

## Executive Summary

### Stakeholder Survey Results for Lake Umbagog National Wildlife Refuge<sup>1</sup>

#### Introduction

The National Wildlife Refuge System, managed by the U.S. Fish and Wildlife Service (FWS), is the largest system of public lands in the world dedicated to wildlife conservation. There are over 545 national wildlife refuges nationwide, encompassing 95 million acres. The National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57, USC668dd) is the guiding legislation for managing these lands. It requires the FWS to develop a 15-year comprehensive conservation plan (CCP) for every refuge by the year 2012. Each CCP will describe a vision and desired future condition for the refuge, and outlines goals, objectives, and management strategies for each refuge's habitat and visitor service's programs. The CCP process for Lake Umbagog National Wildlife Refuge (NWR), including public involvement, was initiated in 2002.

In addition to the Improvement Act, developing a CCP involves many other important federal laws, including the National Environmental Policy Act (NEPA; Public Law 91-190, as amended). NEPA, and its implementing regulations, require that major federal actions, such as the development of a CCP, be fully evaluated and disclosed in an environmental document. The document must describe the refuge's environmental, social and economic conditions (i.e. the "affected environment"), and present an analysis of the social and environmental impacts from the proposed action and alternative management scenarios under consideration. In addition, an opportunity for public review and comment on the proposed action and its alternatives is required.

#### Purpose of Survey

This survey was designed by the U.S. Geological Survey to provide information to the FWS planning team for use in their environmental analysis. Its results inform the team of public satisfaction, preferences, and expectations regarding current and proposed refuge management. Specifically, it measures public satisfaction with existing visitor conditions, and rates the quality of past and current experiences on the refuge. It also identifies preferences for proposed management changes, and gauges public understanding and knowledge about the refuge so that future communications regarding management decisions can be most effective. The targeted recipients of the survey were "stakeholders." These are individuals with a previous history of substantive involvement with refuge planning.



<sup>1</sup> Citation for the full report: Sexton, N.R., Stewart, S.C., Koontz, L., and Wundrock, K.D., 2005, Stakeholder survey results for Lake Umbagog National Wildlife Refuge: Completion report: U.S. Geological Survey, Biological Resources Discipline, Open-File Report 2005-1378, in press.

## Stakeholder Profile

In 2002, as part of initial public involvement for the Lake Umbagog NWR CCP, the FWS broadly distributed an “issues workbook” to individuals in the local community and surrounding area. In addition, a series of public scoping meetings were held. These activities served to begin a dialogue with interested and affected individuals and groups, and to assist the planning team in identifying public issues and concerns.

As the planning team progressed to developing the proposed action and other alternatives, this survey was developed to identify public expectations for refuge management, measure past refuge experiences, evaluate preferences for certain actions, and assess public understanding and knowledge of refuge activities and priorities.

The sample of “stakeholders” for this survey is 214 individuals who had either completed the workbook or attended one of the scoping meetings. About half of respondents are local residents, with most of them living in the area full time. Local residents surveyed have lived in the area (Coos County, NH or Oxford County, ME) on average for about 29 years, with many of their families living there for at least three generations. There appears to be a relationship between stakeholder residency (and length of residency) and their agreement with management options and knowledge of refuge facts. Most stakeholders have a long history of visiting the refuge, with around 10 visits/year for the past 20 years. Understanding the profile of stakeholders involved in a public participatory process can be informative in communications with those stakeholders.

## Stakeholder Experience at the Refuge

Not surprisingly, many of the activities that the refuge is well-known for are important to a large majority of stakeholders. Activities such as viewing water and forest birds, paddling, viewing moose, and being in a serene environment that is undeveloped are important. More specialized activities, such as hunting, snowmobiling, and ice fishing are important to a much smaller group of stakeholders (see Figure 1). Local residents find many of those specialized activities (boat fishing, motor boating, snowmobiling, and deer hunting) more important than do non-local respondents.

Stakeholders are participating in the activities they find most important on Umbagog Lake and along the Magalloway and Androscoggin Rivers. Very few people are participating in important activities in the other locations.

Overall, stakeholders agree that the refuge is a meaningful place. They identify with the refuge for what it symbolizes to them and they agree that it is an important place for future generations. They do not appear solely dependent on the refuge for the activities in which they participate. However, they do appear to recognize the importance of the experiences they have at the refuge and those experiences bring them back time and again.

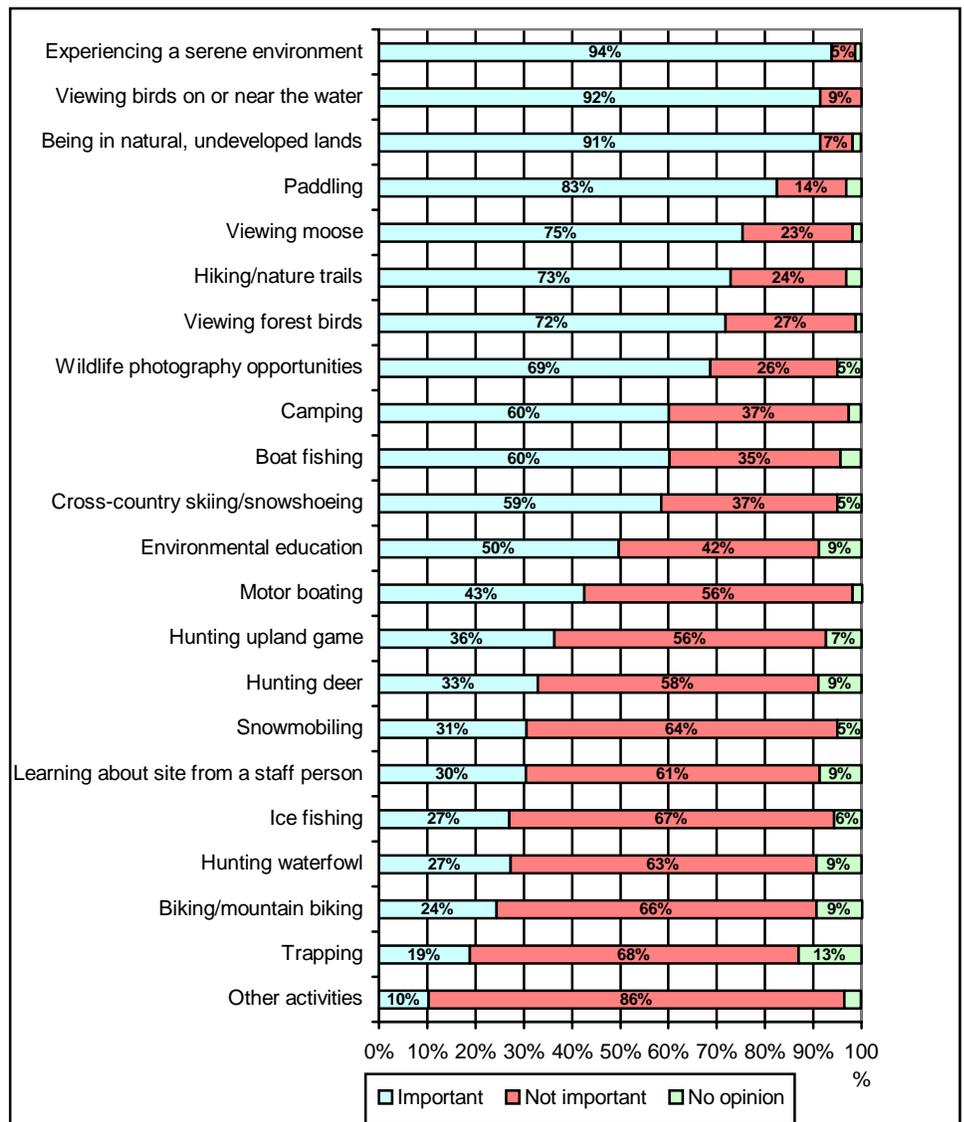


Figure 1. Importance of activities to respondents who visit Lake Umbagog NWR.

## Stakeholder / Refuge Relations

Based on qualitative responses, stakeholders appear to see the value (both economically and from a quality-of-life perspective) the refuge provides to the local community. They feel the refuge is providing an important function in protecting valued resources. They also see some negative impacts to the local community. These include issues related to promoting rapid growth and tourism in the area that exceeds capacity or community desires. However, these comments appear to stretch beyond refuge responsibility, though stakeholders do seem to feel the refuge has an important role to play in addressing this issue.

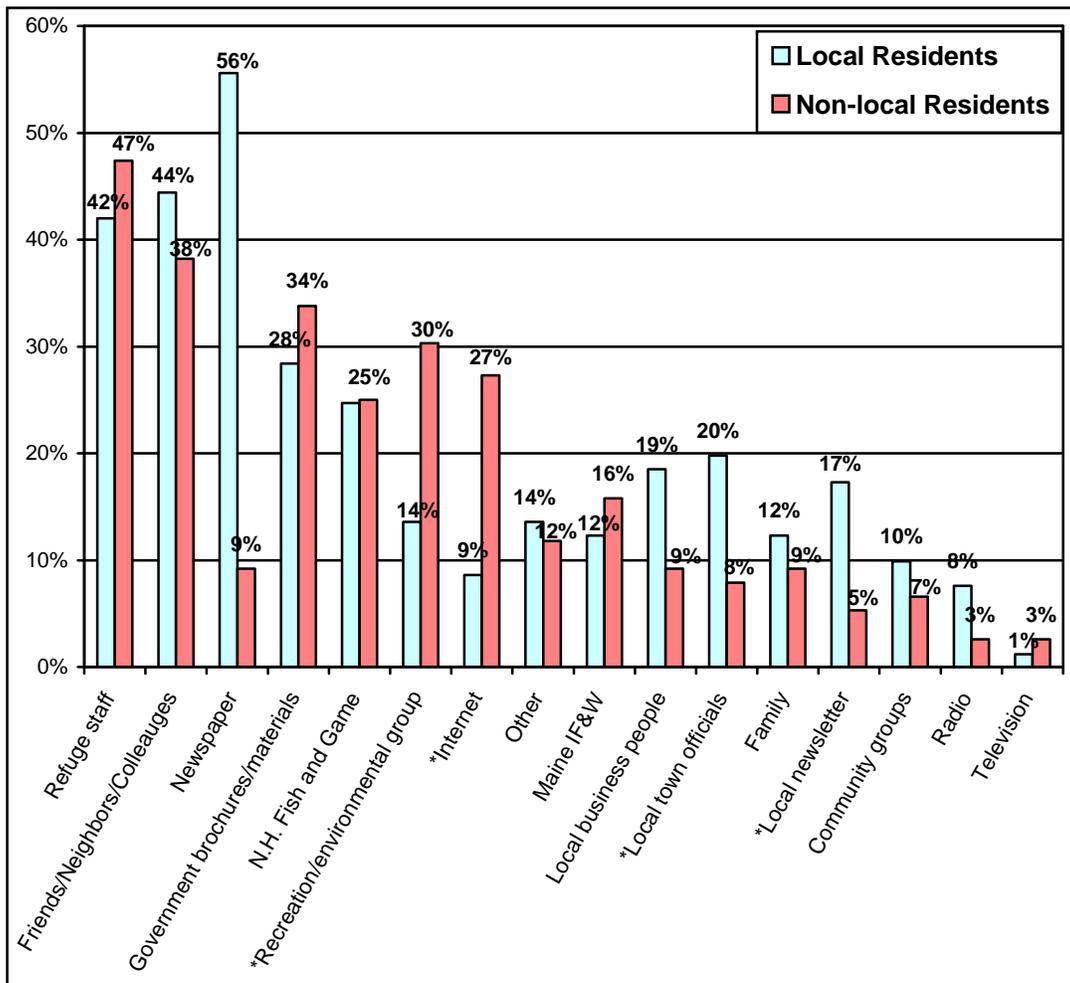
Stakeholders sampled appear to have some level of trust of the refuge or the FWS; however, it is not overwhelming. Though greater than 50% of all stakeholders indicate they trust both the refuge staff and the FWS, more than 25% of non-local stakeholders are unsure. This information is important as the refuge continues to interact with stakeholders and improve relationships throughout the CCP process.

## Stakeholder Communication and Participation

Stakeholders have been quite participatory in natural resource or environmental decision making activities within the last 5 years. Though, by nature of the sample (i.e., those who attended a public meeting or completed the scoping workbook), this is not surprising. About 85% of respondents are interested in results from this study and information about future refuge planning activities, indicating a desire to communicate and be involved.

Interestingly, while their trust in the refuge is not overwhelming, refuge staff is the source used by almost half of respondents for information about the refuge, followed by friends, neighbors, and colleagues. It appears stakeholders are relying heavily on the information provided by the refuge.

Beyond refuge staff and friends and neighbors, local and non-local stakeholders use different sources of information to learn about the refuge (see Figure 2). Non-local residents rely more heavily on information from recreation or environmental groups and the Internet, while local residents rely more on newspapers (particularly the Berlin, NH papers), local newsletters, and local town officials. These differences are likely due to the proximity that these groups live to the refuge and the means used to communicate locally about local issues.



**Figure 2:** Sources from which stakeholders get news and information about Lake Umbagog NWR (services with asterisks indicate statistical differences between local and non-local resident ratings of importance).

# Stakeholder Preferences for Refuge Management

## Visitor Services and Features

Potential services rated as important by the majority of stakeholders sampled ( $\geq 65\%$ ) include environmental education; opportunities for wildlife observation; provision of nonmotorized trails; information on hiking, birdwatching, or wildlife photography; and opportunities for volunteering. Services related to hunting and fishing were rated as desirable by fewer respondents (see Figure 3). Nonlocal stakeholders are more supportive of user fees and the provision of Refuge information (on hiking, birdwatching, and photography) than are local stakeholders. Both groups of stakeholders would prefer most of the desired services near Umbagog Lake and along the Magalloway and Androscoggin Rivers.

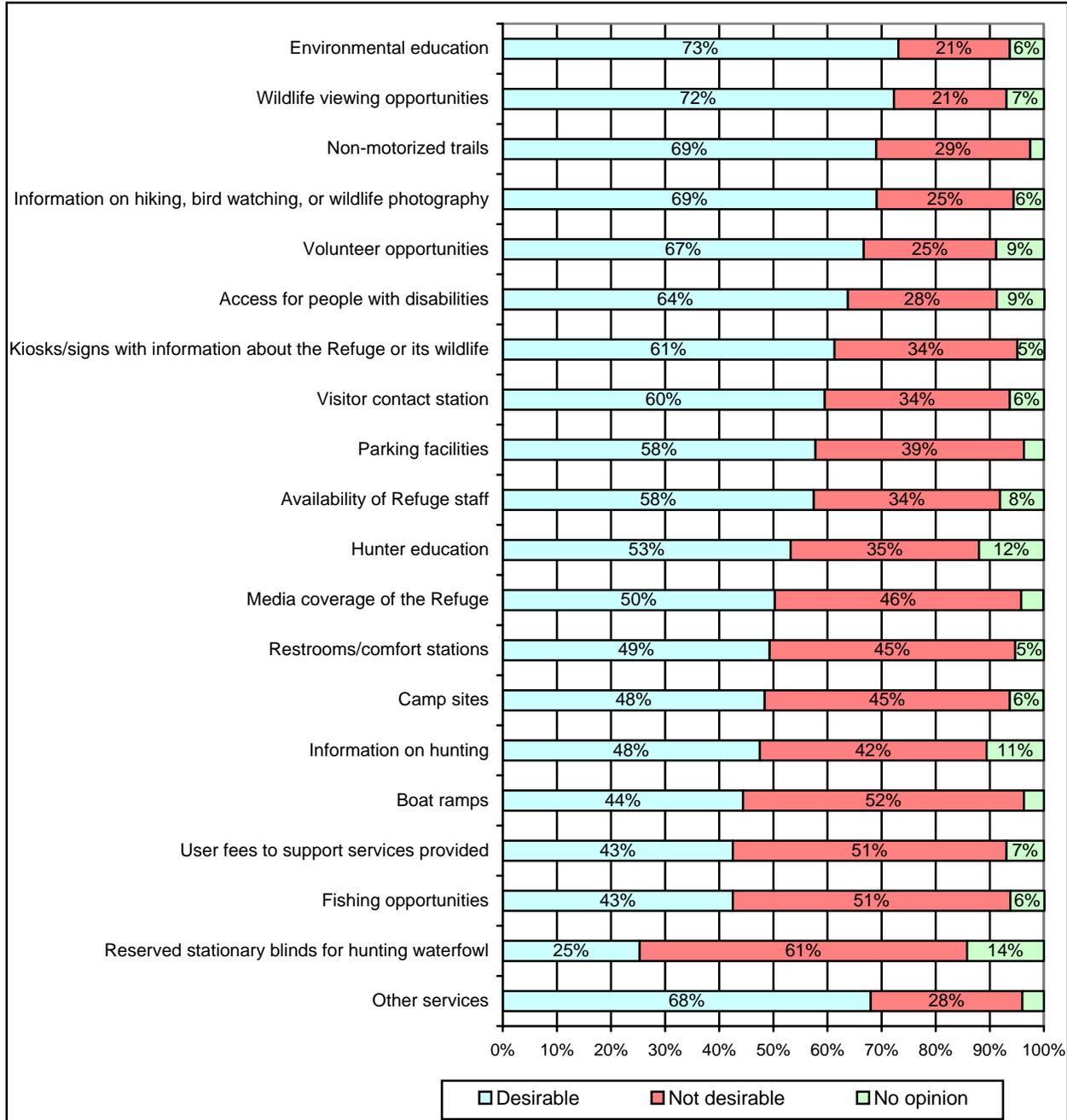


Figure 3: Desirability of services at Lake Umbagog NWR.

Regarding how services should be managed (increase, leave as is, or decrease), stakeholders appear to be in agreement that the following services be left as is: camp sites, boat ramps, fishing access, and visitor numbers. However, more nonlocal respondents than locals feel that boat ramps and fishing access should be decreased (~25% vs. <10%).

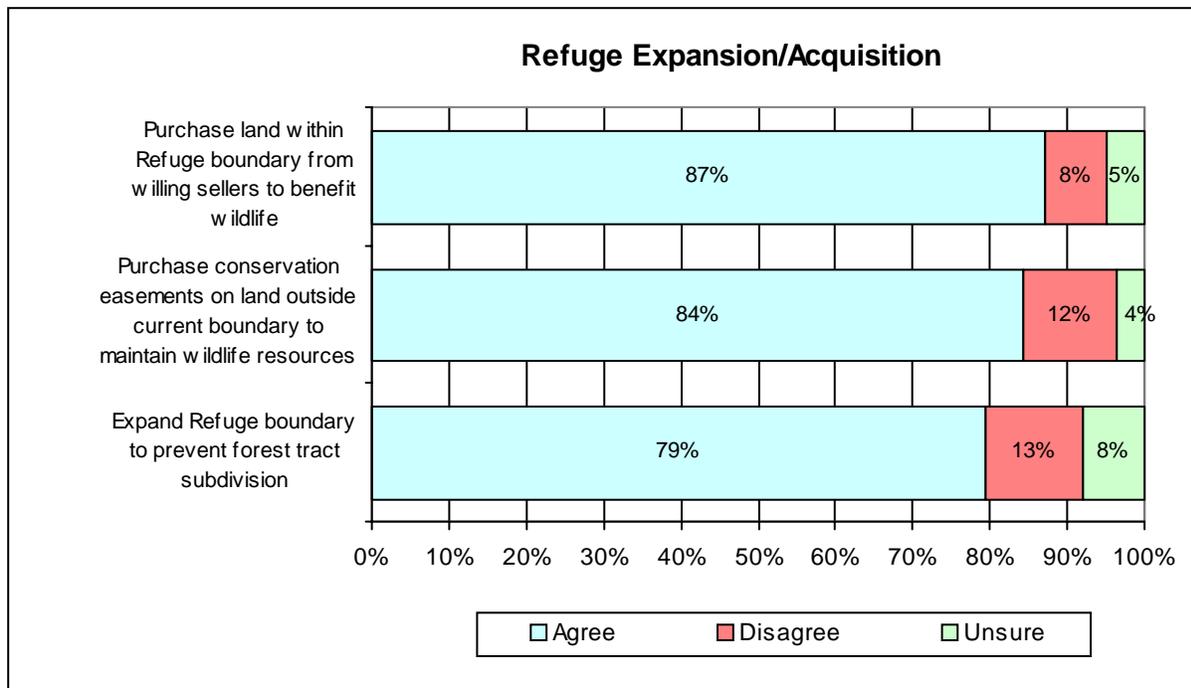
Stakeholders are split (almost 50/50) on whether to increase or leave the following services as is:

- wildlife observation/photography facilities,
- interpretive exhibits,
- brochures/publications,
- restrooms,
- hiking trails,
- environmental education programs and activities
- naturalness (restore more natural conditions).

However, non-local respondents appear more supportive of restoring more natural conditions than local respondents. Stakeholders are even more split on the management of signs, hunting areas, and visitor impacts on wildlife with valid proportions in all three categories (increase, leave as is, and decrease).

### Management Tradeoffs

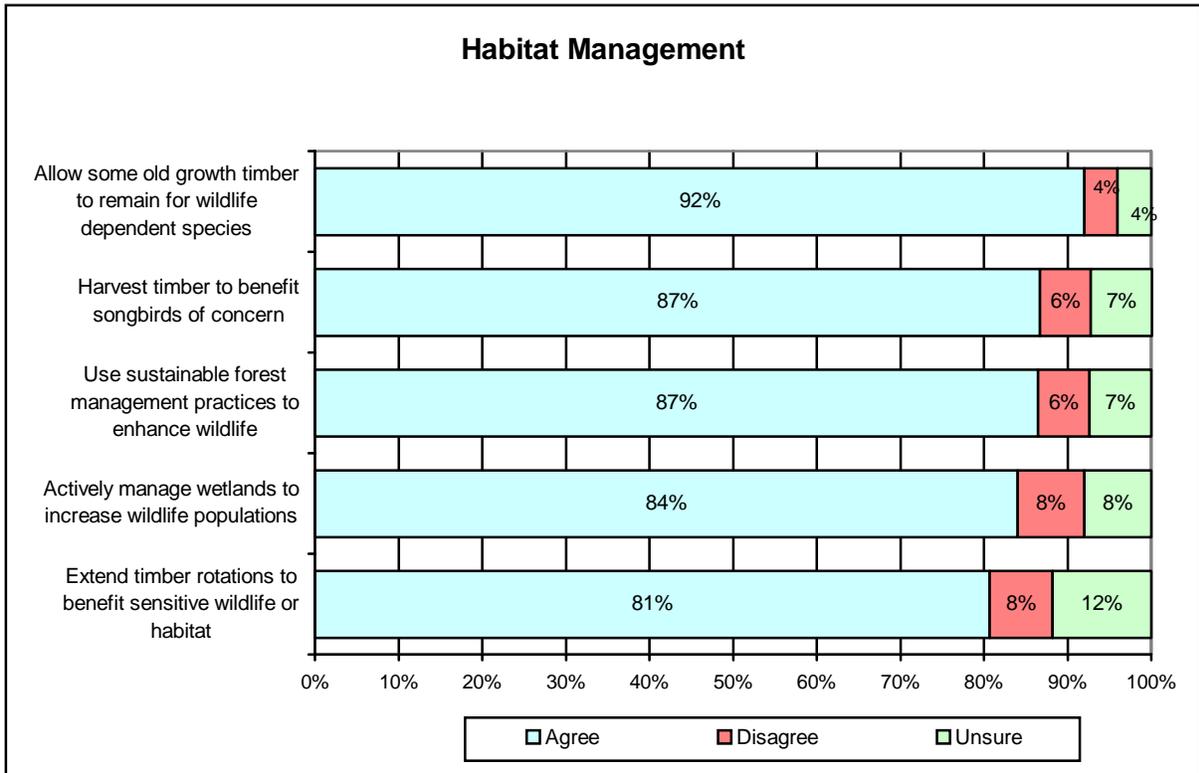
Overall, stakeholders are supportive of management tradeoffs related to refuge expansion/acquisition, habitat management (in particular forest management practices on the refuge), public use, and balancing public use and wildlife disturbance (see Figure 4,5,6,7). There also appears to be low potential for conflict with most of these management options.



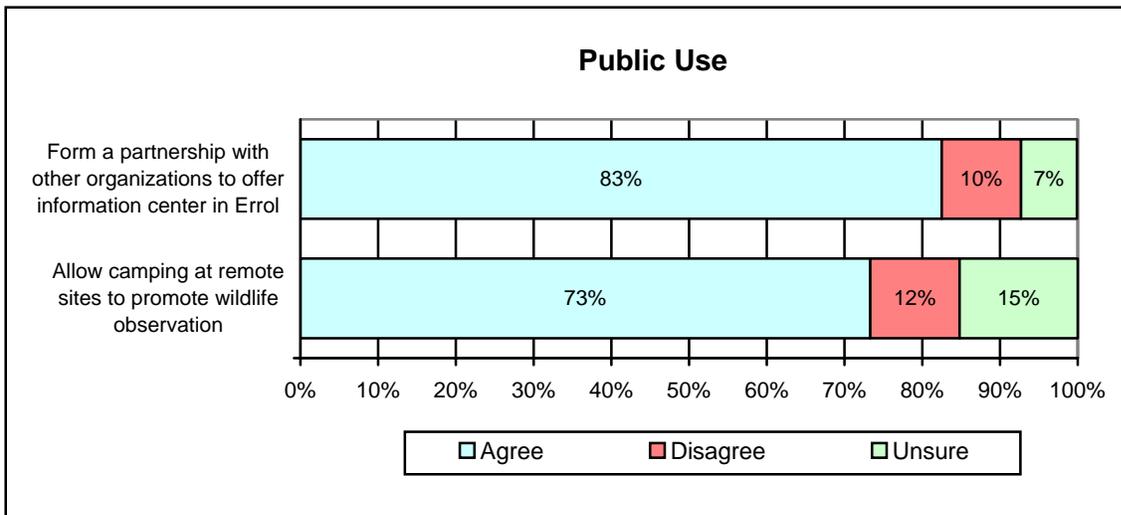
**Figure 4:** Stakeholder agreement with management tradeoff statements regarding refuge expansion/acquisition.

Some factors appear to be influencing support for these options. Importance of activity type (e.g., consumptive activities such as fishing and hunting; nonconsumptive activities such as biking or hiking), participation in natural resource decision making, residency (local vs. non-local resident), and length of time a respondent has lived in the local area are related (in different combinations for each category of management option) to the agreement with these options.

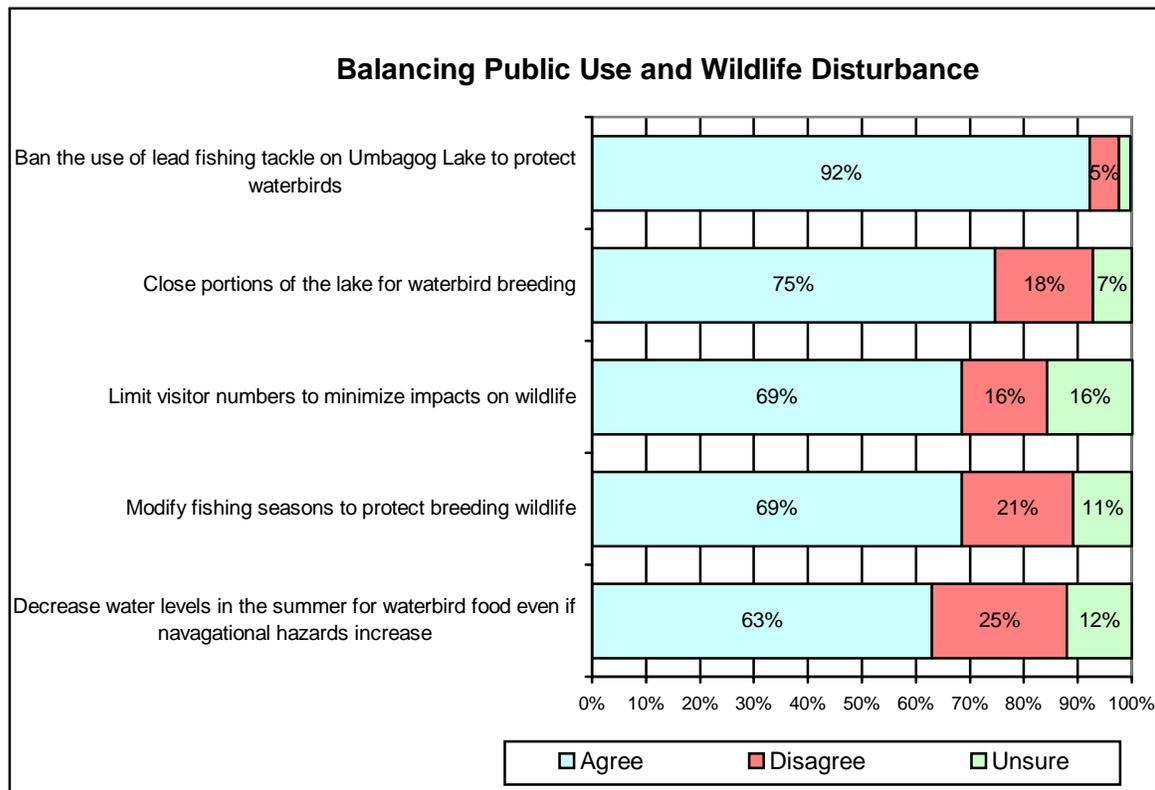
Though there is not one set of factors that are overwhelmingly driving the small differences in agreement that exist for these management options, there are some relationships in the data that may be useful in targeting groups of stakeholders who are less supportive of these management options. As options are proposed in the CCP, it will be helpful to know where opposition may occur as the public participation process continues. Likewise, as alternatives are implemented, it will be important to recognize potential resistance. Because, even though the development of a CCP is a public process, it is unlikely that all stakeholders will be in agreement with all management actions.



**Figure 5:** Stakeholder agreement with management tradeoff statements regarding habitat management.



**Figure 6:** Stakeholder agreement with management tradeoff statements regarding public use.



**Figure 7:** Stakeholder agreement with management tradeoff statements regarding balancing public use and wildlife disturbance.

## Stakeholder Knowledge of Refuge Issues

Stakeholders' knowledge of questions they were asked regarding refuge issues is fairly low. However, when asked, most said they knew some or a fair amount about the refuge and its management. The average percent of correct answers was around 65% for each of the knowledge categories: the refuge and surrounding land ownership patterns; the purpose of the refuge and why it was established; water-level management; and, the FWS's land acquisition procedures.

Stakeholders' knowledge level on these questions seems to be influenced by the importance of wildlife observation activities, participation in natural resource decision making, and length of residency in the local area. As with the management tradeoff results, there is not one set of factors that is overwhelmingly driving the differences in scores on these knowledge questions. There are some relationships in the data that may be useful in targeting groups of stakeholders who are less familiar with factual knowledge concerning refuge issues. Although simply providing information or facts about an issue does not necessarily change attitudes, providing the public with accurate and understandable information when working through a planning process is important for effective communication and discussion of CCP alternatives.

## Availability of Complete Report

The complete report will be available later this fall from refuge headquarters in hard copy or on CD-Rom at the address below, or can be viewed and/or downloaded online at <http://www.fort.usgs.gov/products/publications/21507/21507.asp>.

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