

# Visitor Use Monitoring (VUM) Surveys

## Sproul and Susquehannock State Forests



Visitor Use Monitoring (VUM) surveys are conducted by Penn State University to complete a systematic approach for answering questions about Pennsylvania State Forest and State Park visitors.

Pennsylvania is the first and only State Forest system to adopt this approach from the US Forest Service for monitoring recreational use. These reports are part of a current 5-year agreement with Penn State University which will evaluate 10 State Forest Districts and 30 State Parks. Previous surveys were also completed for the Bald Eagle, Tiadaghton and Tioga State Forests.

The objectives of the study are:

- To conduct surveys of visitors to selected Pennsylvania State Forest and State Park areas and develop a visitor profile
- To measure overall recreation use and specific visitation patterns within the selected State Forests and State Parks
- To identify visitor expectations and levels of satisfaction with various aspects of their visit
- To examine visitor opinions about possible future area management and facility development decisions
- To examine visitor reactions to Marcellus gas activities and the impacts of these activities on recreational visitation patterns and experiences
- To measure visitor expenditures and levels of economic impact on surrounding communities

Participating forests and completed reports include:

Study Year	Forest Evaluated	Report
1999	Bald Eagle	Completed
2008	Tioga & Tiadaghton	Completed
2011-12	Sproul & Susquehannock	Completed
2012-13	Forbes & Delaware	Completed
2013-14	Tioga & Tiadaghton	
2014-15	Elk & Moshannon	
2015-16	Michaux and Buchanan	

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**Visitor Use Monitoring of Pennsylvania's State Forests:  
Sproul and Susquehannock State Forests**

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## 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 and State Parks. This need includes understanding visitors' use patterns as well as their expectations, spending patterns, desires and satisfaction levels. Relevant questions asked by managers 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/Park 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/Park visitors?
  - How are State Forest/Park visitors impacted by oil and gas drilling operations on and surrounding State Forests and State Parks?

## **Purpose**

The purpose of this study is to develop a long-term, systematic approach for answering such questions about Pennsylvania State Forest and State Park visitors. The study will survey visitors to selected State Forests and Parks over a five year period to measure recreational use and gather data to provide a profile of recreational visitors. Sampling will be designed to measure and describe recreation use on two State Forests and six State Parks per year over a five-year study period. In total, 10 forests and 30 parks will be surveyed during the five-year duration of the project. After the initial study period, additional surveying may be conducted on other forests or parks.

This report provides results from the first year of the project. Specifically, surveys were conducted in the Sproul State Forest (District #10) and the Susquehannock State Forest (District #15) to measure recreation use and develop a profile of State Forest visitors and their use patterns. Concurrently, surveys were conducted in six State Parks located adjacent to or near these two State Forests (Bald Eagle, Kettle Creek, Hyner Run, Lyman Run, Cherry Springs, and Sinnemahoning). Results from the State Park surveys are presented in a separate report.

This project builds on earlier surveys and will incrementally create a database that can be used to better understand State Forest and State Park visitors and provide a longitudinal database for tracking trends in State Forest and State Park use. For example, results can be used to compare participation patterns and visitor characteristics for different individual forests and parks. As the database grows, findings can be extrapolated to the entire state systems and will ultimately represent all State Forests and State Parks within the Commonwealth by the end of the five-year study.

## **Objectives**

1. To conduct surveys of visitors to selected Pennsylvania State Forest and State Park areas 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 and State Parks, including the number of visitors per vehicle and the distribution of use across different types of sites within the area.
3. To develop a demographic profile of visitors at the designated State Forests/Parks.

4. To identify visitor expectations and levels of satisfaction with various aspects of their visit.
5. To examine visitor opinions about possible future State Forest and State Park management and facility development decisions.
6. To examine visitor reactions to oil and gas activities and the impacts of these activities on recreational visitation patterns and experiences.
7. To measure visitor expenditures and levels 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.<sup>1</sup> 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 by Dr. Donald English, manager of the NVUM program for the USDA Forest Service. 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

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<sup>1</sup> 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>

were measured through traffic counters and observations of vehicles using the area. Both the visitor count data and visitor survey data will later 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 Sproul and Susquehannock State Forests. The on-site survey took approximately 5-15 minutes to complete, depending on the version of the instrument that was used in the interview. Approximately one-third of the visitors were interviewed with the basic version/experience addition, another third received the basic/satisfaction addition and the remaining third completed the basic/economics addition.

All of the sampling for this study followed a detailed sampling calendar 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. These times were adjusted to fall within daylight hours during different seasons of the year.

### **Organization of this Report**

This report summarizes the results of visitor surveys conducted on the State Forests during the period October 1, 2011 through September 30, 2012. The 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, a zip code analysis of the geographic origins of forest visitors, 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.

In addition to these categories, field personnel spent six days in each Forest at “View Corridor” sites. The view corridor sites were located on the higher volume paved roads in each forest (Routes 120, 872, 44 and 144). 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 and completed interviews 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). 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 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.

	Sproul		Susquehannock	
	Percent of Sampling Days*	Percent of Interviews*	Percent of Sampling Days*	Percent of Interviews*
<b>Site Type</b>				
General Forest Area (GFA)	42.5	45.4	48.3	61.5
Day Use Developed Site (DUDS)	22.0	23.4	24.4	21.3
Overnight Use Developed Site (OUDS)	21.0	20.4	23.9	17.3
Special Area	11.5	10.7	0	0
View Corridor	3.0	0	3.3	0
Total	100.0	99.9	99.9	100.1
<b>Use Level Stratum</b>				
High	27.5	22.6	31.7	37.9
Medium	26.0	25.8	27.2	26.5
Low	46.5	51.5	41.1	35.6
Total	100.0	99.9	100.0	99.9

\*Percentages may not equal 100 because of rounding.

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. About one-third of the sampling days and corresponding interviews were completed during high, medium, and low use periods. 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 ranged from 0 to 864, with a mean of 21.4 vehicles counted on the Sproul and 25.1 vehicles on the Susquehannock (Table 2). About 10% of these counts were zero, reflecting no traffic during the 6-hour sampling period. The 24-hour counts ranged from 0 to 1325, with a mean of 62.4 on the Sproul and 53.6 on the Susquehannock. The hand tally counts for the 6-hour sampling periods averaged 7.7 and 5.7 on the Sproul and Susquehannock State Forests, respectively. These counts were naturally lower than the corresponding mechanical counts because the observational counts included only one-way (exiting) traffic while the mechanical counters recorded traffic moving in both directions. The 6-hour counts obtained via the hand tally clickers and mechanical traffic counters showed a high degree of correlation (.90 on the Sproul and .93 on the Susquehannock), lending additional validity to the estimates of visitor use levels.

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 many visits to the Sproul and Susquehannock Forests tend to 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

	<b>Sproul</b>	<b>Susquehannock</b>
<b>Pneumatic Traffic Counter</b>		
<b>6-hour Traffic Counts (Percent)</b>		
0	10.2	13.1
1 - 2	9.6	14.9
3 - 5	12.8	14.3
6 - 9	19.3	12.6
10 - 30	32.1	33.1
31 or more	16.0	12.0
Total	11.0	100.0
Mean	25.1	21.4
<b>24-hour Traffic Counts (Percent)</b>		
0	1.3	2.6
1 - 5	6.3	13.6
6 - 10	6.4	9.1
11 - 25	25.5	29.2
26 - 40	19.7	11.7
41 - 60	14.0	13.0
61 or more	26.8	20.8
Total	100.0	100.0
Mean	62.4	53.6
<b>6-hour Hand Clicker Counts (Percent)</b>		
0	14.9	18.4
1 - 2	24.7	20.7
3 - 5	19.6	25.3
6 - 10	21.1	20.1
11 or more	19.6	15.5
Total	99.9	100.0
Mean	7.7	5.7

\*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). One additional variable was used to estimate the number of State Forest visits for each strata: the number of sites visited within the forest during the current visit (column 6).

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. The results shown in column 7 of Table 3 represent the total yearly recreation site visits for all sites in each site type-level category. Finally, 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 Sproul State Forest received an estimated 173,173 recreational visits during the study year (October 1, 2011 – September 30, 2012). These forest visits included a total of 255,601 individual site visits, or about 1.5 site visits for each State Forest visit. The Susquehannock State Forest received an estimated 64,744 recreational visits and 101,637 individual forest site visits during the same period (about 1.6 site visits per forest visit). The lower estimates of recreation use on the Susquehannock are based mainly on the smaller number of sites located on that forest. For example, there were no “Special Areas” (designated Wild or Natural Areas) included in the Susquehannock State Forest sampling (eliminating one category of recreation use) and there are fewer day use developed sites in the Susquehannock State Forest compared to the areas available in the Sproul State Forest.

In addition to these recreation visits to the State Forests, the number of scenic driving visits was also estimated via the sampling procedure described above for the “View Corridor” locations. From the observational counts conducted, the number of vehicles per day ranged from 392 to 879 total vehicles, and the proportion of non-commercial traffic ranged from 81% to 84% for the different highways in these Forests. From these traffic counts and data from the visitor surveys on activity participation and number of people per vehicle, the total number of “viewing” or “sightseeing” visits was estimated to be 654,951 visits for the Sproul State Forest and 653,711 visits for the Susquehannock State Forest.

Table 3. Recreation Use Estimates for the Sproul and Susquehannock State Forests

<b>Sproul State Forest</b>								
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
<b>Site Type and Use Strata</b>	<b>1-way Traffic Count</b>	<b>% Recreation Visits</b>	<b>% Leaving for Last Time</b>	<b>People per Vehicle</b>	<b>Recreation Visits per day</b>	<b>Number of Sites Visited</b>	<b>Total Site Visits</b>	<b>Total Forest Visits</b>
GFA-High	19.98	0.60	0.59	2.48	17.57	1.43	33,015	23,010
GFA-Medium	16.91	0.30	0.69	2.30	8.03	1.76	17,094	9,726
GFA-Low	25.60	0.17	0.60	2.00	5.30	1.45	83,497	57,489
DUDS-High	23.50	0.43	0.81	2.85	23.63	1.73	6,050	3,502
DUDS-Medium	37.09	0.40	0.84	2.45	30.34	1.36	18,995	13,930
DUDS-Low	11.79	0.56	0.61	2.15	8.64	1.29	30,330	23,590
OUDS-High	28.25	0.45	0.54	2.46	16.87	1.27	726	572
OUDS-Medium	20.78	0.26	0.85	2.00	9.14	1.23	1,106	898
OUDS-Low	19.70	0.44	0.58	2.22	11.22	1.47	6,372	4,328
Special-Low*	31.74	0.48	0.89	1.96	26.60	1.62	58,418	36,127
Forest Total							255,601	173,173
<b>Susquehannock State Forest</b>								
GFA-High	31.98	0.49	0.43	2.33	15.84	1.65	9,297	5,630
GFA-Medium	15.80	0.39	0.42	2.06	5.42	1.59	3,683	2,311
GFA-Low	13.62	0.45	0.70	2.00	8.61	1.61	64,733	40,280
DUDS-High	5.50	0.68	0.67	2.29	5.69	1.36	938	691
DUDS-Medium	24.75	0.55	0.80	2.32	25.26	1.23	10,940	8,888
DUDS-Low	12.47	0.40	0.41	2.13	4.31	1.62	3,733	2,308
OUDS-High	13.47	0.60	0.93	2.84	21.55	1.20	1,034	862
OUDS-Medium	11.05	0.63	0.71	3.41	16.75	1.50	1,809	1,206
OUDS-Low	15.44	0.50	0.60	2.05	9.50	2.11	5,469	2,598
Forest Total							101,637	64,774

\*All special areas in the Sproul were considered low use areas; thus there are no measures for medium and high use special areas. No special areas were included in the Susquehannock State Forest as this forest contains only one informal area (Hammersley Wild Area).

### Survey Results

Overall, the survey sampled a total of 1,595 State Forest visitors. Among these, 1,395 people were willing to participate in the interview, resulting in a response rate of 85%. Of the unwilling visitors, 61 (3.8%) were people who had already completed the survey and were thus screened out. Thus the overall response rate reflecting those willing to complete the survey was 89%.

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, about half (48.9%) stated they were visiting the forest for recreation. Only these respondents who were visiting the forest for recreation were included in the descriptions of visitors in this report. Most of the remaining individuals in the sample were working or commuting to work (37.9%), just passing through (6.0%), stopping to use the bathroom (2.3%) or there for some other reason (< 2%). Other reasons mentioned by respondents included cabin maintenance, cutting or purchasing wood, just turning around or making a wrong turn, scouting for hunting, and working with special events such as a road rally.

### **Trip Visitation Patterns on the State Forests**

- Most of the visitors contacted (85% in the Sproul and 93% in the Susquehannock) were repeat visitors to the State Forest.
- Among those who were repeat visitors, about half had made their first visits to the Forests prior to 1980. Another one-quarter made their first visit during the 1980s or 1990s. The remaining one-quarter were relatively new visitors, reporting their first visit between 2000 and 2012.
- About half of the visitors contacted in each Forest indicated that they typically make between 0 and 5 visits to the State Forest per year. The average number of reported trips to the forest per year was about 31 for the Sproul and 15 for the Susquehannock.
- Likewise, nearly half of the visitors contacted 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). The average number of trips to other forests areas per year was about 21 and 23, respectively for the Sproul and Susquehannock State Forests.
- The majority of Sproul visitors (60%) were day users, while the majority of Susquehannock visitors (63%) were overnight users who had spent the previous night in the State Forest.
- Of those respondents who were overnight visitors, the average length of stay was 3.4 nights in the Sproul and 4.5 nights in the Susquehannock.
- About two-thirds of visitors in both forests indicated that they used no day use facilities during their visit, while the remaining visitors used one or more day use facilities on this trip.
- About three-fourths of the respondents (72% in the Sproul and 74% in the Susquehannock) had just one or two people in their vehicle on this trip. The average number of persons per vehicle in both forests was 2.3.
- Less than one-fourth (21-24%) of the respondents in both forests reported that they had at least one child under the age of 16 with them.
- About one-third of the visitors contacted came to the Forest in family groups, with smaller proportions coming in groups of friends (22-24%) and groups containing family and friends (21-25%).
- Less than one-fifth (16-18%) of the visitors came to the Forest alone.

Table 4. Trip Visitation Patterns in the State Forests

	Valid Percent*	
	Sproul	Susquehannock
<b>Previous Visitation History</b>		
First Time Visitor	15.0	6.7
Repeat Visitor	85.0	93.3
Total	100.0	100.0
<b>Year of First Visit</b>		
Prior to 1980	50.6	52.6
1980-1989	15.3	9.3
1990-1999	12.9	12.3
2000-2012	21.2	25.8
Total	100.0	100.0
<b>Number of Visits to This State Forest in Typical Year</b>		
0-5	50.9	51.6
6-10	11.7	19.3
11-20	12.5	13.2
21-50	12.5	12.5
More than 50	13.5	3.4
Total	100.1	100.0
Mean	30.8	15.1
<b>Number of Visits to Other Forests in Typical Year</b>		
0-5	45.2	43.8
6-10	20.3	23.6
11-20	13.1	11.3
21-50	14.3	12.3
More than 50	7.1	9.0
Total	100.0	100.0
Mean	21.1	23.1
<b>Length of Stay</b>		
Overnight Visitor	39.8	62.8
Day User	60.2	37.2
Total	100.0	100.0
<b>Number of Nights Spent (Overnight Visitors)</b>		
1	19.6	11.5
2	33.0	26.4
3-5	39.1	41.2
6 or more	8.3	20.9
Total	100.0	100.0
Mean	3.4	4.5
<b>Number of Day Use Facilities Used During This Trip</b>		
0	65.5	69.4
1	22.8	21.6
2	11.7	9.0
Total	100.0	100.0

<b>Number of People in Vehicle</b>		
1-2	72.1	74.4
3-4	19.9	18.2
5 or more	7.9	7.4
Total	100.0	100.0
Mean	2.3	2.3
<b>Number of People Less than 16 Years Old in Vehicle</b>		
0	82.4	82.2
1	8.8	10.3
2	3.5	5.0
3 or more	5.3	2.5
Total	100.0	100.0
<b>Type of Group</b>		
alone	17.8	16.2
family	38.6	32.4
friends	21.8	23.8
family and friends	20.8	24.8
other	1.0	2.9
Total	100.0	100.1

\*Percentages may not equal 100 because of rounding.

### Demographic Characteristics of State Forest Visitors

- Over four-fifths (86-87%) of the respondents in both State Forests were males.
- Almost one-third of the visitors surveyed in the State Forests were between the ages of 36-50, while another one-third were between 51 and 64.
- The average age of visitors was 50 in the Sproul and 52 in the Susquehannock 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.
- More than one-tenth of the visiting groups (14% in each Forest) included a person with a disability in their household.

Table 5. Demographic Characteristics of State Forest Visitors

	Valid Percent	
	Sproul	Susquehannock
<b>Gender</b>		
Male	87.0	86.3
Female	13.0	13.7
Total	100.0	100.0
<b>Age</b>		
18 to 35	17.0	14.0
36 to 50	31.1	29.8
51 to 64	32.8	37.2
65 or older	19.1	19.0
Total	100.0	100.0
Mean	50.3	52.2
<b>Ethnicity</b>		
Caucasian	98.0	99.1
Other	2.0	0.9
Total	100.0	100.0
<b>Income</b>		
Under \$25,000	13.7	9.1
\$25,000-\$49,999	25.9	23.6
\$50,000-\$74,999	29.5	30.4
\$75,000-\$99,999	16.9	16.7
\$100,000-\$149,999	7.6	14.1
\$150,000 or over	6.5	6.2
Total	100.1	100.1
<b>Does anyone in your household have a disability?</b>		
Yes	13.7	14.4
No	86.3	85.6
Total	100.0	100.0

### 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.

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

	Sproul		Susquehannock	
	Activity Participation*	Primary Activity <sup>†</sup>	Activity Participation*	Primary Activity <sup>†</sup>
<b>Consumptive Activities</b>				
Fishing—all types	18.6	15.9	15.6	4.5
Hunting—all types	22.7	17.7	35.6	29.9
<b>Viewing, Learning about Nature &amp; Culture</b>				
Viewing natural features such as scenery, wildlife, birds, flowers, fish, etc.	60.5	11.6	54.7	7.1
Visiting historic and prehistoric sites/areas	9.0	0.6	8.1	0
Nature study	7.8	0	6.3	0.3
Visiting a nature center, nature trail, or visitor center	5.2	0.3	6.9	0
<b>Nonmotorized Activities</b>				
Hiking or walking	38.4	4.6	42.8	3.6
Horseback riding	0.6	0.3	3.8	2.9
Bicycling, including mountain bikes	2.3	0.3	3.8	1.0
Nonmotorized water travel (canoeing, sailing, kayaking, rafting, etc.)	2.0	0.6	1.9	0
Downhill skiing or snowboarding	0.3	0	0	0
Cross-country skiing, snowshoeing	0.3	0	2.2	1.3
Other nonmotorized activities (e.g. swimming, games & sports)	2.9	0.9	1.3	0
<b>Motorized Activities</b>				
Driving for pleasure on roads	48.1	16.8	40.0	9.4
Riding in designated off-road vehicle areas (non-snow)	11.3	8.3	20.3	17.5
Snowmobile travel	0.3	0.3	1.6	0.6
Motorized water travel (boats, etc.)	0	0	0	0
Other motorized activities (endure events, games, etc.)	1.2	0.3	1.9	1.3
<b>Camping or Other Overnight</b>				
Camping in developed sites (family or group sites)	10.4	2.8	9.7	2.3
Primitive camping (motorized)	1.4	0.3	0.6	0
Backpacking or camping in unroaded areas	2.9	1.5	1.9	1.6
Resorts, cabins, or other accommodations on State managed lands	9.3	2.4	15.6	4.5
<b>Other Activities</b>				
Gathering mushrooms, berries, firewood, or other natural products	5.8	0.9	9.1	1.0
Relaxing, hanging out, escaping heat, noise, etc.	37.4	4.6	38.8	4.9
Picnicking and family gatherings in developed sites (family or group sites)	7.8	2.1	11.3	1.6
Other	9.3	6.7	7.8	4.5

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

<sup>†</sup>Percentages may not equal 100% because of rounding.

- Many forest visits included various viewing and sightseeing activities, but relatively few people reported such activities as their primary recreation activity on the State Forests.
  - About 12% of Sproul State Forest visitors reported viewing natural features, such as scenery, as their primary activity, while about 17% chose driving for pleasure as their primary activity.
  - These activities were a little less common on the Susquehannock State Forest, with about 7% of those visitors reporting viewing natural features, such as scenery, as their primary activity and about 9% choosing driving for pleasure as their primary activity.
- About one-third of the State Forest visitors sampled reported consumptive activities (fishing and hunting) as their primary activity at the Forest.
  - Fishing was more common as a primary activity on the Sproul (16%) than on the Susquehannock State Forest (5%).
  - Hunting was more common as a primary activity on the Susquehannock (30%) than on the Sproul (18%).
- Many of the sampled visitors did some hiking or walking during their visit (38-43%), but relatively few reported hiking or walking as their primary activity.
- Less than one-tenth of forest visitors surveyed reported some type of camping as their primary activity.
- About one-quarter of the respondents in both forests reported motorized pursuits as their primary activity.
  - Driving for pleasure was a more common primary activity on the Sproul (17%) than on the Susquehannock State Forest (9%).
  - ATV riding in designated areas was more common as a primary activity on the Susquehannock (18%) than on the Sproul (8%).

### 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 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 over 50% of the scores in the “very good” or “good” categories.
- State Forest visitors were most satisfied with the feeling of safety and the scenery and attractiveness of the forest landscape (>90% good/very good).
- The only attributes receiving “poor” or “fair” ratings by more than 10% of visitors were the availability of information on recreation (11% poor or fair in the Sproul) and the adequacy of signage (10% poor/fair in the Sproul and 13% in the Susquehannock).
- The items that received the most not applicable (N/A) responses included helpfulness of employees and cleanliness of restrooms (over 50% N/A). Generally these responses reflect the fact that the visitors did not encounter staff or latrines during their visits.

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

Sproul State Forest	Poor	Fair	Average	Good	Very Good	Not Applicable	Mean <sup>a</sup>
Feeling of safety	.9	3.4	1.7	30.8	63.2	.9	4.55
Scenery	0	0	6.8	34.2	59.0	0	4.52
Attractiveness of the forest landscape	.9	1.7	7.7	24.8	65.0	0	4.51
Helpfulness of employees	1.7	0	2.6	13.7	24.5	57.3	4.40
Condition of the natural environment	2.6	2.6	6.0	32.5	53.8	2.6	4.36
Condition of developed recreation facilities	0	1.7	8.5	23.9	29.9	35.9	4.28
Availability of parking	1.7	1.7	13.7	29.1	48.7	5.1	4.28
Parking lot condition	1.7	.9	8.5	35.9	34.2	18.8	4.23
Adequacy of signage	4.3	6.0	15.4	29.1	41.9	3.4	4.02
Condition of Forest trails	1.7	2.6	12.8	31.6	14.5	36.8	3.86
Condition of Forest roads	2.6	6.8	21.4	35.9	27.4	6.0	3.84
Cleanliness of restrooms	2.6	3.4	4.3	12.0	12.8	65.0	3.83
Availability of information on recreation	6.0	5.1	12.8	23.9	28.2	23.9	3.83

Susquehannock State Forest	Poor	Fair	Average	Good	Very Good	Not Applicable	Mean <sup>a</sup>
Scenery	0.9	0	5.7	17.0	75.0	0.9	4.68
Attractiveness of the forest landscape	0	0	6.6	21.7	69.8	1.9	4.64
Feeling of safety	0.9	0.9	6.6	20.8	68.9	1.9	4.59
Condition of developed recreation facilities	0	0.9	2.8	18.9	34.0	43.4	4.52
Helpfulness of employees	0.9	0.9	3.8	9.4	31.1	53.8	4.49
Cleanliness of restrooms	1.0	0	2.9	11.4	22.9	61.9	4.45
Condition of the natural environment	0.9	1.9	6.6	31.1	55.7	3.8	4.44
Availability of parking	0	1.9	12.3	22.6	50.9	12.3	4.40
Parking lot condition	0	1.9	13.2	21.7	34.9	28.3	4.25
Availability of information on recreation	1.9	2.8	11.3	27.4	34.0	22.6	4.15
Condition of Forest roads	2.8	1.9	17.9	33.0	40.6	3.8	4.11
Condition of Forest trails	2.8	2.8	14.2	29.2	26.4	24.5	3.98
Adequacy of signage	4.7	8.5	17.0	24.5	40.6	4.7	3.92

<sup>a</sup>Response Code: 1 = "Poor" through 5 = "Very good"

### Importance Ratings

- 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 = 4.7 in both Forests), attractiveness of the forest landscape (mean = 4.7 in both Forests) and scenery (mean = 4.5 in both Forests) were the most important attributes to the State Forest visitors.
- The least important items included parking lot condition and availability (mean = 3.6-3.7 in both Forests).

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

<b>Sproul State Forest</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Mean<sup>a</sup></b>
Attractiveness of the forest landscape	1.0	0	3.9	22.3	72.8	4.66
Condition of the natural environment	1.0	0	2.0	26.0	71.0	4.66
Scenery	1.0	0	13.3	21.9	63.8	4.48
Feeling of safety	5.0	0	14.9	26.7	53.5	4.24
Condition of Forest roads	1.0	4.0	14.0	37.0	44.0	4.19
Adequacy of signage	4.1	1.0	18.6	24.7	51.1	4.19
Condition of Forest trails	3.8	2.6	17.9	26.9	48.7	4.14
Helpfulness of employees	7.1	1.4	12.9	30.0	48.6	4.11
Availability of information on recreation	6.7	2.2	14.6	29.2	47.2	4.08
Cleanliness of restrooms	10.6	1.5	12.1	33.3	42.4	3.95
Condition of developed recreation facilities	6.4	5.1	20.5	29.5	38.5	3.88
Availability of parking	8.9	2.0	29.7	25.7	33.7	3.73
Parking lot condition	8.8	4.4	29.7	31.9	25.3	3.60

<b>Susquehannock State Forest</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Mean<sup>a</sup></b>
Condition of the natural environment	0	1.0	3.0	17.0	79.0	4.74
Attractiveness of the forest landscape	0	3.0	4.0	11.9	81.2	4.71
Scenery	1.0	2.9	5.9	20.6	69.6	4.55
Feeling of safety	4.0	2.0	8.9	14.9	70.3	4.46
Condition of Forest roads	1.0	3.1	11.5	29.2	55.2	4.34
Adequacy of signage	5.2	1.0	11.3	24.7	57.7	4.29
Condition of developed recreation facilities	7.8	1.3	10.4	20.8	59.7	4.23
Condition of Forest trails	5.4	3.3	8.7	32.6	50.0	4.18
Helpfulness of employees	8.0	5.3	8.0	24.0	54.7	4.12
Availability of information on recreation	8.6	5.4	15.1	18.3	52.7	4.01
Cleanliness of restrooms	16.7	1.5	9.1	21.2	51.5	3.89
Availability of parking	12.8	5.3	19.1	22.3	40.4	3.72
Parking lot condition	13.8	7.5	17.5	20.0	41.3	3.68

<sup>a</sup>Response 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 4.0 or above) for all of the items rated.

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

	<b>Awful</b>	<b>Fair</b>	<b>Good</b>	<b>Very Good</b>	<b>Excellent</b>	<b>N/A</b>	<b>Mean<sup>a</sup></b>
<b>Sproul State Forest</b>							
Safety and security	0	5.0	10.9	23.8	55.4	5.0	4.4
Natural environment	3.0	5.0	10.9	22.8	57.4	1.0	4.3
Condition of latrines, picnic pavilions & other facilities	2.0	5.9	5.0	17.8	24.8	44.6	4.0
Responsiveness of staff	4.0	2.0	5.1	10.1	21.2	57.6	4.0
Sanitation and cleanliness	2.0	11.0	12.0	27.0	43.0	5.0	4.0
<b>Susquehannock State Forest</b>							
Natural environment	1.0	1.9	3.8	21.9	69.5	1.9	4.6
Sanitation and cleanliness	0	2.9	14.3	23.8	52.4	6.7	4.4
Safety and security	0	3.8	10.5	25.7	55.2	4.8	4.4
Responsiveness of staff	1.0	1.0	6.7	16.2	36.2	39.0	4.4
Condition of latrines, picnic pavilions & other facilities	0	3.8	9.5	25.7	26.7	34.3	4.1

<sup>a</sup> Response scale = 1 (awful) to 5 (excellent)

**Overall Satisfaction**

- Overall satisfaction scores tended to be high, with over two-thirds 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

	<b>Valid Percent</b>	
	<b>Sproul</b>	<b>Susquehannock</b>
Very Dissatisfied	3.8	2.5
Somewhat Dissatisfied	4.4	2.2
Neither Dissatisfied nor Satisfied	6.1	4.7
Somewhat Satisfied	19.3	17.5
Very Satisfied	66.4	73.1
Total	100.0	100.0
Mean <sup>a</sup>	4.4	4.6

<sup>a</sup> Response code: 1 = “very dissatisfied” to 5 = “very satisfied”

**Crowding Ratings**

- Crowding scores tended to be relatively low, with over 60% of the respondents choosing 1 or 2, reflecting that they encountered “hardly anyone” during their visit.
- About one-fifth of the respondents in each Forest chose a 3 or 4, indicating that they felt slightly crowded during this trip.
- Very few respondents indicated conditions near the “overcrowded” end of the scale.
- The average crowding score on the 10-point crowding scale was 2.7 among both Sproul and Susquehannock Forest visitors.

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

<b>Perception of Crowding<sup>a</sup></b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
<b>Sproul</b>	40.4	21.1	14.9	3.5	10.5	3.5	0.9	2.6	1.8	0.9
<b>Susquehannock</b>	32.7	28.8	11.5	10.6	8.7	2.9	1.9	1.9	0	1.0

<sup>a</sup> 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 most common response (40% in the Sproul and 46% in the Susquehannock) was that they would have gone somewhere else to pursue the same activity.
- About one-third of the visitors in each forest said they would have stayed home.
- About one-tenth of the visitors reported they would have come back another time.
- Very few of the visitors would have gone elsewhere for a different activity.
- Overnight visitors were mostly on trips of 3-5 days (53% in both forests).
- Day visitors were more evenly divided in being away from their home for 1-2 hours (9-19%), 3-5 hours (36-41%), and more than 5 hours (40-55%).
- About four-fifths of the respondents surveyed (78% in the Sproul and 86% in the Susquehannock) were visiting only the State Forest on this particular trip.
- Nearly all of the visitors who reported multiple destinations for their trip indicated that the State Forest was their primary destination.
- When queried about how many people their reported expenditures were covering, the most typical response (42% for Sproul and 33% for Susquehannock) was just one person (themselves).
- Almost one-third of the visitors (29% in the Sproul and 31% in the Susquehannock) reported expenditures covering 2 group members. The remaining visitors (30% in the Sproul and 36% in the Susquehannock) were paying expenses for 3 or more people.
- Besides the detailed spending 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 return home. Sproul State Forest visitors reported spending considerably less on average (\$81.09 per group) than Susquehannock State Forest visitors (\$209.31). These total trip spending estimates are close to the sum of the individual category spending reported in the following section.

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

	Valid Percent	
	Sproul	Susquehannock
<b>What Visitor Would have done if Unable to Visit SF</b>		
Gone elsewhere for same activity	46.3	40.4
Gone elsewhere for different activity	6.5	5.5
Come back another time	8.9	10.1
Stayed home	32.5	32.1
Gone to work at your regular job	3.3	10.1
None of these	2.4	1.8
Total	99.9	100.0
<b>Time Away from Home (Days)</b>		
1-2	30.3	21.2
3-5	53.1	53.0
6 or more	16.7	25.9
Total	100.1	99.0
<b>Time Away from Home (Hours)</b>		
1-2	19.0	9.1
3-5	41.2	36.3
6 or more	39.7	54.5
Total	99.9	99.9
<b>Single or Multiple Destination Trip</b>		
Visited State Forest only	77.7	86.1
Visited other places	22.3	13.9
Total	100.0	100.0
<b>Was State Forest Primary Destination for Trip</b>		
Yes	79.0	90.7
No	21.0	9.3
Total	100.0	100.0
<b>Number of People Covered by Expenses</b>		
1	41.7	33.3
2	28.6	31.2
3	15.5	11.8
4 or more	14.3	23.7
Total	100.1	100.0
<b>Estimated Total Trip Expenses for Group</b>		
\$25 or less	23.8	7.5
\$26-\$50	22.6	7.6
\$51-\$100	21.5	22.5
\$101-\$200	17.8	31.2
More than \$200	14.3	31.2
Total	100.0	100.0
Mean	\$81.09	\$209.31

### 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 (Table 13). 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.

- Most of the respondents (70% in the Sproul and 85% in the Susquehannock) indicated that they did spend some money within 50 miles of the forest on their current trip.
- Many respondents, however, indicated that they spent no money on many of the specific expenditure categories listed on the survey.
- Few visitors in either Forest reported any spending for “local transportation” and outdoor recreation and outfitter-related expenses (including guide fees and equipment rental).

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

	<b>Sproul</b>	<b>Susquehannock</b>
Proportion of visitors spending any money within 50 miles of this state forest	70.0%	85.1%
<b>Economic Expenditure Items</b>	<b>Proportion of Visitors Spending Something in Each Category (percent)</b>	
Motel, Lodge, Cabin, B&B, etc.	8.3	15.6
Camping Fees	1.7	1.8
Restaurants & Bars	35.0	53.2
Groceries	26.7	49.5
Gasoline and oil	52.5	64.2
Local Transportation (bus, shuttles, etc.)	0	0
Outfitter Related Expenses (guide fees & equipment rentals)	6.8	0
Outdoor Recreation and Entertainment (park fees, movies, mini-golf, etc.)	0	0.9
Sporting Goods	5.8	10.1
Souvenirs, Clothing, Other Misc.	4.2	11.9

## Recreation Use on the State Forests

## Economics Addition

- Susquehannock Forest visitors were more likely than their counterparts in the Sproul to report expenses in several categories, including restaurants and bars, groceries, and accommodations.
- The majority of visitors in both Forests (53% in the Sproul and 64% in the Susquehannock) reported buying gas or oil during their trip.

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

Economic Expenditure Items	Sproul		Susquehannock	
	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.	\$106.50	\$8.88	\$272.35	\$42.48
Camping Fees	\$71.50	\$1.19	\$49.50	\$0.91
Restaurants & Bars	\$54.38	\$19.03	\$80.91	\$41.86
Groceries	\$47.13	\$12.57	\$84.28	\$41.06
Gasoline and oil	\$49.94	\$26.22	\$106.27	\$67.46
Local Transportation (bus, shuttles, etc.)	0	0	0	0
Outfitter Related Expenses (guide fees & equipment rentals)	\$250.00	\$2.08	0	0
Outdoor Recreation and Entertainment (park fees, movies, mini-golf, etc.)	0	0	\$20.00	0.18
Sporting Goods	\$154.29	\$9.00	\$98.55	\$8.75
Souvenirs, Clothing, Other Misc.	\$37.00	\$1.54	\$46.69	\$4.10
Total	NA	\$80.51	NA	\$206.81

- 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 vary 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.

## Recreation Use on the State Forests

## Economics Addition

- For example, camping fees were paid by only about 2% of the visitors in each Forest, but the average amounts spent for these fees were \$71.50 and \$49.50 for Sproul and Susquehannock Forest visitors, respectively.
- In general Susquehannock State Forest visitors spent considerably more across all spending categories than Sproul State Forest visitors.

### 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 4.0 – 4.2).
- There were no significant differences in the accessibility ratings between the two State Forests.

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

	1	2	3	4	5	Mean <sup>a</sup>
<b>Sproul State Forest</b>						
By roads	1.0	6.9	10.9	32.7	48.5	4.2
By trails	2.5	1.2	22.2	38.3	35.8	4.0
<b>Susquehannock State Forest</b>						
By roads	3.8	0	6.7	30.5	59.0	4.4
By trails	1.0	6.3	18.8	28.1	45.8	4.1

<sup>a</sup> Response scale = 1 (poor) to 5 (very good)

### Recreation Experience

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

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

	Awful	Fair	Good	Very Good	Excellent	N/A	Mean <sup>a</sup>
<b>Sproul State Forest</b>							
Opportunity to recreate without feeling crowded	0	6.1	14.1	19.2	59.6	1.0	4.3
Places to recreate without conflict from other visitors	1.0	9.1	12.1	15.2	62.6	0	4.3
Compatibility of recreation activities at the area	0	6.1	18.2	16.2	40.4	19.2	4.1
Helpfulness/courteousness of Forest employees	2.0	5.1	8.2	9.2	27.6	48.0	4.1
Helpfulness/courteousness of people in surrounding communities	3.1	5.1	11.2	21.4	34.7	24.5	4.1
<b>Susquehannock State Forest</b>							
Opportunity to recreate without feeling crowded	0	2.9	5.7	24.8	66.7	0	4.6
Places to recreate without conflict from other visitors	0	1.9	9.5	27.6	61.0	0	4.5
Compatibility of recreation activities at the area	1.0	0	4.8	19.0	40.0	7.6	4.3
Helpfulness/courteousness of Forest employees	1.0	0	9.5	28.6	54.3	35.2	4.5
Helpfulness/courteousness of people in surrounding communities	0	1.9	12.4	33.3	44.8	6.7	4.5

<sup>a</sup> 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.

- Sproul State Forest visitors were more likely to report “enjoy being in the forest” as their primary reason for visiting the forest, while Susquehannock State Forest visitors were more likely to focus on their chosen activities, (especially hunting, ATV riding, and horseback riding).
- About one-fifth of the visitors (18% in both forests) went there primarily because it’s “a good place to spend time with friends/family.”
- Those who selected an “other reason” were also asked to describe that reason. Typical responses included other activities or combinations of activities such as observing nature, photography, skiing, and swimming.

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

	Valid Percent	
	Sproul	Susquehannock
I went there because I enjoy being in the forest	37.6	22.9
I went there because I wanted to spend time with friends/family	17.8	18.1
I went there because it’s a good place to:		
Hunt	22.8	29.5
Hike	3.0	1.0
Bike	0	1.0
Fish	7.9	2.9
Horseback ride	0	3.8
ATV ride	1.0	7.6
Other Reason	9.9	13.3

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 (87-94%) agreed that the State Forest they visited “means a lot to them,” with over half strongly agreeing.
- Most visitors also reported that they enjoy recreating in the State Forest more than at other places, and get more satisfaction out of visiting the State Forest than from visiting other places.

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

Place Attachment Items	Strongly disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly agree	Mean <sup>a</sup>
<b>Sproul State Forest</b>						
This place means a lot to me	0	1.0	12.0	28.0	59.0	4.5
I enjoy recreating at this place more than other places I could visit	1.0	4.0	24.2	31.3	39.4	4.0
I am very attached to this place	6.0	8.0	23.0	23.0	40.0	3.8
I get more satisfaction out of visiting this place than from visiting most places	5.0	7.0	28.0	28.0	32.0	3.8
<b>Susquehannock State Forest</b>						
This place means a lot to me	0	0	5.7	22.9	71.4	4.7
I enjoy recreating at this place more than other places I could visit	0	2.9	15.2	28.6	53.3	4.3
I am very attached to this place	2.9	1.9	12.5	21.2	61.5	4.4
I get more satisfaction out of visiting this place than from visiting most places	1.9	1.9	19.0	25.7	51.4	4.2

<sup>a</sup> Response Code: 1="Strongly Disagree" and 5="Strongly Agree"

### Motivations/Reasons for Visiting the State Forest

- Visitors' most important motivations (reasons for visiting) the State Forest were to be outdoors and to experience natural surroundings.
- Visitors also attached great importance to the opportunity to relax and get away from their regular routine.
- Moderately important motives for visiting the forest included the social motives of family recreation (mean = 4.0 - 4.1) and being with friends (mean = 4.1 for both Forests).
- Visitors were more evenly divided on the importance of getting physical exercise (mean = 3.6 - 3.7), seeking challenge or sport (mean = 3.7) and developing their skills (mean = 3.2 - 3.5).

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 <sup>a</sup>
<b>Sproul State Forest</b>						
To be outdoors	0	0	3.0	33.3	63.6	4.6
To experience natural surroundings	0	1.0	7.0	27.0	65.0	4.6
For relaxation	0	1.0	7.1	30.3	61.6	4.5
To get away from the regular routine	0	3.0	9.0	23.0	65.0	4.5
To be with my friends	2.0	7.1	17.2	24.2	49.5	4.1
For family recreation	10.3	5.2	9.3	29.9	45.4	4.0
For the challenge or sport	8.1	9.1	21.2	26.3	35.4	3.7
For physical exercise	8.1	15.2	24.2	19.2	33.3	3.6
To develop my skills	18.2	10.1	28.3	22.2	21.2	3.2
<b>Susquehannock State Forest</b>						
To be outdoors	0	1.9	4.9	35.9	57.3	4.5
To experience natural surroundings	0	2.9	4.9	31.1	61.2	4.5
For relaxation	0	1.0	5.8	35.9	57.3	4.5
To get away from the regular routine	1.0	4.9	3.9	32.0	58.3	4.4
For family recreation	6.8	3.9	5.8	38.8	44.7	4.1
To be with my friends	8.7	1.9	8.7	35.0	45.6	4.1
For the challenge or sport	8.7	8.7	17.3	32.7	32.7	3.7
For physical exercise	6.8	6.8	23.3	36.9	26.2	3.7
To develop my skills	10.7	13.6	21.4	25.2	29.1	3.5

<sup>a</sup> 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 the most importance to wildlife viewing areas or opportunities (mean = 3.9).
- Visitors also attached relatively high importance to signs directing them to recreation facilities (mean = 3.4 – 3.6) and printed interpretive information (mean = 3.4 – 3.6).
- Visitors' interest in various types of trails tended to reflect their activity interests. For example, although many visitors showed little or no interest in ATV or snowmobile trails, those types of trails were very important to motorized visitors.

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 <sup>a</sup>
<b>Sproul State Forest</b>						
Wildlife viewing areas or opportunities	3.0	10.1	17.2	29.3	40.4	3.9
Parking	12.2	13.3	21.4	27.6	25.5	3.4
Signs directing me to recreation facilities	19.4	7.1	20.4	25.5	27.6	3.4
Hike, bike & horse (non-motorized) Trails	18.9	9.5	18.9	22.1	30.5	3.4
Printed Interpretive Information	14.3	17.3	16.3	17.3	34.7	3.4
Picnic areas	19.6	10.3	27.8	25.8	16.5	3.1
ATV Trails	47.4	14.7	10.5	8.4	18.9	2.4
Snowmobile Trails	52.1	11.7	8.5	9.6	18.1	2.3
<b>Susquehannock State Forest</b>						
Wildlife viewing areas or opportunities	5.8	5.8	19.2	36.5	32.7	3.9
Printed Interpretive Information	11.7	6.8	26.2	23.2	32.0	3.6
Signs directing me to recreation facilities	8.8	12.7	18.6	27.5	32.4	3.6
Parking	14.7	9.8	19.6	29.4	26.5	3.4
Hike, bike & horse (non-motorized) Trails	22.3	5.8	12.6	29.1	30.1	3.4

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Picnic areas	18.3	19.2	23.1	26.0	13.5	3.0
ATV Trails	41.3	3.8	12.5	11.5	30.8	2.9
Snowmobile Trails	48.0	6.9	7.8	16.7	20.6	2.6

<sup>a</sup> 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.

- About one-fifth of the visitors surveyed reported that they had obtained information about the area they visited during or in preparation for their trip.
- Nearly equal proportions of visitors sought the different types of information listed in the survey (maps, visitor guides, other information).
- The majority of Sproul visitors (61%) obtained information before leaving home, while the majority in the Susquehannock (52%) obtained information after arriving at the Forest.
- "Other" types of information sought by visitors included information from the web, information on trail availability or conditions, and information on geocaching.
- Most 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	
	Sproul	Susquehannock
<b>Did you obtain any information about this area during this trip or in preparation for it?</b>		
No	81.8	80.0
Yes	18.2	20.0
<b>What type of information did you obtain?</b>		
State Forest map	16.7	38.1
Trail map	27.8	61.9
PA visitors guide	16.7	14.3
Other	55.6	28.6
<b>When did you receive information?</b>		
Before leaving home	61.1	47.6
After arriving here	38.9	52.4
<b>Was the information you received helpful to plan your trip?</b>		
Yes	72.2	95.2
No	27.8	4.8

### Desired Services in Nearby Communities

State Forest visitors were asked what services in nearby communities (off of the forest) they wished were available. A small minority of respondents (34 in the Sproul and 37 in the Susquehannock) offered suggestions, which are summarized in Table 22.

Table 22. Visitor responses to other services they wish were available in nearby communities (off of the forest).

	Number of Responses	
	Sproul	Susquehannock
<b>Services</b>		
Cell phone service/tower	8	7
Gas stations	6	5
Bathrooms	2	
Fresh water	1	
Forestry building	1	
<b>Shopping opportunities</b>		
More stores/General shopping	1	2
Convenience store	2	1
Grocery stores/Better food shopping	2	5
Hardware/building supply store	1	1
Sporting goods/ camping supplies store	1	3
Beer distributor	1	
Liquor store	1	
Wal-Mart	1	1
<b>Restaurants</b>		
General restaurants	3	6
Better restaurants	1	2
More restaurants		2
Bars		3
Family restaurant, not a bar	1	
Taco Bell	1	
<b>Lodging</b>		
More options for lodging		1
Hotels		1
Lodge with hot tub		1
<b>Recreation</b>		
General recreation opportunities	1	
Horseback riding	1	
Recreational boating	1	1
Ski resort	1	
Service chopper rides	1	
Trail maps and information on recreation	1	
Guide services		1
ATV and snowmobile rentals		1

### 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.

- The majority of visitors in both forests (72% in the Sproul and 81% in the Susquehannock) reported that Marcellus shale-related activity had not affected their use of the State Forest.
- Visitors were slightly more likely to report that gas-related activity affected their recreation experience at the forest. However, again, the majority of visitors in both forests (65% in the Sproul and 77% in the Susquehannock) reported that Marcellus shale-related activity had not affected their recreation experience at the State Forest.
- Sproul State Forest visitors were slightly more likely than their counterparts in the Susquehannock State Forest to indicate that Marcellus shale-related activity had affected both their use and recreation experience at the State Forest.

Table 23. Visitor Responses to Questions about Marcellus Shale-Related Activity

	Valid Percent	
	Sproul	Susquehannock
Has Marcellus shale-related activity changed your recreational use of this state forest?		
Yes	27.7	19.1
No	72.3	80.9
Total	100.0	100.0
Has Marcellus shale-related activity changed your recreation experience at this state forest?		
Yes	34.7	22.9
No	65.3	77.1
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 (Table 24):

- Among those reporting that their use of the State Forest had been impacted by shale-related operations, one of the most common themes among the responses reflected traffic-related issues.
  - The most frequently mentioned traffic concerns included increased road traffic, poor driving behavior, roads being blocked or areas made inaccessible to the public.

Table 24. Responses to How Marcellus Shale-related Activity has Changed your Use of the Forest.

Type of Comment	Number of Comments	
	Sproul	Susquehannock
Traffic-related Issues	30	19
Effects on Wildlife/Hunting	32	10
Changing Use patterns (Displacement)	24	13
General Environmental Concerns	13	10
Noise and Visual Impacts	6	6
Positive Impacts/Statements	6	5

- Many respondents in both Forests also mentioned various wildlife and hunting-related concerns.
  - The most common hunting-related issues were that the drilling activity scares game away or reduces their places to hunt, although some offered general statements indicating that drilling affects hunting and/or wildlife negatively.
- A third major theme of shale-related impacts on recreation use included several general environmental concerns.
  - These concerns included pollution, habitat destruction, and water quality as well as changes in landscape, noise pollution, and crowdedness and loss of a relaxing and serene environment.
- Some respondents in both Forests reported that shale-related activity had directly affected their use of the Forest, mainly by preventing access to areas or causing visitors to avoid drilling locations or use the Forest less often.
- A few respondents specifically mentioned noise and visual pollution associated with the gas drilling activity.
- A few respondents also expressed positive impacts of the shale-related activity.
  - These comments focused on the creation of new access roads providing better access to the Forest and road improvements.

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 awareness-related issues and general acceptance of the drilling activity (Table 25).

- Many visitors reported that the drilling activity doesn't bother them, hasn't changed their use or doesn't affect their activities.

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- Many visitors in both Forests indicated that they had not noticed the activity or had not noticed it in the areas they visit.
- The next most common acceptance-related comment was that it had not changed their use yet, reflecting a concern for possible future impacts to develop.
- Some visitors stated that they were not aware of (or had not even heard) of 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 25. Responses to Why Marcellus Shale-related Activity has not Changed your Use of the Forest.

Type of Comment	Number of Comments	
	Sproul	Susquehannock
No effect on use	45	47
Don't notice/Haven't seen any activity	23	38
Not drilling here (or in areas I care about)	27	31
Not yet (implies concern for future)	23	30
Don't know about it	8	7
Pro-drilling	5	12

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 (Table 26). 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.

- Responses to 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.
- Noise pollution was mentioned more frequently as a factor affecting visitors' recreation experience than a factor affecting their recreation use.
- Changes in landscape and crowdedness/changes in atmosphere were also mentioned more frequently as factors affecting visitors' recreation experience than as factors affecting their recreation use.
- Some specific experiential impacts of shale-related activity included loss of satisfaction, light pollution, and bad smells.

Table 26. Responses to How Marcellus Shale-related Activity has Changed your Recreational Experience at the Forest?

Type of Comment	Number of Comments	
	Sproul	Susquehannock
Traffic-related Issues	38	14
Effects on Wildlife/Hunting	24	10
Changing Use patterns (Displacement)	12	9
General Environmental Concerns	13	12
Noise and Visual Impacts	24	11
Crowding/Loss of Solitude or Relaxation	9	7
Positive impacts	3	5

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 27).

- Again, many visitors in both Forests indicated that they had not noticed the activity or had not noticed it in the areas they visit.
- Some visitors stated that they had not heard of the Marcellus Shale phenomenon.
- 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
- The next most common acceptance-related comment was that it had not changed their experience yet.
- 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 27. Responses to Why Marcellus Shale-related Activity has not Changed your Recreational Experience at the Forest.

Type of Comment	Number of Comments	
	Sproul	Susquehannock
No effect on experience	43	40
Don't notice/Haven't seen any activity	25	35
Not drilling here (or in areas I care about)	18	19
Not yet (implies concern for future)	14	29
Changed Location/Adapted	6	8
Don't know about it	6	4
Pro-drilling	6	7

### **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 October 1, 2011 through September 30, 2012 (n = 1,395 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 Sproul and Susquehannock State Forests in north central Pennsylvania. The results indicate that most State Forest visitors are repeat and frequent users, and have many years of experience in the forests. About three-fourths of the respondents in each Forest reported making their first visit to the Forest before the year 2000. Several notable differences existed in the use patterns and characteristics of recreation visitors in the two Forests. First, the Sproul State Forest has more “frequent visitors,” showing an average of about 31 visits to the Forest per year versus 15 visits in the Susquehannock. Secondly, visitors in the Sproul were more likely (60%) than those in the Susquehannock State Forest (37%) to be day users. The majority of Susquehannock visitors were overnight visitors who stayed an average of 4.5 nights in the Forest. Activities that were popular in the Sproul included fishing and driving for pleasure, while those reported more frequently by Susquehannock visitors included hunting and ATV riding.

Regarding satisfaction levels, most respondents in both Forests were clearly satisfied with their recreation experience and with the satisfaction attributes listed in the survey. State Forest visitors were most satisfied with the scenery and attractiveness of the forest. They also reported very high feelings of safety while in the Forest. The data suggest that there is room for some improvement in the provision of information for recreation, adequacy of signage and condition of forest roads and trails.

The economics section of the study asked visitors about their monetary expenditures in and near the State Forests. Nearly half of the forest visitors indicated that they would have gone somewhere else to do the same activity if they had not been able to visit the State Forest, indicating that they were serious about pursuing their recreation activities on that trip. Most of the respondents (70% in the Sproul and 85% in the Susquehannock) indicated that they spent

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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. In general Susquehannock State Forest visitors spent considerably more across all spending categories for their trip (average = \$206.81) than Sproul State Forest visitors (\$80.51).

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 show 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.

Visitor responses to potential management options were examined to ascertain support or opposition to various management alternatives. The highest degree of support was seen for additional wildlife viewing areas or opportunities. Visitors' interest in various types of trails tended to reflect their activity interests. 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 notable segments of visitors pursuing these motorized activities. Respondents also attached relatively high importance to signs directing them to recreation facilities and printed interpretive information. Only about one-fifth of visitors in each Forest obtained information about the area they visited during their trip or in preparation for it. These visitors were almost equally divided between those who sought information before leaving home and those who obtained information after arriving at the Forest. In both Forests, though, most of those who sought information found it helpful in planning their trip.

The 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. Among those reporting that their use of the State Forest had been impacted by shale-related operations, the most common responses reflected traffic-related issues, concerns with hunting, and general environmental concerns including pollution, habitat destruction, and water quality, as well as changes in landscape, noise pollution, and crowdedness and loss of a relaxing and serene environment. 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. Responses to the experiential impacts of Marcellus shale-related activity tended to

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reflect the same themes as the answers to the questions about the impacts of shale-related activity on visitors' use of the Forests. Sproul State Forest visitors were slightly more likely than those in the Susquehannock State Forest to indicate that Marcellus shale-related activity had affected either their recreation use or their recreation experience at the State Forest.

This report provides a representative snapshot of recreational use in two Pennsylvania State Forests. It thus provides a start when building a profile of Pennsylvania State Forest visitors. Surveys are currently continuing in other forests and the overall database will include a total of ten forest districts by the completion of the five-year project. 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**

**If you could ask the state foresters to improve some things about the management of the forest, what would you ask them to do? (Experience Addition, question # 8, Satisfaction Addition, question #2)**

Note – Some responses addressed multiple topics and are coded in multiple categories

**Sproul State Forest, 220 responses**

*No Suggestions (56)*

*Keep Up the Good Work (7)*

*Improve Recreation Facilities (61)*

**Improve road maintenance (20)**

- Road maintenance (5)
- Fix roads (3)
- Keep improving the roads for car travel (2)
- Fix the bridges on the roads (2)
- Fix up some roads to make them more drivable
- Wider roads
- Grade roads more often
- Clear roads
- Road conditions
- Camp roads need to be improved
- Roads need brushed out
- Plow roads in winter, hard to get trailer into sites

**ATVs (8)**

- More ATV trails (2)
- Develop more recreation ATV riding trails. Improve hill heading to site
- A lot of blown down trees on the ATV trails
- Mark the ATV trails better
- Sign out front of road should say “Bloody Skillet” ATV parking
- Would like to see ATVs allowed in the forest
- ATV access on roads, pay for permits \$100

**General trails (8)**

- Trails need to be marked better (4)
- Trail maintenance for hiking – would like to see it better maintained
- Ensure trail maintenance is done properly and completed end to end. Campbell Hollow Tr, #2,3,4, Hollow Tr, Stone quality Hollow on in Lycoming Co. on Big Trail Rd. Sam Corson Tr. from top of Lebo to Millers Run
- Open more snowmobile trails

**Scenic views/overlooks (6)**

- Clear vegetation from views (3)
- Make more scenic views

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- Add trash can at overlook

- Improve access to overlook, smoother trail use the ADA approved road for path

**Restrooms (4)**

- Cleaner Restrooms (2)

- More restrooms at Bloody Skillet (2)

**Campsites (4)**

- More camping sites (2)

- More remote campsites

- Increase space between sites

**Add parking (4)**

- Add parking (3)

- More parking, when it is busy people have to park on dangerous roads

**Trash (4)**

- Improve trash pickup at this site (Karthus Canoe Access)

- Add trash can at overlook (Bucktail State Park Natural Area)

- Put trash can here (Karthus Canoe Access)

- Site could be cleaner (Chuck Keiper Trail)

**Improve facilities (2)**

- Better facilities

- More developed sites

**Misc. (1)**

- Offer more showers at the different state parks, have seen portable showers for seasonal use at other locations

***Forest Management (42)*****Anti-fence (9)**

- Remove fences (6)

- Stop wasting money fencing areas

- Provide information as to why there are chicken wire fences around trails and drilling areas

- Remove fences and unnatural features

**Restrict development (7)**

- Restrict development (2)

- Remove fences and unnatural features

- Keep it primitive/underdeveloped, no more exploitation

- Too many activities too much expansion

- More natural areas preserved

- Keep area remote

**Reduce logging (5)**

- Less clearcutting (4)

- Stop clearcutting

**Increase law enforcement (4)**

- Enforce the speed limit

- Would like to see more patrol of these areas

- Stop ATV riders from drinking and driving ATV's

## Recreation Use on the State Forests

Get rid of partiers

**Remove dead trees (3)**

Remove dead trees

Dead trees need to be taken out/utilized

Better forest management, take care of dead wood and gypsy moths

**Other timber management (3)**

Need more timber management in the eastern side of Rt. 144

Cut old timber to promote growth

A lot of trimmed trees, would like to see that better managed

**Misc. (11)**

Add cell towers for emergencies (2)

Controlled burning needed (2)

Improve Beech Creek

Sell more timber and fix road

50 years of free use of spring water and now they ask us to pay

Round off camping fees, just have straight dollar amounts and don't include change.

Running water in camps

Should be more people here at this time of year, a lot of beautiful country here, get more to visit here

Open all gates

***Game Management (32)*****Not Enough Game (15)**

More game, deer herds are depleted

More deer in the area for hunters

Too little deer population in surrounding areas

Not enough deer for hunting, bear management to reduce their numbers

Manage the deer herds better, hunting is awful, not a lot of deer

Management of the coyote population, there are hardly any deer

Is there any way to increase the deer population? Not a lot of deer in the area

More game

Manage the game population better, not enough game

Deer herd

Increase deer numbers

Deer are being harvested faster than they can reproduce

Not enough deer for hunting

Stock more deer

Stock more pheasants

**Increase Food Plots (4)**

More fruit trees

More clearing for food plots

Additional feed plots for the deer would be beneficial

More grouse feeding

**Limit/eliminate doe hunting (5)**

No doe hunting (4)

Limit doe hunting

**Misc. (8)**

Have deer mapping

No deer hunting for one year

Cut back hunting season to improve deer population

Give deer a chance, lessen hunting season

Wildlife habitat reconstruction

Improve wildlife habitat, keep the habitat diverse

More animals, change in management practices

DCNR needs to take control of wildlife- too many permits issued for this area, deer are being harvested faster than they can reproduce

***Signs/Maps (17)*****Improve/maintain signs (12)**

Improve signage (7)

Post more speed limit signs

Approximate distances on signs directing to areas

Adequate signage in advance of pull-offs or attractions to give the driver time to stop

Increase trail signage, I got lost

Better signage for roads/trails, had trouble finding the trailhead

**Improve maps/information (5)**

Provide maps

Fill information holders, keep them stocked

Update trail map

More trail information

Update website

***Anti-Fracking/Gas Drilling (16)*****Stop drilling for gas/fracking (6)**

Stop drilling (2)

Get gas companies out, no more fracking

Get the drillers out of here

Get rid of gas drillers

Stop the fracking

**Gas trucks/road damage issues (3)**

Fix roads, too many gas trucks

Maintain roads or have gas trucks out of here

Limit the drilling because of all the trucks

**Misc. (7)**

Tax the gas companies (2)

## Recreation Use on the State Forests

Appendix

Drilling is causing problems with hunters

Fracking is polluting the environment, I blame that on the current Republican administration, not charging gas companies enough

Would like to see the gas wells stay out of the forest, it takes away from the natural beauty

Don't continue to allow gas development

***Fish/Stream Management (8)*****Trout stocking (4)**

Stock more trout (2)

Stock the streams for memorial weekend

Trout stocking program needs improvement, spread them out further

**Misc. (4)**

Need better stream manager

Close small tributaries to fishing for a few years

More stream access

Clean up stream

**If you could ask the state foresters to improve some things about the management of the forest, what would you ask them to do? (Experience Addition, question # 8, Satisfaction Addition, question #2)**

**Susquehannock State Forest, 206 responses**

Note – Some responses addressed multiple topics and are coded in multiple categories

*No Suggestions (51)*

*Keep Up the Good Work (6)*

*Improve Recreation Facilities (94)*

**ATVs (27)**

More ATV trails (11)

Improve signs/maps (4)

Better signage for ATV trails, open more trails for recreation

Partner with nearby townships to hand out maps of the ATV trails connecting the 4 townships to private roads/trails

Better maps

Better maps and township maps in Potter County.

Open forest roads for ATVs (3)

Open forest roads to ATVs (2)

Selected forest roads should be open to ATV traffic, open road for ATV use to access restaurant – Rock Run Road

Improve ATV facilities (3)

Need outhouses on the ATV trails, at each parking area

Improve parking lot condition at the ATV lot

Add concession stand on ATV trail for snacks, etc., bathroom could have been cleaner

Misc. (6)

Make more difficult ATV trails

Dangerous corner on ATV trail should be widened

More trails, specifically ATV throughout state, too many snowmobiles trails, open them up to 4-wheelers

Connect ATV trail system, or use existing snowmobile trail to make it less crowded

Extend ATV season

ATVs are noisy near Lyman Run Park

**General trails (16)**

More trails (6)

Maintain trails better (6)

Billy Lewis trail needs maintenance (2)

## Recreation Use on the State Forests

## Appendix

Areas of the Susquehannock Trail System are overgrown to the point of the trail completely disappearing

Donut Hole trail needs major maintenance

Clean trails – Mudlick

Cut the brush back on the trails

Trail marking/blazing (3)

Mark trails better

Mark trails better, signs are missing

Trails need to be re-blazed

Make roads more passable for hikers and skiers

**Improve/maintain roads (13)**

Improve forest roads (4)

Maintain forest roads (3)

Widen road

Road grading and pull over spots

Keep the roads well managed

Roads – better maintenance in Potter County

Dyer Road and several others could use a grading/surface improvement

Cut back the brush on the side of the forest roads

**Horses (8)**

Reconsider number of horses per site versus number of rigs; go by number of horses (3)

Place to dump horse manure instead of packing out or spreading it, have access to good potable water in or near campground, but like the site to remain uncrowded

Dyer camp picnic tables need repaired, should offers water availability at the camp, add a compost pile there too

More horse/trail friendly/ in tune with needs and goals

Continue to improve horse camp areas

Get rid of horses at horse campsite

**Improve/maintain signs (7)**

Signage on roads needs improvement (3)

Some roads not on the map

Need better signs

Improve visibility of signs entering/exiting roads

Better road intersection signs

**Improve maps/information (7)**

Provide more comprehensive maps for horse riding & hiking

Regional trail map with signage, availability of maps

Maps at trailhead

Update trail map

More trail information

Improve maps for the STS, needs to indicate distances better

Better snowmobiling maps

**Restrooms (7)**

Add more restrooms (5)

Cleaner restrooms (2)

## Recreation Use on the State Forests

**Better parking near trailheads (2)****Misc. (7)**

Picnic tables need to be repaired

Add overlook near reservoir

Re-do vistas, they are overgrown

Install public treehouses

Have a lean-to for backpackers

Why not recommission the CCC camp, they should be reactivated, some trails are in complete disarray

Improve mountain biking trails, add a loop trail in this area like Allagrippis trail, specifically built for mountain biking

**Wildlife management (33)****Limit/eliminate doe hunting (10)**

No doe hunting (7)

Less doe hunting (2)

Deer management needs improvement, make doe season shorter

**Increase deer population (9)**

Increase deer population (7)

There are not many deer in these woods

Where are all the deer at?

**Increase food for game (8)**

More food plots (5)

Plant better trees for wildlife, there is no vegetation

Put more oak trees in to provide more food for wildlife

Feed turkeys more

**Misc. (6)**

Have hunters give more input in deer management

Game management could be improved, want to see more game

More cutting to attract more wildlife

Problems with deer management, no DCNR here anymore

Do more to better hunting

Leave the deer alone

**Forest Management (19)****Timber management (4)**

Take more pole stage timber out

Thin some of the forest out selectively

Better firewood

Clear timber

**Reduce logging (3)**

Timber sales too close to trails, logging trucks drive on ski trails

Leave the trees, no clear cuttings

Slow down clear cutting

## Recreation Use on the State Forests

**Restrict development (2)**

Don't allow any more development – keep it remote

Keep it natural as much as possible

**Increase law enforcement patrols (2)****Misc. (8)**

Fix right of way access at 3912 Twelve Mile Road

Remove fence

Clever marketing

Gate the camp area so only campers can use it

Don't release black flies

Get rid of invasive species

Do something about snakes near Lyman Lake

If leased cabins, leave a grandfather clause to let things be as they have been, less nit picking

***Anti-Fracking/Gas Drilling (5)***

Stop drilling

Reduce gas well traffic

Regulate drilling

No Marcellus drilling in this State Forest

Only use fracking on private land

***Fish/Stream Management (4)***

Stock more fish (2)

Stream restoration

Maintain streams

**Marcellus Shale Open-Ended Responses by Forest****Sproul SF**

**Has Marcellus shale-related activity changed your recreational use of this State Forest? *n* = 317, Yes = 87, No = 230**

218 total open-ended responses

**If yes, why?***Road/Traffic Issues (30)*

Traffic (2)

More traffic (3)

A lot of traffic (2)

Some traffic

On the roads more

Limited access on roads, truck traffic is heavy

Way too many vehicles on roads to driveway

Too much traffic and water trucks

Way too much traffic & road delays, gas trucks

Trucks on roads

Truck traffic

Heavy road traffic

A lot of truck traffic & road damage

Traffic is more dangerous

Truck traffic is dangerous

Heavy truck traffic makes roads less safe feeling – speed limits not obeyed

A lot more traffic, was in an accident

Been run off road, hurts relaxation aspect of experience

Every time I come up here, I am almost killed by a pickup truck

Extremely dangerous to drive on back roads, oil companies are idiots

More caution on roads

Roads

Roads are bad

Ruin roads

More roadwork

Roads terrible, need fixed

*Effects on Wildlife/Hunting (32)*

Kill[s] wildlife

Concerned about wildlife habitat

Scaring deer away (4)

Too many extra people in the woods scaring deer

Hunting is affected

## Recreation Use on the State Forests

Hunting has been impeded  
 Hunting  
 Screwing up hunting  
 Disrupted ecosystems associated with snake hunting  
 Hunting and trapping areas impacted  
 Can't hunt at usual sites  
 Hunting area disrupted  
 Changes hunting locations  
 Took away hunting spot  
 No hunting at well sites  
 Rigs are where I used to hunt  
 Can't hardly hunt anywhere anymore  
 They are in our hunting area  
 Some hunting spots are taken away  
 Limited access to hunting areas  
 Cleared places that I used to hunt  
 Inability to access regular hunting areas  
 Threw hunting out of whack – not seeing the same amount of wildlife before they started drilling  
 Drilling activity has limited hunting area, has caused the wildlife to migrate out of the area, decrease in numbers  
 Hunting, changed way animals travel, don't see them period  
 Hunting, pushed animals  
 Changed hunting  
 Game has been chased out, woods used to be undisturbed  
 Had to change our hunting style, drillers seem to wait till hunting

*Changing Use Patterns (Displaced/Closed Areas) (24)*

Have to stay off certain roads  
 Traffic, avoiding areas with high traffic  
 Can't go to some places because of traffic  
 Changed the route to cabin  
 Off-roading, some areas closed to use  
 Prevented me from riding ATV because trails were torn up from pipeline construction  
 Can't go to some areas  
 Closed areas  
 Closed due to drilling  
 Some places can't get into  
 Avoiding areas with high traffic  
 Avoid certain locations where there is activity  
 Don't visit certain areas anymore to avoid drilling activity  
 Places I don't go any more because of gas drilling, they have a well pad in the Miller Run Natural Area  
 The roads are blocked  
 A lot of roads are now blocked off

## Recreation Use on the State Forests

Roads are closed that could be open to the public  
 I will not come back here again because of the development in gas  
 Many favorite areas have been disrupted/destroyed  
 Taken, don't use as much  
 Would have come more  
 Berry picking sites destroyed  
 Took two acres of this land  
 Certain areas were more accessible, others became inaccessible

*General Environmental Concerns (13)*

Concerned about pollution and water quality (2)  
 Becoming crowded, taking a lot of space for clear cuts  
 Pristine areas of peaceful forest gone  
 Destroy area  
 Destroy forest  
 It's a mess  
 Change in landscape, new road  
 Changed some areas, clear cutting messed the place up  
 Lots of activity and equipment and people  
 Don't like the clearing of the woods  
 Taking the mountain, ruining the forest, nothing is the same  
 Need more inspection and regulation

*Noise and Visual Impacts (6)*

Drilling is disruptive noise-wise  
 Noise  
 Noise pollution  
 Noise from helicopters last year  
 Helicopters flying over state game land  
 Keep hidden and neat, can see them

*Positive Impacts/Statements (6)*

Last year, not so much this year  
 The road is in much better shape  
 Made better roads  
 Increased access roads  
 My son worked for them, bought me this truck  
 Phone service

## Recreation Use on the State Forests

**If no, why not?***No Effect on Use (45)*

No change (10)  
 No effect (8)  
 No negative effect (2)  
 Not affected by it for fishing or hunting  
 Not affected; works for gas company and knows that it isn't in this area  
 Still will use it despite the change  
 Still visit  
 Still fish  
 Still useable  
 Still use forests  
 Did not interfere with use  
 Doesn't get in the way of our activities  
 Hasn't changed anything they do  
 Has not affected his use specifically of the forest area  
 Doesn't prevent access to areas  
 No impact from it  
 No impact, forest is still gorgeous  
 Doesn't impact at all, non-invasive  
 Haven't been impacted  
 Doesn't get in the way  
 Not issue with his group  
 Doesn't bother me  
 Not a lot of impact  
 Hasn't hurt anything  
 Does not hurt anything  
 Just has not  
 Not really  
 Just adapt to the changes

*Don't Notice/Haven't Seen Any Activity (23)*

Haven't noticed anything (8)  
 Haven't seen it (6)  
 No visible activity (4)  
 Only notice it on the roads sometime  
 Don't visit enough to notice a change  
 First time visiting the area  
 Not in the area much  
 Haven't been here

*Not Drilling Here (or in areas I care about) (27)*

Not in this area (5)  
 No drilling here (5)  
 No impact here (3)

## Recreation Use on the State Forests

Areas visited are not affected (3)  
 Haven't seen in this area (2)  
 Areas visited have not been altered, haven't seen anything directly ruined by drilling  
 Not much activity in the area  
 Right now they are not in this area  
 Haven't around property  
 Not in area of my cabin  
 No impact in areas traveled  
 Can't say it has here, but I saw lots of trucks traffic on way here  
 Not around so much  
 Not this state forest, other places it has, only here for limited time

*Not Yet (implies concern for future) (23)*

Not yet (9)  
 No impact at all yet  
 Not as of now  
 To date, no change  
 They haven't been drilling in this area yet (2)  
 Not impacted where I hunt yet  
 Not in this location yet  
 No, It has not changed yet, think it will though  
 Not yet, but coming  
 Not yet, but it may  
 Not yet, road messed up in other forest  
 Not yet - too early to tell, noticed the road is being widened  
 They haven't f\*\*\*ed anything up yet, when they do I will be very upset, whatever  
     economic benefit there is will not offset if they damage the forest  
 Don't have pipeline yet, site can't hook up well on our property, hasn't changed anything  
 yet

*Don't Know About It (8)*

Didn't know what it was (4)  
 Wasn't sure if it was here  
 Didn't know there was any activity going on in this location  
 Haven't drilled in the state forest that I know of  
 Because didn't know until recently, saw a map in a restaurant

*Pro-Drilling (5)*

Marcellus shale doesn't bother me here, already drilled on my property  
 Every well site I've seen is well kept, have people who work for gas and confident they  
     are doing their job  
 I have no problem with them drilling, they can drill all they want  
 Good for the economy  
 Need gas; doesn't affect their everyday life

**Sproul SF**

**Has Marcellus shale-related activity changed your recreation experience at this State Forest?  $n = 317$ , Yes = 107, No = 210**

227 total open-ended responses

**If yes, why?**

*Road/Traffic Issues (38)*

Traffic (6)

Too much traffic

Extra traffic, extra people

Extra traffic on roads (2)

Extra traffic, messing with spring

Traffic, no visible benefits seen for the parks and forests

Changed some areas, traffic

Before it would have been way less traffic

Yes. More traffic on the small roads leading into the parks and throughout the surrounding community

Have to put up with forest truck traffic

Truck traffic is very unpleasant

Seeing a lot of trucks and extra traffic

Truck traffic is a concern

Roads too busy

Lots of truck traffic and noise

Trucks on roads

Saw way too many semi-trucks on the roads. Interrupted the trip multiple times (had to pull off roads)

Following tanks/Lots of extra traffic

Roads have been rough

Just roads

Not friendly people, have torn up roads and forest

Much more traffic, heavy traffic destroying roads

Limited access, dusty roads

Coming up on the mountain, roads are bad

Unsafe driving

Yes, been run off road

Driving is a challenge

Traffic is more dangerous

Dangerous, areas are crowded, roads are dangerous

Mountain Rd 144 dangerous

Truck traffic annoying, potentially dangerous

More careful

## Recreation Use on the State Forests

*Effects on Wildlife/Hunting (23)*

Less wildlife in forest  
 Less wildlife, further in the woods due to drilling  
 Wildlife is now very limited  
 Less wildlife  
 Can't see any wildlife  
 Scaring nature and animals away so they are not seen  
 Less fish  
 Ruined hunting, too many roads  
 Less deer, less enjoyable  
 Hunting has not been as enjoyable, the landscape has also been altered  
 Hunting is not as enjoyable due to the decline of the deer population  
 Hunting not as good  
 Hunting messed up  
 Messed up archery hunting  
 Worse hunting  
 Game deferred, crowding of land  
 There aren't any deer like there used to be  
 Surveys and seismic crews were very intrusive, caused a drop in deer populations as well  
 sort of ruined hunting season  
 Scares deer (2)  
 Spooked deer  
 Drilling and blasting drives off the wildlife and makes hunting difficult  
 Occupy hunting land, blocking off roads for drivable trails  
 Now, he goes to different areas to hunt  
 Destroyed hunting areas

*Noise/Visual Impacts (24)*

Noise and traffic (8)  
 Noise and extra people  
 Traffic gets very noisy next to wells  
 Noise, traffic, pipe lines, extra unnatural features  
 Dramatically changed, wilderness no longer quiet, lots of truck traffic and noise  
 A lot of noise disturbance from the helicopter today  
 Helicopters, people all over the place  
 Come to the area to escape noise, drilling and pumping stations cause noise, State Forest  
 should be left solely undeveloped  
 Last year it did, noise, all day long  
 In the winter, the heavy drilling noise, he likes to come out to SF for silence  
 Eyesore  
 Gas sites are incredibly ugly and noisy  
 Changes scenery (2)  
 Drilling sites are noticeable on side roads  
 Orange flagging all over the place  
 Too many markings  
 Don't think it looks the way it used to before the drilling

*Changing Use Patterns (Displaced/Closed Areas) (10)*

Places where the wells are, can't hunt there or get down to fishing area, I don't go camping there. I can't go other places  
 Can't use some area  
 Berry picking sites destroyed  
 Some areas are not accessible  
 More posted land  
 Don't drive normal routes, have to use more caution  
 Changed some of routine  
 Shuts roads down, loss of prior experience, can't hunt in forest areas  
 Restricted where they ride their motorcycles-potholes and road conditions, truck traffic  
 Areas around drill sites are not pleasurable to visit  
 Can't go on certain mountains because of gas people and related activity  
 Was going to buy a cabin but changed mind when found out about it

*General Environmental Concerns (13)*

Contaminate with smells  
 What used to be more pristine forest areas is now all torn up with gas activity; good for country that we have these resources but government has to make sure the companies are doing the right thing; should fine some out of business; the companies should be accountable for their damage  
 Not in agreement with the drilling, has changed their perspective of the forests with industrialization  
 Need more inspection and regulation  
 Destroying the forest  
 It has destroyed the pleasant feeling this forest once had  
 Locals should get perks from drilling  
 Negatively- they need to go  
 Not happy with the whole thing  
 Clearing of trees, pads  
 It's not as nice  
 Setting  
 Mixed blessing

*Crowding/Loss of Solitude or Relaxation (9)*

Limited access and extra people  
 Had to be more careful and alert, more people  
 In different areas - not bad at camp, but north is more crowded  
 Helicopters, people all over the place  
 More traffic/less serenity  
 Annoying  
 Hurts relaxation aspect of experience  
 Losing privacy that would have been here previously  
 Not as private as it used to be

## Recreation Use on the State Forests

*Positive Impacts/Statements (3)*

Lots of trees, better roads  
 Some trails are better  
 Roads all in great shape

**If no, why not?***No Effect on Experience (43)*

No change (7)  
 No direct effects (6)  
 Just doesn't affect me (4)  
 No effect on activities  
 Not affected by it for fishing or hunting  
 Do the same thing as always  
 Does not interfere with my activities  
 Doesn't prevent access to areas  
 No negative effect (2)  
 No impact, forest is still gorgeous  
 Doesn't impact it all, non-invasive  
 No impact from it  
 No visible impact (2)  
 No, hasn't hurt anything  
 No marked change  
 Not a lot of impact  
 Walked through and did recognize it but didn't bother me  
 Doesn't bother me  
 Not issue with his group  
 It is fine by him  
 Hasn't bothered  
 No conflict from it  
 Not much, more trucks from out of state on roads  
 Only notice it on the roads sometime  
 Other than traffic not really  
 Not that I know of  
 Not really

*Don't Notice/Haven't Seen Any Activity (25)*

No visible activity (5)  
 Haven't seen it (2)  
 Didn't see anything  
 Do not see it on this trip or any others  
 Didn't see any  
 No noticed change  
 Haven't noticed a change  
 Don't notice any difference

## Recreation Use on the State Forests

No noticeable drilling  
 Haven't noticed any effect  
 Haven't seen any eyesores, see some activity  
 Haven't noticed it so much  
 Not directly exposed to it right now  
 No, still hidden, very neat  
 Hasn't had much contact with it  
 We came up camping years ago before it started  
 No comparison, first time here (2)  
 Don't visit enough to notice a change  
 Only a once a year trip

*Not Drilling Here (or in areas I care about) (17)*

No activity here (6)  
 Haven't seen much of it here (2)  
 Hasn't changed here. They use this area or their camp  
 Right now they are not in this area  
 Not affected in the area  
 Haven't noticed it in this area  
 Has seen the activity elsewhere and its negative effects but hasn't seen them here  
 Didn't know there was any activity this far south  
 No impact in areas traveled  
 Areas visited are not affected at all  
 Not around so much

*Changed Location/Adapted (6)*

Just adapt to the changes (2)  
 Because we changed spot  
 Just hunt somewhere else  
 So far it hasn't affected it that much because I avoid other areas  
 Still going to recreate, lots of places to go to get away from, drillers are trying to be good neighbors

*Not Yet (implies concern for future) (14)*

Not yet (7)  
 They haven't been drilling in this area yet  
 Not affected this area yet  
 To date, no change  
 Not so far  
 Not seeing yet  
 Not yet, but it may  
 Concerned about dumping  
 No impact at all yet

## Recreation Use on the State Forests

*Don't Know About It (5)*

Didn't know what it was (2)

Don't know about it

Not aware of Marcellus shale activity

Haven't drilled in the state forest that I know of

Because didn't know until recently, saw a map in a restaurant

*Pro-Drilling (6)*

Need gas, doesn't affect their everyday life

I like seeing the industry developing in our area

Every well site I've seen is well kept, have people who work for gas and confident they are doing their job

I have no problem with them drilling, they can drill all they want

Long term benefit, timber cutting beneficial

It's good for area

Susquehannock SF

**Has Marcellus shale-related activity changed your recreational use of this state forest?  $n = 297$ , yes = 56, no = 242**

223 total open-ended responses

**If yes, why?**

*Road/Traffic Issues (19)*

Heavy truck traffic  
 Traffic, road conditions  
 Lots of truck traffic, road conditions are worse  
 Traffic is heavy, dangerous  
 Too many trucks on the roads - Almost hit by one on my ATV  
 Water trucks make travel dangerous  
 Truck traffic has really increased here on this road  
 Gas trucks were all over the road  
 Road traffic and condition/deterioration, trucks ruin the road  
 Roads are bad, more traffic  
 Roads (2)  
 Road quality  
 They ruin the roads  
 Yes, Screw roads and woods up/ Heavy trucks destroy roads  
 Ruined a lot of things, ruined road. Dislike the gas well presence  
 Changed condition of roads  
 Tearing up roads, ruining trail traffic  
 Bad Roads

*Changing Use Patterns (Displaced/Closed Areas) (13)*

Avoids roads used by trucks  
 Changes in where you can go  
 Some of the best ATV trails are now closed  
 Some areas (near Haneyville) are restricted  
 Used to enjoy hiking in areas that are now used for drilling; now he goes elsewhere  
 Don't like the area disturbed by drilling  
 Block ski area, gravel on ski roads  
 If in snowmobile areas, access is more limited to trails because of drilling  
 So far some areas are not available because of drilling  
 Impact on the Chuck Keiper trail minimizes use and traffic limits visits, wiped out path of trail across from here  
 Concerns about whether to come here  
 Try to plan visit around well sites and reports of spills  
 Avoid where they are  
 Some areas, roads

Recreation Use on the State Forests

*Effects on Wildlife/Hunting (10)*

- Use it less / less game
- Change when I hunt
- Can't hunt places where I used to
- Changed hunting areas
- Traffic diminished the hunting areas
- Hunts deer - has to hunt harder
- Scaring away game
- Fire wells here, constant blowoff of something here, scares deer and turkey
- Deer
- Disturbs wildlife

*Noise and Visual Impacts (6)*

- Too noisy, affects hiking
- Ribbons and stakes and helicopter flying around is annoying
- Visually unappealing
- Wells are an eyesore
- Ambient light is worse

*General Environmental Concerns (10)*

- Risk of contamination; drillers are not local jobs
- Environmental impact
- Worried about water pollution
- Important to test water, won't drink the water
- Worried about water quality
- Land takeover, chemicals
- Lessen Wilderness
- Trails a mess
- Negatively
- Very little impact, some trail damage

*Positive Impacts/Statements (5)*

- Trucks are plowing roads not normally plowed for the winter
- Allows more access to roads
- More trails have been added
- Helped pay for ATV with lease money
- Works in industry - stays at camp 2 weeks

## Recreation Use on the State Forests

## Appendix

**If no, why not?***No Effect on Use (47)*

The area is beautiful as is  
 Love it still, come here the same  
 Come out here just as often (2)  
 Come here same amount as before they took over  
 Still recreate anyway  
 Do what we always do  
 I don't do anything differently (2)  
 Doesn't affect his activities  
 Doesn't affect him  
 Just doesn't affect it at all  
 No change at all (5)  
 Just come here anyways  
 No direct effects (4)  
 No effects at all from it (2)  
 Just doesn't bother them (3)  
 Doesn't bother him, used to the drilling, avoids problem areas  
 Hasn't bothered me, check every year so I'm not worried about them  
 ATVs are not obstructed by drilling activity  
 No interference to me  
 Not interfered with trail riding, camping  
 Doesn't interfere with trails  
 Drilling doesn't interfere with hunting (3)  
 We see it while hunting but hasn't really changed what we do  
 Hasn't changed where I hunt  
 Does not impact this recreational activity  
 Drill sites haven't impacted recreation  
 Not affected him so much  
 Not directly impacted (2)  
 No, did not impede anything  
 Because the area is state protected game lands  
 Wouldn't matter  
 Concerned but no change in use

*Don't Notice/Haven't Seen Any Activity (38)*

No visible activity (10)  
 Have not seen it (6)  
 Haven't encountered it (5)  
 Haven't experienced any  
 Didn't see any evidence  
 No noticeable activity, just some traffic  
 Not noticeable  
 Has not noticed a change  
 No visible impacts or interactions

## Recreation Use on the State Forests

Couldn't tell any difference  
 Didn't see any sign of any activity  
 No activity to be seen; only logging  
 Haven't seen much activity (2)  
 Not much activity  
 Doesn't visit often  
 Never been here before  
 Don't get in the woods as much as he used to, maybe would have affected him when he  
     was younger  
 No reason (2)

*Not Drilling Here (or in areas I care about) (31)*

Not here (no drilling activity in this area) (18)  
 No change in this area directly  
 Areas used not in proximity to drilling (2)  
 Don't see them doing anything here; I don't have a problem; worried about habitat loss  
 Not affecting hunting here  
 Susquehannock trail system still open  
 Not on trails  
 Hasn't interfered with areas visited  
 Haven't run into any of it, not where I'm going  
 Haven't seen any in this area  
 Not really here, didn't notice them  
 Don't pay attention, haven't been where I am  
 Don't use these areas

*Not Yet (implies concern for future) (30)*

Not yet (16)  
 Not yet, but traffic  
 Not drilling here yet (3)  
 Not drilling in area yet (much)  
 Haven't seen any impact yet  
 Hasn't affected them yet  
 Hasn't affected us at all in the areas we are, so far  
 Stay at Ole Bull state park, no impact yet  
 Not here not yet, hope they don't mess the area up too bad, we have water well  
 Hasn't impacted yet where we ride, could impact water source  
 Hasn't changed it yet but I'm sure it will have an impact, worried about water/stream  
     pollution, don't think there is enough enforcement of environmental regulations,  
     as long as they clean up I don't have a problem, worried about habitat loss  
 No, as long as it doesn't ruin hunting  
 Been out of way, nothing seems too bad, worry about the creeks but Mother Nature will  
     hopefully take the course

*Don't Know About It (7)*

Didn't know they were drilling

## Recreation Use on the State Forests

Not aware of any drilling activity here  
Didn't know it was present  
Didn't know where it was  
Never heard of it  
I don't know  
Not really, don't know much about it

*Pro-Drilling (12)*

Wish they'd do more of it, doesn't affect us at all  
Waters unaffected, drillers cleaned-up areas drilled  
As far as he knows, drilling has little to no impact on surface of land  
More road access  
State replaced old bridge - better roads  
No, but very interested in seeing the drilling.  
Hasn't bothered me, check every year so I'm not worried about them  
Only thing I have against drilling is they are doing too much and flooding market, gone  
overboard with regulations on fracking (in NY), I work in oil business  
It's a damn good idea to drill and get more, I like oil and gas  
Making money from it  
They are doing a good job, protecting water quality and environment  
Good for everybody, creates jobs

Susquehannock SF

**Has Marcellus shale-related activity changed your recreation experience at this state forest?  $n = 295$  , Yes = 68, No = 228**

204 total open-ended responses

**If yes, why?**

*Road/Traffic Issues (14)*

Traffic (3)

Truck traffic

Higher traffic, delays

Extra traffic

Traffic is heavy, dangerous

Road condition

Roads have been greatly used and damaged

They ruin the roads

Made roads a lot worse, they were bad to start with and are worse now

Roads are beat up making the drive in slow between the trails they haul

Trucks run me off the road

Trucks are scary drivers on main and back roads

*Crowding/Loss of Solitude or Relaxation (7)*

More people than previously, extra traffic on roads

Some areas are more crowded

More people on weekends

Slows me down

Limited space

Raised levels of anxiety concerning visits

Experience is less relaxing, more aggravating

*Noise and Visual Impacts (11)*

Visually

Some areas aren't as pretty and some areas are more crowded

Detracted from the natural setting

Wells are an eyesore

Visually unappealing environmental impact

Landscape stripped, changed beauty of landscape

Deforestation, loss of trails, light pollution equals a less enjoyable visit

Wilderness beauty

Inconvenience, big clearing up the roads on way in

Engine breaking noises

Noise, but has been better

## Recreation Use on the State Forests

*General Environmental Concerns (12)*

Concern about water quality (3)

Saw film of oil on road; won't drink the water

Risk of contamination, drillers are not local jobs

Downstream from Lyman Run, concern that pollutants have already or have possibility of entering water table

Seen where they've bulldozed and cut well pads; state is going to be "caught holding the bag" in the future when clean-up is needed

Not as nice, messy and blocked trails, better signage for blocked trails

Feel vibration, really close

He has never seen the Susquehannock River so dry. Says the Marcellus drillers are taking water from the river to flush out oil

"Gasholes" men in the area are rude to locals

Pisses him off

*Effects on Wildlife/Hunting (10)*

Less game / more traffic/ gates

Less deer

There are less deer, more coyotes

Could have chased game out, didn't see much

More traffic on road disrupts wildlife

Truck traffic noise in deer season, fairly quiet here

Blow off scaring game, and noise

Too much noise - poor hunting now

Hard on hunting

Can't hunt in some areas

*Changing Use Patterns (Displaced/Closed Areas) (9)*

Some areas (near Haneyville) are restricted

Don't hunt some areas, if received royalty it would be better

Can't use some of the trails

Limits the range of rides causing inconvenience

Well pads on trail

Cuts into trails

Less trails = less for enjoyment

Has turned me off to going to areas for hiking where drilling is on-going, avoided these areas

Used to enjoy hiking in areas that are now used for drilling, now he goes elsewhere

*Positive Impacts/Statements (5)*

Roads are completed, the drive is nicer in some areas, bad in others

Made roads nicer in forest, made main roads worse, though

Makes more trails, better access to trails

More access = more areas to recreate

Has opened it up a bit, places where they have cleared wells, opening trails to see different area

**If no, why not?***No Effect on Experience (40)*

No effect (9)  
 Not directly impacted (6)  
 No change at all (4)  
 Just has not (3)  
 Not affected him so much  
 Just doesn't bother them  
 Not interfere with me  
 No effect on motorcycle riding today  
 Just come here anyways  
 Do everything I always did  
 Still able to enjoy the activities  
 Still recreate anyway  
 Still hunt  
 Hasn't changed where I hunt  
 Not really, more people [on] roads  
 Truck traffic, but no change in experience  
 Still hunting, clear cutting, roads in better shape  
 Not much  
 Because the area is state protected game lands  
 Commonly occurring subject here  
 As far as he knows, drilling has little to no impact on surface of land  
 Don't get in the woods as much as he used to, maybe would have affected him when he  
 was younger

*Don't Notice/Haven't Seen Any Activity (35)*

No visible activity (12)  
 Haven't encountered any activity (6)  
 Not drilling  
 No activity  
 No activity to be seen, only logging  
 Have not seen it  
 Wouldn't know, haven't seen anything, doesn't affect us  
 No evidence of change (2)  
 Couldn't tell any difference  
 Not noticeable  
 No noticeable activity, just some traffic  
 Didn't see any sign of any activity  
 Haven't experienced any  
 Haven't seen much activity (2)  
 Never been here before  
 Doesn't visit often

## Recreation Use on the State Forests

Appendix

Been out of way, nothing seems too bad, worry about the creeks but Mother Nature will hopefully take the course

*Not Drilling Here (or in areas I care about) (19)*

Not here (6)

Not drilling in this area (7)

Don't see them doing anything here, I don't have a problem, worried about habitat loss

Not in state forest, we live in Wellsboro and the roads are bad there

Susquehannock trail system still open

Areas used not in proximity to drilling

Haven't run into any of it, not where I'm going

Did not run into any activity

*Not Yet (implies concern for future) (29)*

Not yet (15)

Not drilling here yet (7)

Hasn't affected us at all in the areas we are, so far

As of right now, they aren't drilling where we hunt, haven't seen any activity here either

Stay at Ole Bull state park, no impact yet

Not drilling in area yet (much)

Not yet, but traffic

But we notice it more and more

Not yet but coming

*Changed Location/Adapted (8)*

Just adapts (2)

Go to other areas (2)

Don't go there

I stay away

Stay away / noisy

Doesn't bother him, used to the drilling, avoids problem areas

*Don't Know About It (4)*

Didn't know where it was

Didn't know they were drilling

Didn't know it was present

Never heard of it

*Pro-Drilling (7)*

Anything they do, they put it back to natural condition, my camp is right down there, haven't noticed anything. It's good for PA, lots of jobs

Still hunting, clear cutting, roads in better shape

Only thing I have against drilling is they are doing too much and flooding market, gone overboard with regulations on fracking (in NY), I work in oil business

All for it, drill it up, got to get the 'gas,' don't give money to the 'ragheads'

Making money from it

## Recreation Use on the State Forests

Appendix

They are doing a good job, protecting water quality and environment

Haven't seen it except that improvements to the roads are nice/more accessible firewood  
from trimming trees

## **Appendix B**

### **Zip Code Analysis of Sproul and Susquehannock State Forest Visitors**

### 2011-12 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.

#### *Sproul State Forest Highlights*

- The average straight-line distance from the respondents' home ZIP code to the Sproul State Forest Headquarters was 78 miles.
- About one-third (32.8%) of respondents' home ZIP codes were within 25 miles of the Sproul State Forest Headquarters, 68.4% were within 100 miles (Table 1).
- Respondents' home ZIP codes represent 12 states; 87.5% of the respondents reported a home ZIP code in Pennsylvania (Table 2).
- The Pennsylvania respondents' home ZIP codes represent 47 different counties (Table 3). The top three counties were Clinton (28.7%), Centre (17.7%), and Lycoming (6.5%).

Table 1. Straight-Line Distance from ZIP Code to Sproul State Forest Headquarters (n = 335)

Distance (miles)	Number of Responses	Percent*
Less than 25	110	32.8%
25-49	61	18.2%
50-99	58	17.3%
100-149	73	21.8%
150-199	18	5.4%
200+	15	4.5%

\*may not add up to 100% due to rounding

## Recreation Use on the State Forests

## Appendix

Table 2. Sproul State Forest Responses by State (n = 335)

State	Number of Responses	Percent*
Pennsylvania	293	87.5%
New York	13	3.9%
New Jersey	12	3.6%
Ohio	5	1.5%
Maryland	4	1.2%
Wisconsin	2	.6%
Colorado	1	.3%
Delaware	1	.3%
Florida	1	.3%
Illinois	1	.3%
Michigan	1	.3%
West Virginia	1	.3%

\*may not add up to 100% due to rounding

Table 3. Sproul State Forest Pennsylvania Responses by County (n = 293)

County	Number of Responses	Percent*
Clinton	84	28.7%
Centre	52	17.7%
Lycoming	19	6.5%
York	15	5.1%
Berks	10	3.4%
Clearfield	10	3.4%
Lancaster	10	3.4%
Cambria	6	2%
Dauphin	6	2%
Schuylkill	6	2%
Chester	5	1.7%
Cumberland	5	1.7%
Northumberland	5	1.7%
Allegheny	3	1%
Blair	3	1%
Lehigh	3	1%
Montgomery	3	1%
Perry	3	1%
Potter	3	1%
Snyder	3	1%
Union	3	1%
Bucks	2	.7%
Columbia	2	.7%
Crawford	2	.7%

## Recreation Use on the State Forests

Elk	2	.7%
Erie	2	.7%
Indiana	2	.7%
Jefferson	2	.7%
Lebanon	2	.7%
Philadelphia	2	.7%
Westmoreland	2	.7%
Adams	1	.3%
Bedford	1	.3%
Bradford	1	.3%
Butler	1	.3%
Cameron	1	.3%
Carbon	1	.3%
Franklin	1	.3%
Juniata	1	.3%
Luzerne	1	.3%
Mifflin	1	.3%
Montour	1	.3%
Northampton	1	.3%
Tioga	1	.3%
Washington	1	.3%
Wayne	1	.3%
Wyoming	1	.3%

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\*may not add up to 100% due to rounding

*Susquehannock State Forest Highlights*

- The average straight-line distance from the respondents' home ZIP code to the Susquehannock State Forest Headquarters was 109 miles.
- About one-tenth (11.5%) of respondents' home ZIP codes were within 25 miles of the Susquehannock State Forest Headquarters; 42.1% were within 100 miles (Table 4).
- Respondents' home ZIP codes represent 10 states; 86.5% of the respondents reported a home ZIP code in Pennsylvania (Table 5).
- The Pennsylvania respondents' home ZIP codes represent 52 different counties (Table 6). The top three counties were York (11.8%), Potter (11%), and Lancaster (9.5%).

Table 4. Straight-Line Distance from ZIP Code to  
Susquehannock State Forest Headquarters (n = 304)

Distance (miles)	Number of Responses	Percent*
Less than 25	35	11.5%
25-49	22	7.2%
50-99	71	23.4%
100-149	117	38.5%
150-199	51	16.8%
200+	8	2.6%

\*may not add up to 100% due to rounding

Table 5. Susquehannock State Forest Responses by State  
(n = 304)

State	Number of Responses	Percent*
Pennsylvania	263	86.5%
New York	25	8.2%
Ohio	4	1.3%
Virginia	3	1%
Maryland	2	.6%
Massachusetts	2	.6%
New Jersey	2	.6%
Delaware	1	.3%
New Hampshire	1	.3%
Vermont	1	.3%

\*may not add up to 100% due to rounding

Table 6. Susquehannock State Forest Pennsylvania Responses by County (n = 263)

County	Number of Responses	Percent*
York	31	11.8%
Potter	29	11%
Lancaster	25	9.5%
Montgomery	12	4.6%
Snyder	11	4.2%
Chester	11	4.2%
Berks	9	3.4%
Dauphin	8	3%
Adams	7	2.7%
Northampton	7	2.7%
Clinton	6	2.3%
Blair	6	2.3%
McKean	6	2.3%
Perry	6	2.3%
Cambria	5	1.9%
Cumberland	5	1.9%
Tioga	5	1.9%
Schuylkill	4	1.5%
Centre	4	1.5%
Westmoreland	4	1.5%
Lebanon	4	1.5%
Northumberland	4	1.5%
Somerset	3	1.1%
Columbia	3	1.1%
Erie	3	1.1%
Franklin	3	1.1%
Bucks	3	1.1%
Washington	3	1.1%
Mifflin	3	1.1%
Butler	2	.7%
Cameron	2	.7%
Carbon	2	.7%
Clearfield	2	.7%
Philadelphia	2	.7%
Lehigh	2	.7%
Elk	2	.7%
Huntingdon	2	.7%
Allegheny	2	.7%
Bradford	2	.7%
Clarion	1	.4%
Indiana	1	.4%

## Recreation Use on the State Forests

Juniata	1	.4%
Lycoming	1	.4%
Delaware	1	.4%
Fayette	1	.4%
Greene	1	.4%
Armstrong	1	.4%
Bedford	1	.4%
Union	1	.4%
Venango	1	.4%
Warren	1	.4%
Montour	1	.4%

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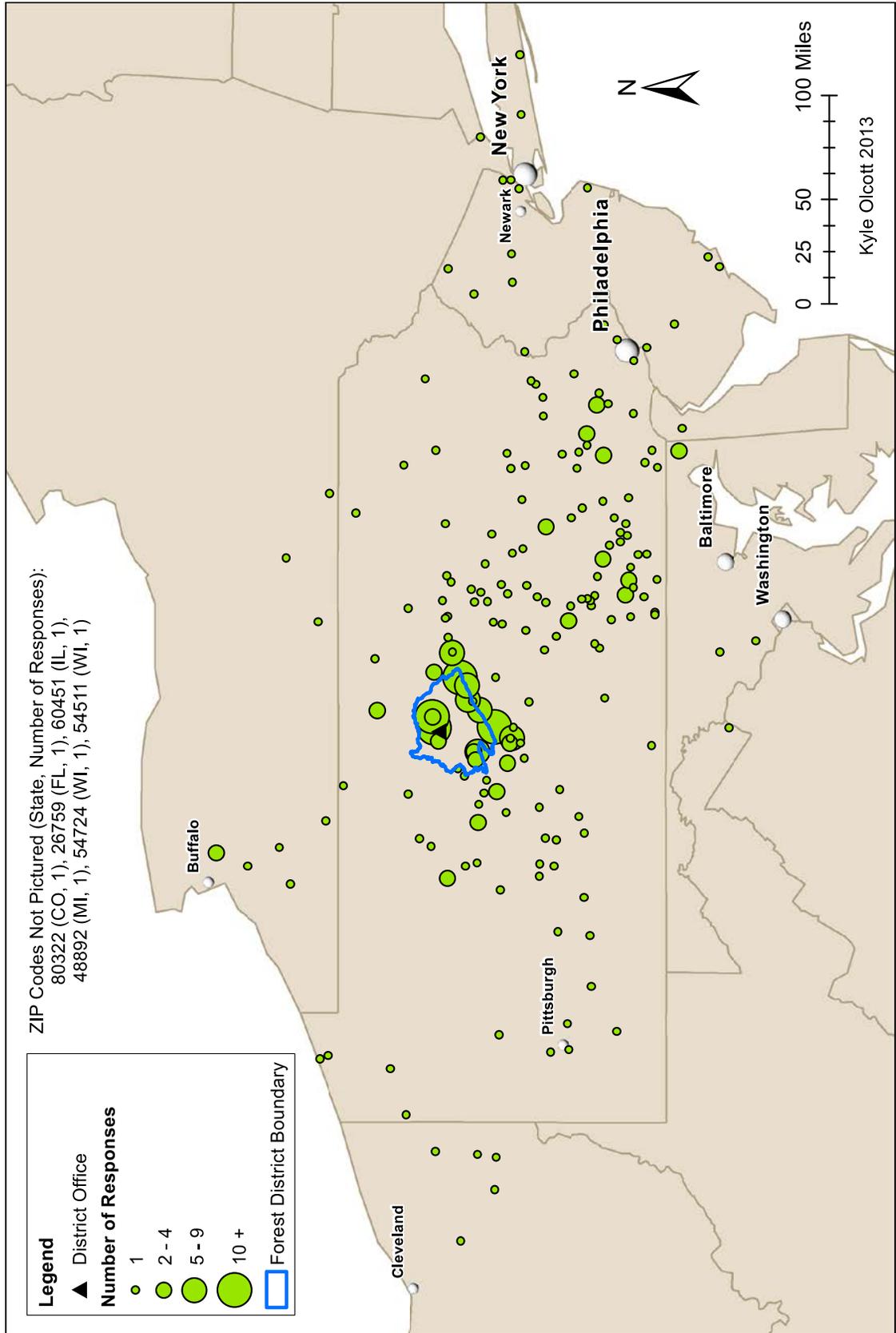
\*may not add up to 100% due to rounding

*Reference*

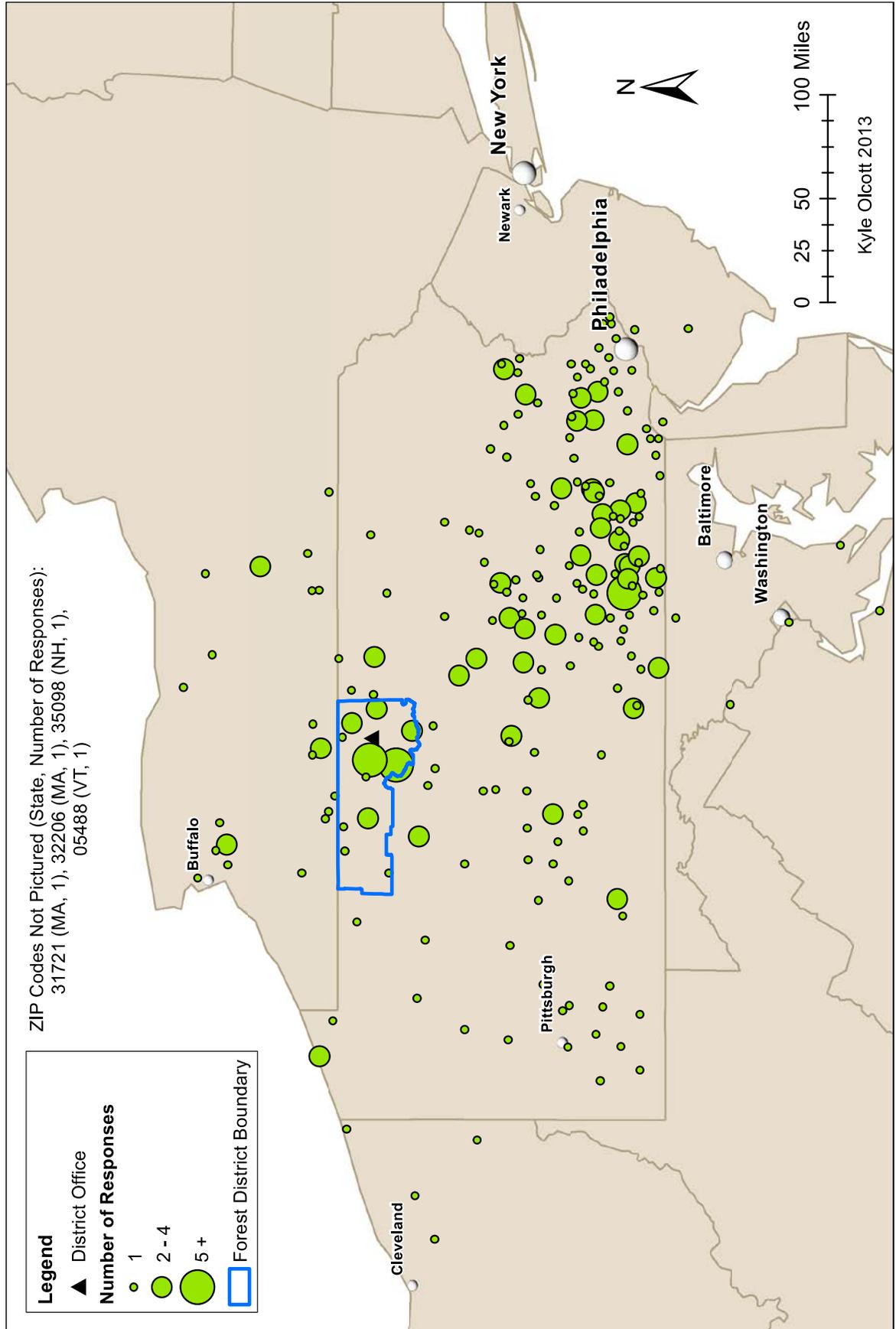
ESRI 2012. ArcGIS Desktop. Release 10.1. Redlands, CA: Environmental Systems Research Institute.

9

# Responses by ZIP Code (n = 335)



# Recreation Use Monitoring Responses by ZIP Code (n = 304)



## **Appendix C**

### **Survey Instrument**

## Recreation Use on the State Forests

## Appendix

**Sproul/Susquehannock State Forest:  
2011 - 2012 Recreational Use Survey**

Interviewer: \_\_\_\_\_ Site: \_\_\_\_\_ Date: \_\_\_\_\_

Time of Interview: \_\_\_\_\_ Vehicle Axle Count: \_\_\_\_\_ Clicker Count: \_\_\_\_\_

Hello, my name is \_\_\_\_\_, I'm from Penn State 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 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 for GFA ONLY

**3. Are you leaving the Sproul/Susquehannock SF for the last time today or will you return later?**

- Leaving for last time today
- Will return later

**Section 2 (Basic Information)**

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

**1. Did you spend last night in the Sproul/Susquehannock SF?**

- No      Yes
- If yes, how many nights in a row did you spend in the Sproul/Susquehannock SF?**
- \_\_\_\_\_

**2. When did you first arrive at the Sproul/Susquehannock on this recreation visit?**

Month \_\_\_\_\_ Day \_\_\_\_\_ Year \_\_\_\_\_ Time (military) \_\_\_\_\_

- Same as site arrival time

**3. When do you plan to finish your visit to the Sproul/Susquehannock SF on this recreation visit?**  
 Month \_\_\_\_\_ Day \_\_\_\_\_ Year \_\_\_\_\_ Time (military) \_\_\_\_\_  
 Same as site arrival time

**4. What other areas did you visit, or do you plan to visit in the Sproul/Susquehannock SF for recreation on this trip?** (List sites or areas visited)  
 \_\_\_\_\_  
 \_\_\_\_\_

**4a. Lodging facilities include campgrounds, cabins, hotels and lodges. How many different overnight lodging facilities will you use during this State Forest visit?** Number \_\_\_\_\_

**4b. How many developed day use sites (like picnic areas or visitor centers), not including trailheads, will you use on this trip to the Sproul/Susquehannock SF?** Number \_\_\_\_\_

<b>5. In what activities on this list did you participate during this recreation visit at the Sproul/Susquehannock SF? (Can choose more than one)</b>	<b>6. Which of those is your primary activity for this recreation visit to the Sproul/Susquehannock? (Choose only one)</b>
<b>Question 5 answers</b>	<b>Question 6 answer</b>
Fishing—all types	
Hunting—all types	
<b>Viewing &amp; Learning Nature &amp; Culture</b>	
Viewing natural features such as scenery, wildlife, birds, flowers, fish, etc. (circle one)	
Visiting historic and prehistoric sites/areas (circle one)	
Nature study	
Visiting a nature center, nature trail, or visitor center (circle one)	
<b>Nonmotorized Activities</b>	
Hiking or walking	
Horseback riding	
Bicycling, including mountain bikes (circle one)	
Nonmotorized water travel (canoeing, sailing, kayaking, rafting, etc.)	
Downhill skiing or snowboarding (circle one)	
Cross-country skiing, snowshoeing (circle one)	
Other nonmotorized activities (e.g. swimming, games & sports)	
<b>Motorized Activities</b>	
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.)	
<b>Camping or Other Overnight</b>	
Camping in developed sites (family or group sites)	
Primitive camping (motorized)	
Backpacking or camping in unroaded areas	
Resorts, cabins, or other accommodations on State managed lands	
<b>Other Activities</b>	
Gathering mushrooms, berries, firewood, or other natural products	
Relaxing, hanging out, escaping heat, noise, etc.	
Picnicking and family gatherings in developed sites (family or group sites)	
OTHER (fill in activity) _____	

**7. Including this visit, about how many times have you come to the Sproul/Susquehannock SF for recreation in the past 12 months? Number \_\_\_\_\_**

**7a. How many of those visits were to participate in the main activity you identified a moment ago? Number \_\_\_\_\_**

**8. Overall, how satisfied or dissatisfied are you with this visit to the Sproul/Susquehannock State Forest? \_\_\_\_\_**

- (1) Very dissatisfied
- (2) Somewhat dissatisfied
- (3) Neither dissatisfied nor satisfied
- (4) Somewhat satisfied
- (5) Very satisfied

**9. What is your home ZIP code or Canadian postal code? \_\_\_\_\_**

- Visitor is from a country other than USA or Canada

**10. How many people (including you) traveled here in the same vehicle as you? Number \_\_\_\_\_**

**10a. How many of those people are less than 16 years old? Number \_\_\_\_\_**

**11. What is your age? Age \_\_\_\_\_**

**12. Gender? Male Female**

**13. Which of the following best describes you?**

- Black/African American
- Asian
- White
- American Indian/Alaskan Native
- Native Hawaiian or other Pacific Islander
- Spanish, Hispanic or Latino
- Other \_\_\_\_\_

**14. 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
- \$25,000-\$49,999
- \$50,000-\$74,999
- \$75,000-\$99,999
- \$100,000-\$149,999
- \$150,000 or over

\_\_\_ Don't Know

\_\_\_ Refused to Answer

**Economics Addition**

**1. If for some reason you had been unable to go to the Sproul/Susquehannock 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 Sproul/Susquehannock SF, or did you go to other State Forests, parks, or recreation areas?**

- Just the **Sproul/Susquehanna** SF (skip question 4, go to question 5)
- Other places (go to question 4)

**4. Was the Sproul/Susquehannock 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. \$ _____

**6a. How many people do these trip expenditures cover? \_\_\_\_\_ group members**

**6b. 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 \_\_\_\_\_**

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

\_\_\_ Yes (If yes, how?) \_\_\_\_\_

\_\_\_ No (If no, why not?) \_\_\_\_\_

**8. Has Marcellus shale-related activity changed your recreation experience at this state forest?**

\_\_\_ Yes (If yes, how?) \_\_\_\_\_

\_\_\_ No (If no, why not?) \_\_\_\_\_

**Satisfaction Addition**

1. This section asks you about your satisfaction with the recreation services and quality of the recreation facilities in the Sproul/Susquehannock 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.

	Poor	Fair	Average	Good	Very Good	N/A	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
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

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

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3. 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

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

\_\_\_\_ Yes (If yes, how?) \_\_\_\_\_

\_\_\_\_ No (If no, why not?) \_\_\_\_\_

5. Has Marcellus shale-related activity changed your recreation experience at this state forest?

\_\_\_\_ Yes (If yes, how?) \_\_\_\_\_

\_\_\_\_ No (If no, why not?) \_\_\_\_\_

**State Forest Experience Addition**

**1. Is this your first visit to the state forest?**

Yes  No

[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

**2. 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] \_\_\_\_\_

**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
Safety and security	1	2	3	4	5	NA
Condition of latrines, picnic pavilions & other facilities	1	2	3	4	5	NA
Responsiveness of staff	1	2	3	4	5	NA
Natural environment	1	2	3	4	5	NA

**4. Which of the following was the most important reason for this visit to the state forest?** [Please check only one]

\_\_\_\_\_ I came here because I enjoy being in the forest

\_\_\_\_\_ I came here because it is a good place to spend time with friends/family

\_\_\_\_\_ I came here because it's a good place to :

\_\_\_\_\_ Hunt  Hike

\_\_\_\_\_ Bike  Horseback ride

\_\_\_\_\_ Fish

\_\_\_\_\_ Other reasons for visit (e.g., cabin owner, private inholding):

**5. On a scale of 1 to 5, how do you feel about access to the forest:** [1 poor, 5 very good]

By roads	1	2	3	4	5
By trails	1	2	3	4	5

**6. Does anyone in your household have a disability?**

Yes  No

**6a. [If yes] Please tell us if you believe our facilities are adequate**

## Recreation Use on the State Forests

## Appendix

**7. 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.**  
[one is not at all important and five is extremely important] [N/A does not apply to this question. Should be able to answer for each]

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

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

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**9. We are interested in knowing what facilities/services in the state forest are most important to you. Please tell me how important each of the below listed items is to you.**

	Not at all Important	Somewhat Important	Moderately Important	Very Important	Extremely Important	No Opinion
Wildlife viewing areas or opportunities	1	2	3	4	5	x
Picnic areas	1	2	3	4	5	x
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

**10. Please look at this list of statements that address your feelings about the recreation area that you visited on this trip in the state forest. Please indicate your level of agreement with each of the statements listed below.**

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
This place means a lot to me	1	2	3	4	5
I enjoy recreating at this place more than other places I could visit	1	2	3	4	5
I am very attached to this place	1	2	3	4	5
I get more satisfaction out of visiting this place than from visiting most places	1	2	3	4	5

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

Yes

No

**[If yes] Please continue with follow-up questions**

