

**MAMMOTH LAKES REGION  
OF THE INYO NATIONAL FOREST  
WINTER RECREATION NEEDS ASSESSMENT SURVEY  
FINDINGS  
WORKING REPORT**

*Prepared by the*

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*With assistance from the*

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**1. INTRODUCTION**

In continuing the effort to bring members of the Mammoth Lakes Region community together to collaboratively identify winter recreation use opportunities and needs, the Inyo National Forest, working closely with the Town of Mammoth Lakes (Town), undertook a Winter Recreation Use Needs Assessment Survey during the 2003-04 winter season. The development and execution of the survey was made possible by a generous grant from California State Parks and by the enthusiastic contributions of many volunteers.

The survey was undertaken to provide the community with a better sense of what is important to people recreating during the winter and, more importantly, to provide the Inyo National Forest and the Town with a good foundation to begin planning for the future. The survey process and the findings will be used to encourage and aid in continuing to build a shared public understanding of the needs and concerns of different winter recreational pursuits.

This report provides a summary of the reasons for undertaking the survey; the process used to develop and execute the survey; the survey findings.

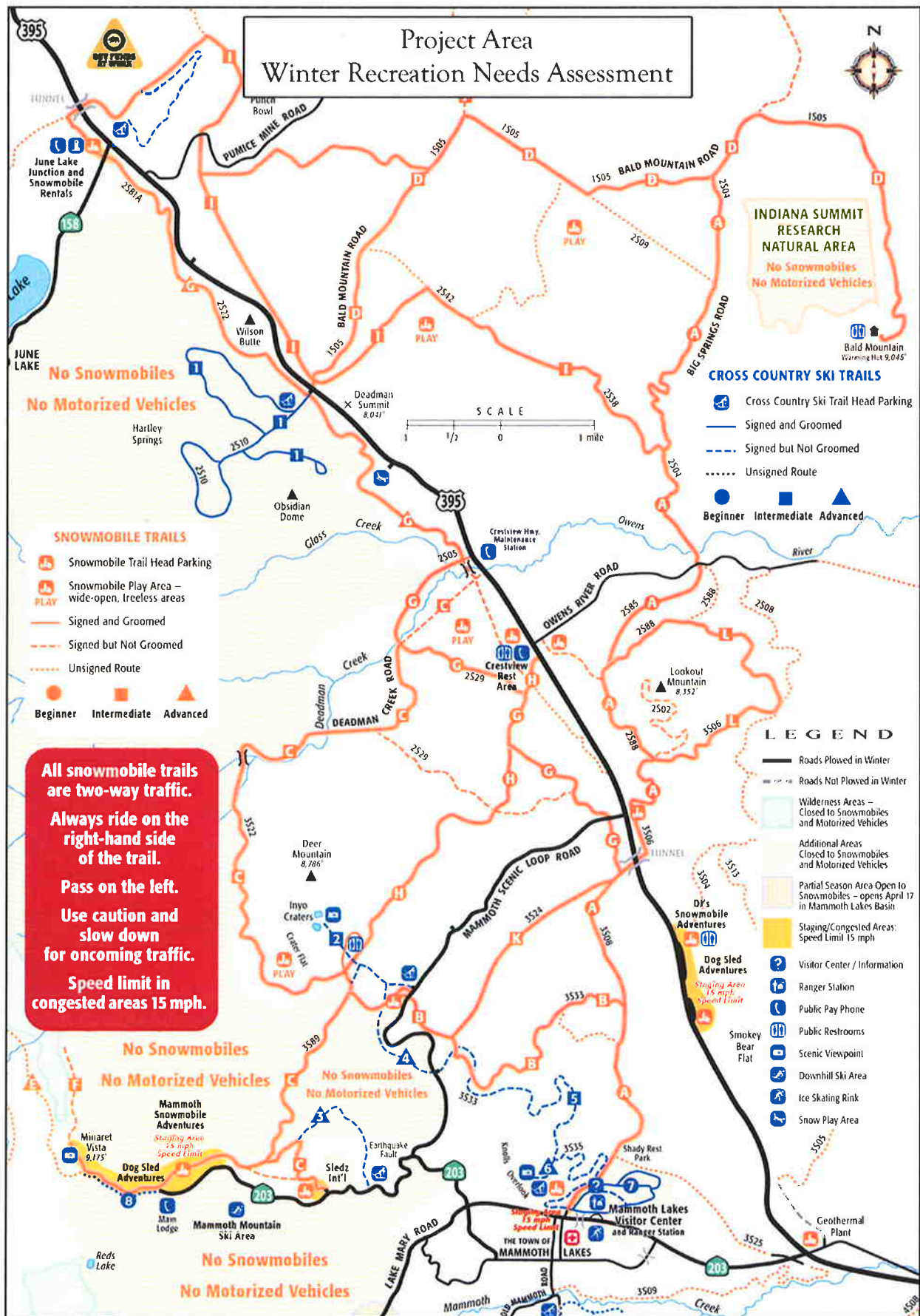
## **2. BACKGROUND AND PURPOSE OF NEEDS ASSESSMENT SURVEY**

### **2.1 Background**

During the winter of 1997-1998, the Forest Service reported to the California Off-Highway Vehicle Commission approximately 19,000 snowmobile recreation visitor days (RVD) occurring on National Forest lands adjacent to the Town of Mammoth Lakes, an increase from an estimated 3,000 snowmobile RVDs in 1992-1993 (one RVD represents one person spending any portion of one day recreating on the National Forest) and approximately 20,000 non-motorized recreation visitor days on the groomed trail system. This growth in public use resulted in increased demands on the Mammoth Visitor Center for maps and information, the Mammoth RV Park for accommodations, and on the over snow trail system within the Mammoth Lakes Region of the Inyo National Forest shown in Figure 1, "Mammoth Lakes Region of the Inyo National Forest," on the next page.

As a result of the increased trail and facility use, concerns about potential for conflicts between motorized and non-motorized recreational users, and potential for environmental pollution, and land conservation increased within the Mammoth Lakes Region.

Figure 1: Mammoth Lakes Region of the Inyo National Forest



Mammoth Lakes Region of the Inyo National Forest  
Winter Recreation Needs Assessment Survey Findings

Tensions between various trail user groups surfaced associated with the planning and design of the proposed development of the Shady Rest Winter Park (See Figure 1, Directly North of the Mammoth Lakes Visitor Center). As winter recreation areas in and around the Town of Mammoth Lakes have become more popular, the need for cooperation and improved interaction between various interests has increased.

## **2.2 Purpose of Needs Assessment Survey**

The planning and design of the Shady Rest Winter Park was envisioned to take three phases, spanning a three- to five-year period from start to finish. Phase I of the project is the undertaking of a qualitative needs assessment survey of winter forest uses. This phase, funded through a grant from the State of California Off-Highway Vehicle Commission, has been completed and this report summarizes the findings.

The needs assessment survey was undertaken to not only help with the planning for the Shady Rest Park, but also to gain a better sense of what visitors to the area are experiencing while recreating, and to determine what kinds of additional opportunities and facilities might be desired. Historically, two missing components of needs assessments have been a 'qualitative' assessment of the desired and envisioned user experience, and more importantly, the inclusion of said users in designing such an assessment. As described in greater detail in the next section of this report, volunteers have assisted with developing and undertaking the assessment.

Phase II of the planning effort includes working with volunteers to review the assessment findings and determine how to best respond to the identified recreation needs of winter recreationists. An anticipated outcome from this phase is the identification of specific actions to be taken that will assist winter visitors in enjoying their recreation experience.

Phase III will include the appropriate environmental and regulatory reviews of the identified actions and activities and implementation of approved actions. All Phase II and III activities are dependent upon available funding.

### **3. SURVEY PROCESS**

#### **3.1 Collaborative Development of an Assessment Survey Tool**

Considering the intent of the overall effort, the Inyo National Forest and the Town decided to retain the assistance of a neutral organization to assist with the collaborative development of the assessment survey tool. The Center for Collaborative Policy, a joint program of California State University Sacramento and the University of the Pacific's McGeorge School of Law, was hired to help guide public involvement during survey tool development and the actual survey process.

A public meeting was held in spring 2003 to kick-off the process and to introduce the Center for Collaborative Policy's staff to interested parties. Following the initial meeting and site tour, staff developed a draft assessment survey that was reviewed and discussed at two public meetings held in late 2003. Based on extensive feedback received at these meetings, a final survey was developed. In addition, meeting attendees provided recommendations for physical locations where the survey should be made available and where in-person distribution of the surveys would likely be most productive.

The final survey, which is provided in Appendix A, contains thirteen questions aimed at identifying the respondent's frequency and preference of winter recreational activities, their satisfaction level during said activity, their opinion of existing physical amenities, desired improvements to facilities/trails, and willingness to pay user fees for recreating in the Mammoth Lakes Region of the Inyo National Forest. The survey was revised significantly based on public input and was reduced in scale to allow completion in less than ten minutes.

#### **3.2 Public Notification of Survey**

With the aim of including as wide a range of visitor and user types in the survey process as possible, the public was informed of the process using a number of methods. First, notification of the availability of the survey was sent to both the Inyo National Forest and Town's electronic mailing lists. In addition, a number of assorted winter recreation user groups advertised the survey process on their websites and the California Off-Highway Vehicle Commission announced the process to its constituents and membership. Lastly, the *Mammoth Times* also ran an advertisement and two articles describing the overall effort and importance of the assessment process.

Offering participants with a chance to win one of a number of donated prizes encouraged survey completion. Raffle prizes included free passes to the Mammoth Lakes Ice Rink, \$10 gift certificates to Dublin's Irish Whiskey Pub, or a Clif Bar.

### 3.3 Survey Distribution

The surveys were made publicly available from mid-December 2003 to the end of March 2004 from websites and from a number of Mammoth Lakes businesses. Specifically, the surveys, accompanied by a map of the study area and simple instructions, were available from:

- Tamarack Cross County Ski Lodge
- Mammoth Mountain Ski Area Main Lodge
- Inyo National Forest Visitor Center
- Mammoth Reservation Bureau
- Intrawest Resort Real Estate
- Looney Bean Coffee Shop
- Kittredge Sports
- Mammoth Mountaineering Supply
- Mammoth Polaris Snowmobile
- Mammoth Snowmobile Adventures
- DJ's Snowmobile Rental
- Napa Auto Parts

In addition, volunteers distributed surveys and free refreshments at a number of locations over the February 14-16 weekend. As shown in Appendix B, survey distribution occurred at the following locations:

- Shady Rest parking lot
- Mammoth Mountain Ski Area Main Lodge
- Highway 395 sledding area
- Tamarack/Lake Mary Road staging area
- Smokey Bear Flat (DJ's/Dogsled Adventures)
- Obsidian Loop Road staging area
- Lookout Mountain staging area
- Minaret Vista to Reds Lake staging area
- Geothermal Plant staging area



Winter recreationists completing surveys at Obsidian Loop Road staging area

Due to the very fast snowmelt off in March 2004, a second survey weekend had to be cancelled, as there was insufficient snow coverage at many of the lower altitude elevations. The list of volunteers who contributed to developing the survey and who made the survey weekend a success is provided in Appendix C.

## 4. SURVEY FINDINGS

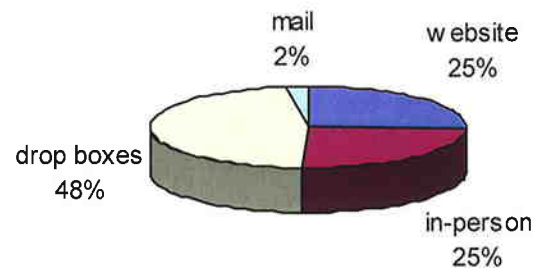
With six hundred and ninety-one completed surveys, the results yielded a number of key findings about winter recreationists' experiences in the Mammoth Lakes Region of the Inyo National Forest. Detailed findings are presented for each of the following categories of questions that were asked in the survey:

- Current visitation;
- Recreation satisfaction;
- Recreational amenities; and
- Desired activities/ amenities/ experience.

### 4.1 Number of Completed Surveys

Surveys were collected from a number of sources, including website, in-person distribution, local business drop boxes, and mail (Figure 2). Nearly half of the surveys were turned-in at drop boxes at local businesses while the website and in-person surveys each provided one-fourth of the total completed surveys.

Figure 2: Sources of Completed Surveys



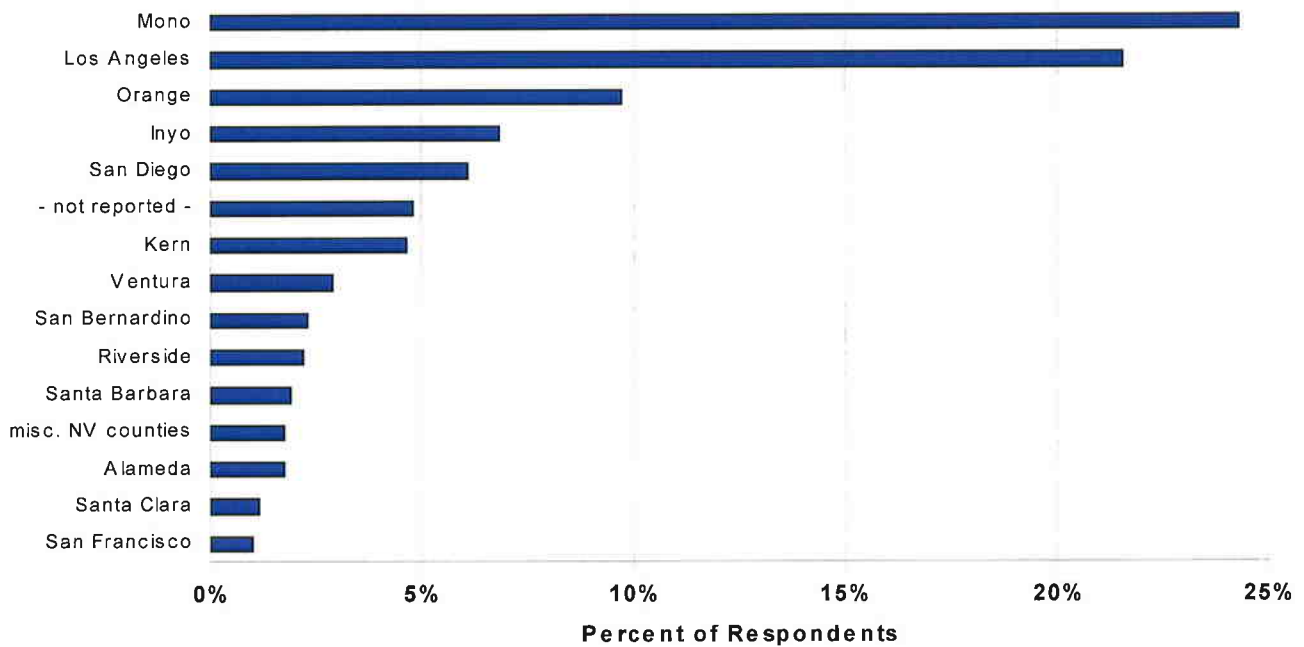
The locations that generated the greatest number of completed surveys are shown below. Locations presented below are not ranked by number of completed surveys:

- DJ's Snowmobile Rental/Smoky Bear Flat Roadside Rest Area
- Mammoth Lakes Visitor Center
- Mammoth Mountain Ski Area
- Shady Rest Park Area
- Polaris Snowmobile Repair
- Obsidian Dome/Deadman Summit
- Tamarack Cross County Ski Center
- Crestview Roadside Snow-Play Area
- Hwy. 395 Sled Area
- Mammoth Nordic Club
- Looney Bean Coffee Shop
- Bald Mountain



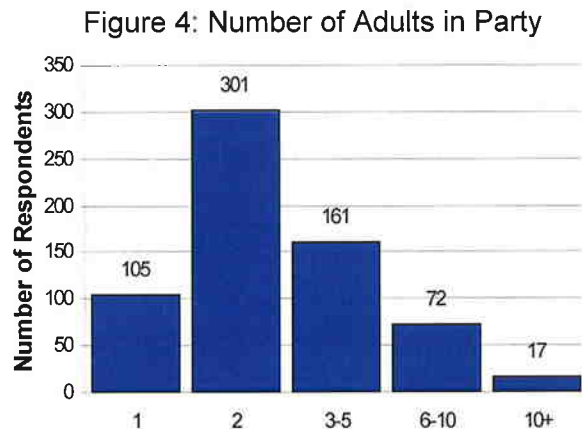
As shown in Figure 3, approximately 25% of respondents were Mono County residents and approximately 7% resided in Inyo County. Excluding the almost 5% that did not state their county of residence, the remainder of respondents (over 60% of the total) traveled to recreate in the Mammoth Lakes Region. Southern Californians have higher representation among respondents and appear more likely to visit the area than Northern Californians. Also, by looking at the city of origin of survey respondents, nearly 30% of all surveys were completed by local residents (Mammoth Lakes, Bishop, Lee Vining, June Lake, Crowley Lake, or Ridgecrest). Los Angeles, Riverside, San Diego, Pasadena, Santa Barbara, Burbank, and San Francisco were the other major cities from which surveys were received.

Figure 3: County of Residence of Respondents



#### 4.2 Respondent Visitation Activities

Question 1: provided an indication of the number of adults and children in the party at the time the survey was completed. Approximately 43% of visits reported by respondents were undertaken by parties of two with groups of 3-5 (23%) comprising the second largest group (Figure 4).



As shown in Figure 5, nearly 70% of those visitors who responded appear to be traveling without children.

Question 2: asked respondents to indicate the number of recreation days they spent in the Mammoth Lakes Region of the Inyo National Forest.

As can be seen in Figure 6, approximately 96% visitors who participated in the survey recreate for more than 1 day per season. In fact, most respondents (80%) appear to spend at least seven days in the area and approximately 43% of respondents recreate in the area for more than 20 days per winter season.

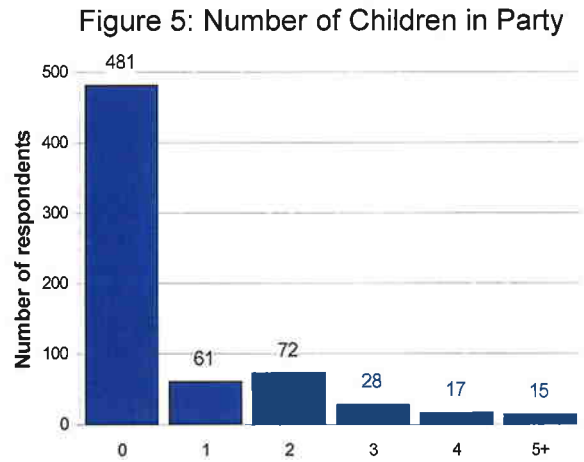
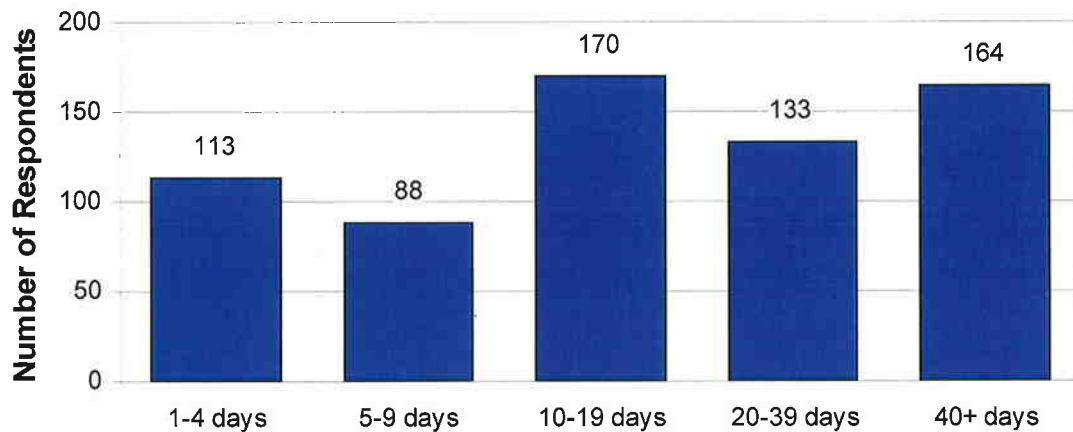
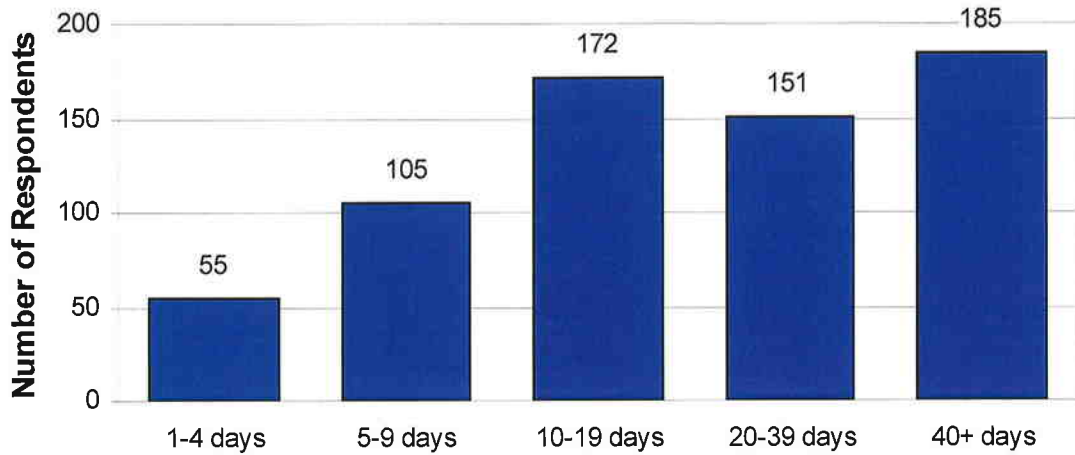


Figure 6: Number of Recreation Days Spent in the Mammoth Lakes Region Last Winter



Question 3: asked respondents to estimate the total number of anticipated recreation days they would spend in the Mammoth Lakes Region in the 2003-04 winter. Figure 7 shows the results, which indicate that approximately 73% of respondents anticipated spending more than 10 days recreating during the winter.

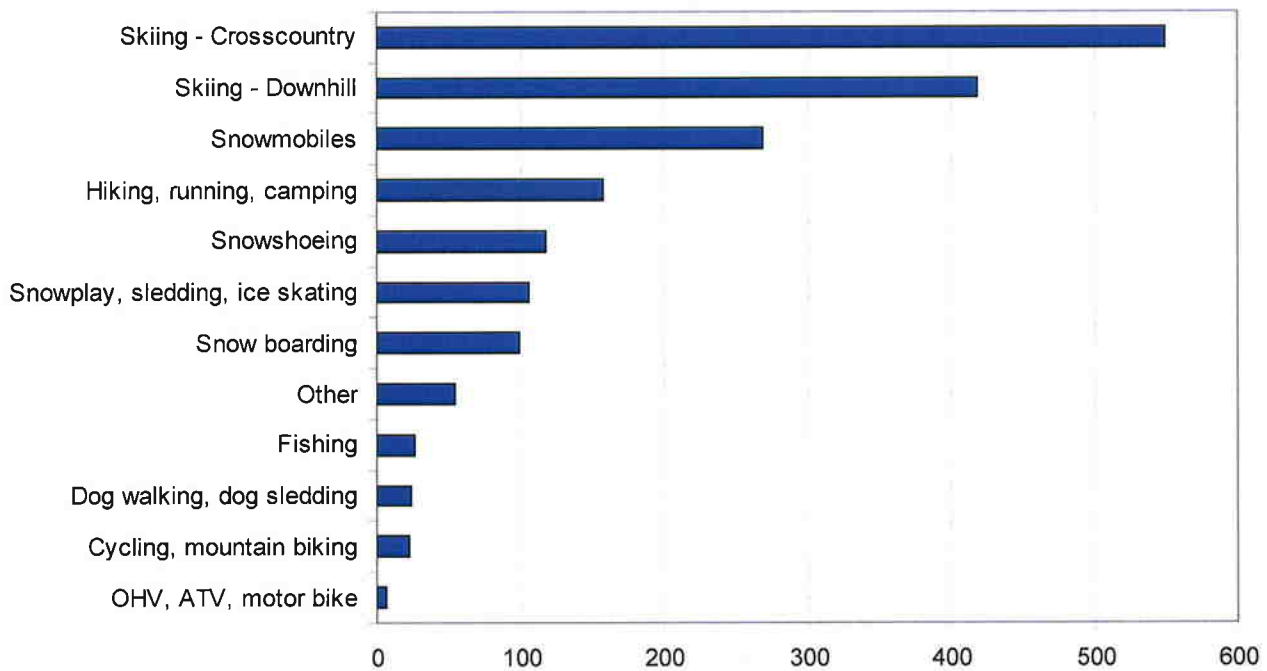
Figure 7: Estimated Number of Anticipated Recreation Days Spent This Winter



Question 4: asked respondents to identify the top five winter activities they engage in most in the Mammoth Lakes Region and what location they tend to visit for said activities. In order to synthesize the responses to this question, the presented activities were defined to include a number of disciplines:

- “Skiing–Cross-country”: backcountry, telemark, Nordic, ski touring, and skate skiing.
- “Skiing–Downhill”: alpine skiing and skiing (general).
- “Hiking, running, camping”: walking and backpacking.

Figure 8: Number of Respondents Pursuing Each Activity



The three activities identified most by respondents include: 1) cross county skiing, 2) downhill skiing, and 3) snowmobile riding. However, when the next three categories are combined (“hiking, running, camping”, “snowshoeing” and “snowplay, sledding, ice-skating”) the data shows that approximately half of all the respondents also engage in an additional activity besides either skiing or snowmobile riding.

From the completed surveys, locations associated with given activities for winter recreationists were identified. Similar to the previous question, a number of stated activities were aggregated into one representative activity (e.g., “cycling”, “mtb”, “biking” were all recorded as “Cycling, mountain biking”. The same approach was applied to the presented list of locations.

As shown in Figure 9 on the next page, the single most identified activity was “skiing-cross-country” (31% of responses) which was identified as being pursued at 12 out of a total of 13 self-reported locations. The single most identified location was the Mammoth Mountain Ski Area (MMSA). This finding is not surprising considering the number of reported downhill skiers as well as the range of activities provided at MMSA facilities, including snow mobile rentals. Snowmobile riding was the third most identified activity.

Figure 9: Winter Activity Locations Most Frequently Identified

	All locations	Mammoth, Mammoth Mtn.	Mammoth Lakes, Lakes Basin	June Lake	DJ's	Deadman's	Inyo	MMSA	Obsidian	Shady Rest	Sherwins	Smokey Bear	Tamarack	Other
All Activities	1560	486	65	105	49	32	51	39	41	106	24	16	103	443
Snowmobiles	225	67	6	11	47	1	3			21	1	14		54
OHV, ATV, motor bike	6	2				1								3
Cycling, mountain biking	19	8	1				1	1						8
Skiing - Cross-country	489	55	25	12		21	35	1	31	59	15	2	86	147
Skiing - Downhill	360	228	9	54			3	32		1	1			32
Snow boarding	81	49	2	10			1	4			1			14
Snowplay, sledding, ice skating	79	26	7	4	2	7	2							31
Snowshoeing	104	15	9	1		2	2		7	7	4		9	48
Hiking, running, camping	116	22	3	5					2	7	2		6	69
Fishing	20	2		5			1							12
Dog walking, dog sledding	20	1					1			11			1	6
Other	41	11	3	3			2	1	1				1	19

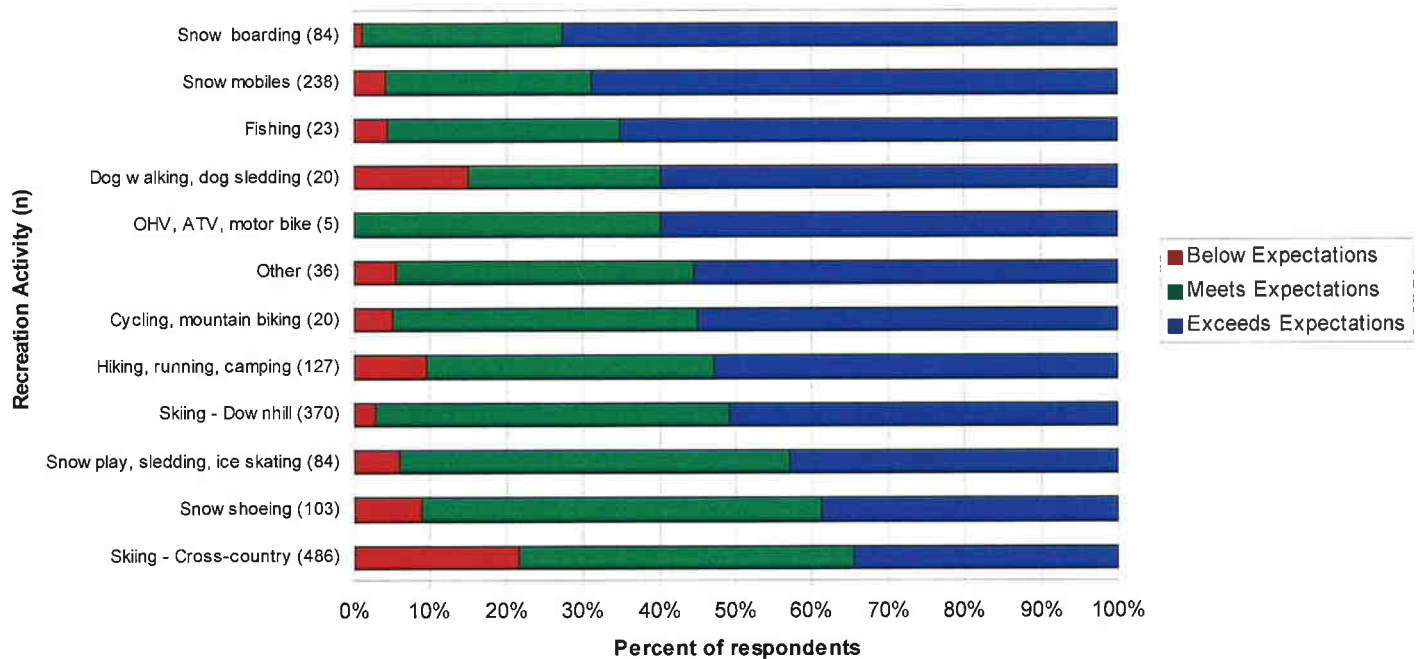
Question 5: was intended to identify activities that respondents pursued in areas outside the Mammoth Lakes Region of the Inyo National Forest, but still within the Eastern Sierra. The most frequently identified activities outside the Mammoth Lakes Region were downhill skiing, cross-country skiing, snowmobile riding, and snowshoeing. A limited number of respondents indicated family snow-play as another activity that is pursued throughout the Eastern Sierra.

### 4.3 Experiential Questions

Question 6: provided a table for respondents to indicate which activities they ranked as meeting their expectations, falling below expectations, or exceeding expectations. In addition, respondents were asked to estimate the number of other people they encountered while pursuing activities that did not meet their expectations. Lastly, for activities identified, respondents were asked to indicate whether they would return to same location to pursue the same activity in the future.

Figure 10 displays respondents' level of satisfaction for their primary recreation activities. Cross-county skiers appear to be the most dissatisfied activity group with just over 20% of respondents indicating that their skiing experience was below their expectations. The second most disappointed activity group was dog walkers and dog-sledders. Conversely, snowboarders and snowmobile riders were the two activities in which pursuers' expectations were most likely to be exceeded. It is also interesting to note that strictly non-motorized users are less satisfied with their winter recreation experience. It is important to note the influence of number of responses

Figure 10: Satisfaction by Type of Recreation Activity



by activity on these results, and to note the majority of respondents had experiences that either met or exceeded their expectations regardless of the activity pursued.

In addition, respondents who had experiences that did meet their expectations were asked to estimate the number of other people they encountered. Very few respondents provided a numeric response to this question. See Question 7 for summary information on conditions that did not meet expectations.

Figure 11: Willingness to Return to Same Location to Pursue Activity?

For activities identified, respondents were asked if they would return to the same location to pursue the same activity in the future? As shown in Figure 11, nearly all respondents stated that they would return to the same location.

Activity	Yes	No	n
Snowmobiles	99%	0.5%	221
OHV, ATV, motor bike	100%	0%	3
Cycling, mountain biking	100%	0%	17
Skiing - Cross-country	96%	4%	450
Skiing - Downhill	100%	0%	349
Snow boarding	100%	0%	76
Snowplay, sledding, ice skating	99%	1%	79
Snowshoeing	98%	2%	92
Hiking, running, camping	100%	0%	117
Fishing	100%	0%	19
Dog walking, dog sledding	100%	0%	17
Other	100%	0%	38

Question 7: asked respondents to identify the primary reason their experience did not meet their anticipated level of satisfaction and/or why they will not return to the same location. This

question was only to be completed by respondents who indicated, in Question 6, that one of their pursued activities did not meet their expectations or that they would not return to a previously visited area. Those respondents who were satisfied with their recreation experience skipped to Question 9.

Considering that a relatively small number of total respondents indicated that their experience did not meet their desired expectation, this question was only answered by 15% of the total respondents. The top three reasons identified were:

- 1) encounters with other trail user(s);
- 2) trail conditions; and
- 3) lack of signage.

Question 8: was asked in hopes of gaining insight into the nature of any negative encounters identified by respondents. While only a very small number of respondents specifically identified whether or not the negative incident involved a similar or different recreational activity user, the responses did mention problems with a number of different users. Each response was individually reviewed to identify whether or not the negative encounter was due to a variety of actions or behaviors undertaken by one of a limited number of different user types (snowmobiles, cross-county skiers, dog-walkers, other).

Approximately 94 individual survey responses (14% of total survey responses) indicated encounters with snowmobiles as the primary reason their experience was less than expected. While many of these responses indicated that the snowmobile riders were polite and courteous, they also indicated engine noise and exhaust as distractions from their outdoor experience. A number of responses



stated a belief that the size of the snowmobile parties has grown in recent years and, as a result, the pressure on the relatively narrow trails in some locations has increased potential for user conflicts. Moreover, a number of respondents indicated a belief that the number of novice snowmobile riders has risen and that these riders tend to be less experienced and less likely to respect other trail users.

Comments were also received about dog walkers who fail to clean up after their dogs. Of particular concern to many is the Shady Rest Recreation Area where, due to its proximity to the Town of Mammoth Lakes, many dogs are walked on a daily basis.

A number of comments were also received about grooming of the Tamarack Cross Country Ski Center's trails and the apparent use of the cross-country ski trails by snowshoers and hikers. Respondents desired increased enforcement on the trails to prevent negative effects on trail conditions of non-paying trail users on paying customers of the cross-country trail network.

Question 9: asked for a description of what made respondents experience enjoyable and what specific activity they were pursuing. While the description of what made the experience enjoyable was missing from most surveys, some respondents did provide answers to Question 13, which provides insight into the reasons people enjoyed recreating in the region (Question 13 is summarized later).

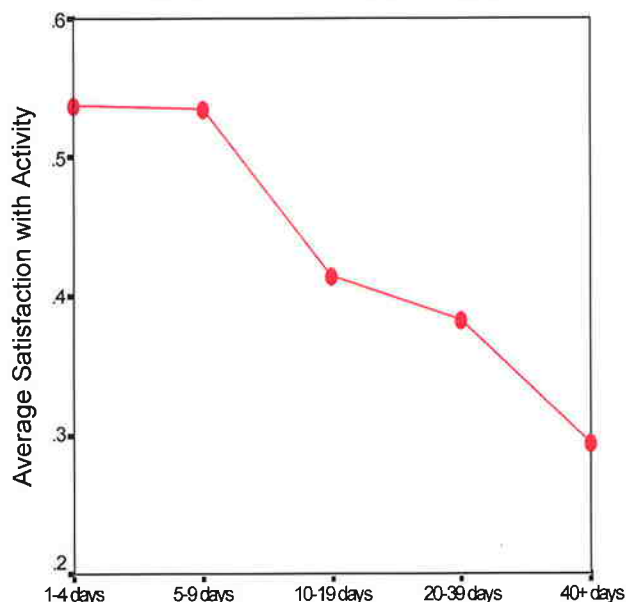
By comparing the response to this question with the respondent's place of residence, it appears that local residents who participated in the survey are less satisfied with their winter recreational experiences than visitors who participated in the survey. In addition, by comparing the level of



satisfaction with the number of recreation days spent in the Mammoth Lakes Region last winter, it appears that as the number of days recreating increases, the overall level of satisfaction for respondents decreases.

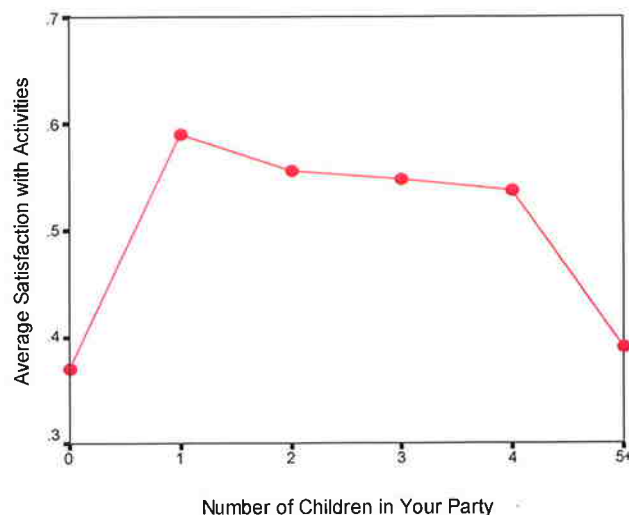
Also, as evidenced in Figure 13, the level of activity satisfaction appears to vary with the number of children in the party.

Figure 12: Activity Satisfaction Varies with Number of Recreation Days



Recreation days last winter in Mammoth Lakes Region

Figure 13: Activity Satisfaction Varies with Number of Children



#### 4.4 Infrastructure Questions

Question 10: asked respondents to rate on a scale from “excellent” to “poor” their opinions of various amenities they observed or used during their most recent recreational activity. In addition, for the identified amenities, respondents were asked to state what improvements they would like to see. The results from this question are presented in a number of different figures in order to gain a better understanding of the findings.

Figure 12 provides a reporting of the responses showing the total number of individuals that assessed each amenity and what the relative assessment grade was for each amenity (poor, fair, good, excellent).