

**1 Supporting Statement B for
Paperwork Reduction Act Submission**

OMB Control Number 1018-0132

**Research to Support Outdoor Recreation Management at
Lake Umbagog National Wildlife Refuge - Phase 2**

FWS Forms 3-2330 and 3-2330A

- 1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection method to be used. Data on the number of entities (e.g., establishments, State and local government units, households, or persons) in the universe covered by the collection and in the corresponding sample are to be provided in tabular form for the universe as a whole and for each of the strata in the proposed sample. Indicate expected response rates for the collection as a whole. If the collection had been conducted previously, include the actual response rate achieved.**

The potential respondent universe includes (1) all visitors to Lake Umbagog National Wildlife Refuge (NWR) during July and August 2007 who are 18 years of age and older, and (2) camp and home owners of property adjacent to the refuge.

We will conduct visitor sampling at the four primary access points to the refuge. Interviewers will be stationed at these access points on randomly selected days and will select every visitor to participate in the survey. We expect overall response rates similar to Phase 1 of this research, which was 76.7 percent. The visitor sampling days will be spread out over the days of the week with sampling occurring during daylight hours. During each sampling day, a trained surveyor will be stationed at a total of four access points to Lake Umbagog NWR. The sites include all primary access points to the water portion of the refuge. Within each sampling period, the surveyor will approach the first visitor to exit the site and ask them to participate in the survey. When the surveyor has completed his/her contact with the visitor, the surveyor will ask the next visitor to participate in the survey. This process will continue throughout the sampling day. Visitors will complete the onsite questionnaire in the presence of the surveyor, who will answer any questions that arise and collect the questionnaires upon completion. A series of short breaks for the surveyor will be designed into the sampling schedule.

Visitors exiting a site will be read the following script:

"Excuse me sir/ma'am. I am conducting a survey of visitors to Lake Umbagog National Wildlife Refuge. Participation is voluntary. We are not collecting any personally identifying information, and we will use your responses for statistical purposes only. Would you be willing to answer a few questions about your use of this refuge? It will take about 15 minutes and will help determine how this refuge is managed."

If YES: "Thank you. Here is the questionnaire. Please answer all the questions that apply to you. If you have any questions, please ask me."

If NO: "Thank you anyway. I hope you enjoyed your visit."

We will contact camp and home owners adjacent to the refuge through the mail. The refuge maintains a mailing list of all adjacent camp and home owners, which we will use for the survey. Therefore, the proposed survey will be a census of adjacent camp and home owners.

We will mail a questionnaire, a cover letter explaining the purpose and significance of the study, and a postage-paid return envelope to camp and home owners adjacent to the refuge. One week after the initial mailing, we will send a postcard reminder. Three weeks after the initial mailing, we will send a second questionnaire, a cover letter emphasizing the importance of every camp and home owner's response, and another postage-paid return envelope to all adjacent camp and home owners who have not yet responded. Based on previous experience conducting surveys through the mail, we expect a response rate of approximately 80 percent, especially since adjacent camp and home owners have an important vested interest in how the refuge is managed.

2. Describe the procedures for the collection of information including:

- * **Statistical methodology for stratification and sample selection,**
- * **Estimation procedure,**
- * **Degree of accuracy needed for the purpose described in the justification,**
- * **Unusual problems requiring specialized sampling procedures, and**
- * **Any use of periodic (less frequent than annual) data collection cycles to reduce burden.**

Basic sampling procedures are described above. Sampling days will be stratified on the basis of weekdays and weekend days. Based on experience in conducting Phase 1 of this research, we expect that about 76.7 percent of visitors (or 250 individuals) will be willing to participate. Similar response rates are expected for the camp and home survey. Study findings are estimated to be accurate within 5 percentage points, based on a sample size of approximately 500 using a 95-percent confidence level. We will record and report the number of people in each visitor party and the date and time of refusals. Little nonresponse bias is expected, and this will be tested to the extent possible by comparing selected characteristics of the sample population with characteristics observed and recorded in every group contacted (e.g. group size). We will report the results of the check for nonresponse bias. The questions included in this survey were designed and reviewed by the principal investigator, research staff, and graduate students, as well as refuge and Regional staff, and are similar to questions used at several other related areas.

3. Describe methods to maximize response rates and to deal with issues of non-response. The accuracy and reliability of information collected must be shown to be adequate for intended uses. For collections based on sampling, a special justification must be provided for any collection that will not yield "reliable" data that can be generalized to the universe studied.

Based on previous similar surveys at parks and other recreation areas, we expect the response rate to be at about 76.7 percent. Most visitors, and camp and home owners adjacent to refuges are inherently interested in conservation and most are willing to participate in surveys that will help inform management of related issues.

4. Describe any tests of procedures or methods to be undertaken. Testing is encouraged as an effective means of refining collections of information to minimize burden and improve utility. Tests must be approved if they call for answers to

identical questions from 10 or more respondents. A proposed test or set of tests may be submitted for approval separately or in combination with the main collection of information.

The principal investigator used similar survey questionnaires and associated sampling procedures at a number of parks and related recreation areas, and these studies received review and approval by the Office of Management and Budget. We designed the study methods, including question design and response scales, based on standard social science methods and practices. These surveys achieved high response rates and provided useful and usable information for informing managers about planning and management issues in these areas. Moreover, findings from these studies have been published in numerous papers in the peer-reviewed social science literature, thereby helping to validate the research approaches that are used. The previous surveys constitute important tests of procedures and methods that we will use in the proposed survey. It is important to maintain the consistency of these procedures and methods to enable comparison of study findings across study sites and over time.

5. Provide the name and telephone number of individuals consulted on statistical aspects of the design and the name of the agency unit, contractor(s), grantee(s), or other person(s) who will actually collect and/or analyze the information for the agency.

Dr. Robert Manning, University of Vermont (802-656-3096) is the principal investigator for the Lake Umbagog survey. He is responsible for designing the survey questionnaire and sampling procedure and for collecting and reporting resulting information.