

Appendix C
Strategy for Monitoring
Winter Motorized Recreation
on the Flathead National Forest

FLATHEAD NATIONAL FOREST

Winter Use Monitoring Strategy

Introduction

Snowmobile use on the Flathead National Forest has increased significantly in the past ten years. Snowmobile counts at the Canyon Creek Snowpark increased from a seasonal average of 5000 from 1990 - 1995 to 13,000 per season from 1995 - 2001, an increase of 160%.

With increased use and popularity of the area comes a dilemma: how can we ensure that the Flathead National Forest resources are protected and that quality visitor experiences are provided? Reliable information on winter use will be important for updating management and travel plans. The Flathead National Forest will monitor winter use on the Flathead Forest to help ensure compliance with the Forest Plan provisions and the Flathead Winter Recreation Agreement of 12/01 (Settlement Agreement) or Amendment 24 regarding motorized and non-motorized winter use. Weather conditions permitting, such monitoring shall consist of at least four monitoring flights and at least six visits per season to verify snowmobile use. Monitoring and contacts with snowmobilers and snowmobile use groups will determine compliance with the Forest Plan and Flathead Winter Recreation Agreement/Amendment 24. The Flathead Winter Recreation Agreement also requires the Flathead National Forest to work cooperatively with other signatories to the agreement, including the Montana Wilderness Association, and the Montana Snowmobile Association. Monitoring will be conducted to the extent that the budget of the Flathead National Forest and other cooperators allows. In addition, 36 CFR 295.5 requires monitoring of the effects of off road vehicle use on National Forest System lands and resources.

Issues

Monitoring of winter use can help address the following questions:

- When, where and to what extent is winter use occurring throughout the Flathead?
- Will restrictions in snowmobile use result in changes in snowmobile use on the Flathead? (i.e. move from one area of the forest to another).
- How will winter recreation use be distributed on the Flathead following the settlement agreement?
- Do areas of conflict exist between motorized and non-motorized recreationists? If so, where are areas of recreation conflict between motorized and non-motorized recreationists?
- Are education, maps, handouts, and public contacts helping the public to understand where to snowmobile?
- Is the capacity and function of trailheads adequate to safely accommodate existing and future use?
- How does winter use affect wildlife? (Trends to be developed). Where does winter recreation use overlap key wildlife habitat?

Monitoring Plan

The FNF agreed to develop a monitoring plan as a result of being party to the Flathead Winter Recreation Agreement of December 2001. This monitoring plan will cover all areas of the Flathead Forest where winter use occurs. The intent of the monitoring plan is to:

- Collect existing use data and determine the level of accuracy and whether it can be used as part of the baseline data.
- Identify points where data is currently being collected including who is collecting the data, and methodology.
- Map data using GIS and update maps annually.

A. Monitoring Objectives

1. Establish a baseline of winter recreation use to help determine overall trends and to determine if use changes as a result of the Flathead Winter Recreation Agreement. Monitoring will include the number and types of user. The objectives are to quantify use at selected trailheads to establish a baseline of winter use and to develop a less intensive monitoring method to index general winter use levels.
2. Determine the geographic extent of winter use; develop maps of concentrated and dispersed snowmobile use, front country and backcountry skiing and other uses.
3. Develop partnerships with state and others to effectively collect data and monitor use.
4. Visit with winter recreation users, inform, and discuss maps and areas open to snowmobiling, avalanche conditions, advisory number, and local classes on winter survival.

B. Monitoring Design

1. Trends in Snowmobile Use/Cross Country Skiing

- **Population** - Winter recreation use (snowmobiles, skiers, others) on National Forest lands from December 1 through late Spring. Additional informal monitoring outside these dates may occur by district personnel depending upon funding.
- **Where** – Key trailheads where use data will be collected. Trailheads may be the best indicator of overall use patterns resulting from changes in Forest Service management and will provide useful baseline data for the Forest.
- The Forest Service may choose to monitor some remote, lesser used trailheads to help determine if use is shifting away from more developed areas.

Table 1 Proposed Monitoring Sites

Ground-Based

Unit	Location	Comments
GVRD North FK	Canyon Creek	
	Fiberglass Hill	
	Big Mtn. Ski	
	Big Creek	
	Hay Creek	
	Whale Creek	
	Trail Creek	
	Frozen Lake Road	
MT DNRC	Upper Whitefish Lake parking lot	Would be looking at a partnership with Montana DNRC
MT DNRC	Olney parking lot	Montana DNRC
HHRD	Skyland parking lot	
	Summit parking lot	..
	Desert Mtn. parking lot	
	HH Dam parking lot	
Swan Lake RD	Porcupine parking lot	
	Soup Creek parking lot	
	Crane Mtn.	
	Six mile	
Tally Lake RD	Brush Divide	

Aerial Flight Monitoring

Unit	Location	Comments
GVRD North FK	Whitefish Divide	Aerial flights will encompass the entire forest. Locations listed to the left are site-specific points for monitoring.
	Moose Creek	
	Whale Creek	
	Trail Creek	
	Frozen Lake	
Spotted Bear	Eastside Reservoir	
	Spotted Bear River	
	Bunker Creek	
HHRD	Skyland Area	
	Dickey Creek	
	Paola Creek	
	Jewel Basin	
Swan Lake RD	Porcupine	
	Soup Creek	
	Mission Mountains.	
	Sixmile	
Tally Lake RD	Brush Divide	
	Le Beau Area	

Methodology

Trail counters, Aerial Flights, Onsite Visits

Trail counters are a relatively simple means of measuring use. To increase the accuracy and reliability of the data, a weekly reading of the counters will be done. To further increase accuracy of the counts, weekly field visits will be conducted making public contacts. At a minimum, four aerial flights will be done to verify compliance with the Forest Plan and Flathead Winter Recreation Agreement provisions regarding allowed winter use.

Trailhead vehicle counts

Vehicle counts at key trailheads may provide a relative measure of use over time. Trailhead counts should be conducted on a set schedule with counts segregated by weekdays and weekends.

Outfitter Data

Outfitter/ guide actual winter use statistics also can serve as a useful benchmark for measuring trends and changes in use. The forests will compile actual winter use records for past five years and update the information annually.

B. Geographic extent of winter use

Develop maps to reflect areas of concentrated use, areas of dispersed use, and additional trails. Local knowledge, ground surveys and aerial surveys are appropriate tools.

Stratify the forest to focus on areas where use is likely to occur and where potential wildlife conflicts are likely.

Forest will be responsible for maintaining up-to-date winter use maps by Nov. 1st and will provide an annual monitoring report. Base maps include:

- Areas closed to snowmobiling (wilderness or travel plan closures)
- Areas of concentrated over snow motorized use
- Areas of dispersed over snow motorized use
- Groomed snowmobile trails
- Ungroomed snowmobile routes
- Areas of concentrated non-motorized use
- Areas of dispersed non-motorized use.

C. Wildlife monitoring

Key areas to focus where conflicts between winter recreation use and wildlife may occur were derived in part by:

1. Scientific literature on species' life history, distributions, habitat selection, and responses to human activities.

2. Site-specific information on wildlife species in the area including completed and on going studies.

As winter recreation use data is collected and refined we will be in a better position to determine if conflicts exist. Future studies, existing studies, and continued monitoring may better define the relationship between winter recreation use and forest carnivores.

D. Proposed monitoring budget

Item	Cost
Snow Ranger Position: Seasonal full-time	\$22,820
Snow Cat Rental	5,300
Gas and Maintenance	2,000
Over flights	3,900
Data analysis	500
GIS Map Compilation/Updates	1,205
Signage (Wilderness Boundaries and Agreement Boundaries)	1,750
Trail counters	3,500
Printing (forms, literature for public distribution, etc.)	10,000
Other	

E. Monitoring Activities

- Setting up and calibrating trail counters
- Monitoring data on weekly basis for 110 days
- Validation or double counting on a monthly basis
- Monitoring flights including observer
- Collecting data/documenting recreation use conflicts
- Annual compilation of data, update maps

F. Summary of Existing Data That May be Useful for Current Effort

Winter use data has been collected at trailheads around the forest. Existing data for the sample sites is summarized below:

Table 2. Summary of Existing Data

Unit	Location	93/94	94/95	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03
GV	Canyon Creek	7801	9457	8748	9108	6911	5431	6997	6202	5784	3023
HH	Skyland	N/A	N/A	N/A	N/A	N/A	4950	5620	4582	5957	1491
HH	Pike Cr.	N/A	N/A	N/A	N/A	N/A	1651	2060	1146	1940	N/A
HH	Hungry Horse Dam	N/A	963								
HH	Eastside Reservoir Road	N/A	118								
GV	Hay Creek	N/A	281								
GV	Trail Creek	N/A	69								
TL	Whitefish Lake Parking Lot	N/A	517								

Counters at Canyon Creek have been maintained intermittently in the past by the Flathead Snowmobile Club. Counter numbers do not seem to reflect the increased use witnessed at the Canyon Creek Snowpark. This is likely due to lack of regular maintenance of the counter wire. If too much snow accumulates on top of the wire, it will no longer register passes and must be reconfigured. Also, wires have at times been found to be cut or dismantled. The counter at Skyland is maintained and monitored by the Cutbank Snowgoers Club.

Numbers are low for 2002/2003 presumably due to the late arrival of snow.

F. Annual Monitoring Report

The Forest Coordinator is responsible for compiling annual winter use monitoring data for the Forest. Prior to Nov. 1st each year, the Forest Service shall prepare a monitoring report containing an assessment of monitoring and enforcement of the winter use provisions of the Flathead Forest Plan. The report will identify successes and problem areas identified through the monitoring process and will describe the public outreach, monitoring and enforcement steps the Forest Service has taken in the previous year with regard to winter use. This report shall be considered informational in nature only and the Forest Service shall not be stopped from presenting additional information in the event of administrative proceedings or litigation involving relevant issues.

Prior to December 1st each year, the Forest Service shall meet with interested parties, including MWA and MSA, to discuss any problem areas identified through monitoring where violations of winter use restrictions are occurring, and to discuss what steps will be taken to address these problem areas.

G. Future Grooming

The Forest will not authorize grooming of any portion of the snowmobile route between the North Fork Flathead Road and Frozen Lake.