



## Programmatic Review and Clearance Process for NPS-Sponsored Public Surveys

*The scope of the Programmatic Review and Clearance Process for NPS-Sponsored Public Surveys is limited and will only include individual surveys of park visitors, potential park visitors, and residents of communities near parks. Use of the programmatic review will be limited to non-controversial surveys of park visitors, potential park visitors, and/or residents of communities near parks that are not likely to include topics of significant interest in the review process. Additionally, this process is limited to non-controversial information collections that do not attract attention to significant, sensitive, or political issues. Examples of significant, sensitive, or political issues include: seeking opinions regarding political figures; obtaining citizen feedback related to high-visibility or high-impact issues like the reintroduction of wolves in Yellowstone National Park, the delisting of specific Endangered Species, or drilling in the Arctic National Wildlife Refuge.*

**Submission Date:** 11/12/14

**Project Title:** VISITOR SURVEY AT DELAWARE WATER GAP NATIONAL RECREATION AREA (DEWA)

### **Abstract** (not to exceed 150 words)

The overall purpose of this collection is to gather visitor-based data necessary to support development of a Visitor Use Management Plan (VUM Plan) at Delaware Water Gap National Recreation Area (DEWA). Phase I will collect data from visitors engaged in key park recreational uses focused around specific recreation resources: trail users, river users, hunters, fishers, vehicle-based users, and users of developed/front-country sites. These data will be used to inform and help guide visitor use management and visitor capacity decisions at the park.

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### **Project Information**

**Where will the collection take place? (Name of NPS Site)** Delaware Water Gap National Recreation Area (DEWA)

**Sampling Period**                      **Start Date: 4/1/2015**                      **End Date: 12/31/2015**

**Type of Information Collection Instrument (Check ALL that Apply)**

- Mail-Back Questionnaire                       Face-to-Face Interview                       Focus Groups  
 On-Site Questionnaire                       Telephone Survey  
 Other (list)

**Will an electronic device be used to collect information?**

- No       Yes - type of device

**Survey Justification:**

*Social science research in support of park planning and management is mandated in the NPS Management Policies 2006 (Section 8.11.1, "Social Science Studies"). The NPS pursues a policy that facilitates social science studies in support of the NPS mission to protect resources and enhance the enjoyment of present and future generations (National Park Service Act of 1916, 38 Stat 535, 16 USC 1, et seq.). NPS policy mandates that social science research will be used to provide an understanding of park visitors, the non-visiting public, gateway communities and regions, and human interactions with park resources. Such studies are needed to provide a scientific basis for park planning and development.*

Delaware Water Gap National Recreation Area (DEWA) contains significant natural, cultural, and recreational resources including the Middle Delaware National Scenic and Recreational River. DEWA is located within 70 miles of the Greater New York City Metropolitan area and is within a day's drive for visitors ranging from Boston to Washington, DC. DEWA averages over 5,000,000 visitors a year, many of which congregate at some popular recreation sites such as Kittatinny Point, Smithfield Beach, Childs Park, and Van Campens Glen Trail. Visitors are drawn to the area by its unique natural and cultural resources and the recreational opportunities they provide, such as the Delaware River, its scenic tributaries in steep Hemlock ravines with majestic waterfalls, cool swimming pools, and top-notch fishing. As a result many sensitive natural habitats and cultural landscapes within the park are being "loved to death" through over use or inappropriate use. The increased level and intensity of use at some sites is a contributing factor to the degradation of the overall visitor experience, while irrefutably damaging critical resources the park is mandated to protect.

The NPS's dual mandate drives the need for park managers to address several difficult questions.

- How many visitors can ultimately be accommodated in a park or related area?
- How much resource and social impact should be allowed?

These and related questions are commonly referred to as carrying capacity. And, the experience and management of visitors are fundamental considerations in the concept of carrying capacity.

The 1978 National Parks and Recreation Act directs the National Park Service to address the issue of carrying capacity. NPS management policies and planning guidelines acknowledge this responsibility as well. In 2014, DEWA formalized its Foundation Document. Following the new NPS framework for planning, the Foundation Document states an urgent need for development of a Visitor Use Management Plan

(VUMP) to provide detailed overall guidance on management strategies for particular visitor use facilities, visitor activities, and visitor use issues that are historically dealt with in separate plans.

The survey proposed here provides the critical data needed to determine the goals, objectives and management strategies to develop a comprehensive VUMP for the entire park. Also, it will allow park managers to make science-based, well-informed management decisions and develop appropriate visitor use management strategies for several key sites throughout the park. This will aid park managers in maintaining a high quality visitor experience while protecting sensitive natural and cultural resources.

## Survey Methodology

### (a) Respondent Universe:

The sample universe will be all visitors 18 years and older visiting Delaware Water Gap National Recreation during the sampling period (April 1-December 31, 2015).

### (b) Sampling Plan/Procedures:

All surveys (with the exception of the hunting and fishing survey) will be conducted between May 23 and August 16, 2015 with a representative sample of park visitors. The hunting and fishing surveys will be conducted during the opening of each season starting April 1 through to December 31, 2015. . Sampling will occur on randomly selected days (stratified by weekday versus weekend between 10 a.m. and 5 p.m.). The designated sampling areas were identified as sites that would provide a good representation of visitor use across DEWA. In most instances, the survey will be given to users exiting the sample sites. All groups will be approached and one person (18 years or older) from each group will be selected to complete the survey. Sampling will occur for 35 to 45 minutes at each location to help ensure consistency The following user groups will be surveyed:

- River-based users – (includes boaters, paddlers, river fishers, and river-based campers) at:
  - Milford Beach boat launch,
  - Caddoo canoe launch
  - Namanock canoe launch
  - Dingmans Ferry boat launch
  - Eshback canoe launch
  - Bushkill boat launch
  - Poxono boat launch
  - Smithfield Beach boat launch
  - Kittatinny Point canoe launch
- Trail-based users – (includes hikers and stream fishers) at:
  - Adams Creek
  - Van Campens
  - Glen (upper and lower areas)
  - Raymondskill Falls
  - McDade Trail at Bushkill Meeting Center
- Front-country users – Due to the high number of visitors at front-country sites, we will use a systematic selection protocol to administer the survey at the following locations:

- George W. Childs Recreation Site
  - Dingmans Falls Visitor Center and area
  - Millbrook Village Historic Site
  - Milford Beach, Smithfield Beach
  - Hialeah Picnic Area
  - Crater Lake
- Vehicle-based users – (commuters and scenic drivers who do not otherwise stop their vehicles within DEWA)
 

Sampling efforts will occur at a temporary traffic stop established by DEWA law enforcement staff on Route 209 and/or at the toll bridge at Dingmans Ferry. The survey will only be given to people that we have determined are not planning to recreate in DEWA. A sample of at least 300 surveys, or surveys resulting from 6 days of sampling effort will be obtained.
  - Hunters and stream fishers –
 

Because of the timing of these users – occurring mostly in the non-peak use months of the spring or fall and during early morning hours – the survey must be conducted during different dates and times than other survey versions above. Sampling efforts for hunters will occur on the opening day, second day and all Saturdays of the 2015 bear, deer archery, deer firearm, deer muzzleloader, pheasant, and turkey seasons (including Spring 2015). Likewise, sampling efforts for fisher will occur on the first day, second day, and second Saturday of trout and largemouth and smallmouth bass seasons. Sampling efforts will occur by roving along vehicle routes in the park – the same as those used by NPS staff to conduct counts of hunters. We will approach asking those hunters or fishers (age 18 or over) that are exiting an area, taking a break from their activity or present at their parked vehicle to complete a survey.

\* Note: Some sites may cater to more than one of the user types above. If multiple user types are present during the sampling at a location, visitors will be asked to complete a survey version for their self-reported primary use type.

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**(c) Instrument Administration:**

Park visitors will be approached by university research staff (or park staff in the case of hunters and fishers) and asked to participate in the study. University or park staff will be on-site during sampling.

The following script will guide the introduction:

*Hi, my name is \_\_\_\_\_. I'm from Clemson University (or Delaware Water Gap National Recreation Area). We're helping the National Park Service gather information to guide visitor use management at Delaware Water Gap National Recreation Area. Would you be willing to fill out a questionnaire about your experience at here? Participation is voluntary and your responses will be anonymous. The questionnaire will take about fifteen or minutes or shorter to complete.*

*If "No": OK. Thank you for your time. Have a good day.*

*If "Yes": OK. Thank you for agreeing to participate. Here is the survey for you to fill out. Please return it to me when you've completed it.*

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**(d) Expected Response Rate/Confidence Levels:**

Based on previous experience in conducting similar data gathering, it is expected that 90% of individuals approached will be willing to participate in the survey. [A similar visitor survey conducted in 2011 at Cumberland Island National Seashore - OMB Number: 1024-0224 (NPS # 09-009) - had a response rate of 94.8%].

Location	Number of Sample Days	Number of Initial Contacts	Expected Response Rate	Expected Number of Responses	Margin of Error +/- %	Confidence Level
Trail-based users	8	333	90%	300	5.7%	95%
River-based users	10	222	90%	200	6.7%	95%
Front-country users	12	444	90%	400	4.9%	95%
Vehicle-based users	6	333	90%	300	5.7%	95%
Hunters/Fishers		444	90%	400	4.9%	95%
TOTAL		1,776	90%	1,600	2.5%	95%

**(e) Strategies for dealing with potential non-response bias:**

The date and time of refusals will be recorded and reported on a survey log. If given, the reasons for refusals (e.g., lack of time, not interested, language, etc.) will also be noted.

During the initial contact, the interviewer will ask each visitor refusing to participate to answer two questions. The following questions will be taken directly from the survey and used in a non-response bias analysis:

- 1) *Were you aware Delaware Water Gap is part of the U.S. National Park System?*
- 2) *Including this visit, how many times have you visited Delaware Water Gap NRA in the last five years*

Responses will be recorded on a log for every survey refusal contact. Non-response bias will be examined by comparing responses to these survey questions from the sample population to those recorded during initial contact with those who refuse to participate. Results of the non-response bias check will be reported and any implications for planning and management will be discussed.

For the vehicle-based survey, The following question will be asked and used to report any non-response bias:

- 3) *Do you agree or disagree with the statement that "You choose to drive through the park because it is the most direct or fastest route to your destination"?*

The proportion of vehicle-based respondents and non-respondents who agree versus disagree with this statement will be compared. If a statistically significant difference exists between these groups then we will assume that a non-response bias exists. If this is the case, survey responses from respondents who agree with this statement will be weighted in the final analysis to account this bias. Weighting will allow those respondents who indicate that they are driving through the park because it is fastest or most direct to be represented in proportion to their occurrence within the study population (i.e., DEWA visitors).

**(f) Description of any pre-testing and peer review of the methods and/or instrument (recommended):**

The questions included in these surveys have been designed and reviewed by the principal investigator, research staff and graduate students, and both park and NPS Denver Service Center staff, and many are similar to questions used in surveys and interviews at other national park areas. Findings from these types of questions have been used by park managers and have been published in the peer-reviewed scientific

literature.

## Burden Estimates

The anticipated number of respondents is 1,776 individuals (including non-respondents) and the combined respondent burden for this collection is estimated to be 383 hours.

**Vehicle Survey:** Based on our anticipated response rate we expect to interview 300 vehicle-based visitors for this study. We have estimated the time to complete the entire on-site survey (including initial contact, non-response check and questionnaire) will be 7 minutes per respondent (300 responses x 7 minutes = 35 hours).

**Hunting and Fishing:** We estimate that 90% (400) of the on-site respondents will agree to take complete, and return the on-site survey. We have estimated that it will take 15 minutes to complete, this includes time to explain the purpose and answer any questions (400 responses x 15 minutes = 100 hours).

**River, Trail and Front Country:** We expect each questionnaire will take an average 15 minutes per respondent to complete for a total of 225 hours.

Estimated Total Number		Estimation of Time (minutes)		Estimation of Burden (hours)	
<b>Initial Contacts</b>	1776	<b>Initial Contact</b>	1	<b>Initial Contact</b>	30
<b>On-site Refusal/</b>	176	<b>On-site Refusal</b>	1	<b>On-site Refusal</b>	3
<b>Responses</b>		<b>Responses</b>		<b>Responses</b>	
<i>Vehicle Survey</i>	300	<i>Vehicle Survey</i>	5	<i>Vehicle Survey</i>	25
<i>Hunting and Fishing</i>	400	<i>Hunting and Fishing</i>	15	<i>Hunting and Fishing</i>	100
<i>River, Trail, Front</i>	<u>900</u>	<i>River, Trail, Front</i>	15	<i>River, Trail, Front</i>	225
<i>Country</i>	1600	<i>Country</i>		<i>Country</i>	
<b>Total</b>	1776			<b>Total</b>	383

## Reporting Plan

The results of this information collection activity will be presented in an internal agency report and will be available upon request. Response frequencies, distributions, measure of central tendency (e.g., mean and median), and measures of variance (e.g., standard deviation) will be used to characterize and report survey findings. Where appropriate, t-tests and ANOVA will be used to examine difference in mean survey responses. A copy of the technical study report will be archived with the Social Science Program of the National Park Service for inclusion in the Social Science Studies Collection.