

Appendix F. Evaluation of Wilderness Inventory Areas

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Abbreviations

BLM	Bureau of Land Management
CDNST	Continental Divide National Scenic Trail
ESA	Endangered Species Act
FS	Forest Service
FSR	forest system road
GOTM	Gates of the Mountains Wilderness
HLC NF	Helena-Lewis and Clark National Forest
IRA	inventoried roadless area
NCDE	Northern Continental Divide Ecosystem
NF	National Forest
NFS	National Forest System
OHV	off-highway vehicle
RNA	research natural area
ROW	right-of-way
TH	trailhead
WCC	watershed condition class (Class 1=Fully functioning, Class 2= Functioning at Risk, Class 3=Impaired)
WCT	westslope cutthroat trout
WMA	wildlife management area
WQ	water quality
WSR	wild and scenic river

Introduction

In developing a proposed new plan or proposed plan revision, the responsible official shall “identify and evaluate lands that may be suitable for inclusion in the National Wilderness Preservation System (NWPS) and determine whether to recommend to the Chief of the Forest Service (FS) any such lands for wilderness designation” (Forest Service Land Management Planning Handbook 1909.12).

Please see associated maps for detailed information.

Wilderness Evaluation Process Overview

The process by which lands are recommended for inclusion in the NWPS is intended to be transparent and consistent across the National Forest System (NFS). To accomplish this, the process is designed to occur in the following four primary steps (2012 Forest Service Planning Rule and Chapter 70 of the Forest Service Land Management Planning Handbook 1909.12.):

1. The Responsible Official (the Forest Supervisor) shall identify and create an inventory of all lands that may be suitable for inclusion in the NWPS.
2. The Responsible Official shall evaluate the wilderness characteristics of lands identified in the inventory using a set of criteria based on the Wilderness Act of 1964 and informed by the Eastern Wilderness Act of 1975.
3. The Responsible Official shall consider the areas evaluated and determine which areas to further analyze for recommendation as part of one or more alternative identified in a National Environmental Policy Act (NEPA) document.
4. The Responsible Official shall decide, based upon the analysis and input from Tribal, State, and local governments and the public, which areas, if any, to recommend for inclusion in the NWPS.

Each step of the process requires public participation and collaboration, intergovernmental coordination with state and local governments, and tribal consultation, as required by the broader planning process. Maps and documentation on the process are made available after each of the process steps to increase transparency and enable public participation, feedback, and input.

All plan revisions must complete this process before the responsible official determines, within the plan decision document, whether to recommend lands within the plan area to Congress for wilderness designation. Wilderness recommendations are only preliminary administrative recommendations; Congress has reserved the authority to make final decisions on wilderness designation.

Wilderness Inventory

Using the assessment information as a base, a wilderness inventory was developed using both the size and the improvements criteria outlined in Chapter 70 of the 2015 Final Land Management Planning Directives, Forest Service Handbook 1909.12. The HLC NF identified 46 distinct areas that had potential for inclusion based off of this criteria. The wilderness evaluation inventory (WEI) process was completed on March 15, 2016 and made available for public review and comment.

Public Comment to the Inventory

An informal public comment period was initiated for review of a number of resources including the wilderness inventory polygons, lands suitable for timber production, and the proposed desired conditions for the forest plan. A variety of forums were used to gather this public comment and review including comments gathered through a mapping tool on the web site, in-person community conversations/meetings, email responses, letters through postal mail, and through phone calls received.

The HLC NF received over 1300 distinct comments; 74% of all comments received referenced wilderness and the wilderness inventory polygons. Of those comments, 28% were supportive of additional recommended wilderness either in general or in specific areas and 60% were against additional wilderness, either in general or in specific areas. The remaining 12% of wilderness comments provided considerations but were not necessarily entirely supportive or against recommended wilderness generally or in specific areas. About 19% of the wilderness-related comments suggested that no additional wilderness be recommended anywhere on the HLC NF.

The following table summarizes the specific comments received on the wilderness inventory polygons.

Table 1. Summary of public comment on wilderness inventory polygons

Geographic Area	WEI Name	WEI #	Acres	Summary of Public Comments ¹
Big Belts	Big Log	BB1	10,254	Most comments were in favor of RW b/c it's contiguous to GOTM.
	Hogback	BB2	5,784	Most comments were against RW. Most would like to see it open to non-motorized travel.
	Trout Creek	BB3	39,383	Many comments asking to leave this area open to motorized and non-motorized travel. Not many comments in favor of RW.
	North Belts	BB4	14,140	Many comments asking to leave this area open to motorized and non-motorized travel. Not many comments in favor of RW.
	Bilk Mountain	BB5	25,787	Many comments asking to leave this area open to motorized and non-motorized travel. Not many comments in favor of RW.
	Camas Creek	BB6	23,878	A mix of comments in favor of and against RW.
	Mount Baldy	BB7	18,335	Many comments in favor of RW. A few comments against RW noting comm. tower, previous harvests and the Needles rock climbing area.
	Grassy Mountain	BB8	6,194	Many comments against RW due to roads and trails and noticeable human impacts.
Castles	Wapiti Peak	CA1	33,002	Most comments against RW due to mining claims, rock climbing, and motorized usage.
	Whetstone Ridge	CA3	8,676	All comments against RW.
Crazies	Loco Mountain	CR1	25,605	Many comments in favor of RW, a few against.
	Bald Ridge	CR3	13,210	Most comments against RW, should continue to manage for non-motorized recreation.
Divide	Sweeney Creek	D2	7,978	Many comments against RW b/c of heavy biking use and motorized use. Some comments requesting a designated rec.

Geographic Area	WEI Name	WEI #	Acres	Summary of Public Comments ¹
				area. Some comments for CDNST protection.
	Blackfoot Meadows	D3	29,066	A mix of comments in favor of and against RW.
	Colorado Mountain	D5	8,168	A mix of comments in favor of and against RW. Several comments specific to Lazyman IRA as RW.
	Continental Divide North	D13	4,173	Many comments against RW b/c of heavy biking use. Several comments on value of wildlife corridor.
Elkhorns	Eagle Basin	E1	57,279	Most comments for keeping WMU status. A few for RW and a few against.
	Elkhorn Peak	E3	15,180	Most comments for keeping WMU status. A few for RW and a few against.
Highwoods	Highwood Baldy	H1	15,824	Majority of comments are against any RW. Keep accessible to motorized and non-motorized.
	Arrow Prospect	H2	26,210	Majority of comments are against any RW. Keep accessible to motorized and non-motorized.
Little Belts	Deep Creek	LB1	89,321	A mix of comments in favor of and against RW. Deep Creek and Tenderfoot recognized as WCT fisheries and other wilderness values, but mountain bikers also value the area.
	Big Horn Thunder	LB2	45,334	Majority of comments are against any RW. Keep accessible to motorized and non-motorized. Support for Pilgrim Creek as wilderness or non-motorized.
	Sun Mountain	LB3	7,965	Majority of comments are against any RW. Keep accessible to motorized and non-motorized.
	McGee Sawmill	LB4	8,355	A mix of comments in favor of and against RW. Sawmill, Granite and TW IRAs suggested as RW or non-motorized.
	Peterson Mountain	LB5	6,839	A mix of comments in favor of and against RW. Sawmill, Granite and TW IRAs suggested as RW or non-motorized.
	Taylor Mountain	LB6	11,374	A mix of comments in favor of and against RW. Sawmill, Granite and TW IRAs suggested as RW or non-motorized.
	Big Baldy	LB8	49,068	Most comments against RW, should continue to manage for non-motorized recreation and/or multiple use.
	Eagle Creek	LB10	6,337	Most comments against RW, should continue to manage for non-motorized recreation and/or multiple use.
	Calf Creek	LB11	12,598	Majority of comments are against any RW. Keep accessible to motorized and non-motorized.
	North Fork Smith	LB15	9,817	A mix of comments in favor of and against RW.
	Middle Fork Judith	LB16	98,312	A mix of comments in favor of and against RW.
	East Little Belts	LB18	106,178	Majority of comments are against any RW. Keep accessible to motorized and non-motorized.
Rocky Mountain Range	Badger Two Medicine	RM1	125,795	A mix of comments in favor of and against RW. Many mention importance of B2M area culturally.
	Teton Blackleaf	RM2	56,002	Majority of comments are against any RW. Part of CMA, keep accessible to motorized and non-motorized.
	Sun Canyon Willow	RM3	71,106	Majority of comments are against any RW. Part of CMA, keep accessible to motorized and non-motorized.
	Sawtooth	RM4		Majority of comments are against any RW. Part of CMA, keep

Geographic Area	WEI Name	WEI #	Acres	Summary of Public Comments ¹
	Ridge		15,312	accessible to motorized and non-motorized.
	Elk Smith	RM5	30,030	Majority of comments are against any RW. Part of CMA, keep accessible to motorized and non-motorized.
Snowies	Big Snowies	S1	103,480	A mix of comments in favor of and against RW. Many comments regarding mountain biking and other recreation.
Upper Blackfoot	Dearborn Silverking	UB1	44,141	A mix of comments in favor of and against RW. Many comments regarding mountain biking and other recreation.
	Stonewall	UB2a UB2b	30,046	A mix of comments in favor of and against RW. Many comments regarding mountain biking and other recreation.
	Black Mountain	UB3	10,220	Majority of comments are against any RW.
	Anaconda Hill	UB4	21,539	Majority of comments are against any RW. Many comments regarding mountain biking and other recreation.
	Paige Gulch	UB5	17,569	Majority of comments are against any RW. Many comments regarding mountain biking and other recreation.
	Bear Gulch	UB9	5,636	Only a few comments on this polygon, split on favorability as RW. Suggestion to combine with UB10.
	Nevada Mountain	UB10	51,027	Majority of comments are in favor of this area as RW, and having high fish and wildlife values. However, mountain bikers use this area and would like to keep it non-motorized.

Summary of Wilderness Recommendations for the Proposed Action

Based on the evaluation and input from public participation, the HLC NF identified nine areas to be carried forward into the proposed action as recommended wilderness areas. Not all lands included in the inventory and subsequent evaluation are required to be carried forward in the proposed action or an alternative. Information on why inventory polygons may/may not have been carried forward may be found in the following section.

Table 2. Wilderness recommendations

GA	WEI Name	WEI #	Acres	Recommendation Notes
Big Belts	Big Log	BB1/BB11	10,254	Previously recommended. Adjacent to Gates of the Mountains Wilderness.
	Mount Baldy	BB7	18,335	Previously Recommended. Expanded to include area w/n IRA.
Divide	Blackfoot Meadows	D3	29,066	Previously Recommended. Opportunities for solitude.
Little Belts	Deep Creek	LB1	14,544	Remote with excellent opportunities for solitude.
Snowies	Big Snowies	S1	103,480	Much of the area remote with excellent opportunities for solitude.
Upper Blackfoot	Dearborn Silverking	UB1	44,141	Adjacent to Scapegoat Wilderness.
	Red Mountain	UB2a	1,901	Adjacent to Scapegoat Wilderness.
	Arrastra Creek	UB2b	8,487	Adjacent to Scapegoat Wilderness.
	Nevada Mountain	UB10	51,027	Good opportunities for solitude in core area.

Evaluation of Inventoried Polygons

As per the guidelines provided in the Final 2012 planning rule, all of the areas identified in the inventory were evaluated based on their potential to meet certain wilderness criteria. There were 46 separate areas identified in the inventory and evaluated as per the directives. Each GA was evaluated using criteria from Forest Service Handbook (FSH) 1909.12, chapter 70. The evaluation of each of these polygons is provided below. Following the table, each GA is described in detail, including the criteria that were used, and the results.

Table 3. Summary of wilderness evaluation with recommendations

GA	WEI Name	WEI #	Acres	Notes	Recommendation and Rationale
Big Belts	Big Log	BB1	10,254	Adjacent to Gates of the Mountain Wilderness. Functioning mature ponderosa pine that supports flammulated owls; introduced mountain goat population. No motorized use within polygon. Was recommended in the 1986 Plan. Eastern portion along Missouri River has been identified as Missouri River Corridor Special area.	Recommended with modifications – see map. Rationale: Previously recommended and adjacent to existing wilderness
	Hogback	BB2	5,784	Steep, rocky, and inaccessible. Good functioning wildlife habitat but better when combined with other polygons in the area. Nonmotorized polygon - opportunities for solitude and unconfined recreation good, but a lot of use along Beaver Creek.	Not recommended Rationale: Motorized system roads and trails are present and affect opportunities for solitude.
	Trout Creek	BB3	39,383	Many motorized trails, both summer and winter throughout southern portion of the polygon. Good functioning wildlife habitat but better when combined with other polygons in the area. Mountain bike use in Trout Creek and Bear Trap.	Not recommended Rationale: Motorized system roads and trails are present and affect opportunities for solitude.
	North Belts	BB4	14,140	Many motorized trails, both summer and winter, throughout the polygon. Likely Townsend’s big eared bat breeding area. Unique rock formations in Hellgate. Unique opportunities for cultural research.	Not recommended Rationale: Motorized system roads and trails are present and affect opportunities for solitude.
	Bilk Mountain	BB5	25,787	Some motorized opportunities; some non-motorized as well. Surrounded by open roads. Has private land inholding. Confederate Historic Mining District within polygon.	Not recommended. Rationale: Motorized system roads and trails are present and affect opportunities for solitude.
	Camas Creek	BB6	23,878	Lots of opportunity for primitive and unconfined recreation. No motorized uses in either summer or winter. Extensive and good wolverine habitat. Confederate Historic Mining District within polygon.	Not recommended Rationale: FS maintains the ability to carry out other resource management that would be inconsistent with wilderness characteristics.
	Mount Baldy	BB7		Lots of opportunity for primitive and unconfined recreation. No motorized	Recommended with modifications –

GA	WEI Name	WEI #	Acres	Notes	Recommendation and Rationale
			18,335	uses in either summer or winter. Extensive and good wolverine habitat. Was recommended in the 1986 Plan.	see map. Rationale: Previously recommended, expanded to include a larger area within the IRA boundary.
	Grassy Mountain	BB8	6,194	Effects to solitude from activities around Highway 12. No resources stand out.	Not recommended Rationale: Effects to solitude from activities around Highway 12 and adjacent subdivision.
	Willow Creek	BB11	121	Four small parcels adjacent to the northern boundary of the Gates of the Mountains Wilderness. No motorized use within polygon and excellent opportunities for solitude and unconfined recreation.	Recommend Rationale: Adjacent to existing Gates of the Mountains Wilderness, combine with BB1.
Castles	Wapiti Peak	CA1	33,002	Motorized trails affect solitude and opportunities for primitive and semi-primitive nonmotorized recreation. Willow Creek is municipal watershed for White Sulphur Springs. No other resources stand out.	Not recommended. Rationale: Motorized trails affect solitude and opportunities for primitive and semi-primitive nonmotorized recreation.
	Whetstone Ridge	CA3	8,676	Motorized trails/activity affect solitude and opportunities for primitive and semi-primitive nonmotorized in both summer and winter. Important grassland bird habitat and elk winter range and connected to those habitats on non-FS lands.	Not recommended. Rationale: Motorized trails/activity affect solitude and opportunities for primitive and semi-primitive nonmotorized in both summer and winter.
Crazies	Loco Mountain	CR1	25,605	Wolverine in high mountain areas. Checkerboard ownership surrounding polygon with limited access.	Not recommended. Rationale: Checkerboard ownership and adjacent private lands affect ability to manage as wilderness and limit public access.
	Bald Ridge	CR3	13,210	Motorized trails/activity affect solitude and opportunities for primitive and semi-primitive nonmotorized in both summer and winter. Important elk and mule deer winter habitat.	Not recommended. Rationale: Motorized trails/activity affect solitude and opportunities for primitive and semi-primitive nonmotorized in both summer and winter.
Divide	Sweeney Creek	D2	7,978	Flammulated owl breeding habitat. Nonmotorized within the polygon in both summer and winter. However, motorized activity outside of the polygon affects solitude. Old historic Mullan road and a small piece of the CDNST present.	Not recommended. Rationale: Motorized activity outside of the polygon affects solitude

GA	WEI Name	WEI #	Acres	Notes	Recommendation and Rationale
	Blackfoot Meadows	D3	29,066	Portion was recommended in the 1986 plan and was known as Electric Peak. Historic mining evidence throughout. Westslope cutthroat trout habitat throughout and potentially bull trout as well. CDNST makes up the southeastern boundary. Beaverhead-Deerlodge NF section along the border of the polygon is mapped as Electric Peak Recommended Wilderness Area in their forest plan.	Recommended with modifications – see map. Rationale: Previously recommended. Opportunities for solitude.
	Colorado Mountain	D5	8,168	Red Mountain Flume part of the municipal water system for Helena. Historic mining and superfund site to west. Flammulated owl habitat and important for general wildlife connectivity.	Not recommended. Rationale: Proximity to private lands and large population center affect opportunities for solitude. FS maintains the ability to carry out other resource management that would be inconsistent with wilderness characteristics
	Continental Divide North	D13	4,173	Flammulated owl breed and wildlife connectivity. CDNST trail bisects it. Communication sites, shooting range, Highway 12, Priest Pass road, and groomed snowmobile trails affect solitude in entire polygon.	Not recommended. Rationale: Affects to wilderness solitude from communication sites, shooting range, Highway 12, Priest Pass road, and groomed snowmobile trails.
Elkhorns	Eagle Basin	E1	57,279	Recognized as a Wildlife Management Unit. Large amount of secure elk habitat. Largely nonmotorized within the polygon.	Not recommended. Rationale: Maintain as wildlife management unit.
	Elkhorn Peak	E3	15,180	Recognized as a Wildlife Management Unit. Year- round motorized trails in southern portion of polygon. Large amount of secure elk habitat in northern portion of the polygon.	Not recommended. Rationale: Maintain as wildlife management unit.
Highwood	Highwood Baldy	H1	15,824	Largely inaccessible due to steepness and lack of access through large ranches. Lots of internal activity due to the Highwood Baldy electronic site.	Not recommended. Rationale: Wilderness characteristics affected by electronics site and adjacent private lands. Lack of public access.
	Arrow Prospect	H2	26,210	Better access due to the North Fork Highwood Creek Trailhead. Dominated by motorized trails in summer. Snowmobiling allowed in winter. Grazing infrastructure. Important westslope cutthroat trout habitat.	Not recommended. Rationale: Motorized trails in summer and winter affect solitude experience.
Little Belts	Deep Creek	LB1	89,321	Tenderfoot Creek has important fishery, provides solitude, and has waterfalls. Motorcycle and ATV trails dominate northern portion of polygon. Smith River corridor provides cultural, scenic, wildlife, and recreational values.	14,500 acres of North of Deep Creek Park is recommended – see map. Rationale: Only part of the inventoried parcel that doesn't have motorized

GA	WEI Name	WEI #	Acres	Notes	Recommendation and Rationale
					uses. Remaining portions of parcel that do have motorized uses were excluded from recommendation.
	Big Horn Thunder	LB2	45,334	Large portion of area has opportunities for solitude but is bisected by a motorized trail.	Not recommended. Rationale: Motorized use affects solitude.
	Sun Mountain	LB3	7,965	Nonmotorized in both summer and winter. However, open motorized roads, residential areas, and recreation areas surrounding impact solitude.	Not recommended. Rationale: Open motorized roads, residential areas, and recreation areas surrounding impact solitude.
	McGee Sawmill	LB4	8,355	Opportunities for solitude away from the Dry Fork Belt Creek road. Mule deer and westslope cutthroat trout habitats.	Not recommended. Rationale: Dry Fork Belt Creek road affects solitude.
	Peterson Mountain	LB5	6,839	Good opportunities for solitude even though are surrounded by private lands. Mule deer and westslope cutthroat trout habitat. Remote but small.	Not recommended. Rationale: Activities on surrounding private land affect opportunities for solitude.
	Taylor Mountain	LB6	11,374	Good opportunities for solitude even though surrounded by private lands.	Not recommended. Rationale: Activities on surrounding private land affect opportunities for solitude.
	Big Baldy	LB8	49,068	Important habitat for alpine species such as black rosy finch, pika, and wolverine. Townsend's big eared bat in eastern portion of polygon. Westslope cutthroat trout habitat throughout. Motorized use throughout limits opportunities for solitude.	Not recommended. Rationale: Motorized use throughout limits opportunities for solitude, plus impacts from historic mining.
	Eagle Creek	LB10	6,337	Good solitude in summer. Snowmobiling allowed in winter. Good elk calving habitat.	Not recommended. Rationale: Adjacent private land and checkerboard ownership. Motorized routes affect opportunities for solitude.
	Calf Creek	LB11	12,598	Motorized trails and snowmobiling limit opportunities for solitude. Documented wolverine sightings. Good elk calving habitat.	Not recommended. Rationale: Motorized trails and snowmobiling limit opportunities for solitude.
	North Fork Smith	LB15	9,817	No summer motorized trails but open for snowmobile in winter. Ant Park Warming Hut. Wolverine potential. Elk winter range and calving habitat.	Not recommended. Rationale: Surrounding motorized use and winter motorized access limit

GA	WEI Name	WEI #	Acres	Notes	Recommendation and Rationale
					opportunities for solitude.
	Middle Fork Judith	LB16	98,312	Middle Fork WSA is core of the polygon. Motorized trails to the north and east. Rest of polygon nonmotorized. Private land inholdings accessed by open road impact solitude. Black rosy finches and wolverine habitat. Elk calving habitat and old growth in south half of polygon. Westslope cutthroat trout throughout.	Not recommended. Rationale: Motorized trails to the north and east and private land inholdings accessed by open road impact solitude.
	East Little Belts	LB18	106,178	Interesting geologic features in Daisy Notch, Morrissy Narrows, Haymaker Narrows, Nevada Narrows, and Daisy Narrows. Area dominated by motorized trails.	Not recommended. Rationale: Motorized trails affect opportunities for solitude.
Rocky Mountain Range	Badger Two Medicine	RM1	125,795	Adjacent to Bob Marshall Wilderness Complex. Excellent solitude in both summer and winter. High wildlife values. High fisheries values. Cultural significance everywhere. Outstanding landscape features in most of drainages.	Not recommended. Rationale: Existing Blackfeet Nation reserved rights may conflict with wilderness characteristics.
	Teton Blackleaf	RM2	56,002	Adjacent to Bob Marshall Wilderness Complex. Cherry stem roads along North Fork and South Fork Teton rivers bisect polygon. Snowmobiling allowed on open roads. Snow play area in Waldron Creek. Solitude is affected by open roads and snow play area but northern portion of the polygon not impacted by motorized travel. High wildlife values. High fisheries values. Cultural significance everywhere. Area is designated as Conservation Management Area.	Not recommended. Rationale: Solitude is affected by open roads and snow play area. Area is designated as Conservation Management Area.
	Sun Canyon Willow	RM3	71,106	Adjacent to the Bob Marshall Wilderness Complex. Activities along the Sun Canyon Road, Beaver Willow Road, Benchmark Road Area, and Mortimer Gulch area affect solitude along the edges of the polygon. Areas next to wilderness boundary high potential for primitive and semi-primitive non-motorized recreation. World class big horn sheep habitat and important big game winter range. Adjacent to the Sun River Wildlife Management Area. Area designated as a Conservation Management Area.	Not recommended. Rationale: Activities along the Sun Canyon Road, Beaver Willow Road, Benchmark Road Area, and Mortimer Gulch area affect solitude along the edges of the polygon. Area is designated as Conservation Management Area.
	Sawtooth Ridge	RM4	15,312	Not adjacent to Bob Marshall Wilderness Complex. Effects to solitude from Sun Canyon and Beaver Willow roads. Adjacent to Sun River Wildlife Management Area. Area designated as a Conservation Management Area.	Not recommended. Rationale: Effects to solitude from Sun Canyon and Beaver Willow roads. Area is designated as Conservation Management Area.
	Elk Smith	RM5	30,030	Adjacent to Bob Marshall Wilderness Complex. Motorcycle trails in Petty Crown and Elk Creek/Bailey Basin areas. Snowmobiling allowed along Benchmark road. Motorized activities affect solitude in these area. Area designated as Conservation Management Area.	Not recommended. Rationale: Motorized activities affect solitude in these area. Area is designated as Conservation Management Area.

GA	WEI Name	WEI #	Acres	Notes	Recommendation and Rationale
Snowies	Big Snowies	S1	103,480	Big Snowy Mountain wilderness study area. Northern ¼ of the polygon nonmotorized. Snowmobiling permitted on west end. Good opportunities for solitude. Unique geology. Wolverine, peregrine and wild turkey habitat. Westslope cutthroat trout habitat.	Recommended with modifications – see map. Rationale: Remote and has excellent opportunities for solitude.
Upper Blackfoot	Dearborn Silverking	UB1	44,141	Extends into Rocky Mtn. Range GA to north. Adjacent to Scapegoat Wilderness. Polygon nonmotorized – good opportunities for solitude. Within lynx critical habitat and existing grizzly bear recovery area and proposed primary conservation area. Alice Creek Road open to motorized use in both summer and winter. Many cultural sites in area. Area of polygon in the Rocky Mtn. Range GA designated as a Conservation Management Area.	Recommended with modifications – see map. (Northern portion part of CMA not recommended for wilderness.) Rationale: Adjacent to Scapegoat Wilderness.
	Stonewall	UB2a UB2b	30,046	Adjacent to Scapegoat Wilderness on the north. Good wolverine habitat. Within lynx critical habitat and existing grizzly bear recovery area and proposed primary conservation area. Motorized trails and snowmobiles on Stonewall Mountain and in Copper Bowls area impact solitude. Beaver Creek road and Copper Creek roads open year round.	UB2a Red Mountain recommended. UB2b Arrastra recommended. Rationale: Adjacent to Scapegoat Wilderness.
	Black Mountain	UB3	10,220	No constructed trails in polygon. Cross country snowmobiling allowed - limiting winter solitude opportunities. Important for wildlife connectivity through the greater landscape.	Not recommended. Rationale: Open to snowmobiles, limits opportunities for solitude.
	Anaconda Hill	UB4	21,539	CDNST bisects polygon. No motorized trails within polygon. Cross country snowmobiling allowed away from the CDNST. Highways 200 and 279 impact solitude. Important for wildlife connectivity through the greater landscape.	Not recommended. Rationale: Motorized uses near the polygon impact opportunities for solitude.
	Paige Gulch	UB5	17,569	CDNST bisects the polygon. Motorized portion of the CDNST. Cross country snowmobiling allowed north of the CDNST; not allowed south of the CDNST. Motorized uses affect solitude.	Not recommended. Rationale: Motorized uses impact opportunities for solitude.
	Bear Gulch	UB9	5,636	Helmville-Gould trail is motorized and cross country snowmobile travel allowed in winter – affect solitude. Westslope cutthroat trout habitat in area. String of patented mining claims separate it from UB10.	Not recommended. Rationale: Motorized uses and patented mining claims affect solitude.
	Nevada Mountain	UB10	51,027	Large landscape - center primarily nonmotorized. Cross country snowmobiling not allowed in entire polygon. Opportunities for solitude in core area are good. CDNST bisects the area. Part of CDNST is motorized. High wildlife diversity high and important for connectivity within greater landscape. Many known unpatented claims with pre-existing rights within polygon.	Recommended with modifications – see map. Rationale: Opportunities for solitude in core area are good. Large parcel shared with Divide GA.

Big Belts Geographic Area

Big Log Area (BB1)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 4. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	Over 35% of this area is dominated by dry grasslands, and over 22% has a ponderosa pine dominance type. Roughly 23% is dominated by Douglas-fir. Shrublands make up another 12%, and just over 5% is considered transitional (no vegetation type identified) due to recent wildfires. There are small or trace amounts of other dominance types present, including lodgepole pine, limber pine, and Rocky mountain juniper.
Potential vegetation types	This area is dominated by warm dry forest potential vegetation types (51%). Dry grassland potential types are also common, representing over 34%. Small amounts of other potential vegetation types are present, including cool moist forest, mesic grasslands, shrublands, riparian, and sparsely vegetated (cliffy) areas.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 1,226 acres within BB1 is associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitats: 75 acres potential lynx habitat (52 acres of mature multi-storied, which is optimal winter foraging habitat; note area not currently occupied by lynx) and 2600 acres of goshawk potential nesting habitat. Clark’s nutcracker presence indicates mature whitebark, ponderosa, and/or limber pine; flammulated owl and Lewis’s woodpecker presence indicate mature, open ponderosa pine. • Big game: Over 5000 acres secure elk summer habitat. Possible moose presence in riparian • Note that these habitats increase in extent and value in combination with similar in BB2 and BB3. • No WCT.
Known non-native wildlife species	Introduced population of mountain goats, a species native to MT but not to this mountain range. Occasional European starling, likely near perimeter of area. No known aquatic species, possibly non-native trout.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 5. Ecological conditions

Measures	Outcome
% of area without past timber harvest	There are no records of past timber harvest in this area.
% of area without known invasive weeds	According to data as of 2/10/2016, 88% of BB1 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 2: 100%, no impacts within the polygon
Miles of motorized road/trail within 300' of streams	1.15 miles (southwest side of polygon, along intermittent stream)
Noticeable wildfire suppression impacts	Meriwether Fire (2007): dozer lines still visible in Hunter's Gulch and Bear's Gulch.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 6. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	Approximately 2% of the area has been influenced by prescribed fire treatments, which were determined not to be substantially noticeable because they appear similar to natural wildfire effects. The activities that occurred included broadcast burning, pile burning, and under burning from 1993 to 2009.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	Hogback repeater is visible from within the polygon.
Areas of mining activities including both abandoned and active mines.	None present.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data, there are no existing fences within B1.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	No outfitter camps. Dispersed recreation sites located within the Missouri River corridor and throughout Big Log drainage.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Power and gas lines along Beaver Creek Road and the northeastern boundary of the polygon. These are not located in the polygon but visible from within it.
Presence of watershed treatment areas including contouring, diking, and channeling.	None known.

Improvement Type	Presence and extent of departure from naturalness
Lands adjacent to development or activities that impact opportunities for solitude.	American Bar Subdivision along western boundary of the polygon. Very active river corridor with recreation activities. Minimal developments on private lands along Beaver Creek Road.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	Thirty-three recorded cultural resources, including one listing historic landscape. The sites range from occupational cabin ruins, tipi ring, mining and prehistoric rock art sites.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Recommended as wilderness in the Helena NF 1986 Plan.
Number of miles of maintenance level 1 road templates.	0.0 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	No historic roads recorded, however their presence is highly likely.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 7. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	Summer motorized activities are concentrated in the Missouri River corridor.
Area available for winter motorized opportunity	No current motorized winter activity.
Proximity to private lands and non-Forest Service roads.	None present.
Proximity to developed recreation sites outside of the polygon area.	Refrigerator Canyon TH, Hunters Gulch TH, Big Log TH, and Missouri River Canyon TH. These THs have minimal effect on the solitude within the polygon. Coulter Campground and Meriwether Picnic Site are located along the Missouri River corridor. These sites have boat access only which creates a moderate feeling of solitude due to the sounds of boat motors. Mann Gulch Historic Landscape is located within the polygon has minimal impact to solitude.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 8. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation	Except for the river corridor, which is semi-primitive motorized, the entire polygon is open for primitive and unconfined recreation.
Primitive and semi-primitive non-motorized winter recreation	Entire polygon is open for primitive and unconfined recreation.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hunting, hiking, horseback riding, cross country skiing, and dispersed camping.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 9. Size and Description

Size of Polygon	Description
10,254 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Table 10. Features present

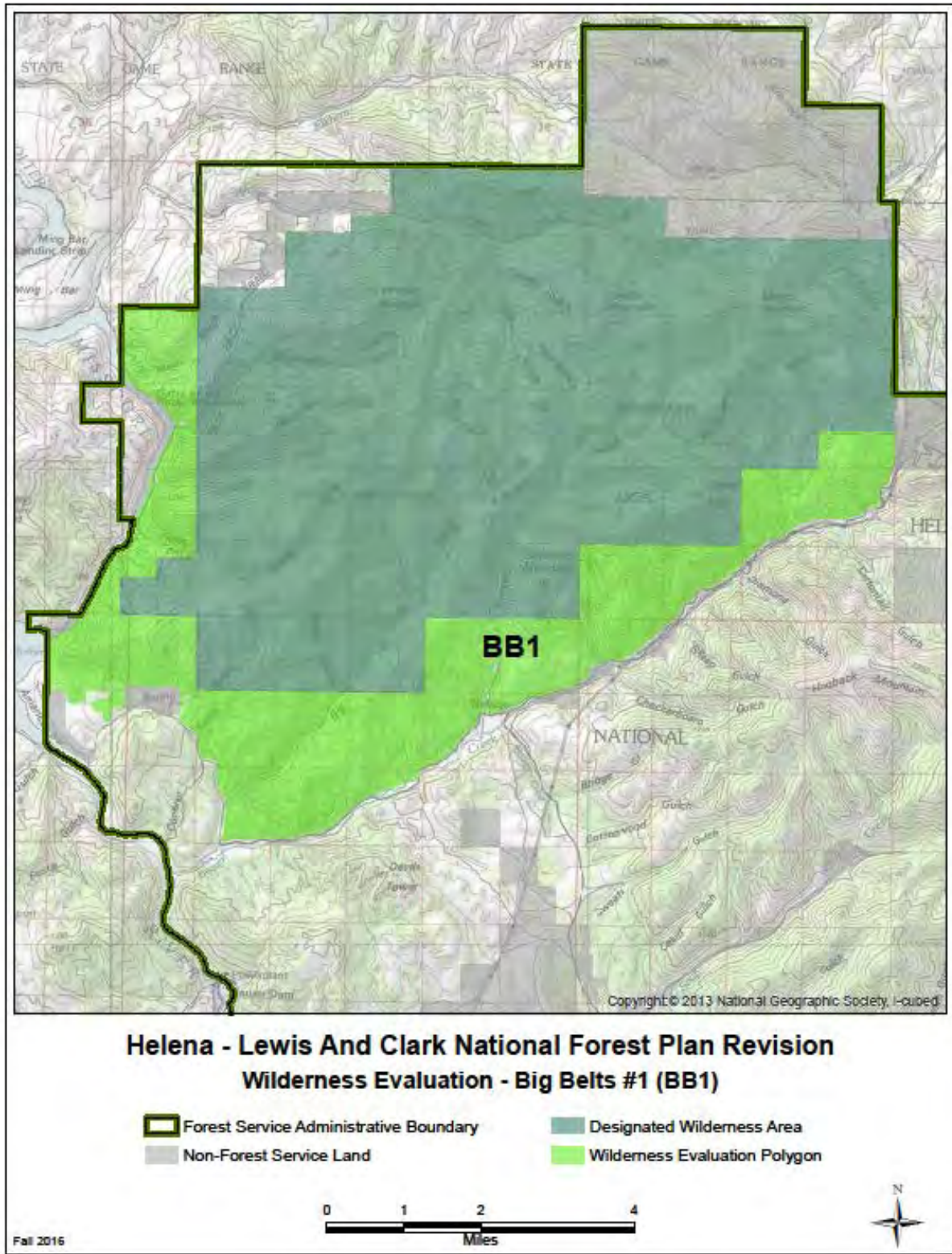
Features	Description and scale
Rare plant communities	There are known occurrences of several potential plant species of conservation concern in this area, including <i>Astragalus convallarius</i> , <i>Polygonum douglasii</i> spp. <i>Austinae</i> ; <i>Lesquerella klausii</i> , and <i>Delphinium bicolor</i> spp. <i>Calcicola</i> . Limber pine, <i>Pinus flexilis</i> , is also present in trace amounts.
Rare animal species or communities	Federally listed species: Occasional, transient presence of grizzly or lynx possible. Identified as Zone 2 in NCDE Grizzly Bear Conservation Strategy, for genetic connectivity with GYE population. Potential species of conservation concern and/or state at risk species: flammulated owl, Lewis’s woodpecker. No rare aquatic species.
Rare ecosystems	Ponderosa pine forest is a community of interest for its wildlife value, and is well-represented in this area.
Outstanding landscape features	Cliffs and rock formations along the river corridor and Meriwether Canyon. Missouri River. Rock formations and slot canyon in Refrigerator Canyon.
Historic and cultural resource sites	Thirty-three recorded cultural resources, including one listing historic landscape. The sites range from occupational cabin ruins, tipi ring, mining and prehistoric rock art sites, which all offer scientific and educational value.
Research Natural Areas	None present.

Features	Description and scale
High quality water resources or important watershed features	Beaver Creek (on the boundary between BB1 and BB2) is on the list of eligible WSRs, it is listed for outstanding fishing, geology, and cultural resources.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 11. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	This polygon consists of a band of land between designated motorized routes and the Gates of the Mountains Wilderness boundary.
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	No private land inholdings.
Management of adjacent lands	Designated wilderness immediately to the north and east of the polygon. Some small portions of private lands, primarily residential, to the south and southeast of the polygon. Devils Tower IRA on FS to the south. American Bar Subdivision to the south west. Missouri River corridor to the west.



Hogback Area (BB2)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 12. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	Nearly 36% of this area is dominated by dry grassland. Another 30% supports subalpine fir/Engelmann spruce dominance types. 15% is dominated by Douglas-fir forest. Mesic shrubs are present on roughly 7%, and nearly 5% is considered sparsely vegetated. Very small amounts of other dominance types are present, including ponderosa pine, limber pine, cottonwood, and Rocky Mountain juniper.
Potential vegetation types	The area is dominated by warm dry forest potential vegetation types (78%). Based on the extent of grassland dominance types, some of this area is currently non-forested. Cool moist forest types are also represented (7%), as are dry grassland potential types (8%). Small amounts of mesic grassland, xeric shrub, riparian, and sparse potential vegetation types are also present.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 73 acres within BB2 is associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest: 2700 acres potential goshawk nesting habitat, 875 acres potential lynx habitat with roughly 431 in mature multi-storied structure which is optimal lynx winter foraging habitat (note area not currently occupied by lynx and not contiguous with occupied lynx habitat); . **Note that these habitats increase in extent and value in combination with similar in BB1 and BB3. *** Possibly limited areas (up to 150 acres) of old growth habitat. • Big game: 2800 acres secure elk habitat. • Subalpine/alpine habitats:155 acres potential wolverine habitat. • No native aquatic species known.
Known non-native wildlife species	Introduced population of mountain goats, a species native to MT but not to this mountain range. No aquatic species known.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 13. Ecological conditions

Measures	Outcome
% of area without past timber harvest	There are no records of past harvest in this area.
% of area without known invasive weeds	According to data as of 2/10/2016, 98.7% of BB2 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 2: 100%, impacts primarily occur outside of polygon

Measures	Outcome
Miles of motorized road/trail within 300' of streams	0.25 mile
Noticeable wildfire suppression impacts	Only 146 acres have had wildfire since 1980 and there are no noticeable impacts of fire suppression.

Question 1c. *What is the extent to which improvements in the area represent a departure from apparent naturalness?*

Table 14. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	There are no substantially noticeable treatment activities in this area. There are no records of past harvest. Roughly 15% of the area, however, has been impacted by prescribed fire activities, including pile burning and under burning from 1980 to 1999. These treatments were associated with the Bull Sweats project and the effects appear similar to natural conditions.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	Communication sites with antennae and buildings on Hogback Lookout. This site is located outside of the polygon but visible from within.
Areas of mining activities including both abandoned and active mines.	None present.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there are no fences or water developments within BB2.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	Large component of dispersed camping within northeast corner (Indian Flats). No outfitter camps.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Cleared powerline right of way along Sweats Gulch. Located outside of polygon by is visible from within.
Presence of watershed treatment areas including contouring, diking, and channeling.	None known.
Lands adjacent to development or activities that impact opportunities for solitude.	Powerlines and gas lines along the Beaver Creek access road that are visible from the polygon. Private land residential developments along Beaver Creek.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	Only one recorded cultural resource is known within this study area.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 plan.

Improvement Type	Presence and extent of departure from naturalness
Number of miles of maintenance level 1 road templates.	0.1 miles.
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	None known.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 15. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	No summer motorized recreation opportunities.
Area available for winter motorized opportunity	Northern 1/3 of the polygon is available for motorized winter recreation (Indian Flats area).
Proximity to private lands and non-Forest Service roads.	No private land inholdings.
Proximity to developed recreation sites outside of the polygon area.	Indian Flats rental cabin is accessible by vehicle and snowmobile. Has moderate impacts to solitude. Refrigerator Canyon TH lies along Beaver Creek road and has minimal impacts to solitude of the BB2 polygon.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 16. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	The entire polygon is open for primitive and unconfined recreation.
Primitive and semi-primitive non-motorized winter recreation.	Entire polygon is open for primitive and unconfined recreation.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hunting, hiking, horseback riding, cross country skiing, and dispersed camping.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 17. Size and Description

Size of Polygon	Description
5,783 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Table 18. Features present

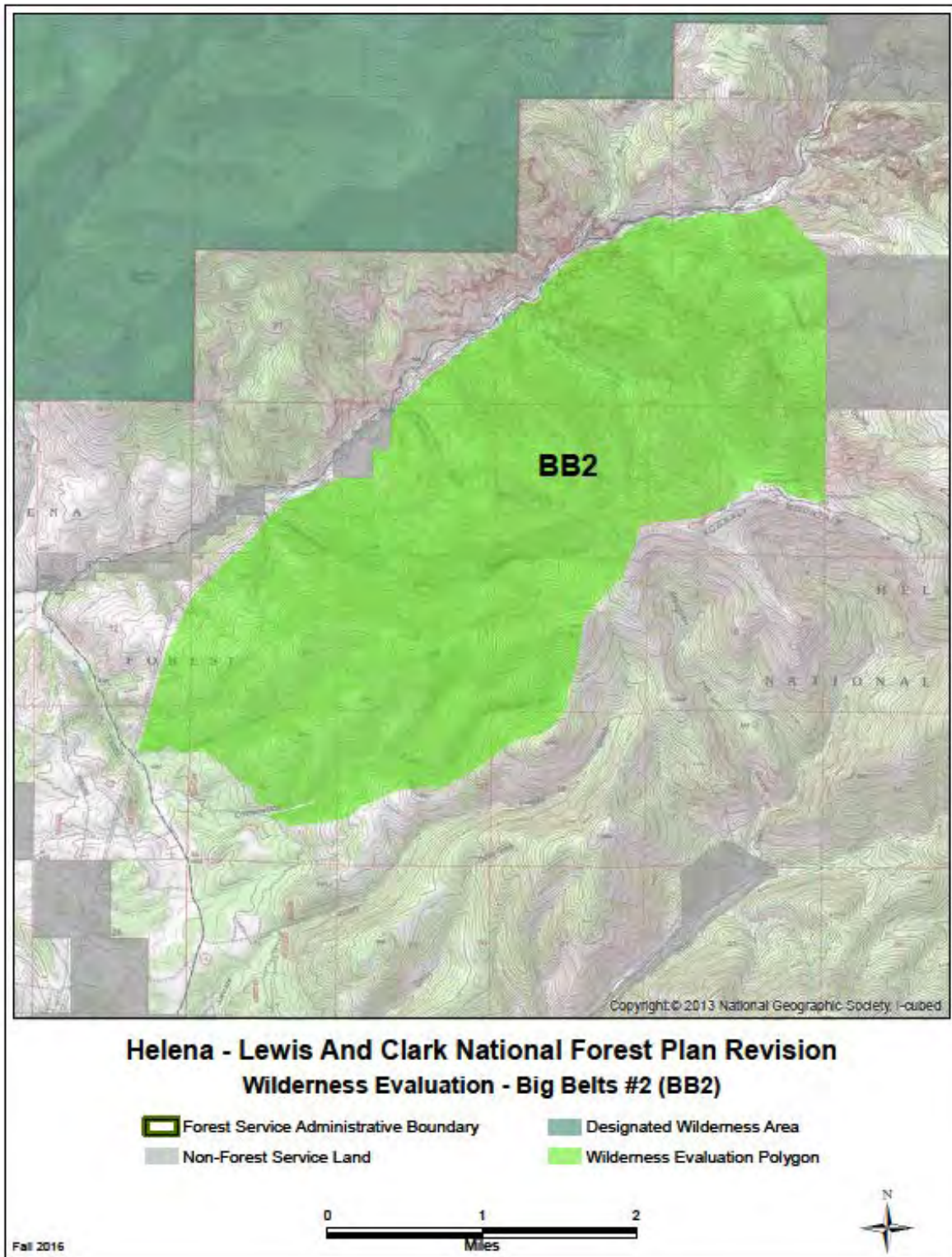
Features	Description and scale
Rare plant communities	There are no records of rare plants or potential plant species of conservation concern in this area other than small amounts of limber pine (<i>Pinus flexilis</i>). Cottonwood is also present which is not common in general on NFS lands of the HLC NF.
Rare animal species or communities	Federally listed species: Occasional, transient presence of grizzly or lynx possible. Identified as Zone 2 in NCDE Grizzly Bear Conservation Strategy, for genetic connectivity with GYE population. Potential species of conservation concern and/or state at risk species: none documented No known rare aquatic species
Rare ecosystems	Trace amounts of limber pine and cottonwood are present which are not abundant in many areas of the HLC NF. No rare aquatic ecosystems.
Outstanding landscape features	Steep and rugged. Beaver Creek canyon has unique rock formations and limestone cliffs. Views from Hogback lookout span the entire Helena valley.
Historic and cultural resource sites	Only one cultural resource with the potential for scientific, educational or historic value.
Research Natural Areas	None present.
High quality water resources or important watershed features	Beaver Creek (on the boundary between BB1 and BB2) is on the list of eligible WSRs, it is listed for outstanding fishing, geology, and cultural resources.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 19. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	Long rectangular piece of land that extends from the Beaver Creek drainage up to the Hogback Ridge.
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to	None known.

Factors	Description and scale
protect wilderness characteristics	
The presence and amount of non-Federal land in the area	No private inholdings.
Management of adjacent lands	Some small portions of private lands, primarily residential, to the north and east edges of the polygon. Forest Service system lands to the south and southeast. Old timber harvest on the southwest.



Trout Creek Area (BB3)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 20. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	Most of this area (over 59%) supports Douglas-fir dominated forests. Ponderosa pine forest is also common (16%). Over 13% is made up of dry grasslands. Other dominance types are present in fairly small amounts, including shrublands, lodgepole pine, subalpine fir, Engelmann spruce, limber pine, cottonwood, aspen, and Rocky Mountain juniper. The Cave Gulch fire of 2000 burned the southern portion of this area; some of this area is still regenerating and/or was converted to grassland. Nearly 5% of the area overall is still considered transitional, where no vegetation type is yet identified post-disturbance.
Potential vegetation types	The area is strongly dominated by warm dry forest potential vegetation types (84%), with only 3% supporting cool moist forest types. Dry grassland potential vegetation types are also present (13%). Very small amounts of shrubland types exist.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 3,909 acres within BB3 is associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: 2500 acres potential lynx habitat (1200 acres of mature multi-storied, which is optimal winter foraging habitat; but note that area not currently occupied by lynx). 22,000 acres of goshawk potential nesting habitat (3 known nesting territories). Likely flammulated owl nesting indicates presence of mature, open ponderosa pine. Up to 2000 acres of possible old growth habitat in patches of varying size. • Big game: Over 18,000 acres secure elk habitat. Possible moose presence in riparian. • Subalpine/alpine: Roughly 600 acres potential wolverine habitat, wolverine observed. • **Note that these habitats increase in extent and value in combination with similar in BB1 and BB2.** • WCT in Magpie Creek (on boundary of polygon).
Known non-native wildlife species	Introduced population of mountain goats, a species native to MT but not to this mountain range. Non-native trout likely.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 21. Ecological conditions

Measures	Outcome
% of area without past timber harvest	Over 99% of the area is unaffected by past harvest. Roughly 104 acres (less than 1% of the area) was harvested with a single tree selection cut; one area occurred in 1959 and the other in 1992.
% of area without known invasive weeds	According to data as of 2/10/2016, 90.1% of BB3 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 2:71%, Class 3:29%
Miles of motorized road/trail within 300' of streams	11.6 miles, concentrated in the southern portion of the polygon.
Noticeable wildfire suppression impacts	Cave Gulch (2000): Noticeable fire suppression evidence in Hedges Mountain, Magpie Creek, Trout Creek and Goodman Gulch. Jintown (2003): Noticeable fire suppression above the junction of Kingsberry and York gulches.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 22. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	No substantially noticeable treatments occur within the area. Less than 1% was affected by past timber harvest, as noted above. This partial cutting blends back into the landscape fairly quickly. Roughly 3% of the area has been impacted by prescribed fire treatments, including broadcast burning, pile burning, and under burning from the 1980's to early 2000's, the effects of which may appear similar to a wildfire.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	Electronic sites on Hogback Lookout and repeater site on Mount Hedges are visible from locations within the polygon.
Areas of mining activities including both abandoned and active mines.	Some abandoned mines in the south end of the polygon in Never Sweat Gulch, Bar Gulch, Coxey Gulch, and Cave Gulch. Limited active mining in Kingsberry Gulch, outside of the polygon. Some active mining in Cave Gulch on private lands. These mines take away from the wilderness character of the south end of the polygon.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately ¼ mile of fencing within BB3.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	Dispersed camping in Trout Creek, some of which takes place within the polygon. Dispersed camping along Magpie on the southeastern boundary of the polygon.

Improvement Type	Presence and extent of departure from naturalness
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Powerlines along Trout Creek that lie outside of the polygon but are visible from within the polygon. Powerline that goes up to Hogback Lookout and communication site is visible from within the BB3 polygon.
Presence of watershed treatment areas including contouring, diking, and channeling.	Some ditching along Trout Creek that lie within the polygon.
Lands adjacent to development or activities that impact opportunities for solitude.	Community of York and residential areas up Trout Creek create moderate impacts to solitude. Seasonal motorized use in Middleman Mountain to the north of the polygon has moderate impacts to solitude and is very visible to locations within the polygon.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	Thirty-five recorded cultural resources are within this evaluation area. The majority of these sites are associated with historic mining and contain structures, dwellings and relics of past occupations.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Plan.
Number of miles of maintenance level 1 road templates.	0.9 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	No recorded historic roads are within this evaluation area, however there is high likelihood they are present on the landscape, due to the heavy historic mining in the area.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. *What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?*

Table 23. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	Lands south of Trout Creek to Magpie Creek is open to motorized uses with approximately 20 + miles of open designated motorized routes. Use of these trails is seasonal but sights and sounds of motorized use is very evident from within the polygon.
Area available for winter motorized opportunity	From Never Sweat Gulch to Magpie Meadows is open to winter motorized use. Magpie Road is a designated snowmobile route. Use of these routes and snowmobile areas are seasonal but sights and sounds of motorized use are evident from within the polygon.
Proximity to private lands and non-Forest Service roads.	Private lands along Cabin Gulch, Trout Creek, and Cave Gulch create minor impacts to solitude within the polygon.
Proximity to developed recreation sites	Cave Gulch and Never Sweat THs provide motorized access

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
outside of the polygon area.	and create moderate to high impacts to solitude. Trout Creek Canyon TH, Hanging Valley TH, Magpie Meadows TH are all nonmotorized trailheads and create minimal impacts to solitude. Vigilante Campground is located at the end of a paved road in Trout Creek and creates moderate impact to solitude. Bar Gulch rental cabin is located in Magpie Creek and creates minimal impact to solitude.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 24. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	Opportunities for primitive recreation are better in the northern 1/3 of the polygon, northwest of Trout Creek and the lands surrounding Soup Creek. Upper Trout Creek has semi-primitive hiking opportunities in the summer. Hanging Valley trail is designated as a National Scenic Trail and is accessed from Magpie Meadows.
Primitive and semi-primitive non-motorized winter recreation.	Same as the areas described above for summer non-motorized areas.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Main recreation uses are OHV riding, snowmobiling, hiking, hunting, dispersed camping, Some cross country skiing in Trout Creek. Mountain biking in Trout Creek and Bear Trap.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 25. Size and Description

Size of Polygon	Description
39,383 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Table 26. Features present

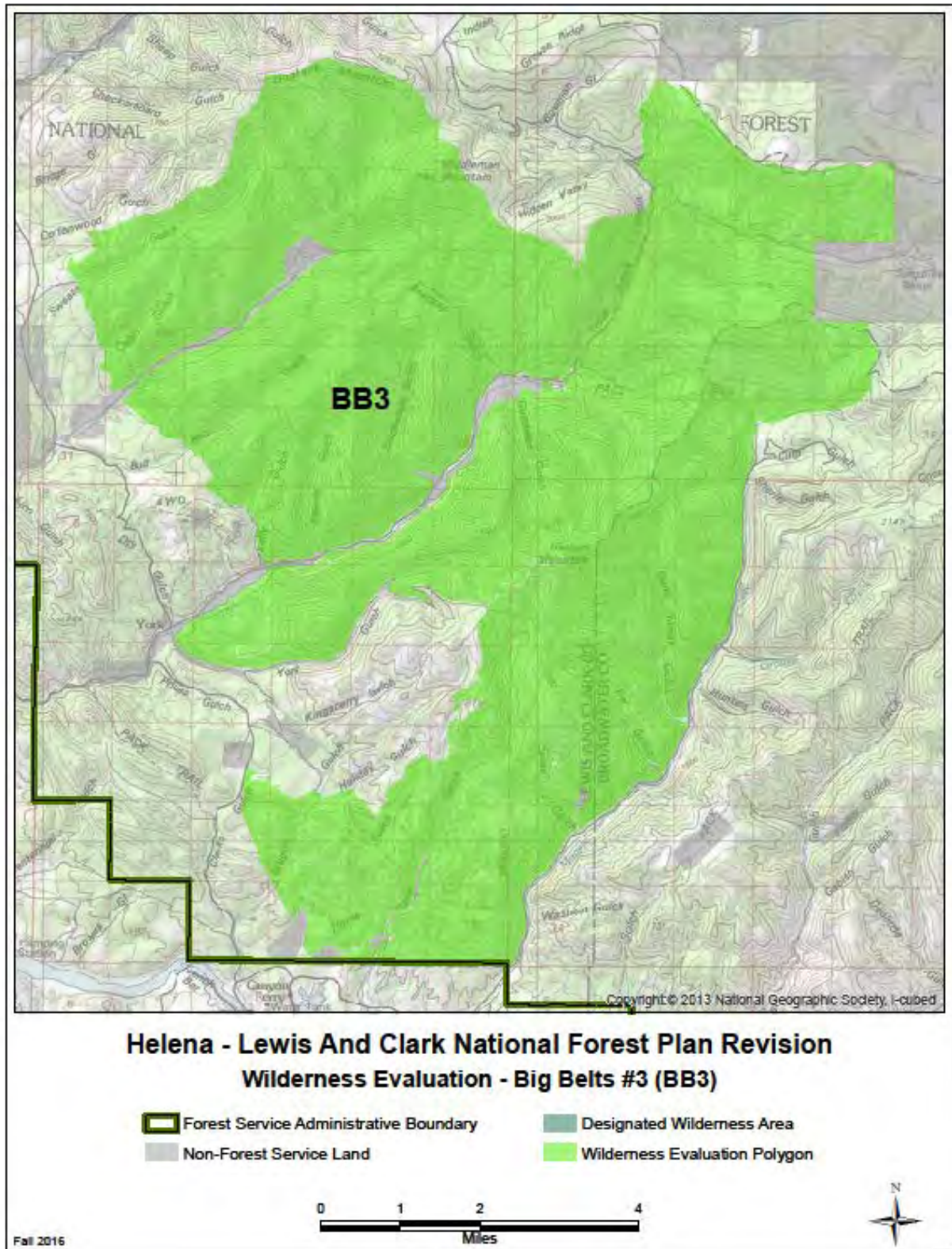
Features	Description and scale
Rare plant communities	Several potential plant species of conservation concern occur in the area, including <i>Pinus flexilis</i> , <i>Astragalus convallarius</i> , <i>Polygonum douglasii</i> spp. <i>Austinae</i> , and <i>Lesquerella klausii</i> . Antelope bitterbrush (<i>Purshia tridentata</i>) and mountain mahogany (<i>Cercocarpus ledifolius</i>) also present which are not potential SCC's but are plants of interest for the HLC NF due to their limited extent.
Rare animal species or communities	Federally listed species: Occasional, transient presence of grizzly or lynx possible. Identified as Zone 2 in NCDE Grizzly Bear Conservation Strategy, for genetic connectivity with GYE

Features	Description and scale
	population. Potential species of conservation concern and/or state at risk species: flammulated owl likely nesting in area, western toad. No rare aquatic species known.
Rare ecosystems	Ponderosa pine, limber pine, cottonwood, and aspen are all forested communities of interest due to their wildlife value which are not abundant in many areas of the HLC NF. Grass and shrublands, particularly bitterbrush and mountain mahogany communities, are also important ecosystem components. No rare aquatic ecosystems known.
Outstanding landscape features	Hanging Valley National Scenic Trail.
Historic and cultural resource sites	Thirty-five recorded cultural resources are within this evaluation area. The majority of these sites are associated with historic mining and contain structures, dwellings and relics of past occupations, which all have the potential to yield scientific, educational or historic value.
Research Natural Areas	Cabin Gulch RNA in northwestern part of the polygon.
High quality water resources or important watershed features	None known.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 27. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	Large landmass that extends south from Hogback Mountain to Maggie Creek. The area is fragmented by designated motorized routes and private land inholdings.
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	Private lands along Soup Creek and Trout Creek. Some private inholdings along the southern border the polygon in Cave Gulch.
Management of adjacent lands	North of the polygon there is heavily roaded and harvested landscape that is seasonally open to motorized recreation. Northeast corner is bordered by private lands. East and southeast is a continuation of Forest Service system lands that are fragmented by motorized use. South and southwest is Forest Service system lands impacted by logging, mining and motorized use.



North Belts Area (BB4)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 28. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	About 48% of BB4 supports Douglas-fir dominated forests, and 19% is dry grassland. Ponderosa pine dominance types are found on roughly 6%, and dry shrublands on 5%. There are trace or small amounts of other dominance types present as well, including lodgepole pine, Engelmann spruce, limber pine, aspen, and Rocky Mountain juniper. Due to the Cave Gulch fire of 2000 that burned the western half of the area, a substantial portion (about 17%) is mapped as “transitional”, where the vegetation is likely to become forested but the type is not yet discernible via imagery. On this dry landscape, some of these areas may be grass/shrublands for an extended period of time.
Potential vegetation types	Over 72% of the area has a warm dry forested potential vegetation type, and just over 20% has a dry grassland potential vegetation type. There are a few other potential types present in very small abundance, including cool moist forest, mesic grassland, dry shrubland, riparian, and sparse vegetation.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 1,283 acres within BB4 is associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest: 4700 acres of goshawk potential nesting habitat, but only 117 acres of mature multi-storied lynx habitat (optimal winter foraging habitat); lynx habitat scattered, not occupied. **Note that these habitats increase in extent and value in combination with similar in BB5. *** • Big game: 2400 acres secure elk habitat; immediately adjacent to elk calving habitat on non-NFS land. Possible moose presence in riparian. • Likely breeding habitat for Townsend’s big-eared bat. • WCT in Magpie and Avalanche Creeks.
Known non-native wildlife species	Introduced population of mountain goats, a species native to MT but not to this mountain range. Non-native trout likely.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 29. Ecological conditions

Measures	Outcome
% of area without past timber harvest	There are no records of past harvest in this area. It is possible that some historic tree cutting occurred prior to the time of detailed record keeping (prior to the 1950’s).
% of area without known invasive weeds	According to data as of 2/10/2016, 90.9%% of BB4 is not associated with invasive plant inventories.

Measures	Outcome
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 2: 14%, Class 3: 86% Ratings due to grazing and dewatering impacts, roads and trails, and water quality impairments. Avalanche and Hellgate Creeks on the State 303(d) list due to these impacts.
Miles of motorized road/trail within 300' of streams	13.7 miles
Noticeable wildfire suppression impacts	Cave Gulch (2000): dozer line evidence in Hunters and Carpenter's gulches.

Question 1c. *What is the extent to which improvements in the area represent a departure from apparent naturalness?*

Table 30. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	There are no records of either past harvest or prescribed fire treatments in this area.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None present.
Areas of mining activities including both abandoned and active mines.	Multiple abandoned mines are scattered across the polygon. These mines take away from the wilderness character of the majority of the polygon.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately ¼ mile of fencing within BB4.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	Some dispersed camping along Avalanche Road. No outfitter camps within the polygon.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	None present.
Presence of watershed treatment areas including contouring, diking, and channeling.	None known.
Lands adjacent to development or activities that impact opportunities for solitude.	Busy open roads that surround the polygon. Seasonal motorized trail system throughout the polygon. Snowmobiling during winter months.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	Twenty-two recorded cultural resources are within this evaluation area. The majority of these sites are associated with historic mining and contain structures, dwellings and relics of past occupations. This is also an area that contains a high concentration of prehistoric rock art sites.

Improvement Type	Presence and extent of departure from naturalness
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Plan.
Number of miles of maintenance level 1 road templates.	0.9 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	No recorded historic roads in this evaluation area. However there is a high probability they exist on the landscape.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 31. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	Hellgate Ridge, Doolittle Gulch, Thompson Gulch, and Hunters Gulch are all available for motorized use in the summer.
Area available for winter motorized opportunity	Groomed snowmobile routes in Magpie Creek. Open to motorized use in the winter but does not receive a lot.
Proximity to private lands and non-Forest Service roads.	Private lands in Hellgate Gulch and along Avalanche Road.
Proximity to developed recreation sites outside of the polygon area.	No developed recreation sites nearby.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 32. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	Isolated locations within McGregor Gulch, Spilling Gulch, and Shannon Gulch.
Primitive and semi-primitive non-motorized winter recreation.	Entire polygon is open to winter motorized use. Not much available for primitive and semi-primitive non-motorized winter recreation use.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Rock climbing in Hellgate Gulch. Busy with hikers during hunting season.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 33. Size and Description

Size of Polygon	Description
14,140 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

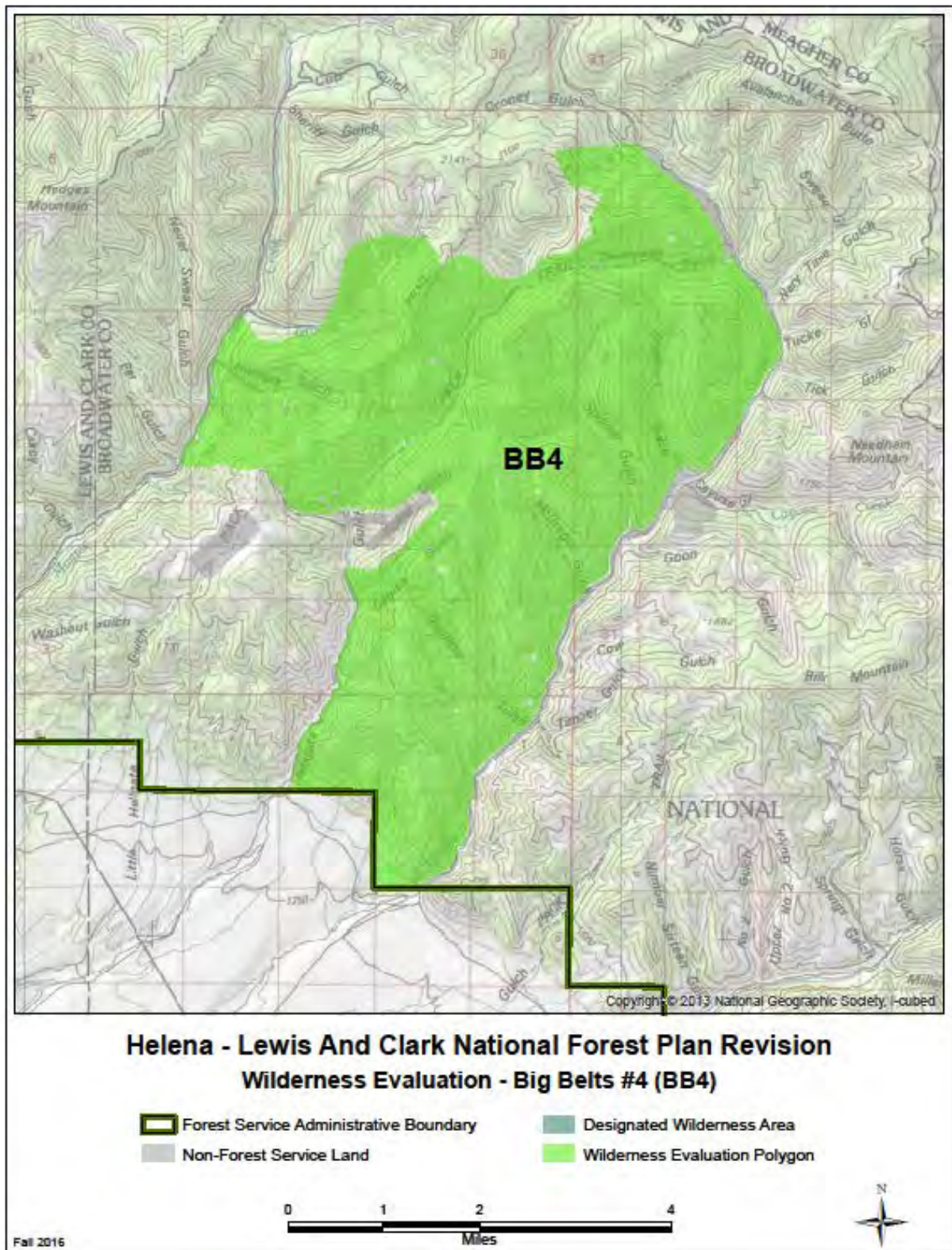
Table 34. Features present

Features	Description and scale
Rare plant communities	Records show the presence of one potential plant species of conservation concern in this area, <i>Polygonus douglasii</i> spp. <i>Austinae</i> . Small amounts of limber pine, <i>Pinus flexilis</i> , are also present.
Rare animal species or communities	Federally listed species Occasional, transient presence of grizzly or lynx possible. Identified as Zone 2 in NCDE Grizzly Bear Conservation Strategy, for genetic connectivity with GYE population. Potential species of conservation concern and/or state at risk species: Townsend's big-eared bat, evidence of possible breeding in or adjacent to area. WCT in Avalanche and Magpie Creeks.
Rare ecosystems	Small areas of limber pine, ponderosa pine, and aspen are mapped in this area, which are not abundant forested communities in many areas on the HLC NF. Grass and shrublands are also important vegetative communities found in this area. No rare aquatic ecosystems known.
Outstanding landscape features	Cliffs and rock formation in Hellgate Gulch.
Historic and cultural resource sites	Twenty-two recorded cultural resources are within this evaluation area. The majority of these sites are associated with historic mining and contain structures, dwellings and relics of past occupations. This is also an area that contains a high concentration of prehistoric rock art sites. The high concentration of rock art offers exceptional scientific, educational and historic value.
Research Natural Areas	None present.
High quality water resources or important watershed features	None.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 35. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	This polygon is an irregular shape that includes portions of Hellgate Gulch, Fisher Gulch, and the west slopes of Avalanche Creek.
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	All private lands are excluded from this polygon.
Management of adjacent lands	Forest Service system lands to the north, west, and east. Private lands to the south that are used primarily for agriculture.



Bilk Mountain Area (BB5)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 36. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The most common dominance type in this area is Douglas-fir, which is mapped on over 66%. Dry grasslands are also common, found on nearly 14%. Lodgepole pine forests can be found on just under 10%. Very small amounts of other dominance types are also present, including shrublands, subalpine fir, Engelmann spruce, limber pine, Rocky Mountain juniper, and a tiny trace of whitebark pine.
Potential vegetation types	Warm dry forest potential vegetation types dominated the area, covering about 80%. Dry grassland and mesic grassland potential types together make up about 14%. Cool moist forest potential types are also present, on about 4%. Very small amounts of shrubland and riparian potential types are also present.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 1,206 acres within BB5 is associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest: 14,000 acres of goshawk potential nesting habitat (1 known nesting territory); 3000 acres potential lynx habitat (590 acres of mature multi-storied, which is optimal winter foraging habitat; but area not occupied by lynx). . **Note that these habitats increase in extent and value in combination with similar in BB4. *** Roughly 280 acres possible old growth habitat in patches of varying size. • Big game habitats: Over 14,000 acres secure elk habitat; immediately adjacent to elk calving habitat on non-NFS land. Possible moose presence in riparian. • Subalpine/alpine habitats: Roughly 2000 acres potential wolverine habitat. • WCT in Avalanche Creek and White Gulch, plus a tributary to White Gulch.
Known non-native wildlife species	Introduced population of mountain goats, a species native to MT but not to this mountain range. Non-native trout likely.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 37. Ecological conditions

Measures	Outcome
% of area without past timber harvest	There are no records of past harvest in the area. It is possible that some historic tree cutting occurred which predates these records (prior to the 1950's).
% of area without known invasive weeds	According to data as of 2/10/2016, 95.3%% of BB5 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 2:47%, Class 3: 53% Impacts from grazing and dewatering. Avalanche Creek on 303(d) list for dewatering and grazing impacts
Miles of motorized road/trail within 300' of streams	7.7 miles
Noticeable wildfire suppression impacts	No fire and no fire suppression impacts since 1980.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 38. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	While no past harvest occurred, some prescribed burning activities did occur in this area which were determined to no longer be substantially noticeable. These treatments included under burning and broadcast burning which occurred primarily in 1988, with some small areas treated in the late 1990's and early 2000's. The effects of these treatments appear similar to wildfire.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None present.
Areas of mining activities including both abandoned and active mines.	Multiple abandoned mines in southern portion of polygon and along Avalanche Creek. These mines take away from the wilderness character of the south portion of the polygon.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 2.5 miles of fencing and 11 stock water tanks within BB5.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	Dispersed camping along Avalanche Creek, Avalanche Butte, and the Ridge Road. No outfitter camps.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	None present.

Improvement Type	Presence and extent of departure from naturalness
Presence of watershed treatment areas including contouring, diking, and channeling.	None known.
Lands adjacent to development or activities that impact opportunities for solitude.	Motorized use heard and seen from roads on the perimeter.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	Fifteen recorded cultural resources are within this evaluation area. The majority of these sites are associated with historic mining and contain structures, dwellings and relics of past occupations. This is also an area that contains a high concentration of prehistoric rock art sites. This evaluation area also lies within the Confederate Historic Mining District, which contains numerous unrecorded historic mining related features on the landscape.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Plan.
Number of miles of maintenance level 1 road templates.	0.2 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	One recorded historic wagon route (10 miles) is located within the evaluation area. However, there is a high probability of other historic routes related to the Confederate Historic Mining District.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 39. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	Nary Time motorcycle trail in Nary Time Gulch. White Gulch road and Spring Gulch roads are open. These routes are excluded but cut across the polygon in the south portion.
Area available for winter motorized opportunity	Upper end of White Gulch is open for snowmobile.
Proximity to private lands and non-Forest Service roads.	Private land inholding in White Gulch and along Cayuse Creek.
Proximity to developed recreation sites outside of the polygon area.	No developed recreation sites near the polygon.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 40. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	Majority of the area open to primitive and semi-primitive recreation in Bilk Mountain and Cayuse Creek.
Primitive and semi-primitive non-motorized winter recreation.	All portions of the polygon except for White Gulch which is open to snowmobiles.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hiking and horseback riding, dispersed camping along the open roads around the perimeter. Area is popular with hunters in the fall.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 41. Size and Description

Size of Polygon	Description
25,787 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Table 42. Features present

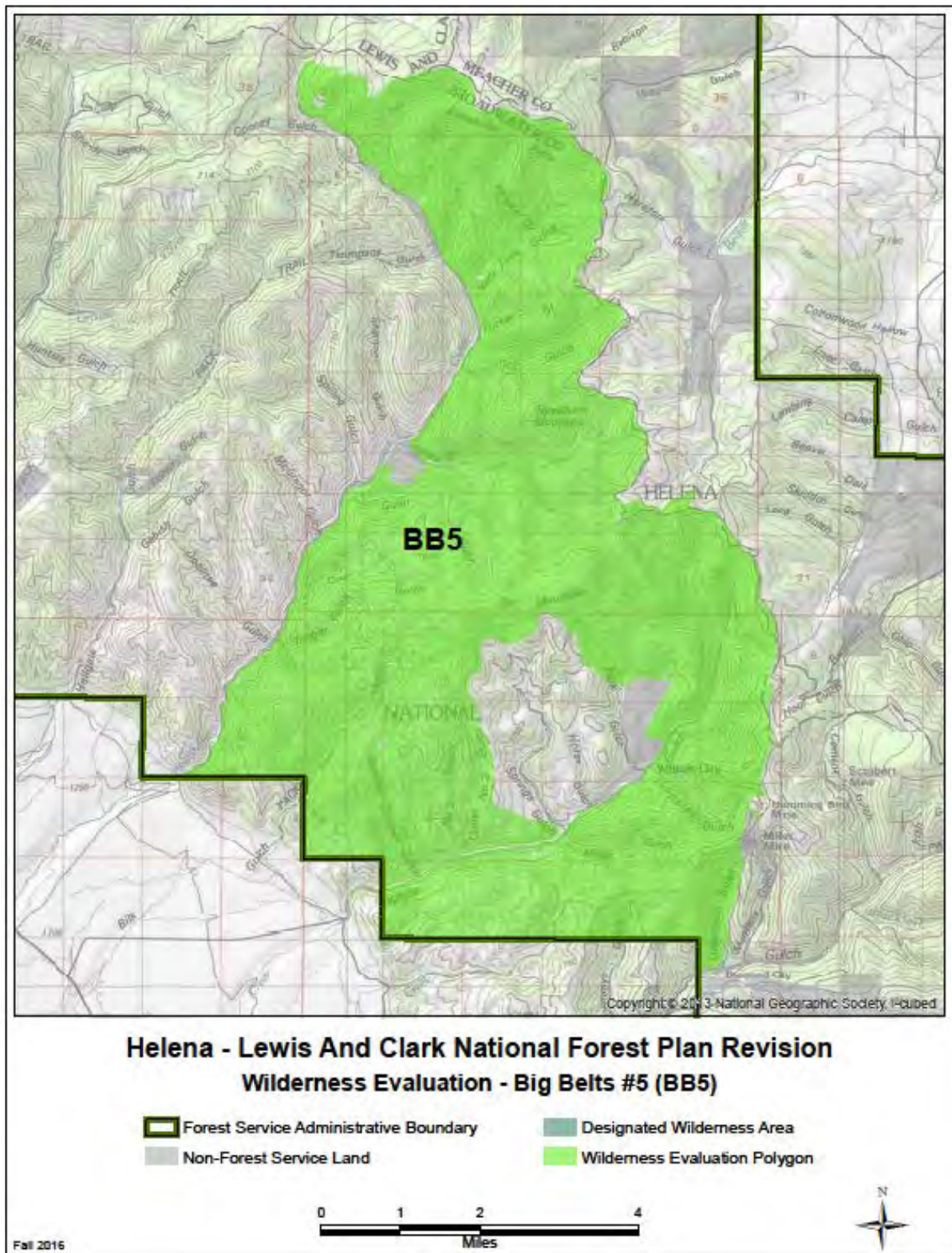
Features	Description and scale
Rare plant communities	Several potential plant species of conservation concern are known to occur in the area, including <i>Cirsium longistylum</i> , <i>Lesquerella klausii</i> , <i>Pinus albicaulis</i> , and <i>Pinus flexilis</i> .
Rare animal species or communities	Federally listed species: Occasional, transient presence of grizzly or lynx possible. Identified as Zone 2 in NCDE Grizzly Bear Conservation Strategy, for genetic connectivity with GYE population. WCT in Avalanche and White Gulch
Rare ecosystems	Whitebark pine is a candidate species for listing under the ESA and is present in small amounts in this area. Other ecosystem components found in this area, including limber pine, are not abundant in many areas of the HLC NF. No rare aquatic ecosystems known
Outstanding landscape features	Pretty vistas had off of Needham Mountain, Bilk Mountain, and Cayuse Mountain.
Historic and cultural resource sites	Fifteen recorded cultural resources are within this evaluation area. The majority of these sites are associated with historic mining and contain structures, dwellings and relics of past occupations. This is also an area that contains a high concentration of prehistoric rock art sites. In addition, this evaluation area lies within the Confederate Historic Mining District, which contains numerous unrecorded historic mining related features on the landscape. All of these sites have the potential for scientific, educational or historic value.

Features	Description and scale
Research Natural Areas	None present.
High quality water resources or important watershed features	White Gulch is on the list of eligible WSRs, it is listed for outstanding its outstanding WCT fishery.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 43. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	This polygon is relatively narrow at the northern end then broadens to area that encompasses the landscapes between Avalanche Creek and Greenhorn Gulch to the east. There is a large exclusion area in the lower central part of the polygon.
Legally established rights or uses within the area	Private land ROW to private land in White Gulch.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	Private land in White Gulch and Cayuse Creek.
Management of adjacent lands	Timber management on Forest Service system lands on the north, east and western boundaries. Private land with agriculture use on the south boundary.



Camas Creek Area (BB6)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 44. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	This area contains a mix of dominance types, ranging from Douglas-fir dominated forest (18%), to lodgepole pine (46%), to subalpine fir/Engelmann spruce mixes (25%). There are also dry grasslands (6%), and some whitebark pine forest (just over 2%). Very small amounts of other dominance types are also present, including shrublands, limber pine, aspen, and sparse vegetation.
Potential vegetation types	The area is dominated by cool moist forest potential vegetation types (69%), with warm dry forest types also common (20%). About 4% supports cold forest potential types, which is where whitebark pine would most likely thrive. There are also small amounts of grassland and shrubland potential types, and sparsely vegetated areas.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 22 acres within BB6 is associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest: 18,000 acres potential lynx habitat (2600 acres of mature multi-storied, which is optimal winter foraging habitat; note area not occupied by lynx); 13,000 acres of goshawk potential nesting habitat (1 known nesting territory); 2400 acres possible old growth habitat in patches of varying size, with substantial connected patches in the western portion of the area. Presence of Clark’s nutcracker indicates availability of mature 5-needle pine, likely whitebark pine. • Subalpine/alpine habitat: 21,000 acres potential wolverine habitat, with approximately 9000 acres of that potential maternity habitat. • Big game habitats: Nearly 22,000 acres secure elk habitat. Immediately adjacent to elk calving habitat on non-NFS land. Possible moose presence in riparian. • No WCT.
Known non-native wildlife species	Introduced population of mountain goats, a species native to MT but not to this mountain range. Non-native trout likely

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 45. Ecological conditions

Measures	Outcome
% of area without past timber harvest	There is one small area with a record of past timber harvest; a single-tree selection harvest that occurred in 1960 and which affects less than 1% of the area (24 acres).

Measures	Outcome
% of area without known invasive weeds	According to data as of 2/10/2016, 99.9% of BB6 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 2: 27%, Class 3:73%, however, the polygon is in the headwaters of the impaired watersheds, above the impacted
Miles of motorized road/trail within 300' of streams	1.9 miles, but they don't appear to be heavily impacted.
Noticeable wildfire suppression impacts	Some fire activity but 0% affected by fire suppression.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 46. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	The only vegetation treatment on record is the small single tree harvest that occurred in 1960; this treatment affects less than 1% of the area and was determined to be no longer substantially noticeable. No prescribed fire activities have occurred.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	Weather station on the ridge between Atlanta Creek and Pickfoot Creek. Weather station is a few small low structure less than ¼ acre in size.
Areas of mining activities including both abandoned and active mines.	There are a few abandoned mines scattered throughout, They are insignificant spatially within the polygon.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 1.1 miles of fencing within BB6.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	No outfitter camps, however, one outfitter/guide permit for the area. Dispersed camping in Duck Creek pass and Blacktail Creek.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Small water pipelines in Spruce Creek, Boulder Creek and Atlanta Creek.
Presence of watershed treatment areas including contouring, diking, and channeling.	None.
Lands adjacent to development or activities that impact opportunities for solitude.	Timber harvesting activity to the north and southeast.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	Currently there are only two recorded sites within this evaluation area, which are relics of past occupations. However, the northern portion is located within the Confederate Historic Mining District, therefore there is high potential for un-recorded structures, dwellings for relics of past occupations.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Plan.

Improvement Type	Presence and extent of departure from naturalness
Number of miles of maintenance level 1 road templates.	0.0 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	None known.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 47. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	None available for motorized use in summer.
Area available for winter motorized opportunity	None available for motorized use in winter.
Proximity to private lands and non-Forest Service roads.	No private land inholdings.
Proximity to developed recreation sites outside of the polygon area.	Stove Camp Trailhead on Duck Creek Pass on the edge of the polygon. Blacktail Trailhead on northern boundary in Blacktail Creek. This trailhead is about ¼ mile from boundary of the polygon.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 48. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	Entire polygon is available for primitive and semi-primitive summer recreation.
Primitive and semi-primitive non-motorized winter recreation.	Entire polygon is available for primitive and semi-primitive winter recreation but not heavily used in the winter.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hiking, horseback riding, hunting, fishing, backpacking in to high mountain lakes.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 49. Size and Description

Size of Polygon	Description
23,879 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

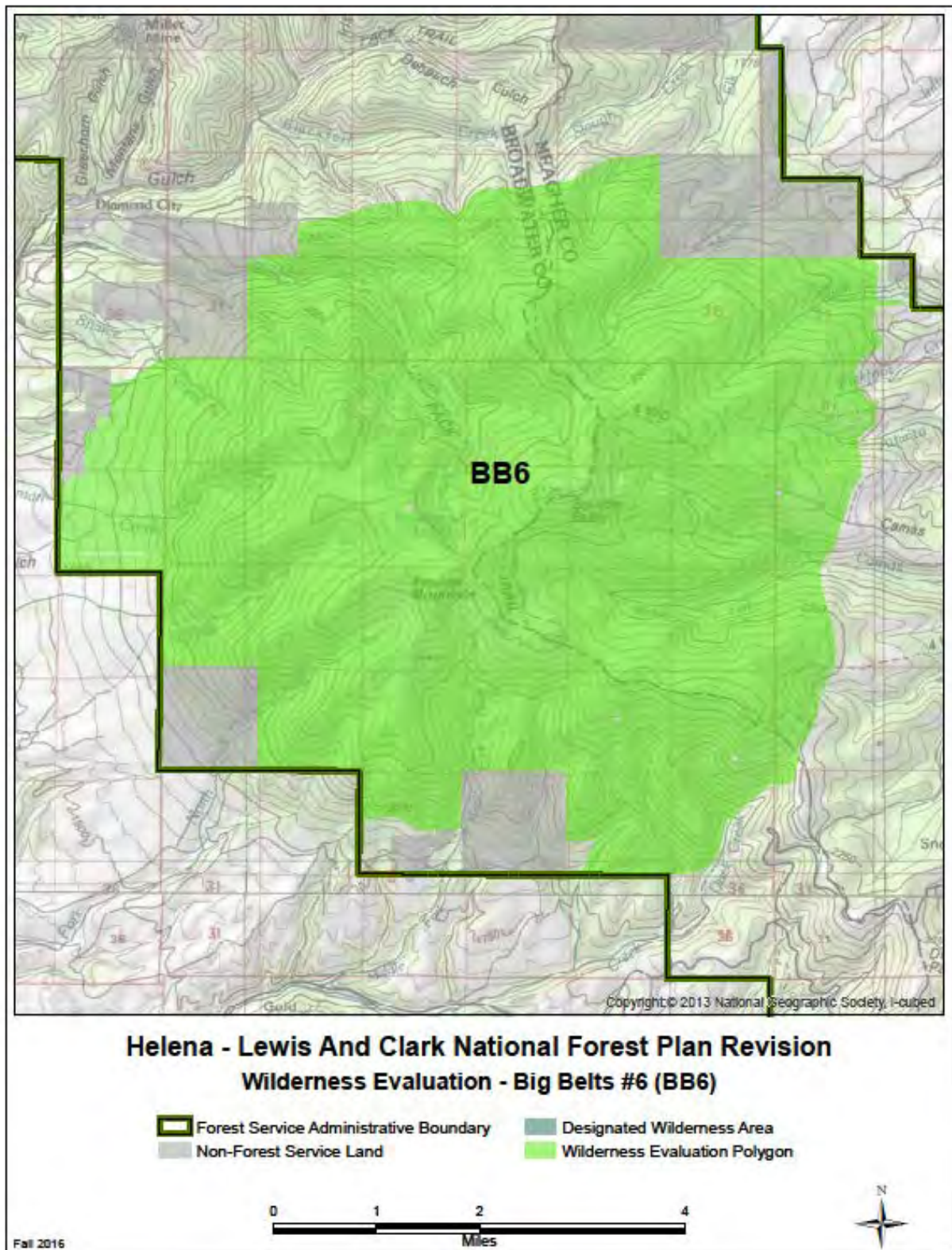
Table 50. Features present

Features	Description and scale
Rare plant communities	Several potential plants of conservation concern are known to occur in this area, including <i>Pinus albicaulis</i> , <i>Pinus flexilis</i> , and <i>Cirsium longistylum</i> .
Rare animal species or communities	Federally listed species: Occasional, transient presence of grizzly or lynx possible. Identified as Zone 2 in NCDE Grizzly Bear Conservation Strategy, for genetic connectivity with GYE population. Potential species of conservation concern and/or state at risk species: wolverine No known rare aquatics.
Rare ecosystems	Whitebark pine is a candidate species for listing under the ESA and is found in small amounts in this area. Limber pine communities are also of interest on the HLC NF. No known rare aquatic ecosystems.
Outstanding landscape features	High mountains, wide vistas, small alpine lakes.
Historic and cultural resource sites	Currently there are only two recorded sites within this evaluation area, which have the potential for scientific, educational or historic value. However, the northern portion is located within the Confederate Historic Mining District, therefore there is high potential for un-recorded historic sites associated with past mining.
Research Natural Areas	None present.
High quality water resources or important watershed features	Isolated headwaters area, steep, no major disturbances.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 51. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	A large circular are surrounding Boulder Mountain and Boulder Baldy peaks.
Legally established rights or uses within the area	Water rights associated with the pipelines.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	No private inholdings.
Management of adjacent lands	Timber harvest and road building on Forest Service system lands to the north and south east. Private land with agricultural and timber harvest uses to the southwest.



Mount Baldy Area (BB7)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 52. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	This area is primarily dominated by higher elevation forests, including lodgepole pine dominance types (35%) and subalpine fir/Engelmann spruce mixes (35%). There are also some Douglas-fir forests (about 10%). Sparsely vegetated areas are also common (11%), and likely consist mainly of rocky alpine sites. Whitebark pine forest is present on about 6% of the area. Small amounts of other dominance types are also present, including grasslands, shrublands, and limber pine.
Potential vegetation types	Cool moist forest potential vegetation types dominate, representing about 68% of the area. Warm dry forests are present on about 6% at the lowest elevations, and cold forest potential types are found on about 11% at the highest elevations, representing the area where whitebark pine could most likely thrive. In addition to the sparsely vegetated (alpine) areas that cover about 11%, there are very small amounts of grassland and shrubland potential types present.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 108acres within BB7 is associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest: Roughly 14,000 acres potential lynx habitat (2300 acres of mature multi-storied, which is optimal winter foraging habitat; note area not currently occupied by lynx); 7400 acres of goshawk potential nesting habitat. Roughly 1000 acres possible old growth habitat in patches of varying size. Presence of Clark’s nutcracker indicates availability of mature 5-needle pine, likely whitebark pine. • Big game habitats: Nearly 16,000 acres secure elk habitat. Possible moose presence in riparian. • Subalpine/alpine habitat: roughly 15,000 acres potential wolverine habitat, with approximately 3400 acres of that potential maternity habitat. Golden-mantled ground squirrel presence also indicative of subalpine/alpine habitats. • WCT in Ray Creek.
Known non-native wildlife species	Introduced population of mountain goats, a species native to MT but not to this mountain range. Non-native trout likely

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 53. Ecological conditions

Measures	Outcome
% of area without past timber harvest	There is a record of one small commercial thinning activity that occurred in this area in 1958, representing less than 1% of the area (30 acres). There appears to be an old sale/with roads in the southwest corner of the polygon, (was private on old rec map)/section 28.
% of area without known invasive weeds	According to data as of 2/10/2016, 99.4%% of BB7 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 19%, Class 2: 81% Polygon is in headwaters of these watersheds though, very little disturbance or impacts
Miles of motorized road/trail within 300' of streams	0.0 miles
Noticeable wildfire suppression impacts	No recorded fire instances since 1980.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 54. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	The only record of past vegetation treatment found in this area is a 30-acre commercial thin from 1950 which was determined to no longer be substantially noticeable on the landscape.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	Multiple permittees at a communication site in the northwest portion of the polygon and is visible from within the polygon.
Areas of mining activities including both abandoned and active mines.	Not extensive. Only one mine mapped in northern portion of the polygon near Duck Creek Pass.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 1.1 miles of fencing within BB7.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	Dispersed camping along Duck Creek Pass and at all of the upper alpine lakes. Outfitter camp near the Needles.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Abandoned powerline west of the communication site which is still visible from within the polygon.
Presence of watershed treatment areas including contouring, diking, and channeling.	None.

Improvement Type	Presence and extent of departure from naturalness
Lands adjacent to development or activities that impact opportunities for solitude.	Surrounded by timber harvest on all four sides. Forest Service system land harvest on north, west and south. Private land harvesting on the east.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	No recorded sites. There is the potential for two historic administrative structures (fire lookouts) that have been mentioned in references, but have not been visited and/or recorded.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Recommended as wilderness in the 1986 Helena Forest Plan.
Number of miles of maintenance level 1 road templates.	0.7 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	None known.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 55. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	Some motorized use on the road up the communication site in summer. Otherwise, the bulk of the area is non-motorized.
Area available for winter motorized opportunity	The entire polygon is non-motorized in winter.
Proximity to private lands and non-Forest Service roads.	No private land inholdings.
Proximity to developed recreation sites outside of the polygon area.	Gypsy Lake Campground and Trailhead to the north. Hidden Lake Trailhead on Duck Creek Pass. Edith Lake Trailhead to the south.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 56. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	The entire polygon is available for primitive and semi-primitive summer recreation.
Primitive and semi-primitive non-motorized winter recreation.	The entire polygon is available for primitive and semi-primitive winter recreation.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hiking, horseback riding, hunting, fishing, backpacking in to high mountain lakes.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 57. Size and Description

Size of Polygon	Description
18,335 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Table 58. Features present

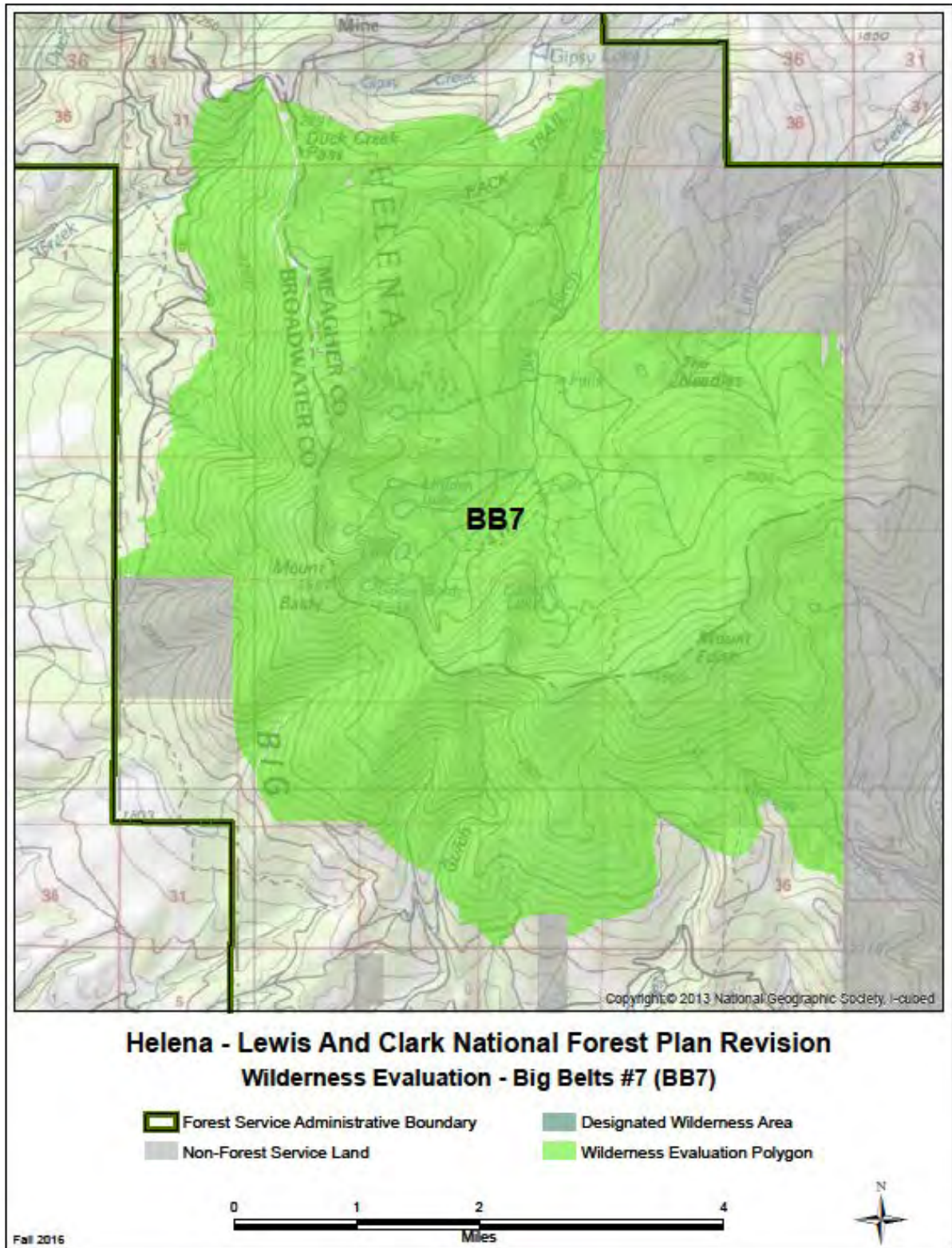
Features	Description and scale
Rare plant communities	Several potential plant species of conservation concern can be found in this area, including <i>Pinus albicaulis</i> , <i>Pinus flexilis</i> , <i>Cirsium longistylum</i> , and <i>Juncus hallii</i> .
Rare animal species or communities	Federally listed species: Occasional, transient presence of grizzly or lynx possible. Identified as Zone 2 in NCDE Grizzly Bear Conservation Strategy, for genetic connectivity with GYE population. Potential species of conservation concern and/or state at risk species: wolverine, black rosy finch WCT in Ray Creek.
Rare ecosystems	The mapped area of whitebark pine dominance (6% of the area, or about 1087 acres) represents one of the more abundant whitebark communities in the Big Belts GA. The additional area of cold forest potential vegetation types represent potential expansion opportunities for this species of concern. Whitebark pine and alpine ecosystems are relatively rare and important features on the HLC NF, and whitebark is a candidate species for listing under the ESA. Several whitebark stands in this area are identified as genetically diverse areas valued for their contributions to the Regional whitebark pine rust resistant seed program. No known rare aquatic ecosystems.
Outstanding landscape features	The Needles, numerous alpine lakes, high mountain peaks and valley vistas.
Historic and cultural resource sites	None known.
Research Natural Areas	None present.
High quality water resources or important watershed features	Ray Creek is on the list of eligible WSRs, for WCT.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 59. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	Large oval-shaped area that includes the Mount Baldy, Mount Edith, and Needles areas.
Legally established rights or uses within the	None known.

Factors	Description and scale
area	
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	No private inholdings.
Management of adjacent lands	Timber harvest and road building on Forest Service system lands to the north, west and south. Heavily impacted private lands to the east.



Grassy Mountain Area (BB8)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 60. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	Most of this area supports Douglas-fir dominated forests (78%). Dry grasslands are also common (12%). Small amounts of other dominance types are also present, including shrublands, ponderosa pine, lodgepole pine, subalpine fir, Engelmann spruce, cottonwood, and aspen. In addition, a small portion (280 acres) was burned in the Maudlow-Toston fire of 2000 and is classified as “transitional” (3%), where forest cover has not yet re-established.
Potential vegetation types	The area is dominated by warm dry forest potential vegetation types (over 81%), with dry grassland types the next most common (just over 8%). There are small amounts of other potential types present, including cool moist forest, mesic grassland, dry shrublands, riparian/wetland, and sparsely vegetated areas.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 34 acres within BB8 is associated with invasive plant inventories.
Status and extent of existing native wildlife species and communitie	<ul style="list-style-type: none"> • Functioning mature forest minimal: Less than 800 acres potential lynx habitat based on existing and potential vegetation type (note area is not currently occupied by lynx). Roughly 4600 acres of goshawk potential nesting habitat. Roughly 150 acres possible old growth • Approximately 2200 acres secure elk habitat. Possible moose presence in riparian. Less than 200 acres potential wolverine habitat. • No WCT present.
Known non-native wildlife species	No non-native terrestrial wildlife species documented. Non-native trout likely.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 61. Ecological conditions

Measures	Outcome
% of area without past timber harvest	Records indicate that two small harvests occurred in this area in 1989, a seed tree seed cut and a shelterwood preparatory cut which together totaled 38 acres (less than 1% of the area).
% of area without known invasive weeds	According to data as of 2/10/2016, 99.4%% of BB8 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 2: 100%
Miles of motorized road/trail within 300' of streams	0.5 miles, but several motorized roads/trails cross through the polygon.

Measures	Outcome
Noticeable wildfire suppression impacts	Maudow-Toston: Dozer or fellerbuncher fuel break through Sec. 30 and 29.

Question 1c. *What is the extent to which improvements in the area represent a departure from apparent naturalness?*

Table 62. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	Several small vegetation treatments occurred in this area which all together total nearly 2% of the area. In addition to the two small harvests in 1989, piles were burned on roughly 74 acres. However, the pile burning occurred twice on the same area, which is the same area that was harvested; therefore the actual footprint of activity is only about 35 acres total. These treatments were determined to be no longer substantially noticeable due to the residual vegetation appearing natural today.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	Multi-structure communications complex on Grassy Mountain on the east side of the polygon.
Areas of mining activities including both abandoned and active mines.	Several abandoned mine points within polygon
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 3.2 miles of fencing and 3 stock water tanks within BB8.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	Dispersed camping in Klondike Pass, Blacktail road, and south of Skidway Campground. No outfitter camps.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	None known.
Presence of watershed treatment areas including contouring, diking, and channeling.	None.
Lands adjacent to development or activities that impact opportunities for solitude.	Motorized use on open roads surrounding the polygon. Highway 12 forms the western boundary of the polygon.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	None recorded at this time. However, there is the potential of an unrecorded historic site since old ski runs are visible west of Skidway Campground.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Plan.
Number of miles of maintenance level 1 road templates.	0.3 miles

Improvement Type	Presence and extent of departure from naturalness
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	None known.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor's opportunity for solitude? What are the factors that may mitigate those impacts?

Table 63. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	The entire eastern boundary is a motorized trail and is open for summer motorized use.
Area available for winter motorized opportunity	Area is not available for winter motorized recreation.
Private land within the polygon.	No private land inholdings.
Developed recreation sites.	Skidway Campground, Deep Creek Picnic area, and Blacktail Trailhead are located along Highway 12.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 64. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	The influence of Highway 12 and the motorized routes along Grassy Mountain reduce opportunities for primitive and semi-primitive non-motorized summer recreation.
Primitive and semi-primitive non-motorized winter recreation.	Closed to motorized winter recreation so opportunities to experience primitive and semi-primitive winter recreation are good.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hiking, hunting, motorized recreation on eastern boundary, and cross country skiing around Skidway.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 65. Size and Description

Size of Polygon	Description
6,194 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

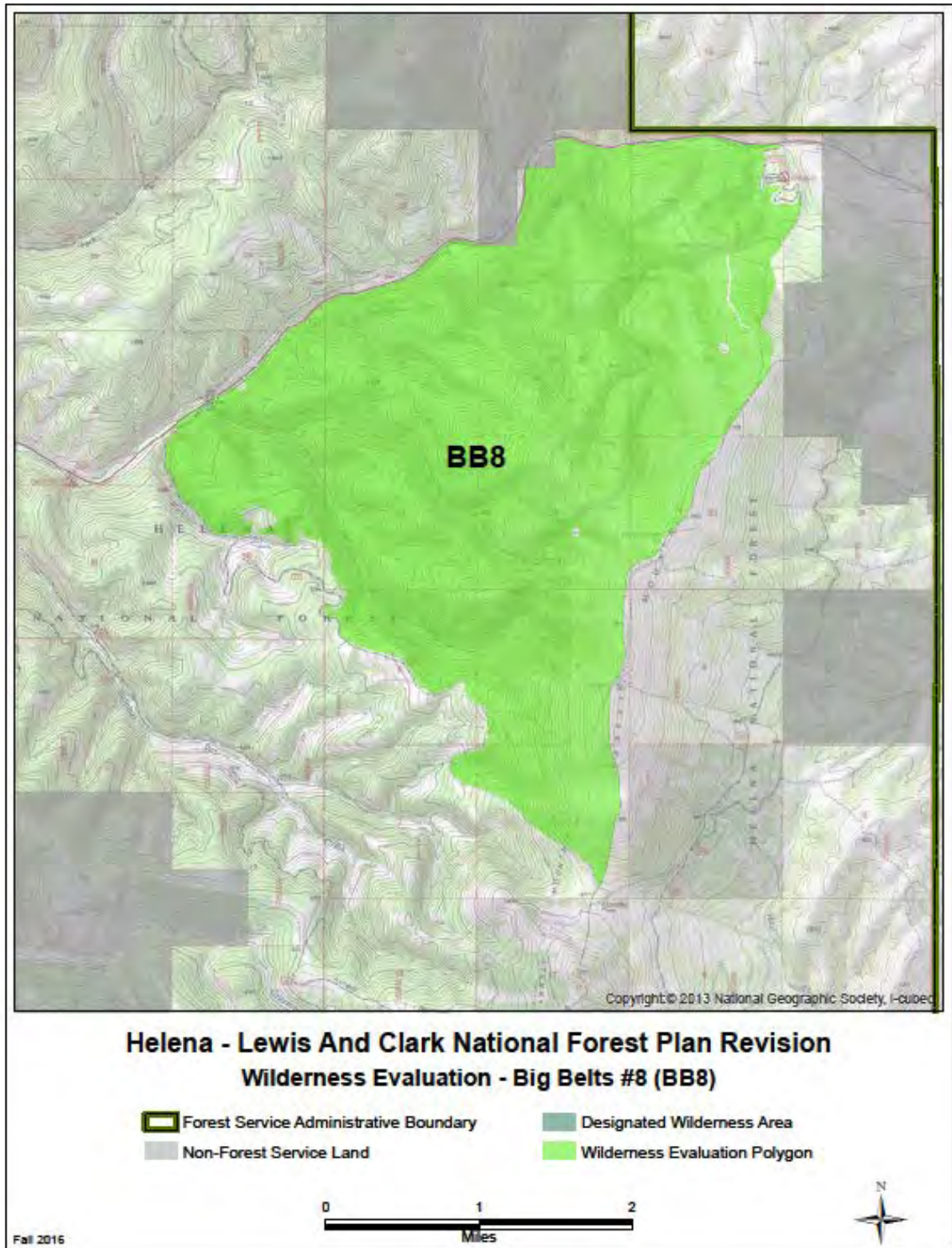
Table 66. Features present

Features	Description and scale
Rare plant communities	The only potential plant of conservation concern known to occur in this area is <i>Polygonum douglasii</i> ssp. <i>Austinae</i> .
Rare animal species or communities	Federally listed species: Occasional, transient presence of grizzly or lynx possible. Identified as Zone 2 in NCDE Grizzly Bear Conservation Strategy, for genetic connectivity with GYE population. Potential species of conservation concern and/or state at risk species: none documented No known rare aquatic species
Rare ecosystems	There are no known rare ecosystem features related to vegetation, other than the minor presence of cottonwood and aspen which are limited in extent on the HLC NF. No known rare aquatic ecosystems
Outstanding landscape features	High mountain vistas on Grassy Mountain.
Historic and cultural resource sites	None known at this time.
Research Natural Areas	None present.
High quality water resources or important watershed features	None.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 67. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	Arrow-shaped land area on Grassy Mountain east of Deep Creek.
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	No private inholdings.
Management of adjacent lands	Timber harvest and road building on Forest Service system lands to the northwest and southwest.



Willow Creek Area (BB11)

This polygon includes four small parcels that all together equal 121 acres.

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 68. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	Due to recent wildfire activity, over 60% of this small area is mapped as “transitional” in VMap, indicating that the vegetation type is not identifiable although tree seedlings may be re-establishing. Roughly a third of the area is classified as dry grassland, and about 6% maps as a Douglas-fir dominance type. There are trace amounts of ponderosa pine and shrublands. Given the location and elevation of this area, grasslands may dominate the burned areas for some time, although Douglas-fir and/or ponderosa pine may also establish.
Potential vegetation types	About 68% of the area has a warm dry forested potential vegetation type, consistent with supporting Douglas-fir and ponderosa pine. 27% of the area is a dry grassland potential type, and nearly 5% is a dry shrubland potential type.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 2 acres within BB11 is associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	Big game habitats: Roughly 50 acres secure elk summer habitat and roughly 125 acres bighorn sheep winter range. These habitats are not significant by themselves but increase in value paired with adjacent wilderness and potentially with BB1 and BB3. No WCT.
Known non-native wildlife species	Introduced population of mountain goats, a species native to MT but not to this mountain range. None others documented. No known non-native aquatic species.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 69. Ecological conditions

Measures	Outcome
% of area without past timber harvest	There are no records of past timber harvest occurring in this area.
% of area without known invasive weeds	According to data as of 2/10/2016, 98.2% of BB11 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 2: 100%, but no impacts in the polygons
Miles of motorized road/trail within 300’ of streams	0.0 miles
Noticeable wildfire suppression impacts	None present.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 70. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	There are no records of past timber harvest or prescribed fire activities in this area.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None present.
Areas of mining activities including both abandoned and active mines.	None.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	None.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	None.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	None.
Presence of watershed treatment areas including contouring, diking, and channeling.	None.
Lands adjacent to development or activities that impact opportunities for solitude.	Surrounded by undeveloped State of Montana lands.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	No known sites.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Plan.
Number of miles of maintenance level 1 road templates.	0.0 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	None known.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 71. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Areas available for summer motorized opportunity	Area not available for summer motorized recreation.
Areas available for winter motorized opportunity	Area not available for winter motorized recreation.
Proximity to private lands and non-Forest Service roads.	These parcels lie adjacent to state game management area.
Proximity to developed recreation sites outside of the polygon area.	No developed recreation sites in the area. Willow Creek Trailhead outside of the Gates of the Mountains Wilderness on Montana State lands.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 72. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation	Entire parcels available for primitive and semi-primitive summer recreation.
Primitive and semi-primitive non-motorized winter recreation	Entire parcels available for primitive and semi-primitive winter recreation. Inaccessible in winter.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hiking and hunting.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 73. Size and Description

Size of Polygon	Description
121 acres	This polygon consists of 4 small parcels that lie adjacent to the northern boundary of the Gates of the Mountains Wilderness. There are no other Forest Service system lands in this area. They are effectively already being managed as if they are wilderness.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

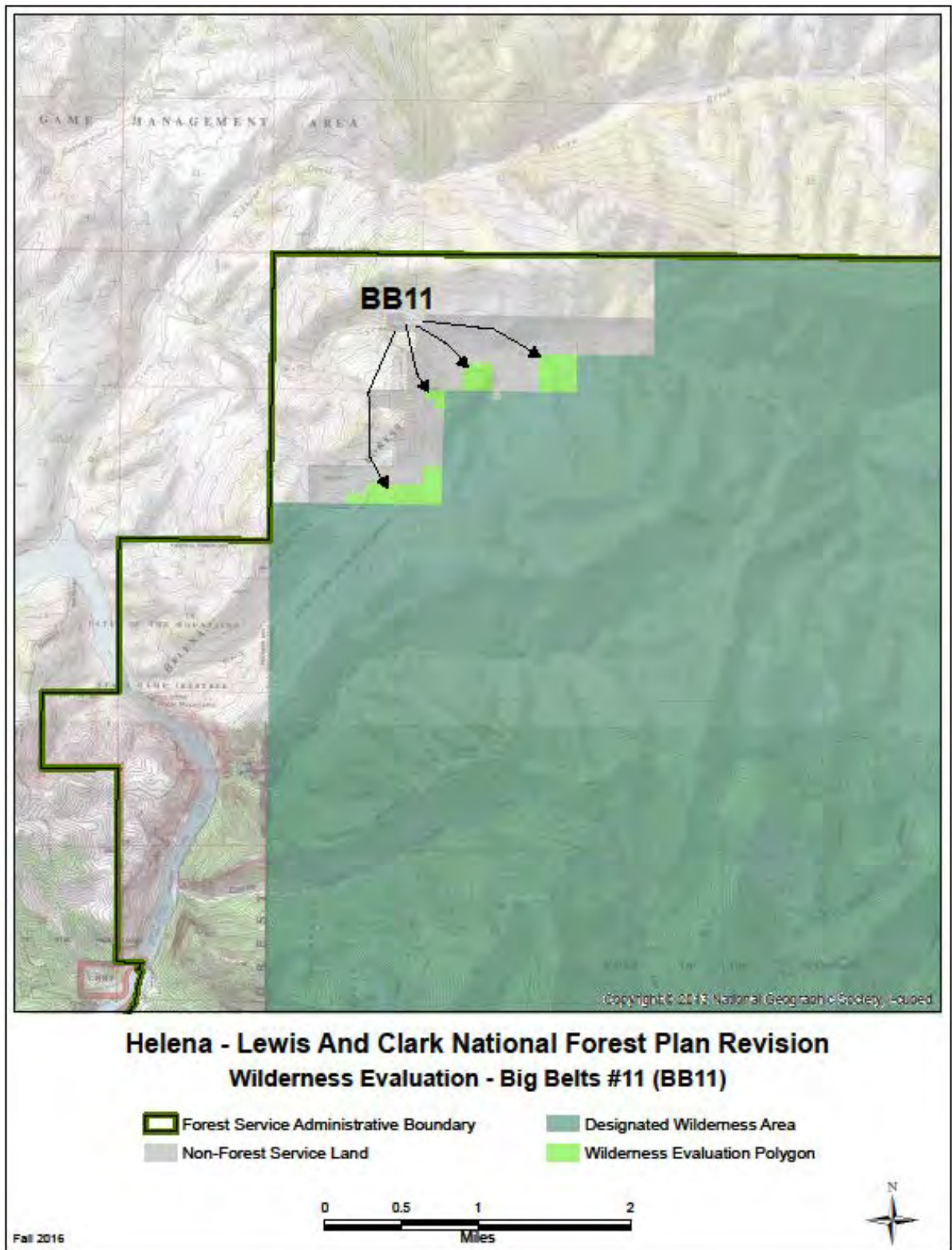
Table 74. Features present

Features	Description and scale
Rare plant communities	There are no records of rare plants or potential plant species of conservation concern in this area.
Rare animal species or communities	Federally listed species: Occasional, transient presence of grizzly or lynx likely. Identified as Zone 2 in NCDE Grizzly Bear Conservation Strategy, for genetic connectivity with GYE population. Potential species of conservation concern and/or state at risk species: None documented No rare aquatic species.
Rare ecosystems	Ponderosa pine is a species of management interest and is present in minor amounts in this area. No rare aquatic ecosystems.
Outstanding landscape features	Geologic rock features.
Historic and cultural resource sites	No known sites.
Research Natural Areas	None present.
High quality water resources or important watershed features	None.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 75. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	Four small parcels of Forest Service system lands adjacent to the northern boundary of the Gates of the Mountains Wilderness.
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	Borders a state game management area that limits access.
The presence and amount of non-Federal land in the area	No private inholdings.
Management of adjacent lands	Gates of the Mountains Wilderness to the south and state wildlife management area on all other sides.



Castles Geographic Area

Wapiti Peak Area (CA1)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 76. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The most common dominance type in this area is lodgepole pine (pure or mixed), which covers about 56%. Douglas-fir forest is also common, representing about 19%. Subalpine fir and Engelmann spruce forests (and mixes of the two) cover about 14%. Dry grasslands are present on nearly 7%. There are small areas dominated by whitebark pine or limber pine (about 2% each). There are very small amounts of other dominance types, including shrublands and cottonwood.
Potential vegetation types	The bulk of this area has a cool moist forest potential vegetation type (68%), consistent with the dominance of lodgepole pine and Douglas-fir forest. Warm dry forest potential types make up about 24%, and dry grassland types about 5%. Trace amounts of cold forest, mesic grassland, shrublands, and riparian types are also present.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 47 acres within CA1 is associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest: Roughly 16,000 acres potential lynx habitat, with over 4200 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type (area is not currently occupied by lynx). Roughly 22,000 acres of goshawk potential nesting habitat and at least one known nest territory. Roughly 150 acres possible old growth habitat in patches of varying size. Presence of Clark’s nutcracker indicates availability of mature whitebark, limber, and/or ponderosa pine. • Approximately 15,000 acres secure elk habitat, and 1600 acres elk winter habitat and up to 2000 acres elk calving habitat. Possible moose presence in riparian. • Roughly 2600 acres potential wolverine habitat. • WCT in SF Willow, Richardson, Fourmile, and Cottonwood Creeks.
Known non-native wildlife species	No non-native terrestrial wildlife species documented. Non-native trout likely.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 77. Ecological conditions

Measures	Outcome
% of area without past timber harvest	Over 99% of this area has been unaffected by past timber harvest. About 82 acres have been harvested, primarily consisting of a single-tree selection cut which occurred in 1959.
% of area without known invasive weeds	According to data as of 2/10/2016, 99.9% of CA1 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 10%, Class 2: 85%, Class 3: 5% Class 3 impacts are downstream from polygon
Miles of motorized road/trail within 300' of streams	10.9 miles
Noticeable wildfire suppression impacts	No impacts to the polygon from wildfire suppression.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 78. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	Less than 2% of this area has been impacted by timber harvest and prescribed fire. Approximately 82 acres have been previously harvested, including a single-tree selection cut in 1959 (75 acres) and a commercial thin (7 acres) in 1982. Ample residual trees were left after these treatments, and enough time has passed that they are no longer substantially noticeable. In addition, about 437 acres have been treated with prescribed fire from 2000 to 2004, consisting of underburning, broadcast burning, and pile burning. These treatments were also determined to be not substantially noticeable, appearing similar to wildfire.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	Repeater on Elk Peak. This has no tower, so minimal visual impact.
Areas of mining activities including both abandoned and active mines.	Areas of abandoned mines scattered throughout.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 16.6 miles of fencing and 7 stock water tanks within CA1.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	No outfitter camps. Dispersed camping throughout the polygon. Specifically, along trails and along the periphery of the polygon.

Improvement Type	Presence and extent of departure from naturalness
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Water line in West Fork Cottonwood Creek.
Presence of watershed treatment areas including contouring, diking, and channeling.	Ditch along Fourmile Creek. Water diversion for the city water system for White Sulphur Springs. This diversion sends water to an impoundment which is located on private land.
Lands adjacent to development or activities that impact opportunities for solitude.	Outfitters to the west and south that have developments on private lands that minimally impact solitude.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	There is approximately 35 recorded cultural sites in this evaluation area, which represent structures, dwellings and other relics of past occupations.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	0.0 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	There is one recorded historic road and five record historic trails in this evaluation area. However, there is a high probability of many historic routes in this polygon related to the past mining activity.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 79. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	Most of the area is available for summer motorized activity through authorized ATV and motorcycle trails. The sights and sounds from these trails affect solitude in the entire polygon.
Area available for winter motorized opportunity	Majority of the area is open to snowmobile use in the winter. This includes uses on trails as well as cross country use.
Private land within the polygon.	Two small private land inholdings: one in Grasshopper Creek and one in Warm Springs Creek. The private inholding in Grasshopper Creek is authorized for full size vehicle access. The private inholding in Warm Springs Creek has authorized ATV only access.
Developed recreation sites.	There are two campgrounds north of the polygon: Grasshopper and Richardson. Both of these campgrounds create moderate impacts to lands near by these sites. Campers use the trail system by hiking, motorcycle and horses.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 80. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	There is very little opportunity to have a primitive or semi-primitive non-motorized recreation experience in the summer.
Primitive and semi-primitive non-motorized winter recreation.	While the area is open for snowmobile use, the terrain and the vegetation make snowmobile travel impracticable. Because of this, there are many opportunities to have a primitive or semi-primitive non-motorized experience in the winter.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	ATVs and motorcycle riding, horseback riding, hiking, rock climbing, hunting, fishing, minimal snowmobiling, mountain biking, dispersed camping around the periphery, and recreational mining.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 81. Size and Description

Size of Polygon	Description
33,001 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

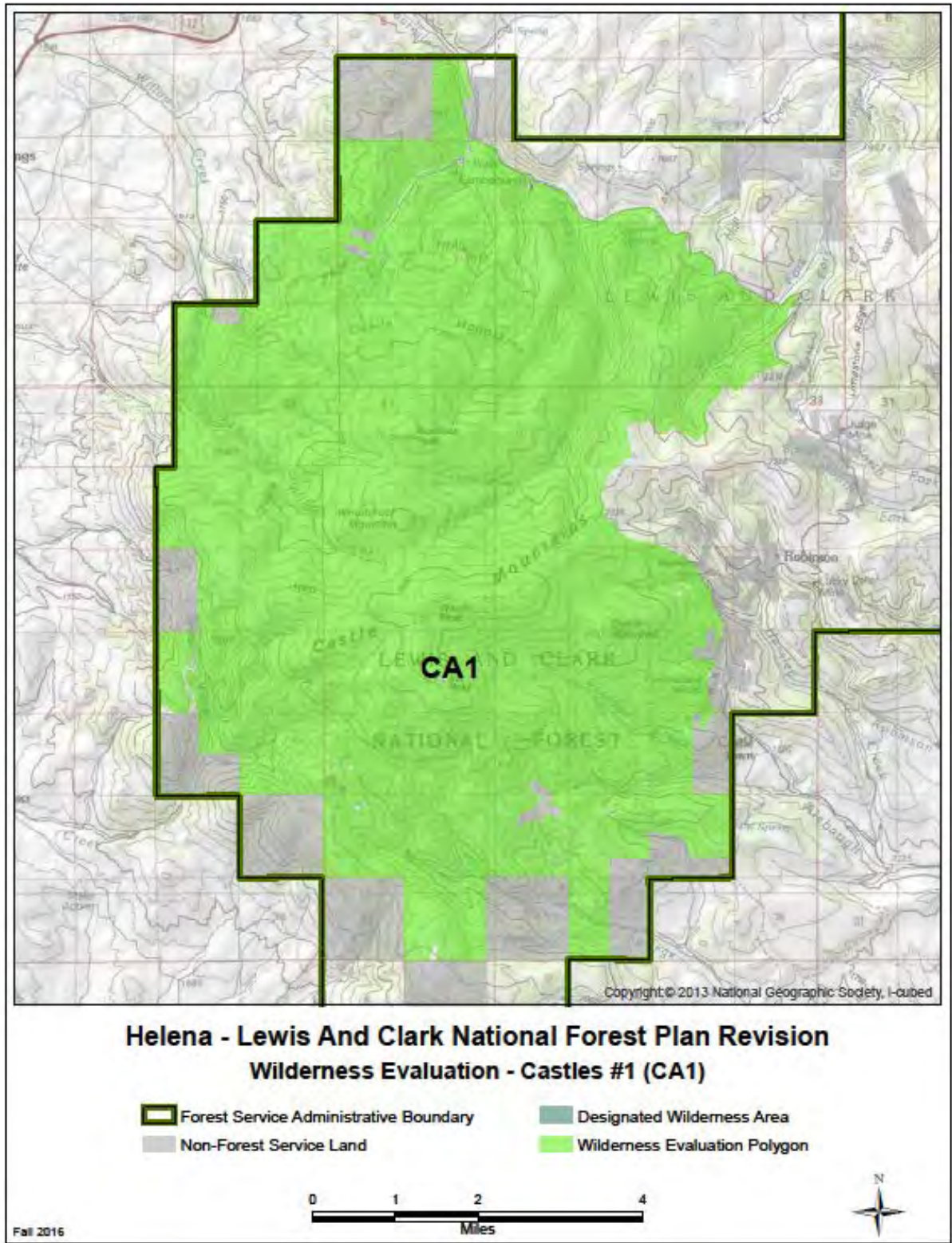
Table 82. Features present

Features	Description and scale
Rare plant communities	Several potential plants of conservation concern are known to be present in this area, including <i>Pinus albicaulis</i> , <i>Pinus flexilis</i> , <i>Agoseris lackschewitzii</i> , and <i>Cirsium longistylum</i> .
Rare animal species or communities	Federally listed species: Occasional, transient presence of lynx possible, but area is not within lynx critical habitat or occupied areas. Potential species of conservation concern and/or state at risk species: None documented WCT in Fourmile, Richardson, SF Willow, and Cottonwood Creeks.
Rare ecosystems	Whitebark pine and limber pine forests are considered to be relatively rare and important ecosystem components; these species are present in fairly small amounts. Whitebark pine is a candidate species for listing under the ESA. No rare aquatic ecosystems known.
Outstanding landscape features	Castle geology and outcroppings.
Historic and cultural resource sites	All recorded cultural resources in the polygon have the potential for scientific, educational or historic value.
Research Natural Areas	None present.
High quality water resources or important watershed features	Polygon has streams with high quality water. Willow Creek is the municipal watershed for White Sulphur Springs. Area on north side of polygon has several sinkhole wetlands.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 83. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	Large circular land area on the west end of the Castles.
Legally established rights or uses within the area	Private land inholdings are patented mining claims.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	Two private inholdings: one in Warm Springs Creek and one in Grasshopper Creek.
Management of adjacent lands	Polygon surrounded by large private ranchlands on the south, west, and north. Forest Service system lands on the east.



Whetstone Ridge Area (CA3)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 84. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	Pure Douglas-fir and Douglas-fir mixed forests dominate this area, making up about 56%. Dry grasslands are also common, present on about 26% of the area. Lodgepole pine dominance types are present on just over 7%. Limber pine dominated forests are notably present on about 6%. Other types are present in very small amounts, including subalpine fir, ponderosa pine, and shrublands.
Potential vegetation types	Warm dry forest potential vegetation types dominate the area, covering about 70%. Dry grassland types are the next most common, covering 24%. These potential vegetation types are consistent with the dominance of Douglas-fir forest, grasslands, and limber pine ecotone areas. Very small amounts of other potential types, including cool moist forest, mesic grassland, xeric shrubland, and riparian types are also present.
Known non-native terrestrial plant species	According to data as of 2/10/2016, there are currently no acres within CA3 associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: Roughly 3100 acres potential lynx habitat, with over 2300 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type (note area is not currently occupied by lynx). Roughly 5000 acres of goshawk potential nesting habitat indicates. Roughly 200 acres possible old growth habitat and an additional 4000 acres potential as identified from aerial imagery. Both goshawk habitat and potential old growth habitat increase in value to wildlife in combination with similar habitat in NF lands immediately east of this WE polygon. • Approximately 1300 acres secure elk habitat reflects generally open vegetation types, but increases in value when combined with secure areas to east of polygon. Roughly 2800 acres elk winter habitat contiguous with additional winter range on adjacent non-NF land. • Gray-crowned rosy finch and black rosy finch indicate presence of specific subalpine/alpine habitats. • Observations of bird species associated with native grasslands indicates importance of that habitat type in and adjacent to this area. • No WCT.
Known non-native wildlife species	No non-native terrestrial wildlife species documented. Non-native trout likely, but area mostly dry.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 85. Ecological conditions

Measures	Outcome
% of area without past timber harvest	100% of this area has had no timber harvest, according to available records. It is possible that historic harvest could have occurred prior to detailed record keeping (generally the 1950's).
% of area without known invasive weeds	According to data as of 2/10/2016, 100% of CA3 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 2: 100%
Miles of motorized road/trail within 300' of streams	15.2 miles, primarily along Flagstaff Creek.
Noticeable wildfire suppression impacts	No fires since 1980.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 86. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	No past timber harvest has occurred in this area. Roughly 270 acres were impacted by an underburn treatment in 1999 (just over 3% of the area). This treatment was determined to not be substantially noticeable, with effects similar to wildfire.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None present.
Areas of mining activities including both abandoned and active mines.	Abandoned mines likely throughout.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately ½ mile of fencing and 11 stock water tanks within CA3.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	No outfitter camps. Not a lot of dispersed camping within the polygon.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Pipelines associated with stock tanks.
Presence of watershed treatment areas including contouring, diking, and channeling.	None known.
Lands adjacent to development or activities that impact opportunities for solitude.	None known.

Improvement Type	Presence and extent of departure from naturalness
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	There are 16 recorded cultural resources which represent, structures, dwellings or other relics of past occupations. Some of these may not take away from the naturalness.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	0.0 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	None known.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 87. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	Motorized ATV and jeep trails dissect the polygon.
Area available for winter motorized opportunity	Most of the area is available for snowmobiling in the winter.
Proximity to private lands and non-Forest Service roads.	Private lands border the polygon on the north and the south.
Proximity to developed recreation sites outside of the polygon area.	No developed trailheads or campgrounds.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 88. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	Very little of the area is available for primitive or semi-primitive non-motorized recreation in the summer due to the motorized trail network.
Primitive and semi-primitive non-motorized winter recreation.	Very little of the area is available for primitive or semi-primitive non-motorized recreation in the winter due to the motorized trail network.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hunting, ATV riding, Jeep trail riding, motorcycling, hiking, and snowmobiling in the winter.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 89. Size and Description

Size of Polygon	Description
8,676 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Table 90. Features present

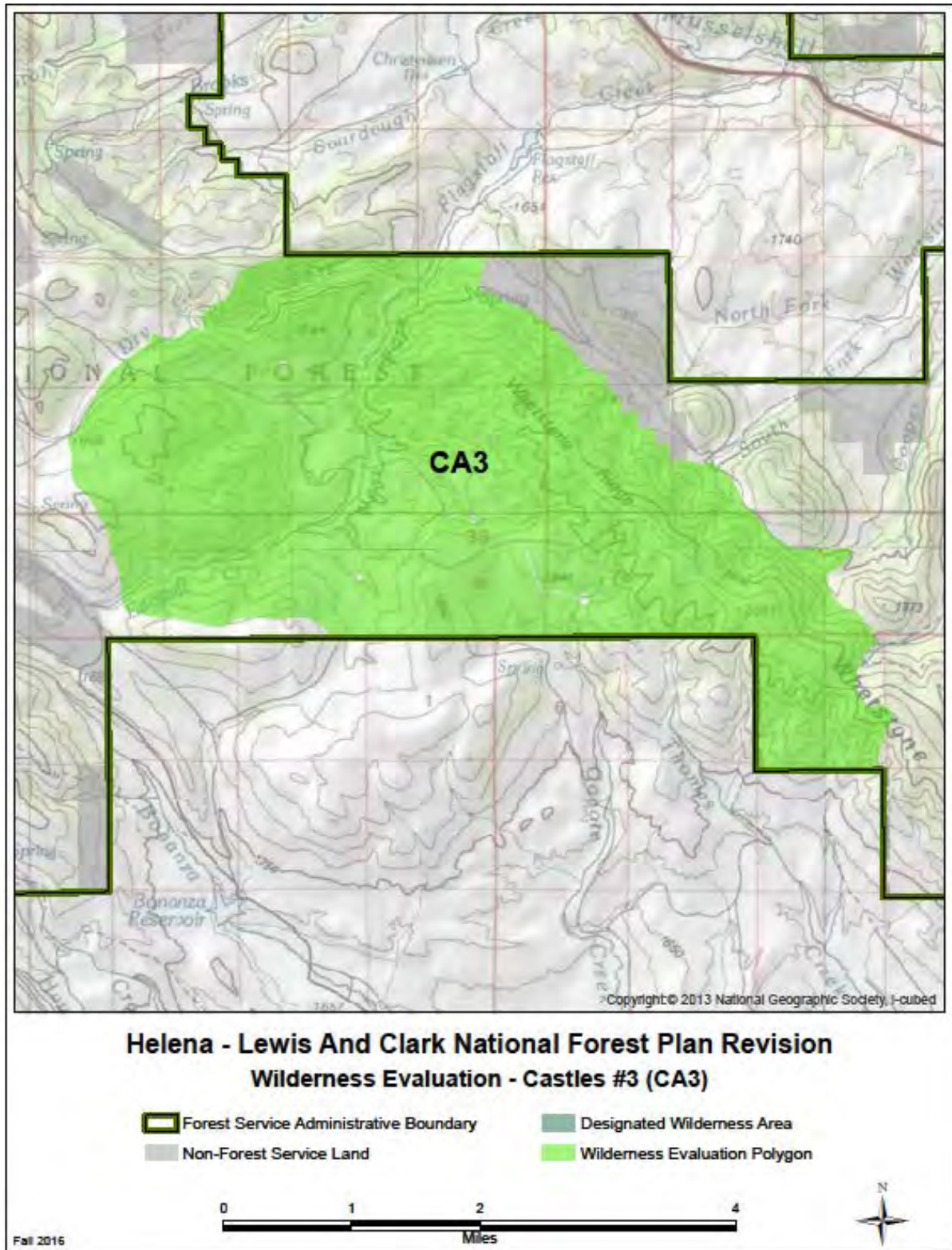
Features	Description and scale
Rare plant communities	Several potential plants of conservation concern are known to occur in this area, including <i>Pinus flexilis</i> and <i>Cirsium longistylum</i> .
Rare animal species or communities	Occasional, transient presence of lynx possible, but area is not within lynx critical habitat or occupied areas. Historic and possible occasional present occurrence of Sprague’s pipit (primary habitat on adjoining non-NF lands). Potential species of conservation concern and/or state at risk species: Lewis’s woodpecker, Gray-crowned rosy finch, black rosy finch. Possible occasional presence of greater sage grouse, Chestnut-collared longspur, although insufficient habitat in area to support these species; primary habitats likely on adjoining non-NF lands. No rare aquatic species known
Rare ecosystems	Limber pine-dominated areas are rare on the HLC NF, representing important ecotone ecosystems. These communities are present, generally on ridges with limestone substrate, in this area. No rare aquatic ecosystems known
Outstanding landscape features	None known.
Historic and cultural resource sites	All recorded cultural resources in this polygon have the potential for scientific, educational or historical value.
Research Natural Areas	None present.
High quality water resources or important watershed features	None known

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 91. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	Elliptical shaped and somewhat narrow. Fairly small.
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to	None known.

Factors	Description and scale
protect wilderness characteristics	
The presence and amount of non-Federal land in the area	None within the polygon.
Management of adjacent lands	Private farm and ranchlands to the north and south. Forest Service system lands to the east and west.



Crazies Geographic Area

Loco Mountain Area (CR1)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 92. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	This area includes a mix of dominance types, including lodgepole pine and lodgepole pine mixes (22%), subalpine fir and Engelmann spruce mixes (22%), dry grasslands (15%), and Douglas-fir mixes (12%). A fairly substantial proportion of sparsely vegetated areas (rock, scree) are also present (19%). Roughly 5% of the area supports whitebark pine-dominated forest, and another 5% is limber pine. Trace amounts of other dominance types are also present, including shrublands and juniper.
Potential vegetation types	The most common potential vegetation type is cool moist forest (48%), with warm dry forest potential types and cold forest potential types (where whitebark pine is most likely to thrive) each present on about 9%. Sparsely vegetated potential vegetation type areas (rock and scree) represent about 23%. A small amount of this area had enough vegetation on it to be given a dominance type above. Dry grassland and mesic grassland potential types are also present on about 5% each. There are trace amounts of shrubland and riparian types.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 7 acres within CR1 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: Roughly 10,000 acres potential lynx habitat, with over 7000 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type (note area is not currently occupied by lynx). Roughly 8200 acres of goshawk potential nesting habitat. Less than 100 acres possible old growth habitat but an additional >10,000 acres potential as identified from aerial imagery. These habitats increase in value to wildlife in combination with similar habitat in NF lands immediately west of this WE polygon. • Approximately 22,000 acres secure elk habitat, and roughly 4200 acres elk winter habitat contiguous with additional winter range on adjacent non-NF land. Roughly 2100 acres mule deer winter range contiguous with winter range on non-NF lands. Possible moose presence in riparian/wetlands. • Over 9000 acres potential wolverine habitat, with less than 100 acres identified as possible maternal habitat. • No WCT.
Known non-native wildlife species	Possibly occasional mountain goats from introduced population to south; this species is native to MT but not to this mountain range. No other non-native terrestrial wildlife species documented. No other non-native terrestrial wildlife species documented.

Plant and Animal Communities	Composition
	Likely non-native trout present.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 93. Ecological conditions

Measures	Outcome
% of area without past timber harvest	Nearly 100% of this area has never been impacted by timber harvest. A trace amount of acreage (0.05 acres) was impacted by a commercial thin in 1974 – this is a tiny mapping sliver on the boundary.
% of area without known invasive weeds	According to data as of 2/10/2016, 99.9% of CR1 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 49%, Class 2: 51%; Impacts related primarily to areas downstream of the polygon, but area is heavily impacted by grazing and motorized travel.
Miles of motorized road/trail within 300' of streams	0.23 miles, some motorized routes on east side and north-western corner of polygon.
Noticeable wildfire suppression impacts	No noticeable evidence of wildfire suppression impacts.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 94. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present
Presence of timber harvest or prescribed fire areas	There are essentially no harvest or prescribed fire treatments in this area, aside from a tiny mapping sliver (0.04 acres) impacted by a commercial thin in 1974.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None present.
Areas of mining activities including both abandoned and active mines.	None present.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 2 miles of fencing and 2 stock water tanks within CR1.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	Heavily used hunting camp in Big Elk Creek. Minor dispersed camp sites scattered throughout the polygon.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	None present.

Improvement Type	Presence and extent of departure from naturalness
Presence of watershed treatment areas including contouring, diking, and channeling.	None known.
Lands adjacent to development or activities that impact opportunities for solitude.	Checkerboard ownership north of the polygon receives a lot of use during hunting season.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	Only one recorded cultural resource is known in this polygon. This site represents a relic of past occupation, however it most likely does not take away from the naturalness.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest plan.
Number of miles of maintenance level 1 road templates.	0.1 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	None known.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 95. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	Motorized use along the open roads in the eastern part of the polygon. Cherry stem roads.
Area available for winter motorized opportunity	The western 1/3 of the polygon in Middle Fork of Cottonwood Creek if available for over the snow motorized vehicles both on and off the road system.
Proximity to private lands and non-Forest Service roads.	Polygon bordered on north and east by private ranch lands. Checkboard on north side is busy during hunting season. Large inholding near Forest Lake on the west side.
Proximity to developed recreation sites outside of the polygon area.	Forest Lake campground is located to the west of the polygon.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 96. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	Most of the polygon is available for primitive and semi-primitive non-motorized recreation in the summer.
Primitive and semi-primitive non-motorized winter recreation.	Eastern 2/3 of the polygon is available for primitive and semi-primitive non-motorized recreation in the winter.

Measures	Descriptions and Locations
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hiking, horseback riding, hunting, fishing, dispersed camping, and wildlife viewing. Snowmobiling in the western portion of the polygon.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 97. Size and Description

Size of Polygon	Description
25,605 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Table 98. Features present

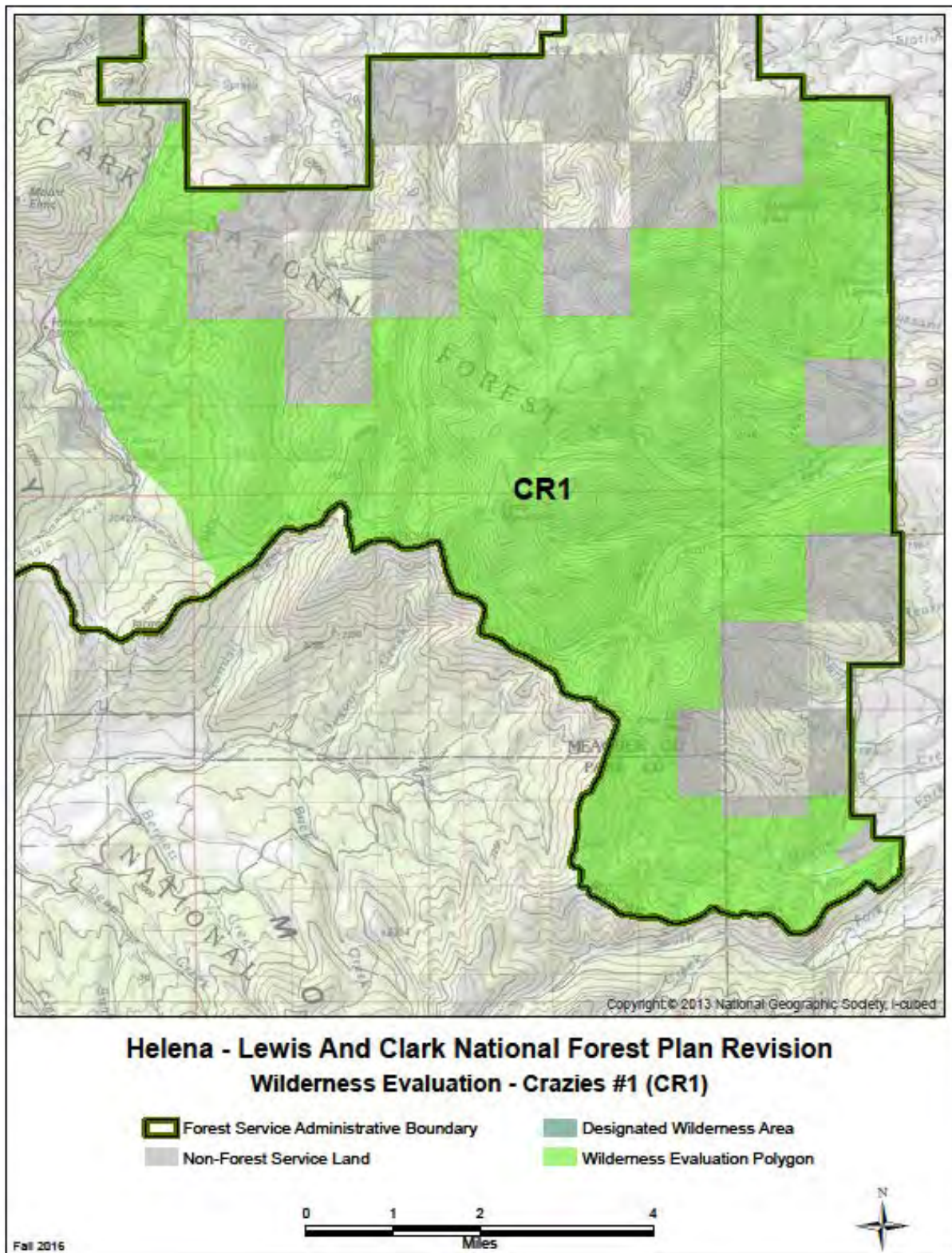
Features	Description and scale
Rare plant communities	The only potential plants of conservation concern that are known to be present in this area are five needled pines: <i>Pinus albicaulis</i> and <i>Pinus flexilis</i> .
Rare animal species or communities	Federally listed species: Occasional, transient presence of lynx possible, but area is not within lynx critical habitat or occupied areas. Potential species of conservation concern and/or state at risk species: harlequin duck No rare aquatic species.
Rare ecosystems	Whitebark pine and limber pine ecosystems are considered relatively rare and important ecosystem components on the HLC NF. Whitebark pine is a candidate species for listing under the ESA. No WCT populations.
Outstanding landscape features	Bare, rocky, and high mountain peaks.
Historic and cultural resource sites	The one recorded cultural resources and the surrounding landscape have the potential for scientific, educational or historic value.
Research Natural Areas	None present.
High quality water resources or important watershed features	None known.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 99. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	Irregular shaped polygon that abuts checkerboard ownership patterns on the north and the east boundaries. Southern boundary with the Gallatin National Forest.

Factors	Description and scale
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	Checkerboard ownership to the north and the south east but none within the polygon.
Management of adjacent lands	Polygon surrounded by large ranchlands on the north and east, Gallatin National Forest to the south, and HLC NF to the west.



Bald Ridge Area (CR3)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 100. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	Lodgepole pine and lodgepole pine mixes are the most common dominance types, representing about 33% of the area. Douglas-fir and Douglas-fir mixes are present on 25%. Dry grasslands also make up about 25%. Subalpine fir and Engelmann spruce mixes are fairly common (9). Whitebark pine dominates on about 3%, and limber pine on about 4%. Trace amounts of other dominance types can also be found, including shrublands, mesic grasslands, and sparsely vegetated (scree) areas.
Potential vegetation types	The most common potential vegetation types are cool moist forests (44%), with warm dry forest potential types also common (21%). Cold forest potential types, where whitebark pine is most likely to thrive, are found on just over 9%. Dry and mesic grassland types together represent about 23%. Very small amounts of shrubland, riparian, and sparse potential types are also present.
Known non-native terrestrial plant species	According to data as of 2/10/2016, there are no acres within CR3 associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: Roughly 6000 acres potential lynx habitat, with over 3000 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type (note area is not currently occupied by lynx). Roughly 6900 acres of goshawk potential nesting habitat indicates presence of mature forest; at least 3 known nesting territories. Roughly 100 acres possible old growth habitat and an additional > 7000 acres potential as identified from aerial imagery. Both goshawk habitat and potential old growth habitat increase in value to wildlife in combination with similar habitat in NF lands immediately east and to west of this WE polygon. • Approximately 3300 acres secure elk habitat. Roughly 9000 acres elk winter habitat contiguous with additional winter range on adjacent non-NF land; northern half of this polygon potential elk winter range. Roughly 5800 acres mule deer winter range contiguous with winter range on non-NF lands. Possible moose presence in riparian/wetlands. • Functioning alpine habitat: Over 4000 acres potential wolverine habitat. • No known WCT.
Known non-native wildlife species	Introduced population of mountain goats, a species native to MT but not to this mountain range. No other non-native terrestrial wildlife species documented. Non-native trout likely.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 101. Ecological conditions

Measures	Outcome
% of area without past timber harvest	The only harvest found in the FACTS database for this area is about 40 acres of salvage in 1990, representing less than 1% of the area. However, additional harvests occurred on formerly private lands in this polygon which were acquired by the FS in a land exchange; these activities are not found in the database because they were not FS lands when the treatment occurred. If carried forward, additional work may need to be done to identify these areas and determine if they are still substantially noticeable; and, if so, exclude from the area potentially suitable for wilderness
% of area without known invasive weeds	According to data as of 2/10/2016, 100% of CR3 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 55%, Class 2: 45%, Impacts in Class 2 watersheds area primarily not for impacts in the polygon, but area is heavily grazed.
Miles of motorized road/trail within 300' of streams	5.7 miles
Noticeable wildfire suppression impacts	No evidence of wildfire suppression impacts.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 102. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	The only records of vegetation management in this area is a 40 acre stand which had a salvage harvest in 1990, followed by pile burning. These activities represent less than 1% of the area.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None present.
Areas of mining activities including both abandoned and active mines.	None present.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 3/4 mile of fencing and 12 stock water tanks within CR3.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	One outfitter guide camp in Box Canyon. Moderate number of dispersed recreation camping sites uses during hunting season. Several authorized ATV trails throughout the entire polygon.

Improvement Type	Presence and extent of departure from naturalness
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Two Dot high voltage powerline on the northern boundary, outside of the polygon, but visible from within it. Pipelines associated with range water line developments.
Presence of watershed treatment areas including contouring, diking, and channeling.	Old water line ditch in Box Canyon in western edge of the polygon.
Lands adjacent to development or activities that impact opportunities for solitude.	Surrounded by ranchlands on the west and north.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	Two recorded cultural resources are within this polygon, however there is the high probability of un-recorded cultural resources which represent structures, dwellings or other relics of past occupations.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	0.0 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	Old historic logging roads scar the landscape on the interior of the polygon. These are result from logging on private lands that the FS acquired in a land exchange. One recorded historic trail.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 103. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	Entire polygon is bisected by seasonal ATV trails and loop trails.
Area available for winter motorized opportunity	The southern 1/3 of the polygon is open to snowmobile use.
Proximity to private lands and non-Forest Service roads.	Bordered by private lands on the west and north sides of polygon.
Proximity to developed recreation sites outside of the polygon area.	Forest Lake campground to the east but is about 3 miles away from the polygon.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 104. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	Very little of the polygon is available for primitive and semi-primitive non-motorized recreation in the summer.
Primitive and semi-primitive non-motorized winter recreation.	The northern 2/3 of the polygon is available for primitive and semi-primitive non-motorized recreation in the winter.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Authorized ATV and motorcycle riding, outfitting, horseback riding, hunting, fishing, limited hiking, dispersed camping during hunting season. Low to moderate level of snowmobiling in the winter.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 105. Size and Description

Size of Polygon	Description
13,210 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

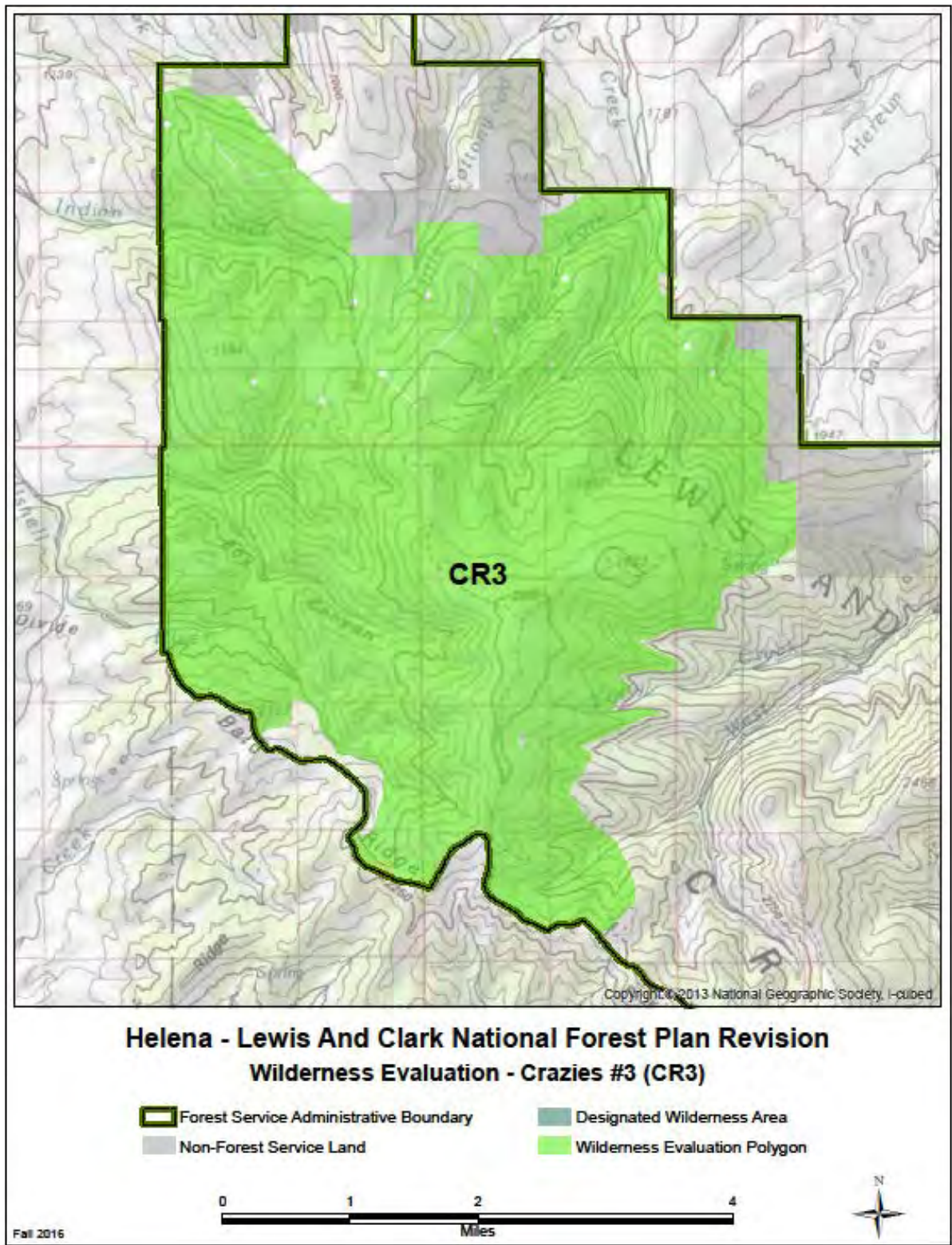
Table 106. Features present

Features	Description and scale
Rare plant communities	The only known potential plant species of conservation concern that are known to occur in this area are <i>Pinus albicaulis</i> and <i>Pinus flexilis</i> .
Rare animal species or communities	Federally listed species: Occasional, transient presence of lynx possible, but area is not within lynx critical habitat or occupied areas. Potential species of conservation concern and/or state at risk species: None documented No rare aquatic species known
Rare ecosystems	Whitebark pine and limber pine are considered relatively rare but important ecosystem components on the HLC NF. Whitebark pine is a candidate species for listing under the ESA. No rare aquatic ecosystems
Outstanding landscape features	Big, bald, grassy ridge.
Historic and cultural resource sites	All recorded sites and the surround landscape have the potential for scientific, educational or historic value.
Research Natural Areas	None present.
High quality water resources or important watershed features	None known

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 107. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	Large undeveloped area on the northwest edge of the Crazy Mountains.
Legally established rights or uses within the area	None known within the polygon.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	No private land inholdings.
Management of adjacent lands	Large private ranch land on the west and north, Gallatin National Forest to the south, and HLC NF to the east.



Divide Geographic Area

Sweeney Creek Area (D2)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 108. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The most common dominance type in this area is Douglas-fir and Douglas-fir mixed forest, covering about 49% of the area. Lodgepole pine and lodgepole pine mixes are also abundant, growing on about 33% of the area. Ponderosa pine is also common, found on about 11%. About 4% of the area is made up of dry grasslands. Very small amounts of other dominance types are present (about 1% or less each), including mesic grasslands, shrublands, Engelmann spruce, and aspen.
Potential vegetation types	Warm dry forest potential vegetation types are the most dominant, representing about 89% of the area. This is consistent with the abundance of Douglas-fir and ponderosa pine forests. Cool moist forest potential types are found on just over 4% of the area, and grassland potential types represent roughly 4%. Small amounts of shrubland and riparian potential types are also present.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 122 acres within D2 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest but largely dry types: Observed probable breeding flammulated owl indicates areas of open mature Ponderosa pine. Roughly 5900 acres of goshawk potential nesting habitat. Only 400 acres potential lynx habitat, with only about 200 acres mature multi-storied (optimal lynx . winter forage). Goshawk habitat increases in value to wildlife in combination with similar habitat in area to west (WE polygon D13). Roughly 700 acres possible old growth habitat. • Approximately 4000 acres secure elk habitat, immediately adjacent to winter range on non-FS system lands. Possible moose presence in riparian/wetlands. • No WCT.
Known non-native wildlife species	No non-native terrestrial wildlife species documented. Non-native trout likely

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 109. Ecological conditions

Measures	Outcome
% of area without past timber harvest	Over 99% of the area has not been impacted by past timber harvest. Records show just one harvest has occurred, 58 acres of single-tree selection in 1981. It is possible that historic harvests occurred prior to detailed record keeping which began in the 1950's.
% of area without known invasive weeds	According to data as of 2/10/2016, 98.5% of D2 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 2: 71%, Class 3: 29%; however, impacts occur downstream of the polygon.
Miles of motorized road/trail within 300' of streams	3.6 miles
Noticeable wildfire suppression impacts	No fire occurrence since 1980.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 110. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	Less than 1% of the area (58 acres) was impacted by a single tree selection harvest in 1981; this treatment was determined to be no longer substantially noticeable. About 2% of the area has been treated with prescribed fire treatments, including broadcast burning, burning of piles, and underburning which occurred from 1981 to 2006. These treatments were also determined to be no longer substantially noticeable on the landscape. Over 97% of the area has been unaffected by treatments.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None present.
Areas of mining activities including both abandoned and active mines.	The northern portion of this polygon is within the historic Austin Mining District. High potential for unrecorded past mining activity.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 3 miles of fencing within D2.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	No outfitter camps. Dispersed camping along the south western edge of the polygon.

Improvement Type	Presence and extent of departure from naturalness
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Pipeline and railroad on the northern boundary noticeable from within the polygon.
Presence of watershed treatment areas including contouring, diking, and channeling.	None known.
Lands adjacent to development or activities that impact opportunities for solitude.	Railroad to the north. Open roads surrounding the polygon. Highway 12 to the south is noticeable from within the polygon.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	There are 3 recorded cultural resources within this polygon, all represent structures, dwellings or relics of past occupation. The northern portion of this polygon is within the historic Austin Mining District. High potential for unrecorded past mining activity.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Plan.
Number of miles of maintenance level 1 road templates.	1.4 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	A portions of the historic Mullan Road runs through the northern portions of this polygon. There is also the high potential of unrecorded historic routes associated with past mining.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 111. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	None available within the polygon.
Area available for winter motorized opportunity	Closed to snowmobiling within the polygon.
Proximity to private lands and non-Forest Service roads.	Private lands surround the polygon on north, east, and south.
Proximity to developed recreation sites outside of the polygon area.	Snowmobile parking lot of Sweeney Creek and Austin Road.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 112. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	Highway 12 noise affects the opportunities for primitive and semi-primitive summer recreation.
Primitive and semi-primitive non-motorized winter recreation.	Highway 12 noise and snowmobiling on open roads affects the opportunities for primitive and semi-primitive winter recreation.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Dispersed camping, hiking, mountain biking, and hunting.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 113. Size and Description

Size of Polygon	Description
7,978 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

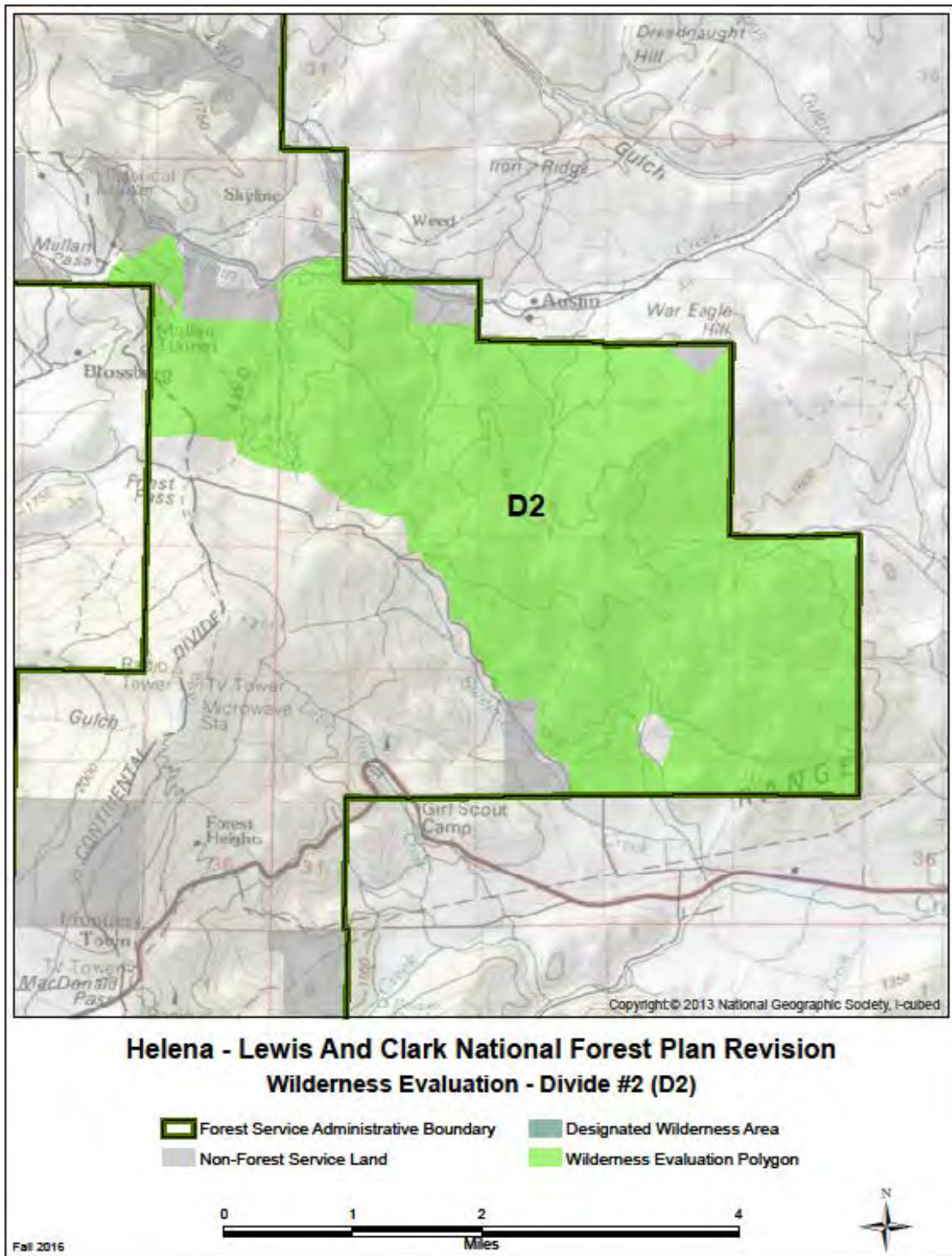
Table 114. Features present

Features	Description and scale
Rare plant communities	No known potential plant species of conservation concern.
Rare animal species or communities	Federally listed species: Lynx critical habitat, and within occupied area; lynx probably at very low density. Occasional, transient presence of grizzlies likely. Identified as Zone 2 in NCDE Grizzly Bear Conservation Strategy, for genetic connectivity with GYE population. Potential species of conservation concern and/or state at risk species: Flammulated owl probable breeding. Wolverine documented although little if any identified breeding habitat. No rare aquatic species present.
Rare ecosystems	No known rare vegetation communities in this area. No rare water related ecosystems.
Outstanding landscape features	None.
Historic and cultural resource sites	The historic Mullan Road has high scientific, educational and historic value. The remaining recorded cultural resources have the potential for scientific, educational and historic value.
Research Natural Areas	None present.
High quality water resources or important watershed features	None.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 115. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	Large irregular-shaped polygon north and east of Sweeney Creek and Priest Pass.
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	Private lands along edges. No private inholdings.
Management of adjacent lands	Private lands to the north, south, east and a portion of the west. Forest Service system lands with past timber harvest and road building to the southwest.



Blackfoot Meadows Area (D3)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 116. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The most common dominance type in this area is lodgepole pine forests and lodgepole pine mixes, which are found on over 60% of the area. Douglas-fir and Douglas-fir mixed forests are also common, found on over 17% of the area. Subalpine fir and Engelmann spruce mixes make up the third most common vegetation dominance type, representing about 13% of the area. Dry grasslands are present on about 6%. Very small amounts (1% or less) of other dominance types are present, including bunch grasses and mesic grasses, shrublands, sparsely vegetated areas, and whitebark pine mixes.
Potential vegetation types	Cool moist forest potential vegetation types dominate the area, representing about 69% of the area. Warm dry forest types are also common, on 23%. Mesic grassland potential types are found on about 4%. Small amounts of other potential vegetation types are also present, including cold forest types (where whitebark pine is most likely to thrive), shrublands, and sparsely vegetated areas.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 112 acres within D3 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: Roughly 21,000 acres potential lynx habitat, with about 5600 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type (note area is not currently occupied by lynx). Roughly 22,000 acres of goshawk potential nesting habitat. Roughly 2100 acres possible old growth habitat in patches of varying size. • Approximately 23,000 acres secure elk habitat. Possible moose presence in riparian/wetlands. • Functioning subalpine/alpine habitat: Approximately 6000 acres potential wolverine habitat. • Potential Bull Trout in Little Blackfoot River, WCT in Little Blackfoot River, Monarch Creek, No Grass Creek, Bison Creek, Ontario Creek, Larabee Gulch, Conners Gulch, and North Fork Spotted Dog Creek.
Known non-native wildlife species	No non-native terrestrial wildlife species documented. Non-native trout likely.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 117. Ecological conditions

Measures	Outcome
% of area without past timber harvest	Records show that one small area (15 acres) in this polygon were harvested with a clearcut in 1939. This represents less than 0.5% of the area overall.
% of area without known invasive weeds	According to data as of 2/10/2016, 99.6% of D3 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 2: 67%, Class 3: 33% (Most class 3 impacts are outside of the wilderness polygon)
Miles of motorized road/trail within 300' of streams	3.4 miles
Noticeable wildfire suppression impacts	No fire occurrence since 1980.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 118. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	In total, about 16% of this polygon has been impacted by either harvest or prescribed fire. The small 15-acre clearcut that occurred in 1939 was determined to be no longer substantially noticeable due to the age of the regeneration, and impacted less than .05% of this area. Fairly extensive underburns have occurred in this area, across over 4600 acres or 16% of the area. These burns occurred in 1987 and 1993, and were generally focused in grasslands. These treatments were determined to be no longer substantially noticeable on the landscape.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None present.
Areas of mining activities including both abandoned and active mines.	This polygon is within the Elliston Historic Mining District with numerous abandoned mine features and several active mining claims. Little Blackfoot River on State 303(d) list for impacts that may be from old mining activities.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 1.2 miles of fencing and 5 stock water tanks within D3.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	No outfitter camps. Dispersed camping throughout.

Improvement Type	Presence and extent of departure from naturalness
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	None present.
Presence of watershed treatment areas including contouring, diking, and channeling.	None
Lands adjacent to development or activities that impact opportunities for solitude.	Activities along the Little Blackfoot road are noticeable with the polygon. Some influence from Highway 12 on the northern boundary of the polygon.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	There are 8 recorded cultural resources and the high potential for unrecorded historic mining features associated with the Elliston Mining District. All of the recorded sites are relics of past occupations and main have standing structures.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Recommended as wilderness in the 1986 Plan.
Number of miles of maintenance level 1 road templates.	2.4 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	One recorded historic trail (7miles) is within the polygon. There is a high probability of unrecorded routes associate with past mining.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 119. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	Lindberger Springs trail is motorized. Bulk of the area is nonmotorized.
Area available for winter motorized opportunity	Lindberger Springs trail is part of the groomed snowmobile system. Bulk of the area is nonmotorized.
Proximity to private lands and non-Forest Service roads.	Private inholding along Little Blackfoot Road.
Proximity to developed recreation sites outside of the polygon area.	Kading Campground, Kading Rental Cabin, Blackfoot Meadows Trailhead, Monarch Creek Trailhead and Larabee Gulch Trailhead.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 120. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	Entire polygon south of the Little Blackfoot drainage has good opportunities for primitive and semi-primitive summer recreation.
Primitive and semi-primitive non-motorized winter recreation.	Entire polygon south of the Little Blackfoot drainage has good opportunities for primitive and semi-primitive winter recreation.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hiking, horseback riding, hunting, fishing, mountain biking, and camping.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 121. Size and Description

Size of Polygon	Description
29,066 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

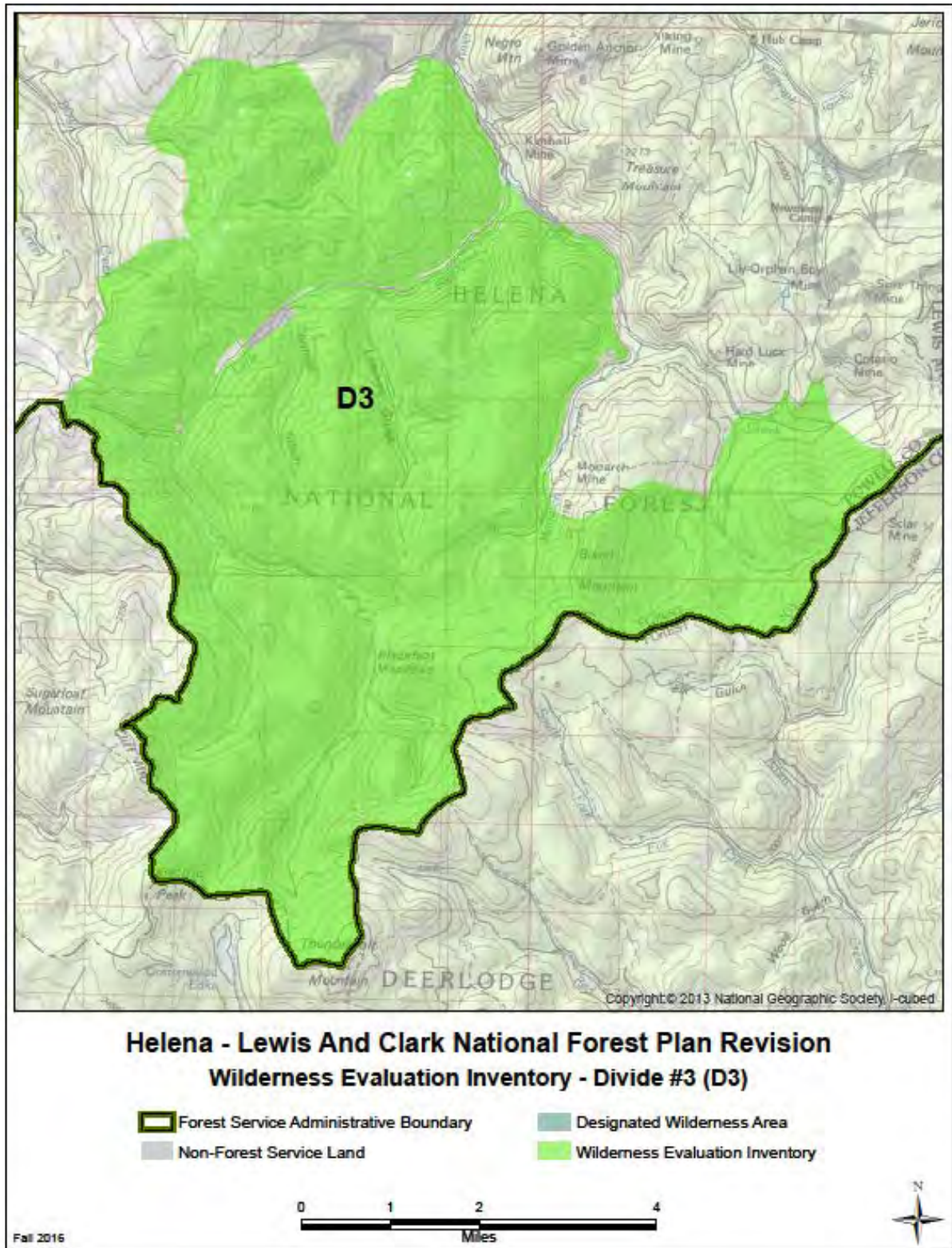
Table 122. Features present

Features	Description and scale
Rare plant communities	The only known potential plant species of conservation concern that occur in this area are <i>Botrychium spp.</i> and <i>Pinus albicaulis</i> .
Rare animal species or communities	Wolverine documented although little if any identified breeding habitat. Lynx may be occasionally present. Occasional, transient presence of grizzlies likely. Identified as Zone 2 in NCDE Grizzly Bear Conservation Strategy, for genetic connectivity with GYE population. Bull Trout and WCT present, see above.
Rare ecosystems	Whitebark pine is a relatively rare and important ecosystem component which is found in very small amounts in this area. Whitebark pine is a candidate species for listing under the ESA. No rare aquatic ecosystems
Outstanding landscape features	Blackfoot Meadows, Bison Mountain, Thunderbolt, Electric Peak and Cliff Mountains.
Historic and cultural resource sites	All recorded cultural resources have the potential for scientific, educational or historic value.
Research Natural Areas	None present.
High quality water resources or important watershed features	Little Blackfoot on list of eligible WSRs, it is listed for outstanding WCT fishery, potential bull trout fishery, and cultural resources..

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 123. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	Large, irregular-shaped polygon that follows the boundary with the Beaverhead-Deerlodge National Forest to the south and incorporates Electric Peak, Thunder Bolt Mountain, and Bison Mountain. Area surrounds landscapes around the Little Blackfoot road but does not include lands immediately adjacent to the road which were excluded from the inventory.
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	Private inholding along Little Blackfoot road.
Management of adjacent lands	Beaverhead Deerlodge National Forest (B-D NF) to the southwest and southeast. The B-D NF Electric Peak Recommended Wilderness area is adjacent to the polygon on the South. Timber harvesting and road building to the northeast and northwest on FS system lands.



Colorado Mountain Area (D5)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 124. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	Douglas-fir forests (pure and mixed) are the most common dominance type in the area, covering about 63%. Lodgepole pine forests are also common, found on 33%. Dry grasslands can be found on about 4%. Small amounts of other dominance types can also be found, generally 2% or less, including mesic grasslands, shrublands, ponderosa pine, subalpine fir, Engelmann spruce, cottonwood, and aspen.
Potential vegetation types	The most common potential vegetation type in this area are warm dry forest types, covering 85%. Cool moist forest types are found on about 8%, and grasslands potential types make up nearly 5%. Small amounts of other potential types are also present, including shrublands and riparian types.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 112 acres within D5 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: Observed breeding flammulated owl indicates areas of open mature Ponderosa pine. Roughly 1300 acres potential lynx habitat, with only about 750 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type (note area is not currently occupied by lynx); habitat has value largely when connected to more extensive lynx habitat to south of this polygon. Roughly 6900 acres of goshawk potential nesting habitat indicates presence of mature forest; at least one known nest territory. Roughly 500 acres possible old growth habitat in patches of varying size. • Approximately 7300 acres secure elk habitat. Possible moose presence in riparian/wetlands. • No WCT.
Known non-native wildlife species	No non-native terrestrial wildlife species documented. Non-native trout likely

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 125. Ecological conditions

Measures	Outcome
% of area without past timber harvest	Nearly 100% of the area has had no timber harvest. Records show some very small areas of commercial thin, improvement cutting, and single-tree selection which occurred in 1968 and 1972, and amounted to about 6 acres total, or .08% of the area.
% of area without known invasive weeds	According to data as of 2/10/2016, 98.6% of D5 is not associated with invasive plant inventories.

Measures	Outcome
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 2: 10%, Class 3:90%, Class 3 is due to mining impacts primarily located downstream from the polygon.
Miles of motorized road/trail within 300' of streams	0.13 miles
Noticeable wildfire suppression impacts	No fire occurrence since 1980.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 126. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	Roughly 6 acres of this area has been harvested in the past, in 1968 and 1972, with intermediate and uneven-aged cuts which left many residual trees. Due to the type and age of treatment, these treatments were considered to be no longer substantially noticeable and make up only 0.08% of the area. There are no records of past prescribed fire treatments.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None present.
Areas of mining activities including both abandoned and active mines.	This polygon straddles the divide between the Helena, Rimini and Clancy Historic Mining Districts. There is a high probability of un-recorded abandoned mines and/or historic mine features, including 2 mapped abandoned mine points within polygon.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 2 miles of fencing and 3 stock water tanks within D5.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	No outfitter camps. Dispersed camping in southern half of the polygon.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	None known.
Presence of watershed treatment areas including contouring, diking, and channeling.	None
Lands adjacent to development or activities that impact opportunities for solitude.	Highway 12 to the north of the polygon and can be heard from within the polygon. Residential area in Colorado Gulch may be seen and heard from within the polygon.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	There are only two recorded sites within this polygon, however there is a high probability of un-recorded historic mine site and features. Portions of the Historic Red Mountain Flume run through this polygon. This flume is still used as part of the municipal water system for the City of Helena.

Improvement Type	Presence and extent of departure from naturalness
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Plan.
Number of miles of maintenance level 1 road templates.	2.4 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	No recorded historic routes, however there is a high probability of un-recorded routes associated with past mining.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 127. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	No motorized opportunities present in summer.
Area available for winter motorized opportunity	No motorized opportunities present in winter.
Proximity to private lands and non-Forest Service roads.	Abuts private/BLM land on north and southeast sides
Proximity to developed recreation sites outside of the polygon area.	Moose Creek Picnic area on Tenmile road to the west. Blackhall Meadows Trailhead on southeastern flank. Park City Trailhead on northeastern boundary.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 128. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	Entire polygon available for primitive and semi-primitive summer recreation.
Primitive and semi-primitive non-motorized winter recreation.	Entire polygon available for primitive and semi-primitive winter recreation.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hiking, horseback riding, snowshoeing, cross country skiing, mountain biking, and hunting.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 129. Size and Description

Size of Polygon	Description
8,168 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Table 130. Features present

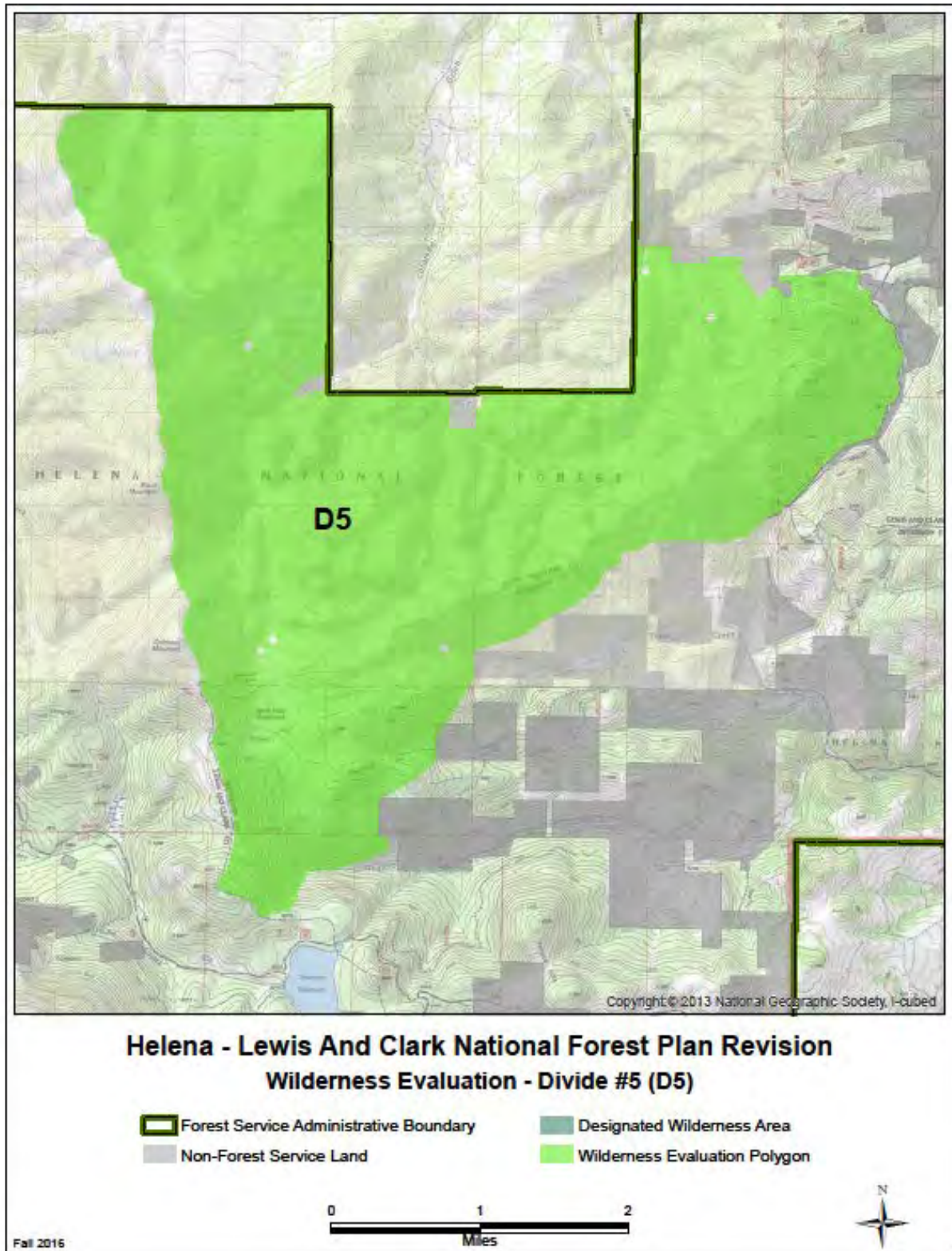
Features	Description and scale
Rare plant communities	The only potential plant species of conservation concern that are known to occur in this area are <i>Cypripedium parviflorum</i> .
Rare animal species or communities	Federally listed species: lynx may be occasionally present. Occasional, transient presence of grizzlies likely. Identified as Zone 2 in NCDE Grizzly Bear Conservation Strategy, for genetic connectivity with GYE population. Potential species of conservation concern and/or state at risk species: flammulated owl, wolverine documented No rare aquatic species.
Rare ecosystems	There are no know rare terrestrial ecosystems in this area. No rare aquatic ecosystems present.
Outstanding landscape features	Black Mountain, Colorado Mountain.
Historic and cultural resource sites	All recorded sites within this polygon have the potential for scientific, educational and historic value. This is especially true for the Red Mountain Flume since it is still in operation.
Research Natural Areas	None present.
High quality water resources or important watershed features	Part of municipal watershed for the City of Helena.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 131. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	Irregular polygon. The northern, eastern, and southern boundaries are influenced by private lands and BLM parcels. The western boundary is formed by the outer boundary of the superfund site.
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	Superfund site to the west but not within the polygon.
The presence and amount of non-Federal land in the area	Two private land parcels along the northern border of the polygon in Colorado Gulch.

Factors	Description and scale
Management of adjacent lands	Private residential lands and BLM parcel to the north. Areas influenced by historical mining surround this polygon.



Continental Divide North Area (D13)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 132. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	Two primary dominance types cover most of this area: Douglas-fir and Douglas-fir mixed forest (46%); and lodgepole pine and lodgepole pine mixed forest (47%). About 3% of the area is covered by dry grassland. Very small amounts, 1% or less, are represented by other dominance types including mesic grasslands, shrublands, ponderosa pine, subalpine fir, Engelmann spruce, whitebark pine, aspen, and sparsely vegetated areas.
Potential vegetation types	The area is fairly evenly split between the warm dry forest potential types (49%), and the cool moist forest types (46%). All other potential vegetation types make up about 1% or less of the area each, and include cold forest (where whitebark pine may thrive), xeric grassland types, mesic grassland types, xeric shrub types, riparian types, and sparsely vegetated areas.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 38 acres within D13 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: Roughly 2200 acres potential lynx habitat, with nearly 1000 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type. Roughly 3500 acres of goshawk potential nesting habitat; goshawk habitat increases in value to wildlife in combination with similar habitat in area to east (WE polygon D2). Roughly 1100 acres possible old growth habitat. Observed probable breeding flammulated owl indicates areas of open mature Ponderosa pine. • Approximately 900 acres secure elk habitat. Possible moose presence in riparian/wetlands. • Potential WCT in Rich Spur Creek.
Known non-native wildlife species	No non-native terrestrial wildlife species documented. Non-native trout likely present.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 133. Ecological conditions

Measures	Outcome
% of area without past timber harvest	There is one record of a past harvest in this area; in 1981 about 82 acres had a single-tree selection harvest. This impacted nearly 2% of the area but is no longer substantially noticeable. 98% of the area has not been impacted by timber harvest.
% of area without known invasive weeds	According to data as of 2/10/2016, 99.1% of D13 is not associated with invasive plant inventories.

Measures	Outcome
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 2:11%, Class 3: 89% impacts are downstream of the polygon in the superfund site.
Miles of motorized road/trail within 300' of streams	0.11 miles
Noticeable wildfire suppression impacts	No fire occurrence since 1980.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 134. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	In addition to the 82-acre single tree selection cut in 1981 which impacted 2% of the area, roughly 72 acres have pile burning treatments which occurred from 1981 to 2005 which impacted another 2%. A total of about 96% of the area as currently drawn has not been impacted by vegetation treatments. These treatments were determined to be no longer substantially noticeable. A scattering of past timber harvest do exist within the perimeter of the area which are substantially noticeable, along with loop roads and treated corridors. These areas are excluded from the wilderness inventory, and appear as cherry stems and donut holes in the polygon.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	Mac Pass Communication Site is a complex communication site with numerous structures and towers. It is visible from within the polygon. Open road accesses site.
Areas of mining activities including both abandoned and active mines.	Abandoned mine sites are scattered throughout the polygon.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 1.6 miles of fencing within D13.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	No outfitter camps. Dispersed camping near Priest Pass.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	The area has numerous utility corridors related to the Mac Pass Communication site as well as to the recreation residences in the southern portion of the polygon.
Presence of watershed treatment areas including contouring, diking, and channeling.	None known.
Lands adjacent to development or activities that impact opportunities for solitude.	There is a permitted shooting range on the southeast boundary. Highway 12 makes up the south boundary of the polygon and is both heard and visible from within the polygon.

Improvement Type	Presence and extent of departure from naturalness
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	Buildings associated with the shooting range and the recreation residences are visible from locations within the polygon. Three recorded cultural resources which represent structures, dwellings or other relics of past occupations are within this polygon.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Plan.
Number of miles of maintenance level 1 road templates.	2.2 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	None known. High potential of unrecorded historic routes associated with past occupation.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 135. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	Road to the communication site is open for summer use.
Area available for winter motorized opportunity	Motorized equipment used on the Mac Pass groomed ski trails. Area is not open for snowmobiling.
Proximity to private lands and non-Forest Service roads.	Frontier Town is a private inholding in the south part of the polygon.
Proximity to developed recreation sites outside of the polygon area.	Nordic Ski Trail system parking lot in southern boundary off of Highway 12. Prickly Pear shooting range in the southeast portion of the polygon. Sweeney Creek snowmobile parking area south east of the polygon.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 136. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	A portion of the CDNST within the polygon is non-motorized. Opportunities for primitive and semi-primitive non-motorized recreation occur in areas away from the communication site, shooting range, and the Priest Pass road.
Primitive and semi-primitive non-motorized winter recreation.	Opportunities for primitive and semi-primitive non-motorized winter recreation occurs in areas away from the communication site, shooting range, and the Mac Pass groomed cross country ski trails.

Measures	Descriptions and Locations
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hunting, hiking the CDNST, mountain biking, and cross country skiing.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 137. Size and Description

Size of Polygon	Description
4,123 acres	This polygon is less than 5,000 acres in size. Year-round motorized access to the communication site and the groomed cross country ski trails in the core portion of the polygon would make it difficult to manage as wilderness. Additionally, the sights and sounds from Highway 12 reduce opportunities for solitude within the polygon.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

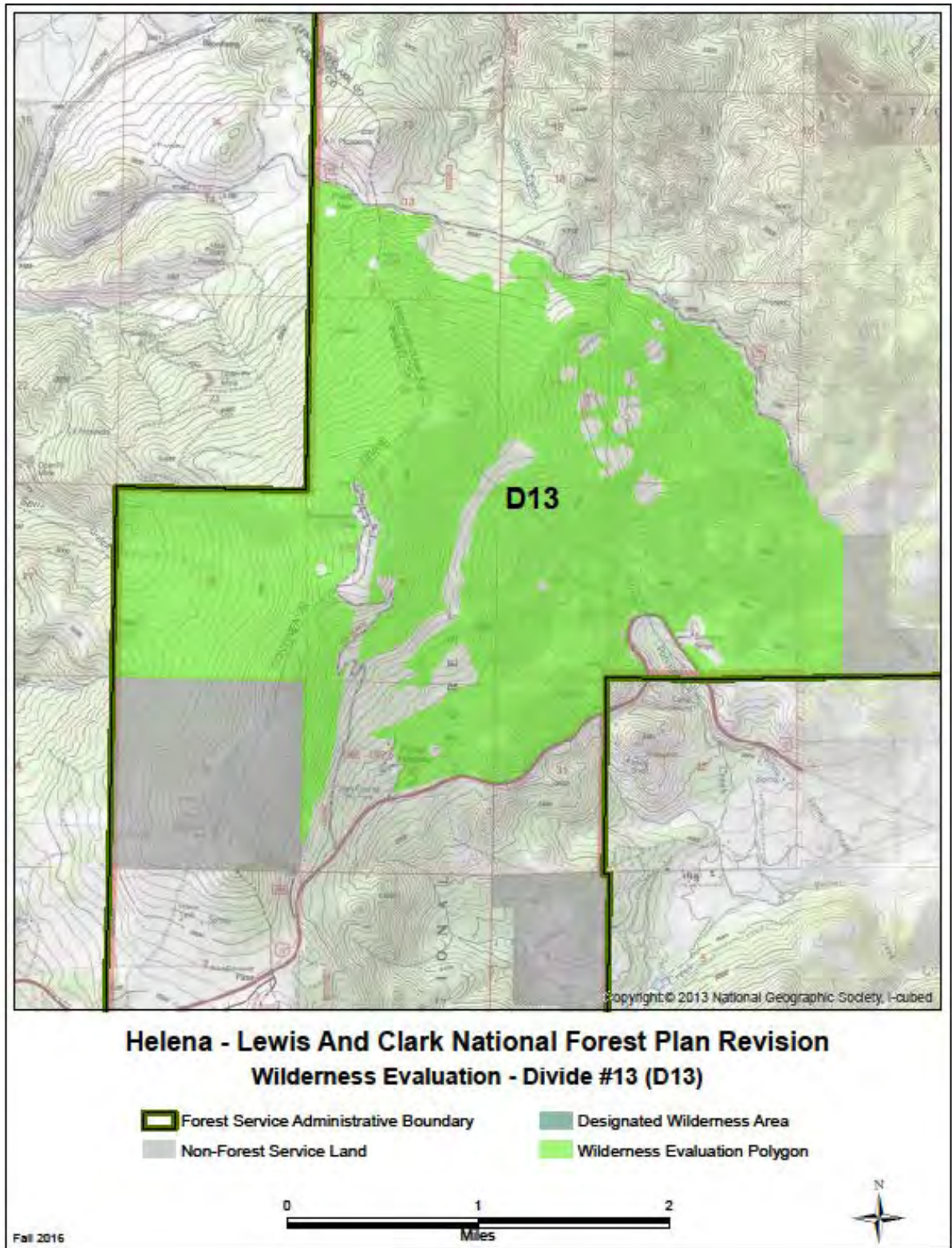
Table 138. Features present

Features	Description and scale
Rare plant communities	No known potential plant species of conservation concern are known to occur in this area, aside from very small amounts of <i>Pinus albicaulis</i> indicated by VMap.
Rare animal species or communities	Federally listed species: Lynx critical habitat, and within occupied area; lynx probably at very low density. Occasional, transient presence of grizzlies likely. Identified as Zone 2 in NCDE Grizzly Bear Conservation Strategy, for genetic connectivity with GYE population. Potential species of conservation concern and/or state at risk species: flammulated owl probable breeding. Wolverine documented although little if any identified breeding habitat.
Rare ecosystems	There are no known rare ecosystems, aside from the small occurrence of whitebark pine which is a relatively rare and important ecosystem component on the HLC NF. Whitebark pine is a candidate species for listing under the ESA. No known rare aquatic ecosystems.
Outstanding landscape features	Continental Divide
Historic and cultural resource sites	All recorded cultural resources in this polygon have the potential for scientific, educational or historic value.
Research Natural Areas	None present.
High quality water resources or important watershed features	None.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 139. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	Irregular polygon shape. The outer boundary is formed by private lands on the west and portions of the south and east. An open road forms the boundary on the north and east and the boundary of the superfund site forms much of the southern boundary.
Legally established rights or uses within the area	Communication site is significant to Helena, the county, and the state.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	Frontier Town in the southern portion of the polygon.
Management of adjacent lands	Superfund site to the south. Private land for agriculture purposed to the south and southwest. Forest Service system lands to the north and northeast.



Elkhorns Geographic Area

Eagle Basin Area (E1)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 140. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The most common dominance type in this area is lodgepole pine and lodgepole pine mixes, which cover about 50%. A substantial portion of this area burned in the Warmsprings fire of 1988, and the majority of regeneration is lodgepole pine. Douglas-fir and Douglas-fir mixed forests are also common at lower elevations, covering about 18% of the area. Subalpine fir and Engelmann spruce forests can also be found on 14%. Sparsely vegetated areas, such as scree/rock, are present on about 9%. Dry grasslands represent 5%. Small amounts of other dominance types, covering about 1% or less each, also occur, including mesic grasslands, shrublands, ponderosa pine, whitebark pine, aspen, juniper, and trace amounts of limber pine.
Potential vegetation types	This area is dominated by cool moist forest potential vegetation types, which are found on about 49% of the area, and where lodgepole pine, subalpine fir, and Engelmann spruce are most likely found. About 30% of the area has warm dry forest potential vegetation types. A small area, about 6%, has cold forest potential types, where whitebark pine is most likely to thrive. Xeric and mesic grassland potential types together make up about 5%, and sparsely vegetated potential areas about 9%. Trace amounts of shrubland and riparian potential types are also present.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 2,812 acres within E1 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: 15,000 acres potential lynx habitat, with only about 750 acres mature multi-storied (optimal lynx winter forage (area is not currently occupied by lynx and is not contiguous with occupied lynx habitat). Roughly 28,000 acres of goshawk potential nesting habitat; at least one known nest territory. Roughly 1100 acres possible old growth habitat in patches of varying size. • Approximately 48,000 acres secure elk habitat. Possible moose presence in riparian/wetlands. Over 22,000 acres bighorn sheep habitat in eastern portion although disease transmission from domestic sheep has caused significant die-offs. • Over 27,000 acres potential wolverine habitat with roughly 3200 acres maternal habitat, but note that this area is not contiguous with other areas of wolverine occupancy. • WCT in multiple drainages: Warm Springs, Dutchman, Prickly Pear, EF McClellan, Tepee, Beaver, Longfellow, Eureka, and SF Crow Creeks.
Known non-native wildlife species	Introduced population of mountain goats, a species native to MT

Plant and Animal Communities	Composition
	but not to this mountain range; competition with native bighorn sheep may be an issue. No other non-native terrestrial wildlife species documented. Non-native trout likely present

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 141. Ecological conditions

Measures	Outcome
% of area without past timber harvest	There are no records of past harvest in this area. 100% of the area is unaffected by harvest. Detailed harvest records are available starting generally in the 1950's. Anecdotally it is likely that some historic logging in accessible areas, such as the removal of fuelwood and mining timbers, occurred during initial settlement of the area.
% of area without known invasive weeds	According to data as of 2/10/2016, 95.1% of E1 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 2: 99%, Class 3: 1% primarily rated at risk for water quality, aquatic habitat, and road and trail impacts.
Miles of motorized road/trail within 300' of streams	3.5 miles, primarily along eastern and southern edges
Noticeable wildfire suppression impacts	Warm Springs Fire (1988): hand lines still evident in Badger Creek.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 142. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	No modern harvest has occurred in this area. However, about 3,410 acres, or 6% of the area, has had prescribed fire treatments. These treatments include broadcast burning, pile burning, and underburning which has occurred from 1987 to 2005. These activities were determined to not be substantially noticeable, with effects similar to wildfire.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None present within the polygon.
Areas of mining activities including both abandoned and active mines.	Mining impacts in multiple watersheds. Middle Fork Warm Springs, Prickly Pear, Wilson, Crow and Beaver Creek are all 303(d) listed for mining impacts/channel modifications. Multiple abandoned mines throughout polygon.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 1/2 mile of fencing and 10 stock water tanks within E1.

Improvement Type	Presence and extent of departure from naturalness
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	No outfitter camps. Dispersed camping throughout the polygon.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Pipeline located on the western edge of the polygon.
Presence of watershed treatment areas including contouring, diking, and channeling.	None
Lands adjacent to development or activities that impact opportunities for solitude.	Timber harvest, road building, urban interface surrounding the polygon.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	Twenty-four recorded cultural resources within this polygon. This polygon is also within the Park-Indian Historic Mining district which has numerous associated mining sites and features.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Plan.
Number of miles of maintenance level 1 road templates.	2.9 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	No recorded historic routes, however there is a high probability of unrecorded routes associated with past mining.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 143. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	No motorized recreation within the polygon.
Area available for winter motorized opportunity	No motorized recreation within the polygon.
Proximity to private lands and non-Forest Service roads.	Two small parcels of private inholdings for mining purposes.
Proximity to developed recreation sites outside of the polygon area.	Pole Creek Trailhead, Tizer Lakes Trailhead, Poe Park Trailhead, Hall Creek Trailhead, Jump Off Trailhead, Eagle Guard Station Rental Cabin, Edith Basin Trailhead, South Crow Lakes Trailhead, Willard Creek Trailhead, and Crow Creek Trailhead.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 144. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	The entire polygon is available for primitive and semi-primitive summer recreation.
Primitive and semi-primitive non-motorized winter recreation.	Moderate to low motorized access into Tizer Basin for winter recreation.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hunting, hiking, horseback riding, fishing, mountain biking, limited snowmobiling, and camping.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 145. Size and Description

Size of Polygon	Description
57,279 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

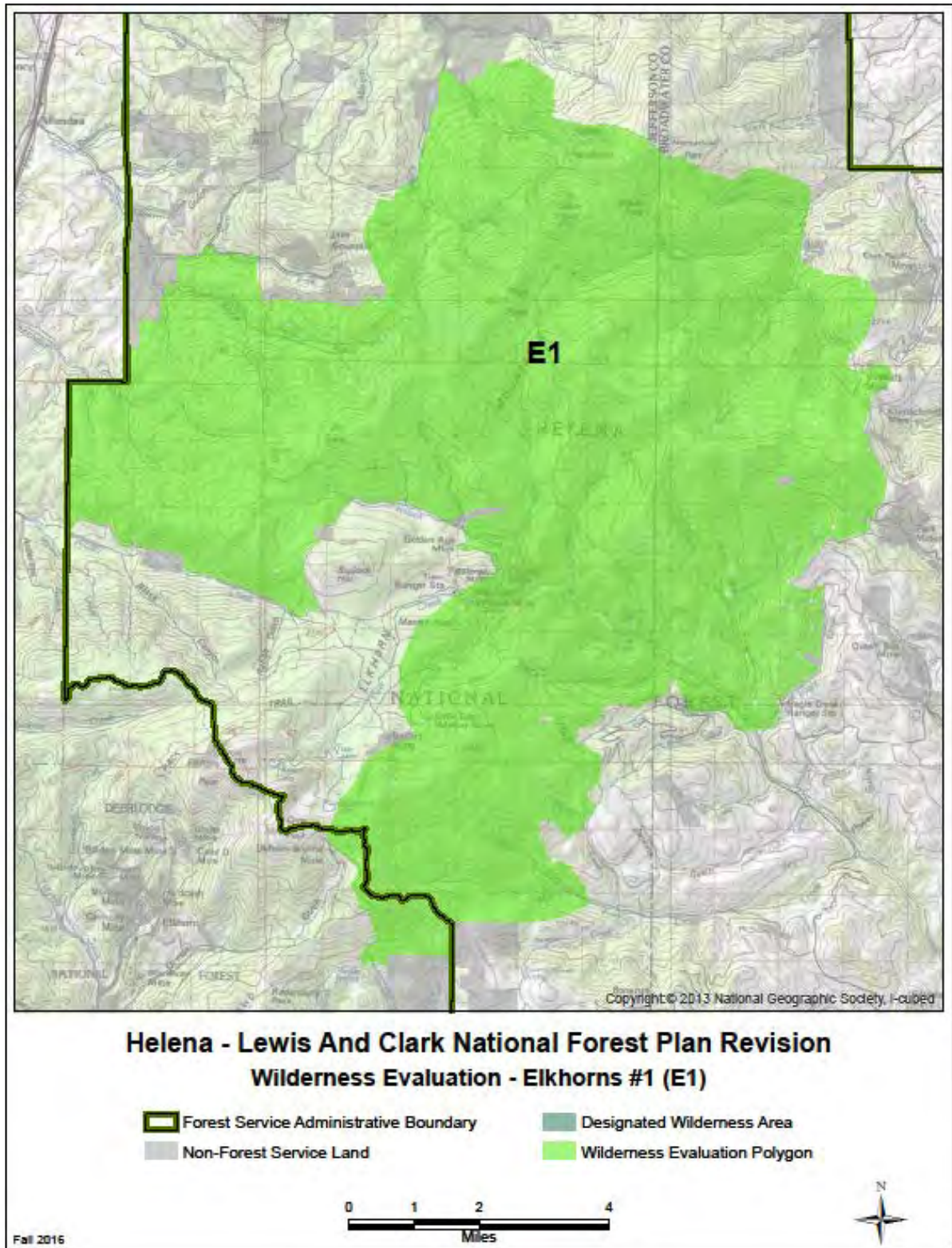
Table 146. Features present

Features	Description and scale
Rare plant communities	The potential plant species of conservation concern that are known to occur in this area include <i>Pinus albicaulis</i> , <i>Pinus flexilis</i> , and <i>Phlox kelseyii</i> var. <i>Missoulensis</i> .
Rare animal species or communities	Federally listed species: Lynx may be occasionally present. Occasional, transient presence of grizzlies likely. Identified as Zone 2 in NCDE Grizzly Bear Conservation Strategy, for genetic connectivity with GYE population. Potential species of conservation concern and/or state at risk species: wolverine documented, western toad Several drainages with WCT, see above.
Rare ecosystems	Limber pine, whitebark pine, aspen, and ponderosa pine are all vegetative communities of interest on the HLC NF due to their relatively low abundance and value for wildlife habitat. These communities are present in small amounts in this area. Whitebark pine is a candidate species for listing under the ESA. No rare aquatic ecosystems
Outstanding landscape features	High elevation vistas and Crow Creek waterfalls.
Historic and cultural resource sites	All recorded cultural resources within this polygon have the potential for scientific, education or historic value.
Research Natural Areas	None present.
High quality water resources or important watershed features	McClellan Creek is a municipal watershed for East Helena.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 147. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	Large irregular-shaped polygon within the interior of the Elkhorns Mountain range.
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	Small private inholdings.
Management of adjacent lands	Timber harvest and road building to the southeast, north, and northwest. Mining activities surrounding the polygon.



Elkhorn Peak Area (E3)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 148. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	This area is dominated by lodgepole pine and lodgepole mixed forests (41%) and subalpine fir and Engelmann spruce mixed forests (31%). Douglas-fir and Douglas-fir mixed forests area also common, covering about 23%. Sparsely vegetated areas (such as rock/scree) are found on just under 3%. Very small amounts of other dominance types are also present, representing less than 1% of the area each, including grasslands, shrublands, ponderosa pine, whitebark pine, and aspen.
Potential vegetation types	Most of the area supports cool moist forest potential vegetation types (nearly 76%). Warm dry forest potential types are found on 16%, and cold forest types (where whitebark pine is most likely to thrive) are found on just over 4%. Very small amounts of other potential types are also present, including grassland, shrubland, and riparian potential vegetation types.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 237 acres within E3 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: Roughly 6,000 acres potential lynx habitat, with about 2700 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type (area is not currently occupied by lynx and is not contiguous with occupied lynx habitat). Roughly 9200 acres of goshawk potential nesting habitat; at least one known nest territory. A minimum of 6 acres possible old growth habitat; old growth data not available for BDNF portion. • Approximately 8700 acres secure elk habitat, and up to 2700 acres elk winter range contiguous with additional winter range on adjacent non-NF land. Possible moose presence in riparian/wetlands. • Functioning subalpine/alpine habitat: Over 8300 acres potential wolverine habitat with roughly 600 acres maternal habitat, but note that this area is not contiguous with other areas of wolverine occupancy. • WCT in Muskrat and Prickly Pear Creeks.
Known non-native wildlife species	Introduced population of mountain goats, a species native to MT but not to this mountain range. No other non-native terrestrial wildlife species documented. Non-native trout are likely to be present.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 149. Ecological conditions

Measures	Outcome
% of area without past timber harvest	There are no records of past harvest occurring in this area; 100% is unaffected by this activity. However, it is possible that some historic logging could have occurred prior to record keeping, during initial settlement of the area.
% of area without known invasive weeds	According to data as of 2/10/2016, 98.4% of E3 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 32%, Class 2: 68%, but the polygon is mostly in the headwaters of these watersheds, upstream of mining impacts
Miles of motorized road/trail within 300' of streams	3.4 miles (along Ninety-cent Gulch and a tributary of Rawhide Gulch)
Noticeable wildfire suppression impacts	No evidence of fire suppression since 1980.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 150. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	No known harvests or prescribed fire treatments have occurred in this area.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None present.
Areas of mining activities including both abandoned and active mines.	There are several mines within the polygon, most are downstream or outside of the polygon.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there no range improvements within E3.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	No outfitter camps. Dispersed camping on the eastern boundary near Tizer Lakes and the Bullock Hill area.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	None known.
Presence of watershed treatment areas including contouring, diking, and channeling.	None
Lands adjacent to development or activities that impact opportunities for solitude.	None.

Improvement Type	Presence and extent of departure from naturalness
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	Only one recorded cultural resources within this polygon. However, the Elkhorn Historic Mining District shares the eastern border, so there is a high probability of un-recorded historic mine sites and features.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Plan.
Number of miles of maintenance level 1 road templates.	0.0 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	None known.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 151. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	Open roads on north, east and south around the edges of the polygon. Year round motorized trails in southern portion of the polygon.
Area available for winter motorized opportunity	Year-round motorized trails in southern portion of the polygon.
Proximity to private lands and non-Forest Service roads.	Private lands along Tizer road. No private inholdings within the polygon.
Proximity to developed recreation sites outside of the polygon area.	None present.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 152. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	The northern portion of the polygon is available for primitive and semi-primitive summer recreation.
Primitive and semi-primitive non-motorized winter recreation.	The northern portion of the polygon is available for primitive and semi-primitive winter recreation.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hunting, hiking, horseback riding, ATV riding, and mountain biking.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 153. Size and Description

Size of Polygon	Description
15,180 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Table 154. Features present

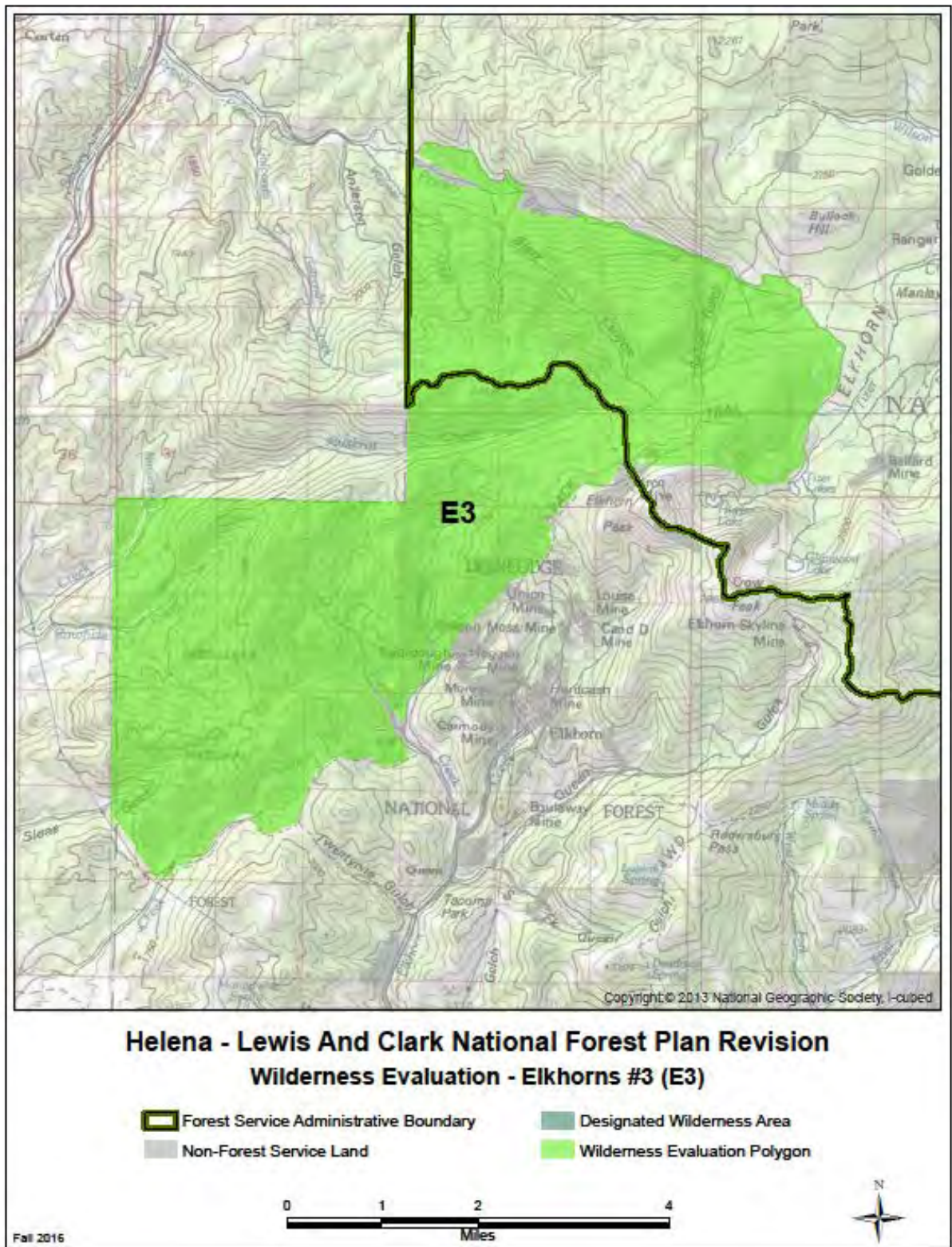
Features	Description and scale
Rare plant communities	The only potential plant species of conservation concern known to occur in this area is <i>Pinus albicaulis</i> .
Rare animal species or communities	Federally listed species: Lynx may be occasionally present. Occasional, transient presence of grizzlies likely. Identified as Zone 2 in NCDE Grizzly Bear Conservation Strategy, for genetic connectivity with GYE population. Potential species of conservation concern and/or state at risk species: none documented Several streams with WCT, see above.
Rare ecosystems	Whitebark pine, ponderosa pine, and aspen forests are all vegetation communities of interest on the HLC NF due to their relatively low abundance and importance for habitat. These species are present in small quantities in this area. Whitebark pine is a candidate species for listing under the ESA. No rare aquatic ecosystems.
Outstanding landscape features	Elkhorn Peak on southern boundary.
Historic and cultural resource sites	The one recorded site has the potential for scientific, educational or historic value.
Research Natural Areas	None present.
High quality water resources or important watershed features	There are high quality areas above mining locations which contain WCT, possibly protected by poor WQ "barrier".

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 155. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	A large irregular block of undeveloped land in the southwestern portion of the Elkhorn Mountains. Western boundary follows private land.
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.

Factors	Description and scale
The presence and amount of non-Federal land in the area	No private inholdings.
Management of adjacent lands	Western boundary is formed by private lands. Forest Service system lands to the north, east, and south.



Highwoods Geographic Area

Highwood Baldy Area (H1)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 156. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The most common dominance type in this area is Douglas-fir dominated forest, which is found on about 38% of the area. Lodgepole pine dominated forests are also common, covering about 29% of the area. Dry grasslands can be found on 20%. Subalpine fir and Engelmann spruce mixed forests grow on about 5% of the area, at the highest elevations. Aspen dominated areas cover about 4% of the area. Other dominance types are present in very small amounts, including mesic grasslands, shrublands, ponderosa pine, limber pine, and cottonwood.
Potential vegetation types	The most common potential vegetation types are warm dry forest types, representing about 64% of the area. Cool moist forest types can be found on nearly 9%. Dry grassland potential types are found on 17% of the area. Riparian types, where aspen and cottonwood can be found, represent 5% of the area. Small amounts of mesic grassland and shrubland potential types are also present.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 442 acres within H1 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: Roughly 5800 acres potential lynx habitat, with about 3000 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type (note area is not currently occupied by lynx and is not contiguous with occupied lynx habitat). Roughly 10,300 acres of goshawk potential nesting habitat; known nest territories. Approximately 6000 acres potential old growth habitat based on habitat type and aerial photo interpretation; occurs in patches of varying size. • Approximately 11,000 acres secure elk habitat. Roughly 6000 acres elk winter range and 3200 acres mule deer winter range contiguous with additional winter range on adjacent non-NF land. • Less than 150 acres potential wolverine habitat; this area is not contiguous with other areas of wolverine occupancy. • WCT in NF and MF of Little Belt Creek.
Known non-native wildlife species	Introduced population of mountain goats, a species native to MT but not to this mountain range. No other non-native terrestrial wildlife species documented. Non-native trout likely.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 157. Ecological conditions

Measures	Outcome
% of area without past timber harvest	There are no records of past harvest in this area; 100% of the polygon is unaffected by this activity. It is possible that historic logging could have occurred prior to detailed record keeping which generally began in the 1950's.
% of area without known invasive weeds	According to data as of 2/10/2016, 97.2% of H1 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1:35%, Class 2: 65%. Most impacts are downstream of the polygon, but the area within the polygon has been heavily impacted by grazing, especially the east side.
Miles of motorized road/trail within 300' of streams	0.2 miles
Noticeable wildfire suppression impacts	No fire occurrence since 1980.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 158. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	No past harvest is known to have occurred. About 71 acres, or 0.45% of the area, has been impacted by a prescribed fire treatment (an underburn in 1985 and 1988). This treatment was determined to be no longer substantially noticeable.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	Highwood Baldy electronic site is a large, busy development and is visible from within the polygon.
Areas of mining activities including both abandoned and active mines.	None known.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 7.7 miles of fencing and 22 stock water tanks within H1.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	Some dispersed camping, most prevalent during hunting season. No outfitter camps in the area.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Buried electric lines under the road to Highwood Baldy. May be others that provide service to private inholdings. Some of the stock tanks have small water lines associated with them.
Presence of watershed treatment areas including contouring, diking, and channeling.	None known.

Improvement Type	Presence and extent of departure from naturalness
Lands adjacent to development or activities that impact opportunities for solitude.	Busy residential subdivision on the western edge of the polygon. Helicopter use at Highwood Baldy.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	Nine recorded cultural resources within this polygon. All represent structures, dwellings or other relics of past occupations.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	0.0 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	None known.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 159. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	FSR 8830, 8816, and 8832. FSR 8832 is the road to the communication site on Highwood Baldy. South Fork Highwood Creek road (FSR 121) bisects H1 and H2. This route has 8-9 fords on it and is traveled by 4 x4 vehicles.
Area available for winter motorized opportunity	No cross-country travel at all but all the roads and the motorized trail system is open.
Proximity to private lands and non-Forest Service roads.	Private lands surround the polygon on the north, west and south sides. Forest Service Road 121 provide the eastern boundary. There are some private land inholdings accessed by this road.
Proximity to developed recreation sites outside of the polygon area.	There is a campground and trailhead in Thain Creek in H2 that are outside of and to the east of H1.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 160. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	The entire area, except for the area around Highwood Baldy, is available for primitive or semi-primitive non-motorized recreation. Only two non-motorized trails in H1, located in North Fork of Little Belt Creek and Deer Creek.
Primitive and semi-primitive non-motorized winter recreation.	The entire polygon except for the area by Highwood Baldy, FSR 8832 and 8816, is available for primitive and semi-primitive non-motorized recreation in winter.

Measures	Descriptions and Locations
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Fishing, limited hiking, hunting, wildlife viewing, mountain biking, motorcycle riding, and ATV riding. Snowmobiling in the winter.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 161. Size and Description

Size of Polygon	Description
15,824 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Table 162. Features present

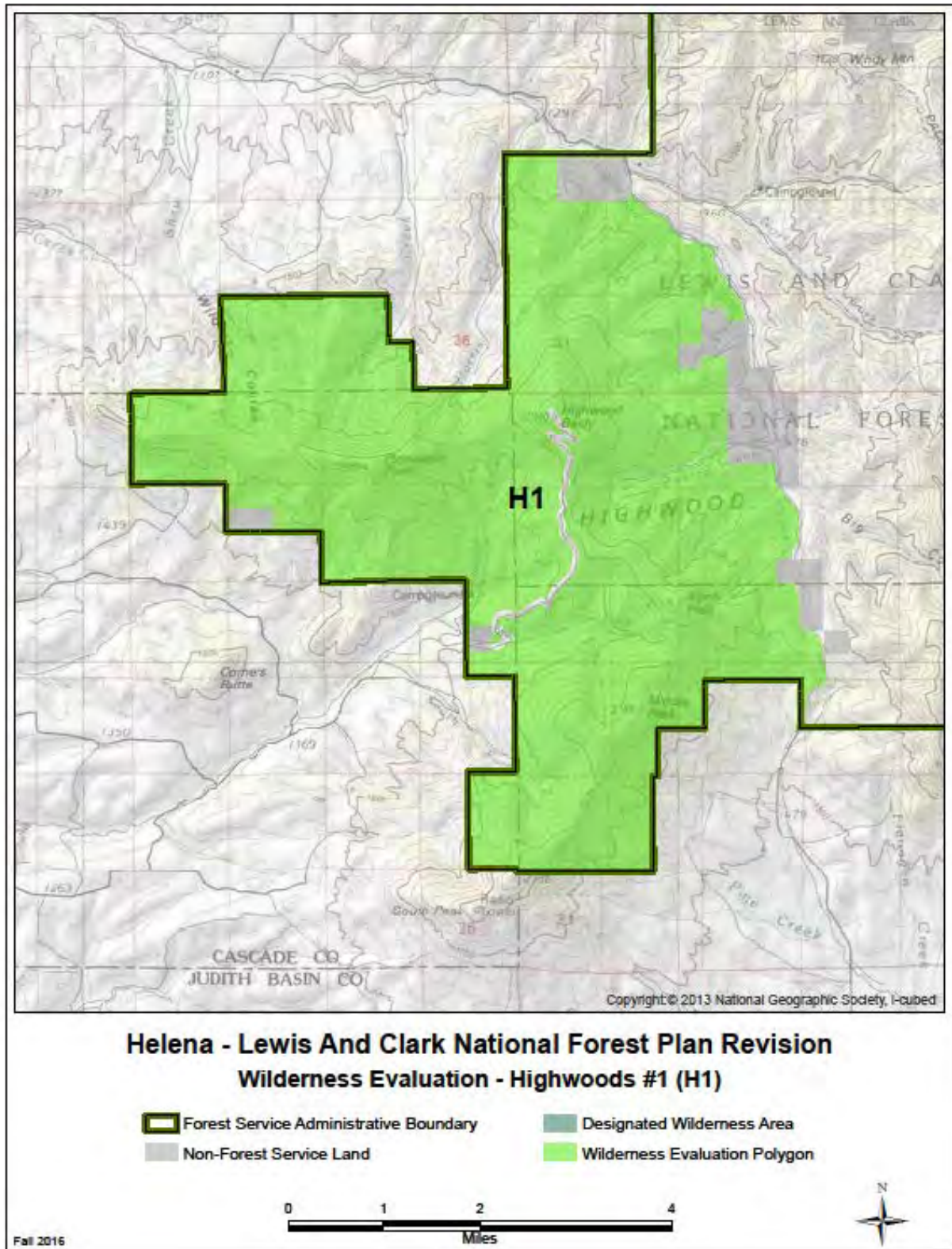
Features	Description and scale
Rare plant communities	The only potential plant species of conservation concern known to occur in this area is <i>Pinus flexilis</i> .
Rare animal species or communities	Federally listed species: none documented Potential species of conservation concern and/or state at risk species: none documented WCT in NF and MF Little Belt Creeks.
Rare ecosystems	Limber pine forests are a vegetation community of interest on the HLC NF due to their relatively low abundance and habitat importance. Aspen forests and riparian areas are also of interest, and this polygon contains one of the higher proportions of aspen dominated riparian areas on the HLC NF. No known rare aquatic ecosystems.
Outstanding landscape features	Steep open parks and unique geology.
Historic and cultural resource sites	All recorded cultural resources within this polygon have the potential for scientific, educational or historic value.
Research Natural Areas	None present.
High quality water resources or important watershed features	None significant.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 163. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	The west half of the Highwood Mountain range.
Legally established rights or uses within the area	None known. Maybe water rights.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to	None known.

Factors	Description and scale
protect wilderness characteristics	
The presence and amount of non-Federal land in the area	There are large private land inholdings along FSR 121.
Management of adjacent lands	Polygon is surrounded by large private ranches on the south, west, and north sides. Large block of roadless Forest Service system lands on the east.



Arrow Prospect Area (H2)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 164. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The most common dominance types found in this area are relatively evenly split between lodgepole pine dominated forests (covering 36% of the area); Douglas-fir dominated forests (29%), and dry grasslands (27%). In addition, subalpine fir and Engelmann spruce mixed forests cover about 3%; and aspen dominated forests are found on 2%. Other dominance types are present in very small amounts (less than 1% each), including mesic grasslands, shrublands, ponderosa pine, limber pine, cottonwood, and juniper.
Potential vegetation types	The most common potential vegetation types are warm dry forest types, which occur on over 63% of the area. Dry grassland potential types are also common, representing 23%. Cool moist forest types are found on 6%, and riparian potential vegetation types represent 4%. Trace amounts of mesic grassland, xeric shrubland, and mesic shrubland potential vegetation types can also be found.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 195 acres within H2 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: Roughly 8000 acres potential lynx habitat, with about 2800 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type (note area is not currently occupied by lynx and is not contiguous with occupied lynx habitat). Roughly 16,000 acres of goshawk potential nesting habitat; known nest territories. Approximately 6900 acres potential old growth habitat based on habitat type and aerial photo interpretation; occurs in patches of varying size. • Nearly 14,000 acres secure elk habitat. Roughly 8600 acres elk winter range and 2100 acres mule deer winter range contiguous with additional winter range on adjacent non-NF land. • Less than 200 acres potential wolverine habitat; this area is not contiguous with other areas of wolverine occupancy. • WCT in Big Coulee, Cottonwood (Arrow), and Boyd Creeks.
Known non-native wildlife species	Introduced population of mountain goats, a species native to MT but not to this mountain range. No other non-native terrestrial wildlife species documented. Non-native trout likely present.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 165. Ecological conditions

Measures	Outcome
% of area without past timber harvest	Over 99.9% of the area has been unaffected by past timber harvest. The only harvest on record in this area is 12 acres of commercial thinning that occurred in 1973, although it is possible that additional “historic logging” could have occurred prior to FS record-keeping.
% of area without known invasive weeds	According to data as of 2/10/2016, 99.3% of H2 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 44%, Class 2:56%. Impacts include riparian disturbance due to grazing and road and trail impacts.
Miles of motorized road/trail within 300' of streams	19.2 miles
Noticeable wildfire suppression impacts	No fire suppression evidence on the landscape.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 166. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	The only harvest known to have occurred in this area is a small commercial thin (12 acres) that occurred in 1973. Due to the residual trees being left and the time since treatment, it was determined that this area is no longer substantially noticeable. However, a fairly substantial portion of the area has been impacted by prescribed fire treatments. From 1986 to 1989, approximately 8,634 acres (33% of the area) was treated with broadcast burning or underburning. These treatments were focused in grassland areas. Due to the time since treatment and effects similar to wildfire, these treatments were determined to be no longer substantially noticeable.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None present but electronic site on Highwood Baldy is visible from within the polygon.
Areas of mining activities including both abandoned and active mines.	None known.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 26.3 miles of fencing and 37 stock water tanks within H2.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	Dispersed camping sites along the Thain Creek Road, Cottonwood Creek, and Shonkin Road. No outfitters in this polygon.

Improvement Type	Presence and extent of departure from naturalness
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Missile site in the southwest corner of the polygon probably has a buried line of some kind. Some of the stock tanks have small water lines associated with them.
Presence of watershed treatment areas including contouring, diking, and channeling.	None known.
Lands adjacent to development or activities that impact opportunities for solitude.	Developments associated with large ranch lands. Helicopter use at Highwood Baldy and around missile site.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	Recreation residence tracts along Thain Creek Road. Buildings associated with Cow Camps along FSR 121, and next to the road in Shonkin Creek. There are approximately 20 recorded cultural resources within this polygon. These cultural resources represent structures, dwellings and other relics of past occupations.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	0.0 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	There are 10 recorded historic routes in this polygon (40 miles).

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor's opportunity for solitude? What are the factors that may mitigate those impacts?

Table 167. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	There are approximately 25 + miles of motorcycle loop trails in the northern portion of the polygon.
Area available for winter motorized opportunity	The motorized trail system is open to over snow vehicles in the winter.
Proximity to private lands and non-Forest Service roads.	Private lands surround the polygon on the north, east, and south sides. Forest Service Road 121 provides the western boundary. There are some private land inholdings accessed by this road.
Proximity to developed recreation sites outside of the polygon area.	There is a campground and trailhead in Thain Creek. Activities from these developments are heard from within the polygon. There are 3 recreation residences along Thain Creek and Thain Creek Guard station is located within the drainage.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 168. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	The 1/3 of the area, away from the motorized trails, is available for primitive and semi-primitive non-motorized recreation.
Primitive and semi-primitive non-motorized winter recreation.	The 1/3 of the area, away from the motorized trails, is available for primitive and semi-primitive non-motorized recreation.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Fishing, limited hiking, hunting, wildlife viewing, mountain biking, motorcycle riding, and ATV riding. Snowmobiling in the winter.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 169. Size and Description

Size of Polygon	Description
26,210 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

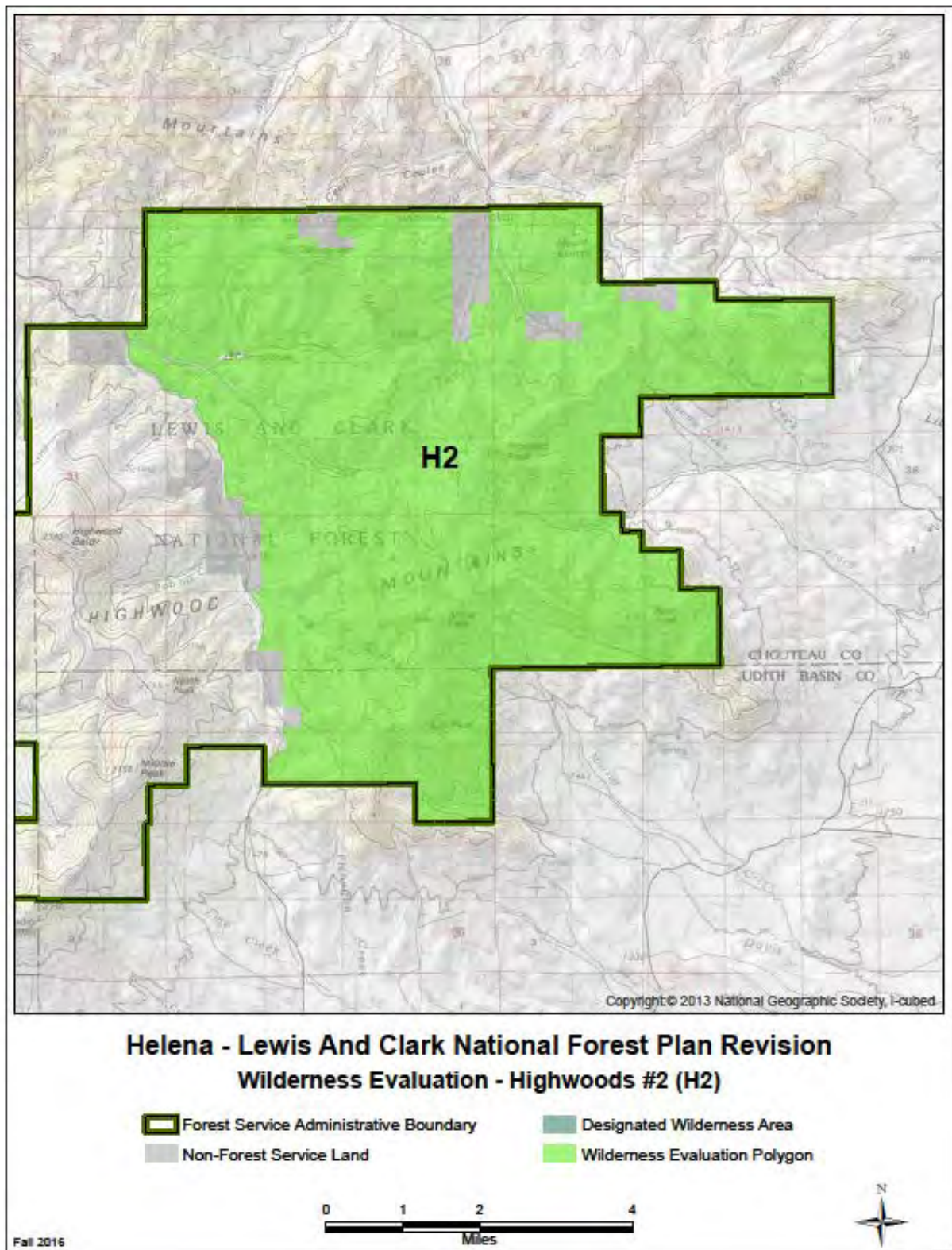
Table 170. Features present

Features	Description and scale
Rare plant communities	The only potential plant species of conservation concern known to occur in this area is <i>Pinus flexilis</i> .
Rare animal species or communities	Federally listed species: Transient lynx documented; area not considered occupied and not contiguous with occupied areas. Historic record of Sprague’s pipit: this is a grassland bird and primary habitat on adjacent non-NF land. Potential species of conservation concern and/or state at risk species: gray-crowned rosy finch, dwarf shrew; historic records of greater sage grouse, chestnut-collared longspur; both species grassland types and primary habitat on adjacent non-NF land. Lewis’s woodpecker. WCT in Boyd, Cottonwood (Arrow), and Big Coulee Creek.
Rare ecosystems	Limber pine, ponderosa pine, and aspen forests are all considered vegetation communities of interest on the HLC NF due to their relatively low abundance and importance for habitat. These are present in fairly small amounts in this area. No rare aquatic ecosystems.
Outstanding landscape features	Steep open parks and unique geology.
Historic and cultural resource sites	All recorded cultural resources in this polygon have the potential for scientific, educational, or historic value.
Research Natural Areas	None present.
High quality water resources or important watershed features	North Fork Highwood and Big Coulee Creeks are on the draft list in the 2015 Wild and Scenic Rivers Eligibility Study; they are listed for their outstanding WCT fisheries.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 171. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	The east half of the Highwood Mountain range. Public access to this polygon is limited by lack of legal access through private lands.
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	There are large private land inholdings along FSR 121.
Management of adjacent lands	Polygon is surrounded by large private ranches on the south, east, and north sides. Large block of roadless Forest Service system lands on the west.



Little Belts Geographic Area

Deep Creek Area (LB1)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 172. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The most common dominance types in this are Douglas-fir dominated forests, which cover about 67%, and lodgepole pine dominated forests, which cover about 17%. Dry grasslands and subalpine fir/Engelmann spruce mixed forests are also common, each covering about 5%. Nearly 3% of the area supports ponderosa pine forest. Very small amounts (less than 1% each) of other dominance types are also present, including shrublands, whitebark pine, limber pine, cottonwood, aspen, and juniper.
Potential vegetation types	The bulk of this area supports either warm dry forest potential vegetation types (58%) or cool moist forest potential types (34%). Dry grassland potential types are found on about 5%. Small amounts of other potential types are also present, including cold forest types (where whitebark pine may grow), shrublands, riparian, and sparsely vegetated areas.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 532 acres within LB1 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: Roughly 27,000 acres potential lynx habitat, with about 14,000 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type (note area is not currently occupied by lynx and is not contiguous with occupied lynx habitat). Roughly 67,000 acres of goshawk potential nesting habitat indicates presence of mature forest. Approximately 1600 acres existing and 46,000 acres potential old growth habitat based on habitat type and aerial photo interpretation; occurs in patches of varying size. • Nearly 53,000 acres secure elk habitat. Roughly 23,000 acres elk winter range, 11,000 acres elk calving habitat, and 27,000 acres mule deer winter range all contiguous with additional winter range on adjacent non-NF land. Moose may be present in riparian areas. • Roughly 6300 acres potential wolverine habitat. • Probable golden eagle and possible peregrine falcon nesting areas in NE portion along Smith River. • WCT in NF and SF Deep Creek, SF Tenderfoot, and Logging Creeks.
Known non-native wildlife species	No non-native terrestrial wildlife species documented. Non-native trout likely present.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 173. Ecological conditions

Measures	Outcome
% of area without past timber harvest	There are no records of past harvest in this area. 100% of the area is unaffected by this activity.
% of area without known invasive weeds	According to data as of 2/10/2016, 99.4% of LB1 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 61%, Class 2: 39%; Impacts are mainly outside/downstream of polygon
Miles of motorized road/trail within 300' of streams	27.1 miles
Noticeable wildfire suppression impacts	No evidence of fire suppression.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 174. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	There are no records of past harvest or prescribed fire activities in this area.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	Radio communications site on Monument Peak Lookout.
Areas of mining activities including both abandoned and active mines.	Active recreational gold mine in Placer Creek. Other abandoned mines along FSR 839, within the polygon.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 5 miles of fencing and 11 stock water tanks within LB1.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	Outfitter camps in Lobley Gulch, Double Gulch, junction of the Smart Fork, and Parker Ridge. Boat camps along the Smith River. Dispersed camping throughout the polygon, both during summer and hunting seasons.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Electric line along Logging Creek road might be seen from the interior of the polygon.
Presence of watershed treatment areas including contouring, diking, and channeling.	None known.
Lands adjacent to development or activities that impact opportunities for solitude.	Private inholding where they outfit from Deep Creek Park, recreation residences along the periphery, Monument peak rental cabin with communication site.

Improvement Type	Presence and extent of departure from naturalness
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	Monument Peak. Mine adits. There are approximately 23 recorded cultural resources within this polygon. They all represent relics of past occupations.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	1.0 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	Old wagon roads into Deep Creek Park in the western part of the polygon. Remnants of old telephone line from Monument Peak down Daisy Creek. Two recorded historic routes (8 miles) are within this polygon. However, there is a high potential for unrecorded routes.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. *What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?*

Table 175. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	Motorized trail around Deep Creek Park to the Smith River. Motorized trails on the eastern portion of the polygon (motorcycle and ATV trails). National motorized recreation trails on Monument Ridge, Deep Creek Ridge, and Blankenbaker Flats.
Area available for winter motorized opportunity	Snowmobile corridor from Monument Peak, Bald Hills to Tenderfoot. Snowmobile corridor along boundary with FSR 839. All other areas closed to winter motorized uses.
Proximity to private lands and non-Forest Service roads.	Private inholding in Deep Creek Park. Private lands along the Smith River to the west and along the northern boundary.
Proximity to developed recreation sites outside of the polygon area.	Logging creek Campground, Monument Peak Lookout Cabin rental, recreation residences along the Logging Creek Road. Deep Creek, Taylor Hills, Balsinger, and Pilgrim Trailheads.

Question 2b. *What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?*

Table 176. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	There are two areas with primitive and semi-primitive non-motorized summer recreation. One is located south of Deep Creek Park and north of the Tenderfoot. The other is located north of motorized trail 311 to the forest boundary, excluding the area west of Blankenbaker Flats.
Primitive and semi-primitive non-motorized	Very little opportunity for primitive or semi-primitive non-

Measures	Descriptions and Locations
winter recreation.	motorized winter recreation.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hunting, fishing, backpacking, horseback riding, boating on the Smith River, mountain biking, ATV riding, motorcycle riding, and snowmobiling in the two corridors.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 177. Size and Description

Size of Polygon	Description
89,321 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

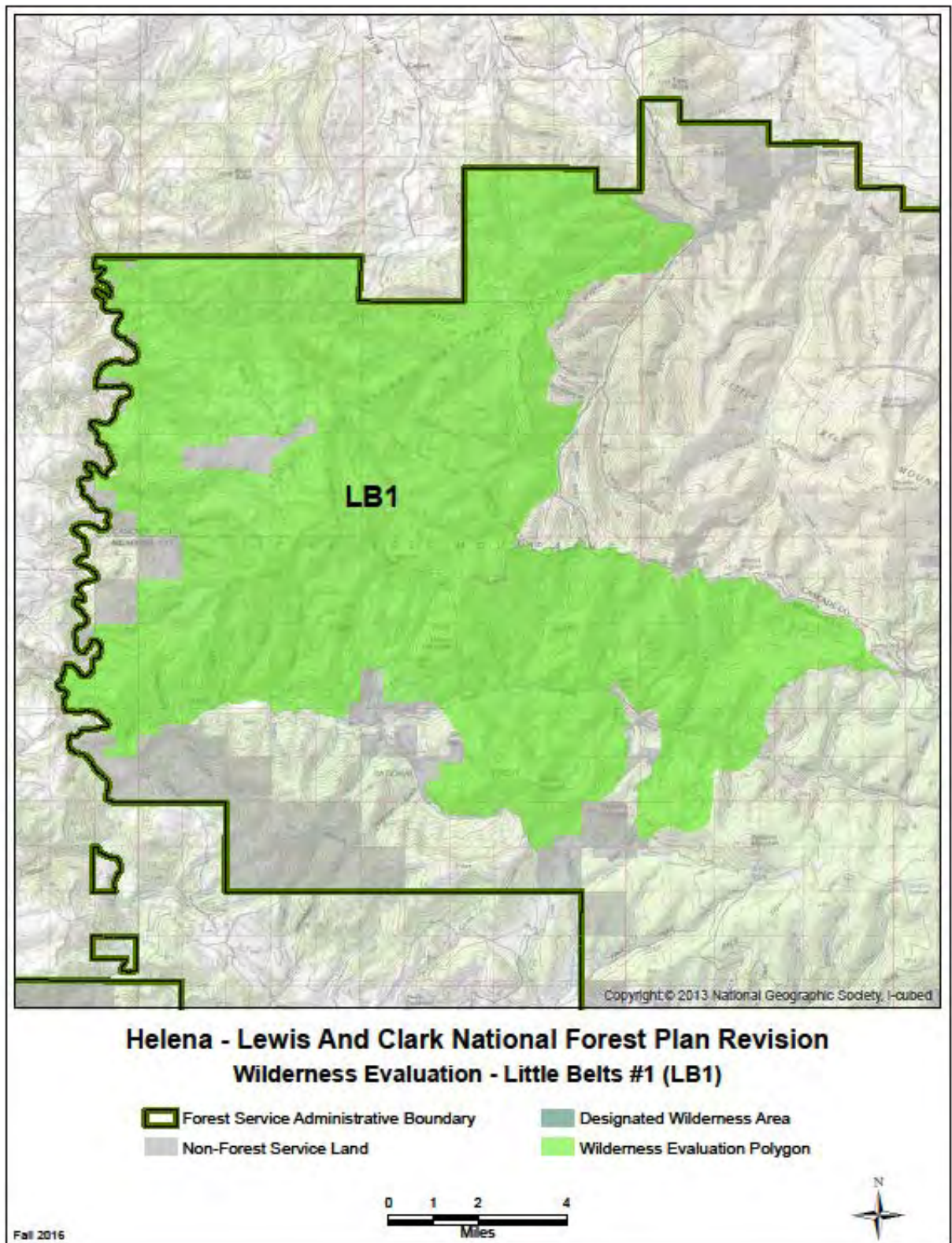
Table 178. Features present

Features	Description and scale
Rare plant communities	Several potential plants of conservation concern are known to occur in this area, including <i>Pinus flexilis</i> , <i>Pinus albicaulis</i> , and <i>Funaria americana</i> .
Rare animal species or communities	Federally listed species: Transient lynx could be occasionally present, but area is not within or contiguous with areas occupied by lynx. Potential species of conservation concern and/or state at risk species: wolverine, possibly harlequin duck (Smith River) WCT in NF and SF Deep Creek, Logging Creek and SF Tenderfoot Creek.
Rare ecosystems	Ponderosa pine, limber pine, and whitebark pine are vegetation ecosystem components of interest on the HLC NF due to their limited abundance and habitat value. Whitebark pine is a candidate for listing under the ESA. These species are present in very small amounts in this area.
Outstanding landscape features	Smith River and waterfalls on Tenderfoot Creek.
Historic and cultural resource sites	All recorded cultural resources within this polygon have the potential for scientific, educational or historic value.
Research Natural Areas	None present.
High quality water resources or important watershed features	Tenderfoot Creek and tributaries have very high water quality. Tenderfoot Creek and the Smith River (on western boundary of polygon) are both eligible WSR segments. Deep Creek has high water quality and high value WCT population.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 179. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	Large irregular shaped polygon in the west end of the Little Snowies GA. Polygon extends from the Smith River east to Logging Creek and the Divide Road along the ridgeline.
Legally established rights or uses within the area	Special Uses ROW access to Deep Creek Park.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	Deep Creek Park private land inholding.
Management of adjacent lands	Private ranch lands to the north. Subdivisions, ranch lands, and the Smith River corridor on the west. Forest Service system lands to the east and south.



Big Horn Thunder Area (LB2)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 180. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The most common dominance types found in this area are Douglas-fir dominated forests, which cover about 56% of the area. Lodgepole pine dominated forests are also common, found on about 22%. Subalpine fir and Engelmann-spruce mixes can be found at higher elevations, covering about 13% of the area. Other types are relatively rare; dry grasslands and sparsely vegetated areas (rock and scree) are found on about 3% each, and ponderosa pine dominated forests are found on 2%. Other types are rare but present, making up less than 1% each, including shrublands, whitebark pine, limber pine, cottonwood, and aspen.
Potential vegetation types	The main potential vegetation types found in this area are warm dry forest types (42%) and cool moist types (52%), consistent with the abundance of Douglas-fir and lodgepole pine forests. Dry grassland and sparsely vegetated potential types are found on between 2-3% each. Trace amounts of other types occur, include the cold forest type (where whitebark pine may grow), shrubland types, and riparian types where cottonwood and aspen are most likely found.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 64 acres within LB2 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: 22,000 acres potential lynx habitat, with approximately 11,000 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type (note area is not currently occupied by lynx and is not contiguous with occupied lynx habitat). Roughly 29,000 acres of goshawk potential nesting habitat, with some known nest territories. Approximately 4000 acres existing and over 30,000 acres potential old growth habitat based on habitat type and aerial photo interpretation; occurs in patches of varying size. Presence of Clark’s nutcracker indicates mature whitebark, ponderosa, and/or limber pine. Also functioning snag habitat. • Approximately 30,000 acres secure elk habitat; 5800 acres mule deer winter range along northern edge contiguous with same on non-NF land. Moose may be present in riparian areas. • Functioning subalpine/alpine habitat: Approximately 8,000 acres potential wolverine habitat. • WCT in Pilgrim, Deer, Horn and Tillinghast Creeks.
Known non-native wildlife species	No non-native terrestrial wildlife species documented. Non-native trout likely present.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 181. Ecological conditions

Measures	Outcome
% of area without past timber harvest	There are no records of past harvest in this area; 100% is unaffected by this activity.
% of area without known invasive weeds	According to data as of 2/10/2016, 99.9% of LB2 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 37%, Class 2: 63%. Impacts in class 2 watersheds are primarily downstream/ outside of polygon.
Miles of motorized road/trail within 300' of streams	17.3 miles, motorized trail along the entire length of Pilgrim Creek
Noticeable wildfire suppression impacts	Goblin Gulch Fire (2012): Some handlines constructed/rehabed, helispot constructed/rehabbed. However, break in timber continuity evident.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 182. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	There are no known areas of timber harvest in this area. A minimal amount of prescribed burning has occurred, consisting of 15 acres of pile burning in 1995. This activity makes up only 0.04% of the area, and was determined to no longer be substantially noticeable on the landscape.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None present.
Areas of mining activities including both abandoned and active mines.	Historic mining in patented mining inholding. Abandoned historic mine in Timber Gulch. Private land withholding with historic mining in Pilgrim Creek. Abandoned mining exploration pits on Thunder Mountain in Goblin Gulch.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there are approximately 2 miles of fencing and 4 stock water tanks within LB2.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	Hunting camps along Pilgrim Creek and Thunder Mountain trail.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Electric line along Logging Creek road might be seen from the interior of the polygon.

Improvement Type	Presence and extent of departure from naturalness
Presence of watershed treatment areas including contouring, diking, and channeling.	None known.
Lands adjacent to development or activities that impact opportunities for solitude.	Recreation residences along the periphery in Logging Creek. Deer Creek Estates on the south boundary of LB2.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	Cabins in Big Timber Creek and top of Iron Creek, close to the private inholding. There are 12 recorded cultural resources within this polygon, all represent relics of past occupations.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	2.4 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	Historic road from Belt Creek up Holter Gulch to mining claim. Historic road from Logging Creek up to Big Timber Gulch. Old road bed up Pilgrim Creek. There are 2 recorded historic routes (67 miles) within this polygon.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 183. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	All non-motorized except for Pilgrim Creek, Tobin Gulch, and Deer Creek trails which are open seasonally for motorcycles.
Area available for winter motorized opportunity	Snowmobile corridor along boundary with FSR 839. All other areas closed to winter motorized uses.
Proximity to private lands and non-Forest Service roads.	Two private land inholdings. One is on the north side of Big Horn Mountain. One is in the bottom of Pilgrim Creek at the junction with Deer Creek. Deer Creek Estates subdivision to the south of the polygon.
Proximity to developed recreation sites outside of the polygon area.	Logging creek Campground, recreation residences along the Logging Creek Road. Deep Creek, Taylor Hills, Balsinger, and Pilgrim Trailheads.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 184. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	Areas east and west of the Pilgrim Creek Trail are available for primitive and semi-primitive non-motorized summer recreation.
Primitive and semi-primitive non-motorized winter recreation.	Majority of the polygon is available for primitive and semi-primitive non-motorized recreation in the winter.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Motorcycle riding, horseback riding, fishing, archery, rifle hunting, and mountain biking.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 185. Size and Description

Size of Polygon	Description
45,334 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

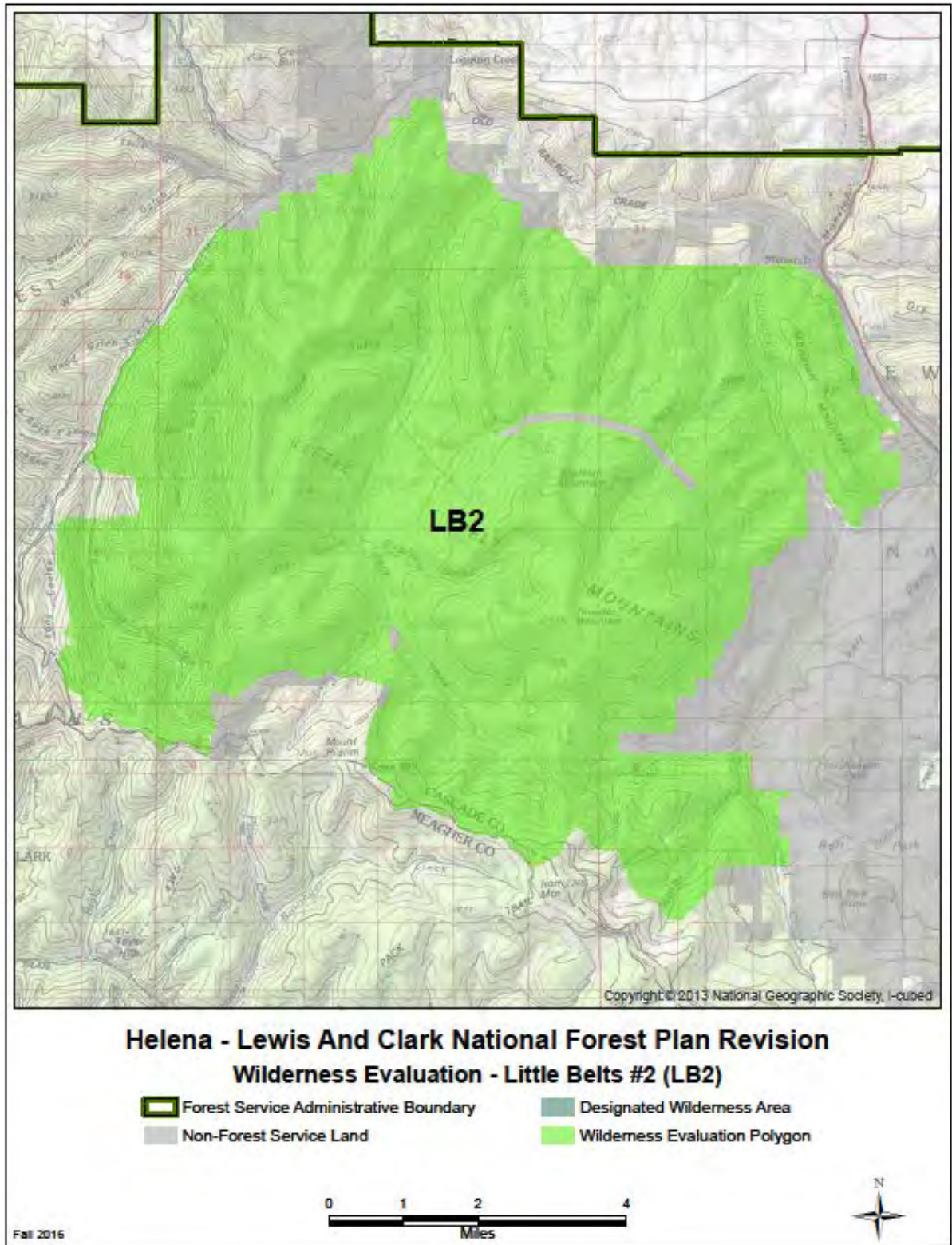
Table 186. Features present

Features	Description and scale
Rare plant communities	The potential plant species of conservation concern known to occur in this area include <i>Pinus albicaulis</i> , <i>Pinus flexilis</i> , and <i>Elymus innovates</i> .
Rare animal species or communities	Federally listed species: Transient lynx could be occasionally present, but area is not within or contiguous with areas occupied by lynx. Potential species of conservation concern and/or state at risk species: none documented WCT in Pilgrim, Deer, Horn and Tillinghast Creeks.
Rare ecosystems	Whitebark pine is a candidate for listing under ESA. Whitebark pine, limber pine, ponderosa pine, and aspen vegetation communities are all of interest on the HLC NF due to their limited abundance and importance for habitat. These types are present in very small amounts in this area. No rare aquatic ecosystems
Outstanding landscape features	Big Horn Mountain, Thunder Mountain, Pilgrim Creek, Tillinghast Creek, and rock scree around Thunder Mountain,
Historic and cultural resource sites	All recorded cultural resources within this polygon have the potential for scientific, educational or historic value.
Research Natural Areas	None present.
High quality water resources or important watershed features	Pilgrim Creek has high quality WCT fishery, good water quality, and is included in the draft list of potential WSRs for its high quality WCT fishery. Tillinghast Creek also is high quality up high in the watershed, above cattle impacts.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 187. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	A large undeveloped landscape east of Logging Creek and southwest of Monarch. The polygon includes all of the Thunder Mountain and the main stem of Pilgrim Creek.
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	Private land inholdings in Deer Creek and Thunder Mountain.
Management of adjacent lands	Private ranch lands to the east in Belt Park. Forest Service system lands and privates along the north boundary. Logging Creek and Divide road on the west and south boundaries. Deer Creek Estates on the southern border.



Sun Mountain Area (LB3)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 188. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	Nearly 54% of this small area is dominated by Douglas-fir forests, and lodgepole pine forests are found on about 15%. A fairly large proportion, 16%, is considered transitional where forest regeneration is still initiating after the Monarch fire of 2001. About 6% of the area (at higher elevations) supports subalpine fir and Engelmann spruce mixed forest, and ponderosa pine dominated areas are found at the lowest elevations (3%). Dry grasslands are found on nearly 3%. Other dominance types are found in trace amounts, generally 1% or less, and include shrublands, limber pine, and aspen.
Potential vegetation types	Warm dry forest potential vegetation types are the most common, found on 76% of the area, and commonly support limber pine, ponderosa pine, and Douglas-fir. Cool moist forest types cover about 18%, where lodgepole, spruce, and fir are more likely to grow. Dry grassland potential types are found on 4%. Trace amounts of other types are present, including shrublands and riparian potential vegetation types.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 67 acres within LB3 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: 3400 acres potential lynx habitat, with approximately 1400 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type (note area is not currently occupied by lynx and is not contiguous with occupied lynx habitat). Roughly 4600 acres of goshawk potential nesting habitat. Approximately 700 acres existing and 3500 acres potential old growth habitat based on habitat type and aerial photo interpretation; occurs in patches of varying size. • Approximately 4600 acres secure elk habitat; 1900 acres mule deer winter range contiguous with same on non-NF land. Moose may be present in riparian areas. • Functioning subalpine/alpine habitat: Fewer than 70 acres of potential wolverine habitat. • No WCT.
Known non-native wildlife species	No non-native terrestrial wildlife species documented. If present, non-native trout likely

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 189. Ecological conditions

Measures	Outcome
% of area without past timber harvest	Some records of past harvest are found in this area, indicating that roughly 4% was impacted. Treatments consisted of a commercial thin in 1974 and 1976. 96% of this area is unaffected by harvest treatments.
% of area without known invasive weeds	According to data as of 2/10/2016, 99.2% of LB3 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 2: 100%, but impacts are primarily downstream/ outside of polygon.
Miles of motorized road/trail within 300' of streams	0.0 miles
Noticeable wildfire suppression impacts	Monarch Fire (2011): visible breaks in the timber from old hand lines and helispot.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 190. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	Roughly 4% of this area (304 acres) was harvested in the 1970's. This treatment included the retention of leave trees; due to this and the time since treatment, these areas were determined to be no longer substantially noticeable. In addition, roughly 40 acres had the prescribed burning treatment of burning piles in 2001; this was also determined to not be substantially noticeable and impacted less than 0.5% of the area.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None present.
Areas of mining activities including both abandoned and active mines.	None known.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 1/2 mile of fencing and 70.5 acres of vegetation treatments are within LB3.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	No outfitter camps. Dispersed camping in Dry Fork Belt Creek.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Utility corridors outside of the polygon on the southwest boundary. Powerline corridor along Dry Fork Belt Creek.

Improvement Type	Presence and extent of departure from naturalness
Presence of watershed treatment areas including contouring, diking, and channeling.	None known.
Lands adjacent to development or activities that impact opportunities for solitude.	Community of Monarch. Subdivisions on the western and southern boundaries. Heavily used dispersed area in Dry Fork Belt Creek.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	None known.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	0.0 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	None known.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. *What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?*

Table 191. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	No authorized motorized trails.
Area available for winter motorized opportunity	Closed to snowmobiles and winter motorized use.
Proximity to private lands and non-Forest Service roads.	Dry Fork Belt Creek is a Cascade County road. Private roads accessing residential areas on the south border of the border of polygon. Highway 89 to the west of the polygon.
Proximity to developed recreation sites outside of the polygon area.	Borders a high use, heavily impacted dispersed recreation area in Dry Fork Belt Creek.

Question 2b. *What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?*

Table 192. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	The entire polygon is available for primitive and semi-primitive non-motorized summer recreation.
Primitive and semi-primitive non-motorized winter recreation.	The entire polygon is available for primitive and semi-primitive non-motorized winter recreation.

Measures	Descriptions and Locations
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hiking, horseback riding, and hunting.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 193. Size and Description

Size of Polygon	Description
7,965 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Table 194. Features present

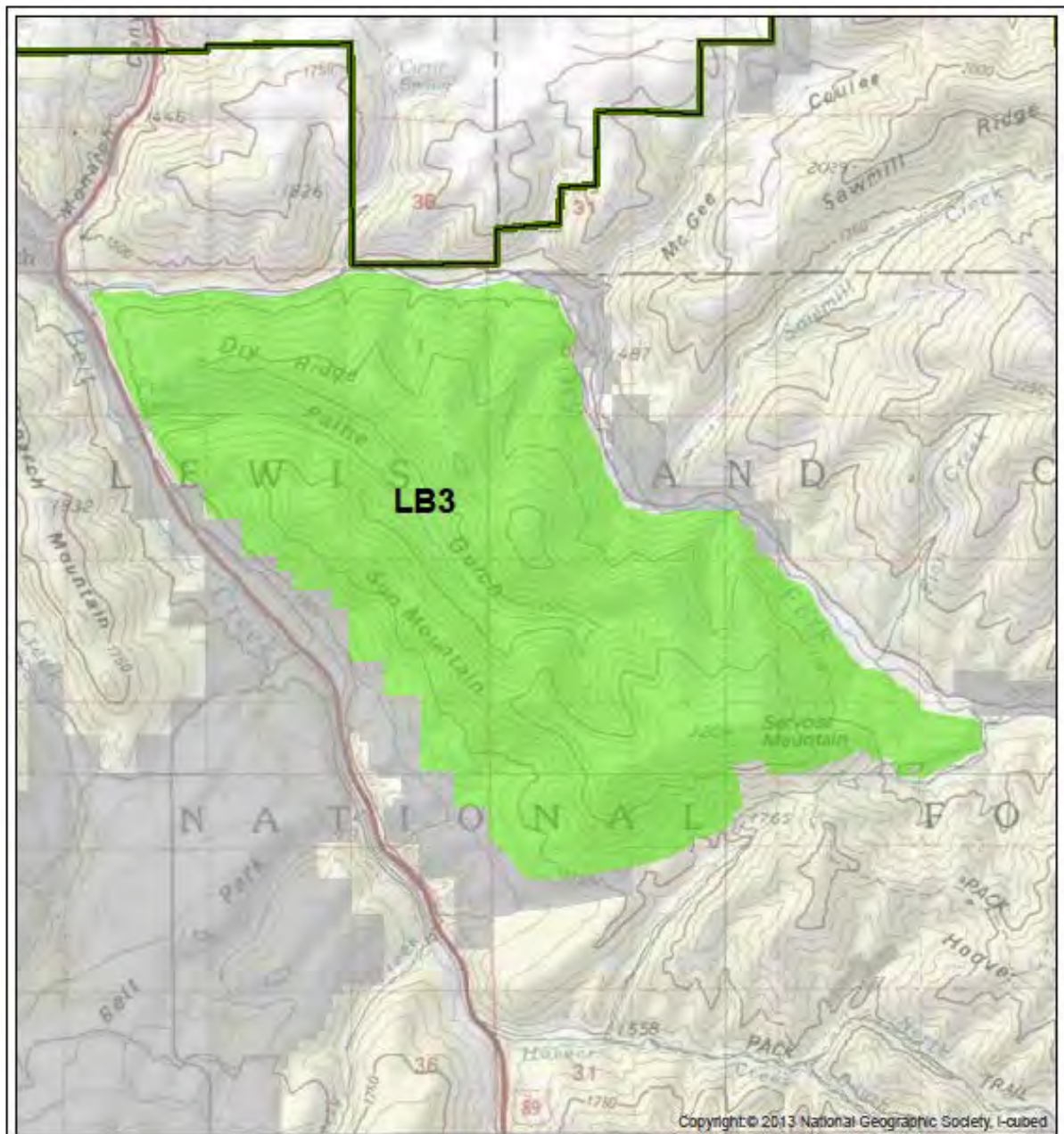
Features	Description and scale
Rare plant communities	The potential plants of conservation concern known to occur in this area include <i>Pinus flexilis</i> and <i>Cirsium longistylum</i> .
Rare animal species or communities	Federally listed species: transient lynx could be occasionally present, but area is not within or contiguous with areas occupied by lynx. Potential species of conservation concern and/or state at risk species: none documented No rare aquatic species known.
Rare ecosystems	Very small amounts of ponderosa pine, aspen, and limber pine vegetation communities are found in this area, which are types of interest on the HLC NF due to their low abundance and habitat importance. No known rare aquatic ecosystems.
Outstanding landscape features	Limestone cliffs.
Historic and cultural resource sites	No recorded cultural resources in this polygon.
Research Natural Areas	Paine Gulch RNA.
High quality water resources or important watershed features	Madison limestone.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.





Table 195. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	Relatively narrow rectangle between State Highway 89, Dry Fork Belt Creek road (county road), and the Ruby Hen Road (FSR).
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for	None known.

Factors	Description and scale
wilderness or the ability to manage the area to protect wilderness characteristics	
The presence and amount of non-Federal land in the area	None within the polygon.
Management of adjacent lands	Rural and private residential developments along Highway 89 and Belt Creek to the southwest. Dispersed recreation and private lands in Dry Fork Belt Creek to the east. Forest Service system lands to the south. Forest Service system and state lands to the north.



Helena - Lewis And Clark National Forest Plan Revision Wilderness Evaluation - Little Belts #3 (LB3)

-  Forest Service Administrative Boundary
-  Non-Forest Service Land
-  Designated Wilderness Area
-  Wilderness Evaluation Polygon



Fall 2016

McGee Sawmill Area (LB4)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 196. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The most common dominance types in this area are Douglas-fir dominated forests (covering 40%) and lodgepole pine dominated forests (covering 33%). Subalpine fir and Engelmann spruce mixed forests are also common, found on 13%. Sparsely vegetated areas, such as rock and scree, are found on nearly 7%, and dry grasslands dominate on just over 3%. Ponderosa pine and limber pine forests make up just under 2% each. Very small amounts (less than 1% each) of other dominance types are also present, including shrublands, whitebark pine, and cottonwood.
Potential vegetation types	The area is fairly evenly dominated by two main potential vegetation groups: warm dry forest types (45%), and cool moist forest types (44%). Sparsely vegetated areas represent 7%, and dry grassland potential types are found on 2%. Other types making up 1% or less each include cold forest types (where whitebark pine may grow), shrubland types, and riparian types.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 21 acres within LB4 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: 3500 acres potential lynx habitat, with approximately 1500 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type (note area is not currently occupied by lynx and is not contiguous with occupied lynx habitat). Roughly 5200 acres of goshawk potential nesting habitat, some known nesting territories. Approximately 915 acres existing and 3500 acres potential old growth habitat based on habitat type and aerial photo interpretation; occurs in patches of varying size. • Approximately 7000 acres secure elk habitat; fewer than 1000 acres elk winter range and 3500 acres mule deer winter range contiguous with same on non-NF land. Moose may be present in riparian areas. • Functioning subalpine/alpine habitat: Roughly 1100 acres of potential wolverine habitat. • WCT in Sawmill Creek.
Known non-native wildlife species	No non-native terrestrial wildlife species documented. Non-native trout likely present

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 197. Ecological conditions

Measures	Outcome
% of area without past timber harvest	About 99.9% of the area has been unaffected by harvest, according to available harvest records. About 9 acres were harvested with a commercial thin in 1974, representing 0.11% of the area.
% of area without known invasive weeds	According to data as of 2/10/2016, 99.79% of LB4 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 2: 100%; impacts are primarily outside of polygon
Miles of motorized road/trail within 300' of streams	0.0 miles.
Noticeable wildfire suppression impacts	No fire occurrence records since 1980.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 198. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present
Presence of timber harvest or prescribed fire areas	The only known vegetation treatment to have occurred in this area is the 9-acre commercial thin in 1974 which was determined to be no longer substantially noticeable. No known prescribed fire treatments have occurred within the polygon, although some large fuel reduction treatment units lie adjacent to the boundary.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None.
Areas of mining activities including both abandoned and active mines.	None known.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 1/10 th mile of fencing and 1 stock water tank within LB4. There are approximately 140 acres of vegetation treatments within LB4,
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	No outfitter camps within polygon. Numerous dispersed camping sites along Dry Fork Belt Creek.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Powerline corridor along Dry Fork Belt Creek. Missile communication line is located in McGee Coulee.
Presence of watershed treatment areas including contouring, diking, and channeling.	None known.

Improvement Type	Presence and extent of departure from naturalness
Lands adjacent to development or activities that impact opportunities for solitude.	Heavily used dispersed area in Dry Fork Belt Creek. Superfund site to the east.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	Old cabin in an unnamed drainage of Sawmill Creek. No recorded cultural resources within this polygon, however there is the potential for unrecorded cultural resources.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	1.4 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	No recorded historic routes.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 199. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	Area is not available for summer motorized use.
Area available for winter motorized opportunity	Area is not available for winter motorized use.
Proximity to private lands and non-Forest Service roads.	Polygon borders private lands along the Dry Fork Belt Creek road. Polygon borders private ranch lands to the north. Dry Fork Belt Creek road is a Cascade County road.
Proximity to developed recreation sites outside of the polygon area.	Borders a high use, heavily impacted dispersed recreation area in Dry Fork Belt Creek.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 200. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	The entire polygon is available for primitive and semi-primitive non-motorized summer recreation.
Primitive and semi-primitive non-motorized winter recreation.	The entire polygon is available for primitive and semi-primitive non-motorized winter recreation.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hiking, horseback riding, fishing and hunting.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 201. Size and Description

Size of Polygon	Description
8,355 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Table 202. Features present

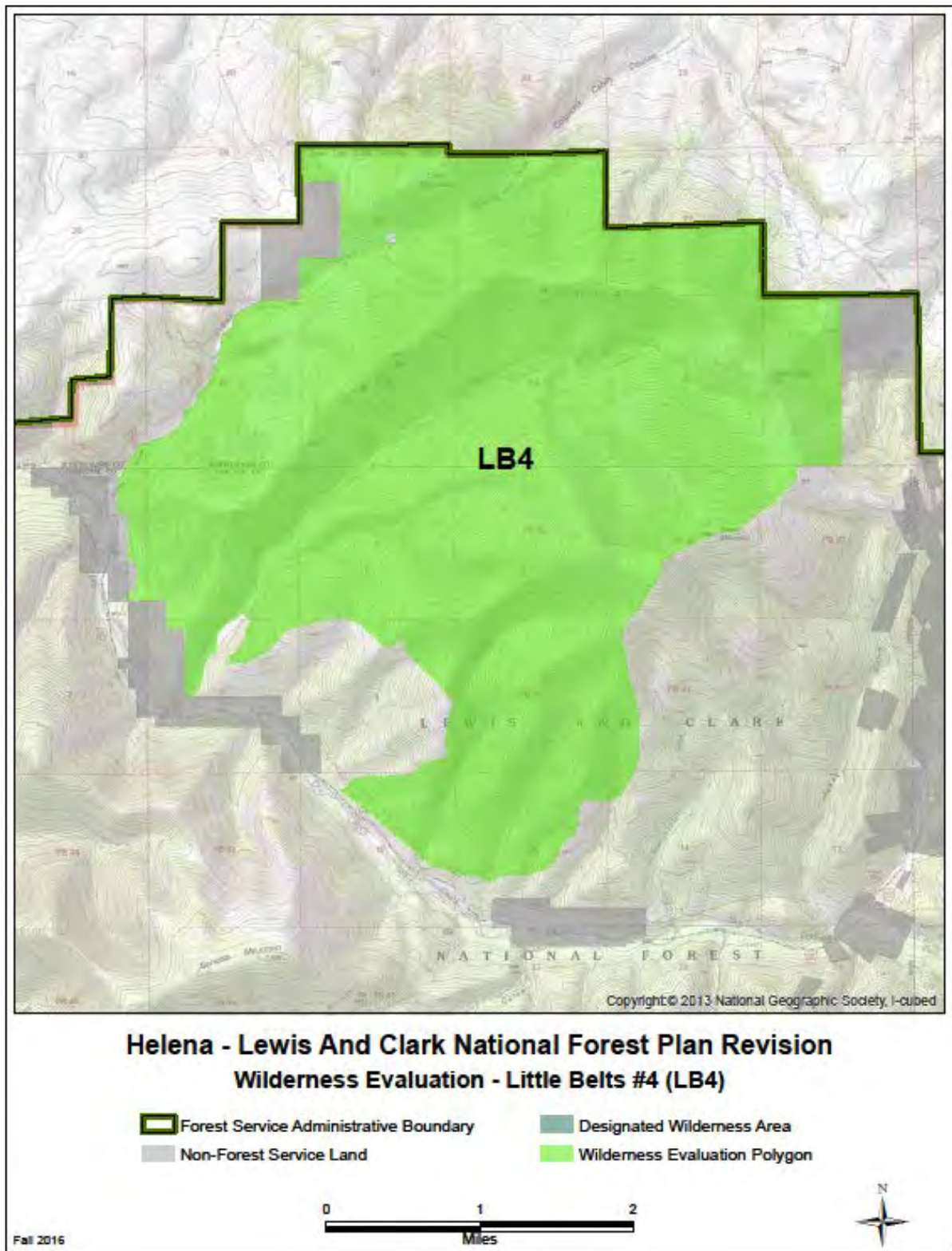
Features	Description and scale
Rare plant communities	The only potential plant species of conservation concern known to occur in this area include <i>Pinus albicaulis</i> and <i>Pinus flexilis</i> .
Rare animal species or communities	Federally listed species: Transient lynx could be occasionally present, but area is not within or contiguous with areas occupied by lynx. Potential species of conservation concern and/or state at risk species: none documented WCT in Sawmill Creek.
Rare ecosystems	Whitebark pine is a candidate for listing under ESA. Whitebark pine, limber pine, and ponderosa pine are all vegetation communities of interest on the HLC NF due to their limited abundance and habitat importance. These are present in very small amounts in this area. High quality WCT habitat in Sawmill Creek, segment goes dry below population due to limestone, so the population is protected.
Outstanding landscape features	A few limestone cliffs.
Historic and cultural resource sites	None known.
Research Natural Areas	None present.
High quality water resources or important watershed features	High quality WCT population.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 203. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	Irregular shaped polygon north of Dry Fork of Belt Creek road. Polygon is formed by private land to the north and private lands and the Barker-Hughesville superfund site on the south and the east.
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to	None known.

Factors	Description and scale
protect wilderness characteristics	
The presence and amount of non-Federal land in the area	None present.
Management of adjacent lands	Ranch lands to the north. National Forest system lands to the south. Superfund to the east and west. Dry Fork Belt Creek road to the west.



Peterson Mountain Area (LB5)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 204. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The most common dominance types in this area include lodgepole pine dominated forests (covering 42%) and Douglas-fir dominated forests (found on 29%). Subalpine fir and Engelmann spruce mixed forests are also common at higher elevations, growing on about 11% of the area. Dry grasslands are found on 10% of the area, and limber pine dominated forests are found on nearly 5%. Trace amounts (covering less than 1% of the area each) are also found, including shrublands, ponderosa pine, whitebark pine, aspen, and juniper.
Potential vegetation types	Two main potential vegetation type groups occur in this area: cool moist forest types (49%) and warm dry forest types (38%). Dry grassland potential types are the next most common, representing about 6% of the area. Other types found include shrubland, riparian, and sparse vegetation potential types.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 60 acres within LB5 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: 2300 acres potential lynx habitat, with approximately 970 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type (note area is not currently occupied by lynx and is not contiguous with occupied lynx habitat). Roughly 4200 acres of goshawk potential nesting habitat, some known nesting territories. Approximately 200 acres existing and 4300 acres potential old growth habitat based on habitat type and aerial photo interpretation; occurs in patches of varying size. • Approximately 5600 acres secure elk habitat; fewer than 150 acres elk winter range and 1700 acres mule deer winter range contiguous with same on non-NF land. Moose may be present in riparian areas. • Functioning subalpine/alpine habitat: Roughly 1100 acres of potential wolverine habitat. • WCT in Lost Creek.
Known non-native wildlife species	No non-native terrestrial wildlife species documented. Non-native trout likely present

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 205. Ecological conditions

Measures	Outcome
% of area without past timber harvest	100% of the area has no record of past timber harvest.
% of area without known invasive weeds	According to data as of 2/10/2016, 99.1% of LB5 is not associated with invasive plant inventories.

Measures	Outcome
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 2:100%, but sits at headwaters of 3 watersheds, impacts are occurring downstream of polygon
Miles of motorized road/trail within 300' of streams	0.1 mile
Noticeable wildfire suppression impacts	No fire occurrence records since 1980.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 206. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	No harvest is known to have occurred in this area. However, records show that roughly 150 acres have been impacted by prescribed fire treatment, consisting of underburns from 1983 to 2005 that occurred along the boundary. These treatments were determined to not be substantially noticeable, and make up about 2% of the area.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None present.
Areas of mining activities including both abandoned and active mines.	None.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there are approximately 5 miles of fencing and 1 stock water tank and 72 acres of vegetation treatments within LB5.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	No outfitter camps. Limited dispersed camping along the southeast edges of the polygon.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Water line in Peterson Creek.
Presence of watershed treatment areas including contouring, diking, and channeling.	None.
Lands adjacent to development or activities that impact opportunities for solitude.	Ranching activity on private land surrounding the polygon.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	No recorded cultural resources within this polygon.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.

Improvement Type	Presence and extent of departure from naturalness
Number of miles of maintenance level 1 road templates.	0.0 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	None known.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 207. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	None of the area is open or available for summer motorized recreation.
Area available for winter motorized opportunity	Snowmobile use allowed along Lone Tree corridor. Rest of the polygon to the north is restricted for winter motorized use.
Proximity to private lands and non-Forest Service roads.	Private lands surround the polygon on the north, south, portions on the east and the west.
Proximity to developed recreation sites outside of the polygon area.	None present.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 208. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	The entire polygon is available for primitive and semi-primitive non-motorized summer recreation.
Primitive and semi-primitive non-motorized winter recreation.	The entire polygon is available for primitive and semi-primitive non-motorized winter recreation.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hunting, hiking and fishing.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 209. Size and Description

Size of Polygon	Description
6,839 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

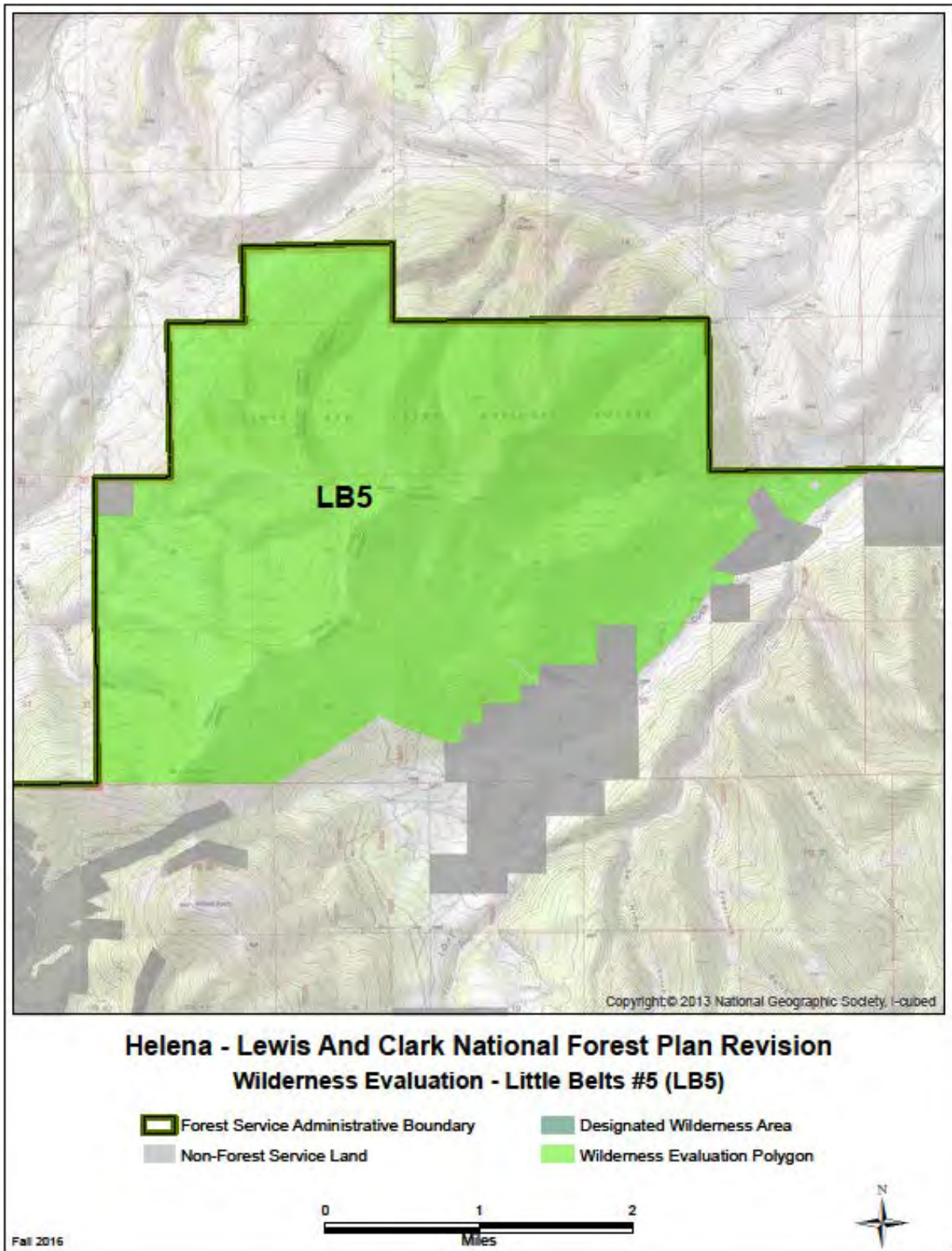
Table 210. Features present

Features	Description and scale
Rare plant communities	The only potential plants of conservation concern that are known to occur in this area are <i>Pinus albicaulis</i> and <i>Pinus flexilis</i> .
Rare animal species or communities	Federally listed species: transient lynx could be occasionally present, but area is not within or contiguous with areas occupied by lynx. Potential species of conservation concern and/or state at risk species: none documented WCT population in Lost Creek.
Rare ecosystems	Whitebark pine is a candidate for listing under the ESA. Whitebark pine, limber pine, ponderosa pine, and aspen are all considered vegetative communities of interest on the HLC NF, and are present in very small amounts in this area. No rare aquatic ecosystems
Outstanding landscape features	Peterson Mountain
Historic and cultural resource sites	None known.
Research Natural Areas	None present.
High quality water resources or important watershed features	None, area is relatively dry.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 211. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	Remote and undeveloped polygon formed by private ranchlands on the west, north, and portions of the east and south.
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	Private land surrounds the polygon but no private inholdings.
Management of adjacent lands	Private agriculture lands to the north west and portion of the east of the polygon. BLM parcels on the west and north. Forest Service system lands on the south and portions of the eastern boundary. Superfund site surrounding Barker-Hughesville on portion of the southern boundary.



Taylor Mountain Area (LB6)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 212. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The two most common dominance types in this area are lodgepole pine dominated forests (covering 37% of the area), and Douglas-fir dominated forests which are found on about 36% of the area. Subalpine fir and Engelmann spruce mixed forests are also common at higher elevations, growing on about 11% of the area. Limber pine dominated forests cover nearly 8%. Dry grasslands and sparsely vegetated areas (rock/scree) each cover about 4%. Other types are present in very small amounts, covering less than 1% of the area each, including shrublands, ponderosa pine, whitebark pine, and aspen.
Potential vegetation types	The two potential vegetation types that dominate this area are warm dry forest types (49%) and cool moist forest types (43%). Dry shrubland potential types are found on 3%, and are likely encroached with conifers since shrub dominated areas are less common. Very small amounts of other potential types that occur include cold forest (where whitebark may grow) and riparian types.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 19 acres within LB6 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: 3900 acres potential lynx habitat, with approximately 1900 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type (note area is not currently occupied by lynx and is not contiguous with occupied lynx habitat). Roughly 7400 acres of goshawk potential nesting habitat, some known nesting territories. No existing but up to 5000 acres potential old growth habitat based on habitat type and aerial photo interpretation; occurs in patches of varying size. • Approximately 7200 acres secure elk habitat; fewer than 150 acres elk winter range and only 400 acres mule deer winter range contiguous with same on non-NF land. Moose may be present in riparian areas. • Functioning subalpine/alpine habitat: Roughly 1000 acres of potential wolverine habitat. • No known WCT populations.
Known non-native wildlife species	No non-native terrestrial wildlife species documented. No known aquatic non-natives.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 213. Ecological conditions

Measures	Outcome
% of area without past timber harvest	100% of this areas is unaffected by past harvest, according to available records.
% of area without known invasive weeds	According to data as of 2/10/2016, 99.8% of LB6 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 8%, Class 2: 92% Polygon is upstream of most impacts.
Miles of motorized road/trail within 300' of streams	2.2 miles, but streams are primarily intermittent
Noticeable wildfire suppression impacts	No fire occurrence since 1980.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 214. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	There are no records of past harvest in this area. However, records show that roughly 291 acres have had a prescribed fire treatment, consisting of underburns that occurred from 2003 to 2005, and pile burning in 1996. These treatments affected nearly 3% of the area, are located along the edge of the area, and were determined to not be substantially noticeable (with effects similar to wildfire).
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None present.
Areas of mining activities including both abandoned and active mines.	None
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 2 miles of fencing and 4 stock water tanks and 161 acres of vegetation treatments within LB6.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	Dispersed recreation along private land boundary on the west. No outfitter camps.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	None present.
Presence of watershed treatment areas including contouring, diking, and channeling.	None known.

Improvement Type	Presence and extent of departure from naturalness
Lands adjacent to development or activities that impact opportunities for solitude.	Ranching activity on private land surrounding the polygon.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	One recorded cultural resource in this polygon, which represents a relic of past occupation.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	4.0 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	None known.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 215. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	Polygon is not open for motorized use in summer.
Area available for winter motorized opportunity	Snowmobile use allowed along Lone Tree corridor. Rest of the polygon is restricted for winter motorized use.
Proximity to private lands and non-Forest Service roads.	Private lands surround the polygon.
Proximity to developed recreation sites outside of the polygon area.	None present.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 216. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	The entire polygon is available for primitive and semi-primitive non-motorized recreation.
Primitive and semi-primitive non-motorized winter recreation.	The entire polygon is available for primitive and semi-primitive non-motorized recreation.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hunting, hiking, and horseback riding.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 217. Size and Description

Size of Polygon	Description
11,374 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Table 218. Features present

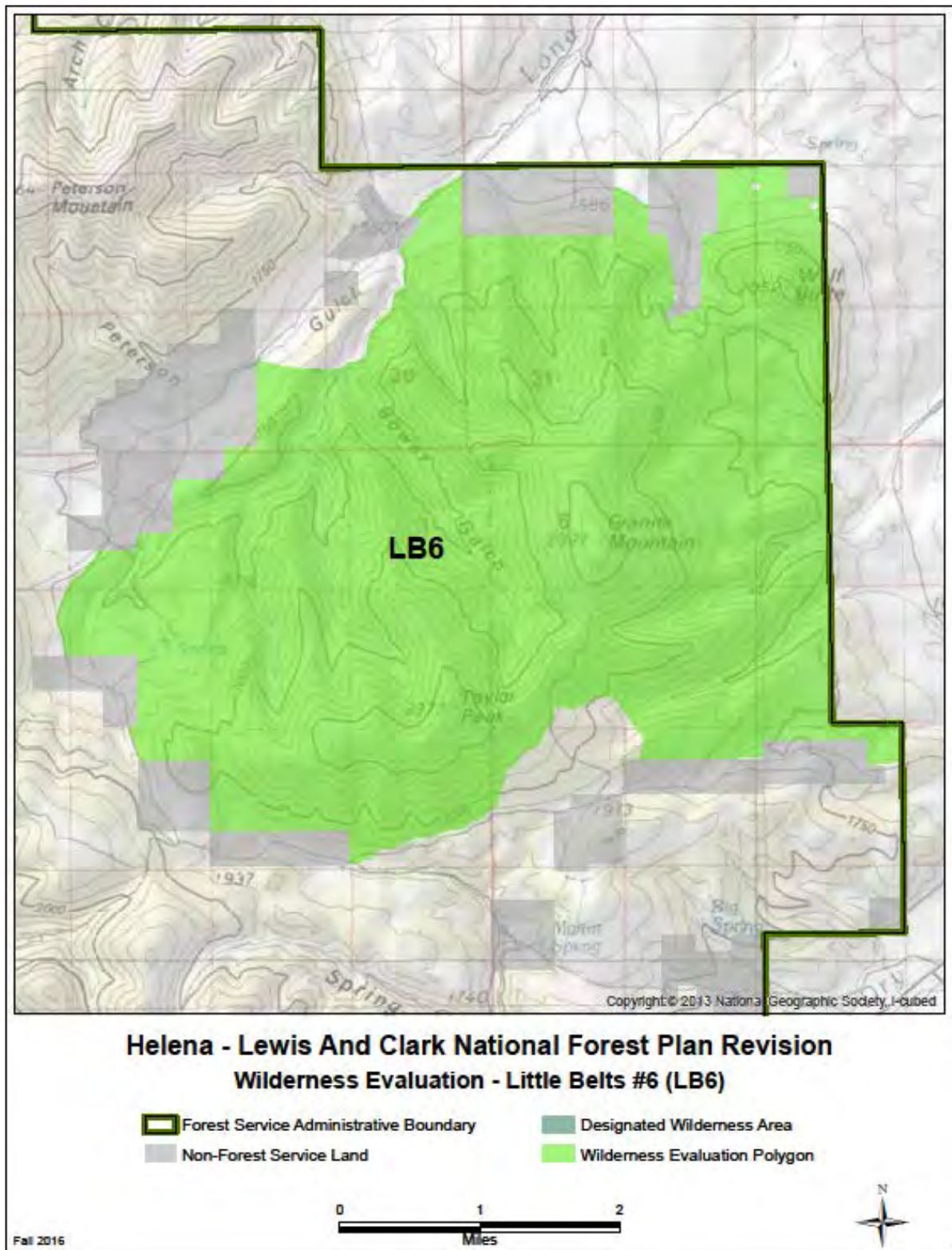
Features	Description and scale
Rare plant communities	The only potential plants of conservation known to occur in this area are <i>Pinus ablicaulis</i> and <i>Pinus flexilis</i> .
Rare animal species or communities	Federally listed species: transient lynx could be occasionally present, but area is not within or contiguous with areas occupied by lynx. Potential species of conservation concern and/or state at risk species: none documented No rare aquatic species known.
Rare ecosystems	Whitebark pine is a candidate for listing under the ESA. Limber pine dominated forests are more common in this polygon than in most areas on the HLC NF. Whitebark pine, limber pine, ponderosa pine, and aspen are all vegetation communities of interest on the HLC NF are present in low amounts in this area. No rare aquatic ecosystems known.
Outstanding landscape features	Taylor Peak, Taylor Mountain, Wolf Butte
Historic and cultural resource sites	The one recorded cultural resource has the potential for scientific, educational or historic value.
Research Natural Areas	None present.
High quality water resources or important watershed features	No high quality resources, area primarily dry.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 219. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	Semi-circular polygon shape with irregular boundaries. Encompasses Wolf Butte, Granite Mountain, Taylor Peak, and Taylor Mountain.
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal	No private inholdings. Polygon surrounded by private.

Factors	Description and scale
land in the area	
Management of adjacent lands	Private agriculture lands to the north, east, portions on the west of the polygon. Small BLM parcels on the east. Montana State lands on portions of the north. Forest Service system lands on the south and portions of the western boundary.



Big Baldy Area (LB8)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 220. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	Lodgepole pine dominated forests are the most common dominance type in this area, covering over 41%. Douglas-fir dominated forests are also common at lower elevations (covering about 22% of the area), as are subalpine fir and Engelmann spruce mixed forests at higher elevations (covering 21%). Dry grasslands and sparsely vegetated areas (rock and scree) each cover about 6% of the area. Limber pine dominated forests are found on just over 2%. Other types are present in very small amounts (covering less than 1% of the area each), and include shrublands, ponderosa pine, whitebark pine, aspen, and juniper.
Potential vegetation types	Cool moist forest potential vegetation types dominate the area, found on about 70%. Warm dry forest types are the next most common at 16%. Dry grassland potential types are found on about 5%, and sparse vegetation types cover 6%. A small area, about 3%, are cold forest types where whitebark pine may grow. Trace amounts of shrublands and riparian types are present.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 149 acres within LB8 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: 23,000 acres potential lynx habitat, with approximately 9700 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type (note area is not currently occupied by lynx and is not contiguous with occupied lynx habitat). Roughly 28,000 acres of goshawk potential nesting habitat, some known nesting territories. 3900 acres existing but up to 24,000 acres potential old growth habitat based on habitat type and aerial photo interpretation; occurs in patches of varying size. Presence of Clark’s nutcracker indicates mature whitebark, limber, and/or ponderosa pine. • Approximately 18,000 acres secure elk habitat. Moose may be present in riparian areas. • Functioning subalpine/alpine habitat: Roughly 22,000 acres of potential wolverine habitat; presence of black rosy-finch, pika. • WCT populations in Dry Wolf, Placer, Dry Fork Belt, Oti Park, NF Hoover, Carpenter (above mining impacts—acts as barrier), Bender, Palisade, and Chamberlain Creeks.
Known non-native wildlife species	No non-native terrestrial wildlife species documented. Non-native trout are likely present

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 221. Ecological conditions

Measures	Outcome
% of area without past timber harvest	About 99.8% of the area has been unaffected by past harvest. Records indicate that about 106 acres have been previously harvested, consisting primarily of a commercial thin in 1968.
% of area without known invasive weeds	According to data as of 2/10/2016, 99.7% of LB8 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 35%, Class 2: 65%, however, the polygon is upstream of most of the impacted areas. There are some mining impacts in the polygon.
Miles of motorized road/trail within 300' of streams	23.4 miles
Noticeable wildfire suppression impacts	No fire suppression evidence on the landscape.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 222. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	The past commercial thin activity (1968) which affected less than 0.3% of this area was determined to not be substantially noticeable due to the residual trees left and time since treatment. In addition, some pile burning from 2000 to 2010 has occurred along the boundary in this area, affecting about 24 acres (less than 0.1% of the area) and was also determined to not be substantially noticeable.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	Communication repeater on Big Baldy. There is a small building associated with this site.
Areas of mining activities including both abandoned and active mines.	Past mining activities concentrated in areas outside of but next to the polygon. Abandoned mines scattered throughout the polygon.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately ¾ of a mile of fencing and 1 stock water tank within LB8.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	No outfitter camps. Dispersed camping throughout the polygon. Motorized trails throughout.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Pipeline along northern boundary. No powerlines within the polygon but visible from the within the polygon.

Improvement Type	Presence and extent of departure from naturalness
Presence of watershed treatment areas including contouring, diking, and channeling.	None known
Lands adjacent to development or activities that impact opportunities for solitude.	Obvious mining activity in the Carpenter Creek area as well as the Barker-Hughesville area.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	There are 55 recorded cultural resources within this polygon, all represent relics of past occupation.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	0.1 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	Twenty recorded historic routes (156 miles) are within this polygon.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 223. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	There are motorized trails throughout the entire polygon.
Area available for winter motorized opportunity	No groomed trails. From Lucy Park up to Pioneer Ridge and from Pioneer Ridge to Big Baldy are open for cross country snowmobile use.
Proximity to private lands and non-Forest Service roads.	Private land inholding in North Fork of Hoover Creek. Private mining lands in Neihart Carpenter Creek and in the Barker-Hughesville area. Residential areas in the Neihart area. Western boundary formed by Highway 89.
Proximity to developed recreation sites outside of the polygon area.	Bender Trailhead, Memorial Falls, Dry Wolf Campground, Dry Wolf rental cabin, Hoover Trailhead, Aspen Campground, and Many Pines Campground.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 224. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	Opportunities exist in places away from motorized trails throughout the polygon.
Primitive and semi-primitive non-motorized	Majority of the area is available for primitive and semi-primitive

Measures	Descriptions and Locations
winter recreation.	nonmotorized recreation north of the snowmobiling along Lucy Park, Pioneer Ridge and Big Baldy in the south portion of the polygon. Jefferson Creek is a heavily used non-motorized winter recreation area that is surrounded by motorized use.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hunting, horseback riding, fishing, hiking, cross country skiing, snowshoeing, back country skiing, snowmobiling, motorbike riding, ATV riding, and dispersed camping.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 225. Size and Description

Size of Polygon	Description
49,068 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

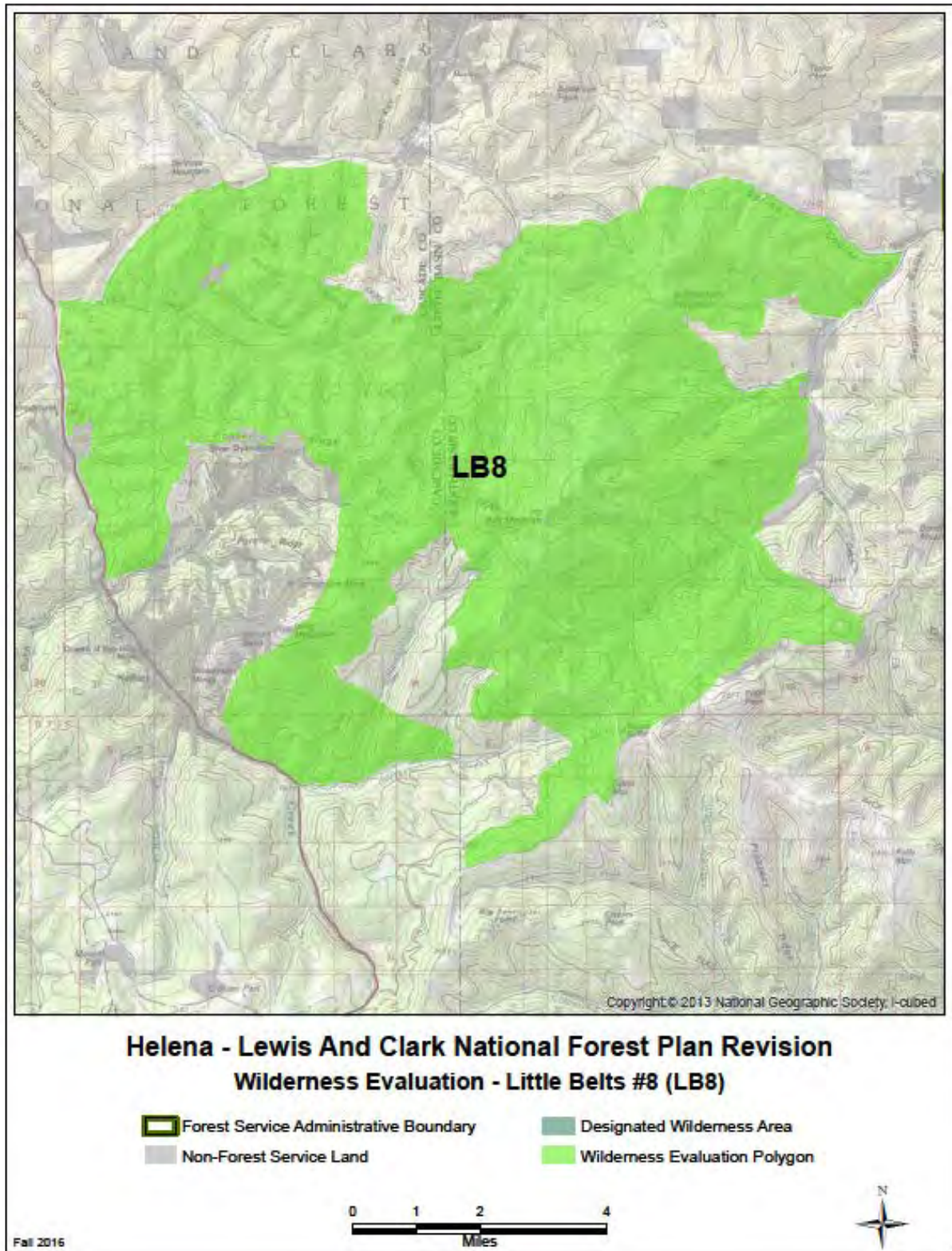
Table 226. Features present

Features	Description and scale
Rare plant communities	The potential plant species of conservation concern that are known to occur in this area include <i>Pinus albicaulis</i> , <i>Pinus flexilis</i> , <i>Botrychium spp.</i> , <i>Goodyera repens</i> , and <i>Cirsium longistylum</i> .
Rare animal species or communities	Federally listed species: transient lynx could be occasionally present, but area is not within or contiguous with areas occupied by lynx. Potential species of conservation concern and/or state at risk species: Townsend’s big-eared bat, black rosy finch, wolverine Several WCT populations, see above.
Rare ecosystems	Whitebark pine is a candidate for listing under the ESA, and is present in trace amounts in this area. Limber pine, ponderosa pine, and aspen are also vegetative communities of interest on the HLC NF and are present in small amounts in this area. Hoover Creek has high quality WCT population.
Outstanding landscape features	Big Baldy, Memorial Falls
Historic and cultural resource sites	All recorded cultural resources within this polygon have the potential for scientific, educational, or historic value.
Research Natural Areas	None present.
High quality water resources or important watershed features	Hoover Creek has high water quality. Other steams not impacted by mining have high quality as well.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 227. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	Very large, irregular shaped polygon extending from Highway 89 on the west to Dry Wolf Creek road on the east. Summit of the area is Big Baldy Mountain.
Legally established rights or uses within the area	Likely some related to mining.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	Superfund sites located adjacent to the polygon on the north and the south.
The presence and amount of non-Federal land in the area	Private land inholding in the North Fork of Hoover Creek.
Management of adjacent lands	Private mining lands in the Neihart-Carpenter Creek and Barker-Hughesville areas. Forest Service system lands surround the polygon. Private residential areas in Neihart, Carpenter Creek, and Dry Wolf areas.



Eagle Creek Area (LB10)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 228. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The diversity of dominance types is relatively low in this area. The majority of the area is covered by lodgepole pine dominated forests (62%), although Douglas-fir dominated forests are also common, growing on about 21%. Dry grasslands are found on 11%. Very small amounts (representing about 1% or less of the area each) of other dominance types are present, including shrublands, rock/scree, Engelmann spruce, and aspen.
Potential vegetation types	The most common potential vegetation types in this area include cool moist forest types (found on 47%) and warm dry forest types (found on 37%). Dry grassland potential types are also common (11%). Minor amounts of other potential vegetation types also occur, including shrubland and riparian types.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 7 acres within LB10 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: Roughly 1400 acres potential lynx habitat, with less than 200 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type (note area is not currently occupied by lynx and is not contiguous with occupied lynx habitat). Roughly 4900 acres of goshawk potential nesting. Approximately 50 acres existing and 4000 acres potential old growth habitat based on habitat type and aerial photo interpretation; occurs in patches of varying size. • Nearly 4000 acres secure elk habitat. Moose may be present in riparian areas. • Roughly 3600 acres elk calving habitat contiguous with additional calving habitat in WE polygon LB11 and other NF and non-NF land. • Less than 30 acres potential wolverine habitat. • No WCT populations.
Known non-native wildlife species	No non-native terrestrial wildlife species documented. Non-native trout likely present.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 229. Ecological conditions

Measures	Outcome
% of area without past timber harvest	100% of this area is unaffected by past harvest according to available records.
% of area without known invasive weeds	According to data as of 2/10/2016, 99.9% of LB10 is not associated with invasive plant inventories.

Measures	Outcome
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 79%, Class 2: 21% Area has heavy grazing impacts
Miles of motorized road/trail within 300' of streams	0.40 miles
Noticeable wildfire suppression impacts	No fire occurrence records since 1980.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 230. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	There are no records of either past harvest or prescribed fire treatments in this area.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None present.
Areas of mining activities including both abandoned and active mines.	None
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 1/2 mile of fencing and 4 stock water tanks within LB10.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	No outfitter camps. Dispersed camping on the periphery of the polygon, especially on the north and east boundaries.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	None present.
Presence of watershed treatment areas including contouring, diking, and channeling.	None.
Lands adjacent to development or activities that impact opportunities for solitude.	Private agricultural lands to the west, south, and north. These lands are used primarily for ranching and timber harvesting.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	There are four recorded cultural resources within this polygon, which represent relics of past occupations.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	0.0 miles

Improvement Type	Presence and extent of departure from naturalness
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	There are two recorded historic routes (9 miles).

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 231. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	Entire polygon is non-motorized.
Area available for winter motorized opportunity	Entire polygon is open to snowmobiling but dense timber limits travel throughout the entire polygon.
Proximity to private lands and non-Forest Service roads.	Private lands on the north, west, and south boundaries of the polygon.
Proximity to developed recreation sites outside of the polygon area.	None.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 232. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	Entire polygon is available for primitive and semi-primitive non-motorized recreation in the summer.
Primitive and semi-primitive non-motorized winter recreation.	Entire polygon is available for primitive and semi-primitive non-motorized recreation in the winter.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hunting, hiking, horseback riding, fishing, snowmobiling, cross country skiing, outfitting for hunting, and mountain biking.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 233. Size and Description

Size of Polygon	Description
6,337 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

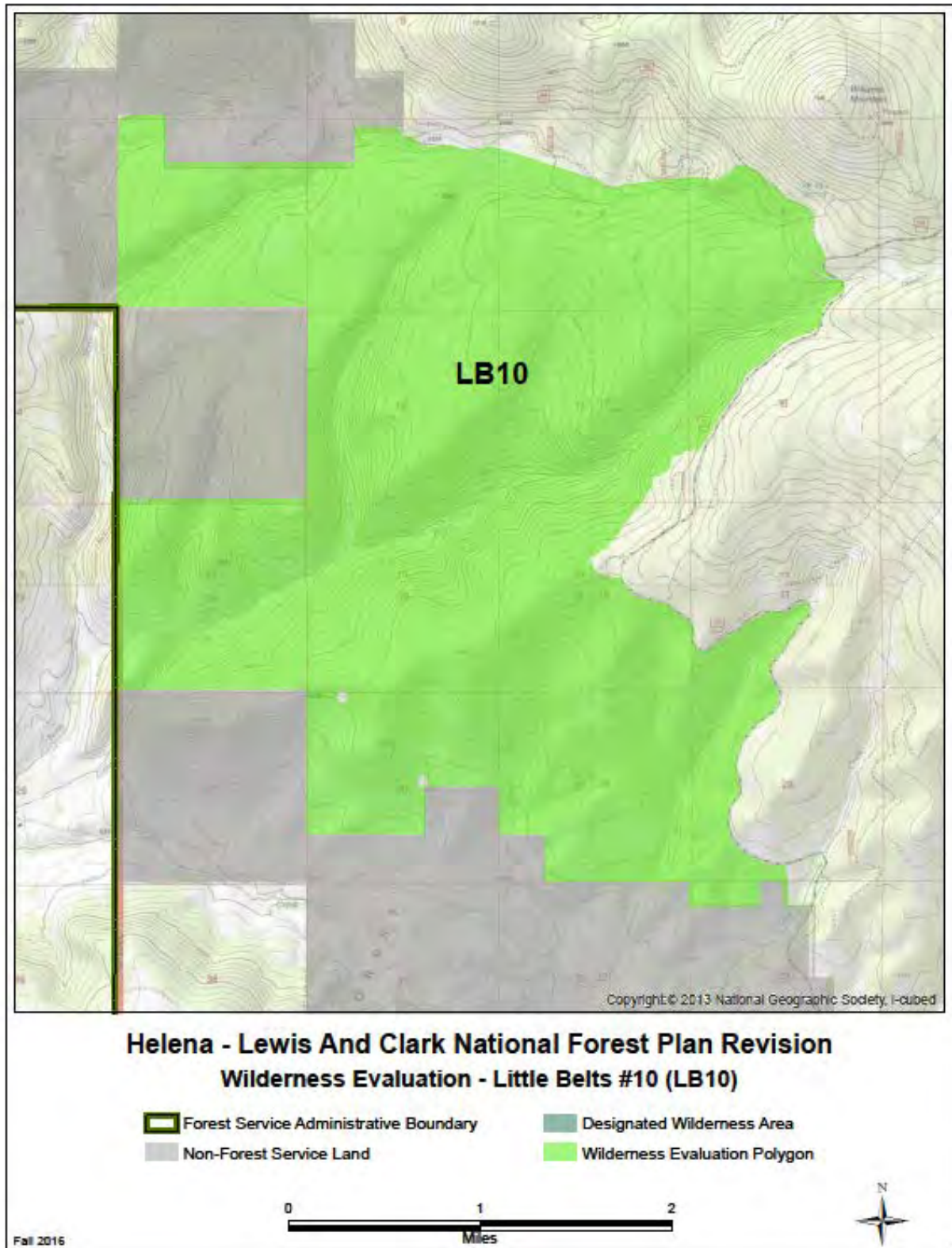
Table 234. Features present

Features	Description and scale
Rare plant communities	No potential plant species of conservation concern are known to occur in this area.
Rare animal species or communities	Federally listed species: transient lynx could be occasionally present, but area is not within or contiguous with areas occupied by lynx. Potential species of conservation concern and/or state at risk species: western toad No rare aquatic species.
Rare ecosystems	Aspen communities are of interest on the HLC NF due to their limited abundance and habitat importance; aspen is present in very small amounts in this area. No rare aquatic ecosystems.
Outstanding landscape features	No outstanding features.
Historic and cultural resource sites	All recorded cultural resources within this polygon have the potential for scientific, educational or historic value.
Research Natural Areas	None present.
High quality water resources or important watershed features	None.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 235. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	Irregular polygon of moderate size. North, west and south sides are formed by private checkerboard ownership.
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	Private lands surrounding on north, west, and south but no private land inholdings.
Management of adjacent lands	Private lands used for timber harvest, road building, and agriculture. Forest Service system lands on the east.



Calf Creek Area (LB11)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 236. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The most common dominance types in this area are lodgepole pine dominated forests, which cover about 68% of the area. Douglas-fir dominated types are also common and growing on about 22% of the area. Subalpine fir and Engelmann spruce mixed forests are found at higher elevations, on 5% of the area. Dry grasslands cover about 3%. Trace amounts of other dominance types are present, representing 1% or less of the area each: shrublands, rock/scree, whitebark pine, limber pine, and aspen.
Potential vegetation types	The most common potential vegetation types are the cool moist forest types, representing 67% of the area. Warm dry forest types make up about 28%. Xeric grassland and xeric shrubland potential types each are found on about 2%. Trace amounts of riparian types can also be found.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 31 acres within LB11 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: Roughly 3500 acres potential lynx habitat, with approximately 675 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type (note area is not currently occupied by lynx and is not contiguous with occupied lynx habitat). Roughly 10,000 acres of goshawk potential nesting habitat. Approximately 700 acres existing and 7000 acres potential old growth habitat based on habitat type and aerial photo interpretation; occurs in patches of varying size. • Approximately 3500 acres secure elk habitat. Roughly 1600 acres elk calving habitat contiguous with additional calving habitat in WE polygon LB10 and other NF and non-NF land. Moose may be present in riparian areas. • Approximately 2700 acres potential wolverine habitat. • No WCT populations.
Known non-native wildlife species	No non-native terrestrial wildlife species documented. Non-native trout likely.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 237. Ecological conditions

Measures	Outcome
% of area without past timber harvest	Records show that over 99.9% of this area is unaffected by past timber harvest. About 11 acres (0.08%) were impacted by harvests (salvage and clearcut) in 1957 and 1958.

Measures	Outcome
% of area without known invasive weeds	According to data as of 2/10/2016, 99.8% of LB11 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 9%, Class 2: 91% Grazing Impacts, motorized trails
Miles of motorized road/trail within 300' of streams	11.6 miles, motorcycle trails along Calf and Allan Creeks.
Noticeable wildfire suppression impacts	No fire suppression impacts evident on landscape.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 238. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	The 11 acres of past harvest that occurred in this area in the 1950's affected 0.08% of the area and are no longer substantially noticeable due to the time that has passed. In addition, about 217 acres (1.72% of the area) have been impacted by prescribed fire treatments, consisting of underburns in 2012 and 2014. These treatments occurred near the southern boundary and were also determined to not be substantially noticeable due to their effects appearing similar to low severity wildfire.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None present.
Areas of mining activities including both abandoned and active mines.	None
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 1/10 th of a mile of fencing within LB11.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	No outfitter camps. Dispersed camping on the periphery of the polygon and dispersed camping along Moose Creek Road.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	None present.
Presence of watershed treatment areas including contouring, diking, and channeling.	None.
Lands adjacent to development or activities that impact opportunities for solitude.	Polygon has several motorized trails that cross the middle of the polygon.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	There are 20 recorded cultural resources within this polygon, all represent relics of past occupations.

Improvement Type	Presence and extent of departure from naturalness
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	0.4 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	There are 12 recorded historic routes (75 miles)

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 239. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	Motorized trails throughout the polygon.
Area available for winter motorized opportunity	Entire polygon is open for snowmobile use.
Proximity to private lands and non-Forest Service roads.	Private lands to the south have harvest activities and cattle grazing. No private inholdings in the polygon.
Proximity to developed recreation sites outside of the polygon area.	Calf Creek Rental Cabin, Sheep Creek Fishing Access, Moose Creek Campground.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 240. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	Two non-motorized trail segments in West Fork of Calf Creek and Cabin Creek. Primitive non-motorized recreation is limited.
Primitive and semi-primitive non-motorized winter recreation.	Most of the polygon is available for snowmobiling. Trail in West Fork of Calf Creek is available for primitive non-motorized use.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hunting, hiking, horseback riding, mountain biking, fishing, motorcycle use, dispersed camping and snowmobiling.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 241. Size and Description

Size of Polygon	Description
12,598 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Table 242. Features present

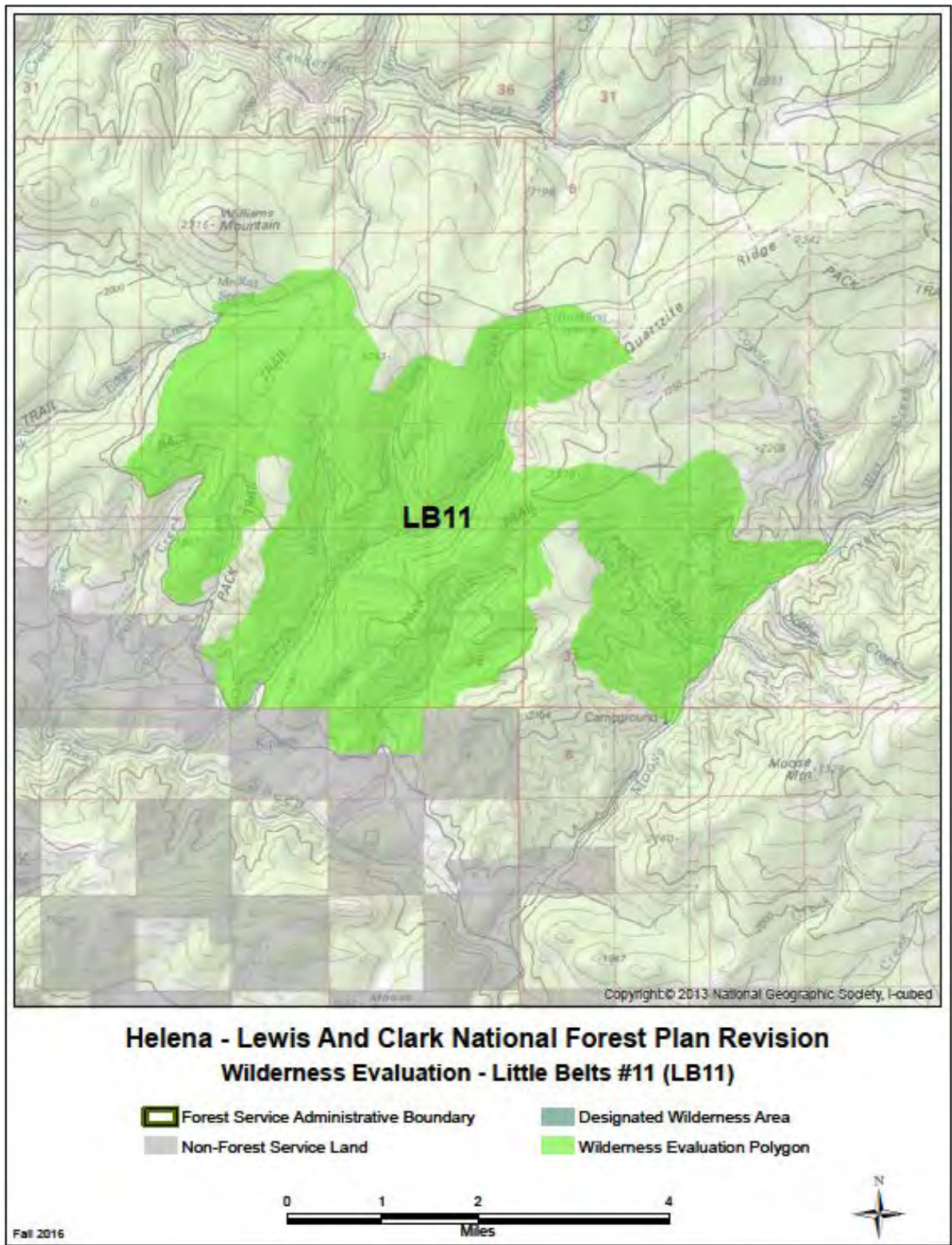
Features	Description and scale
Rare plant communities	The potential plant species of conservation concern that are known to occur in this area are <i>Pinus albicaulis</i> , <i>Pinus flexilis</i> , and <i>Agoseris lackschewitzii</i> .
Rare animal species or communities	Federally listed species: transient lynx could be occasionally present, but area is not within or contiguous with areas occupied by lynx. Potential species of conservation concern and/or state at risk species: wolverine No rare aquatic species.
Rare ecosystems	Whitebark pine is a candidate species for listing under the ESA, and may be present in trace amounts in this area. Ponderosa pine, limber pine, and aspen are all vegetative communities of interest on the HLC NF and are also present in very small amounts. No rare aquatic ecosystems.
Outstanding landscape features	Allen Park, Crescent Park, Williams Park
Historic and cultural resource sites	All recorded cultural resource within this polygon have the potential for scientific, educational or historic value.
Research Natural Areas	None present.
High quality water resources or important watershed features	None.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 243. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	Moderate sized irregular shaped polygon south of Tenderfoot Creek Experimental Forest in Calf Creek and Pole Creek. Substantially noticeable timber harvesting and road building make intrusions into the polygon area.
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to	None known.

Factors	Description and scale
protect wilderness characteristics	
The presence and amount of non-Federal land in the area	Private lands to the south outside of the polygon. No private land inholdings.
Management of adjacent lands	Private lands to the south. Forest Service to the north, west, and east. Tenderfoot Creek Experimental Forest to the north.



North Fork Smith Area (LB15)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 244. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The most common dominance types in this area include subalpine fir and Engelmann spruce mixed forests, which cover about 34% of the area, and Douglas-fir dominated forests, which cover about 31%. Lodgepole pine forests are also found on 6%, and dry grasslands on 9%. A substantial portion – about 15% - of this area is considered “transitional”, where no dominance type is identified yet as forests are regenerating after a disturbance (the Ant Park fire). Whitebark pine forests are found on over 3% of this area. Other dominance types can be found in trace amounts – less than 1% of the area each – including shrublands and limber pine.
Potential vegetation types	The most common potential vegetation types are warm dry forest types, covering 46% of the area. Cool moist forest potential types are also common (39%), and cold forest types (where whitebark pine grows best) are found on about 5%. Dry grassland potential types are found on about 7% of the area. Other types that are present in small amounts include mesic grassland, mesic shrubland, and xeric shrubland potential types.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 2 acres within LB15 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: Roughly 2500 acres potential lynx habitat, with approximately 1700 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type (note area is not currently occupied by lynx and is not contiguous with occupied lynx habitat). Roughly 3500 acres of goshawk potential nesting habitat, with some known nest territories. Both lynx and goshawk habitat of greatest value when in combination with similar habitat to SE, not in WE polygons. Approximately 400 acres existing and 5400 acres potential old growth habitat based on habitat type and aerial photo interpretation; occurs in patches of varying size. Presence of boreal owl also indicates functioning mature, high elevation forest with complex structure in some areas • Approximately 4200 acres secure elk habitat. Roughly 300 acres elk calving habitat and less than 150 acres winter range contiguous with additional calving and winter habitat on adjacent non-NF land. • Approximately 5000 acres potential wolverine habitat with roughly 540 acres of potential maternal habitat. Moose may be present in riparian areas. • No WCT populations.
Known non-native wildlife species	No non-native terrestrial wildlife species documented. Non-native trout likely present

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 245. Ecological conditions

Measures	Outcome
% of area without past timber harvest	100% of this area has been unaffected by past harvest, according to available records.
% of area without known invasive weeds	According to data as of 2/10/2016, 99.9% of LB15 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 2: 100%, but most impacts occur outside the polygon
Miles of motorized road/trail within 300' of streams	0.2 miles
Noticeable wildfire suppression impacts	Lost Fork Fire (2001) & Ant Park Fire (2003): Dozer line rehabbed; dozer/hand lines in grass habitats/recovered; breaks in timber continuity in N. Fork Smith River & N. Fork Musselshell River.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 246. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	This area has been unaffected by harvest. However, about 207 acres (just over 2% of the area) have been affected by prescribed burning, consisting of underburning in 1997 and 1998, and less than an acre of pile burning in 2003. Due to the type of treatment and time since treatment, these treated areas were determined to be no longer substantially noticeable. More expansive treatment areas do exist adjacent to the polygon.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None present.
Areas of mining activities including both abandoned and active mines.	None
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 4.6 miles of fencing within LB15.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	No outfitter camps. Dispersed recreation areas around Spur Park, Ant Park, along FSR 47 on the eastern boundary, and along the northern boundary of the polygon.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Two Dot powerline forms the east and northeast boundary.

Improvement Type	Presence and extent of departure from naturalness
Presence of watershed treatment areas including contouring, diking, and channeling.	None
Lands adjacent to development or activities that impact opportunities for solitude.	None present.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	Ant Park Warming Hut. There are 4 recorded cultural resources within this polygon, all represent relics of past occupations.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	3.0 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	One recorded historic routes (6miles) lies within this polygon.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 247. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	No motorized trails within the polygon.
Area available for winter motorized opportunity	Entire polygon open to snowmobiling.
Proximity to private lands and non-Forest Service roads.	Private lands and BLM parcels to the south.
Proximity to developed recreation sites outside of the polygon area.	Ant Park Warming Hut.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 248. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	The entire polygon is available for primitive and semi-primitive non-motorized recreation in the summer.
Primitive and semi-primitive non-motorized winter recreation.	The entire polygon is available for primitive and semi-primitive non-motorized recreation in the winter but cross country snowmobiling is allowed but use is limited due to heavy timber.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hunting, hiking, fishing, and snowmobiling.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 249. Size and Description

Size of Polygon	Description
9,817 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

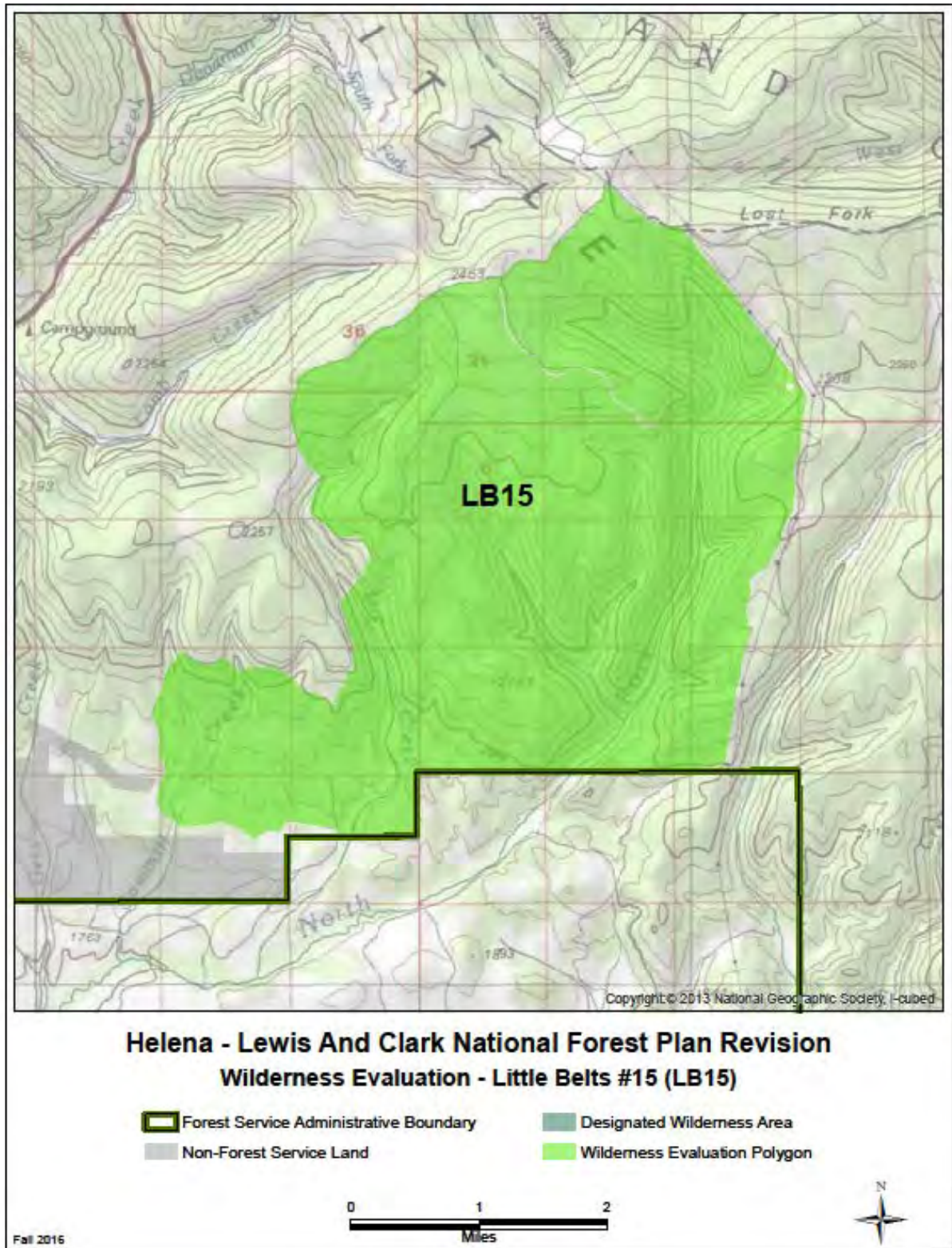
Table 250. Features present

Features	Description and scale
Rare plant communities	The potential plant species of conservation concern that are known to occur in this area include <i>Pinus albicaulis</i> , <i>Pinus flexilis</i> , <i>Cirsium longistylum</i> , and <i>Phlox kelseyii</i> var. <i>Missoulensis</i> .
Rare animal species or communities	Federally listed species: transient lynx could be occasionally present, but area is not within or contiguous with areas occupied by lynx. Potential species of conservation concern and/or state at risk species: western toad No rare aquatic species.
Rare ecosystems	Whitebark pine is a candidate species under the ESA and is present in this area. Limber pine communities are also of interest on the HLC NF and are found in small quantities. No rare aquatic ecosystems.
Outstanding landscape features	None present.
Historic and cultural resource sites	All recorded cultural resources within this polygon have the potential for scientific, educational or historic value.
Research Natural Areas	None present.
High quality water resources or important watershed features	Very little water in polygon. Large spring (head of NF Smith) is on edge of polygon, but stream is dry within polygon.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 251. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	Smaller polygon in the upper end of the North Fork of Smith Creek.
Legally established rights or uses within the area	Two Dot electrical line.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	None present.
Management of adjacent lands	Forest Service system lands on north, west and east. Private lands and BLM on the south.



Middle Fork Judith Area (LB16)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 252. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The most common dominance types in this area consist of Douglas-fir dominated forests which can be found on about 41% of the area. Subalpine fir and Engelmann spruce mixes are also common, growing on over 22%. Lodgepole pine forests dominate about 15%. Dry grasslands are the next most common, and are found on about 8% of the area. Limber pine forests are present on nearly 6%. Other dominance types are present in very small amounts – covering 1% or less of the area each – including shrublands, ponderosa pine, rock/scree, and whitebark pine. Although several large fires have occurred in this area over the years, only 2% are still considered in “transition” (or regenerating).
Potential vegetation types	This area is dominated by cool moist forest potential vegetation types, which are found on 55% of the area and likely to support lodgepole pine, subalpine fir, and Engelmann spruce along with Douglas-fir. About 33% of the area has warm dry forest potential types, where Douglas-fir is also common. About 7% of the area has a dry grassland potential type, and nearly 2% has a cold forest type where whitebark pine is most likely to grow. Small amounts of other potential vegetation types are present, including shrubland and riparian types.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 104 acres within LB16 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: 46,000 acres potential lynx habitat, with approximately 34,000 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type (note area is not currently occupied by lynx and is not contiguous with occupied lynx habitat). Roughly 50,000 acres of goshawk potential nesting habitat, with some known nest territories. Both lynx and goshawk habitat of greatest value when in combination with similar habitat to SE, not in WE polygons. Approximately 19,000 acres existing and over 40,000 acres potential old growth habitat based on habitat type and aerial photo interpretation; occurs in patches of varying size. • Approximately 57,000 acres secure elk habitat. Roughly 17,000 acres elk calving habitat and less than 1200 acres winter range contiguous with additional calving and winter habitat on adjacent non-NF land. Moose may be present in riparian areas. • Functioning subalpine/alpine habitat: Approximately 41,000 acres potential wolverine habitat with roughly 5700 acres of potential maternal habitat. Black rosy finches documented. • WCT populations in Elk, Yogo, WF Stiner, Corral, Harrison, Cleveland, and Weatherwax Creeks and Lost Fork Judith River.

Plant and Animal Communities	Composition
Known non-native wildlife species	No non-native terrestrial wildlife species documented. Non-native fish likely present

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 253. Ecological conditions

Measures	Outcome
% of area without past timber harvest	Over 99% of the area is unaffected by past timber harvest. Records indicate that about 199 acres have been harvested in the past, consisting of commercial thinning, salvage, shelterwood, and clearcutting activities that occurred from 1958 to 1985.
% of area without known invasive weeds	According to data as of 2/10/2016, 99.9% of LB16 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 25%, Class 2: 50%, Class 3: 25%; Lower Middle Fork Judith River (and watershed) heavily impacted by road crossings and grazing. Upper Watershed, Cleveland Creek, high quality.
Miles of motorized road/trail within 300' of streams	27.8 miles
Noticeable wildfire suppression impacts	<i>Sandpoint fire (1985) & Russian Flats Fire (2008)</i> : All dozer/handlines rehabbed; breaks in timber continuity; old rotten stumps from fireline suppression efforts. <i>Lost Fork Ridge Fire (2000)</i> : Dozerline rehabbed; dozer/hand lines in grass habitats/recovered; breaks in timber continuity in W. Fork Lost Fork Creek, Burris and Sandpoint Creek. <i>Lost Fork Fire (2001)</i> : Dozerline rehabbed; dozer/hand lines in grass habitats/recovered; breaks in timber continuity in N. Fork Smith River & N. Fork Musselshell River. <i>Ant Park (2003)</i> : Dozerline rehabbed; 200' wide fuel break created by fellerbuncher and 100% timber removed within corridor; breaks in timber continuity. Powerline ROW clearing. Hazardous tree harvest along road to N.fork Smith River and where ties in with Sandpoint fire scar.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 254. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	Russian Flats Airstrip not in but south of the polygon
Presence of timber harvest or prescribed fire areas	Past harvest has impacted less than 1% of the area (199 acres) from 1958 to 1985 – due to the time since treatment and/or type of treatment, these areas have been determined to not be substantially noticeable today. Additional areas (about 414 acres) have been impacted by prescribed burning treatments as well, consisting primarily of pile burning from 1982 to 2003.

Improvement Type	Presence and extent of departure from naturalness
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None present.
Areas of mining activities including both abandoned and active mines.	A few abandoned mines on north and west side of polygon
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 1/10 th of a mile of fencing and 7 stock water tanks within LB16. In addition there have been 321 acres of vegetation improvements conducted within LB16.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	Two outfitter camps on Forest Service; both within the Lost Fork Judith. Dispersed camping scattered throughout.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Two Dot electrical line borders the polygon on the southwest side.
Presence of watershed treatment areas including contouring, diking, and channeling.	None
Lands adjacent to development or activities that impact opportunities for solitude.	Motorized roads and trails on the north side of the polygon including: Woodchopper Ridge trail, Kelly Mountain trail and Middle Fork Judith road. Private land in the middle of the polygon. Additional motorized trails and use on the periphery of the polygon.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	Burriss Cabin in Lost Fork Judith Creek. There is approximately 84 recorded cultural resources within this polygon, all represent relics of past occupations.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	0.0 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	There are 21 recorded historic routes (97 miles) within this polygon.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 255. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized	Motorized trails limited to the northeast portion of the polygon.

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
opportunity	Open road to private lands in the Middle Fork Judith drainage.
Area available for winter motorized opportunity	Open to snowmobile use in the outer 1 mile perimeter of the polygon. Core of the polygon is closed to snowmobile use.
Proximity to private lands and non-Forest Service roads.	Private land inholdings within the core of the polygon. Private lands in the Grendah Mountain and Yogo Peak areas.
Proximity to developed recreation sites outside of the polygon area.	Judith Guard Station cabin rental, Judith Campground. Holiday Camp Trailhead, Indian Hill Campground, Hay Canyon Campground, Dry Pole Campground, Musselshell Warming Hut, Bear Gulch SST, recreation residences in Middle Fork Judith and on Sandpoint Ridge.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 256. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	Majority of the area is available for primitive and semi-primitive non-motorized recreation in summer.
Primitive and semi-primitive non-motorized winter recreation.	Majority of the area is available for primitive and semi-primitive non-motorized recreation in winter.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Horseback riding, fishing, hunting, mountain biking, motorcycle riding, ATV riding, dispersed camping, cross country skiing, snowshoeing outfitting in the fall, and snowmobiling along the periphery.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 257. Size and Description

Size of Polygon	Description
98,311 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Table 258. Features present

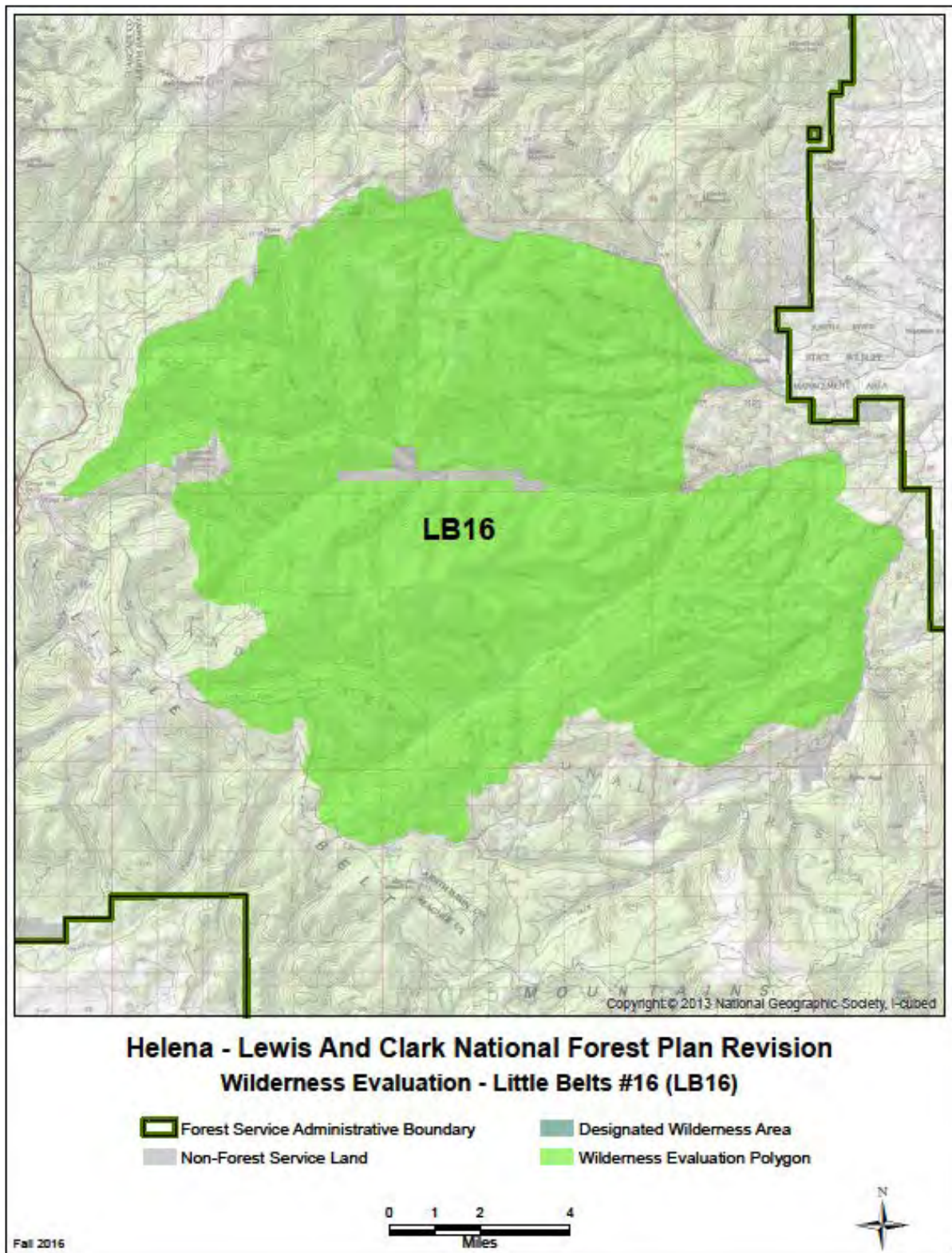
Features	Description and scale
Rare plant communities	The potential plant species of conservation concern that are known to occur in this area include <i>Pinus albicaulis</i> , <i>Pinus flexilis</i> , <i>Phlox kelseyii</i> var. <i>Missoulensis</i> , <i>Goodyera repens</i> ; <i>Cirsium longistylum</i> , and <i>Aquilegia brevistyla</i> .
Rare animal species or communities	Federally listed species: Transient lynx could be occasionally present, but area is not within or contiguous with areas occupied by lynx. Potential species of conservation concern and/or state at risk

Features	Description and scale
	species: wolverine, black rosy finch, western toad, dwarf shrew Multiple drainages with WCT populations, see above.
Rare ecosystems	Whitebark pine is a candidate species under ESA and is present in small amounts in this area. Limber pine forests are more extensive here, and are a vegetative community of interest on the HLC NF. No rare aquatic ecosystems known
Outstanding landscape features	Middle Fork Judith River, Yogo Peak is on the northern boundary.
Historic and cultural resource sites	All recorded cultural resources within this polygon have the potential for scientific, educational or historic value.
Research Natural Areas	None present.
High quality water resources or important watershed features	Upper watershed/ Cleveland Creek high quality. Middle and SF (on southeast boundary of polygon) Judith River on list of potentially eligible WSRs. Both streams are listed for outstanding cultural values, and the South Fork is also listed for the outstanding WCT fishery.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 259. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	This large polygon takes in the upper most reaches of the Middle Fork of the Judith River. There are some private land inholdings within the center of the polygon but otherwise very little development.
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	Majority of the area is designated the Middle Fork Judith Wilderness Study Act area.
The presence and amount of non-Federal land in the area	Private land inholdings in the center of the polygon. Private lands in the Grendah Mountain and Yogo Peak area.
Management of adjacent lands	Polygon surrounded by Forest Service system lands. Judith River State Wildlife Management area outside of the polygon to the northeast.



East Little Belts Area (LB18)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 260. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The most common dominance types in this area are forests dominated by Douglas-fir, which cover over 42% of the area. Roughly 21% of the area has lodgepole pine dominated forest cover, and subalpine fir and Engelmann spruce mixes are found on 15%, at the higher elevations. Limber pine dominated forests also represent a fairly substantial amount of the area (over 13%), and dry grasslands are present on about 4%. Trace amounts (generally covering 1% or less of the area each) of other dominance types are also present, including shrublands, ponderosa pine, whitebark pine, and juniper. Nearly 2% is considered sparsely vegetated (i.e., scree or rock).
Potential vegetation types	The most common potential vegetation types are warm dry forest types, representing over 56% of the area. These sites likely support most of the ponderosa pine, limber pine, and Douglas-fir forests described above. Cool moist forest potential vegetation types are also common, on 38% of the area, and likely correspond to the lodgepole pine, subalpine fir, and Engelmann spruce forests. Dry grassland types are found on about 3%. Trace amounts of other potential vegetation types are also present, including cold forest (where whitebark pine may be found), shrubland, and riparian types.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 1,369 acres within LB18 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: 37,000 acres potential lynx habitat, with approximately 21,000 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type (note area is not currently occupied by lynx and is not contiguous with occupied lynx habitat). Roughly 58,000 acres of goshawk potential nesting habitat, with some known nest territories. Approximately 6500 acres existing and over 50,000 acres potential old growth habitat based on habitat type and aerial photo interpretation; occurs in patches of varying size. Clark's nutcracker presence indicates mature whitebark, limber, and/or ponderosa pine communities. • Approximately 36,000 acres secure elk habitat. Roughly 5700 acres elk calving habitat and 11,000 acres winter range contiguous with additional calving and winter habitat on adjacent non-NF land. Moose may be present in riparian areas. • Functioning subalpine/alpine habitat: Approximately 25,000 acres potential wolverine habitat with roughly 900 acres of potential maternal habitat. • No WCT populations.
Known non-native wildlife species	No non-native terrestrial wildlife species documented. Non-native trout likely present

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 261. Ecological conditions

Measures	Outcome
% of area without past timber harvest	About 99.9% of this area has had no past timber harvest. Roughly 102 acres were affected by past harvest according to available records, consisting of commercial thinning, salvage cutting, and single-tree selection cutting that occurred from 1960 to 1993.
% of area without known invasive weeds	According to data as of 2/10/2016, 98.7% of LB18 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 36%, Class 2: 62%, Class 3: 2% Impacts are primarily motorized trails and grazing.
Miles of motorized road/trail within 300' of streams	105 miles
Noticeable wildfire suppression impacts	No fire suppression impacts evident on landscape.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 262. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	In addition to the 102 acres of past harvest (0.1% of the area), consisting of commercial thinning, salvage cutting, and single-tree selection cutting that occurred from 1960 to 1993, there have also been about 1,514 acres (1.43% of the area) of prescribed fire treatments in this area. The fire treatments consisted of broadcast burning, jackpot burning, and underburning from 1963 to 2015. 98.48% of the area remains unaffected by vegetation treatments. Due to the time since treatment and/or the type of treatment (fire), none of the treatments within the evaluation boundary are considered to be substantially noticeable. The treatments are generally clustered in one area (near Jellison Place) and could be excluded from the polygon if desired.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	Communication sites on Mount High and one on Stevens Butte. Mount High has a small building. The site on Steven Butte has a large cinder block building and towers with evidence of old electrical lines.
Areas of mining activities including both abandoned and active mines.	There are a few abandoned mines on the west end of the polygon.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 4 miles of fencing and 15 stock water tanks within LB18.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	Outfitter camps in Jellison Place and Antelope Gorge. Dispersed camping throughout.

Improvement Type	Presence and extent of departure from naturalness
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Old electrical lines to Stevens Butte communication site.
Presence of watershed treatment areas including contouring, diking, and channeling.	None
Lands adjacent to development or activities that impact opportunities for solitude.	Heavy dispersed recreation on the southern and western borders of the polygon. Motorized trails throughout the polygon.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	Stevens Butte building. Buildings associated with Lucky Boy mine in Basin Creek. There are approximately 60 recorded cultural resources within this polygon, all represent relics of past occupations.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	0.4 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	There are 16 recorded routes (67 miles) within this polygon.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor's opportunity for solitude? What are the factors that may mitigate those impacts?

Table 263. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	The entire polygon has authorized motorized jeep, ATV and motorcycle trails for summer recreational use.
Area available for winter motorized opportunity	Southern portion of the polygon is open for snowmobile motorized use. Bartleson RNA is closed for winter motorized use.
Proximity to private lands and non-Forest Service roads.	Private agriculture lands on the northern, eastern and southern boundaries of the polygon.
Proximity to developed recreation sites outside of the polygon area.	Jellison Place Trailhead and Campground, Basin Creek, Spring Creek Campground, Daisy Dean Campground and Trailhead, Haymaker dispersed site, Dry Pole dispersed site, Pierce Park Trailhead.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 264. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	There are limited opportunities for primitive and semi-primitive non-motorized recreation in the summer.
Primitive and semi-primitive non-motorized winter recreation.	The northern portion of the polygon has some opportunity for primitive and semi-primitive non-motorized recreation in the winter.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hunting, horseback riding, fishing, hiking, snowmobiling, motorbike riding, ATV riding, jeep trail/UTV riding and dispersed camping.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 265. Size and Description

Size of Polygon	Description
106,178 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Table 266. Features present

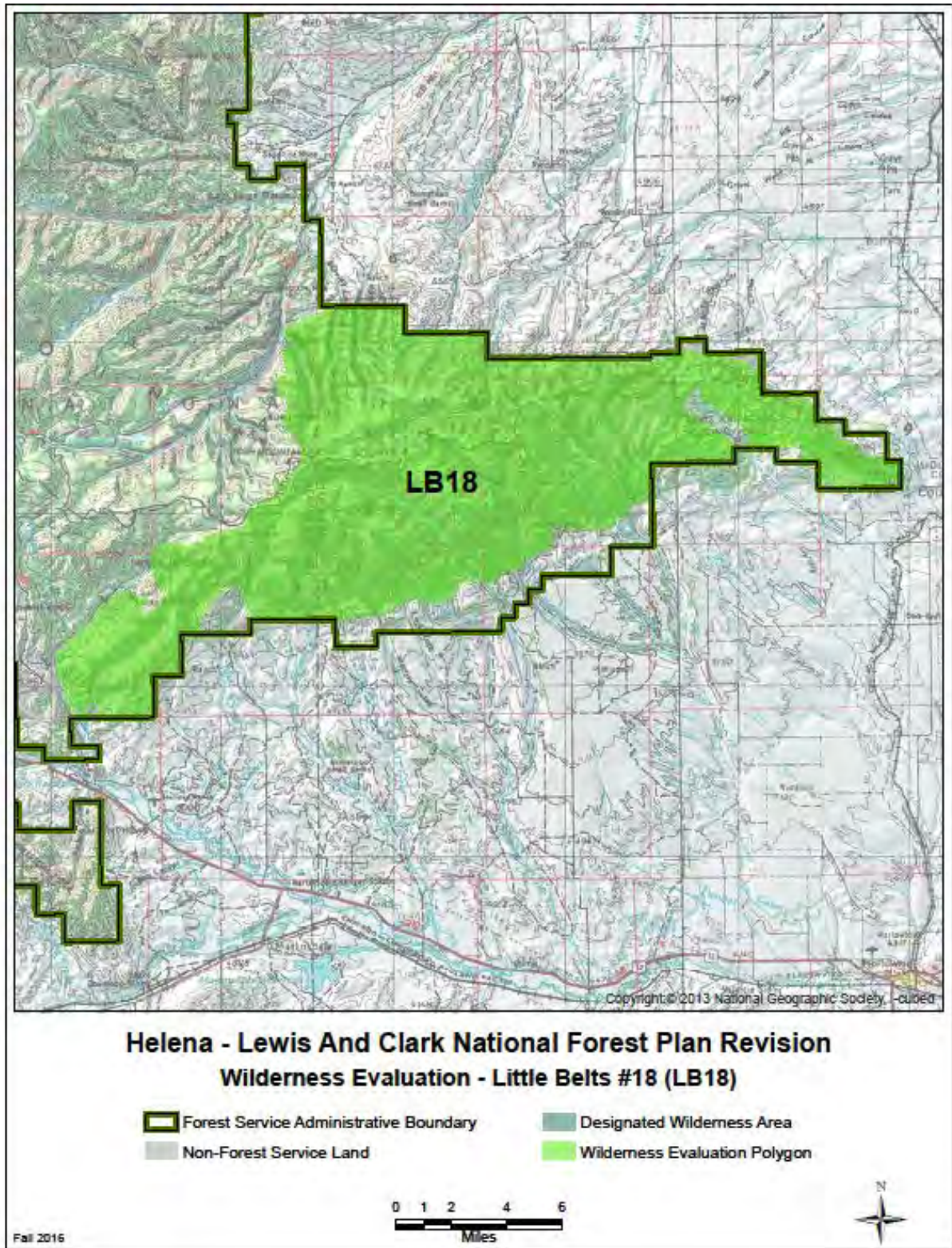
Features	Description and scale
Rare plant communities	The potential plant species of conservation concern that are known to occur in this area include <i>Pinus albicaulis</i> , <i>Pinus flexilis</i> , <i>Aquilegia brevistyla</i> , <i>Goodyera repens</i> , <i>Cirsium longistylum</i> , and <i>Polygonum douglasii</i> spp. <i>Austinae</i> .
Rare animal species or communities	Federally listed species: Transient lynx could be occasionally present, but area is not within or contiguous with areas occupied by lynx. Potential species of conservation concern and/or state at risk species: none documented No rare aquatic species present
Rare ecosystems	Whitebark pine is a candidate species for listing under the ESA, and is present in trace amounts in this area. Limber pine communities are also of interest on the HLC NF because they are generally rare and under consideration as a potential SCC; this forest type is present in relatively high abundance in this area, as are the characteristic rocky, limestone ridges where it thrives. No rare aquatic ecosystems present.
Outstanding landscape features	Daisy Notch, Morrisy Narrows, Haymaker Narrows, Nevada Narrows, Daisy Narrows
Historic and cultural resource sites	All recorded cultural resources within this polygon have the potential for scientific, educational or historic value.
Research Natural Areas	Bartleson Peak

Features	Description and scale
High quality water resources or important watershed features	None

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 267. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	A large linear shaped polygon that stretches from Dry Pole Canyon/Daisy Peak east to the Forest Service boundary in Roberts Creek. The polygon includes both sides of the divide between the Musselshell and Judith Ranger Districts.
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	Haymaker WMA is located south and outside of the polygon.
The presence and amount of non-Federal land in the area	Private lands surround the polygon but no private land inholdings.
Management of adjacent lands	Private agriculture lands on the norther, eastern and southern boundaries of the polygon. Forest Service system lands along portions of the southern boundary as well as the western boundaries. BLM lands along the northern boundary.



Rocky Mountain Range Geographic Area

Badger Two Medicine Area (RM1)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 268. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The most common dominance types in this area include Douglas-fir dominated forests (covering about 22%); lodgepole pine dominated forests (covering 15%), and subalpine fir and Engelmann spruce mixed forests (covering 24%). There is a substantial amount of the area that is sparsely vegetated (14%), due to rocky and cliffy areas; and about 7% is covered by grasslands. In addition, a substantial proportion of the area (15%) is considered to be “transitional” in terms of vegetation due to recent wildfire activity. In these areas, forests will likely regenerate but are not yet typed. The recent fires include the Skyland, Challenge Creek, and Family Peak fires which affected more than half of the area. Trace amounts of other dominance types are also present, including shrublands, whitebark pine, limber pine, cottonwood, and aspen.
Potential vegetation types	The area is dominated by cool moist forest potential vegetation types, which are found on about 52% and likely support mixes of Douglas-fir, lodgepole pine, subalpine fir, and Engelmann spruce. About 22% of the area has a warm dry forest potential vegetation type, where Douglas-fir is also common. About 4% of the area has a cold forest potential type, where whitebark pine is most likely to be found. Dry grassland types make up about 4%, and mesic grasslands about 2%. The sparsely vegetated areas (14%) do not have a potential vegetation type. Trace amounts of shrubland and riparian potential types are also present.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 2,596 acres within RM1 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: 55,000 acres potential lynx habitat, with approximately 17,000 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type. Roughly 28,000 acres of goshawk potential nesting habitat, at least 3 known nesting territories. • Big game: Approximately 120,000 acres secure elk habitat. 24,000 acres elk winter range and 9500 acres elk calving habitat, both tied to similar on adjoining Blackfeet Indian Reservation. Moose present. Up to 60,000 acres mountain goat habitat including kidding areas • Functioning subalpine/alpine habitat: Roughly 84,000 acres of potential wolverine habitat including 46,000 acres potential maternal habitat. • Grizzly bears, wolves present. • Harlequin ducks in most major streams. <p>WCT present in SF Two Medicine River and tributaries as well as North Badger, Lee, Badger Cabin, Red Poacher, South</p>

Plant and Animal Communities	Composition
	Badger, Lonesome, Muskrat, and Elbow Creeks. The South Badger and tributaries portion is a meta-population.
Known non-native wildlife species	No non-native terrestrial wildlife species documented. Non-native trout likely.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 269. Ecological conditions

Measures	Outcome
% of area without past timber harvest	Over 99.8% of the area has been unaffected by past timber harvest. Available records show that about 224 acres were harvested in the past, consisting of commercial thinning and single-tree selection in 1987 and a patch clearcut in 2002.
% of area without known invasive weeds	According to data as of 2/10/2016, 97.9% of RM1 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 85%, Class 2: 15%; All impacts are downstream of the polygon
Miles of motorized road/trail within 300' of streams	2.3 miles
Noticeable wildfire suppression impacts	Skyland Fire (2007) & Family Peak Fire (2015): Dozer and hand lines rehabbed, some still evident on landscape on northeastern boundary of fire perimeter.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 270. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present
Presence of timber harvest or prescribed fire areas	Over 99% of the area has been unaffected by past vegetation treatments. In addition to the 224 acres of harvest that occurred, about 17 acres were affected by pile burning. None of these treatments are considered substantially noticeable. Substantial recover time has occurred since the thinning and selection treatments which left ample reserve trees. A patch clearcut would typically be considered noticeable, but aerial imagery and District expertise determined that this treatment was also not noticeable. There may have been other historic treatments in the area, or the exercising of tribal rights related to harvest, which are not recorded in the available data.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	Electronic site on Mount Baldy and Half Dome Crag are visible from within RM1.
Areas of mining activities including both abandoned and active mines.	One abandoned mine in Muskrat Creek.

Improvement Type	Presence and extent of departure from naturalness
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	Fences in the northern and eastern part of the parcel.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	One active outfitter base camp at the confluence of Benson and Two Medicine River. Summit Campground and Trailhead along Highway 2 (not touching the polygon). There is a trail access point at Palookaville.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Utility corridor along Highway 2 but is outside of polygon. None within polygon.
Presence of watershed treatment areas including contouring, diking, and channeling.	None known
Lands adjacent to development or activities that impact opportunities for solitude.	Railway, utility corridor, and campground along Highway 2. Electronic site on Mount Baldy which is access by SUP road.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	There are 69 recorded cultural resources within this polygon, all represent relics of past occupation. The Badger-Two Medicine Traditional Cultural District is also within this polygon.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	0.1 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	Twenty-four recorded historic routes (122 miles) are within this polygon. Most of these routes are historic trails.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 271. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	There are no areas available for summer motorized recreation in this polygon.
Area available for winter motorized opportunity	There are no areas available for winter motorized recreation in this polygon
Proximity to private lands and non-FS roads.	Private land inholdings on the north and east.
Proximity to developed recreation sites outside of the polygon area.	Summit Campground, Summit TH, False Summit, and Lubec TH along Highway 2. Can hear these activities from within the polygon. Can hear the train from the Badger Cabin.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 272. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	The entire polygon is available for primitive and semi-primitive non-motorized summer recreation.
Primitive and semi-primitive non-motorized winter recreation.	The entire polygon is available for primitive and semi-primitive non-motorized winter recreation.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hunting, outfitting, horseback riding, hiking, fishing, mountain biking (not specifically designed), cross country skiing in the north end. Unauthorized snowmobiling occurring in Pool Creek and Crescent Cliffs.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 273. Size and Description

Size of Polygon	Description
125,795 acres	The polygon is over 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Table 274. Features present

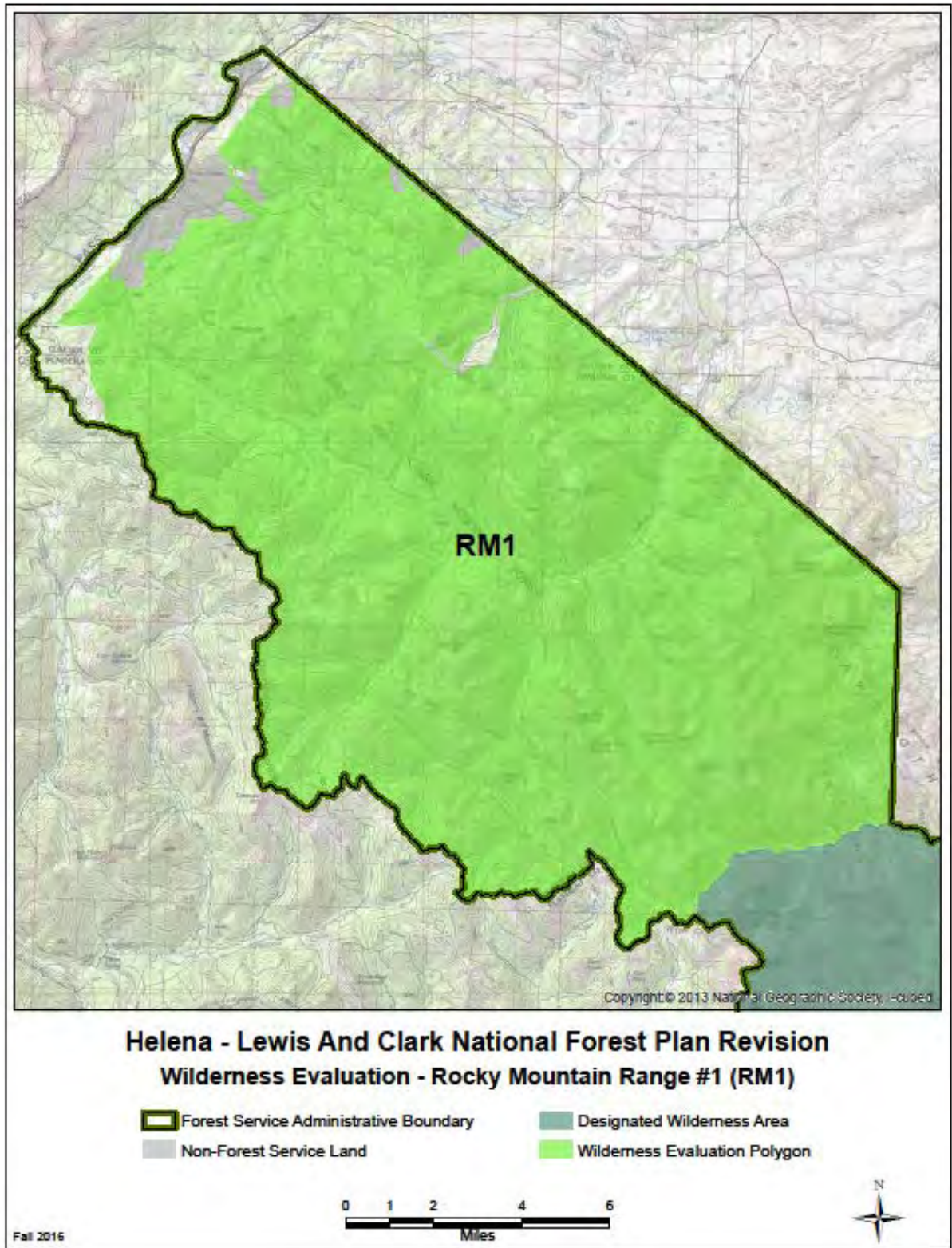
Features	Description and scale
Rare plant communities	The potential plant species of conservation concern that are known to occur in this area include <i>Pinus albicaulis</i> , <i>Pinus flexilis</i> , <i>Polygonum douglasii</i> spp. <i>Austinae</i> , <i>Saussurea densa</i> , <i>Potentilla nivea</i> var. <i>pentaphylla</i> , <i>Physaria saximontana</i> far. <i>Dentate</i> , Northern wildrye, <i>Cypripedium passerinum</i> , <i>Antennaria pulvinata</i> , and <i>Allium fibrillum</i> .
Rare animal species or communities	Federally listed species: grizzly bear (within Recovery Zone and proposed Primary Conservation Area), Canada lynx (within designated Critical Habitat) Potential species of conservation concern and/or state at risk species: wolverine, harlequin duck, western toad, possibly transient fisher, possibly white-tailed ptarmigan. WCT populations, see above.
Rare ecosystems	A relatively long list of potential plant SCC's are found here. Whitebark pine is a candidate species for listing under the ESA and is found in trace amounts. WCT meta-population in Badger Creek and tributaries.
Outstanding landscape features	Waterfalls and river canyons on Badger Creek and Two Medicine River. Scenic river drainages in Two Medicine River, Badger, and North Fork Birch Creek (WSR). Really high subalpine and alpine mountains along the southern portion of the polygon. Unique place names such as Kill 'em Quick Creek and adopted native names for mountains in there.

Features	Description and scale
Historic and cultural resource sites	All recorded cultural resources within this polygon have the potential for scientific, educational, or historic value, especially the Badger-Two Medicine Traditional Cultural District.
Research Natural Areas	None present.
High quality water resources or important watershed features	High quality water throughout polygon, high quality fisheries habitat. North Badger Creek and 3 tributaries (Lee Creek, Red Poacher Creek and Badger Cabin Creeks) are included on the draft list of eligible WSRs for their outstanding WCT meta-population. SF Two Medicine NF and SF Badger, and NF Birch Creeks are all included on the draft list of eligible WSRs for their outstanding cultural values.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 275. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	The Badger Two Medicine is a large, well known landscape at the northern tip of the Rocky Mountain Ranger district. It borders the Bob Marshall Wilderness complex as well as the Blackfoot Reservation and is influenced by private lands and activity along the Highway 2 corridor along the northern boundary.
Legally established rights or uses within the area	The 1895 Agreement with Blackfeet Nation concerning the ceded strip which gives rights to value of ceremonial, spiritual and personal use. There are 4 oil and gas least holders with 19 leases predominantly within the northwest half of the area.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	Private land inholdings on the north end and along the reservation boundary.
Management of adjacent lands	Bob Marshall Wilderness Complex to the south and southwest on both the Flathead and the HLC NF. Flathead NF lands are non-wilderness to the west. Glacier Park to the northwest. Blackfeet Reservation land on the east and northeast.



Teton Blackleaf Area (RM2)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 276. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The most common dominance types in this area include Douglas-fir dominated forests, which are found on 32% of the area, and subalpine fir and Engelmann spruce forests, which are found on 25%. Lodgepole pine forests are less common, covering about 5%, and grasslands can also be found on about 7%. A notably high proportion of this area is considered to be sparsely vegetated (20%), such as cliffy rocky areas. In addition, about 10% of the area is considered to be “transitional”, meaning that the site is reforesting after a disturbance and doesn’t have a vegetation type yet. These areas are associated with recent wildfire areas, primarily the Fool Creek fire. Small amounts of other dominance types are also present, generally making up about 1% or less of the area each: shrublands, whitebark pine, limber pine, cottonwood, and aspen.
Potential vegetation types	The most common potential vegetation types in this area are warm dry forest potential types and cool moist forest types (each found on about 33% of the area). Much of the remainder of the area is covered by sparsely vegetated areas (rock/scree often found above treeline and making up 20% of the area). Cold forest potential types are also found on about 6%, where whitebark pine would most likely be found, and dry grassland types represent nearly 5%. Riparian potential types are found on about 2%, where aspen and cottonwood are most likely to be found. Trace amounts of shrubland types are also present.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 601 acres within RM2 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: 19,000 acres potential lynx habitat, with approximately 5300 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type. Roughly 9,000 acres of goshawk potential nesting habitat, at least 3 known nesting territories. Presence of Clark’s nutcracker indicating mature whitebark and/or limber pine. • Big game: Approximately 40,000 acres secure elk habitat. 11,000 acres elk winter range part of which adjoins state-managed Blackleaf and Ear Mountain Wildlife Management Areas; and 7900 acres elk calving habitat. Moose present, adjoins key moose winter habitat in Pine Butte Swamp Preserve (owned by The Nature Conservancy). Up to about 35,000 acres mountain goat habitat including kidding areas; up to 13,000 acres bighorn sheep habitat including about 2200 acres lambing habitat. • Functioning subalpine/alpine habitat: Roughly 31,000 acres of potential wolverine habitat including 3900 acres potential maternal habitat. • Grizzly bears, wolves present.

Plant and Animal Communities	Composition
	<ul style="list-style-type: none"> • Harlequin ducks in most major streams. • Habitat for cliff-nesting raptors, including peregrine falcon, golden eagle, prairie falcon • WCT in NF and SF Dupuyer, NF, MF, SF Teton Creeks, Green Gulch, Rierdon Gulch, and Waldron, SF Waldron Creeks
Known non-native wildlife species	No non-native terrestrial wildlife species documented. Likely non-native trout present.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 277. Ecological conditions

Measures	Outcome
% of area without past timber harvest	About 96.6% of this area has been unaffected by previous harvest. Available records show that about 1,891 acres have been harvested from 1982 to 1999. The most common treatment was the creation of fuel breaks.
% of area without known invasive weeds	According to data as of 2/10/2016, 98.9% of RM2 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 84%, Class 2: 9%, Class 3: 6%. Impacts from past fire to water quality, channel conditions
Miles of motorized road/trail within 300' of streams	13.08 miles
Noticeable wildfire suppression impacts	Fool Creek Fire (2007): hand lines rehabbed; little to no impacts evident on landscape due to use of existing roads/trails and terrain features.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 278. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None preset
Presence of timber harvest or prescribed fire areas	When considering both fire and prescribed fire, about 93% of this area has been unaffected by treatments. In addition to the 1,891 acres of harvest, primarily fuel break creation from 1997 to 1999, there have also been about 1,446 acres of pile burning from 1980 to 2010. Many of this pile burn areas overlap and are associated with the fuel break treatments; therefore, the actual footprint of affected area is less than indicated by these numbers. Further, aerial photography and District personnel expertise determined that none of these treatment areas are substantially noticeable today.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	Electronic site visible on Mount Wright.
Areas of mining activities including both abandoned and active mines.	One abandoned mine within polygon

Improvement Type	Presence and extent of departure from naturalness
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data, there are no range improvements within RM2.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	Teton Pass Ski Resort. West Fork, Cave Mountain, Mill Falls, and Elko CG. West Fork, Blackleaf, Cave Mountain, Rierdon, Jones creek, and South Fork Teton THs. Snowmobile parking lot on North Fork Teton Road. Dispersed camping along Blackleaf Canyon road, north fork Teton road, south fork Teton road and green gulch road. Outfitter end of road facility at West Fork Teton confluence with North Fork Teton. 7 Lazy P Guest ranch located on the Middle fork of the Teton river. Seven rec. residences along the North Fork Teton River.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Utilities up the Teton River to the Ski area. Power also to Cave Mountain and the 7 lazy P. Phone lines are buried in the shoulder.
Presence of watershed treatment areas including contouring, diking, and channeling.	Signs of dozer work for channeling of Middle Fork and North Fork Teton Rivers subsequent to the 1964 flood.
Lands adjacent to development or activities that impact opportunities for solitude.	None present.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	There are 43 recorded cultural resources within this polygon, all represent relics of past occupation.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	1.8 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	There are 16 recorded historic routes (103 miles) in this polygon.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. *What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?*

Table 279. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	The North Fork Teton and South Fork Teton roads provide the only motorized access into this polygon.
Area available for winter motorized	Snowmobiles are permitted along the North Fork Teton, South Fork Teton and South Waldron river corridors. There is a small

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
opportunity	winter play area in the upper South Waldron Creek area.
Proximity to private lands and non-Forest Service roads.	None present.
Proximity to developed recreation sites outside of the polygon area.	Teton Pass Ski Resort. West Fork Campground, Cave Mountain, Mill Falls, and Elko CG. West Fork, Blackleaf, Cave Mountain, Rierdon, Jones creek, and South Fork Teton THs. Snowmobile parking lot on North Fork Teton Road. Dispersed camping along Blackleaf Canyon road, north fork Teton road, south fork Teton road and green gulch road. Outfitter end of road facility at West Fork Teton confluence with North Fork Teton. 7 Lazy P Guest ranch located on the Middle fork of the Teton river. Seven Rec Residences along the North Fork Teton River. West Fork Rental cabin which sits on the North Fork Teton River. Activities at these sites create sights and sounds that are visible within the polygon. The road system and activities along create noise but there is still lots of opportunity for solitude once away from these roads.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 280. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	Except for the North Fork Teton and South Fork Teton roads, the entire polygon provides opportunities for primitive and semi-primitive non-motorized summer recreation.
Primitive and semi-primitive non-motorized winter recreation.	Except for the North Fork Teton, South Fork Teton and South Waldron areas, the entire polygon provides opportunities for primitive and semi-primitive non-motorized winter recreation.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hunting, hiking, fishing, snowshoeing, cross country skiing, backcountry downhill skiing and snowboarding, technical rock climbing, snowmobiling, and outfitting.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 281. Size and Description

Size of Polygon	Description
54,251 acres	The polygon is over 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Table 282. Features present

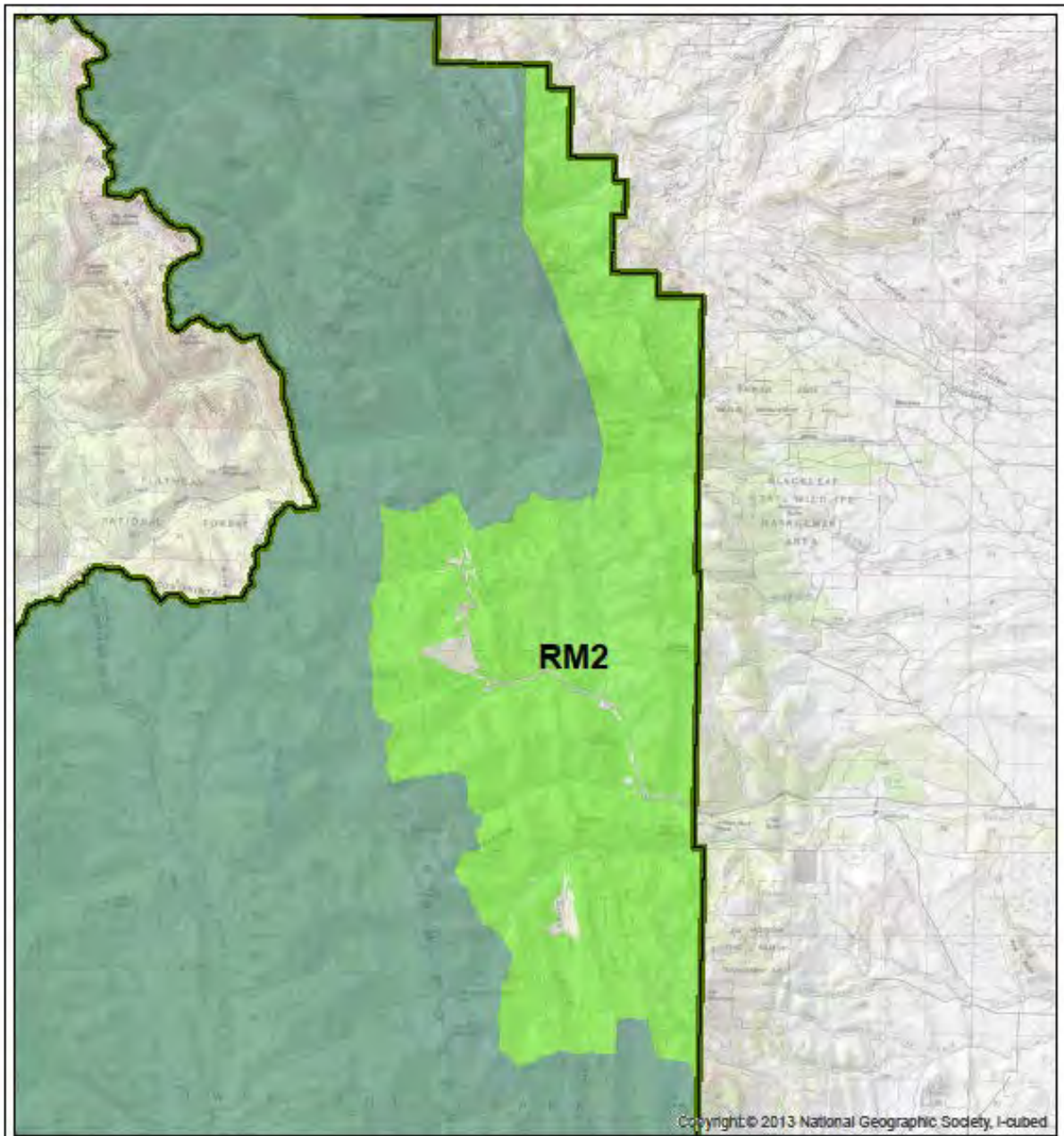
Features	Description and scale
Rare plant communities	The potential plant species of conservation concern that are known to occur in this area include <i>Pinus albicaulis</i> , <i>Pinus</i>

Features	Description and scale
	<i>flexilis</i> , <i>Ranunculus pedatifidus</i> , <i>Erigeron lackschewitzii</i> , <i>Physaria saximontana</i> var. <i>dentate</i> , <i>Oxytropis podocarpa</i> , <i>Saussaurea densa</i> , <i>Botrychium</i> spp., and <i>Astragalus lackschewitzii</i> .
Rare animal species or communities	Federally listed species: grizzly bear (within Recovery Zone and proposed Primary Conservation Area), Canada lynx (within designated Critical Habitat) Potential species of conservation concern and/or state at risk species: wolverine, harlequin duck, pika, peregrine falcon (including nesting), western toad. WCT, see above.
Rare ecosystems	The most notable unique ecosystem in this area are the treeline and sparsely vegetated areas. Trace amounts of whitebark pine are present, which is a candidate species for listing under the ESA. Small amounts of other vegetation communities are of interest, including riparian areas. A fairly high number of potential plant species of conservation concern are found here. No rare aquatic ecosystems.
Outstanding landscape features	Walling Reef, cliff faces, canyons and waterfalls, Muddy Creek, mountain peaks.
Historic and cultural resource sites	All recorded cultural resources within this polygon have the potential for scientific, educational, or historic value.
Research Natural Areas	None.
High quality water resources or important watershed features	High water quality outside of burned areas.





Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

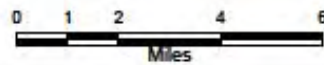
Table 283. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	An elongated polygon just east of the Bob Marshall Wilderness complex that includes lands around the North Fork Teton and South Fork Teton rivers.
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	Polygon resides within the Conservation Management Area
The presence and amount of non-Federal land in the area	None.
Management of adjacent lands	Wilderness to the north, south, and west of the polygon. Agriculture and grazing lands to the east. Blackleaf State Wildlife Management Area to the east of the polygon and a little south of Blackleaf canyon.



**Helena - Lewis And Clark National Forest Plan Revision
Wilderness Evaluation - Rocky Mountain Range #2 (RM2)**

-  Forest Service Administrative Boundary
-  Designated Wilderness Area
-  Non-Forest Service Land
-  Wilderness Evaluation Polygon



Fall 2016

Sun Canyon Willow Area (RM3)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 284. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The most common dominance types in this area are Douglas-fir dominated forests, which cover about 51% of the area. Subalpine fir and Engelmann spruce mixed forests are also common, found on about 16%, and lodgepole pine forests cover about 9%. Sparsely vegetated areas (rock/scree) are found on about 11%, and grasslands cover nearly 8%. Small amounts of other dominance types, generally covering 1% or less of the area each, also occur, including shrublands, whitebark pine, limber pine, cottonwood, aspen, and a slight trace of ponderosa pine.
Potential vegetation types	The most common potential vegetation types in this area are in the cool moist forest group, covering about 42% of the area. Warm dry forest types are present on about 32%, and cold forest potential types (where whitebark pine is most likely to grow) are present on 5%. Xeric grassland and mesic grassland types each make up about 3%, and both shrublands and riparian types are represented in very small amounts. The remainder of the area is considered sparsely vegetated (11%), primarily consisting of cliffy areas or high peaks above treeline.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 1,205 acres within RM3 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: 22,000 acres potential lynx habitat, with approximately 2700 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type. Roughly 21,000 acres of goshawk potential nesting habitat, at least 10 known nesting territories. Presence of Clark’s nutcracker indicating mature whitebark and/or limber pine. • Big game: Approximately 51,000 acres secure elk habitat. 23,000 acres elk winter range part of which adjoins state-managed Sun River Wildlife Management Area; and 9800 acres elk calving habitat. Moose may be present. Up to about 10,000 acres mountain goat habitat. Key area for nationally significant bighorn sheep population: over 27,000 acres bighorn sheep habitat including over 17,000 acres lambing habitat. • Functioning subalpine/alpine habitat: Roughly 27,000 acres of potential wolverine habitat including 6000 acres potential maternal habitat. Golden mantled ground squirrel also present. • Grizzly bears, wolves present. • Habitat for cliff-nesting raptors, including peregrine falcon, golden eagle, prairie falcon • WCT in Little Willow and NF Ford Creeks.
Known non-native wildlife species	No non-native terrestrial wildlife species documented. Non-native trout likely.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 285. Ecological conditions

Measures	Outcome
% of area without past timber harvest	About 94% of this area has been unaffected by past timber harvest. Records show that over 4,300 acres have been harvested, primarily consisting of fuel break treatments (3,717 acres total) that occurred in 1997 and 1999. The other harvests consisted of thinning, partial cuts, and clearcuts that occurred from 1982 to 1992.
% of area without known invasive weeds	According to data as of 2/10/2016, 98.3% of RM3 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 61%, Class 2: 39%
Miles of motorized road/trail within 300' of streams	10.4 miles
Noticeable wildfire suppression impacts	No fire suppression impacts evident on the landscape.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 286. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present
Presence of timber harvest or prescribed fire areas	In addition to the harvest treatments (about 4,300 acres) that have occurred, prescribed fire treatments have also been conducted in this area. The fire treatments consisted primarily of broadcast burning and underburning from 1990 to 2010, as well as pile burning from 1982 to 2011. In total, all vegetation treatment acres represent about 15% of the area, leaving 85% untouched. However, many of the prescribed fire areas overlap with past timber harvest areas, so the actual footprint of treatment is less. In addition, aerial photography and District personnel expertise determine that none of these treatments are substantially noticeable on the landscape.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	Electronic site visible on Renshaw Mountain.
Areas of mining activities including both abandoned and active mines.	Patented mining claim Lange Creek.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there are approximately 8 miles of fencing and 6 stock water tanks and 1632 acres of vegetation treatments within RM3.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	Dispersed sites associated with roads but none interior.

Improvement Type	Presence and extent of departure from naturalness
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Both buried and above ground along Sun Canyon and Beaver Willow roads.
Presence of watershed treatment areas including contouring, diking, and channeling.	Gibson Dam and dozer channeling along the road but visible from within the polygon.
Lands adjacent to development or activities that impact opportunities for solitude.	None known.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	Reclamation Flats Cabin – SUP with FWP. Ford Coulee Cabin at the head of Gibson Reservoir. Old Whites Cabin tract. There are 103 recorded cultural resources within this polygon, all represent relics of past occupations.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	0.7 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	There are 18 recorded historic routes (~110 miles) in this polygon. Most of these routes are trails.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 287. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	While most of the polygon is non-motorized, there is an open ATV route along the Beaver Willow Road.
Area available for winter motorized opportunity	There is some snowmobiling that occurs on the Benchmark road at the south end of and outside of the polygon. The rest of the polygon is not available for motorized winter recreation.
Proximity to private lands and non-Forest Service roads.	Lange Creek mining claim. K-L guest ranch at head of Gibson Reservoir, Mortimer Gulch Subdivision on Beaver Willow Road, Hidden Valley Ranch on Beaver Willow Road, Reissing Ranch on Willow Creek.
Proximity to developed recreation sites outside of the polygon area.	Multiple activities along the Sun Canyon, Beaver Willow and Benchmark roads that impact the polygon through sight and sound. Including Campgrounds, Trailheads, Outfitter facilities, resorts, administrative sites, and recreation residences.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 288. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	The entire polygon is available for primitive and semi-primitive non-motorized summer recreation.
Primitive and semi-primitive non-motorized winter recreation.	Except for areas near the open roads, the entire polygon is available for primitive and semi-primitive non-motorized winter recreation.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hunting and trapping, hiking, horseback riding, camping, recreation aviation, mountain biking, cross country skiing, snowshoeing, snowmobiling along the roads and uses by recreation residence and resorts in the area.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 289. Size and Description

Size of Polygon	Description
67,328 acres	The polygon is over 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

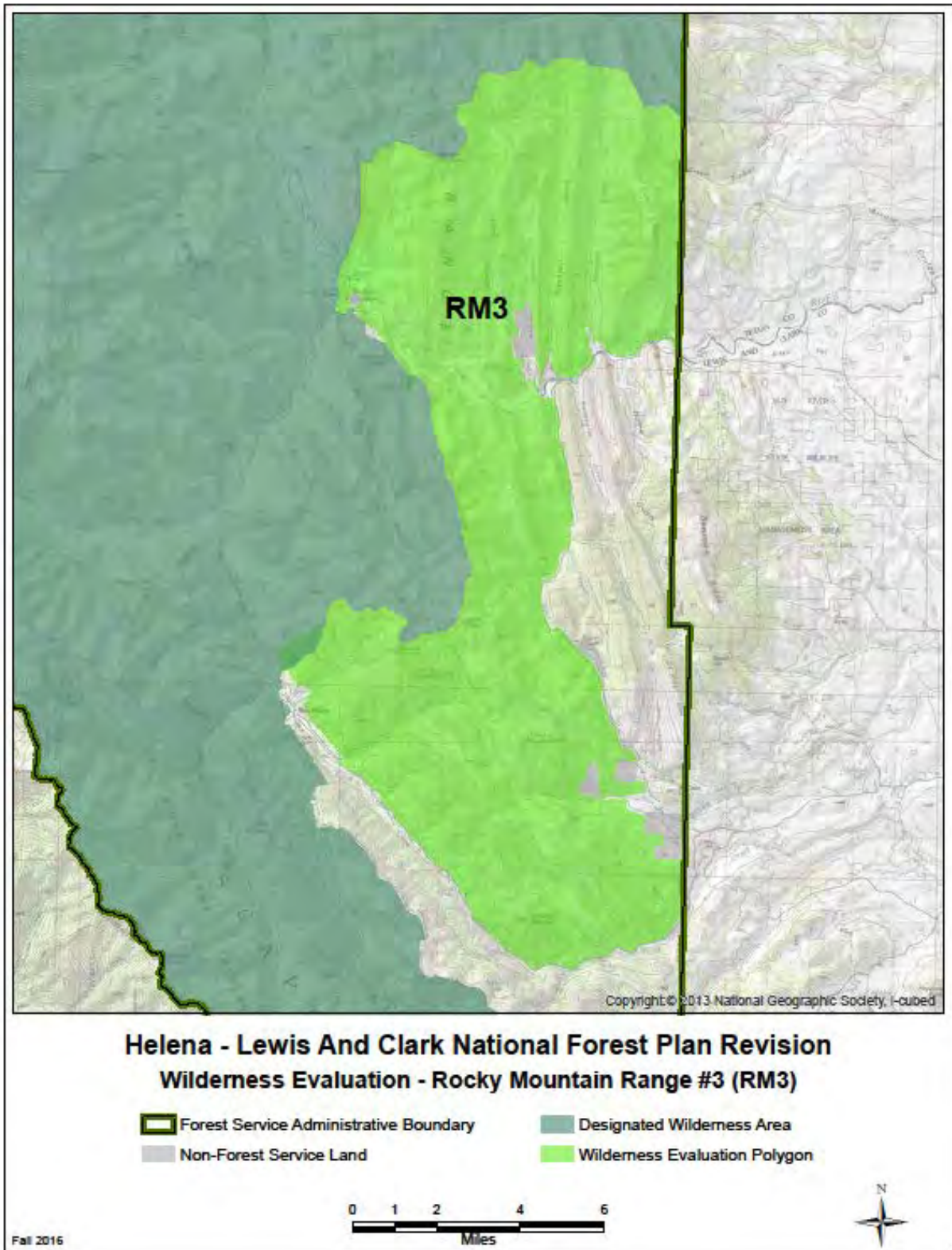
Table 290. Features present

Features	Description and scale
Rare plant communities	The potential plant species of conservation concern that occur here include <i>Pinus albicaulis</i> , <i>Pinus flexilis</i> , <i>Antennaria pulvinata</i> , <i>Emerorchis rotundifolia</i> , <i>Cypripedium passerinum</i> , <i>Cypripedium parviflorum</i> , <i>Epipactis gigantea</i> , <i>Gentianopsis macounii</i> , <i>Botrychium spp.</i> , and <i>Polygonium douglasii ssp. Austinae</i>
Rare animal species or communities	Federally listed species: grizzly bear (within Recovery Zone and proposed Primary Conservation Area), Canada lynx (portion of area within designated Critical Habitat) Potential species of conservation concern and/or state at risk species: wolverine, western toad, harlequin duck. Two creeks with WCT present, see above.
Rare ecosystems	Whitebark pine is a candidate species for listing under the ESA, and is present in small amounts in this area. Many other potential plant species of conservation occur here as well. Trace amounts of ponderosa pine are present, which are very rare in this geographic area.
Outstanding landscape features	Sun Canyon, dramatic cliff facing,
Historic and cultural resource sites	All recorded cultural resources within this polygon have the potential for scientific, educational, or historic value.
Research Natural Areas	Wagner Basin RNA
High quality water resources or important watershed features	Headwaters of Sun Creek very unique. High quality water throughout polygon.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 291. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	An elongated and irregular-shaped polygon adjacent to the Bob Marshall Wilderness Complex. This polygon includes undeveloped landscapes surrounding the Sun River and Benchmark area.
Legally established rights or uses within the area	Gibson Reservoir and dam managed by the Bureau of Reclamation.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	The polygon resides in a conservation management area.
The presence and amount of non-Federal land in the area	Private inholdings at Mortimer Gulch in Sun Canyon, K-L at head of Gibson Reservoir, along Willow Creek and Beaver Willow Road, and the Lange Creek mining claim.
Management of adjacent lands	Wilderness to the north and west. RM4 polygon to the east along with private lands mostly agriculture and grazing. Benchmark Road forms the southern boundary of the polygon.



Sawtooth Ridge Area (RM4)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 292. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The primary dominance types that occur in this area are Douglas-fir dominated forests, which cover about 77% of the area. Dry grasslands and sparsely vegetated areas (rock/scree) cover about 8% each. Lodgepole pine forests, as well as subalpine fir/Engelmann spruce forests, are each represented at about 3% each. Other dominance types are present only in trace amounts, covering less than 1% of the area each, and include shrublands, whitebark pine, limber pine, and aspen.
Potential vegetation types	The most common potential vegetation types are warm dry forest types, which make up about 58% of the area and likely support the bulk of the Douglas-fir forests. About 25% of the area has cool moist forest potential types, likely supporting mixed Douglas-fir, lodgepole pine, subalpine fir, and Engelmann spruce forests. Xeric and mesic grassland types each cover just over 3% each. Small amounts of cold forest, shrubland, and riparian types are also present. The remainder of the area is made up of sparsely vegetated areas (8%).
Known non-native terrestrial plant species	According to data as of 2/10/2016, 368 acres within RM4 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: 4000 acres potential lynx habitat, with approximately 730 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type. Roughly 5000 acres of goshawk potential nesting habitat. • Big game: Approximately 1200 acres secure elk habitat. 6600 acres elk winter range part of which adjoins state-managed Sun River Wildlife Management Area; and 400 acres elk calving habitat. Moose may be present. Key area for nationally significant bighorn sheep population: over 8000 acres bighorn sheep habitat and over 6000 acres lambing habitat. • Functioning subalpine/alpine habitat: Roughly 3000 acres of potential wolverine. • Grizzly bears, wolves present. • Habitat for cliff-nesting raptors, including golden eagle, prairie falcon <p>WCT in Little Willow Creek and Lime Gulch.</p>
Known non-native wildlife species	No non-native terrestrial wildlife species documented. Non-native fish likely.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 293. Ecological conditions

Measures	Outcome
% of area without past timber harvest	About 99.5% of this area has been unaffected by timber harvest. Roughly 71 acres have been harvested, consisting of partial selection cutting (uneven-aged management) in 1989 and 1993.
% of area without known invasive weeds	According to data as of 2/10/2016, 97.6% of RM4 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 78%, Class 2: 22%
Miles of motorized road/trail within 300' of streams	15.4 miles
Noticeable wildfire suppression impacts	No fire occurrence records found since 1980.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 294. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present
Presence of timber harvest or prescribed fire areas	In addition to the 71 acres of past harvest, there have been prescribed fire treatments in this area totaling about 1,958 acres and consisting of underburns from 1993 to 1996, broadcast burning in 2009, and burning of piles from 1988 to 2011. In total, all of these treatment acres represent about 13% of the area. However, some of these treatments overlapped on the same area, so the actual footprint of treatment is less. In addition, a review of aerial photography and District personnel expertise confirmed that none of these treatments are substantially noticeable on the landscape.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None present.
Areas of mining activities including both abandoned and active mines.	None present.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there are approximately 1.6 miles of fencing, 3 stock water tanks and 595 acres of vegetation treatments within RM4.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	None present.

Improvement Type	Presence and extent of departure from naturalness
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Utility lines buried in the open road system in Sun Canyon and Beaver Willow.
Presence of watershed treatment areas including contouring, diking, and channeling.	Some diking along the Beaver Creek Road system. Not within the polygon.
Lands adjacent to development or activities that impact opportunities for solitude.	None present.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	There are 28 recorded cultural resources within this polygon, all represent relics of past occupations.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	0.0 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	There are 8 recorded historic routes (~100 miles) in this polygon.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 295. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	While most of the polygon is non-motorized, there is an open ATV route along the Beaver Willow Road. This route lies outside of the polygon area but potentially impacts solitude within it.
Area available for winter motorized opportunity	None of the polygon is available for winter motorized recreation.
Proximity to private lands and non-Forest Service roads.	Stoner Place Subdivision along the Beaver Willow road.
Proximity to developed recreation sites outside of the polygon area.	Home Gulch Campground, Beaver Creek TH, Stoner Place TH, Lime Gulch TH,

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 296. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	The entire area is available for primitive and semi-primitive non-motorized summer recreation.
Primitive and semi-primitive non-motorized winter recreation.	The entire area is available for primitive and semi-primitive non-motorized winter recreation.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hunting, hiking, mountain biking, cross country skiing, open ATV route along the Beaver Willow Road.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 297. Size and Description

Size of Polygon	Description
15, 423 acres	The polygon is over 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

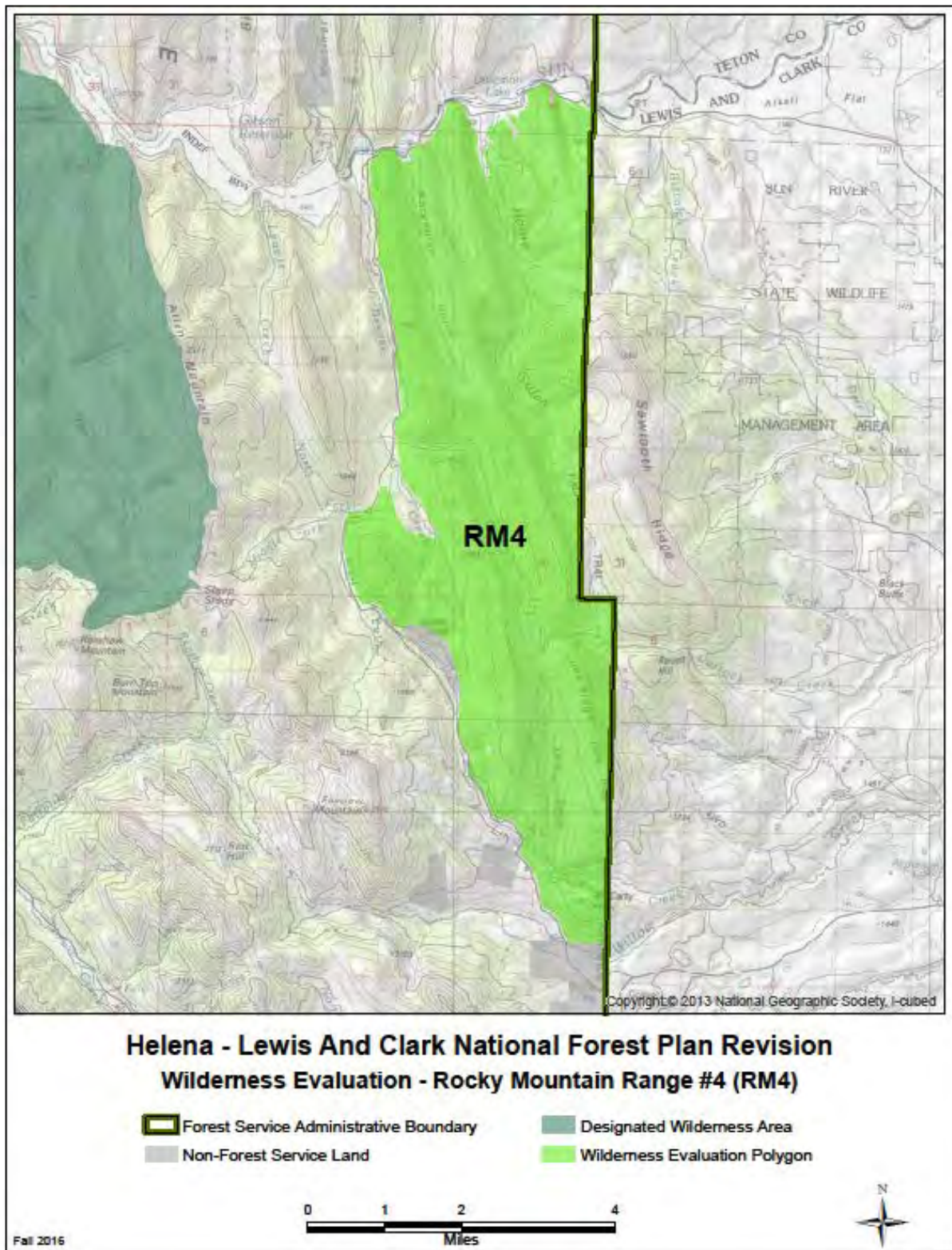
Table 298. Features present

Features	Description and scale
Rare plant communities	The potential plant species of conservation concern that are known to occur in this area include <i>Pinus albicaulis</i> , <i>Pinus flexilis</i> , and <i>Amerorchis rotundifolia</i> .
Rare animal species or communities	Federally listed species: grizzly bear (within Recovery Zone and proposed Primary Conservation Area), Canada lynx (portion of area within designated Critical Habitat) WCT in Little Willow and Lime Gulch.
Rare ecosystems	Whitebark pine is a candidate species for listing under the ESA and is present in small amounts in this area. Limber pine and aspen communities are also of interest, but present only in trace amounts. No rare aquatic ecosystems known.
Outstanding landscape features	Sawtooth Ridge, north-south running reefs, cliffs.
Historic and cultural resource sites	All recorded cultural resources within this polygon have the potential for scientific, educational, or historic value.
Research Natural Areas	None present.
High quality water resources or important watershed features	None, area is relatively dry.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 299. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	An elongated and irregular-shaped polygon that is located between the Beaver Willow Road to the west and private agricultural lands on the east.
Legally established rights or uses within the area	None present.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	Stoner Place subdivision along Beaver Willow Road, piece of the Hidden Valley Ranch along Beaver Willow Road.
Management of adjacent lands	State Sun River Wildlife Management Area, BLM, and private agriculture and grazing.



Elk Smith Area (RM5)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 300. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The most common dominance types in this area are lodgepole pine dominated forests, which cover about 44% of the area. Douglas-fir forests are also common, growing on over 29%. Subalpine fir and Engelmann spruce mixed forests are found on 10%, and dry grasslands cover about 6%. Sparsely vegetated areas, likely rock/scree above treeline, are found on about 9%. Other dominance types are present only in trace amounts (covering 1% or less of the area), and include shrublands, whitebark pine, limber pine, cottonwood, and aspen. Although most of the area burned in the Canyon Creek fire of 1988, most of the area regenerated leaving only a trace area still considered to be transitional.
Potential vegetation types	Cool moist forest potential vegetation types are the most common in the area, representing about 54%. Warm dry forest potential types are also common, found on 29%. Xeric and mesic grassland types each make up about 3%, and riparian types are found on nearly 2%. Other types are present only in trace amounts, and include cold forest (where whitebark pine is most likely to grow) and shrubland types. The remainder of the area is sparsely vegetated (8%).
Known non-native terrestrial plant species	According to data as of 2/10/2016, 157 acres within RM5 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: 16,000 acres potential lynx habitat, with approximately 2000 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type. Roughly 5900 acres of goshawk potential nesting habitat, at least 6 known nesting territories. • Big game: Approximately 18,000 acres secure elk habitat. 1400 acres elk winter range; and 9000 acres elk calving habitat. Moose present. Approximately 1200 acres bighorn sheep winter habitat and 1400 acres lambing habitat. • Functioning subalpine/alpine habitat: Roughly 9600 acres of potential wolverine habitat including 2400 acres potential maternal habitat. • Well-developed bog/fen habitat in northwestern portion, with northern bog lemming documented. • Grizzly bears, wolves present. • Habitat for cliff-nesting raptors, including peregrine falcon, golden eagle, prairie falcon. • WCT populations in Moudess and Petty Creeks.
Known non-native wildlife species	No non-native terrestrial wildlife species documented. Non-native trout likely.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 301. Ecological conditions

Measures	Outcome
% of area without past timber harvest	About 98.6% of the area has been unaffected by past harvest. Available records show that about 409 acres have had a past harvest, consisting primarily of commercial thins, salvage, and single tree selection cuts from 1981 to 1989.
% of area without known invasive weeds	According to data as of 2/10/2016, 99.5% of RM5 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 49%, Class 2: 51% Impacts are all downstream of the polygon.
Miles of motorized road/trail within 300' of streams	11.8 miles
Noticeable wildfire suppression impacts	Canyon Creek (1988): Suppression lines rehabbed, but still evident along the northern fire perimeter boundary.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 302. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	Along Benchmark road which is excluded from the polygon.
Presence of timber harvest or prescribed fire areas	In addition to the past harvests that occurred in the 1980's and affected about 1.4% of the area, there were pile burning activities conducted on about 708 acres from 1984 to 1997, impacting an additional 2.4%. A total of 97.6% of the area was unaffected by treatments. In addition, the pile burning may have overlapped some of the past harvest areas. None of these treatments were determined to be substantially noticeable today.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	Steamboat Mountain repeater.
Areas of mining activities including both abandoned and active mines.	Abandoned mine in Horse Mountain. Historic mining in Smith Creek.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 1/10 th mile of fencing and 3 stock water tanks within RM5.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	Dispersed camping along Benchmark and Elk Creek. End of the road outfitter camps but none within the polygon.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Utilities along and under parts of the Benchmark and the Elk Creek Roads.

Improvement Type	Presence and extent of departure from naturalness
Presence of watershed treatment areas including contouring, diking, and channeling.	Post 1964 streambed manipulation in Benchmark, and Wood Creek. Outside of polygon along main roads.
Lands adjacent to development or activities that impact opportunities for solitude.	Benchmark Airstrip along the Benchmark road.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	There are 17 recorded cultural resources within this polygon, all represent relics of past occupations.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	1.8 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	There are 8 recorded historic routes (21 miles) in this polygon.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. *What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?*

Table 303. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	There are motorcycle trails in the Petty Crown and Elk Creek/Bailey Basin areas.
Area available for winter motorized opportunity	None of the area is available for winter motorized recreation.
Proximity to private lands and non-Forest Service roads.	Private inholding in Elk Creek.
Proximity to developed recreation sites outside of the polygon area.	Campground, recreation residences, trailheads, livestock facilities, airstrip along the Benchmark road. There are minimal impacts out of the road corridor.

Question 2b. *What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?*

Table 304. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	Primitive and semi-primitive non-motorized recreation in the summer away from Petty Crown and Elk Creek areas. There are impacts to solitude to areas that lie near the Benchmark road.
Primitive and semi-primitive non-motorized winter recreation.	The entire polygon is available for primitive and semi-primitive non-motorized recreation in the winter. Due to snowmobiling along the Benchmark road, there are impacts to solitude to areas

Measures	Descriptions and Locations
	that lie near the road.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hunting, hiking, fishing, skiing, camping, recreation aviation, snowmobiling, and uses by recreation residence and resorts in the area.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 305. Size and Description

Size of Polygon	Description
30,030 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

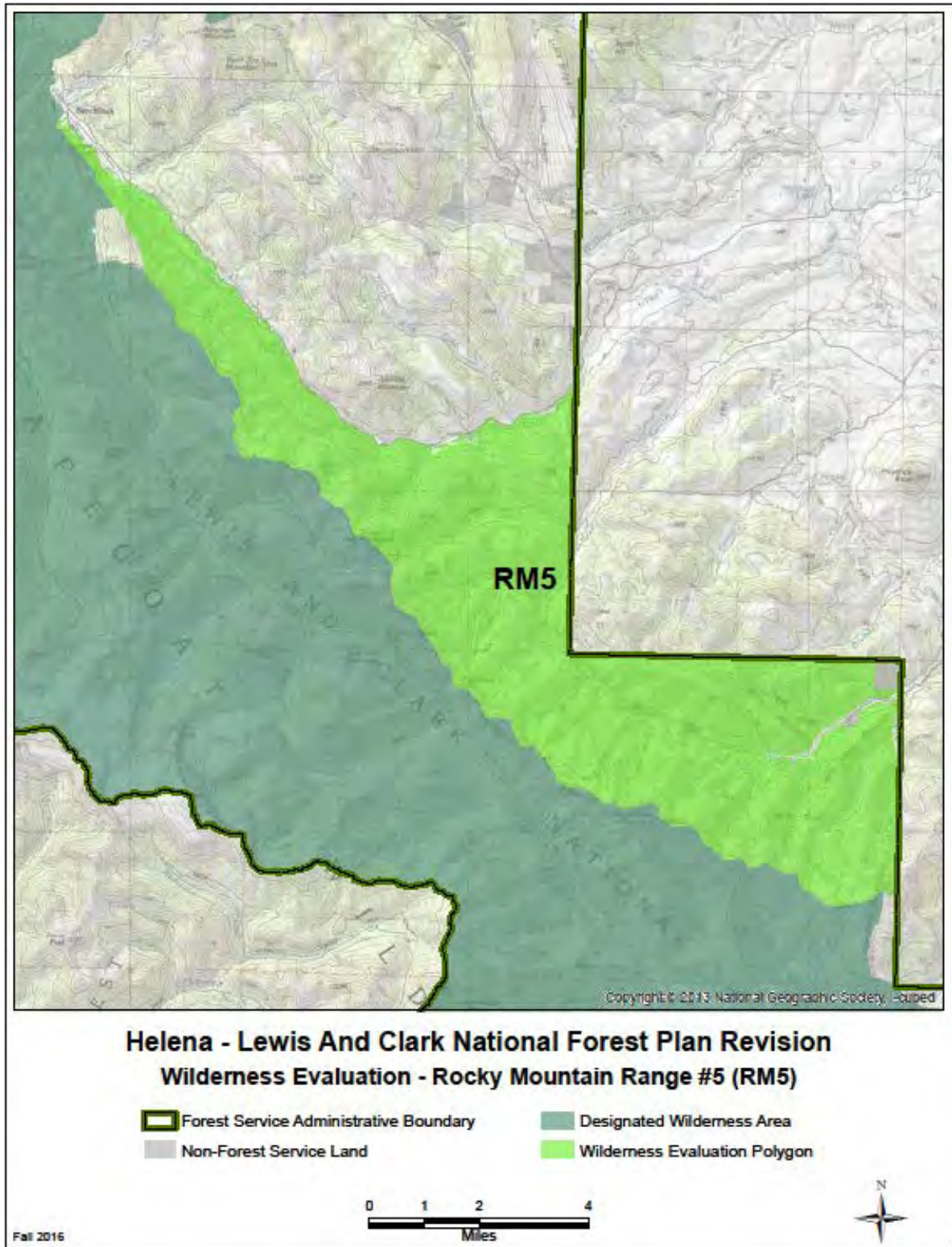
Table 306. Features present

Features	Description and scale
Rare plant communities	The potential plant species of conservation concern that are known to occur in this area include <i>Pinus albicaulis</i> , <i>Pinus flexilis</i> , <i>Scorpidium scorpioides</i> , <i>Listera borealis</i> , <i>Platanthera obtusata</i> , <i>Cardamine rupicola</i> , and <i>Erigeron lackschewitzii</i> .
Rare animal species or communities	Federally listed species: grizzly bear (within Recovery Zone and proposed Primary Conservation Area), Canada lynx (most of area within designated Critical Habitat) Potential species of conservation concern and/or state at risk species: wolverine, western toad, harlequin duck, northern bog lemming WCT in Moudess and Petty Creeks.
Rare ecosystems	Whitebark pine is a candidate species for listing under the ESA, and is present in trace amounts in this area. Other potential plants of conservation concern occur here, and other vegetation communities of interest (limber pine and aspen) are present in very small amounts. Beaver complex in Elk Smith area.
Outstanding landscape features	Cliffs and reefs and waterfalls, Crown mountain and White Water Creek.
Historic and cultural resource sites	All recorded cultural resources within this polygon have the potential for scientific, educational, or historic value.
Research Natural Areas	None present.
High quality water resources or important watershed features	Beaver complex in Elk Smith area. Wood Creek on the draft list of eligible WSRs for outstanding wildlife habitat.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 307. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	An elongated polygon that is bordered by the Bob Marshall Wilderness Complex on the southwest, the Benchmark road on the north and private lands on the north and east.
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	Conservation management area.
The presence and amount of non-Federal land in the area	Private inholding in Elk Creek.
Management of adjacent lands	Wilderness to the south and west. Benchmark Road to the north, private lands to east (mostly ranch lands).



Snowies Geographic Area

Big Snowies Area (S1)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 308. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The dominance types in this area gradate from Douglas-fir dominated forests (covering about 31% of the area), to lodgepole pine forest (22%), to subalpine fir and Engelmann spruce forests (29%). Sparsely vegetated areas (such as rock/scree) are found on about 8%, and dry grasslands cover 5%. Whitebark pine dominated forest is found on about 4%, at the highest elevations. Trace amounts of other dominance types, representing less than 1% of the area each, are also present, including shrublands, ponderosa pine, limber pine, cottonwood, and aspen.
Potential vegetation types	The common potential vegetation types are evenly split between warm dry forest potential types (40%) and cool moist forest types (42%). Cold forest potential vegetation types are present on about 3%, which is where whitebark pine is most likely to grow. Dry grassland types also make up about 5%. Trace amounts of shrublands and riparian types are also present. Sparsely vegetated areas (rock/scree) make up the remainder of the area.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 65 acres within S1 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: 39,000 acres potential lynx habitat, with approximately 11,000 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type (note area is not currently occupied by lynx and is not contiguous with occupied lynx habitat). Roughly 34,000 acres of goshawk potential nesting habitat, with some known nest territories. Approximately 1400 acres existing and roughly 50,000 acres potential old growth habitat based on habitat type and aerial photo interpretation; occurs in patches of varying size. Clark’s nutcracker presence indicates mature whitebark, limber, and/or ponderosa pine communities. • Approximately 85,000 acres secure elk habitat. Roughly 2400 acres elk winter range and 7800 acres mule deer winter range contiguous with additional calving and winter habitat on adjacent non-NF land largely on south boundary. Moose may be present in riparian areas. • Functioning subalpine/alpine habitat: Approximately 31,000 acres potential wolverine habitat with roughly 3900 acres of potential maternal habitat. • WCT populations in WF Cottonwood, WF Cottonwood, Cottonwood, EF Big Spring, and Halfmoon Creeks
Known non-native wildlife species	Introduced population of mountain goats, which are native to Montana but not native to this mountain range. Non-native trout likely present.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 309. Ecological conditions

Measures	Outcome
% of area without past timber harvest	About 99.8% of this area is unaffected by past timber harvest. Available records indicate that about 205 acres have been harvested, including shelterwood cuts and overstory removals in the 1950's, and a small salvage cut in 1990. These treatments are located in the Timber Creek area.
% of area without known invasive weeds	According to data as of 2/10/2016, 99.9% of S1 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 82%, Class 2: 18%, some grazing impacts in polygon, NF Flatwillow Creek on 303(d) list.
Miles of motorized road/trail within 300' of streams	29.0 miles
Noticeable wildfire suppression impacts	Windy Point Fire (1994): hand line rehabbed; break in timber continuity (hard edges along west and south flanks of fire).

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 310. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	The 205 acres of past timber harvest affected about 0.2% of this area, and due to the age since treatment and/or type of treatment are no longer substantially noticeable on the landscape. Several more recent or notable harvests nearby are excluded from the evaluation boundary. The only prescribed fire treatments that have occurred in the boundary are 377 acres of pile burning, mostly occurring in 2004. A few of these acres (43) were done in 1991 on the same acres as the salvage harvest. Over 99.6% of the area is unaffected by vegetation treatments.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	Radio communication site on West Peak which is very low profile and creating minimal effects.
Areas of mining activities including both abandoned and active mines.	A couple of abandoned mines in Swimming Woman Creek.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 0 miles of fencing and 20 stock water tanks within S1.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	No overnight outfitter and guide camps within the polygon. Some minor overnight use by hikers and permitted hiker outfitters adjacent to the trail system. Northwest portion of the polygon receives moderate hunting with permit.

Improvement Type	Presence and extent of departure from naturalness
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Water pipeline for agricultural use for the Half Moon Ranch in Half Moon Creek.
Presence of watershed treatment areas including contouring, diking, and channeling.	Channeling associated with the water pipeline for Half Moon Ranch.
Lands adjacent to development or activities that impact opportunities for solitude.	Minimal ranchland, dude ranching, and outfitting developments.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	There are 26 recorded cultural resources within this polygon, all represent relics of past occupations.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	2.1 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	There are 2 recorded historic routes (7 miles) in this polygon.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 311. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	Southern ¼ of the polygon is open to motorized use on designated trails. Trails number 653 and 652 and FS roads 8954, 656, 823, 15878 and 270A. These roads and trails are located in Swimming Woman Creek, Careless Creek, East Fork Timber Creek, East Fork Blake Creek and motorized road (FSR 275 and 275A) into the Crystal Lake complex.
Area available for winter motorized opportunity	Over snow motorized recreation in the western portion of the polygon in West Gulch, Dry Pole, and up to West Peak. Also snowmobiling permitted in Black Ridge, Green Pole Canyon and East Fork up to Jump Off Peak. From Neil Creek to Swimming Woman along 652 and 653 trails. Winter motorized uses around Crystal Lake.
Proximity to private lands and non-Forest Service roads.	Polygon is primarily surrounded by private ranchlands. Also bordered by BLM on the southeastern side of the range.
Proximity to developed recreation sites outside of the polygon area.	Crystal Lake complex is heavily used during the summer months. Developed dispersed campground in Timber Creek. Trailheads at Neil Creek, Ulhorn and Cottonwood Creek.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 312. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	Best opportunities for primitive and semi-primitive non-motorized recreation in the summer is the entire polygon north of Trails 652 and 653.
Primitive and semi-primitive non-motorized winter recreation.	The entire polygon is available for primitive and semi-primitive non-motorized recreation, except for those areas open to snowmobiles on the western portion of the polygon.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hiking, horseback riding, dispersed camping, back country skiing, fishing, mountain biking, caving, hunting, snowmobiling, ATV riding, and motorcycling.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 313. Size and Description

Size of Polygon	Description
103,480 acres	The polygon is over 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Table 314. Features present

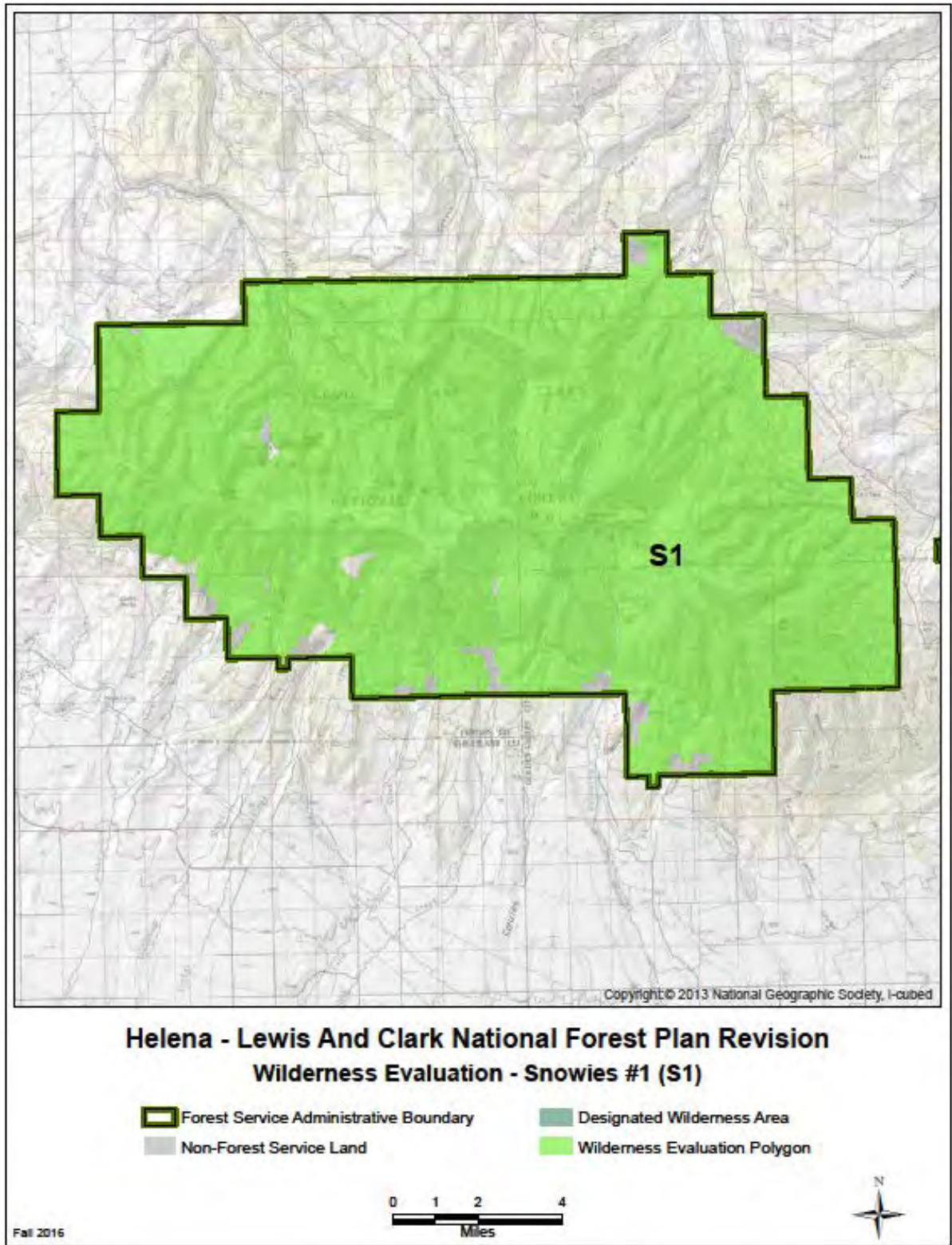
Features	Description and scale
Rare plant communities	The potential plant species of conservation concern that are known to occur in this area include <i>Pinus albicaulis</i> , <i>Pinus flexilis</i> , <i>Cirsium longistylum</i> , <i>Goodyera repens</i> , <i>Dryas integrifolia</i> , and <i>Physaria saximontana</i> var. <i>dentate</i> .
Rare animal species or communities	Federally listed species: historic record of a Canada lynx, but area is not occupied and is isolated from occupied areas Potential species of conservation concern and/or state at risk species: dwarf shrew Several WCT populations, see above
Rare ecosystems	Whitebark pine is a candidate species for listing under the ESA, and is present in this area. <i>Goodyera repens</i> is particularly noted as occurring across this mountain range. Other vegetation communities of interest on the HLC NF are also present in very small amounts, including limber pine, ponderosa pine, and aspen. No rare aquatic ecosystems.
Outstanding landscape features	Big cirque basins in Careless Creek and Swimming Woman Creek. Ice Caves, big broad open ridge.
Historic and cultural resource sites	All recorded cultural resources within this polygon have the potential for scientific, educational, or historic value.
Research Natural Areas	Big Snowy – Greathouse Peak (1279 acres). Big Snowy – Old Baldy (1866 acres).

Features	Description and scale
High quality water resources or important watershed features	Swimming Woman Creek eligible for WSR listing for its outstanding geologic features. The stream also has high water quality. Big Spring is the municipal watershed for Lewistown.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 315. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	The major portion of the Big Snowy Mountain range.
Legally established rights or uses within the area	Water right in Half Moon Creek
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known. Much of this polygon has also been designated by Congress as the Big Snowies Wilderness Study Act area.
The presence and amount of non-Federal land in the area	Some minor private land adjacent to the polygon, scattered along the southern and northeastern boundaries.
Management of adjacent lands	Large component of large ranches and agriculture lands. Residential subdivision in Neil Creek. Trailheads on BLM and private in Ulhorn, Cottonwood Creek. Half Moon Ranch, outfitting, and dude ranches.



Upper Blackfoot Geographic Area

Dearborn Silverking Area (UB1)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 316. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The area is commonly dominated by Douglas-fir and lodgepole pine dominance types, each making up roughly 30% of the overall composition (60% total). Mixes of Douglas-fir and lodgepole pine represent an additional 5%. Dry grasslands are fairly common, present on roughly 16% of the area. Subalpine fir mixes make up nearly 8%. Small amounts of other dominance types occur in small amounts (less than 2% each), including Engelmann spruce, whitebark pine, limber pine, cottonwood, aspen, and Rocky Mountain juniper. In addition, just over 7% of the area is considered “transitional”, where recent disturbance has removed forest cover but regeneration is expected.
Potential vegetation types	The area contains a high proportion of cool moist forest potential vegetation types (44%), with warm dry forest types also common (37%). The xeric grassland and mesic grassland potential types each represent roughly 7%. The cold forest potential vegetation type, at high elevations where whitebark pine is most likely to thrive, is present on 1%. Small amounts of mesic shrublands, riparian/wetland, and sparse potential types are also present.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 527 acres UB1 is associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: 18,000 acres potential lynx habitat, with approximately 4900 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type. Roughly 15,000 acres of goshawk potential nesting habitat; some known nesting territories. About 1900 acres low-moderate probability fisher habitat in south portion. • Big game: Approximately 41,000 acres secure elk habitat. 1300 acres elk winter range; and over 5000 acres elk calving habitat. Moose likely present. • Functioning subalpine/alpine habitat: Roughly 11,000 acres of potential wolverine habitat including 800 acres potential maternal habitat. • Grizzly bears, wolves present. • WCT populations present in Alice Creek and tributaries (including Toms, Wildcat, and Telephone Gulches and Bear Creek) as well as Landers Fork Creek, Falls Creek and Indian Meadows Creek. No mapped Bull Trout populations, but habitat is present, especially Landers Fork Creek.
Known non-native wildlife species	European starlings and house sparrows documented but location unclear; likely at periphery near off-Forest dwellings. Non-native trout are likely to be present.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 317. Ecological conditions

Measures	Outcome
% of area without past timber harvest	99.72% of this area has no record of past harvest in the FACTS database, although it is possible “historic” logging treatments occurred prior detailed record-keeping (generally the 1950’s). The small area with recorded harvest is roughly 124 acres, most of which occurred in the 1960’s although one unit was harvested in the 1990’s.
% of area without known invasive weeds	According to data as of 2/10/2016, 98.8% of UB1 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 57%, Class 2: 43%. Primary impacts in the Class 2 areas are non-native aquatic species, and road and trail effects.
Miles of motorized road/trail within 300’ of streams	Possibly 3.4 miles, but may be non-motorized.
Noticeable wildfire suppression impacts	Snow/Talon Fire (2003): dozer line & staging areas rehabbed but remain evident on landscape; breaks in timber continuity in Falls Creek and Indian Meadows Creek. Canyon Creek Fire (1988): suppression lines rehabbed, but still evident along the northern and southeastern fire perimeter boundary; hard vegetation edge.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 318. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas.	Substantially noticeable treatments were determined with a detailed methodology and excluded from the evaluation area. Some past treatments which are no longer considered noticeable occur in the evaluation area. The FACTS database shows roughly 4,999 acres of such treatments total (11% of the total UB1 area), 33 acres of timber harvest and 4,966 acres of prescribed fire. Some of the fire activities may overlap (i.e., a pile burn and a broadcast burn could occur on the same acre at different times) and therefore actual acres impacted could be slightly less. The harvest (salvage) was intermediate in nature (leaving residual trees) and occurred in the 1990’s; it has likely had sufficient time to be visually recovered from the treatment. The fire treatments have occurred since the 1980’s, but the most acres have been implemented after 2000 as part of the Alice Creek restoration project. Although not much time has passed since implementation (including burning of piles and broadcast burning), local specialists indicated that these areas are natural in appearance.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	Repeater/electronic site on Silver King Mountain. This has a buffer of 150 feet diameter around it but will be visible from within UB1.

Improvement Type	Presence and extent of departure from naturalness
Areas of mining activities, including both abandoned and active mines.	No significant historic mining activity is known to occur in this area.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is five miles of fencing and two stock water tanks within UB1. Fences to exclude grazing in the aspen stands along the bottom of Alice Creek. These are temporary in nature and will be removed after aspen grows up.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	Heavily used dispersed camp sites are located with 300 feet along Alice Creek Road. The Lewis and Clark pass trail is a very popular day hike.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines pipelines, and other permanently installed linear right-of-way structures.	None present.
Presence of watershed treatment areas including contouring, diking, and channeling.	None Known
Lands adjacent to development or activities that impact opportunities for solitude.	Alice Creek Ranch and Silver King Ranch are located along the southern border of UB1. There are also outfitter corrals and the Indian Meadows trailhead and guard station at the south west corner of UB1.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	Several past occupational sites can be found within this area. These sites represent occupational use of this location which span thousands of years. No historic (complete or fully) standing structures are known to be present, however intact subsurface deposits are known to exist. Several interpretive signs exist in the area for the Alice Creek National Registered Historic District and the Lewis and Clark National Historic Trail.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plans.
Number of miles of maintenance level 1 road templates.	1.0 miles
Number of miles of historic road templates, including historic mining routes, wagon routes or other settlement era transportation.	There are two historic road segments in the south east portion of UB1, east of Alice Creek Road.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 319. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunities	Alice Creek Road in the bottom of the drainage. It is a low speed road so intrusions are generally minimal. Cannot see or hear the road from the CDNST or popular hiking trails in the area. There are not motorized trails within the polygon.
Area available for winter motorized opportunities	Snowmobiles are allowed on Alice Creek road in the winter but is route is not heavily used by snowmobiles at this time. Other than Alice Creek road, cross country snowmobile use is prohibited in the remainder of the polygon.
Proximity to private lands and non-Forest Service roads.	Alice Creek Ranch and Silver King ranch at the southern border. Currently low intrusiveness of sights and sounds from these private ranches. Subdivision to the north in Falls Creek-Joslin area and big ranches to the east of the polygon.
Proximity to developed recreation sites outside of the polygon area.	Alice Creek Trailhead at the end of Alice Creek Road. Indian Meadows Trailhead, guard station, campground, and outfitter corrals at the southwestern edge.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 320. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized areas available for summer recreation	Except for the area immediately adjacent to the Alice Creek road, the entire polygon is available for primitive and semi-primitive summer recreation.
Primitive and semi-primitive non-motorized areas available for winter recreation	Except for the area immediately adjacent to the Alice Creek road, the entire polygon is available for primitive and semi-primitive winter recreation.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hunting, fishing, hiking, horseback riding, dispersed camping, snowshoeing, cross country skiing, and snowmobiling along Alice Creek road. Historic interpretation along the upper portions of Alice Creek, Landers Fork and in the Lewis and Clark pass area.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 321. Size and Description

Size of Polygon	Description
44,140 acres	The polygon is over 5,000 acres in size and lies adjacent to the Scapegoat Wilderness area.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Table 322. Features present

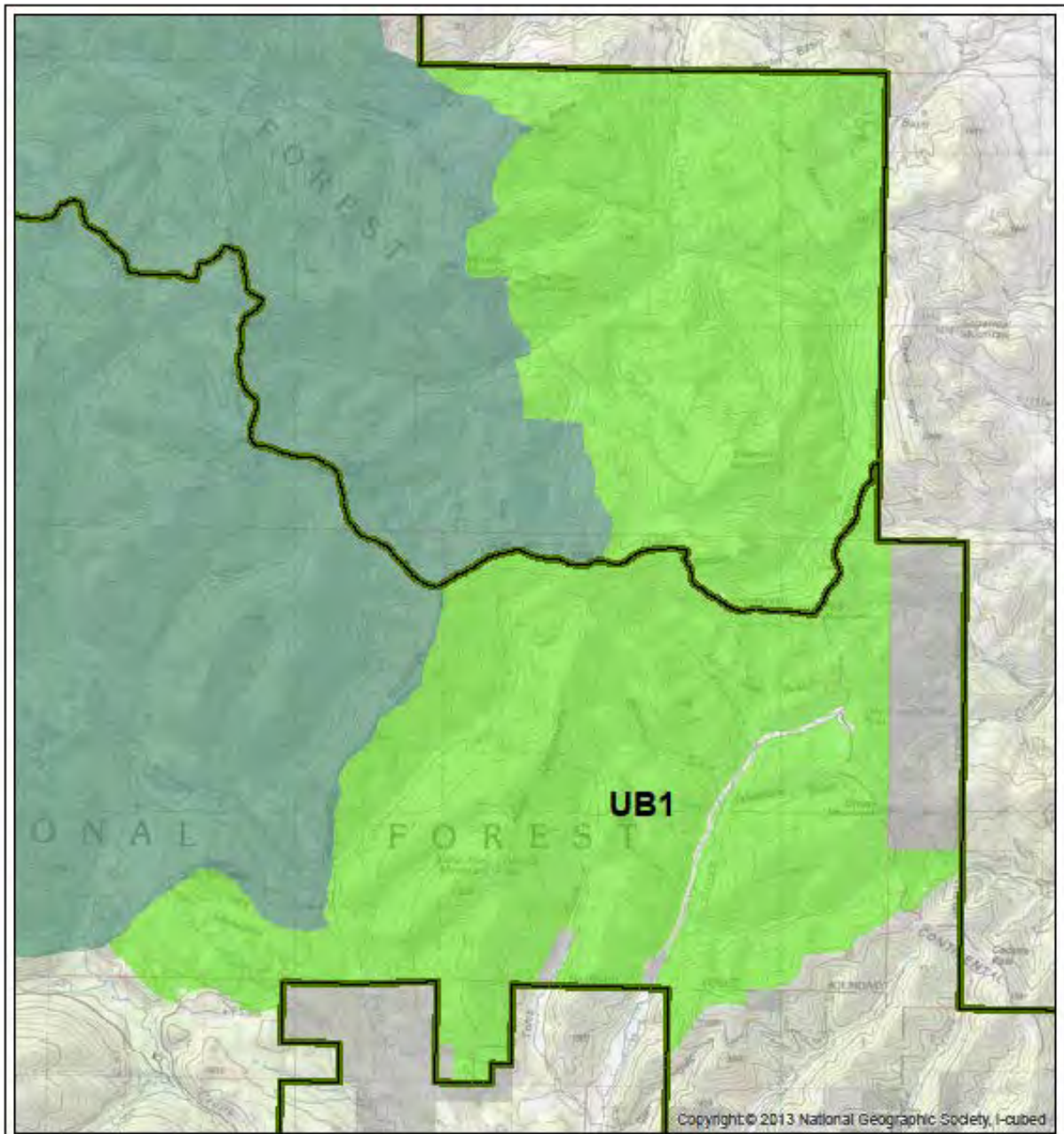
Features	Description and scale
Rare plant communities	Records indicate that the following potential species of conservation concern are present in this area: <i>Pinus albicaulis</i> ; <i>Pinus flexilis</i> ; <i>Erigeron flagellaris</i> ; <i>Amerorchis rotundifolia</i> ; <i>Lesquerella klausii</i> ; <i>Phlox kelseyii</i> var. <i>Missoulensis</i> ; <i>Draba densifolia</i> ; <i>Botrychium</i> spp.; <i>Tetraplodon mnioides</i> ; <i>Drosera linearis</i> ; <i>Drosera anglica</i> ; <i>Carex livida</i> ; <i>Schoenoplectus subterminalis</i> .
Rare animal species or communities	Federally listed species: grizzly bear (within Recovery Zone and proposed Primary Conservation Area), Canada lynx (within designated Critical Habitat) Potential species of conservation concern and/or state at risk species: western toad, fisher (likely transient), trumpeter swan Fisheries: WCT in Alice Creek, Landers fork and Tom’s Gulch.
Rare ecosystems	Whitebark pine communities are of interest due to the species’ status as a candidate for listing under the ESA. A small proportion of this area has whitebark pine present and potential (roughly 1%). Several notable locations occur which a mix of whitebark pine and limber pine, which have been the focus of some prescribed fire restoration treatments.
Outstanding landscape features	Limestone reef caves in upper Alice Creek. Blowout Mountain and Flattop. Falls creek has many waterfalls.
Historic and cultural resource sites	Thirteen known historic and cultural resources sites are located within this evaluation area. One of these sites is the Alice Creek Historic District which is listed in the National Register of Historic places and contains numerous sites which can be associated with this historic travel corridor. In addition, the Lewis and Clark National Historic Trail passes through this area. Overall, this location has high potential for the presences of historic and cultural resource sites, as well as scientific and educational value in regards to cultural resources.
Research Natural Areas	Indian Meadows RNA.
High quality water resources or important watershed features	Alice and Landers Fork Creeks are included in the draft WSR eligibility study. Landers Fork is listed for outstanding bull trout habitat and Alice Creek is listed for outstanding cultural resources.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.





Table 323. Wilderness characteristics

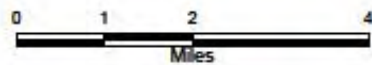
Factors	Description and scale
Shape and configuration of the area	A large irregular shaped polygon that wraps around the southeastern corner of the Scapegoat wilderness. The northern half of the polygon is located within the Rocky Mountain GA and the southern half is located within the Upper Blackfoot GA.
Legally established rights or uses within the area	None known.

Factors	Description and scale
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	Conservation management area in the Rocky Mountain Ranger District.
The presence and amount of non-Federal land in the area	All non-Federal lands were excluded from the inventory and evaluation. No private inholdings.
Management of adjacent lands	Logging and ranching on both private and state ownership in areas south of the polygon. Agriculture and grazing to the east. Residential subdivision to the north. Wilderness to the west.



Helena - Lewis And Clark National Forest Plan Revision Wilderness Evaluation - Upper Blackfoot #1 (UB1)

-  Forest Service Administrative Boundary
-  Designated Wilderness Area
-  Non-Forest Service Land
-  Wilderness Evaluation Polygon



Fall 2016

Stonewall Area (UB2)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 324. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	This area is characterized by productive conifer forest. Subalpine fir and subalpine fir/spruce mixes are the most common, found on roughly 23% of the area. Douglas-fir and lodgepole pine forests are also common, each dominating up about 22% of the area. A small amount of whitebark pine dominance types are also found (nearly 3%). Trace amounts of other dominance types can be found at less than 1% (ponderosa pine and limber pine). Notably, nearly 20% of this area is considered “transitional” as a result of recent fires; these areas are currently non-forested but generally expected to regenerate to forests.
Potential vegetation types	Cool moist forested potential vegetation types dominate this area (47%), with warm dry forest potential types also common (28%). This area also has a relatively high proportion of cold forest potential types (16%), where species such as whitebark pine may thrive. Roughly 6% of the area is only sparsely vegetated, especially on high elevation, rocky sites. Very small amounts of non-forested potential types are present, representing roughly 3% total, with mesic and xeric grasslands the most common types.
Known non-native terrestrial plant species	According to data as of 2/10/2016 70 acres within UB2 is associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: 21,000 acres potential lynx habitat, with approximately 7100 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type. Roughly 10,000 acres of goshawk potential nesting habitat, with some known nest territories. Approximately 1800 acres possible old growth habitat in patches of varying size. About 700 acres low-moderate probability fisher habitat. • Approximately 18,000 acres secure elk habitat. Moose present. • Functioning subalpine/alpine habitat: approximately 24,000 acres potential wolverine habitat with roughly 16,000 acres of potential maternal habitat. • Grizzly bears, Canada lynx, wolves present. • WCT populations in Copper, Snowbank, Liverpool, Stonewall, NF Arrastra and Dry Creeks and Bull Trout also present in Copper Creek.
Known non-native wildlife species	No non-native terrestrial or avian species known, non-native trout likely present.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 325. Ecological conditions

Measures	Outcome
% of area without past timber harvest	99.61% of this area has not been impacted by past timber harvest found in the FACTS database. It is possible “historic” logging occurred in some accessible areas prior to detailed record keeping (generally the 1950’s). The database shows roughly 116 acres have been harvested, mostly in the 1990’s.
% of area without known invasive weeds	According to data as of 2/10/2016, 99.8% of UB2 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 7%, Class 2: 93% Arrastra Creek on 303(d) list for streambank modification, road runoff
Miles of motorized road/trail within 300’ of streams	5.5 miles
Noticeable wildfire suppression impacts	<i>Snow/Talon Fire (2003)</i> : dozer line and staging areas rehabbed but still evident in Falls Creek and Indian Meadows Creek. <i>Keep Cool Fire (2006)</i> : dozer lines rehabbed but still evident in headwaters of Liverpool Creek. <i>Sucker Creek Fire (2015)</i> : dozer lines rehabbed but still evident in Sucker Creek.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 326. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present
Presence of timber harvest or prescribed fire areas	Substantially noticeable treatments were determined with a detailed methodology and excluded from the evaluation area. Some past treatments which are no longer considered noticeable occur in the evaluation area. The FACTS database shows roughly 258 acres of such treatments total (less than 1% of the total UB2 area), 116 timber harvest and 142 acres prescribed fire. The harvest was intermediate or uneven-aged in nature, leaving ample residual trees, and occurred in the 1990’s; therefore, these areas are likely visually recovered from the treatment. The burning treatments, which included broadcast burning, burning piles, and underburning, primarily also occurred in the 1990’s and in some cases overlap the same acres that were harvested. Treated areas are primarily confined to the eastern boundary of the evaluation area, near existing roads.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	Electronic site on Stonewall Mountain. This is accessed by an ATV trail. Homeland Security repeater site.

Improvement Type	Presence and extent of departure from naturalness
Areas of mining activities including both abandoned and active mines.	Upper cotter Creek has a significant road network around the mine. Is substantially noticeable. Stonewall Creek patented mining claim with access road is also substantially noticeable. This evaluation area lies within the Lincoln Historic Mining District which contains numerous mining related features. Most of the historic mining is centralized around drainage bottoms and stream channels.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there are no range improvements located within UB2.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	ATV trail to Stonewall Mountain creates a cherry stem into the center part of UB2. Copper Bowls very popular snowmobiling area. Snowbank Lake Picnic Area and Copper Creek Campground just north of UB2. Arrastra Creek TH is located to the southwest portion of UB2 along Beaver Creek road. Administrative Lookout on Stonewall Mountain.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	Underground powerline along ATV trail to Stonewall Mountain.
Presence of watershed treatment areas including contouring, diking, and channeling.	There is some older diversion ditches for past mining activity along Stonewall Creek. These are currently being reclaimed.
Lands adjacent to development or activities that impact opportunities for solitude.	Beaver Creek and Copper Creek roads are open year round to motorized uses. Stonewall Creek patented mining claim and access road affects surrounding area.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	Stonewall Lookout. It is safe to assume there are several undocumented relics of historic mining related to the Lincoln Historic Mining District landscape. At this time there is only one recorded cultural resource in this evaluation area.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	2.0 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	There are several undocumented road templates associated with historic mining in this location, due to the fact that is it located with a historic mining district.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 327. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	There are three motorized routes within the polygon. These are located on Stonewall Mountain. The rest of the area is not available for summer motorized uses.
Area available for winter motorized opportunity	Except for the Red Mountain RNA and the top of Stonewall Mountain and ridgeline, this majority of the polygon is open to cross country snowmobile use. Additionally, there are a number of designated snowmobile trails in the area and a snowmobile play area in the upper reaches of Copper Creek.
Proximity to private lands and non-Forest Service roads.	Patented Mining claim in Stonewall Creek. Open access road to this land.
Proximity to developed recreation sites outside of the polygon area.	Arrastra Creek Trailhead along Beaver Creek, Copper Creek CG, Snowbank Lake Picnic Area, Stonewall Mountain TH, Sucker Creek TH.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 328. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized areas available for summer recreation.	Portions of the polygon adjacent to the Scapegoat Wilderness and the eastern portions of the polygon are available for primitive and semi-primitive non-motorized recreation in the summer.
Primitive and semi-primitive non-motorized areas available for winter recreation.	Much of the area is available for cross country snowmobile use. The Red Mountain RNA and areas across the Stonewall Mountain ridge would have some opportunity for primitive and semi-primitive non-motorized recreation in winter.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hunting, fishing, hiking, horseback riding, ATV riding, mountain biking, motorcycle riding, snowmobiling, and dispersed camping.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 329. Size and Description

Size of Polygon	Description
30,046 acres	The polygon is over 5,000 acres in size and lies adjacent to the Scapegoat Wilderness area.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

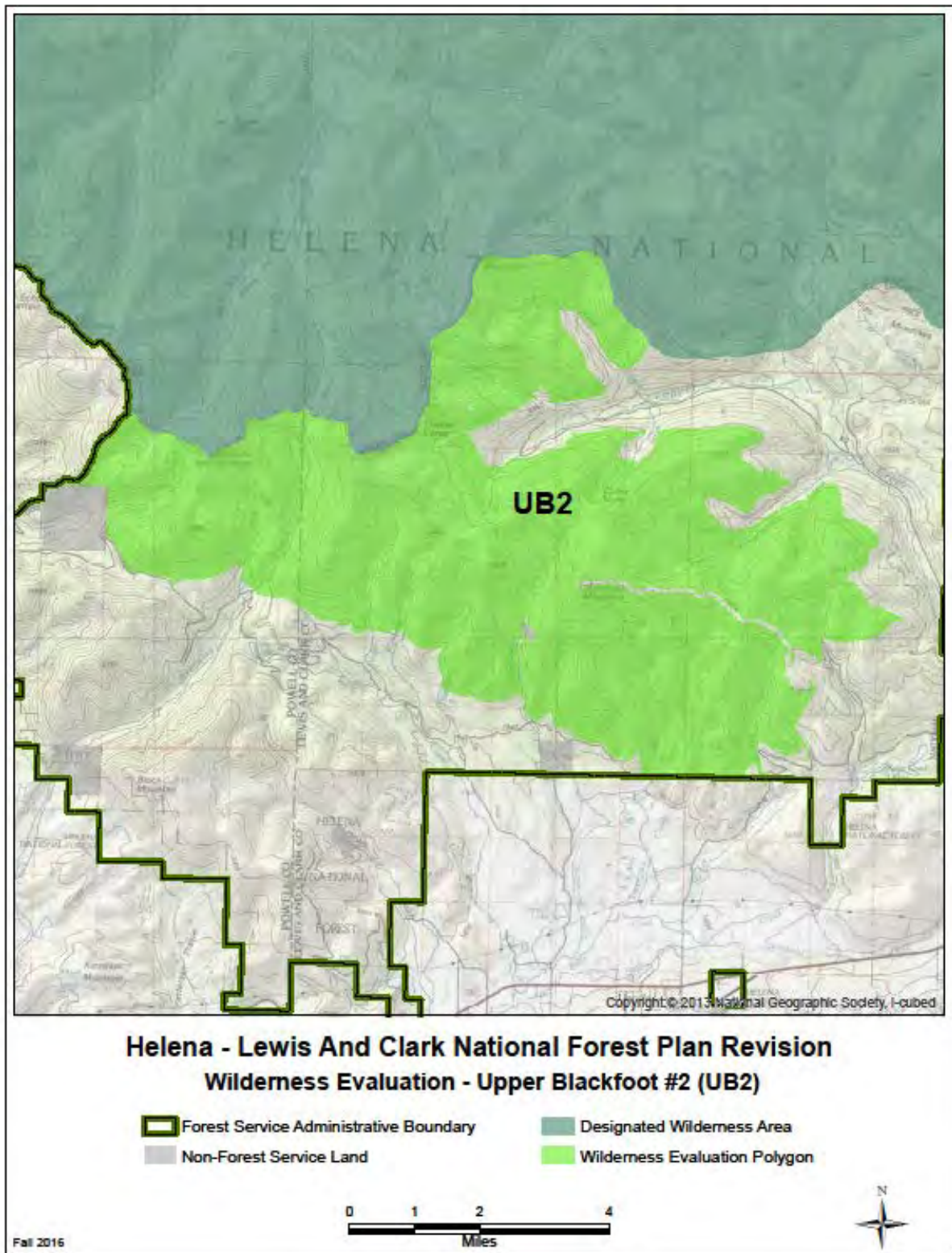
Table 330. Features present

Features	Description and scale
Rare plant communities	The only potential plant species of conservation concern that are known to occur in this area are <i>Pinus albicaulis</i> and <i>Cardamine rupicola</i> . It's possible that <i>Pinus flexilis</i> could also occur.
Rare animal species or communities	Federally listed species: grizzly bear (within Recovery Zone and proposed Primary Conservation Area), Canada lynx (within designated Critical Habitat) Potential species of conservation concern and/or state at risk species: fisher (likely transient) WCT in Stonewall Creek, Dry Creek, NF Arrastra Creek, Park Creek, and Liverpool Creek; Bull Trout in Copper Creek and Snowbank Creek.
Rare ecosystems	Whitebark pine communities are of interest due to the species' status as a candidate for listing under the ESA. A small proportion of this area has whitebark pine present (3%) and potential (roughly 16% in the cold types). Fires in suitable sites may offer potential for whitebark pine regeneration. Snowbank Creek has the highest density of Bull trout spawning on the Forest.
Outstanding landscape features	Copper Lakes in upper Copper Creek.
Historic and cultural resource sites	Besides the Lincoln Historic Mining District, only one recorded cultural resource lies within this evaluation area. However, several sites lies just outside of the proposed boundary.
Research Natural Areas	Red Mountain RNA.
High quality water resources or important watershed features	WCT streams, bull trout fisheries, Snowbank and Copper Creek are included on the draft list of eligible WSR streams for fisheries ORV.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 331. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	The large irregular-shaped polygon lies immediately south of the Scapegoat Wilderness and includes Stonewall Mountain and the upper reaches of Copper Creek.
Legally established rights or uses within the area	ROW along Stonewall Mountain Tail for powerline, and Department of Homeland Security repeater site.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	Stonewall Creek patented mining claim.
Management of adjacent lands	Wilderness to the north. State land managed for timber production to the south. Mix of timber harvested areas (FS), nature conservancy, state land, and private ownership to the east.



Black Mountain Area (UB3)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 332. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	This area is dominated by conifer forest. Douglas-fir dominance types are the most common, present on 52% of the area. Lodgepole pine dominance types are also common, growing on roughly 28% of the area. Subalpine-fir and Engelmann spruce mixes grow on about 16%. Trace amounts of other forest types are present, including whitebark pine and cottonwood. Nearly 3% of the area is considered “transitional”, where disturbance events (fire) have caused mortality and the forest has not yet regenerated. Less than 1% of the area is made up of grass or shrublands.
Potential vegetation types	Cool moist forest potential vegetation types dominate the area, and are estimated to cover over 73%. Warm dry forest potential types are mapped on about 25%. Less than 1% of the area is mapped as cold forest potential types, where whitebark is most likely to thrive. Trace amounts are non-forested potential vegetation types, primarily grasslands.
Known non-native terrestrial plant species	According to data as of 2/10/2016 448 acres within UB3 is associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: 7700 acres potential lynx habitat, with approximately 3700 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type. Roughly 7200 acres of goshawk potential nesting habitat, with some known nest territories. Approximately 2200 acres possible old growth habitat in patches of varying size. Clark’s nutcracker presence indicates mature whitebark, limber, and/or ponderosa pine communities. • Approximately 8900 acres secure elk habitat. Moose present. • Functioning subalpine/alpine habitat: Approximately 5200 acres potential wolverine habitat with roughly 1100 acres of potential maternal habitat. • Grizzly bears, Canada lynx, wolves present. • Fisheries: WCT and Bull Trout in Arrastra Creek.
Known non-native wildlife species	No non-native terrestrial or avian species known. Non-native fish are likely to be present.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 333. Ecological conditions

Measures	Outcome
% of area without past timber harvest	99.99% of the area has no records of past timber harvest in the FACTS database, although it is possible that “historic” logging (prior to the 1950’s) may have occurred before detailed records were kept. Only 0.77 acres in this area have been affected by harvest (salvage in 1979).
% of area without known invasive weeds	According to data as of 2/10/2016 95.6% of UB3 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 3%, Class 2: 97% Arrastra and Ward Creeks on 303(d) list for streambank modification, road runoff
Miles of motorized road/trail within 300’ of streams	1.3 miles
Noticeable wildfire suppression impacts	No fire suppression impacts evident on landscape.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 334. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	Substantially noticeable treatments were determined with a detailed methodology and excluded from the evaluation area. Some past treatments which are no longer considered noticeable occur in the evaluation area. The FACTS database shows roughly 96 acres of such treatments total (roughly 1% of the total UB3 area), 0.77 acres timber harvest and 96 acres prescribed fire. The harvest was an intermediate salvage, leaving ample residual trees, and occurred in 1979; therefore, this area is likely visually recovered from the treatment. There was a local account of a clearcut and roads in the SE portion of the area. A review of aerial imagery confirms the presence of an obviously cleared area with a switchback road that appears to either pre-date FACTS records, or be a result of land acquisition, and is roughly 50 acres in size. The burning treatments, which included broadcast burning and underburning, occurred in the 1960’s and in the 1990’s.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	Building on Black Mtn., possibly used for communications site.
Areas of mining activities including both abandoned and active mines.	No mining within UB3. However, there is some mining to the east in Lincoln Gulch. Small portions of the historic Lincoln Ditch Complex run through this evaluation area.

Improvement Type	Presence and extent of departure from naturalness
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there are no range improvements within UB3.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	Arrastra Creek TH to the north along Beaver Creek. Pine Grove CG to the east in Beaver Creek. Area identified for mountain bike trail in TP. Cross country snowmobile use is allowed across all of UB3.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	None known.
Presence of watershed treatment areas including contouring, diking, and channeling.	None known.
Lands adjacent to development or activities that impact opportunities for solitude.	Beaver Creek and Lone Point road are open to motorized use year round. Lands adjacent to UB3 have active timber harvest and mining claims.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	No recorded structures or dwelling, only a small portion of the historic Lincoln Ditch Complex runs through this area. This area has not received very much cultural resource inventories, therefore there is potential for unrecorded relics of the past.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	0.2 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	None known. No historic road template recorded, however there is the potential for unrecorded features.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 335. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	There are no motorized trails within the polygon.
Area available for winter motorized opportunity	The entire polygon is available for cross country snowmobile use.
Proximity to private lands and non-Forest	None present.

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Service roads.	
Proximity to developed recreation sites outside of the polygon area.	Arrastra Creek TH to the north along Beaver Creek. Pine Grove CG to the east in Beaver Creek.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 336. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized areas available for summer recreation.	The entire polygon is available for primitive and semi-primitive non-motorized use.
Primitive and semi-primitive non-motorized areas available for winter recreation.	Even though the area is open for cross country snowmobile use in the winter, there are still many opportunities for primitive and semi-primitive winter recreational use.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	No constructed trails within this polygon. Area primarily used during hunting season and for hiking. Has potential for mountain biking. No designated snowmobile routes but entire area open to cross country snowmobile travel.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 337. Size and Description

Size of Polygon	Description
14,303 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Table 338. Features present

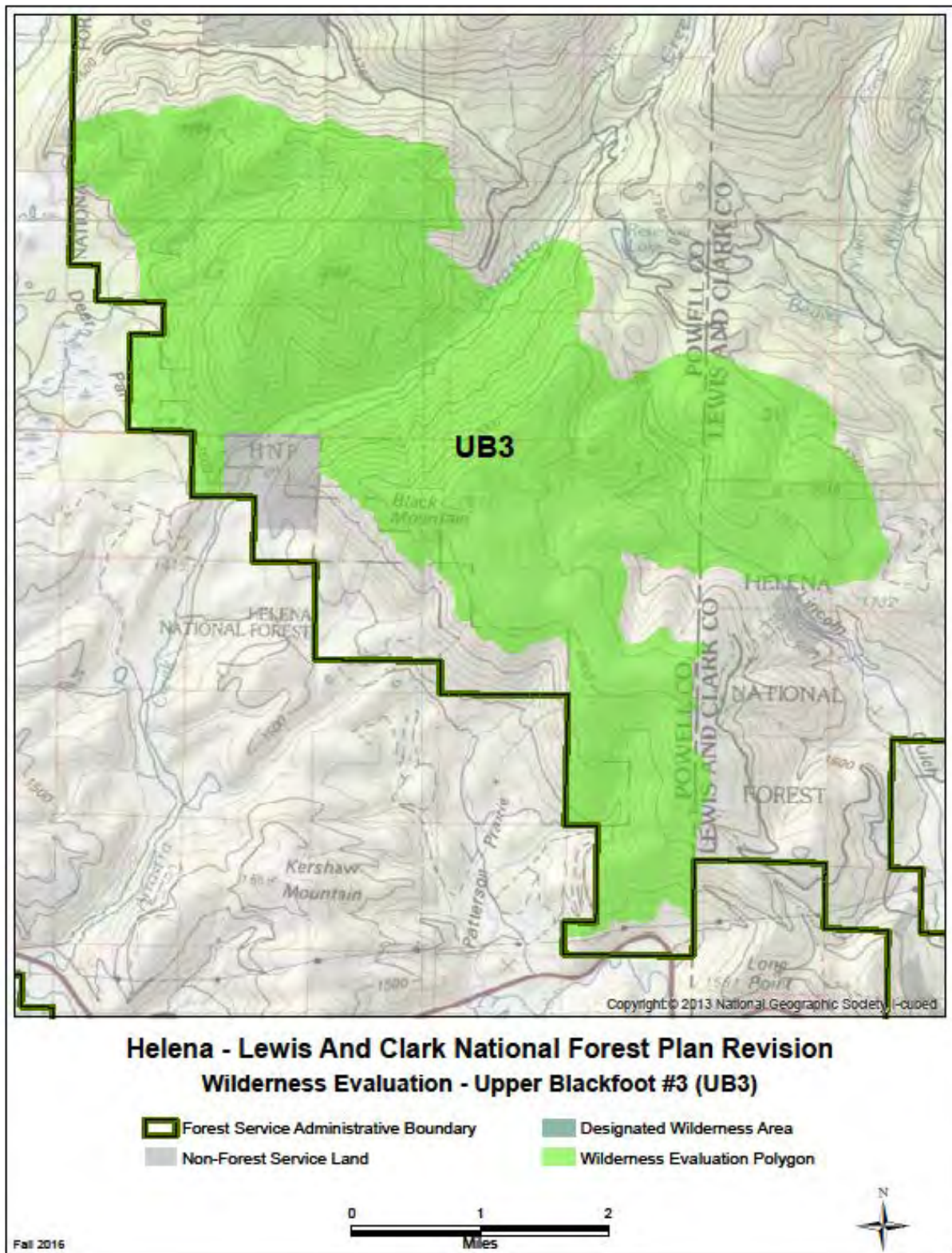
Features	Description and scale
Rare plant communities	The only potential plant species of conservation concern that is known to occur in this area is <i>Pinus albicaulis</i> . Further, although not mapped in VMap, the presence of scattered or minor components of western larch are likely present; this is not a potential SCC but is a species of interest on the HLC NF.
Rare animal species or communities	Federally listed species: grizzly bear (within Recovery Zone and proposed Primary Conservation Area), Canada lynx (within designated Critical Habitat) Potential species of conservation concern and/or state at risk species: western toad Bull and WCT in Arrastra Creek
Rare ecosystems	Whitebark pine is a candidate species for listing under the ESA, and is found in this area. This area is in also proximity to known stands of western larch, which are rare on the HLC NF and

Features	Description and scale
	limited to the far western portion of the Upper Blackfoot GA. No known rare aquatic ecosystems.
Outstanding landscape features	None present.
Historic and cultural resource sites	A small partition of the historic Lincoln Ditch Complex runs through this evaluation area. Other than the ditch complex, no recorded cultural resources.
Research Natural Areas	None present.
High quality water resources or important watershed features	Bull Trout habitat/Arrastra Creek

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 339. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	An irregular shaped polygon the upper slopes of Black Mountain, Lincoln Gulch and either side of Arrastra Creek.
Legally established rights or uses within the area	None known
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known
The presence and amount of non-Federal land in the area	No private land inholdings within the polygon.
Management of adjacent lands	Forest Service system land managed for timber production to the north and east. South of polygon is private residential and mixed ownership with state of MT. Mix of private and BLM to the west.



Anaconda Hill Area (UB4)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 340. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The most common dominance types in this area are Douglas-fir dominated forests, which cover about 64% of the area. Also common are lodgepole pine forests, covering nearly 20%. Subalpine fir and Engelmann spruce mixed forests are found on about 9%, and dry grasslands cover 5%. Other dominance types are found in small amounts, generally covering 1% or less of the area, including shrublands, limber pine, whitebark pine, aspen, and a trace of ponderosa pine. A small area (about 2%) is considered “transitional”, where forest cover has not yet recovered after a recent disturbance.
Potential vegetation types	The most common potential vegetation types are warm dry forest types, found on about 57% of the area, likely supporting mainly Douglas-fir. Cool moist forest types make up about 37%, and likely Douglas-fir, lodgepole pine, fir and spruce can be found on these sites. Just a trace amount of cold forest types are present. Dry grassland types cover about 2%, and mesic grassland types about 3%, along with a trace of dry shrubland types.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 76 acres within UB4 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: 9900 acres potential lynx habitat, with approximately 4300 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type. Roughly 13,000 acres of goshawk potential nesting habitat. Less than 150 acres possible old growth habitat. • Approximately 13,000 acres secure elk habitat. Moose present. • Less than 200 acres potential wolverine habitat. • Grizzly bears, Canada lynx, wolves present. • WCT in Anaconda and Sandbar Creeks, No mapped Bull Trout populations, but habitat is likely present.
Known non-native wildlife species	No non-native terrestrial or avian species known Non-native trout are likely present

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 341. Ecological conditions

Measures	Outcome
% of area without past timber harvest	There are no records of past harvest in this area, although it is possible that some historic cutting could have occurred prior to Forest Service record keeping. In particular, in Section 25 on the western side, aerial imagery shows extensive roads and modified vegetation that appears to have been harvested.

Measures	Outcome
% of area without known invasive weeds	According to data as of 2/10/2016, 99.6% of UB4 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 54%, Class 2: 24%, Class 3: 24% (but this is the watershed with the superfund site, downstream of inventory unit) Sandbar Creek on 303(d) list for mining impacts, SF Dearborn River on list from grazing impacts
Miles of motorized road/trail within 300' of streams	0.7 miles
Noticeable wildfire suppression impacts	No large fire occurrence records since 1980.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 342. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present
Presence of timber harvest or prescribed fire areas	Over 99% of this area has had no vegetation treatments of any kind according to available data. There are no records of past harvest. About 207 acres of prescribed burning has occurred, consisting of broadcast burning in 1979 which affected less than 1% of the area, and is no longer substantially noticeable today. However, in addition to the treatments found in available records, some additional areas appear to have been harvested on the western side of the polygon (Section 25). These areas appear well-regenerated but may still be noticeable to viewers on the ground.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None present within UB4 however, electronic site on Sunset Mountain to the north is visible from within the polygon.
Areas of mining activities including both abandoned and active mines.	This area overlaps two historic mining districts with numerous unrecorded features associated with past and current mining.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there are no range improvements within UB4.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	There is a trail access point at Rogers Pass and developed trailhead at Flesher Pass. The CDNST Trail bisects the polygon.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	None known.
Presence of watershed treatment areas including contouring, diking, and channeling.	None known.

Improvement Type	Presence and extent of departure from naturalness
Lands adjacent to development or activities that impact opportunities for solitude.	Extensive mining operations in the Mike Horse drainage. Traffic from Highway 200 and Highway 279 create site and sound impacts. Open roads within proposed to go away in TP. Road to trail conversion proposed south in Sandbar Creek.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	Only three recorded historic properties lie within the boundaries of this study area, however the two historic mining districts overlap this area. There is most likely numerous unrecorded historical and cultural features associated with the historic mining landscape.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness areas in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	0.7 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	No recorded historic roads. However, there is a high likelihood that numerous unrecorded historic routes associated with past mining exists on the landscape.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 343. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	There are no motorized trails within the polygon.
Area available for winter motorized opportunity	There is a mixture of areas open and closed to cross country snowmobile use in this polygon.
Proximity to private lands and non-Forest Service roads.	The entire polygon is surrounded by private lands. The northern, eastern and portions of the southern boundaries are with private agricultural lands. The western boundary is formed by Highway 200 and areas with mining impacts.
Proximity to developed recreation sites outside of the polygon area.	Fletcher Trailhead is the only developed site near the polygon. There is a dispersed trailhead at the top of Roger’s Pass but it does not have any constructed features and functions as an access point for trails in that area.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 344. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	The entire polygon is available for primitive and semi-primitive non-motorized summer recreation. However, the sights and sounds of Highway 200 and nearby mining activities may affect solitude.
Primitive and semi-primitive non-motorized winter recreation.	The opportunities for primitive and semi-primitive non-motorized recreation in winter are limited to those areas that do not allow for cross country snowmobiling.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hunting, hiking, and horseback riding, and mountain biking primarily along the CDNST. Snowmobiling occurs in places within the polygon.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 345. Size and Description

Size of Polygon	Description
22,318 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Table 346. Features present

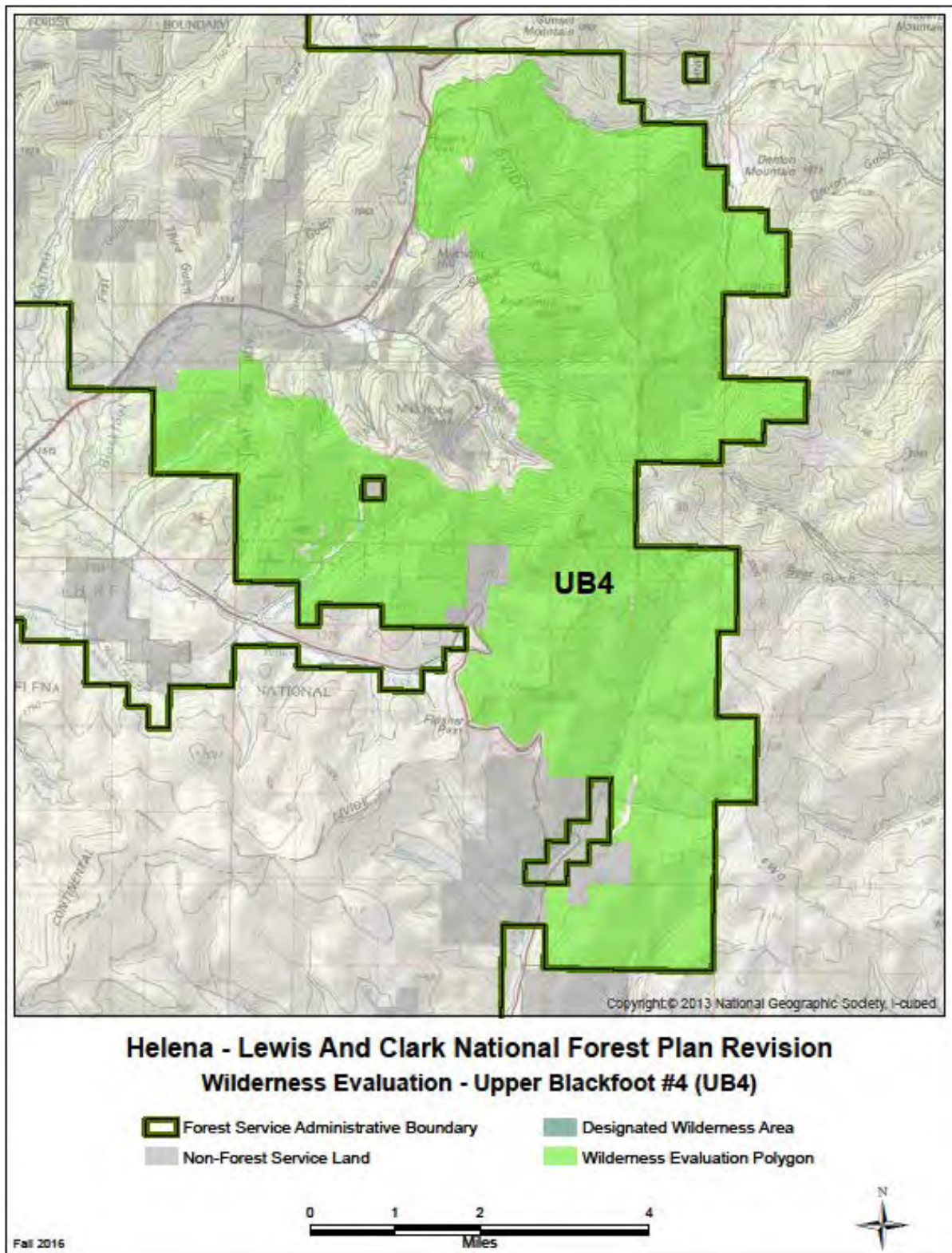
Features	Description and scale
Rare plant communities	The potential plant species of conservation concern that are known to occur in this area include <i>Pinus albicaulis</i> , <i>Draba densifolia</i> , and <i>Lesquerella klausii</i> .
Rare animal species or communities	Federally listed species: grizzly bear (within Distribution Zone and proposed management Zone 1), Canada lynx (within designated Critical Habitat). Potential species of conservation concern and/or state at risk species: wolverine WCT in Sandbar and Anaconda Creeks.
Rare ecosystems	Whitebark pine is a candidate species for listing under the ESA and is present in very small amounts in this area. Other vegetation communities of interest on the HLC NF also occur here in very small amounts, including limber pine, aspen, and ponderosa pine. No rare aquatic ecosystems known.
Outstanding landscape features	Open ridges of the Continental Divide. Red cliffs along the southern portion of the CDNST.
Historic and cultural resource sites	Only five recorded historic and cultural sites lies in this study area. However, it's highly likely that numerous unrecorded sites are on the landscape, which could contain scientific or historic value.

Features	Description and scale
Research Natural Areas	None present.
High quality water resources or important watershed features	Anaconda Creek is important WCT fishery.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 347. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	This a large, irregular shaped polygon that straddles the continental divide east and south of Roger's Pass.
Legally established rights or uses within the area	Highway ROWs for Highways 200 and 279. Interior patented mining claim and road associated with it in Sandbar Creek.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	Patented mining claim and road associated with it in Sandbar Creek.
Management of adjacent lands	Active mining to the west in Mike Horse Creek. Agriculture and ranching to the east and south.



Paige Gulch Area (UB5)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 348. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The most common dominance types in this area are either Douglas-fir dominated forests (growing on about 52% of the area) and lodgepole pine dominated forests (growing on about 44% of the area). Subalpine fir and Engelmann spruce mixed forests can be found on about 3%, and dry grasslands cover about 2%. Trace amounts of other dominance types, representing less than 0.5% of the area each, are also found and include shrublands, ponderosa pine, limber pine, and aspen.
Potential vegetation types	Cool moist forest types are the most common potential vegetation types in this area, covering about 61% where the likely species present include Douglas-fir, lodgepole pine, fir and spruce. Warm dry forest types are found on 36%, and likely support mostly Douglas-fir. Other potential vegetation types present represent about 1% or less each of the area, and include xeric grassland, mesic grassland, and xeric shrubland types.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 157 acres within UB5 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: 11,000 acres potential lynx habitat, with approximately 4400 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type. Roughly 15,000 acres of goshawk potential nesting habitat. • Approximately 10,000 acres secure elk habitat. Moose present. • Roughly 1000 acres potential wolverine habitat. • Grizzly bears, Canada lynx, wolves present. • Fisheries: WCT in Black Diamond, Trout Creek, Specimen Creek, + small tributaries. No Bull Trout populations mapped in the polygon, but habitat is likely to be present.
Known non-native wildlife species	No non-native terrestrial or avian species known Non-native trout likely.

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 349. Ecological conditions

Measures	Outcome
% of area without past timber harvest	A little over 98% of this area has been unaffected by past timber harvest. According to available records, about 296 acres have been harvested in the past, consisting primarily of salvage cutting in 1963 but also including small clearcut, sanitation, and shelterwood cuts from 1963 to 2012.

Measures	Outcome
% of area without known invasive weeds	According to data as of 2/10/2016, 99.1% of UB5 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 32%, Class 2: 35%, Class 3: 32%. Class 2/3 impacts generally relate to mining impacts downstream from WI unit. No 303(d) listed streams
Miles of motorized road/trail within 300' of streams	3.1 miles
Noticeable wildfire suppression impacts	No large fire occurrence records since 1980.

Question 1c. What is the extent to which improvements in the area represent a departure from apparent naturalness?

Table 350. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present
Presence of timber harvest or prescribed fire areas	About 296 acres, or 1.69% of this area, has had past harvest, primarily in 1963. The most recent treatment was a small sanitation cut in 2012 which left reserve trees. Although all of these areas were determined to be no longer substantially noticeable, most past harvest areas are adjacent to the main road in the middle of the polygon and could be excluded from the boundary if desired. In addition to the harvest, about 1,617 acres in this area have had prescribed burning treatments, consisting primarily of underburning in the 1990's, and broadcast burning for wildlife habitat improvement from 2012 to about 2014. District personnel determined that these treatments were also not substantially noticeable, with effects similar to wildlife. Altogether, vegetation treatments have affected about 9% of the area within this evaluation boundary. Additional past cutting is adjacent to the boundary.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None present.
Areas of mining activities including both abandoned and active mines.	None present.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there are no range improvements within UB5.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	There is a developed trailhead at Flesher Pass. Cummings cabin rental on the northwest. CDNST bisects. Stemple Pass cross country ski trails. Paige Gulch road is open to snowmobiles in winter and is open to motorized travel in the summer. Cross country snowmobile travel is open in the northwestern part of the polygon.

Improvement Type	Presence and extent of departure from naturalness
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	None internally.
Presence of watershed treatment areas including contouring, diking, and channeling.	None known
Lands adjacent to development or activities that impact opportunities for solitude.	Active mining in 7UP mining complex to the west. Internal timber harvest and road building by the FS. Highway 200 and residential areas to the north. Residential acres to the south and east.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	There are 6 recorded cultural resources within this polygon. This polygon is within the Stemple-Gould Historic Mining District, therefore it has a high potential for unrecorded sites associated with past mining.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	0.0 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	No recorded historic routes, however there is a high probability for unrecorded historic routes associated with past mining in the area.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 351. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	There are no motorized trails within the polygon.
Area available for winter motorized opportunity	North of the CDNST is open to cross country snowmobiling; south of the CDNST is closed to cross country snowmobiling. Snowmobiling allowed on the Paige Gulch road.
Proximity to private lands and non-Forest Service roads.	None present
Proximity to developed recreation sites outside of the polygon area.	Flesher Pass Trailhead. Cummings cabin rental on the northwest.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 352. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	The entire polygon is available for primitive and semi-primitive non-motorized summer recreation. Motorized uses do currently occur on the CDNST in this area.
Primitive and semi-primitive non-motorized winter recreation.	The areas south of the CDNST, which are closed to cross country snowmobiling, are available for primitive and semi-primitive non-motorized winter recreation.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hunting, snowmobiling, hiking, mountain biking, and cross country skiing.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 353. Size and Description

Size of Polygon	Description
20,145 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

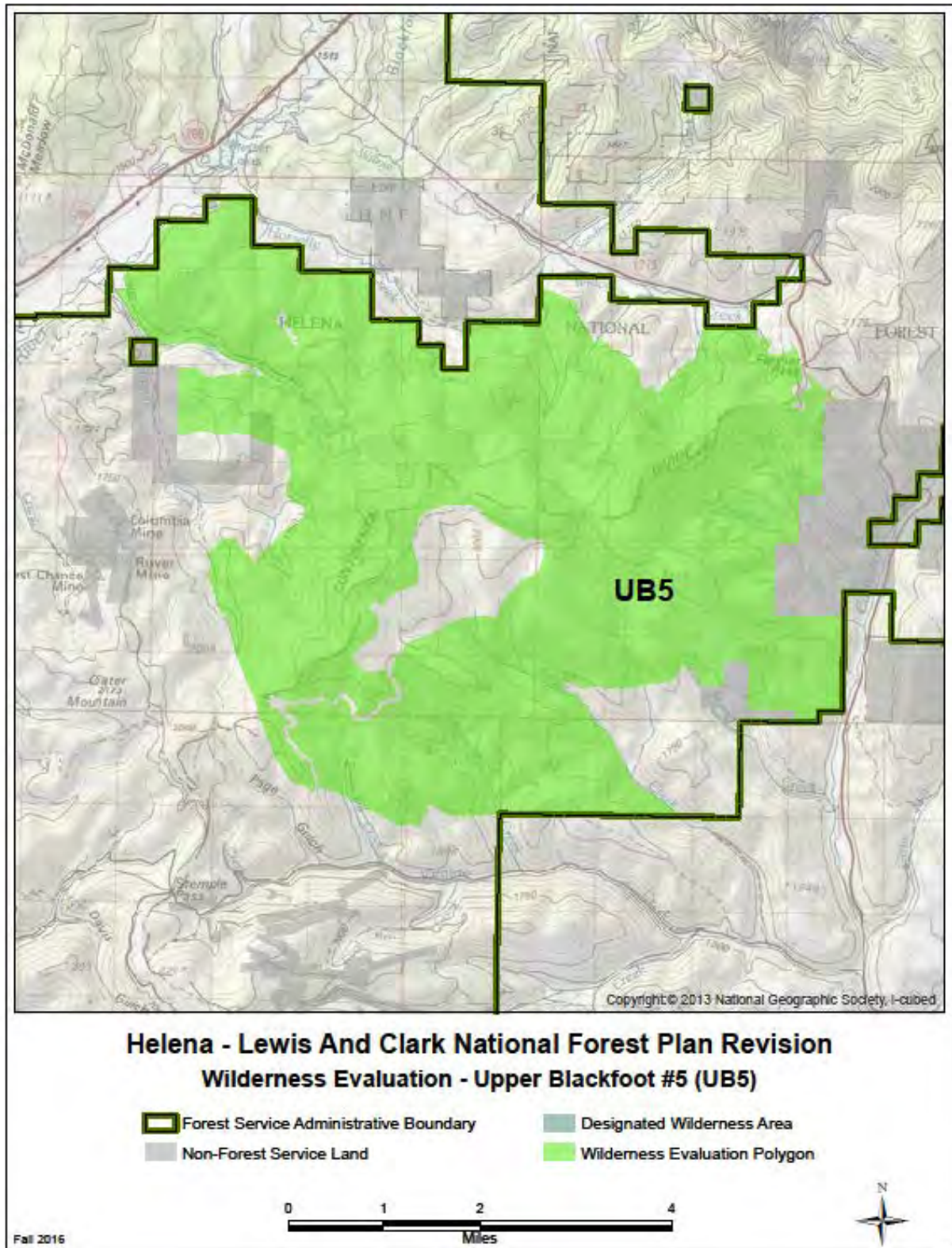
Table 354. Features present

Features	Description and scale
Rare plant communities	The only potential plant species of conservation that is known to occur in this area is <i>Pinus albicaulis</i> , although it is also possible that <i>Pinus flexilis</i> could occur.
Rare animal species or communities	Federally listed species: grizzly bear (within Distribution Zone and proposed management Zone 1), Canada lynx (within designated critical habitat). Potential species of conservation concern and/or state at risk species: western toad No bull trout, several streams with WCT (see above).
Rare ecosystems	Whitebark pine is a candidate species for listing under the ESA, and is present in small amounts in this area. No known rare aquatic ecosystems.
Outstanding landscape features	Open, scenic ridges along the CDNST.
Historic and cultural resource sites	All recorded cultural resources within this polygon have the potential for scientific, educational, or historic value.
Research Natural Areas	None present.
High quality water resources or important watershed features	None present.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 355. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	The area is a large irregular shaped polygon that stretches south and west of Flesher Pass. There is a large exclusion area in the upper reaches of Paige Gulch.
Legally established rights or uses within the area	None known.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	None present.
Management of adjacent lands	The northern boundary is private residential. The western boundary is active mining and timber harvesting and Stemple Pass cross country ski trails. The southern boundary is private residential, ranching, and timber harvest. The eastern boundary is Highway 279 and residential areas.



Bear Gulch Area (UB9)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 356. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	There is a relatively low diversity of dominance types in this area. The most abundant types are lodgepole pine dominated forests, which cover about 53% of the area. Douglas-fir dominated forests are also common, found on about 40% of the area. Subalpine fir and Engelmann spruce forests grow on just over 6%. Trace amounts of other dominance types are present and represent less than 1% of the area each, and include grasslands, shrublands, and cottonwood.
Potential vegetation types	The most common potential vegetation types are cool moist forest types, representing over 61% of the area and likely supporting Douglas-fir, lodgepole pine, fir, and Engelmann spruce. Warm dry forest potential types are found on 36%, where Douglas-fir likely dominates. Other potential types are present and cover 1% or less of the area each, and include xeric grassland, mesic grassland, and xeric shrubland types.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 102 acres within UB9 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: 4600 acres potential lynx habitat, with approximately 1500 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type. Roughly 4800 acres of goshawk potential nesting habitat. Presence of flammulated owl indicates mature, open ponderosa pine habitat. • Approximately 2700 acres secure elk habitat. Moose present. • Roughly 2000 acres potential wolverine habitat. • Grizzly bears, Canada lynx, wolves present. • Fisheries: WCT in EF Willow Creek, possibly Jefferson Creek Trib., McClellan Gulch, and Fields Gulch. Bull Trout mapped in Poorman Creek, along the northern boundary of the polygon.
Known non-native wildlife species	No non-native terrestrial or avian species known. Non-native trout likely

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 357. Ecological conditions

Measures	Outcome
% of area without past timber harvest	100% of the area is unaffected by past harvest. There are no records of harvest occurring here, although it is possible that historical logging could have occurred prior to Forest Service record keeping. There is nothing noticeable on aerial photography.

Measures	Outcome
% of area without known invasive weeds	According to data as of 2/10/2016, 88.2% of UB9 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 2: 36%, Class 3: 64% Class 3 primarily due to impacts downstream of WE polygon
Miles of motorized road/trail within 300' of streams	1.1 miles
Noticeable wildfire suppression impacts	No large fire occurrence records since 1980.

Question 1c. *What is the extent to which improvements in the area represent a departure from apparent naturalness?*

Table 358. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present.
Presence of timber harvest or prescribed fire areas	There are no records of past harvest in this area, although there are many harvest units immediately adjacent to the boundary. Prescribed fire treatments have occurred within the area, consisting of about 686 acres of broadcast burning and underburning in 1992 and 2002. This affected about 12% of the area; however, these treatments were determined to not be substantially noticeable, with effects similar to low or mixed severity wildfire.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None present.
Areas of mining activities including both abandoned and active mines.	Roads to the abandoned mine sites are still evident. There are active mines along the east boundary of the polygon.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there are no range improvements within UB9.
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	Motorized trail (Helmville-Gould) along southwestern corner. Minimally developed trailhead to the west (Dalton Mountain).
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	None present.
Presence of watershed treatment areas including contouring, diking, and channeling.	None present.
Lands adjacent to development or activities that impact opportunities for solitude.	There is evidence of mining and timber harvest surrounding the entire polygon. There are agricultural uses to the north.

Improvement Type	Presence and extent of departure from naturalness
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	There are 10 recorded cultural resources within this polygon. This polygon is also within the McClellan/Sauerkraut Historic Mining District which has the high probability of unrecorded sites associated with past mining. Old mining cabins and evidence of mining activity along the western edge. Crisscrossed with old trails and roads.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	0.8 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	No recorded historic routes within this polygon. However, there is the potential for unrecorded historic routes associated with past mining in the area.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 359. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	Motorized use on Helmville-Gould trail and dispersed cross country foot traffic.
Area available for winter motorized opportunity	Entire area open to cross country snowmobile travel.
Proximity to private lands and non-Forest Service roads.	None present.
Proximity to developed recreation sites outside of the polygon area.	Dalton Mountain trailhead (minimally developed).

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 360. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	The majority of the area holds opportunities for primitive and semi-primitive non-motorized recreation. These opportunities may be limited in the portions of the polygon that lie adjacent the Helmville-Gould trail which is open to motorized use in the summer.
Primitive and semi-primitive non-motorized winter recreation.	The area is available for primitive and semi-primitive non-motorized uses in winter but the presence of cross country snowmobile uses may affect these experiences.
Known existing primitive/unconfined types of	Hunting, hiking, horseback riding, and ATV riding in the summer.

Measures	Descriptions and Locations
recreation uses, including nonconforming uses.	Snowmobiling in the winter.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 361. Size and Description

Size of Polygon	Description
7, 591 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Table 362. Features present

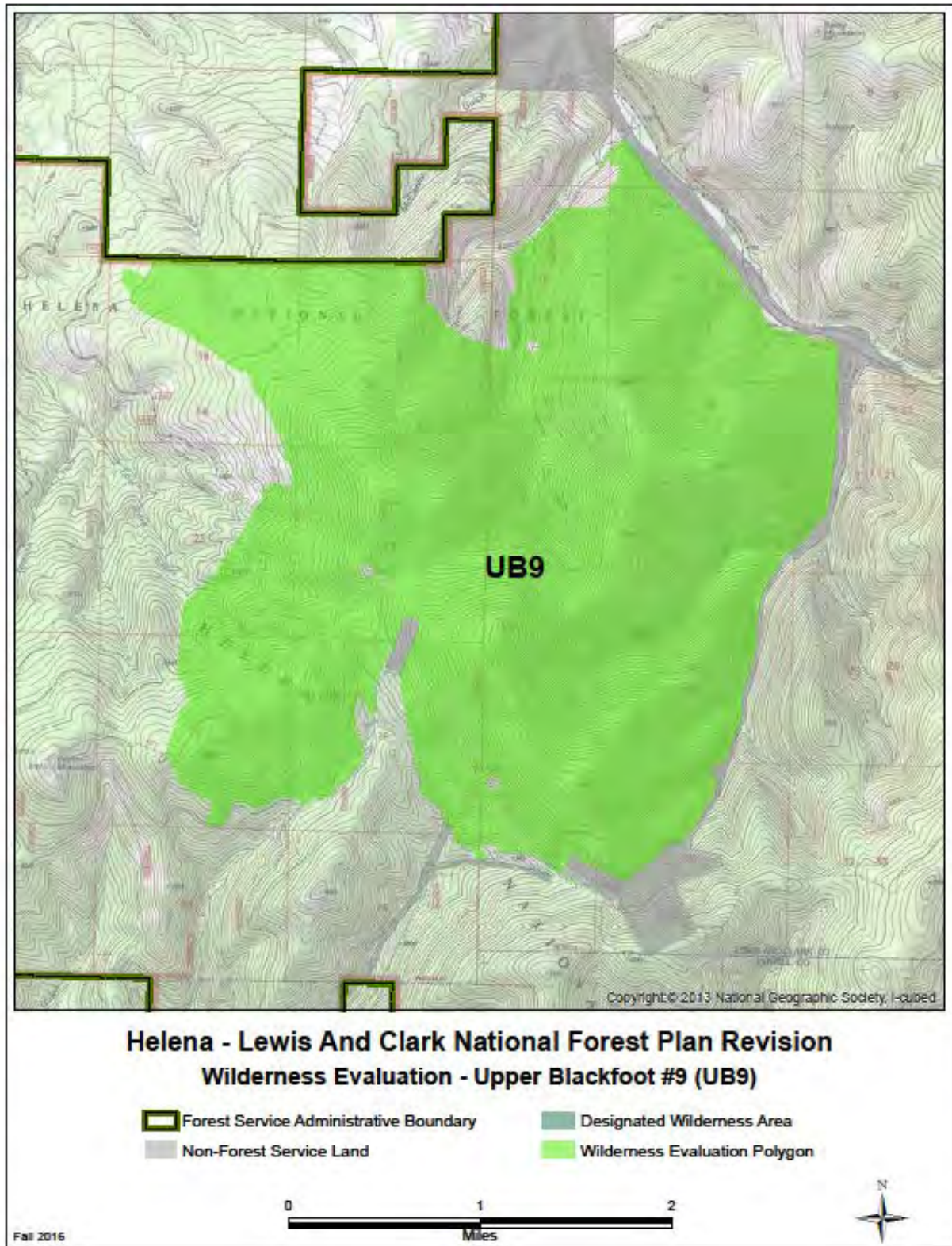
Features	Description and scale
Rare plant communities	There are no potential plant species of conservation concern that are known to occur in this area.
Rare animal species or communities	Federally listed species: grizzly bear (within Distribution Zone and proposed Management Zone 1), Canada lynx (within designated critical habitat). Potential species of conservation concern and/or state at risk species: flammulated owl Fisheries: WCT in EF Willow Creek, possibly Jefferson Creek Trib., McClellan Gulch, and Fields Gulch.
Rare ecosystems	There are no known rare terrestrial ecosystems in this area. No known rare aquatic ecosystems.
Outstanding landscape features	None.
Historic and cultural resource sites	All recorded cultural resources within this polygon have the potential for scientific, educational, or historic value.
Research Natural Areas	None present.
High quality water resources or important watershed features	Bull Trout and WCT fisheries.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 363. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	Irregular shaped polygon which lies south and west of Poorman Creek. Shape of the polygon on the west side is influenced by patented mining claims.
Legally established rights or uses within the area	None present.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to	None known.

Factors	Description and scale
protect wilderness characteristics	
The presence and amount of non-Federal land in the area	No private land inholdings within the polygon. Patented mining claims lay outside of the polygon around the border.
Management of adjacent lands	Timber production and mining to the south and west. Rangeland to the north. Strip of private lands along McClellan Creek to the east.



Nevada Mountain Area (UB10)

Criteria 1. Evaluate the degree to which the area generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable.

Question 1a. What is the composition of plant and animal communities within the area?

Table 364. Plant and animal communities

Plant and Animal Communities	Composition
Existing vegetation dominance types	The most abundant dominance types in this area are lodgepole pine dominated forests, which cover about 44% of the area. Douglas-fir dominated forests are also common, found on about 39% of the area. Subalpine fir and Engelmann spruce mixed forests occur on roughly 13% of the area, and dry grasslands are found on nearly 2%. Other dominance types are present in very small amounts, representing less than 1% of the area each, and include shrublands, whitebark pine, limber pine, cottonwood, and aspen. There are some sparsely vegetated areas as well (scree/rock).
Potential vegetation types	The most common potential vegetation types in this area are the cool moist forest types, which represent about 65% of the area and likely support pure or mixed forests of Douglas-fir, lodgepole pine, fir, and spruce. Warm dry forest potential types are found on about 32%, and likely primarily support Douglas-fir. Cold forest types are found on just over 1%, where whitebark pine is most likely to grow. Very small amounts of other potential types are also present, including xeric grassland, mesic grassland, and xeric shrubland types.
Known non-native terrestrial plant species	According to data as of 2/10/2016, 335 acres within UB10 are associated with invasive plant inventories.
Status and extent of existing native wildlife species and communities	<ul style="list-style-type: none"> • Functioning mature forest habitat: 35,000 acres potential lynx habitat, with nearly 12,000 acres mature multi-storied (optimal lynx winter forage) based on existing and potential vegetation type. Over 36,000 acres of goshawk potential nesting habitat. • Approximately 33,000 acres secure elk habitat. • Roughly 29,000 acres potential wolverine habitat. • Grizzly bears, Canada lynx, wolves present. • WCT and Bull Trout in Nevada Creek, WCT in Washington and Threemile Creeks.
Known non-native wildlife species	No non-native terrestrial or avian species known. Non-native trout likely

Question 1b. What is the extent to which the area reflects ecological conditions that would normally be associated with the area without human intervention?

Table 365. Ecological conditions

Measures	Outcome
% of area without past timber harvest	Available records show that there have been about 291 acres of past harvest in this area, consisting of thinning, uneven-aged cuts, liberation cuts, and seed tree cuts from 1964 to 1992. There was also a small clearcut in 1958. These areas cover about 0.57% of the area; over 99% of the area has been unaffected by harvest.

Measures	Outcome
% of area without known invasive weeds	According to data as of 2/10/2016, 99.3% of UB10 is not associated with invasive plant inventories.
% of area within watersheds in watershed condition classes 1, 2, and 3	Class 1: 9%, Class 2: 31%, Class 3: 60%. Class 3 primarily due to mining activities occurring downstream from WE polygon; Washington Creek watershed impacted by dewatering, dredge mining, roads, and grazing. Washington Creek is on 303(d) list for mining impacts and Nevada Creek is on 303(d) list for Agriculture, Grazing Sources, Placer Mining, Resource Extraction issues—but could be related to activities downstream of the polygon
Miles of motorized road/trail within 300' of streams	10.4 miles
% of area without noticeable wildfire suppression impacts	No large fire occurrence records since 1980.

Question 1c. *What is the extent to which improvements in the area represent a departure from apparent naturalness?*

Table 366. Improvements and extent of departure from naturalness

Improvement Type	Presence and extent of departure from naturalness
Airstrips	None present
Presence of timber harvest or prescribed fire areas	All of the past harvests that occurred in this area (291 acres total, from 1958 to 1992) were determined to be no longer substantially noticeable on the landscape. In addition to harvest, about 2,375 acres (or 4.65% of the area) has been treated with prescribed fire. About 80 acres of this were pile burning or jackpot burning following past harvest treatments. The remainder (and bulk) of the burning was underburning from 1991 to 2004, most commonly as part of the Poorman project. These areas were also determined to be not substantially noticeable on the landscape, with effects similar to wildfire. Over 95% of the evaluation area has been unaffected by any vegetation treatment.
Presence of permanently installed vertical structures, such as electronic installations including cell towers, television, radio, and telephone repeaters.	None present
Areas of mining activities including both abandoned and active mines.	Mining impacts/roads in Washington Creek, primarily downstream of WE polygon, roads around Nevada Creek too, mostly downstream of polygon. Active mining in this polygon, including placer plus lode mining. There are a lot of known unpatented claims with pre-existing rights.
Range improvement areas, involving minor structural improvements (fences or water troughs) and non-structural improvements (chaining, burning, spraying, potholing, and so forth).	According to current data there is approximately 1 mile of fencing and 2 stock water tanks within UB10.

Improvement Type	Presence and extent of departure from naturalness
Recreational improvements, such as occupancy spots, or minor hunting, or outfitting camps within the polygon area.	The Helmville-Gould Trail is designated for motorized use. The CDNST is motorized/non-motorized and bisects the polygon. There are non-motorized trails in Nevada Creek, Prickly Pear Gulch and Washington Gulch. The Nevada Creek TH is located west of the polygon. The Nevada Creek Admin Cabin is in Nevada Creek. The Helmville Gould TH is located on eastern edge. Snowmobiles are not authorized in the polygon area.
Presence of ground-return telephone lines, electric lines, and power lines if a right-of-way has not been cleared. Visible presence of power lines, pipelines, and other permanently installed linear right-of-way structures.	None present. ROW in Washington Creek for patented mining claim inholdings.
Presence of watershed treatment areas including contouring, diking, and channeling.	None known
Lands adjacent to development or activities that impact opportunities for solitude.	Mines in Washington Creek to the west. Timber harvest and road building to the north. Active timber harvest on FS lands to west. Stemple Pass road to the north.
Structures, dwellings, and other relics of past occupation that are considered part of the historical and cultural landscape of the area.	There are 28 recorded cultural resources within this polygon. This polygon also overlaps three historic mining districts with have numerous unrecorded relics of past mining activity.
Areas that have been proposed by the FS for consideration as recommended wilderness as a result of previous Forest planning process.	Not recommended as wilderness in the 1986 Forest Plan.
Number of miles of maintenance level 1 road templates.	10.9 miles
Number of miles of historic road templates, including historic mining routes, wagon routes, or other settlement era transportation.	No recorded historic routes. However, there is the high potential for unrecorded routes associated with past mining.

Criteria 2. Evaluate the degree to which the area has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.

Question 2a. What impacts are pervasive and influence a visitor’s opportunity for solitude? What are the factors that may mitigate those impacts?

Table 367. Impacts influencing solitude

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
Area available for summer motorized opportunity	There are three motorized trails within the polygon: Trail 467 (Helmville-Gould), Trail 487, and Trail 440 (part of the CDNST).
Area available for winter motorized opportunity	Except for an area just south of Jefferson Creek which is open to cross country snowmobiling, the rest of the area is closed to cross country snowmobile use.
Proximity to private lands and non-Forest Service roads.	Patented mining claims and access road in Washington Creek.
Proximity to developed recreation sites	Nevada Creek TH, Helmville Gould TH, and Seller Gulch TH.

Impacts	Mitigating Factors (include topography and screening that influence pervasive sights and sounds)
outside of the polygon area.	Nevada Creek Admin Cabin in Nevada Creek.

Question 2b. What primitive-type or unconfined-type of recreation activities are available in the area that would contribute to the visitors ability to feel a part of nature?

Table 368. Primitive or unconfined types of recreation

Measures	Descriptions and Locations
Primitive and semi-primitive non-motorized summer recreation.	Except for areas immediately surrounding the 3 motorized trails, there are abundant opportunities available for primitive and semi-primitive recreation in the summer.
Primitive and semi-primitive non-motorized winter recreation.	Except for the area just south of Jefferson Creek where cross country snowmobiling is allowed, the majority of this polygon is available for primitive and semi-primitive recreation in the winter.
Known existing primitive/unconfined types of recreation uses, including nonconforming uses.	Hunting, CDNST, hiking, horseback riding, and mountain biking. Some ATV use on non-motorized trails.

Criteria 3. Evaluate how an area less than 5,000 acres is of a sufficient size to make its preservation and use in an unimpaired condition practicable.

Table 369. Size and Description

Size of Polygon	Description
58,531 acres	The polygon is greater than 5,000 acres in size.

Criteria 4. Evaluate the degree to which the area may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Table 370. Features present

Features	Description and scale
Rare plant communities	The only potential plant species of conservation concern known to occur in this area are <i>Pinus albicaulis</i> and <i>Pinus flexilis</i> .
Rare animal species or communities	Federally listed species: grizzly bear (within Distribution Zone and proposed Management Zone 1), Canada lynx (within designated critical habitat). Potential species of conservation concern and/or state at risk species: none documented WCT and Bull Trout in Nevada Creek, WCT in Washington and Threemile Creeks
Rare ecosystems	Whitebark pine is a candidate species for listing under the ESA, and is present in very small amounts in this area. Limber pine and aspen communities are also of interest on the HLC NF and are present in small amounts as well. No known rare aquatic ecosystems.
Outstanding landscape features	Nevada Mountain, Black Mountain and open scenic ridges along the CDNST.

Features	Description and scale
Historic and cultural resource sites	All recorded cultural resources within this polygon have the potential for scientific, educational, or historic value.
Research Natural Areas	None present.
High quality water resources or important watershed features	Bull Trout and WCT populations.

Criteria 5. Evaluate the degree to which the area may be managed to preserve its wilderness characteristics.

Table 371. Wilderness characteristics

Factors	Description and scale
Shape and configuration of the area	A large polygon that includes much of the undeveloped mountainous landscape surrounding Nevada Mountain on both sides of the continental divide.
Legally established rights or uses within the area	Patented mining claims and access road inholding. There are a lot of known unpatented claims with pre-existing rights.
Specific Federal or State laws that may be relevant to availability of the area for wilderness or the ability to manage the area to protect wilderness characteristics	None known.
The presence and amount of non-Federal land in the area	Patented mining claim in Washington creek.
Management of adjacent lands	Mining and timber harvesting surround the polygon. There is extensive rangeland in the Helmville Valley. The Great Divide Ski Area is visible from the CDNST in several locations.

