is dynamic due to the natural disturbance processes on the KNF.

Some commenters did not understand what was meant by the desire that wildlife move “relatively freely” in the context of the GA desired conditions related to connectivity. In an attempt to clarify these desired conditions, the words “relatively freely” have been removed in the revised Forest Plan;

C) The KNF agrees that cooperation with other agencies and landowners would be useful in creating a solution to connectivity issues that encompasses all land ownerships. The phrase “interagency cooperation” appears in FW-DC-WL-17 and FW-GDL-WL-13, and FW-GDL-WL-14 relative to connectivity. The construction of wildlife crossing structures across a highway, for example, would require the participation of other agencies and landowners because those sites would be outside the jurisdiction of the KNF. The KNF could cooperate in such an effort by providing expertise or information regarding the best site. Additionally, the KNF could cooperate by managing NFS lands near those crossing structures so as to not prevent wildlife from using those structures. The direction in the revised Forest Plan allows the KNF to cooperate and respond to any interagency/multi-landowner efforts to address connectivity issues;

D) Some commenters questioned the importance of connectivity and requested more description of the science supporting how connectivity benefits wildlife. The wildlife specialist’s report contains an entire section devoted to the topic of connectivity. The topic is also covered under several of the individual species sections (e.g., lynx and grizzly bear). These sections contain references to published scientific literature related to the topic of connectivity; and

E) The GA direction for connectivity is consistent with the NRLMD. The map in the NRLMD is coarse-scale. Although the GA direction may be a little more detailed, it is still intentionally general. This is due to the dynamic nature of the forests on the KNF and the fact that what may act as connectivity for one species today, such as lynx, may not provide connectivity in the future if natural disturbance processes alter habitat (e.g., fire). Therefore a fine-scale map of connectivity, which represents a single snap-shot in time, is inconsistent with the dynamic natural disturbance processes at work on the KNF.

As discussed above for lynx, fine-scale connectivity maps represent only snap-shots in time and are inconsistent with the dynamic natural disturbance processes on the KNF. For example, what may be connectivity habitat for fishers today may not be in the future if a large-scale disturbance occurs (e.g., fire). At that point any fine-scale connectivity map for fisher would be outdated. Additionally, connectivity is species specific, just as habitat requirements are species specific. There may be some commonalities among a handful of species, but there are also groups of species that have very few, if any, habitat commonalities. For example, connectivity for lynx or fisher would be inconsistent with connectivity for flammulated owls. A connectivity map for wetter forest species would be different than a map for dry forest species. If you overlaid the two maps, they likely would represent fragmentation of habitat for each other. The KNF has chosen to treat connectivity the same as the desired conditions for vegetation and fire. It is based on the idea that the wildlife on the KNF evolved with those natural disturbance processes, and therefore the connectivity shaped by those processes. As the KNF moves towards the desired conditions for vegetation and fire, then wildlife would experience habitat amounts, pattern, and connectivity similar to those found under the natural disturbance processes they evolved with here on the Forest. See the connectivity section in the wildlife specialist’s report and the FEIS.

Security: Category 1601

Public Comment 440: (Letter Number(s): 98, 128, 146, 212, 235, 244, 321, 323, 336, and 352)

The public submitted varied, sometimes conflicting comments regarding the direction to provide big game security habitat and winter range in the draft Forest Plan:

- A) The KNF should create binding standards because guidelines are too flexible;
- B) The KNF should maintain cover/forage on winter range and should create specific objectives and desired conditions that identify, preserve, and maintain winter range for wintering ungulates;
- C) Winter range was not mapped in the draft Forest Plan;
- D) There should be additional description of habitat for elk than what was in the DEIS;
- E) The KNF should be consistent with MTFWP Final Elk Management Plan (2005 page 70) recommendations for maintenance of about 90,000 acres of roadless elk security in the Northwest Peaks, Buckhorn Ridge, Grizzly Peak, Roderick and Gold Hill area;
- F) The Forest Service should explain the basis for the 30 percent threshold in FW-GDL-WL-10 and explain at what scale elk security will be measured; and
- G) Forest Service should explain the need to restrict motorized and non-motorized use to protect big game.

Response:

A) Please see the section titled “Consistency with the Forest Plan” in chapter 1 of the revised Forest Plan. That section explains that projects or activities are consistent with guidelines if the project or activity is designed in accordance with the guideline, or the design varies from the guideline but is as effective in meeting the intent or achieving the purpose of that guideline. Even though guidelines are more flexible than standards, the intent of those guidelines still will be met or an amendment to the Plan is required.

The revised Forest Plan contains numerous desired conditions, objectives, and guidelines that specifically mention native ungulates or were designed for native ungulates: FW-DC-WL-08, 16, FW-OBJ-WL-02, FW-GDL-WL-08, 09, 10, and 11, MA1a-DC-WL-01, MA1b-DC-WL-01, GA-DC-WL-BUL-02, GA-DC-WL-CLK-01, 02, GA-DC-WL-FSH-01, 02, and 03, GA-DC-WL-KOO-01, 03, and 04, GA-DC-VEG-LIB-03, 02, and 03, GA-DC-WL-TOB-04, and GA-DC-WL-YAK-03. These are generally related to winter range, security habitat, or connectivity. FW-GDL-WL-11 limits disturbance to native ungulates during the birthing/parturition period. The desired conditions for vegetation and fire, which are referenced in FW-DC-WL-16 related to cover/forage, are also key components in the revised Forest Plan that when combined with the above direction would maintain viability for native ungulates. Native ungulate cover/forage would fit under the “coarse filter” for viability discussed in the introduction of the wildlife specialist’s report and the “Wildlife” section of the FEIS. By providing the types, quantities, and pattern of habitat similar to what native ungulates would have evolved with under natural disturbance processes on the KNF the revised Forest Plan would provide the cover/forage necessary to maintain viability for native ungulates. Combined with the direction mentioned previously that provide security, limit disturbance, and provide connectivity, all the habitat requirements for native ungulates would be provided under the revised Forest Plan.

The ERG report (ERG 2012) did not specifically analyze big game habitat, instead it analyzed a dozen other species that represent a variety of habitats on the KNF, including some that would occupy habitat that would overlap with low-elevation winter range for big game. Although big game were not specifically analyzed, this conclusion from ERG (2012) is important: “...natural disturbances (in the form of wildfire and certain insects and diseases) are projected to have effects on habitat that render the effects of management less than remarkable at the planning scale... Thus, treatments that may have considerable effects at the unit or project scale are lessened in the larger context of the total amounts of wildfire, disease, insects, and succession at the individual national forest or the KIPZ scale” (page E-4 in ERG 2012). What this means is that the KNF trends towards the desired conditions for vegetation and fire, but that it is natural

disturbance processes that determine that overall amounts and pattern of wildlife habitats across the KNF, and active management actions such as fuels reduction and timber harvest have lesser impact at the forest scale. In general, management had a positive effect on the amount and distribution of habitat for wildlife. Those desired conditions for vegetation and fire are based on historic conditions, natural disturbance processes, and changing climates. The desired conditions are similar to what wildlife, including big game, would have evolved with here on the KNF, so the amount and pattern of big game habitat would be similar to what they evolved with here on the KNF. This includes the amount of winter range on the KNF.

Also, please see the big game, bighorn sheep, and elk sections in the wildlife specialist's report and FEIS. Additionally, the wolf and bald eagle sections also contain an analysis of big game because of the importance of big game as a source of prey/carrion for these carnivores/scavengers. Viability of wolf in particular would be difficult without viability for big game, and that is why the wildlife specialist's report also analyzes big game under those carnivore sections;

B) As mentioned above, cover and forage would be managed according to the desired conditions for vegetation and fire. The revised Forest Plan already contains direction that mentions winter range or cover/forage for native ungulates: FW-DC-WL-16, FW-GDL-WL-08, FW-GDL-WL-09, GA-DC-WL-BUL-02, GA-DC-WL-CLK-01, GA-DC-WL-FSH-03, GA-DC-WL-KOO-04, GA-DC-VEG-LIB-03, GA-DC-WL-LIB-02, GA-DC-WL-TOB-04, and GA-DC-WL-YAK-03. This direction is related to winter range, limiting disturbance, and cover/forage. The desired conditions for vegetation and fire, which are referenced in FW-DC-WL-16 related to cover/forage, are key components in the revised Forest Plan that when combined with the above direction would maintain winter range for native ungulates.

As mentioned above, please see the bighorn sheep, elk, wolf, and bald eagle sections in the wildlife specialist's report and FEIS;

C) No, winter range is not mapped in the draft or revised Forest Plan. FW-DC-WL-16 has direction that habitat for native ungulates are managed in coordination with state agencies. The state of Montana has winter range map information online and available for download at <http://fwp.mt.gov/doingBusiness/reference/gisData/dataDownload.html>. The KNF also has other winter range GIS layers available for our use;

D) The FEIS includes more information on elk than what was found in the DEIS. The wildlife specialist's report contains the full analysis for elk. As mentioned previously, please see the bighorn, wolf, and bald eagle sections of the wildlife specialist's report and FEIS for additional information related to big game;

E) The revised Forest Plan is indeed consistent with the recommendation of maintaining about 90,000 acres of roadless elk security areas in the Northwest Peaks, Buckhorn Ridge, Grizzly Peak, Roderick Mountain, and Gold Hill areas. Please see the "Roadless" section of the FEIS for a table containing a list of IRAs and their acreages. The IRAs with the names Northwest Peaks, Buckhorn Ridge, Grizzly Peak, Roderick, Gold Hill, and Gold Hill West would easily meet the recommendation of maintaining about 90,000 acres of roadless elk security. Additionally, there are several other IRAs adjacent to these that would contribute acreage as well: Saddle Mtn, Zulu, and West Fork Yaak. The roadless nature of these IRAs would be maintained under the revised Forest Plan;

F) FW-GDL-WL-10, FW-OBJ-WL-02, and the definition of elk security in the glossary have been updated for the FEIS and revised Forest Plan. Please see the elk section in the wildlife specialist's report for information regarding these updates. The 30 percent threshold for elk security in FW-OBJ-WL-02 was derived from the recommendations in Hillis et al. (1991). The scale at which elk security will be measured is the individual planning subunits on the KNF. The KNF and Montana Fish, Wildlife & Parks coordinated on setting elk management emphasis (high,

medium, and low) for each planning subunit on the KNF (see the elk section of the wildlife specialist's report). The recommendations in Hillis et al. (1991) were developed for areas in Montana west of the continental divide, but could be applied elsewhere.

One commenter cited Christensen et al. (1993) and interpreted the publication as recommending 70 percent security for elk. On page 3 of Christensen et al. (1993) the recommendation is for habitat effectiveness related to roads to be at least 70 percent, not security, which is a different measure. The habitat effectiveness related to roads in Christensen et al. (1993) is based on road densities. Christensen et al. (1993) cites Hillis et al. (1991) on page 5 under the section for recommendations related to elk vulnerability. The revised Forest Plan uses security to measure the impact of roads on big game, particularly elk, rather than road density. Measuring road densities does not measure the size of the security habitat blocks on the landscape. By managing for security habitat road densities are indirectly managed, because in order to reach security guidelines and objectives in the revised Forest Plan roads could be closed, thereby reducing the miles of road on the landscape and thus lowering road densities. By managing for security areas as recommended in Hillis et al. (1991) the KNF ensures that the security habitat for elk is large enough in size to be effective; and

G) Several commenters stated that restricting motorized use is important to provide security habitat for big game. However, one commenter states that elk security is not a problem, and even if it was non-motorized uses pose more of a problem than motorized users; and therefore, management should be directed at restricting non-motorized uses rather than motorized uses. This commenter questioned the need to provide non-motorized security areas for big game. Non-motorized security has been identified as important by MFWP in their Elk Management Plan (MFWP 2004) as mentioned by other commenters. The KNF and MFWP coordinated on this issue and identified priority planning subunits for elk security, as mentioned above. Please see the elk and big game sections in the wildlife specialist's report and FEIS for more discussion on big game security. It should be noted that elk security areas also provide security habitat for other wildlife during the fall, including other big game.

The commenter provided citations to several webpages and provided links, unfortunately many of those links were broken and those webpages can no longer be found. The commenter appears to have been trying to make a case that there are many factors that determine the size of big game populations, and that it is not only about access management. Please see the big game and elk section in the wildlife specialist's report and FEIS. Factors, called "stressors" in the analysis, that influence big game populations are disclosed. Those that are within the control of the Forest are discussed in more depth in the analysis.

The commenter did also rely on several scientific publications which could be located, so this response focuses on those citations, which have also been cited in the wildlife specialist's report. The commenter used Schultz and Bailey (1978) to support their claim that non-motorized users were more disturbing to big game than motorized users. This study was conducted on an unhunted population of elk in Rocky Mountain National Park. The KNF concludes that Ciuti et al. (2012) is more representative of the impacts of recreation on big game on NFS lands. In Ciuti et al. (2012) they found that the "highest levels of vigilance were recorded on public lands where hunting and motorized recreation activities were cumulative compared to the national park during summer, which had the lowest levels of vigilance." Elk, and other big game, are hunted on the KNF, so the findings in Ciuti et al. (2012) are more relevant. Ciuti et al. (2012) found that elk decreased their feeding time when closer to roads and became more vigilant as traffic volume increased.

Another publication cited by this commenter was Freddy et al. (1986) that found mule deer had a greater response to people afoot than to snowmobiles. Ward and Cupal (1979) was also cited by the commenter. That paper again found that elk responded more to people afoot than to motorized

vehicles. The KNF acknowledges that all types of recreation, whether motorized or non-motorized, can have disturbance impacts on wildlife, including big game. However, most non-motorized users arrive on the KNF and navigate to their chosen non-motorized recreation spot by driving a motorized vehicle on the KNF's road system. Additionally, the number of non-motorized users diminishes with increasing distance from a road. Thus road access influences the distribution of non-motorized use on the KNF.

The revised Forest Plan includes direction to minimize disturbance to big game from management activities, with the definition of management activity being "[a]ny activity that is carried out or authorized by the Forest that would result in impacts on natural resources or change human use of the Forest." Access management, both motorized and non-motorized, would classify as a management activity because it would have an impact on natural resources (e.g., big game) and change human use on the Forest (the distribution of motorized or non-motorized recreation). Therefore, the revised Forest Plan does include and acknowledge that both non-motorized and motorized uses may have an impact on wildlife, including big game. Examples of applicable direction in the revised Forest Plan include FW-GDL-WL-08, FW-GDL-WL-09, and FW-GDL-WL-11 which limit disturbance to big game on winter range and during birthing/parturition.

Again, please see the elk section of the wildlife specialist's report and FEIS for more information on elk security during the fall and limiting disturbance at other times of the year. Elk security areas also provide security for other wildlife species; including other big game (see the big game section of the wildlife specialist's report and FEIS). As noted earlier in this response, the wolf and bald eagle sections of the wildlife specialist's report and FEIS also contain analysis related to big game habitat.

Security: Category 1601

Public Comment 441: (Letter Number(s): 188, 248, 300, 321, and 349)

Security habitat for wildlife is an important concern and should be considered in the revision of the Forest Plan.

A) Maintain adequate security habitat for wildlife because of the impacts of roads on wildlife; and

B) Addressing the effects of the Border Patrol activities on wildlife security on NFS lands.

Response:

A) Several commenters noted that security habitat is important for wildlife and it should be a consideration in the revised Forest Plan. Security habitat indeed played a large role in the development of the revised Forest Plan and the analysis found in the wildlife specialist's report and the wildlife section of the FEIS. Security habitat was discussed under each species' section, where appropriate, in the wildlife specialist's report and the FEIS. The analyses disclose which specific direction in the revised Forest Plan maintains or improves security habitat.

Scotchman Peaks being recommended as wilderness in the revised Forest Plan was specifically mentioned as being important for habitat security. The differences in the acres of recommended wilderness between alternatives was analyzed in the individual species' sections of the wildlife specialist's report and FEIS.

One commenter cited several studies related to roads/road densities and their impacts on wildlife. Those studies were cited in the wildlife specialist's report and FEIS. Lyon (1984) was cited in the elk section. Thiel (1985) was cited in the wolf section. Brody (1984), Holland (1985), and Mace and Manley (1993) were cited in the grizzly bear section. Please see the individual species' sections in the wildlife specialist's report and FEIS for additional literature citations as well as analysis related to access management, roads, and security habitat.

Commenters expressed a desire for more road density standards, other than those for just grizzly bear. Security habitat, as stated above, was considered in the analysis. Please see the individual species' sections in the FEIS and wildlife specialist's report for information on how the direction in the revised Plan provides security habitat for those species needing this habitat component. Examples of components in the Plan that provide for security habitat for species include the road density/core area standard tied to the Access Amendment (FW-STD-WL-02) which provides security for more than just grizzly bears, non-motorized MAs, wilderness and recommended wilderness, and FW-GDL-WL-10 (elk security areas also provide security for other species during the hunting season). As disclosed in the analysis, security habitat increases under the revised Forest Plan. Most of the KNF is found within a grizzly bear recovery area or bears outside of recovery zone areas (BORZ), both of which have limit on the amount of roads. Add in FW-GDL-WL-10 (elk security areas) during the fall, which applies forestwide, and none of the KNF is exempt from some standard or guideline that limits the amount of roads at some point in the year; and

B) One commenter specifically mentioned Border Patrol activities as reducing security habitat due to their use of gated roads or other areas generally closed to motorized use. This effect was considered under the cumulative effects sections in the individual species' write-ups, where appropriate, in the wildlife specialist's report and the FEIS.

American Peregrine Falcon: Category 1602

Public Comment 442: (Letter Number(s): 316)

The Forest Service should consider the following regarding seasonal restrictions and buffers around American Peregrine Falcon nests:

- A) Climbing can be a low impact activity;
- B) Seasonal restrictions could be reduced if monitoring shows nests are not active or after the peregrine young have fledged; and
- C) There should be flexibility in the sizing of seasonal buffers.

Response:

FW-GDL-WL-01 and the ½ mile distance buffer around peregrine falcon nests have been revised. Direction to protect raptor nests is now covered under FW-GDL-WL-16 and says to use the best available information in setting distance and timing restrictions.

A) FW-DC-WL-01, FW-DC-WL-07, FW-GDL-WL-16, and GA-DC-WL-BUL-03 all provide direction to limit disturbance near peregrine falcon nests on the Forest. USFWS (USDI 1999) concluded that rock climbing does indeed have the potential to disturb and displace nesting peregrine falcons. Hamann et al. (1999) recommended a ½ mile buffer around nests and restricting rock climbing. Please see the peregrine falcon section in the wildlife specialist's report and the FEIS;

B) FW-DC-WL-07 applies "during periods of use." Additionally, FW-GDL-WL-16 applies to known active nests. This would allow seasonal restrictions to be lifted on nests that are inactive; however, monitoring of the nest would be needed to determine that the nest is in fact inactive. Monitoring to determine inactivity may not be feasible if funding is not available; and

C) The size of distance buffers and timeframe for restrictions implemented under FW-GDL-WL-16 could be tailored based on the best available science and local site-specific information (e.g., topography). See chapter 1 in the revised Forest Plan for the section on "Consistency with the Forest Plan."

Bald Eagle: Category 1603

Public Comment 443: (Letter Number(s): 336)

Why is there no mention of bald eagle nesting habitat in the direction for the Fisher GA?

Response:

Bald eagles nest across the KNF and are not unique to the Fisher GA. There is direction relevant to bald eagle nesting habitat in the “Forestwide Direction” section that applies to all GAs, including the Fisher GA: GOAL-WL-02, FW-DC-WL-01, FW-DC-WL-06, FW-GDL-WL-02, FW-GDL-WL-03, and FW-GDL-WL-04.

Bighorn Sheep: Category 1604

Public Comment 444: (Letter Number(s): 165)

The Forest Service should protect the Ten Lakes bighorn sheep herd.

Response:

One commenter specifically mentioned the Ten Lakes bighorn sheep herd and its uniqueness. Please see the bighorn section in the wildlife specialist’s report and FEIS for analysis of the direction in the revised Forest Plan and how it affects bighorn sheep, including the Ten Lakes herd. This includes an analysis of roadless areas and other non-motorized areas and their effects on bighorn sheep.

The comment letter provided several citations and a map related to the Ten Lakes bighorn sheep herd. The comment regarding the Ten Lakes herd is very similar to the first paragraph on page 119 of Weaver (2011), and the map in the comment letter is the same as found on page 124 of Weaver (2011). The paragraph on page 119 of Weaver (2011) contains the same literature citations as those found in the comment letter. This document by Weaver (2011) was reviewed by the KNF and is cited in the wildlife specialist’s report.

GA-DC-WL-TOB-06 was added to the revised Forest Plan to provide direction specific to maintain/improve habitat for this herd, similar to direction in the other GAs related to bighorn sheep.

Black-Backed Woodpecker: Category 1605

Public Comment 445: (Letter Number(s): 333)

The Forest Service should protect the black-backed woodpecker by allowing fires to burn and limiting fire salvage.

Response:

The revised Forest Plan contains direction related to fires, salvage logging, and fire-dependent species such as the black-backed woodpecker. Please see the black-backed woodpecker section in the wildlife specialist’s report and the FEIS for more information, as well as the ERG report (ERG 2012).

Canada Lynx: Category 1606

Public Comment 446: (Letter Number(s): 146, 268, 300, 312, 335, and 353)

The public submitted varied, often conflicting, comments regarding lynx and lynx habitat.

Concerns included:

A) The Forest Service should not use lynx as a reason for winter over-snow motorized use closures;

- B) It is important to protect the IRAs throughout the Forest to provide lynx habitat;
- C) Protect Critical Habitat for lynx as well as lynx habitat south of Highway 2 that is outside of Critical Habitat;
- D) The Forest should maintain lynx habitat and provide connectivity/linkage for lynx; and
- E) The Forest should prove that lynx occur on the Forest and the reasons for concern over lynx and the impacts of vegetation management, fire, and other activities on the Forest.

Response:

- A) There are several reasons why over-snow motorized use may be limited in specific areas, and not all of them are wildlife related. Please see the lynx section in the wildlife specialist's report and FEIS for more information pertaining to the impacts of over-snow motorized use on lynx. Also, please see other individual species sections, such as those for grizzly bear, elk, and big game for more discussion on the impacts of over-snow motorized use on wildlife;
- B) The effects from IRAs and other areas with limits on motorized use were analyzed in the lynx section of the wildlife specialist's report and FEIS;
- C) The lynx section in the wildlife specialist's report, FEIS and Biological Assessment (BA) contains an analysis of the effects from the revised Forest Plan on lynx critical habitat, as well as lynx habitat south of Highway 2. Additionally, the ERG report (ERG 2012) contains an analysis of lynx habitat on the KNF and the effects of managing for the desired conditions for vegetation and fire in the revised Forest Plan;
- D) Please see the lynx section of the wildlife specialist's report, FEIS, and BA for more information related to habitat and connectivity for lynx. Also see the general discussion on connectivity in the wildlife specialist's report and FEIS; and
- E) Please see the lynx section of the wildlife specialist's report, FEIS, BA and ERG report (ERG 2012) for more information.

Gray Wolf: Category 1610

Public Comment 447: (Letter Number(s): 208 and 121)

The public requested the following regarding gray wolf:

- A) Manage wolf habitat to preserve the species; and
- B) Provide more analysis of wolves than what was in the DEIS

Response:

- A) Please see the wolf section in the wildlife specialist's report and FEIS; and
- B) Additional analysis on the gray wolf can be found in the wildlife specialist's report and FEIS.

Grizzly Bear: Category 1611

Public Comment 448: (Letter Number(s): 83, 124, 132, 135, 146, 153, 154, 158, 162, 165, 212, 219, 224, 233, 241, 242, 247, 261, 263, 268, 312, 330, 333, 335, 341, and 353)

Numerous comments were received regarding grizzly bear habitat management. These included the following, sometimes conflicting, concerns:

- A) The Forest should reduce the impacts of motorized use on grizzly bears and increase habitat protections because past efforts have been insufficient;
- B) No more restrictions should be proposed because it limits human uses of the Forest. The NCDE population is doing well and should be proposed for delisting. The CYE population has more bears now than it did a few decades ago, so there's no need for increasing restrictions. There are more bears out there than currently estimated. The Access Amendment direction for OMRD,

TMRD, and core areas is too restrictive and above what the science indicates is needed. What is the science behind the need for all these restrictions to protect grizzly bears?;

C) The Forest needs to do more to recover the CYE grizzly bear population;

D) IRAs are important for grizzly bear security and more of these should be recommended as wilderness;

E) Over-snow motorized use impacts grizzly bears during spring emergence;

F) What is the science to support ceasing grooming of roads past March 15th because it negatively impacts grizzly bear?;

G) Why is it important to protect den sites and does this help grizzly bears? How will den sites be identified and protected?;

H) There needs to be more detail in the grizzly bear analysis than what was in the DEIS;

I) The maximum road density of 1.5 miles per section listed on page 33 of the EIS should be dropped because grizzlies are more affected by the quality of habitat;

J) The Forest should analyze increased vegetation management to improve grizzly bear habitat; and

K) The Forest should analyze for a potential delisting of the NCDE population under the ESA because the number of bears is at the recovered level.

Response:

A) Please see the grizzly bear section of the wildlife specialist's report, FEIS, and BA for information and analysis of motorized use and security habitat for grizzly bears;

B) Please see the grizzly bear section of the wildlife specialist's report, FEIS, and BA for information and analysis of motorized use and security habitat for grizzly bears.

Some commenters questioned the need for restrictive access management if grizzly bear populations have increased over the last few decades. The CYE population is higher today than it was a few decades ago due to the success of the augmentation program, access management, and reduction of mortality on NFS lands. However, this population is not yet at recovery goals (Kasworm et al. 2012). The revised Forest Plan incorporates the Access Amendment, which set access management direction for the Cabinet-Yaak Recovery Zone and associated Bears Outside of Recovery Zone areas. The Access Amendment is intended to aid in recovering this grizzly bear population. Please see the Access Amendment FEIS (USDA 2011) and Biological Opinion (USDI 2011) for more information.

One commenter listed several websites containing information they hoped would support their idea that grizzly bear habitat is fully occupied in areas with lots of human visitors (Glacier National Park and the Northern Continental Divide Ecosystem, and Yellowstone National Park) and therefore grizzlies can coexist with motorized use. Unfortunately, the links the commenter provided to these newspaper articles and other documents were invalid. However, it is clear in the comment which grizzly bear ecosystems they were referring to (the Greater Yellowstone and Northern Continental Divide). Those ecosystems do have healthy grizzly bear populations and both have been or will soon be proposed for delisting. The Cabinet-Yaak grizzly bear populations are not yet at recovery goals. Again, please see the wildlife specialist's report, FEIS, BA, and BO for information relevant to the Cabinet-Yaak grizzly bear populations.

One commenter cited Executive Order 13443 (Facilitation of Hunting Heritage and Wildlife Conservation). The commenter stated that they believe that the number of hunters has declined in the Yaak due to road closures to improve habitat for grizzly bears. This Executive Order is discussed on page 7 of appendix A of the DEIS.

One commenter stated that, "A recent Grizzly Bear study in the Swan Valley of Montana found that 99 percent of the bears spent 99 percent of their time on Plum Creek property. This property has been heavily logged resulting in undergrowth plant species that support bears. Thick and

overgrown timber does not allow for adequate undergrowth. As we now see by this study, critical bear habitat is quite different than what was once assumed and this new information must be incorporated into this evaluation. The Forest Service should discard the original ‘road density guidelines’ and develop new guidelines that reflect the habitat most critical for bears as one that is timber harvested and roaded. Old outdated science formulated by assumptions should not be used when true science and actual data is now available.”

The conclusions from the study in the Swan Valley apply only to the multi-ownership Swan Valley, as stated by the study monitoring team themselves (Hicks et al. 2010, Baty et al., No Date), so this study was not used in the development or analysis of the revised Forest Plan. Also, the percent of radio collar locations on Plum Creek land was only 34 percent (page 28 in Baty et al., No Date), not 99 percent. Forest Service lands accounted for 49 percent of the locations (page 28 in Baty et al., No Date). The results of the study provided a preliminary snap-shot of valley use during summer and fall, and no cause/effect relationships could be gleaned from the data because the study was not an experimental design (page 21 in Baty et al., No Date, and page 27 in Hicks et al. 2010). The information from this study in the Swan Valley was not used in the development or analysis of the revised Forest Plan.

One commenter questioned how many bears were killed by poaching vs. mistaken identity in the Cabinet-Yaak. Please see the mortality discussions in the Biological Opinion for the Access Amendment as well as Kasworm et al. 2012 (and previous years’ research/monitoring reports from Kasworm et al.) for more information on grizzly bear mortality. The Access Amendment is incorporated into the revised Forest Plan through FW-STD-WL-02. Mortality information is also summarized in the grizzly bear section of the wildlife specialist’s report for the revised Forest Plan.

One commenter inquired about the wording in the “Road Impacts” section related to grizzly bear on page 210 of the DEIS. The section has been edited/clarified in the wildlife specialist’s report and FEIS. The sentence in question (“Additionally, habitat loss due to roads is lessened...”) was out of place in the grizzly bear section. In the drafting of the wildlife specialist’s report and DEIS, sections were copied from one species’ analysis to another, or from other documents, in order to use them as a template. In this case, a sentence was among the pieces copied into the grizzly bear section was not edited to custom fit the grizzly section as was intended. The idea of the sentence was to explain that as roads are closed, made impassable, and naturally revegetated some wildlife would gain those acres back as habitat that had been within the footprint of the road. The sentence was more appropriate for other wildlife rather than grizzly bears. For grizzly bears, the biggest impact from roads has to do with the loss of security habitat and the disturbance/displacement caused by the road. This sentence should have been edited out of the copied pieces when they were used in the grizzly bear section because the habitat gained from an impassable road revegetating is small compared to the potential gain in security habitat by closing a road to create core habitat. See the revised wildlife specialist’s report, FEIS, and BA for an updated analysis of road impacts to grizzly bears;

C) Please see the grizzly bear section of the wildlife specialist’s report, FEIS, and BA for information on what the KNF and the revised Forest Plan is doing to help recover the CYE grizzly bear population;

D) Please see the grizzly bear section of the wildlife specialist’s report, FEIS, and BA for information and analysis regarding grizzly bears, IRAs, wilderness areas, and security habitat. Also see the connectivity section in the wildlife specialist’s report and FEIS for additional information. The roadless integrity of IRAs would not be reduced in any of the alternatives.

One commenter cited a section from the Rock Creek Mine Biological Opinion (USDI 2006c), which in turn cited Mattson et al. 1986 relative to the distance of grizzly bear core areas from roads. Core areas were defined and management direction set in the Access Amendment, which is

incorporated into the revised Forest Plan through FW-STD-WL-02. Please see the FEIS for the Access Amendment for more information on core areas and distance from roads. Additionally, Mattson et al. 1986 is cited in the Access Amendment FEIS and the wildlife specialist's report for the revised Forest Plan. The definition of a core area is also included in the grizzly bear section of the wildlife specialist's report and BA for the revised Forest Plan.

The same commenter also cited a section from the Final Statewide Programmatic Grizzly Bear Biological Assessment for the BLM in Wyoming (USDI 2006d) which contained citations for Kasworm and Manley 1989, McLellan 1989, and ICST 2003 [updated 2007]. Again, these references were in relation to the impacts of roads on grizzly bears. This literature is also cited in the grizzly bear section of the wildlife specialist's report;

E) Please see the grizzly bear section of the wildlife specialist's report, FEIS, and BA for information and analysis regarding grizzly bear denning, spring emergence, and disturbance;

F) Please see the grizzly bear section of the wildlife specialist's report, FEIS, and BA for information and analysis regarding grizzly bear denning, spring emergence, and disturbance.

There are other reasons for managing over-snow motorized use besides grizzly bears, but with grizzly bears the reason is likely to be related to spring emergence and the potential for disturbance. FW-STD-WL-05 states that no grooming of snowmobile routes in grizzly bear core habitat would occur in the spring after April 1 of each year;

G) Please see the grizzly bear section of the wildlife specialist's report, FEIS, and BA for information and analysis regarding grizzly bear denning, spring emergence, and disturbance. Den sites would be protected as per FW-GDL-WL-01 which provides direction to minimize/avoid disturbance in predicted denning habitat during spring emergence. Predicted denning habitat is used in FW-GDL-WL-01 because of the difficulty in identifying individual dens sites and the fact that bears may use different dens sites each year;

H) Please see the grizzly bear section in the wildlife specialist's report and FEIS for more information than that found in the DEIS;

I) The KNF is not proposing a maximum road density standard of 1.5 miles per section. That requested standard on page 33 is in the section titled "Alternatives considered but Eliminated from Detailed Study" that begins on page 27 of the DEIS;

Please see the grizzly bear section of the wildlife specialist's report, FEIS, BA, and the Access Amendment FEIS and BO for more information regarding bears and roads;

J) Please see the grizzly bear section of the wildlife specialist's report, FEIS, and BA for information and analysis regarding grizzly bear habitat, vegetation management, fire, and the direction in the revised Forest Plan.

One commenter cited several scientific journal articles and stated that grizzly bears use openings and that the KNF should analyze for the effects of increased timber harvest as providing increased forage for bears. The literature cited in the comment (Mace and Waller 1997, Mace et al. 1999, Mace et al. 1996, and Waller and Mace 1997) was also cited in the grizzly bear section of the wildlife specialist's report. The effects of vegetation management under the different alternatives of the revised Forest Plan were included in the analysis for grizzly bear in the wildlife specialist's report and FEIS. Analysis under the alternatives included "constrained budget" and "unconstrained budget" scenarios. The "unconstrained budget" scenario would entail more vegetation treatment than the "constrained budget" scenario; and

K) The NCDE population may soon be proposed for delisting and a conservation strategy completed. The details of a future conservation strategy are not finalized, so it is difficult to analyze the impacts at this time. Any changes needed to the Forest Plan due to the conservation strategy and delisting of this population of grizzly bears would be considered at that time, and this may result in a future amendment to the Forest Plan to incorporate the conservation strategy. A

short discussion on the potential delisting of the NCDE population is included in the cumulative effects section of the grizzly bear section of the wildlife specialist's report.

Management Indicator Species (MIS): Category 1613

Public Comment 449: (Letter Number(s): 242, 294, and 321)

The public voiced concerns over the Forest's MIS selections.

- A) The public thinks the Forest should add TES species, old growth species, and a host of other species for a variety of other habitats;
- B) The Forest didn't pick MIS because the individual species had viability concerns, so how will the Forest ensure the viability of native wildlife?; and
- C) Does the list meet the requirements of the 1982 planning regulations?

Response:

A) The KNF selected MIS species that provided a means to measure the difference between the Forest Plan alternatives, could be tied to forestwide objectives, and were species whose habitat was likely to be influenced by the management activities on the Forest done to move towards the desired conditions for vegetation in the revised Forest Plan. The KNF has opted for a landbird assemblage and elk as MIS after considering where, and what kind of, management activities are likely to occur under the revised Forest Plan. Knowing that selecting MIS is a requirement, despite the scientific criticisms of the concept, the KNF selected species that would be the most useful in measuring progress towards the desired conditions in the revised Forest Plan.

The species in the landbird assemblage were selected to represent a variety of habitat conditions that could be tied to the desired conditions for vegetation. Elk were selected because of a concern over elk security habitat. Please see the wildlife specialist's report, FEIS, and KIPZ MIS Selection documentation (USDA 2013).

There is no requirement to select MIS for every activity, vegetation type, or management issue. Commenters suggested several other species as MIS, including some species that were MIS in the 1987 Forest Plan. This included pileated woodpecker, northern goshawk, and TES species. Please see the KIPZ MIS Selection documentation (USDA 2013) for a discussion on why these species were not selected. The main reason they were not selected is that the landbird assemblage provided a better measurement tool to analyze the difference between the Forest Plan alternatives and to measure progress towards the desired conditions for vegetation.

Commenters specifically mentioned a desire to select an "old growth" MIS. Unfortunately, the KNF does not have a species that is an obligate of old growth habitat or relies solely on old growth habitat. Pileated woodpeckers and northern goshawks are not good candidates because they are not solely dependent on old growth for their habitat needs. The KNF has species that will use old growth habitat, even if they are not old growth obligates. For example, the Hammond's flycatcher, which is a member of the landbird assemblage MIS, uses mature coniferous forests. Hairy woodpecker uses large snags and is also a member of the landbird assemblage. Please see the ERG report (ERG 2012) for an analysis of how the revised Forest Plan provides habitat for the species in the landbird assemblage, how the large tree size class changes over time, and also analysis for pileated woodpecker and northern goshawk. Neither the pileated woodpecker nor the northern goshawk is at a viability risk under the revised Forest Plan (ERG 2012). The landbird assemblage is also analyzed in the wildlife specialist's report and FEIS.

The direction in the revised Forest Plan is designed to retain existing old growth and promote the development of future old growth. This includes FW-DC-VEG-03, FW-DC-VEG-05, FW-STD-VEG-01, FW-VEG-GDL-01, FW-VEG-GDL-02, FW-DC-WL-11, and GA-DC-VEG-YAK-01. See the vegetation section of the FEIS and the vegetation specialist's report for more information on how the revised Forest Plan maintains or improves old growth on the KNF. By

maintaining/improving the amount of old growth on the KNF, this habitat component would be available for species that use old growth.

Marten and fisher were also specifically mentioned by commenters as potential MIS for downed wood in mature stands. FW-DC-VEG-08, FW-GDL-VEG-03, and FW-DC-WL-13 in the revised Forest Plan provide direction to retain coarse woody debris on the KNF. Both species were analyzed in the ERG report (ERG 2012) and viability was maintained on the KNF under the revised Forest Plan. Fisher is also analyzed in the wildlife specialist's report and FEIS.

As stated above, there is no requirement to select a MIS for every habitat, management issue, or activity. The KNF chose to focus on the overarching desired conditions for vegetation/fire that influenced stand composition and size class when selecting MIS to represent vegetative change on the KNF. Again, please see the KIPZ MIS selection documentation (USDA 2013), wildlife specialist's report, and FEIS for more information and analysis regarding MIS for the revised Forest Plan;

B) Viability under the revised Forest Plan is provided through the two-tiered "coarse filter" and "fine filter" approach as described in the introduction of the wildlife specialist's report and FEIS. The MIS were not selected because of a viability concern but were instead selected because they provided a measurement tool as described above. Part of what makes them a good measurement tool is that they are numerous enough to allow monitoring. For example, all species of the landbird assemblage were selected because they are numerous and widespread enough to be detected in the regional landbird monitoring program. That makes it easier to detect a change in the population. That monitoring program is already in place and it can be used to monitor a variety of landbird species using the same transects rather than monitoring for only one species per monitoring protocol. Although population monitoring is not a requirement of the revised Forest Plan, this regional landbird monitoring program does provide the opportunity to supplement the KNF's habitat monitoring, funding permitting. Please see the monitoring program in chapter 5 of the revised Forest Plan and the KIPZ MIS Selection documentation (USDA 2013) for more information on how the KNF would monitor the landbird assemblage and elk security; and

C) The list of MIS for the revised Forest Plan does meet the requirements of the 1982 planning regulations, specifically 36 CFR 219.19 (a) (1) regarding the selection of species. In that section it states that "...the following categories shall be represented where appropriate: Endangered and threatened plant and animal species identified on state and federal lists for the planning area; species with special habitat needs that may be influenced significantly by planned management programs; species commonly hunted, fished, or trapped; non-game species of special interest; and additional plant or animal species selected because their population changes are believed to indicate the effects of management activities on other species of selected major biological communities or on water quality." The key words are "shall be represented where appropriate." It doesn't mean that each of those categories must be represented. Nor does it mean that every habitat on the KNF must have a MIS.

Elk, selected to measure elk security, fits the categories of species commonly hunted, plus it could be considered a species with special habitat needs (security habitat) that may be influenced by planned management programs. The landbird assemblage could fit the categories of non-game species of special interest or species with special habitat needs that may be influenced by planned management programs. See the KIPZ MIS Selection documentation (USDA 2013) for more information regarding the selection of the landbird assemblage and elk (security habitat) and why other species were not selected. The introduction to the MIS section in the wildlife specialist's report and FEIS has also been revised.

North American Wolverine: Category 1614

Public Comment 450: (Letter Number(s): 129, 153, 154, 158, 162, 165, 224, 233, 247, and 277)

The Forest Service should protect wolverine habitat.

A) Over-snow-motorized use should be reduced to protect wolverine denning habitat across the Forest, particularly in the Scotchman Peaks and Ten Lakes areas; and

B) The Forest should protect wolverine habitat and the connectivity of habitat in light of climate change, such as by recommending more wilderness and reducing over-snow motorized use in the backcountry.

Response:

In February of 2013 the USFWS proposed the wolverine as a threatened species under the Endangered Species Act. In addition to the proposed listing, USFWS included a section 4(d) rule that listed specific activities that are not a significant threat to the species and incidental take occurring from these activities would not be a violation of section 9 of the ESA. These activities include: dispersed recreation such as snowmobiling, backpacking, and hunting for other species; timber harvest, wildland firefighting, prescribed fire, and silviculture; transportation corridor and urban development; mining; and transportation and trade of legally possessed wolverine skins and skins from captive-bred wolverines within the US” (page 7890 in USDI 2013a). In the proposed listing, USFWS identified climate change and the loss of persistent spring snow as the primary factor impacting wolverine populations. Trapping mortality can also be a factor impacting wolverine populations. Neither of those two factors is under the control of the KNF.

Activities allowed under the revised Forest Plan would fit under the section 4(d) rule proposed by USFWS (USDI 2013a), and therefore the revised Forest Plan would not jeopardize the continued existence of the wolverine as described in the proposed 4(d) rule. Please see the wildlife specialist’s report and FEIS for more information on the effects of the revised Forest Plan on wolverine.

A) As cited in the wildlife specialist’s report and as explained by the USFWS (USDI 2013a pages 7877-7878), wolverine populations don’t appear to be negatively impacted by human disturbance, including over-snow motorized recreation.

One commenter provided a map of wolverine habitat from Weaver (2011). This citation was reviewed by the KNF and cited in the wildlife specialist’s report. The same commenter cited Inman et al. (2012). This document is also cited in the wolverine section of the wildlife specialist’s report; and

B) The KNF has no control over the extent or intensity of impacts to wolverine habitat due to climate change.

Connectivity of wolverine habitat was discussed in the wildlife specialist’s report. Please see the wolverine sections of the wildlife specialist’s report and FEIS. Schwartz et al. (2009) and USFWS (USDI 2013a page 7879) point to the importance of persistent spring snow for wolverine habitat and the connectivity of that habitat, and wolverines currently appear to be successful at dispersing between habitats and crossing transportation corridors. As persistent spring snow diminishes due to climate change, populations may become isolated. However, the KNF has no influence over the presence of persistent spring snow.

DEIS Environmental Consequences: Category 1621

Public Comment 455: (Letter Number(s): 146, 212, 321, and 335)

The Forest Service should consider the following regarding the wildlife analysis:

- A) The analysis should describe wildlife mortality due to OHV as minor and therefore roads should be kept open;
- B) Providing more information regarding the amounts of habitat available for wildlife than was discussed in the DEIS;
- C) Analyzing the effects of over-snow-motorized use on wildlife in more detail than is in the DEIS, and consider reducing the percentage of land allowing over-snow-motorized use to 50 percent or below to protect the denning habitats of grizzly bears and wolverines;
- D) Including the specific reference to the Treaty of Hellgate of 1855, Executive Order 13175, and USDA and USFS regulation and policies to recognize the importance of wildlife to Tribal hunting and fishing; and
- E) Describing, in more detail, how sensitive species and MIS are designated, as well as if more restrictive forest policies are in place with these designations.

Response:

- A) Direct mortality due to collisions with ATVs or OHVs was not considered an issue in the wildlife analysis. Collisions with wildlife are more likely to occur with larger vehicles travelling at higher speeds than ATVs or OHVs do on low-speed NFS roads or trails. However, disturbance and displacement of wildlife due to ATVs or OHVs is likely similar to that caused by other motorized vehicles. Generally, the wildlife analysis discusses the effects from “motor vehicle use” and focuses on the disturbance/displacement potential rather than direct mortality that may result from a much less likely collision on a low-speed NFS road;
- B) The wildlife specialist’s report contains more information on the amounts of wildlife habitat available than that found in the DEIS. Also, the ERG report (ERG 2012) contains analysis of the amounts of habitat for several species on the KNF. The FEIS was updated with more information from the wildlife specialist’s report, but due to the size of the wildlife specialist’s report not all of it can be included in the FEIS. Please see the wildlife specialist’s report, FEIS, and ERG report (ERG 2012) for additional information than that found in the DEIS. Also, the Analysis of Management Situation (AMS) is included in the project record;
- C) The effects of over-snow motorized use were analyzed in the wildlife specialist’s report, FEIS, and BA. Over-snow motorized use does not appear to be a threat to wolverine populations as described in Public Comment 450. The effect on grizzly bears during spring emergence is discussed in the wildlife specialist’s report and BA. The amount of overlap between denning habitat and over-snow motorized use was disclosed in the analysis, and it is substantially less than a 50 percent overlap. It must be kept in mind that much of the KNF is too densely forested or the topography too steep for over-snow motorized use to occur, regardless of what percentage of the KNF is open to that use. The alternatives analyzed had differences in the amount of acres open to over-snow motorized use.
The revised Forest Plan contains direction that would minimize or avoid disturbance to wildlife from over-snow motorized use. Please see the wildlife specialist’s report and FEIS for more information on the effects of over snow motorized use allowed under the revised Forest Plan on the species analyzed;
- D) Please see pages 348-350 for a description of the Legal and Administrative Framework for Tribal Interests and Treaty Rights related to the KNF Forest Plan revision. The Treaty of Hellgate of 1855 was specifically referenced and analyzed in the DEIS. Please see pages 348, 351, 352, and 426 in the DEIS. Executive Order 13175 is cited on page 350 of the DEIS; and
- E) Sensitive species are administratively designated by the regional forester (FSM 2670.5) and managed under the authority of the National Forest Management Act. FSM 2670.22 requires the maintenance of viable populations of native and desired non-native species and to avoid actions that may cause a species to become threatened or endangered. The National Forest Management

Act (NFMA) (36 CFR 219.19) directs the Forest Service to manage habitat to maintain viable populations of existing native and desired non-native vertebrate species. Some of the direction in the revised Forest Plan is directed at maintaining or improving habitat for Region 1 Sensitive Species.

The KNF has the discretion to choose MIS (see Public Comment 449 and the KIPZ MIS selection document). Each forest plan developed under the 1982 Planning Rule for the National Forest Management Act (NFMA) was required to identify certain vertebrate and/or invertebrate species as Management Indicator Species or MIS as one of various elements to address NFMA requirements related to diversity of plant and animal communities [1982: 36 CFR 219.19(a)]. The KNF chose MIS that provided a measurement tool to compare alternatives and measure progress towards the desired conditions for vegetation in the revised Forest Plan. There were no “more restrictive Forest policies” included in the revised Forest Plan related to the landbird assemblage MIS. Elk was chosen as a MIS because of FW-OBJ-WL-02 and FW-GDL-WL-10 which provide direction on maintaining/improving elk security habitat. Elk was selected as a MIS to analyze the effects of the revised Forest Plan alternatives and monitor progress towards FW-OBJ-WL-02. See the wildlife specialist’s report and FEIS for an analysis of the revised Forest Plan effects for sensitive species and MIS.

Forest Plan General: Category 1623

Public Comment 456: (Letter Number(s): 75, 89, 132, 138, 139, 195, 205, 235, 244, 248, 268, 309, 321, 323, 341, 353, and 364)

The public had the following, sometimes conflicting, suggestions related to the draft Forest Plan:

- A) There is no credible scientific data showing that forest management is affecting T&E species, many species’ populations are stable or increasing, and therefore there is no need for more restrictive management;
- B) The Forest should protect wildlife for wildlife viewing, hunting, and the enjoyment of future generations, particularly by preserving non-roaded areas;
- C) Too much land in roadless areas would impact hiding cover by concentrating management in a few drainages;
- D) There should be a wildlife alternative, new MAs should be developed with a wildlife focus; and wildlife direction in the Plan needs to be firmer so as not to be open to interpretation;
- E) The Forest should initiate an independent scientific peer review of the Plan;
- F) There should be more value placed on natural processes that created habitat conditions and maintained population viability for thousands of years for wildlife;
- G) Clarifying how access would be managed during big game hunting seasons;
- H) Wildlife is one of the Forest’s greatest assets and should be protected;
- I) Protecting the habitat of songbirds, which includes riparian habitat, especially cottonwood bottomlands, and old growth cedar-hemlock forest because these habitats provide for the greatest diversity of birds; and
- J) The draft Forest Plan did not recognize the importance of old growth and large snags for wildlife.

Response:

A) Please see the wildlife specialist’s report, FEIS, and BA for information on the “stressors” impacting threatened, endangered, or sensitive species. For some species, there is direction in the revised Forest Plan that reduces the likelihood that these “stressors” would occur or would minimize the impact. Some direction, such as the grizzly bear “Access Amendment” and the Northern Rockies Lynx Management Decision were retained in the revised Forest Plan. For more information on why those two decisions were originally made, please see those Record of

Decisions and FEISs. It was determined in those decisions that management direction needed to be changed related to grizzly bear and lynx in order for the Forest Service to help recover those species;

B) The impacts of the revised Forest Plan on select wildlife species was analyzed in the wildlife specialist's report and FEIS. Additionally, the introduction of the wildlife specialist's report discusses the coarse filter/fine filter approach to maintaining species diversity and viability;

C) This commenter was concerned that having too much acreage in areas such as IRAs, or other land allocations where active vegetation management was not likely, would concentrate vegetation management into a small area and heavily impact habitats such as hiding cover in those intensively managed areas. This is not what would occur under the revised Forest Plan. Budgets are so low, and likely to remain low, that the amount of active vegetation treatment that occurs on the KNF is relatively small. As seen in the ERG report (ERG 2012) and discussed in the wildlife specialist's report repeatedly, it is natural disturbance processes that largely determine the amount and pattern of wildlife habitat on the KNF;

D) As discussed in the wildlife specialist's report, FEIS, BA, and supported by the ERG report (ERG 2012), the revised Forest Plan is sufficient to maintain species viability and help move threatened and endangered species towards recovery. The revised Forest Plan contains forestwide wildlife direction that applies regardless of MA. As shown throughout the wildlife analysis, the revised Forest Plan has a strong wildlife emphasis. The range of alternatives analyzed showed differences in the amount of non-motorized areas (i.e., "security" habitat for some species). There was also a difference in the amount of acres treated per year to move towards the desired conditions for vegetation (i.e., the vegetative components of wildlife habitat). The direction in the revised Forest Plan is adequately "firm" to meet the intent of the goals, desired conditions, and guidelines. Please see chapter 1 of the revised Forest Plan for information on how projects can be consistent with the direction in the Plan;

E) "Independent scientific peer review" is not a requirement of this Forest Plan revision process. Comments from the public, including from the scientific community, were welcomed during the comment period. Available science was used in the development of the revised Forest Plan and the analyses. Additionally, Ecosystem Resources Group (ERG 2012) provided an analysis, based on the best available science, to determine if the revised Forest Plan would provide sufficient habitat for a collection of species chosen for the analysis. Specialists at the regional office were consulted and reviewed the direction in the Plan and analyses. USFWS was also consulted as required by section 7 of the Endangered Species Act;

F) Natural processes play the largest role in determining species viability on the KNF. Please see the wildlife specialist's report, FEIS, and report by ERG (ERG 2012);

G) Access management during big game hunting season would mainly be managed through FW-GDL-WL-10 and FW-OBJ-WL-02 which sets direction for elk security areas. There are additional desired conditions in the GA section related to providing security habitat or limiting disturbance for big game. Please see the big game and elk sections of the wildlife specialist's report and FEIS for more information on the direction in the revised Forest Plan related to access management/big game security;

H) Wildlife was identified as a major issue and a primary revision topic (see page iii in the DEIS);

I) Please see the migratory landbird section in the wildlife specialist's report and FEIS.

Additionally, see the landbird assemblage MIS analysis and the ERG report (ERG 2012) for the landbird assemblage. There is direction in the revised Forest Plan related to cottonwoods, riparian areas, and old growth; and

J) The draft and revised versions of the Forest Plan contain direction related to old growth and snags. This direction can be found in the vegetation and wildlife sections of the revised Forest Plan. The vegetation specialist's report and vegetation section in the FEIS contains an analysis of

the revised Forest Plan's effects for old growth and snags. Additionally, the wildlife specialist's report and wildlife section in the FEIS contain analyses related to old growth and snags and how those components would continue to be available for species.

One commenter stated that pileated woodpeckers need large snags, have strong site fidelity, and that large snags are rare outside of old growth. The commenter cited several sources in making their case where pileated woodpeckers use large snags and have strong site fidelity. The KNF attempted to find these literature citations, but unfortunately a few of them were not readily available. One of the references cited by the commenter (Bate et al. 2002) doesn't even mention pileated woodpeckers. However, the KNF did find scientific articles by the same authors on the same subject that were newer than the missing citations from the comment letter. The KNF agrees that pileated woodpeckers use large snags. However, pileated woodpeckers are not old growth obligates. Nor are they a MIS under the revised Forest Plan. Please see the KIPZ MIS selection documentation (USDA 2013).

The author of the comment letter was using pileated woodpecker to make a case that old growth needed to be protected. Old growth would be maintained under the revised Forest Plan, and more old growth would be developed over time. See FW-DC-VEG-03, FW-DC-VEG-05, FW-STD-VEG-01, FW-GDL-VEG-01, FW-GDL-VEG-02, and FW-DC-WL-11. Not only would this direction maintain existing old growth, but there is additional direction in the revised Forest Plan that maintains snags, including the large snags pileated woodpeckers use: FW-DC-VEG-07, FW-GDL-VEG-04, FW-GDL-VEG-05, and FW-DC-WL-12.

ERG (2012) also analyzed the effects of the revised Forest Plan on pileated woodpecker and determined that pileated woodpecker habitat would increase on the KNF. Current habitat is already within the historic range of variability and increases under the revised Forest Plan. Therefore pileated woodpecker would continue to have adequate habitat on the KNF.

The literature cited by the commenter, or the replacement literature the KNF found when the commenter's literature was unavailable, included: McClelland (1979), Bate et al. (2002), Kilham (1959 and 1979), Schroeder (1983), Aubry and Raley (2002), and Bull et al. (1992). The full citations can be found in the project record and copies of the literature in the project record. These were reviewed when responding to this comment. The commenter's point in using these citations was to show pileated woodpeckers need large snags and have high site fidelity. As shown above, there is direction in the revised Forest Plan that address both concerns and ERG (2012) shows the revised Forest Plan maintains adequate pileated woodpecker habitat.

Forest Plan Goals: Category 1624

Public Comment 457: (Letter Number(s): 206 and 321)

The Forest Service should change wildlife Goal-01.

Response:

This goal was re-worded in the revised version of the Forest Plan. Both internal and external commenters felt that the words "desired non-native" in the draft version were unclear and should even be removed from this goal. The revised version does not contain the words "desired non-native."

One commenter felt the draft wording of the goal implied the KNF did not consider species viability. Please see the introduction to the wildlife specialist's report and "Wildlife" section in the FEIS for more information on the KNF's approach to maintaining viability.

Forest Plan Desired Conditions: Category 1625

Public Comment 458: (Letter Number(s): 242, 248, 258, 267, and 321)

The Forest Service should consider the following regarding the wildlife direction in the revised Plan:

- A) The desired conditions and guidelines are too flexible and open to interpretation;
- B) The desired conditions for wildlife should be based on a historic range of variability (HRV) in terms of species abundance and species composition; and
- C) The revised Forest Plan should maintain viable populations of wildlife as per 36 CFR 219.19.

Response:

A) Please see the sections titled “Plan Elements” and “Consistency with the Forest Plan” in chapter 1 of the revised Forest Plan. Those sections explain how projects must be consistent with the Forest Plan and the goals, desired conditions, objectives, standards, and guidelines. The wildlife specialist’s report and “Wildlife” section in the FEIS analyze the revised Forest Plan and how the components of the Plan would affect wildlife and habitats. It was determined that habitats for all species analyzed would be maintained or improved over the life of the Forest Plan. The objectives for wildlife were based on recent budget levels, existing conditions, and what the KNF thought we could reasonably accomplish given expected budgets.

Also, please see the responses to other Public Comment statements that address specific concerns about specific species and the direction in the revised Forest Plan not being “firm” enough;

B) The desired conditions for vegetation were based on natural disturbance processes, HRV, and the potential for a warmer climate in the future. The desired conditions for vegetation/fire are the foundation of the KNF’s approach to providing species viability through the “coarse filter” approach. It is based on the concept that the species native to the KNF evolved here with those natural disturbance processes and the amount, types, and pattern of habitat that exist under those processes. As seen in the ERG report (ERG 2012), the wildlife specialist’s report, and “Wildlife” section of the FEIS, it is natural disturbance processes that are expected to play the dominant role in determining the amount of habitat, types, and pattern into the future. Those natural disturbance processes would play the dominant role in determining species viability.

Species populations are not determined by habitat alone. Disease, climate, weather (e.g., a severe winter), competition from non-native species, predation, hunting, or activities on other land ownerships also can play a role in species abundance and diversity on KNF lands. All of those factors are outside of the control of the KNF.

One commenter cited the Committee of Scientists Report (1999) to show that managing for the desired conditions for vegetation, which are based on HRV and natural disturbance processes, would not maintain species viability. Unfortunately, the passages from the Committee of Scientists Report (1999) cited by the commenter were taken out of context. For instance, the commenter wrote that the Committee of Scientists “take issue with wildlife management that emphasizes manipulation of habitat as the primary management methodology for insuring wildlife viability” and then cited the following passage from the Committee of Scientists report: “...in recognition that focusing only on composition, structure, and processes may miss some components of biological diversity.” In this case, the entire passage from the Committee of Scientist’s report is found on page 39 in chapter 3 under the “Focal Species” section. The full paragraph reads: “An emphasis on focal species, including their functional importance or their role in the conservation of other species, combines aspects of single-species and ecosystem management. It also leads to considering species directly, in recognition that focusing only on composition, structure, and processes may miss some components of biological diversity.” The KNF not only is taking a “coarse filter” or ecosystem approach to management, but also a “fine filter” approach to maintaining viability. The fine filter approach includes providing direction in the revised Forest Plan for specific habitat components or to address the potential for certain

effects to specific species or groups of species. This approach is apparent in many of the desired conditions, objectives, standards, and guidelines in the revised I Forest Plan.

The “coarse filter” approach is discussed in the Committee of Scientists Report (1999) on pages 32 and 35. On page 35 is this paragraph: “Because ecosystems are inherently variable, managers need some guidance about the amount of environmental variation that is acceptable and is within the biota’s ability to respond adaptively to it. Estimates of an acceptable range of variability in compositions, structures, and processes provide reference distributions or conditions against which competing management scenarios are compared and ecological integrity is assessed. These reference conditions may be, in fact, the ‘coarse filter’ within which the current physical landscape and biota evolved. To the degree that future management scenarios can achieve these conditions, the more likely it is that the ‘coarse filter’ will achieve the objectives for ecological sustainability and the less likely that ‘fine-filter’ strategies will be needed for individual species.” The commenter also cited the following passage from the Committee of Scientists Report (1999): “Habitat alone cannot be used to predict wildlife populations... The presence of suitable habitat does not ensure that any particular species will be present or will reproduce. Therefore, populations of species must also be assessed and continually monitored.” The commenter appears to be making a case that the KNF needs to go beyond the “coarse filter” approach and even monitor a host of species on the Forest. This passage is found on pages 19-20 in chapter 3 of the Committee of Scientists Report (1999). The full paragraph is under the subheading of Composition which is under the broader topic of The Elements of Ecological Sustainability. The entire paragraph reads: “Habitat alone cannot be used to predict wildlife populations, however. The presence of suitable habitat does not ensure that any particular species will be present or will reproduce. Therefore, populations of species must also be assessed and continually monitored. Tools for assessing both habitat conditions and population dynamics must be developed and frequently validated. Because of limited time and funds, however, it may only be possible to assess the status of a relatively few ‘focal’ species. These species will provide information about the integrity of the larger ecosystem to which they belong. Focal species can include those that are threatened and endangered, occupy rare habitats, are of high management or public interest, are game species, or are indicator species. (The concepts of focus and indicator species are discussed more fully later in this section.)” Again, the point of this paragraph appears to be that a “fine filter” approach may be needed to supplement the “coarse filter” approach to viability and sustainability. The key part of the passage omitted by the commenter is, “...Because of limited time and funds, however, it may only be possible to assess the status of a relatively few ‘focal’ species...” Limited time and funds are a reality for the KNF. Therefore, as the Committee of Scientists realized, it is unrealistic to expect all species or even all TES species on the KNF, to have population monitoring. Please see Public Comments 237 and 449 for more information on the KNFs plan for monitoring and also MIS. The MIS were selected to provide a measurement tool and to focus the assessment and monitoring to be undertaken. The landbird assemblage MIS were used to investigate whether managing for the desired conditions for vegetation/fire would provide adequate habitat for individual species.

Also, please see the introduction of the wildlife specialist’s report for a discussion on the “coarse filter/fine filter” approach to providing viability. See the individual species’ sections for how the “coarse filter” and “fine filter” components of the revised Forest Plan impact viability for the species analyzed. Additionally, see the ERG Report (ERG 2012) for more analysis related to viability of individual species under the revised Forest Plan; and

C) It was determined that the revised Forest Plan does indeed maintain viable populations of wildlife as per 36 CFR 219.19. Please see the wildlife specialist’s report, “Wildlife” section in the FEIS, and ERG (2012) for more information on how the revised Forest Plan maintains species viability.

One commenter specifically mentioned the viability of old growth dependent species. There are no wildlife species on the KNF that are dependent solely on old growth. The KNF does have species that will utilize old growth habitat along with other types of stands. Please see the old growth section of the vegetation specialist's report and "Vegetation" section of the FEIS. Also, see the wildlife specialist's report and "Wildlife" section of the FEIS for information on how the old growth direction in the revised Forest Plan affects species. Also, see the ERG report (ERG 2012) for analysis of species that can use old growth stands, along with other mature stands, such as the Hammond's flycatcher.

Objectives: Category 1626

Public Comment 461: (Letter Number(s): 321)

The Forest Service should describe what is intended by "maintenance or restoration" as it relates to FW-OBJ-WL-01.

Response:

FW-OBJ-WL-01 is based on recent KNF accomplishment trends, annual budgets, and anticipated budgets. Examples of activities that would count towards FW-OBJ-WL-01 include prescribed burning for winter range improvement (big game), thinning/burning of timbered stands for huckleberry enhancement (grizzly bear), aspen stand maintenance through conifer thinning in and around aspen clones (migratory birds), or dry forest restoration through thinning/burning (flamulated owl and other migratory birds). Please see the specific species' sections in the wildlife specialist's report and FEIS for a description of each species' habitat. Also see the effects analysis in the wildlife specialist's report, "Wildlife" section in the FEIS, and the ERG report (ERG 2012) for information on how the Forest's vegetation management and prescribed burning is anticipated to affect wildlife habitat.

Objectives: Category 1626

Public Comment 462: (Letter Number(s): 321)

The Forest Service should describe how the wildlife objective FW-OBJ-WL-03 ties to the landbird assemblage MIS and viability of the landbird assemblage.

Response:

FW-OBJ-WL-03 has been re-worded for the revised Forest Plan. This objective was included due to the importance of fire in determining the amount of habitat on the Forest and playing a large role in trending the Forest towards the desired conditions for vegetation. The landbird assemblage MIS was selected to provide a measurement tool for those desired conditions for vegetation. Please see the wildlife specialist's report, "Landbird Assemblage" section of the FEIS, and the ERG report (2012) for more information.

Objectives: Category 1626

Public Comment 463: (Letter Number(s): 341)

The Forest Service should describe how FW-OBJ-WL-02 for elk security impacts the KNF's ability to manage elk forage/cover.

Response:

As explained in the wildlife specialist's report and FEIS, cover/forage for big game is managed according to the desired conditions for vegetation/fire. As described throughout the ERG report

(2012) and the wildlife specialist's report for a variety of species, the amount of habitat is largely determined by natural disturbance processes and succession.

Objectives: Category 1626

Public Comment 464: (Letter Number(s): 212)

The Forest Service should reword FW-OBJ-WL-02 to include more than just elk security, or develop more objectives that would address other habitat factors relevant for native ungulates.

Response:

There is no requirement to have objectives for every species, habitat, or activity. FW-OBJ-WL-02 is tied to FW-GDL-WL-10 and tied to elk as a MIS for elk security. Please see the elk section of the wildlife specialist's report and FEIS for more information on how the revised Forest Plan affects cover/forage. Also see the big game section in the wildlife specialist's report and FEIS. Additionally, the dynamic nature of the ecosystems and natural disturbance processes on the KNF are discussed throughout the species' sections in the wildlife specialist's report, FEIS, and ERG report (ERG 2012).

Guidelines: Category 1628

Public Comment 468: (Letter Number(s): 321)

Wildlife guideline FW-GDL-WL-01 is too flexible and there is no definition of what minimization of disturbance is. Therefore there could be inconsistency in how this guideline is applied. Additionally, what is the science behind the distance restrictions in this guideline?

Response:

FW-GDL-WL-01, FW-GDL-WL-02, FW-GDL-WL-08, FW-GDL-WL-09, FW-GDL-WL-16, FW-GDL-WL-17, FW-GDL-WL-18, FW-GDL-WL-19, FW-GDL-WL-20, and FW-GDL-WL-21 have been revised or newly created since the draft Forest Plan was released. The words "should avoid/minimize disturbance" still appear in the guidelines. The definition of "minimize" in this context is the same as the common definition found in a dictionary such as Webster's: "To reduce to the smallest possible amount, size, extent, or degree." Please see chapter 1 in the revised Forest Plan for a definition of a guideline and also how projects would be consistent with the revised Forest Plan.

FW-GDL-WL-01 and the others mentioned above have been revised for the Forest Plan. After further examination of these guidelines it was determined that they needed to be more adaptable to new science that emerges during the life of the Forest Plan. Therefore, FW-GDL-WL-01 is now specific to grizzly bear, and the other species covered under this guideline are now covered under other guidelines that have been revised or newly created. The intent of the original FW-GDL-WL-01 is still in the revised Forest Plan, but the direction is more adaptable to new science that comes to light during the life of the Forest Plan.

Guidelines: Category 1628

Public Comment 470: (Letter Number(s): 341)

Wildlife guideline FW-GDL-WL-05 should be expanded to include leaving large sections protected from post fire harvest, firewood cutting, and road salvage in order to enhance the wildlife habitat.

Response:

FW-GDL-WL-05, along with FW-DC-WL-14, were created in order to provide adequate burned habitat for species whose habitat requirements include recently burned forests, such as black-backed woodpeckers. Please see the ERG report, wildlife specialist's report, and FEIS, particularly the black-backed woodpecker sections, for more information on how the revised Forest Plan provides for snags and recently burned forest habitat.

Forest Plan Yaak GA Desired Condition: Category 1635**Public Comment 473:** (Letter Number(s): 212)

The Kootenai Tribe of Idaho would like direction added to the Forest Plan in the form of goals and desired conditions stating that the KNF will provide sustainable wildlife populations capable of supporting the exercise of Treaty rights.

Response:

Both the draft and revised Forest Plan contains a section on forestwide direction related to American Indian Rights and Interests. In that section is a desired condition, FW-DC-AI-01, which states, "The Forest recognizes and maintains culturally significant species and the habitat necessary to support healthy, sustainable, and harvestable plant and animal populations to ensure that rights reserved by Tribes in the Hellgate Treaty of 1855 are not significantly impacted or diminished."

The DEIS also analyzed the impacts of the Forest Plan on treaty rights. Please see the section titled "Tribal Interest and Treaty Rights" in the DEIS beginning on page 348. Please see pages 348-350 for a description of the Legal and Administrative Framework for Tribal Interests and Treaty Rights related to the KNF Forest Plan revision. The Treaty of Hellgate of 1855 was specifically referenced and analyzed in the DEIS. Please see pages 348, 351, 352, and 426 in the DEIS.

Mountain Goats: Category 1637**Public Comment 452:** (Letter Number(s): 235, 245, 249, and 356)

The public offered opposing comments with regard to the importance of the Scotchman Peaks area, particularly Savage Peak, for mountain goats and how over-snow motorized use should be managed in the area:

- A) Some commenters state that the area is important mountain goat habitat, and at the very least may be historic range even if goats are not currently present. They contend that the area should not have over-snow motorized use in order to protect mountain goat habitat; and
- B) Other members of the public state that the over-snow motorized recreationists use different areas than the mountain goats use; and therefore over-snow motorized recreation should be allowed because it does not impact mountain goats.

Response:

Please see the big game section in the wildlife specialist's report and FEIS for more information on the effects to mountain goats and other big game species.

- A) The mountain goat is not a federally listed (i.e., threatened or endangered) species, a R1 Sensitive species for the KNF, or a Management Indicator Species for the revised Forest Plan. However, there is direction in the revised Forest Plan that either specifically mentions mountain goats or would otherwise provide direction for managing mountain goat habitat and avoiding/minimizing disturbance.

Regardless of MA designation, there is sufficient direction in the revised Forest Plan to protect mountain goat winter range. FW-DC-WL-16 states that habitat for native ungulates are managed in coordination with state agencies. This provides an avenue for the KNF to receive updated winter range information from the state as it becomes available. Additionally, FW-GDL-WL-08 and FW-GDL-WL-09 provide direction to avoid or minimize disturbance to native ungulates on winter range. MA1a-DC-WL-01 and MA1b-DC-WL-02 state that wilderness and recommended wilderness provides habitat for species found primarily in these habitats, such as the mountain goat. GA-DC-WL-BUL-02 states that the timing of use and location of over-snow motorized recreation in the Scotchman Peaks area provides secure habitat conditions for mountain goat use of winter habitats. It doesn't matter if an area is recommended wilderness or not, FW-DC-WL-16, FW-GDL-WL-08, FW-GDL-WL-09, and GA-DC-WL-BUL-02 provide the means to avoid or minimize disturbance to mountain goats on winter range from over-snow motorized use.

The Savage Peak area is recommended as wilderness in the revised Forest Plan. Mountain goat winter range was not a driver in making this determination as there were a host of other reasons for recommending wilderness. See the response to Public Comment 149 for a discussion on why the Scotchman Peaks/Savage Peak area was recommended as wilderness. However, because over-snow motorized use is not allowed in recommended wilderness, which eliminates the potential for disturbance impacts to mountain goats on winter range from snowmobiles. In those areas outside of wilderness/recommended wilderness, mountain goats on winter range would be protected through the direction in the revised Forest Plan mentioned above.

Many of the known winter range areas and much of the likely winter range areas identified in Joslin (1980) occur within wilderness, recommended wilderness, and MA5a (non-motorized backcountry), so the potential for over-snow motorized use to impact mountain goats on winter range is diminished under the revised Forest Plan.

The overall effect of the revised Forest Plan on mountain goats and their habitat would be a decrease in the potential impacts from activities. Mountain goat habitat would be maintained as it is for the other wildlife through the desired conditions for vegetation and fire, which are based on the natural disturbance processes that mountain goats evolved with here on the KNF. Disturbance would be avoided or minimized on winter range, thereby reducing the impacts on mountain goats during the most physiologically challenging period during the year. The revised Forest Plan contains sufficient direction that it would maintain/improve sufficient habitat for mountain goat persistence on the KNF; and

B) There appears to be two pieces to consider for this comment. First, commenters seem to believe that mountain goat winter range was a determining factor in recommending the Scotchman Peaks/Savage Peak areas for wilderness. This is not the case. There are a wide variety of other reasons why an area may be recommended as wilderness, as seen in appendix C of the DEIS.

Secondly, commenters attempt to show that their areas of snowmobile use in the Savage Peak vicinity do not overlap with mountain goat winter range. This contention is irrelevant for the Scotchman Peaks/Savage Peak area as it is recommended wilderness in the revised Forest Plan. As mentioned previously, this recommendation was not due to mountain goat winter range as there is plenty of direction in the revised Forest Plan that would protect mountain goats on winter range regardless of MA designation. However, given that snowmobiles/over-snow motorized recreation is not allowed in recommended wilderness, the argument over whether or not snowmobiling in the Savage Peak area would impact mountain goats is irrelevant given that snowmobiling would no longer be allowed in the areas due to the recommended wilderness determination.

Even if over-snow motorized recreation does not occur on the exact spot where mountain goats winter, the presence of over-snow motorized recreation near to those mountain goat winter ranges

may cause enough disturbance to apply the aforementioned revised Forest Plan. Additionally, if through coordination with the State, and review of the best available information, it is determined that an area was winter range for mountain goats historically but they may no longer be present, it may be desirable to keep those areas available for re-colonization by mountain goats in the future. Again, FW-DC-WL-16 states that the KNF would coordinate native ungulate habitat management with the State. During that coordination the State may help the KNF identify areas of historic mountain goat winter range that are important for future re-colonization by mountain goats. Montana Fish, Wildlife and Parks has repeatedly noted their concern over potential snowmobiling impacts to mountain goats on winter range in the Savage Peak area, including during the public comment period in 2012 on the draft Forest Plan and DEIS.

Some commenters submitted documents attempting to show that snowmobiling doesn't have an impact on mountain goats in the Savage Peak vicinity.

These documents include:

- “Winter Wildlife” map – Unfortunately, the commenters who submitted this map appear to have misinterpreted it and its intent. They appear to believe this map was made by MFWP. It was made by the KNF and depicts a data layer provided on MFWP's website. The MFWP's data includes a coarse scale depiction of mountain goat general range and general/winter range. The map in question depicts just the general/winter range portion of the data. Additionally, the map depicts a digitized version of Gayle Joslin's work from the 1980 Mountain Goat Habitat Management Plan for the Cabinet Mountains (Joslin 1980). The map was merely to compare the two data sets and overlay them with Alternative B. The map was prepared in case the topic came up at the public open houses related to the release of the draft Forest Plan. The commenters appear to believe that mountain goat winter range was a major driver in determining MA allocations such as MA1b (recommended wilderness) and MA1a (backcountry non-motorized). As explained above, there is direction in the revised Forest Plan that applies regardless of MA. Mountain goat winter range was not the driving factor determining MA designations. Even in MA designations that allow over-snow motorized use, there is adequate direction in the revised Forest Plan to avoid or minimize disturbance to mountain goats from over-snow motorized recreation. FW-GDL-WL-08, FW-GDL-WL-09, and GA-DC-WL-BUL-02 provide the means to avoid or minimize disturbance to mountain goats on winter range from over-snow motorized use, regardless of MA.

- The same commenter cited a 2003 Brewster Mountain Goat Ungulate Winter Range Report from Canada (Arthur 2003) to show that mountain goats use west and south slopes, sites with shallower snow depths, and windswept areas with limited snow rather than the aspects and deeper snows that the commenter prefers to snowmobile in. The commenter appears to be attempting to make a case that there is no conflict between over-snow motorized recreation and mountain goat winter use in the Savage Peak vicinity and that the mountain goats should not be a reason to recommend the area as wilderness or otherwise exclude snowmobiles. As mentioned above, mountain goat winter use is not among the driving factors used when determining wilderness recommendations or delineating MAs that exclude over-snow motorized use. There are a variety of other reasons for recommending wilderness, many of them not related to wildlife. Many reasons may even be related to non-winter use. Please see the response to Public Comment 149 for more information regarding the reasons for recommending wilderness in the Scotchman's Peak vicinity. With regard to the literature cited (Arthur 2003) by the commenter, the KNF reviewed the document. Joslin (1980) represents more site-specific information for the Cabinets/West Cabinets on the KNF than Arthur (2003). The KNF does not dispute that mountain goats will find areas with shallower snow depths. However, even if there is not an overlap between the areas mountain goats prefer and those snowmobilers prefer, the presence of snowmobiles in an area may impact mountain goat use of nearby sites. There is adequate

direction in the revised Forest Plan, as mentioned previously, to avoid or minimize disturbance to mountain goats. Arthur (2003) did have a few passages of note that the commenter did not mention in their letter. On page 6 of Arthur (2003), for example, is the following sentence: “Although some ungulate species may show a greater degree of habituation and tolerance of human activity, mountain goats appear more susceptible to human disturbances than other wildlife (Foster and Rahe 1983, Cote 1996, extensive review in Wilson and Shackleton 2001).” Another interesting sentence from Arthur (2003) that the commenter didn’t mention was on page 10: “Maintain mountain goat winter range by minimizing human disturbance and access.” Both of these sentences appear to suggest concern over human disturbance and wintering mountain goats.

- The same commenter cited a 2011 report titled “Seasonal distribution and aerial surveys of mountain goats in Mount Rainier, North Cascades and Olympic National Parks, Washington” (Jenkins et al. 2011). Again, the commenter appears to be using the citation to make a case that snowmobiling does not impact mountain goats in the Savage Peak/Scotchman Peaks vicinity because the goats possibly move out of the higher elevations that the snowmobilers target during the winter. The KNF does not dispute that mountain goats may utilize different sites during summer versus winter, but the Joslin (1980) report represents better site-specific information for the Cabinets and West Cabinets on the KNF. Again, the commenter seems to be under the impression that mountain goat winter range was a driving factor in determining whether or not to recommend this area as wilderness in the revised Forest Plan. As mentioned above, there are a host of other reasons why an area may be recommended for wilderness. Additionally, there is direction in the revised Forest Plan that would be used to minimize or avoid disturbance to mountain goats on winter range anywhere that winter range occurs on the KNF and there is an issue with disturbance, even if that winter range doesn’t occur in recommended wilderness but instead in any of the other MAs across the KNF.

- The commenter also cited Joslin (1980), which represents relevant, site-specific information regarding mountain goats in the Cabinets and West Cabinets on the KNF. The commenter appears to be attempting to use Joslin (1980) to justify their access to the Savage Peak vicinity for snowmobiling by claiming that the area is not winter range for mountain goats and therefore their snowmobiling activities would have no impact on wintering mountain goats. This line of logic is used in an attempt to show that mountain goat winter range shouldn’t be used by the KNF as a reason to recommend the area as wilderness. The KNF did not use mountain goat winter range as a driving factor in determining wilderness area recommendations. As stated above, there are a host of reasons, most of them not related to wildlife or wildlife habitat, for potentially recommending an area as wilderness. The commenter seems to be under the impression that mountain goat winter range is a reason for recommending the Savage Peak/Scotchman Peaks area as wilderness. This is not the case. Please see the response to Public Comment 149 for more information on the reasons for recommending this area as wilderness. Joslin (1980) was not used in delineating the recommended wilderness boundary or any of the MA boundaries. The Joslin (1980) winter range information, along with other winter range data in GIS, is available for the KNF. FW-GDL-WL-08, FW-GDL-WL-09, and GA-DC-WL-BUL-02 provide the means to avoid or minimize disturbance to mountain goats on winter range from over-snow motorized use, regardless of MA. This includes all areas that have mountain goat winter range that is outside of the recommended wilderness. The Savage Peak area appears to overlap Joslin (1980) “management situation 1” lands. Those “management situation 1” lands are areas that provide critical mountain goat range during summer and/or winter. Joslin (1980) states: “Mechanized human activities should not occur in these areas. Human activities on adjacent areas should be kept to a minimum during the seasons when these areas are used by goats” (page 84 in Joslin 1980). This is just an example of the information in Joslin (1980). As pointed out

repeatedly, the concern over snowmobiles disturbing mountain goats on winter range in the Savage Peak area is irrelevant due to the recommendation of the area as wilderness.

Two commenters provided additional literature citations that they wished to be considered in the analysis. The letters appear to have been copied or pasted from another letter or possibly from another source entirely. Unfortunately, the commenters failed to provide adequate information regarding those citations. They only provided an author's last name and a year, but in most cases nothing else. The KNF attempted to find likely candidates for the literature the commenters were trying to point to. Below is a list of the literature the commenters tried to point to and what the KNF was able to find or not, and how it was incorporated into the analysis. In general, even if the specific literature was not found, the KNF had already taken into consideration the commenter's main point: that humans on foot sometimes create more disturbances to wildlife than motorized vehicles and the effects of non-motorized use should be considered. Please see the wildlife specialist's report and "Wildlife" section in the FEIS for an analysis of both non-motorized and motorized impacts to wildlife. A list of literature cited in the wildlife specialist's report is found at the end of the report and a copy of that literature is in the project record. Literature cited by the KNF in these responses to comments is also located in the literature cited section of the wildlife specialist's report and can be found in the project record, even if the literature wasn't cited in the wildlife specialist's report directly.

The commenters cited Canfield (1999), Freddy (1986), Eckstein (1979), Richens (1978), Lavigne (1979), and Bolling (1974). That is all the information the commenters provided, along with a general topic of motorized versus non-motorized disturbance effects on wildlife. A few other citations were included by the commenters, such as Sartorius (2009) related to lynx, Inman (2007) related to wolverine, and White (2005) related to Yellowstone research. Again, no additional information was provided on these literature citations.

The point the commenters appear to be making is that non-motorized use has the potential in some cases to be more disturbing to wildlife than motorized use such as snowmobiling. The KNF analyzed the effects of both non-motorized and motorized activities on wildlife. Please see the wildlife specialist's report and FEIS.

Canfield (1999): The KNF suspects that the commenters may have actually been referring to Canfield et al. (1999), which is a chapter on effects to ungulates from recreation in Joslin and Youmans (1999) titled "Effects of recreation on Rocky Mountain wildlife: a Review for Montana." This report was cited in the specialist's report.

Freddy (1986): The KNF suspects that the commenters may have actually been referring to Freddy et al. (1986). This publication had already been included in the wildlife specialist's report.

Eckstein (1979): The KNF suspects that the commenters may have actually been referring to Eckstein et al. (1979). This study concluded that deer reacted to a person walking more than they did a person on a snowmobile. This study was cited in the specialist's report.

Richens (1978): The KNF suspects that the commenters may have actually been referring to Richens and Lavigne (1978). Among the conclusions of this study was that deer reacted more to people on foot than people on snowmobiles. This study was cited in the specialist's report.

Lavigne (1979): The KNF suspects that this is a reference to a M.S. thesis done by Lavigne in 1976. Nothing was found by this author for the year 1979. One of the items reported from the study is that deer appeared to react more to someone on foot than to someone on snowmobile. This study was cited in the specialist's report.

Bolling (1974): The KNF could not locate this citation. Not enough information were provided by the commenter.

Sartorius (2009): The KNF suspects that this was actually a newspaper article and not peer-reviewed science (http://trib.com/news/state-and-regional/lynx-biologist-snowmobiling-is-no-problem/article_60a08dd8-73f1-5de3-85c5-1b07a793053d.html). This newspaper article about

snowmobiling and lynx was not cited in the specialist's report. It is merely a newspaper article and doesn't provide any supporting science, data, or other useable information that would contribute to the analysis in the specialist's report for the revised Forest Plan. However, peer-reviewed science concluding that snowmobiling had only minimal impacts on coyote movements (a lynx competitor) and foraging success was cited in the specialist's report. Please see the lynx section in the wildlife specialist's report for more information on the potential impacts (or lack of impacts) of over-snow motorized use on lynx. A PDF version of this newspaper article can be found in the references section of the project record.

Inman (2007): The KNF suspects that the commenters may be referring to Inman et al. (2007), a December 2006-March 2007 Greater Yellowstone Wolverine Program Update. The update mentions that one female wolverine stayed at a den-site when snowmobiling occurred adjacent to the den. This update contains very little information of use in the analysis for the wildlife specialist's report, just this brief mention that this one female wolverine didn't leave the den-site. It was not cited in the wildlife specialist's report. It appears to be generally consistent with other citations in the wildlife specialist's report, in particular the 2013 Federal Register notice from USFWS proposing the listing of the wolverine, which contained more substantial information regarding snowmobiles and wolverine. Please see that analysis in the wildlife specialist's report. A copy of the report by Inman et al. (2007) was included in the references section of the project record.

White (2005): The KNF suspects that the commenters may have actually been referring to White et al. (2005). One of the conclusions in this report from Yellowstone is that some animals can habituate to over-snow motorized use and display little or no reaction unless they are approached on foot. The KNF cited this report in the specialist's report. The report by White et al. (2005) suggested that active responses by wildlife can be diminished by restricting over-snow motorized travel to predictable routes and times, reducing the number of vehicles in a group, and other means.

The commenters also mentioned research conducted at the Starkey Experimental Forest in Oregon regarding ATVs, mountain biking, hiking, and horseback riding and the effects on big game behavior (elk and mule deer). The KNF assumes that the commenter was referring to Wisdom et al. (2005) or Naylor et al. (2009). Both of these studies have been cited in the specialist's report. As the commenter pointed out, the researchers did not make any conclusions regarding individual animal health or herd health due to the effects of disturbance/displacement from the studied human activities. The study design did not allow for such conclusions. However, it was clear from the study that elk behavior did change and animals were temporarily displaced away from the human activities. This was a clear indicator that ATVs, mountain biking, hiking, and horseback riding can impact elk behavior and habitat use, at least temporarily.

One commenter contained a section titled "Effects on Wildlife" in their letter in an attempt to discredit any claim that snowmobiling has impacts on wildlife. Unfortunately, the commenter did not provide full literature citations, making it difficult for the KNF to acquire the documents.

During the KNF's search on the internet for these documents it was discovered that the commenter had copy/pasted an entire section from the website

http://www.snowmobile.org/facts_ece.asp. The commenter copied verbatim the first several paragraphs of this webpage into their letter, and this is where those literature citations were used. Again, the website didn't provide the full literature citations either.

One of these literature citations is attributed to Dr. Andres Soom and supposedly titled "Emission, Propagation and Environmental Impact of Noise from Snowmobile Operations." The KNF has determined that this is likely a PhD. thesis from nearly four decades ago at the University of Wisconsin-Madison. The KNF was not able to acquire the document during our search of the internet. However, the results from the study reported by the commenter appear consistent with

other literature cited in our FEIS and wildlife specialist's report, particularly in the big game and elk sections. The study by Soom apparently found that deer reacted more to cross-country skiers than to snowmobiles. The point the commenter appears to be making is addressed in the wildlife specialist's report, particularly in the big game and elk analyses, using other, similar literature citations.

Another one of the literature citations was referred to by its title: Response of white-tailed deer to snowmobiles and snowmobile trails in Maine. The commenter did not provide a date for the publication, did not identify the authors, or identify the journal it was published in. The KNF was able to track this document to a paper published by Richens and Lavigne (1978). This document is discussed above and cited in the wildlife specialist's report in the elk analysis.

A literature citation used by the commenter was supposedly titled "Snow Machine Use and Deer in Rob Brook." A full literature citation was again not included. The author's name and date were not provided. The results attributed to this study by the commenter were that deer travel patterns were not affected by periodically heavy snowmobile use. These claimed results do not conflict substantially with some of the other literature provided by the same commenter. Those other literature citations have been included in the wildlife specialist's report, as discussed above.

Another incomplete citation was provided for a study the commenter attributed to Michael J. Dorrance and titled "Effects of Snowmobiles on White Tailed Deer." The KNF believe that the commenter is actually referring to Dorrance et al. (1975). This citation was included in the wildlife specialist's report. Unfortunately, the commenter misrepresented this study. The experiment included two study areas, one in a state park where snowmobiling was an allowed use and deer hunting was not allowed, and the other in a wildlife management area where snowmobiling was not normally allowed and hunting did occur. The deer in the state park where hunting was not allowed appeared to habituate to the snowmobile activity and only showed subtle responses to snowmobiles. In the wildlife management area the effects were more pronounced and resulted in greater movements and displacement of deer away from trails. The commenter seemed to focus on the part of the study where the deer response was subtle. Deer on the KNF are hunted, so their response may be more like the deer in the study that were on the wildlife management area.

The final citation by the commenter is attributed to Jack Anderson, a former Superintendent of Yellowstone. The quote attributed to Anderson indicates that snowmobiles in Yellowstone were generally ignored by wildlife, but when the rider stopped the machine and started waking the animals reacted. This doesn't appear to be from any scientific publication. It likely came from a newspaper article. This quotation does not add peer-reviewed science, data, new information, or contribute meaningfully to the analysis in the wildlife specialist's report and was not included as a citation.

Woodland Caribou: Category 1638

Public Comment 453: (Letter Number(s): 154)

The Forest Service should consider prohibiting over-snow motorized use in the Ten Lakes WSA and surrounding areas in order to provide habitat connectivity for woodland caribou.

Response:

Woodland caribou is not identified by USFWS as a T&E species occurring on the KNF. The GA desired conditions for wildlife include direction that connectivity for wildlife is provided to/from the KNF and the border with Canada (GA-DC-WL-TOB-05). Other GA direction for connectivity in the revised Forest Plan would allow wildlife venturing down from Canada to move deeper into the KNF or beyond.

The MA1b (recommended wilderness) in this area limits the acreage where over-snow motorized use is allowed in the Ten Lakes and Whitefish Range vicinity of the KNF. Additionally, the desired conditions for MA5a is to be non-motorized backcountry (motor vehicle use can occur on designated routes). These areas cover much of the eastern boundary of this vicinity and the recommended wilderness portion represents an immediate decrease in the area available for over-snow motorized use in this part of the KNF when the Forest Plan is finalized.

Not all of the MA1c (Wilderness Study Area) and MA5b (motorized backcountry) in the Ten Lakes vicinity and Whitefish Range would have snowmobile use. Topography and vegetation often prevents snowmobiles from accessing the entire acreage within these MAs. Even in areas that allow over-snow-motorized use under Alternative B Modified, and where topography and vegetation do not prevent that use, GA-DC-WL-TOB-05 provides adequate direction under the revised Forest Plan to address wildlife connectivity concerns.

Please see the response to Public Comment 439 for more information regarding connectivity for wildlife.

Wild & Scenic Rivers

Eligibility: Category 1700

Public Comment 475: (Letter Number(s): 236, 293, 312, 327, 335, 351, 358, 363, and 381)
The Forest Service should consider the following regarding the eligibility of wild and scenic rivers (W&SRs):

A) There is disagreement with the process used in conducting the inventory of eligible wild and scenic rivers and the results. The FEIS needs to describe the process used for the inventory (including who conducted the inventory) and provide documentation regarding the individual potential ORVs that were considered on inventoried streams. The ORVs for the resulting eligible streams need to be described narratively. Some commenters felt the inventory should have had a broader scope, including national significance of streams on the Forest, while others felt some of the streams identified as eligible did not meet the intent of the Wild and Scenic Rivers Act;

B) The Federal W&SR Guidelines (Federal Register, September 7, 1982) refers to a study that is to be completed and presented to the President. The DEIS does not explain how this study was completed, who completed the study, and how/when public review was completed;

C) The KNF needs to explain why the outstandingly remarkable values listed in tables 71 and 72 in the DEIS don't always match the values found in the inventory;

D) The KNF needs to define the area that will be managed as WSR. The handbook states a minimum of ¼ mile, but it is not clear what the KNF used. The numbers in table 71, page 323 of the DEIS indicate a much higher width;

E) The Federal W&SR Guidelines (Federal Register, September 7, 1982) refers to management that would protect and enhance the values for which the river was designated. The KNF should explain who will determine adverse impacts or degradation, and whether more restrictive management policies would be used to “protect and enhance” the values for which the river was designated; and

F) Regarding the wilderness characteristics rating evaluation, wild and scenic river designations are deemed to improve wilderness characteristics for an area, and the draft Forest Plan has proposed wild and scenic river designations for numerous streams which are within or adjacent to the Whitefish Divide/Thompson Seton Area. The KNF appears to be actively trying to improve the wilderness characteristics rating evaluation of this area with these proposed designations.

Response:

A) As described in the DEIS, the KNF followed law, regulation, and handbook direction in determining streams and rivers that were eligible for wild and scenic river designation. Appendix E and chapter 3 of the FEIS have been updated to include additional information on the inventory process, who completed the inventory, and a description of the resulting ORVs for eligible rivers. As described in appendix E, direction regarding the area, region, or scale of comparison is not fixed, and is defined as that which serves as a basis for meaningful comparative analysis. Given the preponderance of rivers and creeks throughout the Northern Region and the northwest portion of the U.S., the KNF chose the individual forest as the basis for comparison. Identification of ORVs is subjective and the KNF resource specialists completed comparisons based on-the-ground knowledge;

B) The study referred to in the W&SR guidelines is for rivers undergoing a suitability study. As described in the DEIS, no suitability study is being conducted with the revised Forest Plan. As required by Forest Service Handbook direction (FSH 1909.12, 81.2), the forest completed an eligibility analysis as part of the forest plan revision. Suitability studies are deferred pending public interest or support for a study, Congressional interest in designation of a specific river, or a proposed project would alter the free-flowing character of the stream or adversely affect ORVs. Thus, no studies have been completed on any of the eligible WSRs on the KNF;

C) The table in the DEIS summarized values over an entire river system after a forestwide comparison to determine if the outstandingly remarkable values identified in the inventory were rare, unique, or exemplary. See the methodology section in the FEIS for a description of this step. This table has been updated in the FEIS based on narratives that were developed for each segment that describe the outstandingly remarkable values that meet the criteria for being “rare, unique, or exemplary.”;

D) The KNF used ¼ mile buffer along eligible streams to identify the land area to be managed under MA2, eligible wild and scenic rivers. The miles column in table 71 includes miles on all lands, while the acre column is only those on Forest Service lands. Because of this difference in land base, the table cannot be used to determine average acres per mile. A column of miles on NFS lands has been added to this table in the FEIS;

E) This section of the W&SR Guidelines is referring to wild and scenic rivers that have been designated by Congress for inclusion in the national wild and scenic rivers system. The KNF does not have any designated wild and scenic rivers. The eligible wild and scenic rivers will be managed according to forest plan direction for MA2; and

F) The KNF was not manipulating the wilderness evaluation by identifying eligible wild and scenic rivers in the Thompson Seton area. The inventory of eligible wild and scenic rivers was conducted separately from the wilderness evaluation, following law, regulation, and handbook direction. Furthermore, the presence of eligible wild and scenic rivers within an IRA results in a “moderate” rating in only one of 47 attributes used in rating capability for wilderness.

Inventory: Category 1701**Public Comment 476:** (Letter Number(s): 236)

The Forest Service should provide a more recent W&SR Inventory and include information in the American Rivers’ Wild and Scenic River Eligibility Report. The inventory presented in the DEIS was part of the 2006 forest planning effort. There are changed circumstances in regards to the KNF W&SR inventory. The creation and presentation of American Rivers’ Wild and Scenic River Eligibility Report qualifies as a “changed circumstance,” as does significant new interest from the public in W&SRs eligibility. In the six-plus years since the previous inventory, other circumstances have changed as well, including a revised critical habitat designation for bull trout that emphasizes the national significance of streams on the KNF. The Forest needs to consider the

inventory completed by American Rivers and presented to the Forest Service in May 2011 and the changed circumstances.

Response:

See the response to Public Comment 263 (E). The inventory for eligible wild and scenic rivers was conducted as part of the forest plan revision effort. Only minimal comment was received on eligible wild and scenic rivers during the comment period on the 2006 Proposed Plan. The public scoping conducted when plan revision resumed under the 1982 regulations (NOI issued in March 2010) resulted in no comments on wild and scenic rivers. The report issued by American Rivers was not available in time to be included in the DEIS. Management area allocations had been finalized and most of the DEIS analysis completed when the report was released in May of 2011. The FEIS has addressed this report, including it as an alternative considered but eliminated from detailed study. See chapter 2 of the FEIS for a description of this alternative (titled “Additional Eligible Wild and Scenic River Designation”) and why it was eliminated from detailed study. Designation of critical habitat for bull trout does not affect the eligibility inventory. Streams containing bull trout do not necessarily meet the criteria for being “rare, unique, or exemplary” on the Forest. Areas identified as critical habitat for bull trout are protected through management direction in the revised Forest Plan and the retained INFISH direction.