

Appendix D – Cumulative Effects

Past, Present and Foreseeable Future Actions Relevant to the Blackfoot Non-Winter Travel Plan

Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes the action (40 CFR 1508.7).

The baseline used for cumulative effects analysis is the current condition. The cumulative effects analysis, while including some consideration of past human actions, does not fully quantify all effects of past human actions by calculating all prior actions on an action-by-action basis. By looking at current conditions, we are sure to capture residual effects of past human actions and natural events, regardless of which particular action or event contributed those effects. The Council on Environmental Quality issued an interpretive memorandum on June 24, 2005, regarding analysis of past actions, which states, “agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions.” The cumulative effects analysis in this EIS is also consistent with Forest Service NEPA Regulations (36 CFR 220.4(f)). For these reasons, while some past actions are listed and considered, the focus of the cumulative analysis is based on current environmental conditions.

The Blackfoot project area includes all non-wilderness NFS land on the Lincoln Ranger District and as such is large and includes ten 5th hydrologic unit code (HUC 5) watersheds (figure 6). These 5th code HUCs are further divided into smaller 6th code HUCs (there are thirty-four 6th code HUCs in the project area), which are described in more detail in the hydrology section of chapter 3. Of this 611,000-acre area, approximately 292,000 acres fall within the Helena Forest boundary and are comprised of private, state and National Forest System land, as displayed in the following table.

Table D- 1. HUC 5 acreage by land ownership within the Helena NF boundary

Ownership	Acres	Percent
Blackfoot River Headwaters	56,511	
Private	4,825	8
State	560	1
Forest Service	51,125	91
Blackfoot River-Keep Cool Creek	90,745	
Private	2,320	3
Forest Service	88,425	97
Landers Fork	54,801	
Private	275	1
Forest Service	54,525	99
Little Prickley Pear Creek	204	
Forest Service	204	100
Lower Dearborn River	5,292	

Ownership	Acres	Percent
Forest Service	5,292	100
Lower Little Blackfoot River	317	
Forest Service	317	100
Lower North Fork Blackfoot River	6,652	
Private	2	<1
State	645	10
Forest Service	6,005	90
Middle Fork Dearborn River	4,922	
Private	2,441	50
Forest Service	2,481	50
Nevada Creek	40,315	
Private	1,536	4
Forest Service	38,778	96
Upper Little Prickley Pear Creek	32,324	
Private	3,139	10
State	691	2
Forest Service	28,493	88
Total acres within Helena National Forest boundary	Approximately 292,000 acres	
Total acres of all HUC 5 watersheds with portions that fall within project boundary	Approximately 611,000 acres	

We chose the aggregate (611,000-acres) of these ten 5th code HUC watersheds (table d- 1 and figure 6) and focused on the portions of this within the Forest boundary (292,000 acres) for the cumulative impact analysis area because of the potential for impacts of multiple actions on the natural environment, particularly hydrologic resources, within the same drainage area. However, the area of cumulative impact may differ depending on the resource affected. If a different cumulative impact area is chosen for a specific resource, we discuss this in that specific resource section in chapter 3.

A catalog of certain actions relevant to roads and road use (ones that are contributing effects to affected resources analyzed) occurring within this cumulative impact analysis area is shown in table D2 that follows. In progress or planned actions, known as of this writing, are also included and were compiled from the “Helena National Forest Schedule of Proposed Actions” (October 2012) and input from district and forest staff.

The “Affected Environment” sections for each resource in chapter 3 discuss the current conditions in the project area, including the transportation section which briefly discusses a history of past road/trail construction and use in the area. Cumulative watershed effects analysis assumes all planned projects have been completed

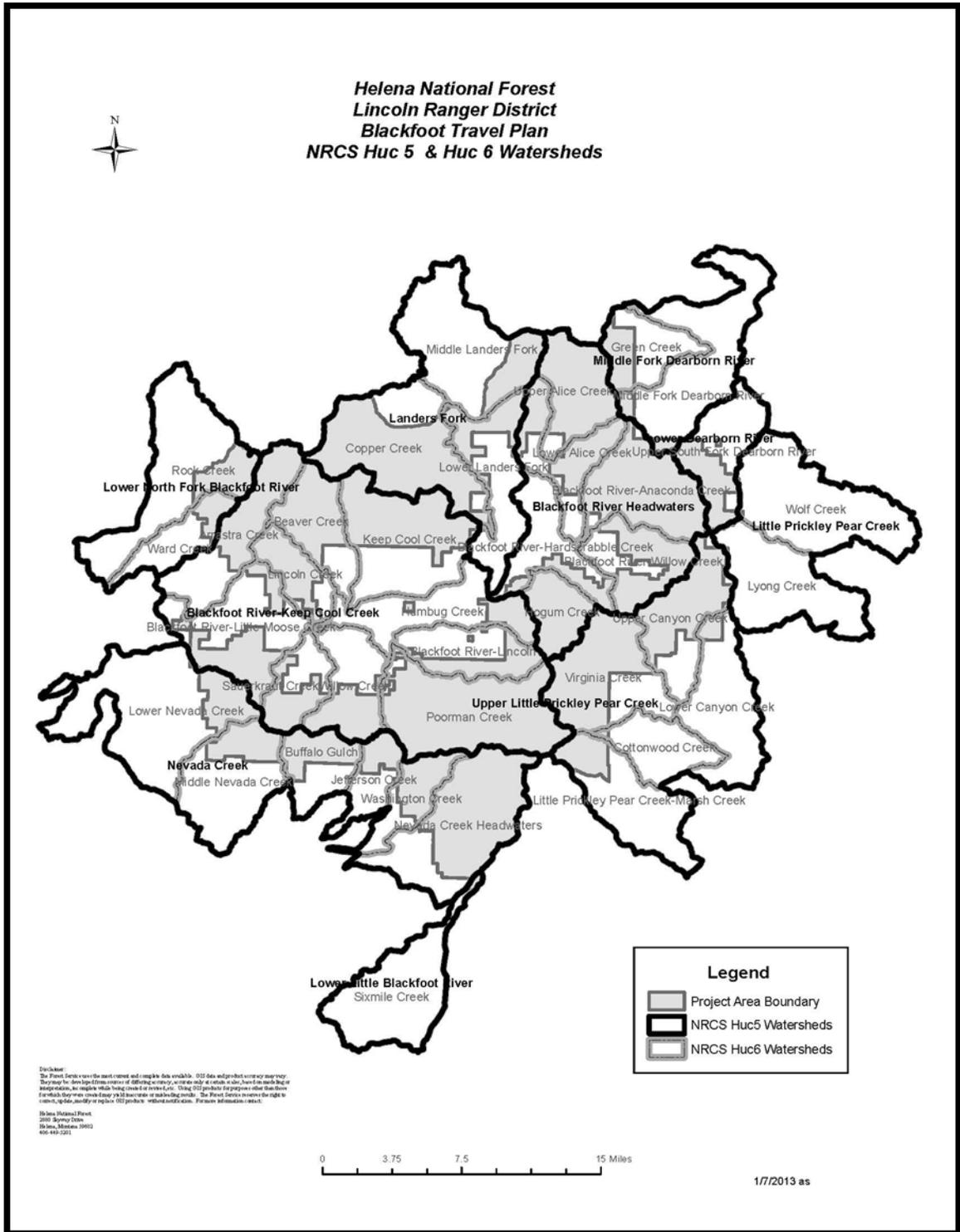


Figure 6. Blackfoot Travel Plan cumulative effects displaying HUC 5 and HUC 6 watersheds

Table D- 2. Past, planned and ongoing activities within or near the Blackfoot Travel Plan cumulative impact analysis area

Activity	Type/Description	Timing	5th code HUC	Acres/Miles within 5th code HUC
Ongoing or Planned Projects within Cumulative Impact Analysis Area				
Alice Creek Wildlife Enhancement Project	Big game winter range improvements through reducing conifer encroachment within native grasslands. In addition to creating and maintaining natural openings and improving stand structure, burning will improve forage quality and quantity	2013	Blackfoot River Headwaters & Middle Fork Dearborn River	2803 acres in Blackfoot River Headwaters 18 acres in Middle Fork Dearborn River
Baldy Mountain Sampling	Materials sampling along FS Rd. 1826.	2013	Blackfoot River-Keep Cool Creek	<1
Blackfoot - North Divide Winter Travel Planning	Development of a winter travel plan for the Lincoln Ranger District in order to provide a variety of motorized and non-motorized winter recreation opportunities.	2014	All	Essentially the same planning area as Blackfoot Non-Winter Travel Plan
Cougar #1, 2 Lode Sampling	Sample material removal from two collapsed portals to be dug out using Bobcat & hand tools and closed using a wooden structure that can be locked. Some minor road work for access possible.	On hold	Upper Little Prickly Pear Creek	<1
Dalton Mountain Forest Restoration and Fuels Reduction Project	Vegetation management project to address forest stand health and fuel hazards associated with mountain pine beetle infestation	2015	Blackfoot River-Keep Cool Creek & Nevada Creek	10,670 acres in Blackfoot River-Keep Cool Creek 7,750 acres in Nevada Creek
Granite Butte Whitebark Pine Restoration Project	Whitebark pine seedling planting within the boundary of the 2010 Davis fire	2012	Upper Little Prickly Pear Creek	1,967 acres
Helmville Face Wildlife Enhancement Project	Prescribed fire project to restore the role of fire; create and maintain natural openings; improve stand structure; and improve wildlife forage quality and quantity	2013	Blackfoot River-Keep Cool Creek and Nevada Creek	1,644 acres in Blackfoot River-Keep Cool Creek 8,853 acres in Nevada Creek

Activity	Type/Description	Timing	5th code HUC	Acres/Miles within 5th code HUC
South Fork Poorman Creek Fish Improvement/Road Reroute	Relocate 2300 feet of county road and phone line to improve aquatic and fish habitat by reducing sediment into South Poorman Creek	2012	Blackfoot River-Keep Cool Creek	0.34 miles
Stonewall Project	Vegetation management project to respond to mountain pine beetle outbreaks, maintain and improve viable mature habitat structure to support big game and other wildlife, promote resiliency with a mosaic of species, reduce fire hazard and potential, and provide timber products	2013	Blackfoot River-Keep Cool Creek	24,006 acres
Hogum Wildlife Enhancement Project			Blackfoot River Headwaters	1538 acres
George Kamps Private Road special use permit	Permit for motorized access across National Forest System land to private land in the Arrastra Creek areas. Proposed use of approximately 5.7 miles of an existing, unnumbered road that is closed to motorized public use.	2012	Blackfoot River-Keep Cool Creek	3.8 miles
Livestock Grazing	<p>The project area includes 15 livestock grazing allotments</p> <ol style="list-style-type: none"> 1. Alice Creek 2. Arrastra Creek 3. Canyon Ck Sandborn 4. Chimney Creek 5. East Nevada 6. East Shingle Mill 7. Gould Creek 8. Horsefly 9. Keep Cool Liverpool 10. Marsh Creek 11. Moose Creek 	<ol style="list-style-type: none"> 1. 7/5 – 9/5 2. 6/1 – /30 3. 7/1 -9/31 4. 7/1 – 9/1 5. 7/1 – 9/1 6. 7/11– 9/1 7. 7/1 – 9/30 8. 7/1 – 9/30 9. 7/1 – 9/30 10. 7/1 – 9/30 11. 7/1 – 8/31 	<ol style="list-style-type: none"> 1. Middle Fork Dearborn; Landers Fork; Blackfoot River Headwaters 2. Blackfoot River-Keep Cool Creek; Lower North Fork Blackfoot 3. Blackfoot River Headwaters 4. Nevada Creek 5. Nevada Creek 6. Nevada Creek 7. Upper Little Prickly Pear; Balckfoot River-Keep Cool Creek 	<ol style="list-style-type: none"> 1. 1829/0; 8/0; 11053/6 2. 687/5; 426/4; 3. 2603/8 4. 1986/15 5. 4370/7 6. 1415/5 7. 1/0; 2482/7 8. 20/0; 5179/11 9. 1052/9; 7482/29 10. 3363/6; 16/0 11. 4072/25; 3439/23 12. 9773/41; 276/1 13. 2000/15

Activity	Type/Description	Timing	5th code HUC	Acres/Miles within 5th code HUC
	12. Poorman /Willow 13. Stonewall 14. Tarhead 15. West Nevada	12. 7/1 – 9/30 13. 6/29- 9/30 14. 7/1 -9/30 15. 6/16- 8/31	8. Upper Little Prickly Pear; Blackfoot River Headwaters 9. Landers Fork; Blackfoot River-Keep Cool Creek 10. Upper Little Prickly Pear; Blackfoot River-Keep Cool Creek 11. Blackfoot River-Keep Cool Creek; Nevada Creek 12. Blackfoot River-Keep Cool Creek; Nevada Creek 13. Blackfoot River-Keep Cool Creek 14. Upper Little Prickly Pear; Blackfoot River Headwaters Blackfoot River-Keep Cool Creek; Nevada Creek	14. 2654/6; 20/0 15. 166/4; 7357/38
Forestwide Hazardous Tree Removal and Fuels Reduction HFRA Project	Individual tree removal from roadsides to minimize large-scale wildfire threats and improve public safety along roadways	Ongoing	Various	
Campgrounds, recreation sites, day use areas, & rental cabin operations and maintenance	Routine operation and periodic maintenance on designated campgrounds and their facilities and roads	Ongoing	Various	
Mining Activity	Overall, permitted mining activity on the Lincoln Ranger District in recent years has been limited to small operations with mainly hand work.	Ongoing	Various	
Noxious Weed Treatment	Herbicide treatment is primarily along roads and in patches that are accessible	Ongoing	Various	

Activity	Type/Description	Timing	5th code HUC	Acres/Miles within 5th code HUC
	<p>to mechanized equipment (spraying with ATVs) and/or by hand, biological (insects), goats/sheep, and aerial spraying.</p> <p>Areas for treatment are as identified in the EIS/ROD and continually being updated and treated as new infestations are located.</p>			
Lincoln Ranger District Administrative Site	Humbug Creek HUC 110 acres	Ongoing	Blackfoot River-Keep Cool Creek	110 ac
Outfitting	Outfitter and guide special use permits for big game and spring bear seasons, day use and overnight camping.	Ongoing	Various	
Road & Trail routine Maintenance	Routine maintenance includes blading, brushing, culvert cleanout, etc. Use of Forest Roads varies by route and season	Ongoing	Various	
Utility Special Use Permits	Utility lines are authorized under the terms of a special use permit. Routine maintenance are accepted and understood under the terms of the permit.	Ongoing	Various	
Road Special Use Permits	Re-issuance of existing road access permit for long-term.	Ongoing	Various	
Personal use firewood cutting.	Dead trees with approximately 100 feet of existing travel routes within the analysis are being removed by the public for firewood.	Ongoing	Various	
Private Land Timber Sales	Unspecified acres; primarily tractor logging using existing roads for hauling.	Ongoing	Various	
Private Land Development	Development for housing in several areas in the vicinity of the town of Lincoln.	Ongoing	Various Various	

Activity	Type/Description	Timing	5th code HUC	Acres/Miles within 5th code HUC
Alice Creek prescribed burn	Prescribed burning to improve forest health and reduce the threat of large-scale wildfire	Ongoing	Blackfoot River Headwaters and Middle Fork Dearborn River	3,275 acres in Blackfoot River Headwaters 56 acres in Middle Fork Dearborn River
Poorman prescribed burn	Prescribed burning to improve forest health and reduce the threat of large-scale wildfire	Ongoing	Blackfoot River-Keep Cool Creek	837 acres
Road projects ARRA-2010 and 2011	Replacement of the Nevada-Ogden Bridge and Lincoln area roads maintenance	2010 and 2011	Various	
Stonewall	wildfire	2012		10 acres
EF	wildfire	2012		4700 acres (primarily within Scapegoat Wilderness)
Mike Horse Upper Blackfoot Mining Complex	Large scale reclamation project	2013-2018	Headwaters Upper Blackfoot River	30 acres
Summary of Past Activities (Pre-2010) within Cumulative Impact Analysis Area				
Timber harvest (NFS and state/private land)	Vegetation management activities to improve forest health and achieve other Forest Plan objectives	Pre-2010	Various	
Fire/Fuels treatments	Prescribed burning and forest thinning to prevent large-scale wildfire	Pre-2010		
Livestock grazing	Grazing of cattle, sheep and horses	Pre-2010		
Mining	Small scale hard rock mining	Pre-2010		
Other Relevant Activities Outside Cumulative Impact Analysis Area				
Divide Travel Plan	In-progress travel management analysis covering summer and winter motorized use	2013	Not Applicable	
South Belts Travel Plan	Travel management analysis covering summer and winter motorized use	complete		
North Belts Travel Plan	Travel management analysis covering	complete		

Activity	Type/Description	Timing	5th code HUC	Acres/Miles within 5th code HUC
	summer and winter motorized use			
Clancy-Unionville Travel Plan	Travel management analysis covering summer and winter motorized use	complete		
Elkhorns Travel Plan	Travel management analysis covering summer and winter motorized use	complete		
Cellar-Ogilvie (Soundwood) Travel Plan	Travel management analysis covering summer and winter motorized use	complete		