

# Chapter 3

## The Affected Environment & Environmental Consequences

### Introduction

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This chapter describes general information, location, management direction, and existing conditions for the Porter Mount Management Project Area. It also describes the environmental impacts of the alternatives described in Chapter 2. Information in this chapter is based on reports written by various Resource Specialists (Appendix E – List of Preparers). These more detailed reports are kept in the Project File located at the Swan Lake Ranger District Office. Analysis in the chapter is the basis for the summary of alternative comparisons given in Chapter 2.

The affected environment and environmental consequences are combined into one chapter for continuity and ease of reading. After providing the location and the Forest Plan management direction, this chapter discusses specific resources and issues.

### Project Area

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The Porter Mount Project Area lies in the Island Unit Geographic Area of the Swan Lake Ranger District. This block of NFS lands is detached from the rest of the Flathead National Forest and is surrounded by private ownership lands. The Porter Mount Project Area is located southwest of Kalispell, Montana, south of US Highway 2, east of Lake Rodgers, northwest of Lake Mary Ronan, and west of Blacktail Ski Area (See Map 1- 1 - Vicinity Map).

### Definitions

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The following definitions should help the reader understand terms describing the analysis areas used to disclose the environmental consequences of implementing the alternatives:

#### Project Area

As shown on Vicinity Map 1-1, the project area includes approximately 11,431 acres. NFS lands occupy 11,111 acres of the project area (97 percent); the remaining 320 acres are privately held. Elevations range from 6280 feet at Haskill Mountain to 3440 feet close to Porter Creek.

#### Analysis Area

The area used for determining direct, indirect, and cumulative effects for the natural resources considered in this analysis. Note, the spatial and temporal bounds of the analysis (affected) area used for the effects analysis have been identified and described for each natural resource area included in this analysis and may vary from resource area to resource area.

### Affected Environment Analysis

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The resource information provided in the Affected Environment narratives includes the effects of past actions in that they are assessed as part of the existing condition of the landscape. For instance, consider a hypothetical example of a past timber sale in 1979 harvesting 150 acres of forest and constructing two miles of new road within the Porter Mount Management Project Area. The effects of

the harvest and road construction as well as the vegetation re-growth and roadbed stabilization occurring over the past 25 years would be accounted for in several assessments of the affected environment based on the specific resource being analyzed. Following are a few illustrations of the consideration of past actions in the affected environment with a scenario of this type:

- The change in forest structure from this past regeneration harvest would be displayed in the existing successional stage distribution disclosure in the vegetation section. Field examinations indicate this 150-acre harvest area supports a fully stocked stand of 20 foot trees and has progressed into a mid-seral successional stage over the past 25 years. This information would be included in the acreage of mid-seral successional classification and used in disclosure of existing vegetation and wildlife habitat conditions.
- The existing level of past regeneration harvest in the project area would include the 150 acres from this activity.
- Stream channel surveys assessing stream conditions in the project area would reflect any remaining physical and biological effects of the past timber sale and road construction. These field classifications of existing conditions of specific streams would be disclosed in the Affected Environment Section.
- The present contribution of sediment and increased stream flow from the two miles of road construction would also be accounted for in the calculation of existing watershed conditions as specific road segments and their construction dates are entered into the WATSED models. Likewise, any residual effects of the 150-acre harvest unit would be reflected in the existing condition model outputs based on vegetative recovery validated through field and aerial photo reconnaissance.
- Field examinations of road conditions would provide additional data on residual contributions of sediment from the two miles of road. These effects would be incorporated into existing road condition disclosures and provide a basis for proposed BMP projects for improved drainage, if needed.

Specific past actions considered in the Porter Mount environmental analyses are summarized in Table 3-1 below. Project File Section R provides detailed information for these actions. A list of past actions is not necessarily exhaustive as records may not exist for all past activities (by project). This is particularly true for those actions that predate the passage of the NEPA in 1970. Nevertheless, the effects of such past actions are fully accounted for in the assessment of existing condition as the current condition assessment necessarily reflects the impact of such actions (to the extent they are still affecting the particular resource considered).

## **Environmental Consequences**

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The Environmental Consequences Section discusses in detail the environmental effects that would occur for each alternative. It forms the scientific and analytical basis for the alternative comparisons presented at the end of Chapter 2 and in summary (40 CFR 1502.16). Information used to assess effects is based on the consideration of the best available sciences. The effects of Alternative A (No Action Alternative) form a baseline against which action alternatives are evaluated. Each narrative begins with a brief explanation of how effects were analyzed and the models used for each resource. When the effects or impacts are associated with an issue, as described in Chapter 2, its relevance and tie with the issue is discussed and plays an important role in the evaluation of alternatives.

Environmental effects can be direct, indirect, or cumulative. They can be long or short in duration. Effects can be quantitative or qualitative, adverse or beneficial, actual or potential. It is important to consider timing and location of effects. Direct effects are those caused by the action and occur at the same time and place. Indirect effects are those caused by the action and are later in time or further removed in distance, but are still reasonably foreseeable (40 CFR 1508.8). In most cases, direct and indirect effects are discussed together. Cumulative effects are those that result from the incremental impact of the action when added to other past, present, and reasonable foreseeable future actions

(40 CFR 1508.7). Therefore, the discussion of effects first considers the direct and indirect effects of each alternative and does not consider cumulative effects unless direct and indirect effects exist.

As the effects on a resource for each alternative are read, the supplemental maps should be referred to for the location of activities and area of analysis.

Discussions at the end of each resource section include a description of the Regulatory Framework associated with each resource. Environmental laws such as the NFMA, Endangered Species Act (ESA), Clean Water Act, and Clean Air Act provide the direction to the Forest Service for management of forest resources. These laws are interpreted and defined through the Code of Federal Regulations (CFRs), Administrative Rules of Montana (ARMs), Land and Resource Management Plan (Forest Plan) direction, Forest Service Manual (FSM) direction, and Forest Service policy. The Regulatory Framework associated with each resource is helpful in relating national and Forest-level direction to resource analysis procedures.

The cumulative effects analysis includes the additive effect of the action being considered when added to the effects of past, present, and reasonably foreseeable future actions. As past actions are already included in the affected environment, cumulative effects analysis builds upon this existing condition assessment by considering the incremental addition of direct and indirect effects of proposed as well as present and reasonably foreseeable actions. While impacts can be differentiated by direct, indirect, and cumulative, the concept of cumulative impacts takes into account all disturbances since cumulative impacts result in the compounding of the effects of all actions over time.

Detailed descriptions of foreseeable actions and Cumulative Effects Worksheets by natural resource are filed in the Porter Mount Project File. The cumulative effects analysis for each resource area displayed in this EA considered only those actions that would have measurable effects. Reasons as to why other actions had no effects are documented in the project file and are not elaborated on further in this chapter.

The following table provides a summary of the actions considered in the cumulative effects analysis for the Porter Mount Management Project. Additional information such as maps and specific details such as the timing, type, location, and scale of these past, present, and future actions is also included in the project file. The effects of these activities are discussed by resource in the Chapter 3 - Affected Environment and Environmental Consequences.

### **Past Actions**

Past Actions are management activities (timber harvest and prescribed burning) and events (wildfire) that occurred in the analysis area. The effects of these activities and events provide baseline conditions for the affected environment resources existing in the analysis area, which are described in Chapter 3 of this document. Additional information is contained in the project file for each of the resources. Records of past activities and events for the analysis area were examined from years 1920 to 2007. Activities recorded during this time are listed in Table 3-1.

**TABLE 3-1.  
 PAST ACTIONS CONSIDERED IN THE CUMULATIVE EFFECTS ANALYSIS AREA**

Action	Description	Unit of Measure	
<b>Forest Service Lands</b>			
Fuels Management, Wildfire Suppression, and Vegetation Management Activities within the Porter Mount Management Project Area	Ecosystem Burning (1959-2007)	108 acres – Burning for Site Prep Planting 20 acres – Burning for Site Prep-Seeding 18 acres – Burning for Site Prep-Natural Regen 146 acres total Burning	
	Vegetation Management (1920 - 2006)	4,521 acres Pre-Commercial Thinning	
		5,707 acres Regeneration Harvest	
		2,233 acres Intermediate Harvest	
		2,393 acres Planting	
		4,088 Mechanical Site Prep 146 acres Slashing	
Wildfire (1910 – 2007)		0 acres	
Road Management/Maintenance within the Porter Mount Management Project Area	Road Management	Miles of Forest Development Roads 54.3 miles – Category 1 - Open – No Legal Restrictions 6.8 miles –Category 13 - Highway Traffic 68.4 miles – Category 5 – Some Motorized Traffic	
	Application of BMPS (Island Fuels Reduction Project)	16.48 miles	
Special Use Permits (SUP) within the Porter Mount Management Project Area	4 - FLPMA Road Easements issued in T26NR22W Sections 3, 5, and 6; 3 FRTA Road Easements issued in T27NR23W Sections 26, 28, and 35.		
Range Allotments within Porter Mount Management Project Area	Potter (4, 169 acres) (Permit inactive) – Stocked annually – 15 head/60 head months – 6/1-9/30 Wild Bill (2,597 acres) – Stocked annually – 118 head/457 head months – 6/1-9/30 Browns Meadow (1,876 acres) – Stocked annually – 32 head/63 head months – 7/1 – 95/15		
Range Allotments within the Rogers, Porter, and Mount Watersheds	Potter (Permit inactive) (8,914 acres) – Stocked annually – 15 head/60 head months – 6/1 – 9/30 Wild Bill (5,189 acres) – Stocked annually – 118 head/457 head months – 6/1 – 9/30 Browns Meadow (15,980 acres) – Stocked annually – 32 head/128 head months – 6/1-9/30		
Land Acquisition	Acquisition of PCTC Lands within the Porter Mount Project Area	No PCTC lands fall within the Project Area Boundary	
	Acquisition of PCTC Lands within the Island Unit	None planned	
Land Exchange	1,920 acres - T26NR23W Sections 8, 9, 10 to Big Sky Lumber Co.		
<b>Private and Industrial lands</b>			
PCTC Fuels Management, Wildfire Suppression, and Vegetation Management Activities within the Porter, Mount, and Rogers Watersheds	Vegetation Management (1977 – 1991) (2005-2006)	5,736 acres Regeneration Harvest	3,853 acres Intermediate Harvest

**TABLE 3-1.  
PAST ACTIONS CONSIDERED IN THE CUMULATIVE EFFECTS ANALYSIS AREA**

Action	Description	Unit of Measure	
Road Management and Maintenance within the Porter, Mount, and Rogers Watersheds	PCTC Roads	156 miles	
	Private Roads	53 miles	
	State of Montana Roads	30 miles	
PCTC Land Sales Porter, Mount, and Rogers Watersheds	PCTC Lands Sales (2002-2006)	T26NR23W Sec. 11 (5 20 acres) – Currently Haskill Mountain Ranch Subdivision T26NR23W Sec. 5 (640 acres) T26NR23W Sec. 3 (320 acres) T27NR23W SW1/4 SW1/4 S1/2 Sec. 33 (40 acres) T27NR23W Sec. 21 (640 acres)	
Big Sky Lumber Co. Vegetation Management Activities within the Porter, Mount, and Rogers Watersheds	Vegetation Management	864 acres Regeneration Harvest	111 acres Intermediate Harvest
Private Vegetation Management Activities within the Porter, Mount, and Rogers Watersheds	Vegetation Management (1982-1984)	548 acres Regeneration Harvest	154 acres Intermediate Harvest
<b>Montana State and Flathead County</b>			
State of Montana Timber Harvest	Vegetation Management within the Porter Mount Project Area	No State or County lands lie within the Porter Mount Management Project Area	
	Vegetative Management within the Porter, Mount, and Rogers Watersheds (1980's)	1,019 acres Regeneration Harvest	1,011 acres Intermediate Harvest
Private Land Development within the Porter, Mount, and Rogers Watersheds	Flathead County	Haskill Mountain Ranch (SE1/4NE1/4 & NE1/4SE1/4 Sec. 10; W1/2, SE1/4 & S1/2NE1/4 Sec. 11, T26NR23W ), 520 acres – 74 lots	
State Special Use Permits/Leases within the Porter, Mount, and Rogers Watersheds	41 lots on Rogers Lake (15-year leases) (Sec 30 T27NR24W) 8 grazing leases; 3 easements and rights of ways (Flathead County and PCTC) (T26NR23W)		
<b>All Forest Lands (NFS, Public &amp; Timber Industry) Actions</b>			
Dispersed Recreation	The area offers a wide array of yearlong motorized and non-motorized recreation opportunities throughout the area. Recreation activities include snowmobiling, cross-country skiing, driving for pleasure, viewing scenery, motorcycle and OHV riding, gathering forest products, and hunting.		X

### Present and Reasonably Foreseeable Actions

Present and Reasonably Foreseeable Actions are management activities or projects planned by the Forest Service, other government agencies, or private landowners in or near the analysis area, which could occur regardless of which alternative is selected for implementation. Present and Reasonably Foreseeable Actions are activities or protects that are ongoing or will be implemented within the next 10 years, including those that would recur annually.

Present and Reasonably Foreseeable Actions are displayed in Table 3 - 2.

**TABLE 3-2.  
 PRESENT AND REASONABLY FORESEEABLE ACTIONS CONSIDERED IN THE CUMULATIVE EFFECTS  
 ANALYSIS AREA**

Action	Description	Present	Reasonably Foreseeable
<b>Forest Service Lands</b>			
Fuels Management, Wildfire Suppression, and Vegetation Management Activities within the Porter Mount Management Project	Fire Suppression Activities will occur as needed. Control of wildfires will follow Forest Plan standards for the affected Management Areas	X	X
	Efforts to control infestations of noxious weeds and reduce new infestations are ongoing and would continue through the foreseeable future. Control actions may include hand spraying herbicides, hand pulling, and biological control. All activities would comply with the 2001 Flathead National Forest Noxious and Invasive Weed Control EA	X	X
Road Management/Maintenance within the Porter Mount Management Project Area	Routine road maintenance will occur as needed on roads in the Project Area, separate from any road maintenance identified in this EA. Maintenance includes road grading, gate repair/replacement, cleaning ditches and culverts, brushing, and debris removal.	X	X
Special Use Permits within the Porter Mount Management Project	4 - FLPMA Road Easements issued in T26NR22W Sections 3, 5, and 6; 3 FRTA Road Easements issued in T27NR23W Sections 26, 28, and 35.		
Range Allotments within the Porter Mount Project Management Area	Potter (4169 acres) (Permit inactive) – Stocked annually – 15 head/60 head months – 6/1 – 9/30 Wild Bill (2597 acres) – Stocked annually – 118 head/457 head months – 6/1 – 9/30 Browns Meadow (1876 acres) Stocked annually – 32 head/128 head months – 6/1 – 9/30		
Range Allotments within Porter, Mount, and Rogers Watersheds	Potter (Permit inactive) (4,510 acres) – Stocked annually – 15 head/60 head months – 6/1 – 9/30 Wild Bill (9,060 acres) – Stocked annually – 118 head/457 head months – 6/1 – 9/30 Browns Meadow (3,940 acres) – Stocked annually – 32 head/128 head months – 6/1 – 9/30		
Land Acquisition	Proposed Acquisition of PCTC Lands in the Porter, Mount, and Rogers Watersheds	None proposed	
<b>Private and Industrial lands</b>			
PCTC Fuels Management, Wildfire Suppression, and Vegetation Management Activities	Vegetative Management within the Porter, Mount, and Rogers Watersheds	X	Pre-commercial Thinning  1,620 Regeneration Harvest (Roger Dodger, Brant's View & Winter Park Sales)
PCTC Road Management, Maintenance, and Closures within the within the Porter, Mount, and Rogers Watersheds	Road maintenance associated with vegetation management activities	X	~0.3 miles temp road – Winter Park Sale ~0.5 miles new road construction – Roger Dodger Sale

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**TABLE 3-2.  
PRESENT AND REASONABLY FORESEEABLE ACTIONS CONSIDERED IN THE CUMULATIVE EFFECTS  
ANALYSIS AREA**

Action	Description	Present	Reasonably Foreseeable
PCTC Land Sales within the Porter, Mount, and Rogers Watersheds	Sale of PCTC lands	T26NR23W Sec. 13 (640 acres) T27NR23W Sec. 22 (400 acres) T27NR23W Sec. 23 (320 acres)	
<b>Montana State and Counties (Flathead)</b>			
State of Montana Timber Harvest	Vegetation Management within the Porter Mount Management Project Area	No State of Montana lands lie within the Porter Mount Management Project Area	
	Vegetative Management within the Porter, Mount, and Rogers Watersheds		Possible fuel reduction activities around Rogers Lake – pending approval of Land Board Bald Hill Timber Sale (Sec 36 T27NR24W) Proposed selective harvest of 2 MMBF over 450 acres (Draft EA issued – scheduled for sale in FY 08)
Private Land Development	Flathead County	No applications on file with Flathead County at this time	X
Road Management/Maintenance	Applications of BMPs within the Porter, Mount, and Rogers Watersheds; maintenance of Flathead County roads	X	X
Special Use Permits/Leases within the Porter, Mount, and Rogers Watersheds	41 lots on Rogers Lake (15-year leases) (Sec 30 T27NR24W) 8 grazing leases; 3 easements and rights of ways (Flathead County and PCTC) (T26NR23W)	X	X
State Land Sale	Land banking parcel in Sec 36 T27NR23W – pending approval of Land Board	X	X
<b>All Forest Lands (NFS, Public &amp; Timber Industry) Actions</b>			
Dispersed Recreation within the Porter Mount Management Project	The area offers a variety of motorized and non-motorized year-round recreation opportunities including, hiking, cross-country skiing, mountain biking, hunting, fishing, gathering forest products, driving for pleasure, and snowmobiling.	X	X
Dispersed Recreation within the Porter, Mount and Rogers Watersheds	Creation of ATV trails in the North Patrick Area on FDRs #2960, 2823, 2999, and 2941 & 2941a. Several miles of new ATV trail would be needed to link segments of existing road into loop ATV routes		X
	Expansion of Wild Bill OHV trail (6-10 miles of existing [currently closed] road will be used in addition to addition of some short alternative “challenge” routes. Some road construction would be necessary to link short portion of the existing roads to form loop routes.)		X

**TABLE 3-2.  
 PRESENT AND REASONABLY FORESEEABLE ACTIONS CONSIDERED IN THE CUMULATIVE EFFECTS  
 ANALYSIS AREA**

Action	Description	Present	Reasonably Foreseeable
Blacktail Mountain Ski Area Snowmobile Connection Project	Connect the Wild Bill OHV National Recreation Trail to the Blacktail Mountain Ski Area with winter motorized trail (approximately 1.5 miles) to provide public safety and reduce illegal snowmobile use on Blacktail (Radar) Road. The proposed action is to authorize the construction of a snowmobile trail of approximately 12 feet in width with a 16 foot clearing limit from BMSA to the Wild Bill Trailhead.		X

## Forest Plan Management Direction

The Flathead Forest Plan sets management direction for this project area.

The Forest Plan provides forest-wide goals and objectives (pages II-1 through II-57). The Forest Plan also divides the Flathead National Forest into subunits called management areas (MAs). Each of these MAs has resource or activity goals and management standards (pages III-1 through III-126), Forest Plan. In keeping with Forest Service policy on multiple use, the Forest Plan established goals to strike a balance among different resources (Forest Plan, page II-5).

A brief overview of each of the MAs in this project area follows. More specific Forest Plan direction is discussed in each resource section later in this chapter.

**TABLE 3-3.  
 MANAGEMENT AREA DESCRIPTIONS, EMPHASIS, AND MANAGEMENT AREA ACRES FOR THE  
 PORTER MOUNT MANAGEMENT PROJECT**

Ma	Description	Management Emphasis	Total Acres
1	Non-forest lands and timberlands where timber management is uneconomical or currently technologically infeasible due to topographic features	Maintain the present condition with minimal investment for resource activities, while protecting the basic soil, water, and wildlife resources	355
9	Timberlands capable of providing white-tailed deer winter habitat	Private cover and forage areas suitable for white-tailed deer winter habitat	2763
15	Timberlands where timber management with roads is economical and feasible	Timber production	7993

Refer to Map 3-1 for a display of MAs in the analysis area.