

## URBAN PERCEPTIONS OF NATIONAL FORESTS: THREE EXAMPLES FROM THE NORTHERN UNITED STATES

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**Abstract:** A study of the perceptions of the management and use of proximate National Forests by residents of the Boston, Detroit, and Minneapolis Metropolitan areas was conducted in 2000. Respondents were contacted by telephone and surveyed about their perceptions of the management and use of nearby National Forests. These include the Green Mountain and White Mountain National Forests for Boston; the Huron-Manistee, Ottawa, and Hiawatha National Forests for Detroit; and the Chippewa and Superior National Forests for Minneapolis. A total of 600 interviews were completed for each Metropolitan area using computer assisted interviewing and up to 10 calls to each number, resulting in a response rate of 72 percent. Responses included the personal importance that individuals placed on the National Forests, including benefits, attributes, their use of the Forests, and the importance they attached to goals for National Forest management and particular management practices. Results have implications for managers of public lands who are working to build a constituency among the residents of major Metropolitan areas within a half-day drive of the Forest. The study also provides information that can help guide research aimed at supporting urban outreach efforts.

### Introduction

Public land management currently is not a matter to be decided only by public agencies, local residents, and interest groups. There is widening public and private interest in decisions concerning public lands; many of these decisions attract regional and national attention. Thus the geographic range of individuals and groups involved in decision making for public lands such as National Forests is increasing.

With scarce resources for the management of public lands, there is also a need to gain support from a wide range of constituents in order to build sound management programs. With National Forests and other largely rural public holdings, broadening the constituency for plans and programs can include reaching out to urban residents who live some distance from the Forest. In the Eastern United States, urban outreach often involves large cities that are within a half-day drive of one or more National Forests. However, National Forest managers do not have a great deal of experience reaching out to individuals in such areas. To guide their efforts, the Eastern Region of the National Forest System has initiated an "Urban Connections" project. This paper reports on an early

effort under that project, a telephone survey of individuals living in the Boston, Detroit, and Minneapolis Metropolitan Areas undertaken to help guide the Urban Connections efforts in the Eastern Region and beyond. The purpose of this paper is to share some of the initial findings from the survey that may help guide the establishment of working relationships between the managers of public lands in largely rural areas and the residents of Metropolitan Areas within a half-day drive.

### The Survey

Six hundred telephone interviews were conducted with individuals age 18 and above in each of three metropolitan areas: Boston, Detroit, and Minneapolis. At the beginning of each interview, to help orient respondents to the National Forests, interviewers provided the names of the closest National Forests. These included the Green Mountain and White Mountain National Forests for Boston; the Huron-Manistee, Hiawatha, and Ottawa National Forests for Detroit; and the Chippewa and Superior National Forests for Minneapolis. The interviews, which averaged 17 minutes in length, were carried out between May 27 and June 25, 2000. Computer-assisted telephone interviewing was used, with up to 10 attempts to reach each phone number. Successful interviews were completed with 72 percent of the numbers called.

### Importance of National Forests

Respondents indicated that the National Forests were important, with more than 70 percent indicating that the National Forests were very important to them personally (Table 1). This and essentially all other findings were relatively uniform across the three Metropolitan Areas, suggesting the possibility of comparable findings in similar metropolitan areas of the Eastern Region. Respondents reported visiting National Forests quite frequently. Nearly half reported visiting the nearest National Forest in the past 12 months, and more than a quarter had visited it more than twice (Table 2). The fact that only 22 percent of the respondents reported that they had never visited a National Forest seems quite low. For example, the 1995 National Survey of Outdoor Recreation and the Environment indicates that for the Eastern Region of the National Forest System, which includes all of the study sites, two percent of the most recent trips to outdoor sites were to National Forests (Betz 2002). Along a similar line, there were an estimated 6 million visits to the Green Mountain and White Mountain National Forests in 2001 (English 2002). Given the reported 51 percent visitation rate to the nearest National Forest by residents of the Boston Metropolitan area (population approaching 6 million) this would assume 3,000,000 visits from the Boston metropolitan area to the two forests, or half of the visits to the two forests, or all of the visits to the White Mountain National Forest – which seems unlikely.

It is possible that those who have visited National Forests are more likely to respond to the surveys. But given a 72 percent response rate, the occurrence of such behavior is not likely to be widespread.

Table 1. Personal Importance of the National Forests

	Percent
Very important	71
Somewhat important	24
Not important	5

Table 2. Visits to National Forests

Visits	Closest N F	All N F
	Past 12 Months	Past 5 years
	Percent of Respondents	
0	54	28
1	16	10
2	11	14
3-4	8	16
5-9	4	14
10+	4	15
Don't know	3	3

Despite their high level of personal importance, respondents had limited knowledge about which agency manages the National Forests; only one-fifth correctly identified the USDA Forest Service as the manager. Another 12 percent identified the Forest Service but placed that agency in the U.S. Department of the Interior. More than half of respondents reported that they did not know who manages the National Forests.

#### Preferred Use of National Forests

Passive activities in a natural environment topped the list of reasons that respondents gave for visiting a National Forest, followed by day use activities, camping, meeting with others, and boating or rafting (Table 3). Consumptive recreation activities such as fishing and hunting were ranked at the bottom of the list. In ranking benefits of a National Forest, home for plants and animals, making the air cleaner, and providing clean water ranked at the top of the list along with the quiet appreciation of nature, followed by recreation and jobs. Wood for homes and paper pulp and providing a meeting place were ranked at the bottom of the list (Table 4). A list of desired forest attributes developed by focus groups was consistent with the survey findings and emphasized an undisturbed natural environment (Table 5).

Table 3. Reasons for Visiting a National Forest

	Percent Agreeing
Sightseeing or viewing nature	96
To enjoy the fresh air	95
Experiencing the outdoors	94
To relax and gain peace of mind	92
Walking, hiking, or biking	78
Picnicking	70
Camping	53
To meet with others	49
Boating or rafting	35
Fishing or hunting	34

Table 4. Selected National Forest Benefits by importance ratings (percent extremely or very important)

	Percent
A home to animals and plants	93
Make the air cleaner	91
Provide clean water	88
Allow quiet appreciation of nature	86
A place to go for fishing, boating, and other outdoor recreation activities	68
Contribute products and jobs to the national economy	56
Provide a place to get shade on hot days	48
Produce wood for homes and pulp for paper	45
Provide a place to meet with others	36

Table 5. Desired National Forest Attributes (from focus groups)

No roads
Untouched
Foot-paths only
Waterfalls
Environmentally responsible logging
Lots of animals
No motorized vehicles
Mossy trees
Wildflowers
Fish
Diverse wildlife
Bike paths
Places for artistic inspiration
Deer trails only
Campgrounds by streams

### Management Priorities for National Forests

As might be expected from individuals who want to experience a natural environment, respondents expressed the highest degree of agreement with statements that called for a management emphasis on protecting and preserving National Forests, followed by creating a healthy environment, outdoor recreation activities such as boating, hiking, and enjoying peace and quiet (Table 6). Providing for logging and mining ranked towards the bottom of the list of preferred management priorities; slightly less than half of the respondents agreed that a forest could be used for recreation and logging and mining at the same time. Less than two-fifths of respondents agreed that logging and mining should be allowed on National Forests. While 69 percent agreed that National Forests affect the quality of drinking water, few could explain the process by which that happened. When asked about more detailed management activities, respondents indicated that the Forest Service should give high priority to protecting, maintaining, restoring, and caring for the National Forests (i.e., caring for and planting trees, fighting wildfire). They ranked providing for education and outdoor recreation below those activities but above meeting the country's need for wood and minerals and building roads, bridges, and trails (Table 7). Sixty-two percent of respondents ranked the Forest Service good to excellent for its management of National Forests (Table 8). Those ratings were even higher for respondents who knew that the Forest Service manages NFs and those who visit the National Forests near their homes. Overall, respondents ranked the Forest Service highest for protecting the environment and lowest for being trustworthy (Table 9). Less than one in ten felt very well informed about the Forest Service.

Table 6. Percent Agreeing with Management Directions for National Forests

	Percent
Protected and preserved	99
Managed primarily to maintain a healthy environment with clean air and water	97
Used for recreation such as boating, hiking, and enjoying peace and quiet	96
Can be used for recreation and logging and mining at the same time	48
Logging and mining should be allowed	39

### Discussion

Taken together, the results suggest that respondents have an image of National Forests as places that are personally important to them and highly valued as natural environments. Respondents reported that they make a significant number of visits to the nearby National Forests. They placed a high priority on the natural attributes of the National Forests and want the Forest Service to engage in management activities that

protect, preserve, restore, and maintain these attributes and the areas that support them. They placed a lower priority on the use of the National Forests for outdoor recreation (particularly consumptive recreation like fishing and hunting), mining, logging, and providing access and facilities for users. These responses were quite consistent with previous studies of residents of Vermont and Massachusetts concerning the Green Mountain National Forest (Manning et al. 1999) and the White Mountain National Forest (Morrissey and Manning 2000) as well as a number of other studies. Other studies that provided similar results include Bengston and Xu (1995) and Shindler et al. (1993).

Table 7. Percent Giving High Priority to Selected Management Activities

	Percent
Protecting the forests	93
Maintaining, protecting, and restoring land for water quality and a healthy environment	91
Caring for and planting trees	88
Fighting wildfires	82
Providing public education about the forest, conservation, and local ecology	72
Providing opportunities for recreation such as camping, hiking, boating, or picnicking	52
Helping to meet the country's need for wood and minerals	30
Building roads, bridges, and trails to help people get to different parts of the forest	26

These perceptions need to be considered in terms of respondents' limited knowledge of who manages the National Forests, their acknowledged lack of information about the National Forests, and limited ability to explain the interrelationships between forests and water. While it would not be reasonable to expect a large portion of the public to know precisely who manages the National Forests, the relatively low level of knowledge of the managing agency raises other questions about knowledge of the National Forests. To what extent were the respondents aware that they were visiting a National Forest or other type of public holding? And did they know when they were on the National Forest or intermingled or adjacent holdings? Distinguishing between land ownerships may be difficult for many users, given intermingled ownership patterns on a number of the National Forests. In many cases individuals may not have an obvious need to distinguish among owners/managers, such as on a scenic drive through the countryside. The risk of possible confusion among managing agencies increases when we note that a number of respondents listed state and local agencies as managers of the National Forests.

Surveys such as the one used here are often conducted to help managers and planners better understand their

constituents, particularly those that they do not encounter on or near the Forests and with whom they do not have regular contact. With the National Forests and other largely rural resources, this is likely to be urban residents. Interpreting the results of these surveys is not always simple and straightforward given that (1) respondents may not be highly familiar with the National Forests and their management (which seemed to be the case here), and (2) the format of this type of a questionnaire does not lend itself to presenting detailed or complex questions. Tradeoffs between various management strategies are not easily presented and the implications of some of the management strategies are not always explicit. For example, what would be the implications of not producing timber or minerals on the National Forests? Would prices of a number of products rise markedly? Would harvesting or mining take place in other areas of significance to respondents? How would other uses of the National Forests change? Dennis (1998) reports on a study where he used conjoint analysis to evaluate the tradeoffs among different outputs of National Forest management. The analysis focused on a 7500-hectare area of the Green Mountain National Forest and the results suggest that participants were able to make tradeoffs among different outputs of National Forest management, including various levels of timber harvesting, wildlife habitat, hiking trails, snowmobile use, and off-road vehicle access.

Table 8. Overall Rating of the Job the Forest Service Does Managing the National Forests

	Percent
Excellent	16
Good	46
Fair	18
Poor	4
Don't Know	17

Table 9. Percent Who Rated the Forest Service Good to Excellent in Selected Areas

	Percent
Protecting the environment	65
Meeting the needs of the people	60
Caring for public lands	58
Providing clean water	55
Being trustworthy	47

One suggestion for helping respondents understand the location of the National Forests would be to use mail or Internet surveys with maps on them. Tradeoffs could be presented in a mail or Internet questionnaire but most likely the number would be limited. Perhaps a combination of surveys and follow-up focus groups would be useful in taking the results to another level of geographic and management detail. The limited

focus groups used in this study were helpful in interpreting responses to the survey questions.

### Conclusions

Residents of Boston, Detroit, and Minneapolis consistently affirm that National Forests are very important to them personally. They report that they have visited nearby and more distant National Forests and that they see these National Forests as important natural areas that should be managed and used in a way that preserves, protects, and restores the natural character and the experiences that it provides. They are not as highly supportive of active outdoor recreation, particularly consumptive activities such as hunting and fishing, logging, and mining or providing access to the Forest for recreation. These results are similar to a number of other studies of the values, ethics, and preferences of individuals concerning National Forests.

The overall results suggest that there is ample room for outreach efforts such as the Urban Connections program. These efforts can build on the high level of personal significance that individuals place on the National Forests as well as the high priority that they place on natural environments in those Forests. In future research studies, perhaps focus group discussions and studies using conjoint analysis can deepen our understanding of people/National Forest interactions and provide improved guidance for building urban connections.

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