

**Visitor Use Monitoring of Pennsylvania's State Forests:
Bald Eagle and Loyalsock State Forests**

by

Alan Graefe

Jordan Blair

Maxwell Olsen

**Department of Recreation, Park and Tourism Management
The Pennsylvania State University**

**Final Report Submitted to the Pennsylvania Bureau of Forestry
Department of Conservation and Natural Resources
Harrisburg, Pennsylvania**

July 19, 2019

Table of Contents

Introduction.....	1
Purpose.....	2
Objectives	2
Methodology	3
Organization of this Report.....	4
Recreation Use Estimates	5
Survey Results	11
Trip Visitation Patterns.....	12
Demographic Characteristics	15
Activity Participation	16
Satisfaction Addition	18
Satisfaction Ratings	18
Importance Ratings	19
Other Visitor Satisfaction Ratings	21
Overall Satisfaction.....	21
Crowding Ratings	22
Economics Addition.....	23
Visitor Expenditures	25
Experience Addition	28
Forest Access	28
Recreation Experience	29
Place Attachment	30
Motivations/Reasons for Visiting the State Forest	32
Visitor Response to Potential Facilities and Services.....	33
Information Services.....	34
Visitor Response to Questions about Marcellus-Shale Related Activity.....	35
Summary and Conclusions	39
Appendices.....	42
Appendix A – Visitor Responses to Open-ended Questions	42
Appendix B – Zip Code Analysis of Bald Eagle and Loyalsock State Forest Visitors.....	47
Appendix C – Survey Instrument	55
Appendix D – List of Survey Sites	64
Appendix E - Monthly Distribution of Sampling Days for Bald Eagle and Loyalsock State Forests.....	71

List of Tables

1	Description of the Sampling Sites.....	6
2	Summary of Mechanical and Observational Counts at Sampling Sites.....	8
3	Recreation Use Estimates for the Bald Eagle and Loyalsock State Forests ...	10
4	Trip Visitation Patterns in the State Forests.....	13
5	Demographic Characteristics of State Forest Visitors	15
6	Activity Participation of State Forest Visitors	17
7	Satisfaction Ratings for Customer Service Attributes in the State Forests.....	18
8	Importance Ratings for Customer Service Attributes in the State Forests.....	20
9	Visitor Satisfaction Ratings for Various Forest Attributes	21
10	Overall Satisfaction of State Forest Visitors.....	21
11	Summary of Perceived Crowding Ratings.....	22
12	State Forest Recreation Trip Profile (for economics section).....	24
13	Summary of Trip Spending Patterns of State Forest Visitors.....	26
14	Amount Spent for Various Categories of Trip Expenditures.....	27
15	Visitor Ratings of Access to the State Forests	28
16	Visitor Ratings for Various Recreation Experience Attributes.....	29
17	Most Important Reason for this Visit to the State Forest.....	30
18	Summary of Place Attachment Scale Items.....	31
19	Summary of Motivations/Reasons for Recreating in the State Forests	32
20	Visitor Importance Ratings for Various Types of Facilities and Services.....	33
21	Visitor Responses to Questions about Information Services	34
22	Visitor Responses to Questions about Marcellus Shale-Related Activity	35
23	Responses to How Marcellus Shale-related Activity has Changed your Use of the Forest	36
24	Responses to Why Marcellus Shale-related Activity has not Changed your Use of the Forest	37
25	Responses to How Marcellus Shale-related Activity has Changed your Recreation Experience at the Forest.....	37
26	Responses to Why Marcellus Shale-related Activity has not Changed your Recreation Experience at the Forest.....	39

Introduction

Resource managers in the Pennsylvania Department of Conservation and Natural Resources have identified a need to better understand the recreational visitors who use the State Forests. This need includes understanding visitors' use patterns, as well as their expectations, spending patterns, desires and satisfaction levels. Relevant questions asked by managers might include:

- i) Who are our customers?
 - What are the primary customer segments and sub segments?
 - What is the profile of each segment and sub segment?
 - What are the patterns of use, trip characteristics, purpose of visit, and demographic characteristics of our visitors?
 - What is our market niche?
 - What is the average number of vehicles entering/exiting State Forest sites?
 - What is the average number of people per vehicle?
- ii) What are our customers looking for?
 - What are their expectations and satisfaction levels?
 - What gaps exist between expectations and satisfaction levels?
 - What do they want in terms of information/interpretation, services, and amenities?
 - What kind of experience do they desire?
 - What are their preferences for facilities?
 - How well are we performing in key areas (service, facilities, law enforcement, information/interpretation, resource protection, and visitor experience)?
 - What is an acceptable level of services/maintenance given existing and projected budget constraints?
 - What are the barriers to participation?
- iii) What is the economic impact of State Forest visitors?
 - How are State Forest visitors impacted by oil and gas drilling operations on and surrounding State Forests?

Purpose

The purpose of this study is to develop a long-term, systematic approach for answering such questions about Pennsylvania State Forest visitors. The initial project surveyed visitors at selected State Forests and Parks over a five year period, measuring recreational use and gathering data providing a profile of recreational visitors. Sampling was designed to measure and describe recreation use on two State Forests and six State Parks per year over a five-year study period (2011-2016). In total, 10 forests and 30 parks were surveyed during the five-year duration of the project. After the initial study period, additional surveying was conducted in additional State Forests on an intermittent basis, providing the data for this report. Surveys were conducted in the Bald Eagle State Forest (District #7) and the Loyalsock State Forest (District #20) to measure recreation use and develop a profile of State Forest visitors and their use patterns on these additional forests.

This project builds on earlier surveys and contributes to the creation of a database that can be used to better understand State Forest visitors and provide a longitudinal database for tracking trends in State Forest use. For example, results can be used to compare participation patterns and visitor characteristics for different individual forests. As the database grows, findings can be extrapolated to the entire state system and may ultimately represent all State Forests within the Commonwealth. Additional visitor monitoring is currently underway in the Rothrock and Gallitzin State Forests which, when completed, will bring the total number of forests included in the Visitor Use Monitoring initiative to 14 of 20 Pennsylvania State Forests.

Objectives

1. To conduct surveys of visitors to selected Pennsylvania State Forests and develop a visitor profile, including information on the origin of visitors (e.g. local, non-local resident, out of state), trip context and purpose (e.g. day versus overnight visitor, primary purpose versus casual visitor), length of stay in the area, spending patterns, size and type of visiting groups, previous visitation history, activities pursued, and different patterns of visitation across seasons.
2. To measure overall recreation use and specific visitation patterns within the selected State Forests, including the number of visitors per vehicle and the distribution of use across different types of sites within the given State Forest.
3. To develop a demographic profile of visitors at the designated State Forests.
4. To identify visitor expectations and levels of satisfaction with various aspects of their visit.

5. To examine visitor opinions about possible future management practices occurring in State Forests and facility development decisions.
6. To examine visitor reactions to oil and gas activities and the impacts these activities have on recreational visitation patterns and visitor experiences.
7. To measure visitor expenditures and extrapolate these to determine their level of economic impact on surrounding communities.

Methodology

Data were collected through the use of on-site interviews and use measurements at a stratified random sample of the forests' developed sites and dispersed areas open for recreation. The overall survey methodology and sampling design is directly comparable to and consistent with the procedures established for the U.S. Forest Service's National Visitor Use Monitoring (NVUM) program. Details for the sampling and analysis approach for that program can be found in a report by English et al. (2001), available on the USDA Forest Service website for the National Visitor Use Monitoring Program.¹ A detailed sampling schedule, which identified the site, day, and time of day for on-site interviewing, was established for each forest in consultation with Bureau of Forestry personnel. Prior to the survey, meetings were held with the District Forester and key staff in each forest to identify the range of sampling locations for each forest. The potential survey sites were visited by project personnel to confirm their suitability for the study and identify an optimal protocol and design of the sampling station for each site. A sample site inventory was created, with input from each forest's staff, to categorize the use levels for all designated sites and days of the year. From this matrix, a detailed random sampling calendar was developed. The sampling schedule provided for a total of 200 sampling days per forest, allocated over various sampling strata per forest, and distributed throughout the calendar year.

Sampling for the survey was designed to obtain a database that accurately describes overall use of the forests, as well as use of selected types of sites and individual areas of particular interest within the State Forests. All on-site interviewing, data entry, and analysis were conducted by trained project staff. Concurrent with the visitor survey, area use patterns were measured through traffic and trail counters and observations of vehicles using the area.

¹ English, D. B. K., Kocis, S. M., Zarnoch, S. J., & Arnold, J. R. 2001. Forest Service National Visitor Use Monitoring Process: Research Method Documentation. <http://www.fs.fed.us/recreation/programs/nvum>

Both the visitor count data and visitor survey data can also be used to validate and calibrate visitor use monitoring methods for future application in the State Forests.

On-site face-to-face interviews were used to obtain data from a sample of recreationists visiting the Bald Eagle and Loyalsock State Forests. The on-site survey took approximately 5-15 minutes to complete, depending on which survey version was used in the interview.

Approximately one-third of the visitors were interviewed with the basic version/experience addition, another one-third received the basic/satisfaction addition and the remaining one-third completed the basic/economics addition.

All of the sampling for this study followed a detailed sampling schedule and took place between 8:00 am and 8:00 pm, during a morning shift or an afternoon shift. The morning sampling period ran from 8:00 am to 2:00 pm, while the afternoon sampling period ran from 2:00 pm to 8:00 pm.

Organization of this Report

This report summarizes the results of visitor surveys conducted on the State Forests during the period January 1, 2017 through April 30, 2019. Unlike the forests included in the initial 5-year project, which included a continuous 12 months of data collection for each forest, sampling in the current study was spread over a longer period due to the availability of funding on a fiscal year basis. Essentially the field work was suspended temporarily until new agreements were created to provide authorization and funding for each fiscal year of the project. However, the overall sampling design mimicked the original goal of representing a full year of forest use. The major deviation in the final sample collected was that no field work was conducted during the months of August, September, and October (See Appendix E). Therefore the late summer and fall season are not represented in the survey database. The results presented in this report may differ from a full year-long sampling design by underrepresenting the forest activities and use patterns of the late summer and fall seasons (e.g. foliage viewing and hunting).

Project results are organized by topic area, with different sections corresponding to different versions of the survey. Each section follows a consistent format, with the results reported separately for each forest. Appendices to the report include responses to open-ended questions in the survey and a copy of the survey instrument used.

Recreation Use Estimates

Following the National Visitor Use Monitoring (NVUM) protocols, recreation use of the State Forests was estimated through a process of obtaining mechanical traffic counts, calibrated by observation and on-site interviewing, at the sample of recreation sites and days scheduled throughout the study year. Mechanical traffic counts were obtained for a 24-hour period on the targeted sample days. Interviewers were on site for a 6-hour period. During that time, they both visually calibrated the mechanical counter by observing and counting exiting traffic, and interviewed a random sample of exiting visitors. State Forest sampling sites included all potential places that recreation users could exit the forests, and were classified by types and use levels (Table 1). Most of the sampling days were conducted at general forest area (GFA) sites. Such sites provide access to the forest without concentrating use at the site itself, and include trailheads, river put-in and take-out points, forest roads, etc. Other sampling categories include day use developed sites (DUDS) such as picnic areas, scenic overlooks and the like, overnight use developed sites (OUDS) including camping areas, cabins, resorts, etc., and “special areas.” The latter category includes designated “natural” and “wild” areas of the state forests, and is analogous to the designated Wilderness areas within the national forests. See Appendix D for a listing of sampling sites included in these forests in each of these categories.

In addition to these categories, field personnel spent several days in each Forest at “View Corridor” sites. These view corridor sites were located on higher volume paved roads in each Forest (Routes 477, 192, 235, 45, White Deer Pike, and Lancaster Valley Road in the Bald Eagle and Routes 154, 87, High Knob Road, and Worlds End Road in the Loyalsock). The intent of sampling at those sites was to estimate the volume of scenic driving through the respective State Forests, above and beyond that occurring on the forest roads already included in the sampling of GFA sites. Since traffic on these state routes includes all types of vehicles (work and commuting vehicles, etc.) and cannot all be considered scenic driving in the State Forest, the total traffic counts were adjusted to estimate the number of vehicles that could be considered participating in sightseeing or scenic driving to any degree. As for the other types of sites, mechanical traffic counts were obtained after 6 hours and 24 hours. Simultaneously, traffic was observed and counted in hourly intervals and categorized as regular vehicles and commercial vehicles during the 6-hour field visit. The visual counts were used to validate the 6-hour mechanical traffic counts. No interviews were conducted at these sites due to safety concerns related to the higher speed and volume of traffic. The proportion of scenic driving was estimated using data from the

National Visitor Use Monitoring study conducted in the Allegheny National Forest, and validated with the activity participation data collected in the current State Forest study.

Since most recreation use of the State Forests is dispersed rather than focused at developed day use or overnight use areas, GFA sites accounted for the greatest number of sampling days across both forests. Sampling of State Forest sites was also stratified by level of recreational use, including three use levels as estimated by Bureau of Forestry personnel (Table 1 and Appendix D). More specifically, the sampling strata were defined by best available estimates of the daily volume of exiting recreation traffic at each site, and classified as Low, Medium, and High. These estimated recreation use levels were based on relative criteria for each type of site and based on the collective knowledge and experience of Bureau of Forestry personnel.

Table 1. Description of the Sampling Sites.

	Bald Eagle		Loyalsock	
	Percent of Sampling Days	Percent of Interviews	Percent of Sampling Days	Percent of Interviews
Site Type				
General Forest Area (GFA)	58.2	80.7	57.1	52.0
Day Use Developed Site (DUDS)	32.4	12.9	34.7	46.8
Overnight Use Developed Site (OUDS)	0	0	0	0
Special Area	9.4	6.4	8.2	1.2
Total	100.0	100.0	100.0	100.0
Use Level Stratum				
High	15.8	49.4	14.6	45.9
Medium	27.7	15.3	27.4	35.1
Low	56.5	35.3	58.0	18.0
Total	100.0	100.0	100.0	100.0

Stratification was designed to reduce the overall variance of the visitation estimate, and to ensure an adequate representation of varying levels of recreation throughout the study year. More sampling days were allocated to lower use general forest areas, but more interviews were completed during higher use periods due to the greater number of visitors contacted. Survey results were weighted to the population of days in each stratum to correctly represent the use distribution across the various types of sites within the State Forests.

Pneumatic traffic counters were used to measure vehicular use at suitable locations such as forest roads and parking lots. Field personnel recorded counts at the end of each 6-hour sampling period and again after 24 hours had elapsed. Comparing the mechanical and

observational counts at the end of the 6-hour period provides a calibration that can be used with the 24-hour mechanical counts to obtain an estimate of total daily exiting traffic. Survey screening questions were used to determine the proportion of exiting traffic that was completing a recreation visit, as well as the proportion of recreational visitors compared to other users of forest sites. Non-recreational forest users included those who were working or commuting to work, just passing through, or there for some other reason. Additional survey questions were used to convert vehicle counts to visitor estimates, based on the number of people per vehicle.

The 6-hour mechanical traffic counts showed a mean of 15.5 vehicles counted on the Bald Eagle and 9.1 vehicles on the Loyalsock (Table 2). A significant number (9-17%) of these counts were zero, reflecting no traffic during the 6-hour sampling period. The 24-hour traffic counts had a mean of 65.3 on the Bald Eagle and 31.6 on the Loyalsock. The hand tally counts for the 6-hour sampling periods averaged 7.1 and 5.0 on the Bald Eagle and Loyalsock State Forests, respectively. These counts were naturally lower than (about half or less of) the corresponding 6-hour mechanical counts because the observational counts included only one-way (exiting) traffic while the mechanical counters recorded all traffic moving in both directions. The 6-hour counts obtained via the hand tally clickers and mechanical traffic counters showed a strong degree of correlation (.88 on the Loyalsock and .98 on the Bald Eagle), lending additional validity to the estimates of visitor use levels. The correlations between the 6-hour and 24-hour mechanical traffic counts were also very high (.88 on the Loyalsock and .96 the Bald Eagle), showing the validity of the 24 hour traffic counts.

Results from the traffic counts and completed surveys were used to estimate total recreational use of the State Forests. Data were extrapolated from the sampled site-day combinations to all site-days within each stratum and totaled for the entire forest. The results include two measures of recreational use per forest: 1) the total number of individual site visits, and 2) the total number of recreational forest visits. Since some trips to the State Forests include visits to more than one different site during each visit, the total site visits are considerably higher than the number of forest visits.

Table 2. Summary of Mechanical and Observational Counts at Sampling Sites*

	Bald Eagle	Loyalsock
Pneumatic Traffic Counter		
6-hour Traffic Counts (Percent)		
0	9.0	17.0
1 - 2	7.2	10.6
3 - 5	12.6	23.4
6 - 10	24.3	21.3
11 - 30	36.0	19.1
31 or more	10.8	8.5
Total	99.9	99.9
Mean	15.5	9.1
24-hour Traffic Counts (Percent)		
0	0	0
1 - 5	3.1	10.5
6 - 10	12.5	10.5
11 - 25	34.4	26.3
26 - 40	31.3	21.1
41 - 60	9.4	5.3
61 or more	9.4	26.3
Total	100.1	100.0
Mean	65.3	31.6
6-hour Hand Clicker Counts (Percent)		
0	14.6	25.6
1 - 2	19.1	21.1
3 - 5	24.8	23.3
6 - 10	21.0	13.5
11 or more	20.4	16.5
Total	99.9	100.0
Mean	7.1	5.0

*Percentages may not equal 100% because of rounding.

A State Forest recreation visit is defined as “one person entering and exiting a State Forest for the purpose of recreation” (English et al., 2001). A single visitor may participate in any number of activities and visit any number of sites within a single visit. Also, a single visit can last multiple days or might be one person or group visiting a single site on a day trip for any amount of time. Site and forest recreation visits were estimated using the following process and data shown in Table 3. First, 24-hour traffic counts were used to measure the number of vehicles leaving the forest on any given day (Table 3, column 1). The vehicle counts within each stratum were multiplied by the percentage of exiting traffic whose purpose for visiting the forest was for recreation (column 2). To avoid double counting visitors who may be traveling to and from a site within the day, the next step was to multiply the number of vehicles on recreation trips by the percentage of visitors reporting they were leaving the site for the last time that day (column

3). To convert the units from vehicles to people, the next step was to multiply by the average number of people per vehicle for each site-use stratum (column 4), resulting in an estimate of total daily recreation visits for each site-use category (column 5).

To convert daily recreation use measures to total forest use for the entire calendar year, the average daily use estimates were extrapolated to the population of site days (or total number of days at all sites for each site type and use level) in the year, shown in column 6. The results of this calculation represent the total yearly recreation site visits for all sites in each site type-level category (column 7). Finally, one additional variable was used to estimate the number of State Forest visits for each stratum: the number of sites visited within the forest during the current visit. Visitors reported visiting an average of 1.3 sites in the Bald Eagle and 1.7 sites in the Loyalsock during their current visit. The number of site recreation visits was adjusted by the number of sites visited by each respondent, resulting in the estimated number of Forest visits (column 8).

The Bald Eagle State Forest received an estimated 284,387 recreational visits during the amalgamated study year (representing pro-rated annual use between 2017 and 2019). These forest visits included a total of 380,763 individual site visits, or about 1.3 site visits for each State Forest visit. The Loyalsock State Forest received an estimated 111,505 recreational visits and 190,211 individual forest site visits during the same period (about 1.7 site visits per forest visit). These recreation use estimates are typical of recreation use levels in other State Forests as shown in previous study reports. The recreational use of the Bald Eagle State Forest is much higher than that of the Loyalsock State Forest, reflecting a greater number of sites in the Bald Eagle (61 versus 39 in the Loyalsock) and higher use of the general forest areas in the Bald Eagle during the high use periods (about 52 recreation visits per day versus 21 in the Loyalsock).

Table 3. Recreation Use Estimates for the Bald Eagle and Loyalsock State Forests

Bald Eagle State Forest								
	1	2	3	4	5	6	7	8
Site Type and Use Strata	1-way Traffic Count	% Recreation Visits	% Leaving for Last Time	People per Vehicle	Recreation Visits per day	Site days in year	Total Site Visits	Total Forest Visits
GFA-High	46.4	84.8	62.9	2.1	51.97	2,243	116,577,	89,675
GFA-Medium	14.2	77.8	80.0	1.9	16.79	5,147	86,430	72,025
GFA-Low	15.6	61.3	69.0	1.9	12.54	9,765	122,422	81,615
DUDS-High	11.7	73.3	77.3	2.2	14.58	29	423	302
DUDS-Medium	11.7	55.9	77.3	2.2	12.13	896	10,872	7,248
DUDS-Low	6.9	55.9	77.3	2.4	7.16	900	6,440	4,600
Special-Low	7.8	91.7	88.9	1.8	11.45	3,285	37,599	28,922
Forest Total						22,265	380,763	284,387
Loyalsock State Forest								
	1	2	3	4	5	6	7	8
Site Type and Use Strata	1-way Traffic Count	% Recreation Visits	% Leaving for Last Time	People per Vehicle	Recreation Visits per day	Site days in year	Total Site Visits	Total Forest Visits
GFA-High	20.7	81.6	57.1	2.2	21.2	663	14,068	8,475
GFA-Medium	17.8	77.6	68.2	2.3	21.7	2,009	43,529	26,222
GFA-Low	13.3	48.5	75.0	2.1	10.2	7,913	80,392	52,203
DUDS-High	36.0	93.3	90.9	2.2	67.2	140	9,404	4,898
DUDS-Medium	14.9	83.3	75.0	2.2	20.5	197	4,034	2,101
DUDS-Low	10.6	79.5	75.0	2.4	15.2	1,488	22,571	10,851
Special-Low	10.3	75.0	50.0	2.3	8.9	1,825	16,213	6,755
Forest Total						14,235	190,211	111,505

Survey Results

Overall, a total of 1,419 State Forest visitors were surveyed. Among these, 66% were willing to participate in the interview. Of the unwilling visitors, 29 were people who had already completed the survey and were screened out. Thus the overall response rate, reflecting the proportion of selected visitors who were willing to complete the survey, was 67%. Among those who did not participate in the interview, 308 people (21.7%) refused to stop their vehicle and 153 (10.8%) declined the interview.

One of the initial screening questions in the survey asked the visitors, “What is the primary purpose of your visit to this site?” Responses included: recreation, working or commuting to work, just stopping to use the bathroom, just passing through/going somewhere else, and some other reason. Among these forest visitors, the majority (70%) stated they were visiting the forest for recreation. Only those respondents who were visiting the forest for recreation were included in the estimates of recreation use and descriptions of visitors in this report. Most of the remaining individuals in the sample were working or commuting to work (11%), just passing through (12%), stopping to use the bathroom (3%), or there for some other reason (4%). “Other” reasons mentioned by respondents included travel to residences or private cabins, seeing how much snow there is, trying to find a new route, and stopping to ask for directions.

Trip Visitation Patterns on the State Forests

- Most of the visitors contacted (95% in the Bald Eagle and 91% in the Loyalsock) were repeat visitors to the State Forest.
- Among those who were repeat visitors, many in both Forests had made their first visit to the State Forest prior to 1980 (34% in the Bald Eagle and 31% in the Loyalsock). Another one-third in both State Forests made their first visit during the 1980s or 1990s. The final one-third of visitors to both Forests made their first visit since 2000, with nearly one-fifth making their first visit since 2010 (17% in the Bald Eagle State Forest and 19% in the Loyalsock).
- Bald Eagle State Forest visitors reported visiting the forest more often than Loyalsock State Forest visitors.
 - About one-third of the visitors to the Bald Eagle State Forest reported visiting 1-10 times per year, while one-third of Loyalsock visitors reported 1-5 visits per year.
 - Nearly one-fourth of the Bald Eagle visitors (24%) indicated that they typically make more than 50 visits to the State Forest per year, compared to just 12% of Loyalsock visitors.
 - The average number of reported trips to the forest per year was about 48 for the Bald Eagle State Forest and 27 for the Loyalsock State Forest.
- Conversely, Loyalsock State Forest visitors reported more visits to other forest areas. About one-third of the Bald Eagle visitors (33%) indicated that they typically make between 0 and 5 visits to other forest areas each year (these could include other State Forests or any other public or private forests the respondent visited), compared to one-fourth (26%) of the Loyalsock visitors.
 - The average number of trips to other forests per year was about 23 for the Bald Eagle and 26 for the Loyalsock State Forest.
- The vast majority of visitors sampled in both forests (80-82%) were day users.
 - Of those respondents who were overnight visitors, the average length of stay was 2.5 nights in the Bald Eagle and 2.9 nights in the Loyalsock State Forest.
- Nearly two-thirds of the visitors in the Bald Eagle State Forest (63%) used no day use facilities, while a slight majority (51%) in the Loyalsock indicated that they used one or more day use facilities during their visit.
- Most of the respondents in both Forests (79% in the Bald Eagle and 71% in the Loyalsock) had just one or two people in their vehicle on this trip. The average number of persons per vehicle was 2.1 in the Bald Eagle and 2.2 in the Loyalsock State Forest.
- Only a small minority of the respondents in both Forests (17% in the Bald Eagle and 19% in the Loyalsock) reported that they had at least one child under the age of 16 with them.
- The most common group type in both Forests was family groups (40% in the Bald Eagle and 51% in the Loyalsock), with smaller proportions coming in groups of friends and groups containing family and friends.
- Close to one-third (32%) of the visitors in the Bald Eagle State Forest came to the Forest alone, compared to one fifth (20%) of the Loyalsock visitors.

Table 4. Trip Visitation Patterns in the State Forests

	Valid Percent*	
	Bald Eagle	Loyalsock
Previous Visitation History		
First Time Visitor	4.7	9.1
Repeat Visitor	95.3	90.9
Total	100.0	100.0
Year of First Visit		
Prior to 1980	34.1	31.1
1980-1989	14.8	20.0
1990-1999	18.3	14.4
2000-2009	15.7	15.0
2010-2015	17.0	19.4
Total	99.9	99.9
Number of Visits to This State Forest in Typical Year		
1-5	16.6	32.0
6-10	16.2	17.1
11-20	17.0	19.3
21-50	26.6	19.3
More than 50	23.6	12.2
Total	100.0	99.9
Mean	47.8	26.8
Number of Visits to Other Forests in Typical Year		
0-5	32.9	26.4
6-10	20.3	15.2
11-20	18.0	21.9
21-50	18.9	28.1
More than 50	9.9	8.4
Total	100.0	100.0
Mean	22.8	26.1
Length of Stay		
Overnight Visitor	20.0	17.6
Day User	80.0	82.4
Total	100.0	100.0
Number of Nights Spent (Overnight Visitors)		
1	28.8	23.7
2	41.1	28.9
3-5	21.9	39.5
6 or more	8.2	7.9
Total	100.	100.0
Mean	2.5	2.9
Number of Day Use Facilities Used During This Trip		
0	62.6	49.1
1	30.1	37.7
2 or more	7.3	13.2
Total	100.0	100.0

	Valid Percent*	
	Bald Eagle	Loyalsock
Number of People in Vehicle		
1-2	79.3	71.4
3-4	16.8	24.6
5 or more	4.0	4.0
Total	100.1	100.0
Mean	2.1	2.2
Number of People Less than 16 Years Old in Vehicle		
0	82.7	80.9
1	9.2	9.6
2	5.2	6.2
3 or more	2.9	3.4
Total	100.0	100.1
Type of Group		
Alone	31.8	20.4
Family	39.8	51.0
Friends	18.4	17.9
family and friends	9.2	9.7
Other	0.8	1.0
Total	100.0	100.0

*Percentages may not equal 100% because of rounding.

Demographic Characteristics of State Forest Visitors

- The vast majority (73-83%) of the respondents in both State Forests were males.
- Visitors to both State Forests were fairly evenly distributed across various age ranges.
 - The average age of visitors was about 48 in the Bald Eagle and 47 in the Loyalsock State Forest.
- Almost all of the State Forest visitors surveyed reported their race/ethnicity as White/Caucasian.
- Other ethnicities reported by visitors included Asian, African-American, and American Indian/Alaskan Native.
- Bald Eagle State Forest visitors were slightly more likely to include a person with a disability in their household (16%) than Loyalsock State Forest visitors (11%).

Table 5. Demographic Characteristics of State Forest Visitors

	Valid Percent*	
	Bald Eagle	Loyalsock
Gender		
Male	83.3	73.0
Female	16.7	27.0
Total	100.0	100.0
Age		
18 to 35	25.5	27.5
36 to 50	26.2	34.0
51 to 64	33.2	27.5
65 or older	15.1	10.9
Total	100.0	99.0
Mean	48.1	46.5
Ethnicity		
Caucasian	96.5	97.6
Other	3.5	2.3
Total	100.0	100.0
Income		
Under \$25,000	7.9	6.7
\$25,000-\$49,999	21.9	17.9
\$50,000-\$74,999	26.6	24.6
\$75,000-\$99,999	19.7	20.5
\$100,000-\$149,999	15.1	20.1
\$150,000 or over	8.8	10.3
Total	100.0	100.0
Does anyone in your household have a disability?		
Yes	15.8	10.6
No	84.2	89.4
Total	100.0	100.0

*Percentages may not equal 100% because of rounding.

Activity Participation

The basic survey administered to all visitors included a detailed list of recreational activities. Respondents were asked to identify each activity that they had participated in (or planned to participate in) during their visit, as well as their primary activity on this trip (Table 6). The first column for each forest (activity participation) shows the range in numbers of visitors participating in the various activities, while the primary activity column reflects what the visitors considered their most important purpose for visiting the forest on this trip.

- The majority of visitors in the Loyalsock State Forest participated in various viewing and sightseeing activities (e.g. 55% reported viewing natural features such as scenery, wildlife, birds, flowers, fish, etc.), although relatively few reported viewing natural features as their primary activity. Such activities were less prevalent on the Bald Eagle State Forest. The popularity of viewing/sightseeing activities may be underrepresented in both Forests due to the lack of sampling during the fall foliage season.
- About one-fourth (24%) of the Loyalsock State Forest visitors sampled reported consumptive activities (fishing and hunting) as their primary activity at the Forest, compared to nearly one-third (31%) of Bald Eagle State Forest visitors.
 - Fishing was much more common as a primary activity (25%) than hunting (3%) on the Bald Eagle State Forest and was the most common primary activity among all activities among respondents in the Bald Eagle State Forest. These results may reflect the heavier sampling occurring in the Forest during the spring season and lack of sampling during October and November, as noted on page 4.
 - Fishing (12%) was also more common than hunting (7%) as a primary activity on the Loyalsock State Forest.
- Nearly half of the sampled visitors in the Loyalsock did some hiking (45%) or walking (31%) during their visit, versus 27% and 18% of Bald Eagle visitors, respectively.
 - Hiking was the most popular primary activity on the Loyalsock State Forest (22%), followed by viewing natural features (19%), driving for pleasure on roads (16%), and fishing (12%).
- Relatively few of the Forest visitors surveyed in either forest reported any type of camping as their primary activity.
- About one-third of the visitors in both State Forests (32% in the Bald Eagle and 37% in the Loyalsock) reported driving for pleasure on roads during their visit, but less than half of those (13 - 16%) reported it as their primary activity.
- Aside from driving for pleasure on roads, few of the respondents in either Forest reported motorized pursuits as their primary activity.
 - Snowmobile riding was a more popular motorized activity on the Bald Eagle State Forest, with 6% participating and reporting it as their primary activity during their visit, compared to fewer than 2% on the Loyalsock State Forest.

Recreation Use on the State Forests

Activity Participation

Table 6. Activity Participation of State Forest Visitors (during this recreation visit)

	Bald Eagle		Loyalsock	
	Activity Participation*	Primary Activity [†]	Activity Participation*	Primary Activity [†]
Consumptive Activities				
Fishing—all types	27.7	24.5	17.3	11.5
Hunting—all types	4.4	2.6	6.8	6.6
Viewing, Learning about Nature & Culture				
Viewing natural features such as scenery, wildlife, birds, flowers, fish, etc.	27.5	9.1	55.0	19.3
Visiting historic and prehistoric sites/areas	3.9	0.5	4.8	0
Nature study	3.2	0.3	7.6	0.8
Visiting a nature center, nature trail, or visitor center	5.9	0	7.2	0.4
Nonmotorized Activities				
Hiking	27.2	10.4	45.0	22.2
Walking	18.4	5.5	31.3	3.7
Horseback riding	0.5	0	0.8	0.4
Bicycling, including mountain bikes	2.9	1.6	3.6	1.2
Nonmotorized water travel (canoeing, sailing, kayaking, rafting, etc.)	1.7	0	4.8	1.2
Downhill skiing or snowboarding	0	0	0	0
Cross-country skiing, snowshoeing	0.7	1.0	1.2	1.2
Other nonmotorized activities (e.g. swimming, games & sports)	0.2	0.3	0	0
Motorized Activities				
Driving for pleasure on roads	31.8	13.1	37.3	15.5
Riding in designated off-road vehicle areas (non-snow)	1.5	1.6	1.2	1.2
Snowmobile travel	6.4	6.4	1.6	1.6
Motorized water travel (boats, etc.)	0	0	0.4	0
Other motorized activities (enduro events, games, etc.)	1.0	0.3	0.4	0
Camping or Other Overnight Activities				
Camping in developed sites (family or group sites)	5.1	1.8	4.4	1.6
Primitive camping (motorized)	0.5	0.5	0	0
Backpacking or camping in unroaded areas	0.7	0.3	2.8	1.2
Resorts, cabins, or other accommodations on State managed lands	7.6	1.8	5.6	2.5
Other Activities				
Gathering mushrooms, berries, firewood, or other natural products	3.4	0.8	2.0	0.4
Relaxing, hanging out, escaping heat, noise, etc.	16.9	4.2	26.5	4.5
Picnicking and family gatherings in developed sites (family or group sites)	10.8	4.4	6.4	1.2
Other	13.5	7.3	13.7	4.9

*Percentages do not equal 100% because respondents could report more than one activity.

[†]Percentages may not equal 100% because of rounding.

Satisfaction Addition

This section of the survey asked forest users about the importance they attached to, and their satisfaction with, thirteen customer service attributes in the State Forest they visited.

Respondents were provided with the opportunity to choose “not applicable” for any attributes that they did not experience during their visit. Additional satisfaction-related questions were also asked in the basic survey that was administered to all visitors and in the experience addition.

Responses to those questions are also included in this section.

Satisfaction Ratings

- The State Forests were generally rated highly on each of the thirteen satisfaction attributes, with the most common responses in the “very good” or “good” categories.
- State Forest visitors were most satisfied with the scenery and attractiveness of the forest landscape (around 95% good/very good).
- The items that received the most not applicable (N/A) responses included helpfulness of employees and cleanliness of restrooms (33-42% N/A). Generally these responses reflect the fact that the visitors did not encounter staff during their visits, and that restrooms are usually only present in developed areas in State Forests.

Table 7. Satisfaction Ratings for Customer Service Attributes in the State Forests (Percent)

Bald Eagle State Forest	Poor	Fair	Average	Good	Very Good	Not Applicable	Mean^a
Scenery	0	0	3.9	26.8	69.3	0	4.7
Attractiveness of the forest landscape	0	0	3.1	22.8	72.4	1.6	4.7
Feeling of safety	0	1.6	1.6	29.1	66.9	0.8	4.6
Condition of the natural environment	0	3.1	4.7	29.1	62.2	0.8	4.5
Helpfulness of employees	0.8	0.8	5.5	20.5	36.2	36.2	4.4
Condition of developed recreation facilities	0.8	3.9	5.5	28.3	35.4	26.0	4.3
Adequacy of signage	0	1.6	14.2	33.9	48.8	1.6	4.3
Cleanliness of restrooms	1.6	1.6	7.9	14.2	33.1	41.7	4.3
Parking lot condition	2.4	3.1	12.6	34.6	39.4	7.9	4.2
Condition of Forest roads	1.6	6.3	14.2	30.7	47.2	0	4.2
Condition of Forest trails	2.4	3.1	11.8	27.6	32.2	22.8	4.1
Availability of parking	0	8.7	12.8	31.5	42.5	4.7	4.1
Availability of information on recreation	2.4	3.1	14.2	25.2	37.8	17.3	4.1

Recreation Use on the State Forests

Satisfaction Addition

Loyalsock State Forest	Poor	Fair	Average	Good	Very Good	Not Applicable	Mean^a
Scenery	0	0	3.7	12.3	84.0	0	4.8
Attractiveness of the forest landscape	0	0	4.9	16.0	79.0	0	4.7
Feeling of safety	0	1.2	4.9	23.5	69.1	1.2	4.6
Condition of the natural environment	0	1.2	6.2	25.9	66.7	0	4.6
Helpfulness of employees	0	0	3.7	23.5	39.5	33.3	4.5
Availability of parking	1.2	0	8.6	23.5	63.0	3.7	4.5
Adequacy of signage	0	0	11.1	32.1	54.3	2.5	4.4
Condition of developed recreation facilities	0	2.5	3.7	30.9	44.4	18.5	4.4
Parking lot condition	1.2	2.5	7.4	28.4	58.0	2.5	4.4
Condition of Forest trails	1.2	1.2	9.9	38.3	37.0	12.3	4.2
Condition of Forest roads	1.2	2.5	16.0	39.5	39.5	1.2	4.2
Cleanliness of restrooms	1.2	1.2	8.6	24.7	24.7	39.5	4.2
Availability of information on recreation	0	3.7	12.3	34.6	38.3	11.1	4.2

^aResponse Code: 1 = "Poor" through 5 = "Very good"

Importance Ratings

Visitors were also asked how important they found each of the listed attributes or services.

- Importance ratings for the customer service attributes generally followed the same pattern as the satisfaction ratings across the attributes.
- The condition of the natural environment (mean = 4.5 in both Forests), attractiveness of the forest landscape (mean = 4.4) and scenery (mean = 4.4 - 4.5) were the most important attributes to the State Forest visitors.
- The least important items included parking lot condition and availability (mean = 3.2 – 3.3 on the Bald Eagle and (3.3 - 3.8 on the Loyalsock).

Recreation Use on the State Forests

Satisfaction Addition

Table 8. Importance Ratings for Customer Service Attributes in the State Forests (Percent)

Bald Eagle State Forest	1	2	3	4	5	Mean^a
Condition of the natural environment	0	1.2	4.9	35.8	58.0	4.5
Attractiveness of the forest landscape	0	1.3	10.0	35.0	53.8	4.4
Scenery	1.3	0	10.1	30.4	58.2	4.4
Feeling of safety	2.2	4.5	12.4	37.1	43.8	4.2
Condition of Forest roads	3.0	2.0	17.8	46.5	30.7	4.0
Adequacy of signage	6.1	3.1	16.3	46.9	27.6	3.9
Condition of Forest trails	8.4	4.2	15.8	46.3	25.3	3.8
Availability of information on recreation	5.8	8.7	19.4	44.7	21.4	3.7
Helpfulness of employees	9.8	6.9	22.5	31.4	29.4	3.6
Cleanliness of restrooms	14.1	9.1	17.2	27.3	32.3	3.6
Condition of developed recreation facilities	8.7	6.7	24.0	41.3	19.2	3.6
Availability of parking	12.7	11.8	24.5	32.7	18.2	3.3
Parking lot condition	15.9	12.4	27.4	27.4	16.8	3.2

Loyalsock State Forest	1	2	3	4	5	Mean^a
Scenery	0	0	4.7	39.5	55.8	4.5
Condition of the natural environment	0	0	4.2	45.8	50.0	4.5
Attractiveness of the forest landscape	0	0	10.9	37.0	52.2	4.4
Feeling of safety	2.0	4.0	16.0	38.0	40.0	4.1
Adequacy of signage	0	1.8	23.2	44.6	30.4	4.0
Condition of Forest trails	7.0	0	15.8	47.4	29.8	3.9
Condition of Forest roads	0	3.6	30.4	42.9	23.2	3.9
Helpfulness of employees	7.8	3.9	19.6	39.2	29.4	3.8
Availability of parking	7.1	5.4	16.1	48.2	23.2	3.8
Availability of information on recreation	9.1	1.8	12.7	53.7	23.6	3.8
Cleanliness of restrooms	12.3	7.0	19.3	42.1	19.3	3.5
Condition of developed recreation facilities	8.6	10.3	24.1	39.7	17.2	3.5
Parking lot condition	9.7	11.3	32.3	30.6	16.1	3.3

^aResponse Code: 1 = Least Important through 5 = Most Important

Other Visitor Satisfaction Ratings

Respondents for the experience addition were asked some additional questions about how they would rate the quality of various aspects of the State Forest.

- Most respondents indicated very favorable ratings (mean of 4.1 or above) for all of the items rated.

Table 9. Visitor Satisfaction Ratings for Various Forest Attributes (Percent)

	Awful	Fair	Good	Very Good	Excellent	N/A	Mean ^a
Bald Eagle State Forest							
Natural environment	0	0	2.5	18.5	77.3	1.7	4.8
Safety and security	0.8	2.5	6.7	22.7	66.4	0.8	4.5
Responsiveness of staff	0.8	1.7	2.5	16.0	37.8	41.2	4.5
Sanitation and cleanliness	1.7	1.7	5.9	21.2	67.8	1.7	4.5
Condition of latrines	0.8	1.7	5.9	16.8	36.1	38.7	4.4
Condition of picnic pavilions & other facilities	0.8	2.5	10.1	24.4	41.2	21.0	4.3
Loyalsock State Forest							
Natural environment	1.5	0	1.5	20.0	75.4	1.5	4.7
Safety and security	0	3.2	11.1	25.4	58.7	1.6	4.4
Sanitation and cleanliness	0	1.6	10.9	29.7	57.8	0	4.4
Responsiveness of staff	0	3.1	6.2	13.8	26.2	50.8	4.3
Condition of picnic pavilions & other facilities	0	1.6	18.8	20.3	29.7	29.7	4.1
Condition of latrines	1.5	6.2	12.3	15.4	33.8	30.8	4.1

^a Response scale = 1 (awful) to 5 (excellent)

Overall Satisfaction

- Overall satisfaction scores tended to be high, with over three-fourths of the respondents in both Forests reporting that they were “very satisfied” with their visit to the State Forest.

Table 10. Overall Satisfaction of State Forest Visitors

	Valid Percent	
	Bald Eagle	Loyalsock
Very Dissatisfied	1.2	1.6
Somewhat Dissatisfied	1.2	0.8
Neither Dissatisfied nor Satisfied	3.0	2.4
Somewhat Satisfied	13.6	16.5
Very Satisfied	81.0	78.7
Total	100.0	100.0
Mean ^a	4.7	4.7

^a Response code: 1 = “very dissatisfied” to 5 = “very satisfied”

Crowding Ratings

- Crowding scores tended to be relatively low, with about three-fourths of the respondents in the Loyalsock (74%) and over one-half in the Bald Eagle (55%) choosing 1 or 2, reflecting that they encountered “hardly anyone” during their visit.
- Very few respondents in either Forest indicated conditions near the “overcrowded” end of the scale.
- Conditions appear to be slightly more crowded in the Bald Eagle State Forest. The average crowding score on the 10-point crowding scale was 3.2 among the Bald Eagle visitors and 2.1 among Loyalsock State Forest visitors.

Table 11. Summary of Perceived Crowding Ratings (Valid Percent).

Perception of Crowding^a	1	2	3	4	5	6	7	8	9	10
Bald Eagle	41.7	13.4	7.1	7.9	14.2	3.9	3.9	3.9	0.8	3.9
Loyalsock	42.5	31.3	12.5	6.3	6.3	0	1.3	0	0	0

^a Response code: 1 = “hardly anyone” to 10 = “overcrowded”

Economics Addition

About one-third of the survey respondents were asked about their monetary expenditures during their trip to the State Forest. Additional questions in the “economics addition” focused on the respondents’ trip itinerary (Table 12). These questions were asked to establish a context for evaluation of the reported trip expenditures.

- When asked what they would have done if, for some reason, they had been unable to go to the State Forest on this visit, the responses differed between the two forests.
- The most common response in the Bald Eagle State Forest (47%) was that they would have stayed home, followed by gone somewhere else to pursue the same activity (35%).
- Conversely, visitors in the Loyalsock were more likely (47%) to say they would have gone somewhere else, followed by those who would have stayed home (31%).
- Visitors in the Loyalsock State Forest were about twice as likely (11%) as those in the Bald Eagle (4%) to have gone elsewhere for a different activity.
- Overnight visitors in the Bald Eagle were mostly on trips of 1-2 days (46%), while a greater percentage of Loyalsock State Forest visitors (62%) reported trips of 3-5 days away from home.
- Day visitors in the Bald Eagle were about equally likely (36 - 38%) to be away from their home for 1 – 2 hours or 3 - 5 hours, while those in the Loyalsock State Forest were most likely to report a day trip of 3 – 5 hours (47%).
- The vast majority of visitors (83% in the Bald Eagle and 70% in the Loyalsock) were visiting only that State Forest on this particular trip. However, a notable minority of Loyalsock visitors (30%) did report visiting multiple destinations.
- Most of the visitors who reported multiple destinations for their trip (92% in the Bald Eagle and 84% in the Loyalsock) indicated that the State Forest was their primary destination.
- When queried about how many people their reported expenditures were covering, the most typical response in both forests was one person (50% in the Bald Eagle and 41% in the Loyalsock).
- Besides the detailed economic questions about various spending categories, visitors were asked to estimate how much money everyone in their vehicle spent on the entire trip, from the time they left home until they returned home.
 - The most common response in both forests was \$25 or less. However, visitors in the Bald Eagle were more likely (56%) to report spending \$25 or less for their trip compared to 34% in the Loyalsock.
 - The total amounts spent in both State Forests were different, averaging \$86.61 in the Bald Eagle and \$120.05 in the Loyalsock.

Table 12. State Forest Recreation Trip Profile (for economics section)

	Valid Percent	
	Bald Eagle	Loyalsock
What Visitor Would have done if Unable to Visit SF		
Gone elsewhere for same activity	35.4	47.5
Gone elsewhere for different activity	4.4	10.9
Come back another time	8.9	6.9
Stayed home	46.8	30.7
Gone to work at your regular job	3.2	2.0
None of these	1.3	2.0
Total	100.0	100.0
Time Away from Home (Days)		
1-2	51.6	28.2
3-5	40.3	61.5
6 or more	8.0	10.3
Total	99.9	100.0
Time Away from Home (Hours)		
1-2	38.1	20.0
3-5	36.1	46.7
6 or more	25.8	33.3
Total	100.0	100.0
Single or Multiple Destination Trip		
Visited State Forest only	83.3	70.3
Visited other places	16.7	29.7
Total	100.0	100.0
Was State Forest Primary Destination for Trip		
Yes	92.1	84.1
No	7.9	15.9
Total	100.0	100.0
Number of People Covered by Expenses		
1	35.9	21.9
2	40.8	50.0
3	9.0	16.7
4 or more	14.1	11.4
Total	100.0	100.0
Estimated Total Trip Expenses for Group		
\$25 or less	56.3	33.7
\$26-\$50	13.8	16.8
\$51-\$100	10.6	19.8
\$101-\$200	10.0	13.9
More than \$200	9.4	15.8
Total	100.1	100.0
Mean	\$86.61	\$120.05

Visitor Expenditures

In the economics addition, visitors were asked how much they spent on this trip for ten categories of expenditures within 50 miles of the site visited (Tables 13 and 14). The results shown below provide the proportion of visitors reporting spending any money on their trip within 50 miles of the forest, the percentage reporting expenditures in each category, and the average amount spent in each category.

- The majority of the respondents in both forests indicated that they did spend some money within 50 miles of the forest on their current trip. Loyalsock State Forest visitors were more likely than Bald Eagle State Forest visitors to spend some money during their trip to the Forest (78% in the Loyalsock versus 59% in the Bald Eagle).
- Many respondents indicated that they spent no money at all on many of the specific expenditure categories listed on the survey instrument.
- Very few visitors in either forest reported any spending for local transportation, camping fees, outdoor recreation and outfitter-related expenses (including guide fees and equipment rentals).
- Significant proportions of visitors in both forests (26% in the Bald Eagle and 37% in the Loyalsock) reported some trip expenses for groceries.
- Visitors in the Loyalsock State Forest were much more likely (43%) than those in the Bald Eagle State Forest (25%) to report spending money in restaurants and bars.
- Visitors in the Loyalsock State Forest were also more likely (47%) than those in the Bald Eagle State Forest (37%) to report buying gas or oil during their trip. This is not surprising since more visitors in the Bald Eagle live within a closer distance from the State Forest and would not necessarily need to purchase gas during their trip (see Appendix B – Zip Code Analysis).
 - The average distance from home to the Forest was 101 miles for Bald Eagle visitors and 137 miles for Loyalsock visitors.

Table 13. Summary of Trip Spending Patterns of State Forest Visitors

	Bald Eagle	Loyalsock
Proportion of visitors spending any money within 50 miles of this state forest	59.1%	78.2%
Economic Expenditure Items	Proportion of Visitors Spending Something in Each Category (percent)	
Motel, Lodge, Cabin, B&B, etc.	3.1	8.9
Camping Fees	2.5	2.0
Restaurants & Bars	25.0	42.6
Groceries	26.2	36.6
Gasoline and oil	36.7	46.5
Local Transportation (bus, shuttles, etc.)	0.6	0
Outfitter Related Expenses (guide fees & equipment rentals)	1.2	0
Outdoor Recreation and Entertainment (park fees, movies, mini-golf, etc.)	1.2	2.0
Sporting Goods	6.2	4.0
Souvenirs, Clothing, Other Misc.	6.2	5.0

The first column for each Forest in Table 14 shows the average amount spent among only those visitors reporting spending something in each category. These numbers cannot be totaled because they are based on a different number of individuals making the various types of purchases. The second column for each Forest in Table 14 shows the average amount spent among all visitors in the survey. These averages include those spending nothing in various categories, and therefore can be totaled to indicate the average total amount spent for all categories.

- For example, money was spent on motels, lodges, or cabins by about 3% of the visitors in the Bald Eagle State Forest, and the average amount spent was \$381.00. More visitors in the Loyalsock State Forest reported expenses for motels, lodges, or cabins (8.9%), and they spent on average \$244.22 for their lodging accommodations. In both cases, the average amount spent among all visitors including those who spent nothing on lodging was very small.

Table 14. Amount Spent by State Forest Visitors for Various Categories of Trip Expenditures

Economic Expenditure Items	Bald Eagle		Loyalsock	
	Average Amount Spent - Among Visitors Spending Something in Each Category	Average Amount Spent – All Visitors	Average Amount Spent - Among Visitors Spending Something in Each Category	Average Amount Spent – All Visitors
Motel, Lodge, Cabin, B&B, etc.	\$381.00	\$11.98	\$244.20	\$21.76
Camping Fees	\$78.00	\$1.96	\$40.00	\$0.79
Restaurants & Bars	\$60.78	\$16.19	\$88.19	\$37.54
Groceries	\$50.90	\$13.36	\$52.81	\$19.35
Gasoline and oil	\$41.00	\$14.86	\$45.81	\$21.32
Local Transportation (bus, shuttles, etc.)	\$100.00	\$0.63	0	0
Outfitter Related Expenses (guide fees & equipment rentals)	\$226.50	\$2.83	0	0
Outdoor Recreation and Entertainment (park fees, movies, mini-golf, etc.)	\$32.50	\$0.41	\$175.00	\$3.47
Sporting Goods	\$94.80	\$5.93	\$22.50	\$0.89
Souvenirs, Clothing, Other Misc.	\$65.29	\$4.08	\$72.60	\$3.59
Total	NA	\$72.23	NA	\$108.71

- In general, the categories showing the highest expenditures included gasoline and oil, groceries, and restaurants and bars.
- In total, the visitors in the Bald Eagle State Forest reported spending \$72.23 for all of the expenditure categories, compared to \$108.71 among those in the Loyalsock State Forest. Both of these averages are lower than the overall trip spending reported at the bottom of Table 12 because the frame of reference for these individual expense categories focused on spending within 50 miles of the State Forest, while the overall trip expense estimate included spending by all party members during their entire trip regardless of where the money was spent.

Experience Addition

This section of the survey asked a series of additional questions of interest to managers of the Pennsylvania State Forests. As was the case for the “satisfaction” and “economics” additions, about one-third of the respondents were asked these questions. Some of the questions enhanced other sections of the basic survey and have been reported earlier (e.g. previous visitation to the forest and group composition were reported with other visitor trip characteristics in Table 4). The results presented below focus on visitor motivations, feelings towards the Forest, and opinions about various topics in the Pennsylvania State Forests.

Forest Access

- Most respondents in both Forests indicated favorable ratings for access to the State Forests by both roads and trails (mean of 4.1 – 4.6).
- Visitors in the Bald Eagle State Forest rating the quality of access by roads significantly higher (mean=4.6) than visitors in the Loyalsock State Forest (mean=4.1).
- The perceived quality of access to trails was rated about the same in both forests (mean = 4.4 in the Bald Eagle and 4.3 in the Loyalsock).

Table 15. Visitor Ratings of Access to the State Forests (Percent)

	1	2	3	4	5	Mean ^a
Bald Eagle State Forest						
By roads	0.8	1.7	8.3	16.7	72.5	4.6
By trails	1.1	5.3	3.2	29.5	61.1	4.4
Loyalsock State Forest						
By roads	7.6	1.5	10.6	30.3	50.0	4.1
By trails	1.8	3.6	14.3	26.8	53.6	4.3

^a Response scale = 1 (poor) to 5 (very good)

Recreation Experience

- Most respondents also indicated favorable ratings (mean of 4.0 or above) for all of the recreation experience items rated.
 - Most visitors in both Forests perceived the opportunity to recreate without feeling crowded and without conflict from other visitors.
 - Visitors in both Forests also gave high ratings for the compatibility of recreation activities at the area.
 - Most visitors who encountered people in surrounding communities reported positive interactions. These ratings were slightly higher among visitors in the Loyalsock State Forest.

Table 16. Visitor Ratings for Various Recreation Experience Attributes (Percent)

	Awful	Fair	Good	Very Good	Excellent	Mean ^a
Bald Eagle State Forest						
Opportunity to recreate without feeling crowded	0.8	4.0	8.9	20.2	66.1	4.5
Places to recreate without conflict from other visitors	1.6	3.2	10.4	28.0	56.8	4.4
Helpfulness/courteousness of people in surrounding communities	0.9	2.6	18.1	31.0	47.4	4.2
Compatibility of recreation activities at the area	0.9	1.7	15.4	26.5	55.6	4.3
Loyalsock State Forest						
Places to recreate without conflict from other visitors	0	2.5	3.7	19.8	74.1	4.6
Opportunity to recreate without feeling crowded	0	2.5	1.3	33.8	62.5	4.7
Helpfulness/courteousness of people in surrounding communities	0	1.3	5.3	26.7	66.7	4.6
Compatibility of recreation activities at the area	1.2	4.9	7.4	29.6	56.8	4.4

^a Response scale = 1 (awful) to 5 (excellent)

Place Attachment

Visitors were asked to choose their most important reason for visiting the State Forest from a list of alternative choices.

- Visitors in both Forests were most likely to report “I enjoy being in the forest” as their most important reason for visiting the State Forest (39% in the Bald Eagle and 32% in the Loyalsock).
- About one-fifth of the visitors in both State Forests (20% in the Bald Eagle and 18% in the Loyalsock) stated their most important reason for visiting was because it’s “a good place to spend time with friends/family.”
- Among the activities listed, visitors in the Loyalsock State Forest were more likely to report that they went to the Forest because it’s a good place to hunt (9% in the Loyalsock versus 5% in the Bald Eagle).
- Visitors in the Loyalsock were much more likely to indicate they went to the forest because “it’s a good place to hike” (17% versus 6% in the Bald Eagle).
- Conversely, visitors in the Bald Eagle were more likely to select “it’s a good place to fish” (15%) than those in the Loyalsock (6%).
- These differences between forests are consistent with the activity participation results shown earlier in this report (page 17).

Table 17. Which of the following was the most important reason for this visit to the State Forest?

	Valid Percent	
	Bald Eagle	Loyalsock
I went there because I enjoy being in the forest	39.2	31.8
I went there because its a good place to spend time with friends/family	20.0	18.2
I went there because it’s a good place to:		
Hunt	5.0	9.1
Hike	5.8	16.7
Bike	2.5	1.5
Fish	15.0	6.1
Horseback ride	0	0
Other Reason	12.5	16.7

Visitors also responded to a set of statements designed to measure the extent of place attachment to the State Forest.

- The vast majority of respondents agreed that the State Forest they visited “means a lot to them,” and the majority indicated they are “very attached to the place.”
- Most visitors also reported that they enjoy recreating in the State Forest more than other places, and get more satisfaction out of visiting the State Forest than from visiting other places.
- All of the place attachment items received slightly higher scores among visitors in the Bald Eagle State Forest than among those in the Loyalsock State Forest.

Table 18. Summary of Place Attachment Scale Items (Percent)

Place Attachment Items	Strongly disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly agree	Mean ^a
Bald Eagle State Forest						
This place means a lot to me	0	1.7	10.9	21.0	66.4	4.5
I enjoy recreating at this place more than other places I could visit	0	0	21.0	37.0	42.0	4.2
I am very attached to this place	1.7	5.9	21.8	24.4	46.2	4.1
I get more satisfaction out of visiting this place than from visiting most places	0.8	2.5	27.7	29.4	39.5	4.0
Loyalsock State Forest						
This place means a lot to me	0	1.5	29.2	27.7	41.5	4.1
I enjoy recreating at this place more than other places I could visit	3.1	3.1	35.4	27.7	30.9	3.8
I am very attached to this place	6.2	4.6	38.5	16.9	33.8	3.7
I get more satisfaction out of visiting this place than from visiting most places	3.1	3.1	40.0	26.2	27.7	3.7

^a Response Code: 1="Strongly Disagree" and 5="Strongly Agree"

Motivations/Reasons for Visiting the State Forest

- Visitors' most important motivations or reasons for visiting the State Forest were to be outdoors and to experience natural surroundings, and for the opportunity to relax and get away from their regular routine (means of 4.6 – 4.8).
- Moderately important motives for visiting the Forest included the social motives of family recreation (mean = 3.9 - 4.1) and being with friends (mean = 4.0 in both Forests) as well as physical exercise (mean = 3.8- 4.1).
- The least important motivations in both Forests were to develop my skills (mean = 3.4- 3.7) and challenge or sport (mean = 3.6 - 4.0). Loyalsock State Forest visitors attached slightly more importance to these motives than Bald Eagle State Forest visitors.

Table 19. Summary of Motivations/Reasons for Recreating in the State Forests (Percent)

Reasons for Visiting	Not at all important	Somewhat important	Moderately important	Very important	Extremely important	Mean ^a
Bald Eagle State Forest						
To experience natural surroundings	0.8	2.4	2.4	20.5	74.0	4.7
For relaxation	1.6	1.6	3.1	18.1	75.6	4.7
To be outdoors	0.8	0.8	2.4	18.1	78.0	4.7
To get away from the regular routine	0.8	0.8	7.1	20.5	70.9	4.6
For physical exercise	6.3	7.9	22.0	26.8	37.0	3.8
For family recreation	7.9	8.7	16.5	22.8	44.1	3.9
To be with my friends	6.3	7.1	17.3	21.3	48.0	4.0
For the challenge or sport	10.2	14.2	17.3	23.6	34.6	3.6
To develop my skills	11.8	22.0	14.2	17.3	34.6	3.4
Loyalsock State Forest						
To be outdoors	0	1.2	1.2	13.6	84.0	4.8
To experience natural surroundings	0	1.2	1.2	17.3	80.2	4.8
For relaxation	0	1.2	2.5	14.8	81.5	4.8
To get away from the regular routine	0	1.2	2.5	16.0	80.2	4.8
For physical exercise	4.9	4.9	6.2	39.5	44.4	4.1
For family recreation	6.2	7.4	11.1	23.5	51.9	4.1
To be with my friends	7.4	4.9	12.3	27.2	48.1	4.0
For the challenge or sport	2.5	7.4	21.0	30.9	38.3	4.0
To develop my skills	12.3	7.4	11.1	33.3	35.8	3.7

^a Response Code: 1="Not at all important" and 5="Extremely important"

Visitor Response to Potential Facilities and Services

Visitors surveyed were asked what facilities/services in the State Forest are most important to them.

- The respondents in both Forests attached great importance to wildlife viewing areas or opportunities (mean = 3.9 - 4.3).
- Visitors in both Forests rated hike, bike and horse (non-motorized) trails as the second highest priority among all of the types of facilities and services listed (mean = 4.0 for Bald Eagle State Forest visitors and 3.8 among Loyalsock visitors).
- Visitors in both Forests attached relatively high importance to signs directing them to recreation facilities (mean = 3.7 – 3.9) and printed interpretive information (mean = 3.6 - 3.7).
- Visitors on both Forests expressed more interest in hiking, biking, and horse trails (mean = 3.8 - 4.0) than in motorized ATV or snowmobile trails (mean = 1.9 - 2.4).

Table 20. Visitor Importance Ratings for Various Types of Facilities and Services

	Not at all Important	Somewhat Important	Moderately Important	Very Important	Extremely Important	Mean ^a
Bald Eagle State Forest						
Wildlife viewing areas or opportunities	0.9	5.1	13.7	26.5	53.8	4.3
Hike, bike & horse (non-motorized) Trails	11.6	2.7	13.4	21.4	50.9	4.0
Signs directing me to recreation facilities	3.5	8.8	18.6	34.5	34.5	3.9
Parking	3.5	8.0	25.7	31.0	31.9	3.8
Printed Interpretive Information	11.5	9.7	15.0	31.9	31.9	3.6
Picnic areas	5.4	15.3	27.0	27.9	24.3	3.5
ATV Trails	46.7	11.2	13.1	11.2	17.8	2.4
Snowmobile Trails	48.1	12.5	10.6	9.6	19.2	2.4
Loyalsock State Forest						
Wildlife viewing areas or opportunities	6.2	6.2	35.4	35.4	36.9	3.9
Hike, bike & horse (non-motorized) Trails	4.7	9.4	21.9	28.1	35.9	3.8

Recreation Use on the State Forests

Experience Addition

Printed Interpretive Information	9.5	4.8	25.4	31.7	28.6	3.7
Signs directing me to recreation facilities	7.8	6.3	20.3	42.2	23.4	3.7
Parking	4.7	17.2	21.9	35.9	20.3	3.5
Picnic areas	16.1	16.1	37.1	17.7	12.9	3.0
ATV Trails	55.4	8.9	8.9	7.1	19.6	2.3
Snowmobile Trails	55.2	10.3	10.3	5.2	19.0	1.9

^a Response Code: 1="Not at all important" and 5="Extremely important"

Information Services

State Forest visitors were asked a series of questions about their use of various types of forest information.

- A minority of the visitors (23 – 39%) reported that they had obtained information about the area they visited during or in preparation for their trip.
- Visitors in both Forests were most interested in obtaining State Forest maps. Fewer visitors sought trail maps. About half of the Loyalsock visitors (52%) and one-third of Bald Eagle visitors (30%) sought other types of information.
- Most visitors in both Forests (68% in the Bald Eagle and 58% in the Loyalsock) obtained information before leaving home rather than after arriving at the Forest.
- Nearly all of the visitors who sought information reported that the information obtained was helpful in planning their trips.

Table 21. Visitor Responses to Questions about Information Services

	Valid Percent	
	Bald Eagle	Loyalsock
Did you obtain any information about this area during this trip or in preparation for it?		
No	76.9	61.5
Yes	23.1	38.5
What type of information did you obtain?		
State Forest map	48.0	40.0
Trail map	30.0	32.0
Other	30.0	52.0
When did you receive information?		
Before leaving home	68.0	58.0
After arriving here	32.0	42.0
Was the information you received helpful to plan your trip?		
Yes	96.0	100.0
No	4.0	0

Visitor Responses to Questions about Marcellus Shale-Related Activity

Forest visitors were asked several questions about how Marcellus shale-related activity had affected their use of the State Forest and their enjoyment of their recreation experience at the State Forest.

- Nearly all of the visitors in the Bald Eagle State Forest (99%) reported that Marcellus shale-related activity had not affected their use or enjoyment of the State Forest.
- About one-fifth of the visitors to the Loyalsock reported that gas-related activity had affected their recreational use (18%) or recreational experience (19%) at the Forest.

Table 22. Visitor Responses to Questions about Marcellus Shale-Related Activity

	Valid Percent	
	Bald Eagle	Loyalsock
Has Marcellus shale-related activity changed your recreational use of this state forest?		
Yes	1.2	17.7
No	98.8	82.3
Total	100.0	100.0
Has Marcellus shale-related activity changed your recreation experience at this state forest?		
Yes	1.5	19.4
No	98.5	80.6
Total	100.0	100.0

Follow-up questions probing the reasons for the visitors' responses to the initial yes/no questions revealed the following major themes. These responses are summarized in Tables 23-26.

- Based on the minority of visitors reporting that their use of the State Forest had been changed due to Marcellus Shale-related activity, there were fewer open-ended responses to the initial "yes" (use was affected) responses than to the "no" (use was not affected) responses.
- Among those reporting that their use of the State Forest had been impacted by shale-related operations, the most common responses reflected various major themes.

Table 23. Responses to, how has Marcellus Shale-related activity changed your use of the Forest?

Type of Comment	Number of Comments	
	Bald Eagle	Loyalsock
Displaced/closed areas	2	21
Traffic-related concerns	1	15
Wildlife/Hunting-related concerns	0	8
General environmental concerns	0	8
Noise and visual impacts	1	2
Positive impacts/statements	0	4

- The most prevalent theme in both Forests involved various forms of visitor displacement, or changes in visitors' destinations or activities due to area/road closures or fracking activity.
- Some respondents also mentioned various traffic-related, wildlife or hunting-related concerns.
 - The most frequently mentioned traffic concerns included increased road traffic, especially truck traffic, impacts to the roadways, and noise pollution.
 - The most common hunting-related issues were that the drilling activity affects the way game act, reduces/changes their places to hunt, or makes fish inedible.
- Visitors expressed several environmental concerns, including natural habitat destruction, disruption of aquatic ecosystems, and changes in landscape and aesthetic quality.
- A few respondents also expressed positive impacts of the shale-related activity.
 - These comments focused on the creation of economic benefits or new access roads or trails providing better access to the Forest.

Those visitors who stated that their recreational use of the Forest had not been affected by Marcellus shale-related activity were also asked to explain why not. Their responses also reflected several dominant themes, which were grouped into topics reflecting awareness-related issues and general acceptance of the drilling activity (Table 24).

- The most common responses in Bald Eagle State Forest was the acknowledgement that there is no drilling occurring in this Forest.
- In the Loyalsock, most respondents stated that there was no effect on their use, they didn't notice or see any activity, or that there was no drilling occurring in the areas that they frequent. Another common comment was that it had not changed their use yet.
- Some visitors stated that they had not heard of or did not know much about the Marcellus Shale phenomenon.
- A few visitors expressed support for the drilling activity, based on the opinion that it does not have a negative effect, is controlled, or is good for the economy.

Table 24. Responses to why Marcellus shale-related activity has not changed your use of the forest?

Type of Comment	Number of Comments	
	Bald Eagle	Loyalsock
No effect on use	4	60
Don't notice/Haven't seen any activity	8	47
Not drilling here (or in areas I care about)	143	28
Not yet (implies concern for future)	6	3
Don't know about it	9	16
Pro-drilling	2	13

Forest visitors were also asked to explain the reason why Marcellus shale-related activity had or had not affected *their recreation experience* at the State Forest. As in the case of the previous question, many of their responses did not refer specifically to experiential impacts, but rather expressed a variety of types of opinions about the drilling operations (Table 25).

- The experiential impacts tended to reflect the same themes as the answers to the questions about the impacts of shale-related activity on visitors' use of the Forests.
- Road/traffic related issues were the most common responses to the question about how drilling-related activity had affected visitors' experiences at Loyalsock State Forest, followed by issues related to noise and visual impacts. Displacement was referenced much less frequently than in the previous question on how it has impacted their use.
- Contrary to responses of the previous question about impacts of drilling on visitors' use of the forest, fewer respondents mentioned positive impacts when asked how their recreation experience had been affected.

Table 25. Responses to, how has Marcellus shale-related activity changed your recreation experience at the Forest?

Type of Comment	Number of Comments	
	Bald Eagle	Loyalsock
Road/Traffic issues	1	20
General concerns	0	9
Displaced/Closed areas	0	2
Impacts on the environment	0	6
Noise and visual impacts	0	18
Wildlife/Hunting-related concerns	0	2
Positive impacts/Better access	0	1

Recreation Use on the State Forests

Experience Addition

Responses by those visitors who stated that their recreation experience at the Forest had not been affected by Marcellus shale-related activity also reflected the same awareness-related and general acceptance of drilling activity themes as their previous explanations for why the shale-related activity had not affected their recreational use of the Forests (Table 26).

- Again, many visitors in both Forests reported that the drilling activity doesn't bother them, hasn't changed their experience, or doesn't affect their activities.
- Many visitors in both Forests reiterated that they had not noticed the activity or had not noticed it in the areas they visit.
- Finally, a small number of respondents voiced pro-drilling sentiments or mentioned positive benefits of the gas drilling activity, such as improved roads or access to the Forest.

Table 26. Responses to why Marcellus shale-related activity has not changed your recreational experience at the forest?

Type of Comment	Number of Comments	
	Bald Eagle	Loyalsock
Don't notice/Haven't seen any activity	6	47
No effect on experience	5	41
Not drilling here (or in areas I care about)	151	35
Not yet (implies concern for future)	3	0
Don't know about it	1	6
Pro-drilling/Positive impact	2	9

Summary and Conclusions

The results published in this report are a compilation of the data collected at numerous State Forest recreation sites during the period of January 1, 2017 through April 30, 2019 (n = 1,419 interviews with Forest visitors). Besides the basic visitor use survey, three supplemental surveys were used to query visitors about their satisfaction levels, economic expenditures, and recreation experiences.

This report provides a summary of the characteristics, behaviors, and attitudes of visitors to the Bald Eagle and Loyalsock State Forests, located in the north-central area of Pennsylvania. The results indicate that most of the State Forest visitors are repeat and frequent users, and have many years of experience in the forests. About two-thirds of the visitors to both State Forests respondents (66 -67%) reported making their first visit to the Forest before the year 2000.

Several notable differences were noted in the use patterns and characteristics of recreation visitors in the two Forests. First, the Bald Eagle State Forest has more “frequent visitors,” showing an average of about 48 visits to the Forest per year versus 27 visits in the Loyalsock. Conversely, the Loyalsock visitors reported slightly more trips to other forest areas (26 days on average compared to 23 for Bald Eagle Forest users). Thus, the Bald Eagle State Forest may have a slightly larger loyal group of regular users who allocate more of their outdoor recreation trips to the Forest, while the Loyalsock State Forest visitors include regular frequent users along with a greater percentage of occasional visitors coming to the Forest for various activities.

Although about four-fifths of the visitors sampled in both Forests were day users, the overnight visitors in the Loyalsock State Forest stayed slightly longer, averaging 2.9 nights in the Forest compared to 2.7 nights for Bald Eagle State Forest visitors. Group size was similar for these two Forests. Bald Eagle State Forest visitors showed an average of 2.1 people per vehicle versus 2.2 people in the Loyalsock. In both Forests, less than 20% of the groups included children under the age of 16.

The recreation activities pursued on the Forest also differed between the two Forest districts, reflecting differences in the facilities present on the two Forests. Consumptive activities (hunting and fishing) were popular on both Forests, with fishing dominant over hunting. Fishing was the most common primary activity reported by Bald Eagle visitors (25%), but was also prevalent in the Loyalsock (17%). Hiking and walking were very popular in the Loyalsock State Forest.

Regarding satisfaction levels, most respondents in both Forests were clearly satisfied with their recreation experience and with the satisfaction attributes listed on the survey. State Forest visitors were most satisfied with the scenery and attractiveness of the forest landscape. They also reported very high feelings of safety while in the Forest and gave very favorable reviews of the helpfulness of employees.

The economics section of the study asked visitors about their monetary expenditures in and near the State Forests. Results of this section differed significantly between the two Forests. Nearly half of the Loyalsock State Forest visitors (47%) indicated that they would have gone somewhere else to do the same activity if they had not been able to visit the State Forest. Conversely, only 35% of Bald Eagle State Forest visitors would have pursued the same activity elsewhere, and nearly half (47%) would have stayed home if they had been unable to visit the Forest. Most of the respondents (59% in the Bald Eagle and 78% in the Loyalsock) indicated that they spent some money within 50 miles of the forest on their current trip. The largest expenditures reported were for gasoline and oil, food/drink at restaurants and bars, and groceries. Visitors of the Loyalsock State Forest tended to spend more (average of \$108.71) across all of the spending categories for their trip as Bald Eagle State Forest visitors (average of \$72.23).

The experience section of the study was given to about one-third of the visitors, providing rich data about visitor attitudes, motivations, perceptions, and management preferences. The data clearly shows that State Forest visitors are interested in experiencing the outdoor natural surroundings available in the forest areas. Relaxing out of doors, getting away from the routine, and other nature-based social activities are very important to these recreationists. Only slight differences in motivations were observed between these two Forests. For example, Loyalsock visitors attached slightly more importance than Bald Eagle visitors to the motives of challenge and sport and skill development.

Visitor responses about the importance of facilities and services in the Forests were examined to ascertain support or opposition to various management alternatives. Visitors in both Forests expressed the greatest interest in wildlife viewing areas or opportunities. Visitors' interest in various types of trails tended to reflect their activity pursuits. For example, although many visitors showed little or no interest in specific types of trails, such as ATV or snowmobile trails, those kinds of trails were very important to certain segments of visitors interested in

motorized activities. Respondents also attached relatively high importance to signs directing them to recreation facilities and printed interpretive information.

A minority of visitors obtained information about the area they visited during their trip or in preparation for it. Loyalsock State Forest visitors, however, were more likely to obtain information (39%) than Bald Eagle visitors (23%). Information was more likely sought by first-time users, and visitors in both Forests were more likely to seek information before leaving home than after arriving at the Forest. In both Forests most of those who sought information found it helpful in planning their trips.

The vast majority of visitors in both Forests reported that Marcellus shale-related activity had not affected their use of or recreation experience at the State Forest. However, close to one-fifth of Loyalsock State Forest visitors indicated that their use and quality of experience at the Forest had changed as a result of Marcellus shale-related activity, compared to less than 2% of Bald Eagle visitors. These results reflect the prevalence of drilling activity within the Loyalsock Forest District versus the lack of such activity in the Bald Eagle Forest District.

Among those reporting that their use of or experience at the State Forest had been impacted by shale-related operations, the most common responses reflected various types of visitor displacement, changes in visitors' destinations or activities, and traffic related impacts due to area closures or fracking activity. Respondents also expressed some general environmental concerns including habitat destruction and threats to water quality as well as changes in landscape and noise pollution. Concerns with wildlife and hunting were also mentioned. Among those reporting that gas drilling activity had not affected their use of the State Forest, many indicated that they had not noticed the activity or had not noticed it in the areas they visit, or that the drilling activity doesn't bother them, hasn't changed their use or doesn't affect their activities.

This report provides a representative snapshot of recreational use in two Pennsylvania State Forests. It thus contributes to building a profile of Pennsylvania State Forest visitors. Surveys are currently continuing in other forests and the overall database will include a total of 14 of 20 total forest districts by the completion of the current monitoring. Future reports will provide yearly summaries of the individual forests studied as well as comparative and targeted data analyses aimed at assisting Bureau of Forestry managers in their efforts to meet the needs of their recreation constituency.

Appendix A

Visitor Responses to Open-Ended Questions

Each of the three surveys provided an opportunity for respondents to detail ways in which state foresters could improve the management of each forest. A content analysis was performed on all available responses and several major themes emerged. Answer highlights are provided below followed by the summary table (Table A-1).

- The most common responses in the both forests were the accumulation of comments relating to no complaints/no comments/or keep up the good work. In the Bald Eagle, this accounted for 31.7% of respondents, and 29.1% in the Loyalsock.
- The next most common response in both the Bald Eagle and Loyalsock State Forests related to issues involving the *improvement of road conditions*. A total of 21.8% of respondents in Bald Eagle and 23.3% mentioned issues related to improving roadways.
 - This theme was further broken down to separate issues related to road maintenance, road access, and speed limits. In both forests, road maintenance issues ranked the highest in terms of number of responses.
 - These comments included statements regarding the condition of roadways (i.e. potholes) and the lack of winter maintenance. Fewer respondents mentioned wanting increased roadway access to areas.
 - Bald Eagle saw a higher percentage of respondents wishing for lower or more detailed speed limits and signage than in Loyalsock.
- Several respondents also discussed ways in which state foresters could *improve recreation facilities* for both Bald Eagle and Loyalsock State Forests. A total of 20.8% of visitors in Bald Eagle and 22.1% in Loyalsock mentioned specific ways in which improvements could be made.
 - One of the most common comments made in both forests regarded issues of trash and waste management. These comments involved statements of excessive litter along roadways and the need for trash receptacles at trailhead locations and other access points and high use areas.
 - Other common statements that occurred in relatively high numbers in both forests, included general facilities management (i.e. cleaning of latrines, more frequent lawn care) and camping areas (i.e. more camping areas, better managed camping areas, better reservation systems).
 - While fewer in number, visitors in both forests made mention of wanting more snowmobile access, improved mountain bike access, and pull offs along roadways at major scenic points.
 - Differences in several sub-themes emerged in higher numbers in the Bald Eagle than in the Loyalsock. Specifically, visitors to Bald Eagle referenced more frequently wanting increased ATV access, increased and improved parking, and improved picnic areas (i.e. updated picnic pavilions).
 - Several other comments were offered which included many singular responses, such as wanting snowmakers for snowmobile trails, less development, less ATV

access, increased appreciation of dual sports, firewood sales, and RV camp and improved horse facilities.

- Statements regarding *forest management* were also common in both forests. A total of 12.4% of respondents in Bald Eagle and 11.6% in Loyalsock mentioned issues related to forest management.
 - Many sub themes emerged with most falling into a general forest management category. This included statements regarding wanting to see specific trees protected/fostered (i.e. American chestnut, ash), removal of dead/fallen trees, controlled burns, and different forest management practices.
 - Other major sub-themes included issues of timber harvesting (i.e. cutting less trees, cutting more trees, not timbering during hunting season).
 - Respondents also mentioned wanting better invasive/pest control. This sub-theme included comments related to the control of invasive species (i.e. hemlock wooly adelgid), and a way to control ticks.
 - In the Loyalsock, some respondents mentioned issues related to Marcellus shale development, including its impact on the roadways and wanting there to be less of it occurring.
 - In Bald Eagle, a handful of respondents mentioned difficulties in private landownership (i.e. cabin owners) and the regulations and difficulty in communication between state foresters and private landholders.
- Statements related to the *improvement of trails* were also mentioned by several visitors. This was higher in the Loyalsock than in Bald Eagle, with 12.0% of visitors mentioning trail improvements in the Loyalsock and 8.4% in the Bald Eagle.
 - The most frequently mentioned sub-theme in both forests was the need for trail maintenance. This included responses dealing with clearing trails of debris, and maintaining and improving existing trails.
 - There was also a relatively high number of comments regarding the need for better trail signage, including better marked trails and improved trail maps.
 - Some visitors also mentioned wanting increased trail access, such as more connectivity between existing trails and better access to trail heads.
- Visitor responses were also focused around issues related to *improving information/forest maps*. This accounted for 8.2% of Bald Eagle visitors and 9.2% of Loyalsock visitors.
 - The most common sub-theme dealt with wanting improved recreation signage. This included comments about wanting more detailed signage of recreation opportunities such as points of interest, historic markers, and sign maintenance.
 - Other sub-themes included wanting better and more accurate internet information, improved state forest maps, and interpretative/educational signage.
- Some responses made by visitors were categorized as statements focusing on issues related to *wildlife management*. These were slightly more common in Bald Eagle State Forest, with 9.2% of visitors referencing wildlife management issues while only 6.0% of visitors did in Loyalsock.

- The most common sub-theme regarded game management, and specifically focused on better deer herd management. The majority of those responses came from Bald Eagle, and were focused around wanting a larger and better managed deer herd.
 - Another common sub-theme were comments related to deer fencing, and solely were made about wanting its removal.
 - A couple of responses dealt with issues of game policy, and included comments regarding the permission of Sunday hunting, increased doe tags, and other regulatory measures.
- Responses related to *fisheries and stream/lake management* were also categorized. These were fewer in number and were only made by 5.4% of Bald Eagle visitors and 4.8% of Loyalsock visitors.
- The most frequently mentioned sub-theme were comments regarding wanting more fish to be stocked, specifically in Bald Eagle.
 - Other sub-themes included improved stream/lake access (i.e. trails to streams), fish policy (i.e. stocking permits), and stream maintenance (i.e. removing debris from waterways).
- Lastly, several statements were grouped into an “*other*” category that failed to fall into a previously described theme. Several of these comments were lacking context (i.e. remove the police tape, there’s too much politics), while others are out of the control of state foresters (i.e. tell campers to better control their children, bringing wifi/better cell service to the forest).

Table A-1. Responses to, If you could ask the state foresters to improve some things about the management of the forest, what would you ask them to do?

		Number of Comments	
		Bald Eagle	Loyalsock
	No Complaints/Comments	86	58
	Keep up the Good Work	42	17
Improve Roadways	Road Maintenance	69	47
	Road Access	12	10
	Speed Limits	7	1
Improve Recreation Facilities	ATV Access	15	4
	Trash/Litter	14	15
	Facilities	11	9
	Parking	10	1
	Picnic Areas	8	3
	Camping Areas	7	8
	Snowmobile Access	3	4
	Biking Access	3	2
	Pull-offs	3	1
	Other	10	8
Fisheries and Water Management	Stocking	10	4
	Stream/Lake Access	7	4
	Fish Policy	4	2
	Stream Maintenance	1	2
Wildlife Management	Game Management	18	6
	Fencing	12	6
	Game Policy	7	3
Forest Management	General Forest Management	15	10
	Timber Harvesting	10	4
	Invasive/Pest Control	8	3
	Communication	6	2
	Rangers	5	1
	Private Landownership	4	2
	Marcellus Shale	2	7
Improve Information/Maps	Recreation Signage	18	13
	Maps	7	4
	Internet Information	6	1
	Education Signage	2	5
Improve Trails	Trail Maintenance	19	15
	Trail Access	8	4
	Trail Signage	7	5
	Other	8	4

Appendix B

Zip Code Analysis of Bald Eagle and Loyalsock Forest Visitors

2017-19 Pennsylvania Visitor Use Monitoring - ZIP Code Data

Each of the three versions of the survey asked for the respondent's home ZIP code as part of the socio-demographic data. These ZIP codes were then uploaded into ArcMap GIS software (ESRI, 2012). A basic spatial analysis was conducted for each forest to determine the geographic distribution of the respondents. Straight-line distances were computed from the respondent's ZIP code to the forest headquarters. Additionally, a breakdown of respondents by state and Pennsylvania County was performed. The results are shown below, segmented by forest. Maps illustrating the geographic distribution of visitors are included at the end of this section (Figure 1 and Figure 2).

Bald Eagle State Forest Highlights

- The average straight-line distance from the respondents' home ZIP code to the Bald Eagle State Forest Headquarters was 101.1 miles.
- 29.9% of respondents' home ZIP codes were within 25 miles of the Bald Eagle State Forest Headquarters, 80.5% were within 100 miles (Table B-1).
- Respondents' home ZIP codes represent 12 states; 96.5% of the respondents reported a home ZIP code in Pennsylvania (Table B-2).
- The Pennsylvania respondents' home ZIP codes represent 36 different counties (Table B-3). The top three counties were Union (20.9%), Centre (19.1%), and Snyder (16.5%).

Table B-1. Straight-Line Distance from ZIP Code to Bald Eagle State Forest Headquarters (n = 144)

Distance (miles)	Number of Responses	Percent*
Less than 25	43	29.9%
25-49	29	20.1%
50-99	44	30.5%
100-199	21	14.6%
200+	7	4.9%

*may not add up to 100% due to rounding

Table B-2. Bald Eagle State Forest Responses by State (n = 396)

State	Number of Responses	Percent*
Pennsylvania	382	96.5%
Colorado	2	.5%
Maryland	2	.5%
New Jersey	2	.5%
Arizona	1	.3%
Delaware	1	.3%
Michigan	1	.3%
North Carolina	1	.3%
New York	1	.3%
South Carolina	1	.3%
Texas	1	.3%
Virginia	1	.3%

*may not add up to 100% due to rounding

Table B-3. Bald Eagle State Forest Pennsylvania Responses by County (n = 382)

County	Number of Responses	Percent*
Union	80	20.9%
Centre	73	19.1%
Snyder	63	16.5%
Northumberland	31	8.1%
Mifflin	22	5.8%
Lancaster	15	3.9%
Clinton	10	2.6%
Lycoming	10	2.6%
York	8	2.1%
Columbia	6	1.6%
Dauphin	6	1.6%
Juniata	6	1.6%
Lebanon	6	1.6%
Montour	6	1.6%
Berks	5	1.3%
Cumberland	4	1.0%
Montgomery	3	.8%
Schuylkill	3	.8%
Adams	2	.5%
Blair	2	.5%
Bucks	2	.5%

Recreation Use on the State Forests

Cambria	2	.5%
Chester	2	.5%
Perry	2	.5%
Philadelphia	2	.5%
Allegheny	1	.3%
Butler	1	.3%
Clearfield	1	.3%
Crawford	1	.3%
Delaware	1	.3%
Erie	1	.3%
Lackawanna	1	.3%
Luzerne	1	.3%
McKean	1	.3%
Mercer	1	.3%
Northampton	1	.3%

*may not add up to 100% due to rounding

Loyalsock Forest Highlights

- The average straight-line distance from the respondents' home ZIP code to the Loyalsock State Forest Headquarters was 136.9 miles.
- 63.3% of respondents' home ZIP codes were greater than 50 miles away from the Loyalsock State Forest Headquarters. Only 13.3% were within 25 miles (Table B-4).
- Respondents' home ZIP codes represent 13 states; 89.5% of the respondents reported a home ZIP code in Pennsylvania (Table B-5).
- The Pennsylvania respondents' home ZIP codes represent 26 different counties (Table B-6). The top three counties were Lycoming (34.9%), Sullivan (9.0%), and Berks (6.6%).

Table B-4. Straight-Line Distance from ZIP Code to Loyalsock State Forest Headquarters (n = 128)

Distance (miles)	Number of Responses	Percent*
Less than 25	17	13.3%
25-49	30	23.4%
50-99	53	41.4%
100-199	20	15.6%
200+	8	6.3%

*may not add up to 100% due to rounding

Table B-5. Loyalsock State Forest Responses by State (n = 237)

State	Number of Responses	Percent*
Pennsylvania	212	89.5%
New Jersey	8	3.4%
New York	7	3.0%
Arizona	1	.4%
California	1	.4%
Washington, D.C.	1	.4%
Delaware	1	.4%
Massachusetts	1	.4%
Maryland	1	.4%
Nevada	1	.4%
Texas	1	.4%
Virginia	1	.4%
Wisconsin	1	.4%

*may not add up to 100% due to rounding

Table B-6. Loyalsock State Forest Pennsylvania Responses by County (n = 212)

County	Number of Responses	Percent*
Lycoming	74	34.9%
Sullivan	19	9.0%
Berks	14	6.6%
Luzerne	12	5.7%
Lancaster	11	5.2%
Columbia	8	3.8%
Montour	7	3.3%
Union	7	3.3%
York	7	3.3%
Bradford	6	2.8%
Northumberland	6	2.8%
Centre	5	2.4%

Recreation Use on the State Forests

Dauphin	5	2.4%
Lebanon	5	2.4%
Schuylkill	5	2.4%
Bucks	4	1.9%
Lehigh	4	1.9%
Delaware	2	.9%
Montgomery	2	.9%
Snyder	2	.9%
Tioga	2	.9%
Allegheny	1	.5%
Chester	1	.5%
Juniata	1	.5%
Susquehanna	1	.5%
Wyoming	1	.5%

*may not add up to 100% due to rounding

References

ESRI 2012. ArcGIS Desktop. Release 10.1. Redlands, CA: Environmental Systems Research Institute.

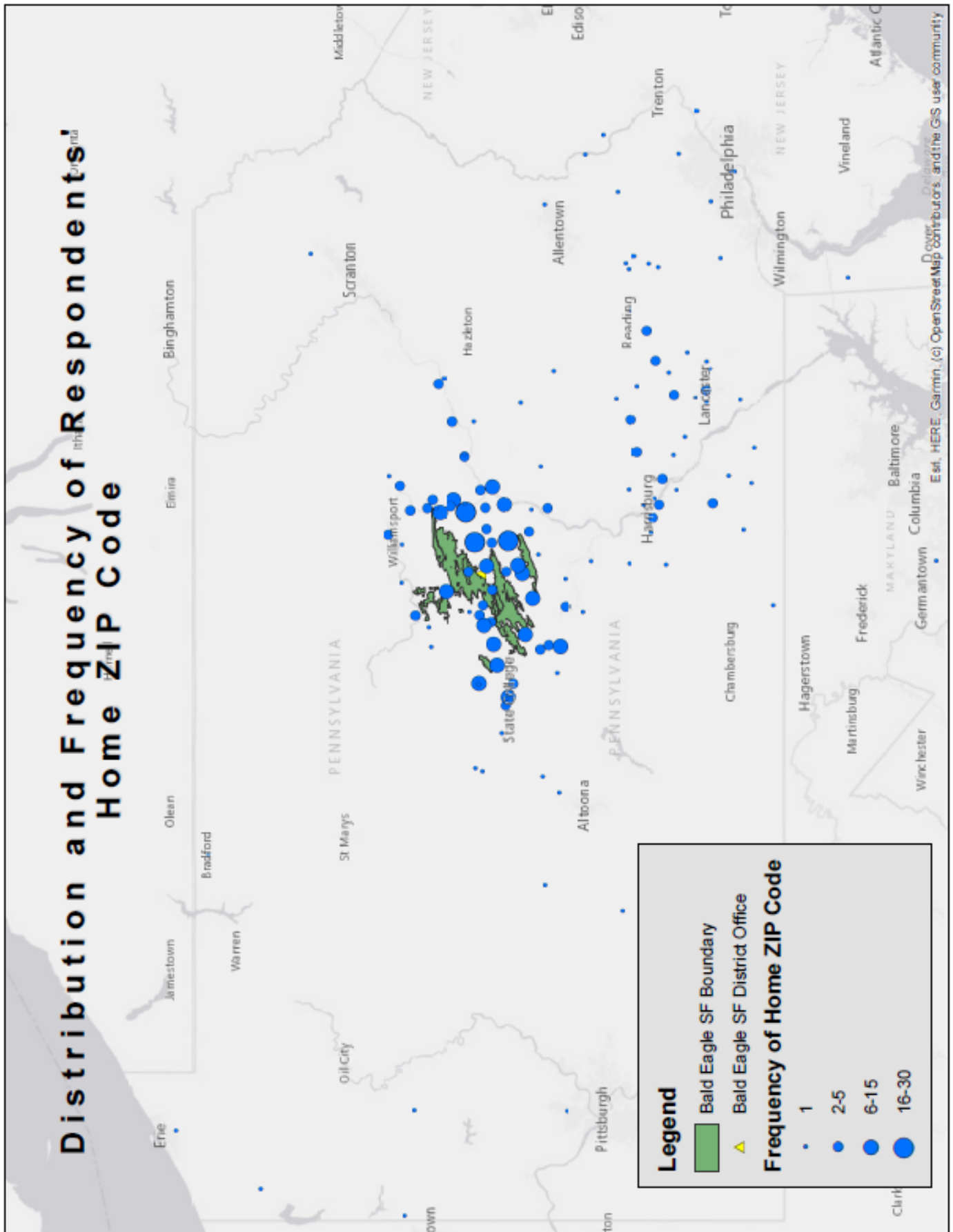


Figure 1. Distribution and Frequency of Bald Eagle SF Visitors' Home Zip Code.

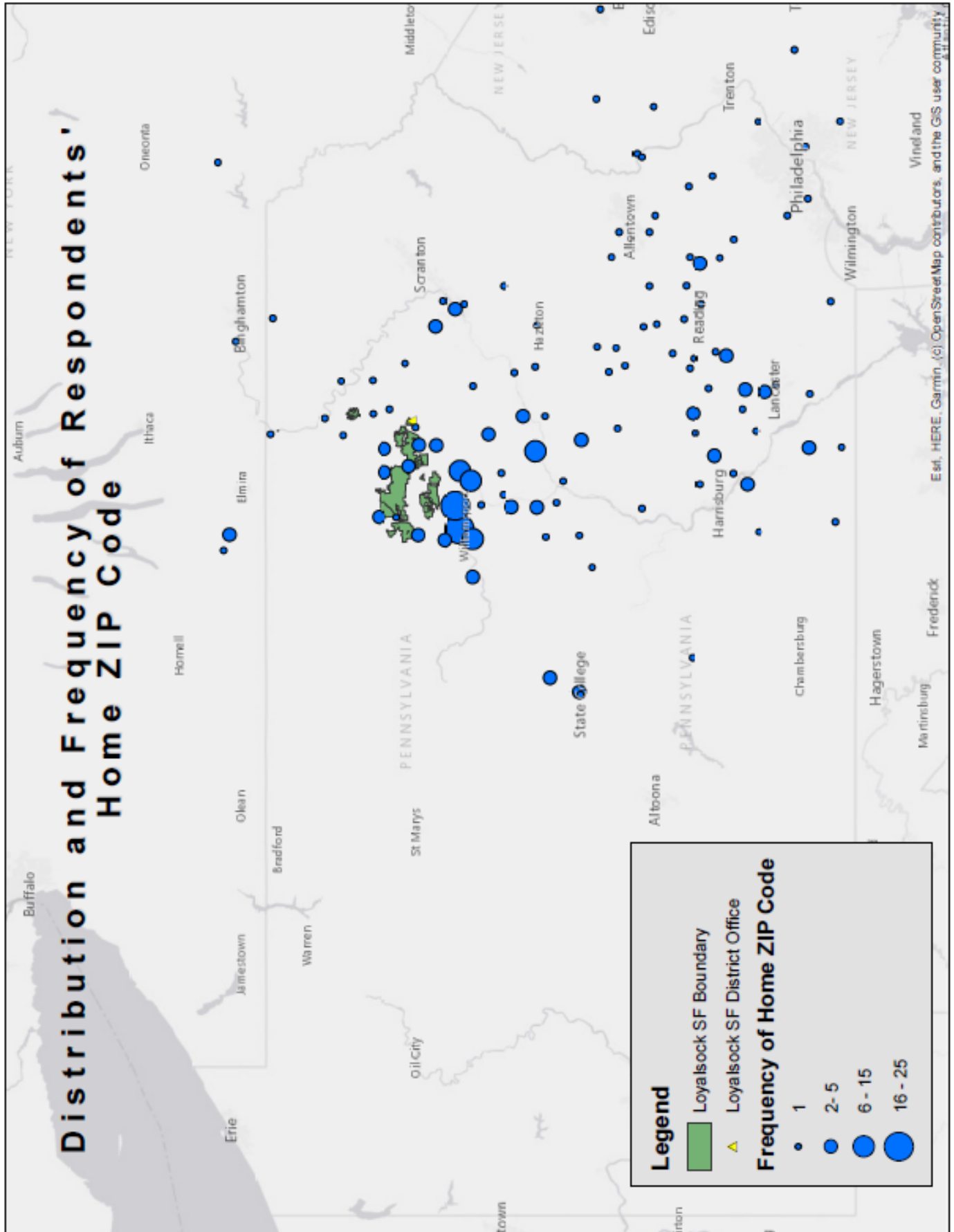


Figure 2. Distribution and Frequency of Loyalsock SF Visitors' Home Zip Code.

Appendix C

Survey Instrument

Recreation Use on the State Forests

**Bald Eagle (7) /Loyalsock State (20) Forest:
2017 - 2019 Recreational Use Survey**

Interviewer: _____ Forest #: _____ Forest Name: _____ Date & Time: _____

Site#: _____ Site Name: _____ Vehicle Axle Count: _____ Clicker Count: _____

Hello, my name is _____, I'm from Penn State University and we are doing a survey of State Forest visitors. The information collected will help the DCNR better serve their visitors. Your participation is voluntary and all information is confidential.

May I have a few minutes of your time to complete this survey?

____ Yes (If refusal, thank them for their time.)

Section 1 (Screening Questions)

1. What is the primary purpose of your visit to this site?

- Recreation—CONTINUE INTERVIEW
- Working or commuting to work (stop interview)
- Just stopped to use the bathroom (stop interview)
- Just passing through, going somewhere else (stop interview)
- Some other reason (specify) _____

Complete 2 and 2a for **SPECIAL, DUDS, and OUDS ONLY**

2. Are you leaving (site name) for the last time today or will you return later?

- Leaving for last time today
- Will return later

2a. When did you first arrive at (site name) on this visit?

Month _____ Day _____ Year _____ Time (military) _____

Complete 3 for **GFA ONLY**

3. Are you leaving the Bald Eagle/Loyalsock SF for the last time today or will you return later?

- Leaving for last time today
- Will return later

Now I want to ask you some more questions about where you went on your whole visit to the **Bald Eagle/Loyalsock SF**, which includes the use of this area and other portions of the **Bald Eagle/Loyalsock SF**.

4. Did you spend last night in the Bald Eagle/Loyalsock SF?

- No Yes
- If yes, how many nights in a row did you spend in the Bald Eagle/Loyalsock SF? _____

5. When did you first arrive at the Bald Eagle/Loyalsock on this recreation visit?

Month _____ Day _____ Year _____ Time (military) _____

- Same as site arrival time

6. When do you plan to finish your visit to the Bald Eagle/Loyalsock SF on this recreation visit?

Month _____ Day _____ Year _____ Time (military) _____

- Same as site arrival time

7. What other areas did you visit, or do you plan to visit in the Bald Eagle/Loyalsock SF for recreation on this trip?

List sites or areas visited:

8a. Lodging facilities include campgrounds, cabins, hotels and lodges. How many different overnight lodging facilities will you use during this State Forest visit? Number _____
8b. How many developed day use sites (like picnic areas or visitor centers), not including trailheads, will you use on this trip to the Bald Eagle/Loyalsock SF? Number _____

9. In what activities on this list did you participate during this recreation visit at the Bald Eagle/Loyalsock SF? (Can choose more than one)	10. Which of those is your primary activity for this recreation visit to the Bald Eagle/Loyalsock? (Choose only one)
---	---

	Question 9 answers	Question 10 answer
	Fishing—all types	
	Hunting—all types	
	Viewing & Learning Nature & Culture	
	Sightseeing	
	Viewing natural features such as scenery, wildlife, birds, flowers, fish, etc.	
	Visiting historic and prehistoric sites/areas	
	Nature study (or viewing wayside exhibits, interpretive kiosks)	
	Visiting a nature center, nature trail, or visitor center	
	Non-motorized Activities	
	Hiking	
	Walking	
	Horseback riding	
	Bicycling (including mountain bikes)	
	Non-motorized boating (canoeing, sailing, kayaking, rafting, etc.)	
	Downhill skiing or snowboarding	
	Cross-country skiing, snowshoeing	
	Other non-motorized activities: _____	
	Motorized Activities	
	Driving for pleasure on roads	
	Riding in designated off-road vehicle areas (non-snow)	
	Snowmobile travel	
	Motorized water travel (boats, etc.)	
	Other motorized activities (endure events, games, etc.): _____	
	Camping or Other Overnight	
	Camping in designated sites	
	RV camping	
	Primitive camping (motorized)	
	Backpacking or camping in unroaded areas	
	Resorts, cabins, or other accommodations on State managed lands	
	Other Activities	
	Gathering mushrooms, berries, firewood, or other natural products	
	Relaxing, hanging out, escaping heat, noise, etc.	
	Picnicking and family gatherings	
	Swimming	
	Visiting a special even or festival	
	OTHER (fill in activity) _____	

11. Including this visit, about how many times have you come to the Bald Eagle/Loyalsock SF for recreation in the past 12 months? Number _____
12. How many of those visits were to participate in the main activity you identified a moment ago? Number _____

Recreation Use on the State Forests

13a. Is this forest your primary destination? Yes No [If no, where? _____]

13b. Is this your first visit to the state forest? Yes No [If no is selected continue to next item]

[If no] In what year did you make your first visit to the state forest _____ year
 In a typical year, how many days do you spend recreating in the state forest? _____ days
 In a typical year, how many days do you spend recreating at other forest recreation sites outside of the state forest? _____ days

14. Overall, how satisfied or dissatisfied are you with this visit to the Bald Eagle/Loyalsock State Forest?

(1)	(2)	(3)	(4)	(5)
Very dissatisfied	Somewhat dissatisfied	Neither	Somewhat satisfied	Very satisfied

15. If you could ask the state foresters to improve some things about the management of the forest, what would you ask them to do?

16. Has Marcellus shale-related activity changed your recreational use of this state forest?

____ Yes (If yes, how?) _____

____ No (If no, why not?) _____

17. Has Marcellus shale-related activity changed your recreational experience of this state forest?

____ Yes (If yes, how?) _____

____ No (If no, why not?) _____

18. What is your home ZIP code or Canadian postal code? _____

Visitor is from a country other than USA or Canada

19. How many people (including you) traveled here in the same vehicle as you? Number _____

19a. How many of those people are less than 16 years old? Number _____

20. Which of the following best describes the composition of your group? [check only one]

Alone Family

Friends Family & friends

Commercial group (group of people who paid a fee to participate in this trip) Organized group (club or other organization)

Other [please specify] _____

21. What is your age? Age _____

22. Gender? Male Female

23. Which of the following best describes you?

Black/African American American Indian/Alaskan Native Other _____

Asian Native Hawaiian or other Pacific Islander

White Spanish, Hispanic or Latino

24. Information about income is important because people with different incomes come to the forest for different reasons. Into which income group would you say your household falls?

Under \$25,000 \$75,000-\$99,999 Don't know

\$25,000-\$49,999 \$100,000-\$149,999 Refuse to answer

\$50,000-\$74,999 \$150,000 or over

Economics Addition

1. If for some reason, you had been unable to go to the Bald Eagle/Loyalsock SF for this visit, what would you have done instead:

Gone elsewhere for the same activity

Gone elsewhere for a different activity

Come back another time

Stayed home

Gone to work at your regular job

None of these: _____

2. About how much time, in total, will you be away from home on this recreation trip?

Days _____ or

Hours _____

3. On this trip, did you recreate at just the Bald Eagle/Loyalsock SF, or did you go to other State Forests, parks, or recreation areas?

Just the **Bald Eagle/Loyalsock SF** (skip question 4, go to question 5)

Other places (go to question 4)

4. Was the Bald Eagle/Loyalsock SF your primary destination for this recreation trip?

Yes No

5. Did you or other members of your party spend any money on this trip within 50 miles of this park?
 ___ Yes (Go to Question 6) ___ No (Skip to Question 7)

6. For the following categories, please estimate the amount you (and other members of your party) will spend within 50 miles of here on this trip:

Motel, Lodge, Cabin, B&B, etc. \$ _____	Restaurants & Bars \$ _____	Groceries \$ _____	Outfitter Related Expenses (guide fees & equipment rentals) \$ _____	Sporting Goods \$ _____
Camping \$ _____	Local Transportation (bus, shuttles, etc.) \$ _____	Gasoline & Oil \$ _____	Outdoor Recreation and Entertainment (park fees, movies, mini-golf, etc.) \$ _____	Souvenirs, Clothing, Other Misc. \$ _____

7. How many people do these trip expenditures cover? Group members: _____

8. In total, about how much did you and other people in your vehicle spend on this entire trip, from the time you left home until you return home? Dollar amount: _____

9. What services in nearby communities (OFF of the forest) do you wish were available? Please list:

Satisfaction Addition

This section asks you about your satisfaction with the recreation services and quality of the recreation facilities in the Bald Eagle/Loyalsock SF. Please rate the following attributes of this recreation site or area of the forest. Also rate the importance of this attribute toward the overall quality of your recreation experience here. Rate importance from 1 (=not important) to 5 (=very important) in terms of how this attribute contributes to your overall recreation experience.

1. Quality	Poor	Fair	Average	Good	Very Good	N/A	2. Importance				
	1	2	3	4	5		1	2	3	4	5
Scenery	1	2	3	4	5		1	2	3	4	5
Availability of parking	1	2	3	4	5		1	2	3	4	5
Parking lot condition	1	2	3	4	5		1	2	3	4	5
Cleanliness of restrooms	1	2	3	4	5		1	2	3	4	5

Recreation Use on the State Forests

Appendix

Condition of the natural environment	1	2	3	4	5		1	2	3	4	5
Condition of developed recreation facilities	1	2	3	4	5		1	2	3	4	5
Condition of Forest roads	1	2	3	4	5		1	2	3	4	5
Condition of Forest trails	1	2	3	4	5		1	2	3	4	5
Availability of information on recreation	1	2	3	4	5		1	2	3	4	5
Feeling of safety	1	2	3	4	5		1	2	3	4	5
Adequacy of signage	1	2	3	4	5		1	2	3	4	5
Helpfulness of employees	1	2	3	4	5		1	2	3	4	5
Attractiveness of the forest landscape	1	2	3	4	5		1	2	3	4	5

3. This section asks about your satisfaction with your recreation experience at this recreation site or area of the forest. Please rate the following attributes of this recreation site or area of the forest.

	Awful	Fair	Good	Very Good	Excellent	Not applicable
Opportunity to recreate without feeling crowded	1	2	3	4	5	NA
Places to recreate without conflict from other visitors	1	2	3	4	5	NA
Compatibility of recreation activities at the area	1	2	3	4	5	NA
Helpfulness/courteousness of people in surrounding communities	1	2	3	4	5	NA

4. Please rate your perception about the number of people at this area today. Use a scale of 1 to 10, where 1 means there was hardly anyone else there, and 10 means that you thought the area was very overcrowded.

HARDLY ANYONE					VERY OVERCROWDED				
1	2	3	4	5	6	7	8	9	10

5. Here is a list of possible reasons why people recreate at outdoor recreation sites. Please tell me how important each of the following benefits is to you as a reason for visiting a state forest in Pennsylvania.

REASON	Not at all Important	Somewhat Important	Moderately Important	Very Important	Extremely Important
To be outdoors	1	2	3	4	5
For relaxation	1	2	3	4	5
To get away from the regular routine	1	2	3	4	5
For the challenge or sport	1	2	3	4	5
For family recreation	1	2	3	4	5
For physical exercise	1	2	3	4	5
To be with my friends	1	2	3	4	5
To experience natural surroundings	1	2	3	4	5
To develop my skills	1	2	3	4	5

State Forest Experience Addition

3. Overall, how would you rate the quality of each of the following at the state forest:

	Awful	Fair	Good	Very Good	Excellent	Not applicable
Sanitation and cleanliness	1	2	3	4	5	NA

Parking	1	2	3	4	5	x
Signs directing me to recreation facilities	1	2	3	4	5	x
ATV Trails	1	2	3	4	5	x
Snowmobile Trails	1	2	3	4	5	x
Hike, bike, & horse (non-motorized) Trails	1	2	3	4	5	x
Printed Interpretive information	1	2	3	4	5	x

9. Have you obtained any information about this area during this trip or in preparation for it?

Yes [continue to 11a] No [skip to question 11]

9a. What type of information did you obtain?

State forest map Trail map

PA visitors guide Other: _____

9b. When did you receive information?

Before leaving home After arriving here

9c. Where or from whom did you receive information?

9d. Was the information you received helpful to plan your trip?

Yes [skip to 12] No [continue to 11e]

9e. What would have made the information more useful?

Appendix D

List of Survey Sites

**State Forest Visitor Use Survey
Sampling Site Inventory: Bald Eagle State Forest**

Site	Site #	Use Level Classification*		
		High Use	Medium Use	Low Use
General Forest Areas				
<i>Northern Track (North of 45)</i>				
Rag Valley Rd. (west)	1	HU	FO2	Rest of year
Nitty Ridge Rd. (west)	2	HU	FO2	Rest of year
Loganton Rd. (north)	3	HU	FO2	Rest of year
Loganton Rd. (south)	4	HU	FO2	Rest of year
Nitty Ridge Rd. (east)	5	HU	FO2	Rest of year
Riansares Rd. (?)	8	HU	FO2	Rest of year
Pepper Run Rd.	9	HU	FO2	Rest of year
Tunis Rd. (east)	10	HU	FO2	Rest of year
McCall Dam Rd. (north)	11	HU,FI,B,HO	FO2	
Garden Hollow Rd.	12		FO2	Rest of year
Ohnmeiss Gap Rd.	13	HU, FO1		Rest of year
5 points intersection	16	HU, S	FO2, HO	Rest of year
Mile Run (lot)	17	S		Rest of year
White Deer Creek Rd.	18	FI, HU, B, S, M	FO2, HO	Rest of year
Cooper Mill Rd. (north)	19	FI, HU, B, M	FO2	Rest of year
Spruce Run Rd.	20	FI, HU, B, M, S	FO2	All year
Cooper Mill Rd. (south)	21	FI, HU, B, M	FO2	Rest of year
Sand Mtn. Rd.	22	FO1, HU, B		Rest of year
McCall Dam Rd. (south)	23	FI, HU, B, S, M	FO2, HO	Rest of year
Tunis Rd. (east)	24	FO1, HU, B	HO	Rest of year
Stover Gap Rd.	25	FO1, HU, B, S	HO	Rest of year
Pine Creek Hollow Rd.	26	FO1, HU, B, S	HO	Rest of year
Jones Mountain Rd.	27	FO1, HU, B, S	HO	Rest of year
Old Shingle Rd.	28	FO1, HU, B, S	HO	Rest of year
Stoney Run Rd.	29	FO1, HU, B	HO	Rest of year
Sheesley Run Rd.	30	FO1, HU, B	HO	Rest of year
Winklebleck Rd.	31	FO1, HU, B	HO	Rest of year
<i>Southern Track (South of 45)</i>				
Sand Mtn. Rd.	33	FO1, HO, FI, HU, B, S, M	Other non-peak weekends	Rest of year
Mtn. Church Rd.	35	HO, HU, S, M	Other non-peak weekends	Rest of year
Siglerville Millheim Pike	36	FO1, HO, FI, HU, B, M	Other non-peak weekends	Rest of year
Woodward Gap Rd.	37	S		Rest of year
Bear Run Rd.	38	FI, HU, B, M, S	FO1	All year
Cherry Run Rd.	40	FO1, HO, FI, HU, B	S, M, other non-peak weekends	Rest of year
Weikert Run Rd. (west)	41	HU, B	FO2	Rest of year
Weikert Run Rd. (east)	42	HU, B	FO2	Rest of year
Henstep Valley Tr.	43	HU, B, M		Rest of year
Hunter Rd.	45	FO1, HU, B, M	HO	Rest of year
Timber Rd.	46	HO, FI, HU, B M	FO2, other non-peak weekends	Rest of year

Locust Ridge Rd.	47	FO1, HU, B	FO2	Rest of year
Ingleby (lot)	48	FI,		Rest of year
Red Ridge Rd.	49	FO1, HU, B	HO, S	Rest of year
Treaster Valley Rd.	50	FO1, FI, HU, B	HO, S	Rest of year
Havice Valley Rd.	51	FO1, FI, HU, B	HO, S	Rest of year
Siglerville Millheim Pike	52	FO1, FI, HU, B		Rest of year
Shade Mtn. Rd (west)	53	FO1, HU, B	M	Rest of year
Shade Mtn. Rd (east)	54	FO1, HU, B	M	Rest of year
235 (lot)	55	FO1, HU, B	M	Rest of year
Overnight Use Sites				
<u>Northern Track (North of 45)</u>				
Use registration as use proxy.				
<u>Southern Track (South of 45)</u>				
Use registration as use proxy.				
Day Use Areas				
<u>Northern Track (North of 45)</u>				
Tea Spring Picnic Area	56		All peaks	Rest of year
Hairy Johns Picnic Area	57	S	All other peaks	Rest of year
<u>Southern Track (South of 45)</u>				
Bear Gap Picnic Area	59		All peaks	Rest of year
Rock Spring Picnic Area	60		All peaks	Rest of year
Snyder-Middleswarth Picnic Area	61		All peaks	Rest of year
Special Areas				
<u>Northern Track (North of 45)</u>				
Mt. Logan NA	62			All year
Rosecrans Bog NA	63			All year
Halfway Run NA	64			All year
The Hook NA	65			All year
<u>Southern Track (South of 45)</u>				
Bear Run NA	66			All year
Joyce Kilmer NA	67			All year
Penns Creek WA	68			All year
Tall Timber NA	70			All year
Snyder-Middleswarth NA	71			All year
View Corridors				
<u>Northern Track (North of 45)</u>				
State Route 477	72	All peaks	Other weekdays	Other weekends
White Deer Pike	73	All peaks	Other weekdays	Other weekends
State Route 192	74	All peaks, PSU home games	Other weekdays	Other weekends
State Route 235	75	All peaks	Other weekdays	Other weekends

				Other weekends
<i>Southern Track (South of 45)</i>				Other weekends
State Route 45	76	All peaks, PSU home games	Other weekdays	Other weekends
Lancaster Valley Rd	77	All peaks	Other weekdays	Other weekends

* B = Bear season, FI = Peak fishing, FO1 = Peak foliage, FO2 = Medium foliage, HO= Peak holiday weekends, HU = Peak hunting, S = Snowmobile, M = Motorized, NP = Non-peak weekends

**State Forest Visitor Use Survey
Sampling Site Inventory: Loyalsock State Forest**

Site	Site #	Use Level Classification*		
		High Use	Medium Use	Low Use
General Forest Areas				
<u>Western Track (West of 14)</u>				
Hagerman Rd.	2		HU2 & B	Rest of year
Bodine Mountain Rd.	5		HU2 & B	Rest of year
<u>Northern Track (East of 14)</u>				
Pleasant Stream Rd. west	6	FO & HO	HU2, B, S, NP	Rest of year
Pleasant Stream Rd. east	7	FO & HO	HU2, B, S, NP	Rest of year
Rock Run Rd.	8	FO, HO, SW	HU2, B, S	Rest of year
Devil's Elbow (Trs. & Lot)	9		HU2	Rest of year
Ellenton Ridge Rd.	10		HO, SW, HU2, B	Rest of year
Masten Rd.*	11	FO, HO, SW	HU2, B, S, NP	Rest of year
Dry Run Township Rd.	12		FO, HO, HU2, B	Rest of year
Hoagland Branch Rd. north	13	FI, HU1, B, SW	FO	Rest of year
Hoagland Branch Rd. south	14	FI, HU1, B, SW	FO	Rest of year
Mill Creek Rd.*	15	FO, HO, SW, HU1, B	NP & S	Rest of year
Cascade Rd.	16	FO, HO, SW, HU1, B	NP & S	Rest of year
<u>Eastern Track (East of 87)</u>				
Ogdonia Rd. north	18	HO, FO, HU1, B	FI, SW, NP	Rest of year
Coalmine Rd. north	19	HU1 & B	HO, FO, S	Rest of year
Coalmine Rd. south	20	HU1 & B	HO, FO, S	Rest of year
Loyalsock Rd.	21	June 3 rd event	FO, HO, HU2, B	Rest of year
Rock Run Rd. north*	22		FO, HO, HU2, B	Rest of year
Rock Run Rd. south *	23	HO, FO, SW	HU2, B, NP	Rest of year
Shanerburg Rd. east	25	HO, FO, HU1, B	S, NP, SW	Rest of year
Shanerburg Rd. west	26	HO, FO, HU1, B	S, NP, SW	Rest of year
Cold Run Rd.	27	HO, FO, HU1, B	S, NP, SW	Rest of year
Burnnerdale Rd. east	28	HO, FO, HU1, B	FI, SW, NP	Rest of year
Dry Run Rd.	56	HO, FO, HU1, B	Other weekends	Rest of year
<u>Southern Track (South of Wallis Run Rd.)</u>				
Jacoby Fall Tr. (lot)	29		HO & FI	Rest of year
Little Bear Creek Rd. west	30	HO, HU1, B, FI	S & NP	Rest of year
Little Bear Creek Rd. east*	31	HU1 & B	HO, S, NP	Rest of year
Dunwoodry Rd south	54			All year
Sandy Bottom (lot)	55	FI		Rest of year
Overnight Use Sites				
<u>Western Track (West of 14)</u>				
Use registration as use proxy.				

<u>Northern Track (East of 14)</u>				
Use registration as use proxy.				
<u>Eastern Track (East of 87)</u>				
Use registration as use proxy.				
<u>Southern Track (South of Wallis Run Rd.)</u>				
Use registration as use proxy.				
Day Use Areas				
<u>Western Track (West of 14)</u>				
N/A				
<u>Northern Track (East of 14)</u>				
Bear Wallow	33		HO, FO, SW	Rest of year
<u>Eastern Track (East of 87)</u>				
Bridle Trail	35	HO, FO, SW	NP	Rest of year
Sones Pond	36			Rest of year
Mead. Rd. (lot)	38	HO, FO, NP, SW		Rest of year
High Knob (overlook)	39	HO, FO, NP	HU2 & B	Rest of year
<u>Southern Track (South of Wallis Run Rd.)</u>				
Special Areas				
<u>Western Track (West of 14)</u>				
N/A				
<u>Northern Track (East of 14)</u>				
McIntyre WA	41			
Devil's Elbow NA	42			
<u>Eastern Track (East of 87)</u>				
Kettle Creek WA	43			
Kettle Creek Gorge NA	44			
Tamarack Run NA	45			
<u>Southern Track (South of Wallis Run Rd.)</u>				
N/A				
View Corridors				
<u>Western Track (West of 14)</u>				

<i>Northern Track (East of 14)</i>				
<i>Eastern Track (East of 87)</i>				
High Knob Rd.	49		HO, FO, SW, HU2, B	Rest of year
Worlds End Rd.	50		HO, FO, SW, HU2, B, FI	Rest of year
State Rt. 154	52		HO, FO, SW, HU2, B, FI	Rest of year
State Rt. 87	57	All year		
<i>Southern Track (South of Wallis Run Rd)</i>				

*B = Bear season, FI = Peak fishing, FO= Peak foliage, HO= Peak holiday weekends, HU1 = Peak hunting, HU2 = Secondary Hunting, NP = Non-peak weekends, S = Snowmobile, SW = Summer Weekends

Appendix E

Monthly Distribution of Sampling Days for Bald Eagle and Loyalsock State Forests

Monthly Distribution of Sampling Days for Bald Eagle and Loyalsock State Forests

	Number of Sampling Days		Number of Interviews Completed	
	Bald Eagle	Loyalsock	Bald Eagle	Loyalsock
January	21	26	13	21
February	33	25	49	16
March	25	36	50	39
April	33	32	105	25
May	19	5	21	31
June	38	49	88	82
July	26	8	52	6
August	0	0	0	0
September	0	0	0	0
October	0	0	0	0
November	2	14	0	9
December	3	5	1	7
Total	200	200	379	236