



# Moosehorn National Wildlife Refuge Workbook Summary

By Jessica M. Montag and Holly M. Stinchfield



Open-File Report 2009–1167

U.S. Department of the Interior  
U.S. Geological Survey

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KEN SALAZAR, Secretary

**U.S. Geological Survey**  
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# Moosehorn National Wildlife Refuge Workbook Summary

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## Introduction

The National Wildlife Refuge System, comprising more than 547 refuges, is managed by the U.S. Fish and Wildlife Service (Service) in order to "administer a national network of lands and waters for the conservation, management and, where appropriate, restoration of fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans" while also providing for wildlife-dependent public use (The Citizen's Wildlife Refuge Planning Handbook). The National Wildlife Refuge Improvement Act of 1997 (Public Law 105-57, USC668dd) legislates the management of refuges and requires each refuge to complete a comprehensive conservation plan (CCP) every 15 years to identify the goals, objectives, and management strategies for the refuge.

The Moosehorn National Wildlife Refuge in eastern Maine was established in 1937 and is currently developing a comprehensive conservation plan (CCP) that will guide refuge management over the next 15 years. The Moosehorn National Wildlife Refuge (Refuge) comprises two divisions: the Baring Division (17,200 acres) located south of Calais along Highway 1, and the Edmunds Division (7,200 acres) located farther south along Dennys Bay and Whiting. As part of the National Environmental Policy Act (NEPA: Public Law 91-190:852-859.42, U.S.C. and as Amended [P.L. 94-52 and P.L. 94-83] 42 U.S.C. 4321-4347), the Refuge is required to allow for scoping, which permits the public to comment and indicate their concerns throughout the CCP process.

As part of the scoping process to get feedback on current and future management issues from the public, workbooks were mailed to 210 local residents, and approximately another 10 workbooks were given out at the Refuge office. The workbooks asked questions regarding residents' use of the Refuge, conservation problems and issues in the region, the acceptability of Refuge management actions, and the importance of, satisfaction with, and acceptability of various activities allowed on the Refuge. The focus of this report is to present the results of the completed workbooks, not to detail the creation and dissemination methods and processes of the workbooks. For additional information on the workbook creation and dissemination processes, please contact the Moosehorn National Wildlife Refuge.

Twenty-two workbooks were completed and returned to the Refuge. Because of the small number of returned workbooks, it is not possible to generalize these findings to the broader public, nor is it possible to determine if respondents represent the average user. However, the results do provide an idea of possible conflicts and important issues that the Refuge may have to address in the future.

The permitted uses of the Refuge are one possible conflict area. Many respondents were supportive of consumptive recreation (hunting, fishing, and trapping), but a few were adamantly opposed to these sorts of activities on the Refuge. Another issue that received several comments

was motorized recreation. While some people felt strongly that ATVs and snowmobiles should be allowed, others felt just as strongly that motorized recreation of any type should not be allowed in the Refuge.

There were also several important local issues that respondents were concerned about. Many in the sample were very concerned about Refuge development and its effects on the human and natural environments. Issues mentioned include the loss of access to private land for consumptive recreation, concern about fish and wildlife habitat degradation resulting from Refuge development, the loss of habitat separate from the issue of development, and water quality.

As requested by the Moosehorn National Wildlife Refuge, the remainder of the report summarizes the workbook results by question.

## **Summary of Workbook Results**

### **Question 1. Approximately how many days do you visit the Refuge each year?**

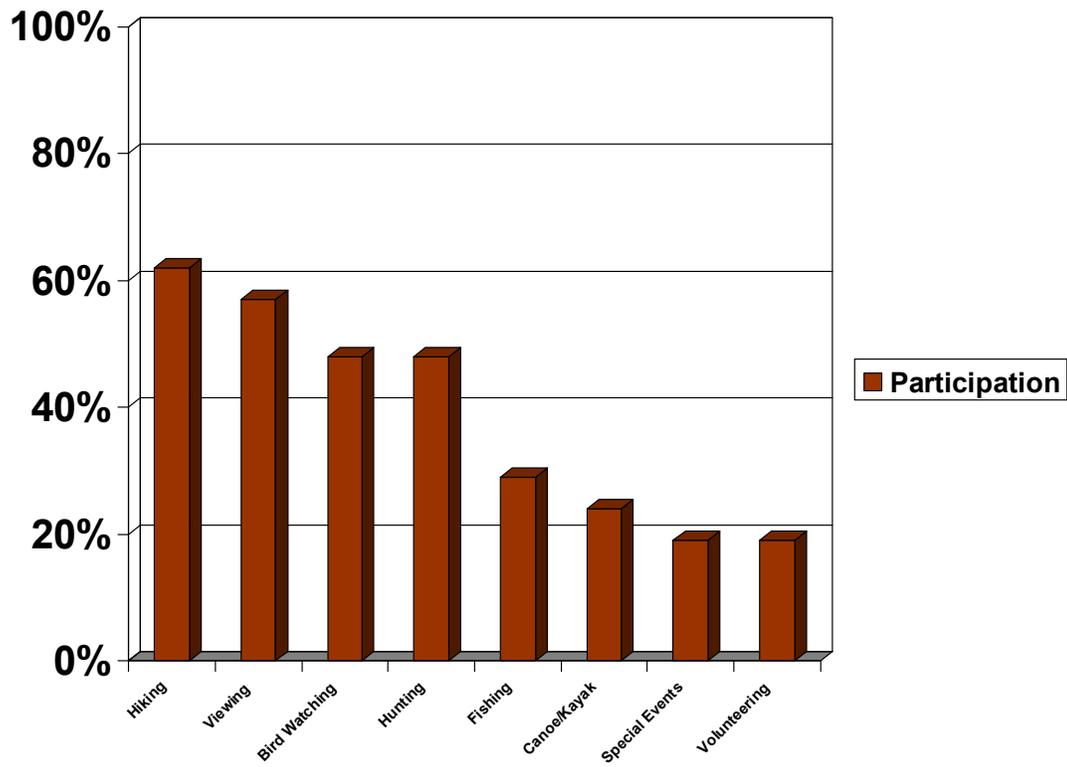
The mean number of days was 34 and the range of days was from 2 to 168.

### **Question 2a. What activities have you participated in while visiting the Refuge over the past year?**

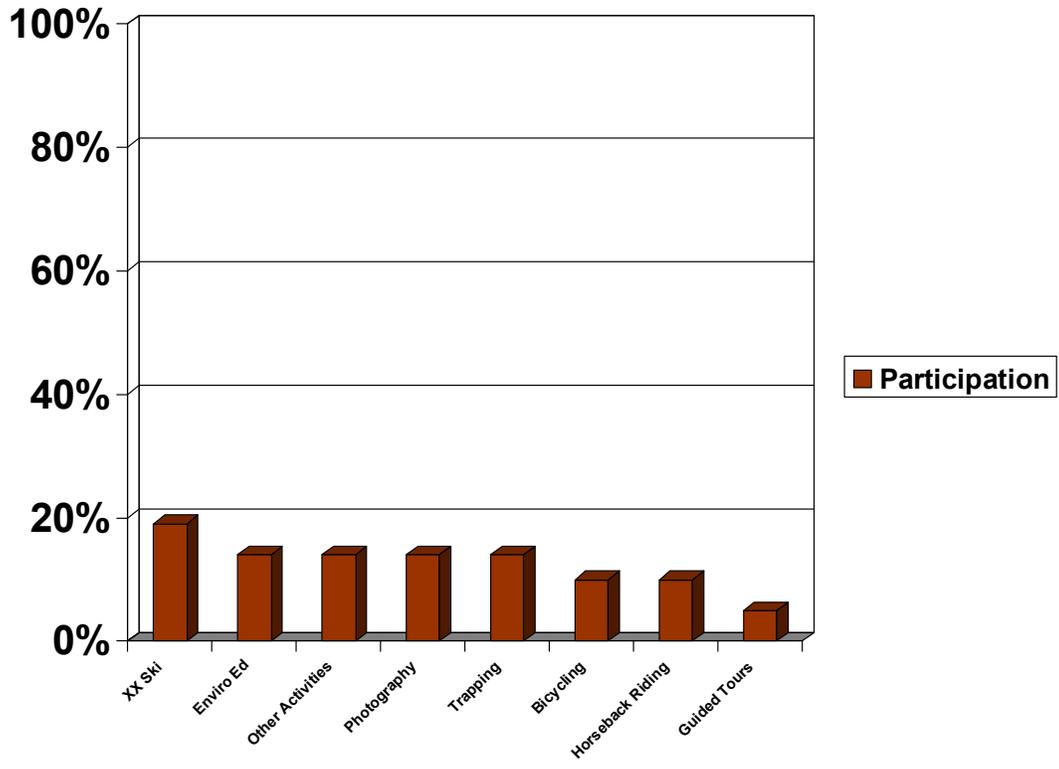
One of the benefits of the Refuge is the capacity for recreational and educational opportunities. Understanding participation in different recreational and education activities can assist the Refuge in promoting the number of opportunities and/or different ways of disseminating information to different user groups. In order to ascertain this information, the workbook asked questions about activity participation and its importance. Respondents were able to check any and all activities they participated in from the list of activities indicated in figures 1 and 2. Over half of the respondents participated in hiking and nature/wildlife viewing, whereas almost half participated in bird watching and hunting. Approximately a quarter participated in fishing and canoeing/kayaking. Less than five people participated in guided interpretive tours, horseback riding, bicycling, furbearer trapping, photography, environmental education, cross-country skiing, volunteering, or special events. Under other activities, two people participated in snowmobiling and one participated in duck banding.

### **Question 2b. Which activity is the most important reason for your visit to Moosehorn Refuge?**

This was an open-ended question and several respondents listed more than one activity as the most important reason for visiting the Refuge. Therefore, the results are the number of times the activity was mentioned. Consumptive activities were the most frequently mentioned: hunting (mentioned four times), trapping (three), and fishing (two). Bird watching was mentioned three times and bicycling, cross-country skiing, and hiking were mentioned twice each. Horseback riding, nature/wildlife viewing, and volunteering were all mentioned once. One respondent felt that "a chance to walk in nature, listen to nature, get away from 4 wheelers and noise and enjoy the wilderness" was the most important activity, whereas another believed it was "protecting a large, forest area for protection and enjoyment of citizens in the above activities."



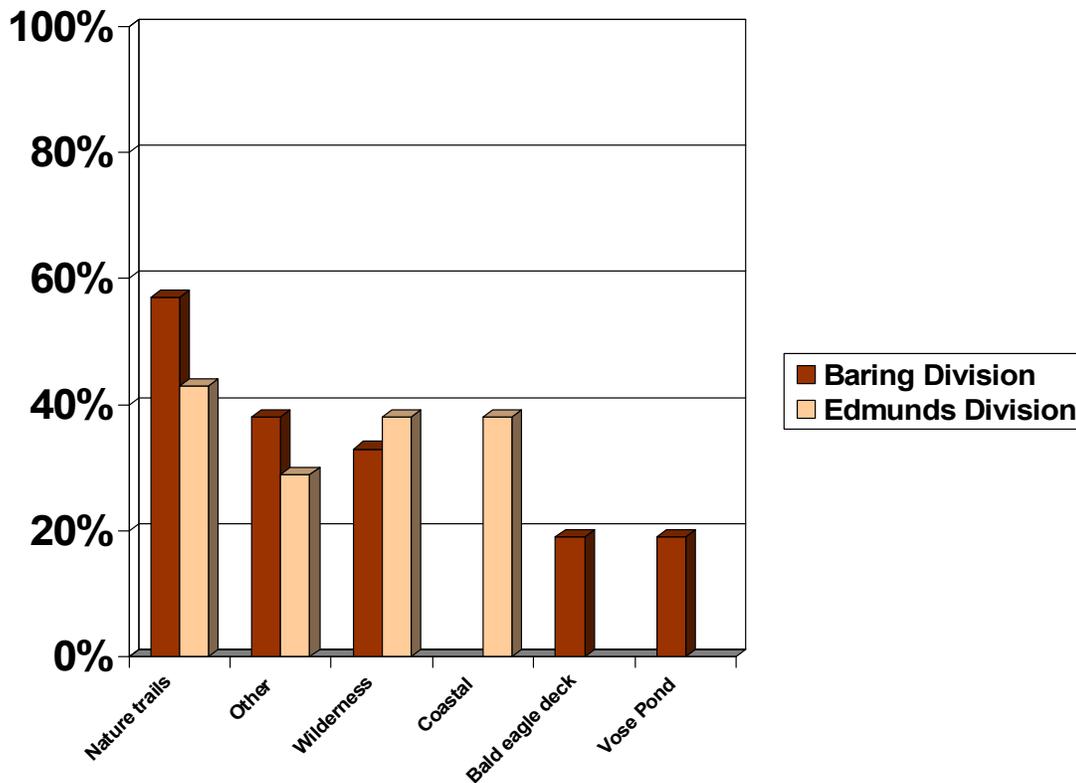
**Figure 1.** Percentages of respondents who participated in specific activities in the Refuge during the past year.



**Figure 2.** Percentages of respondents who participated in specific activities in the Refuge during the past year.

### Question 2c. What areas of the Refuge do you usually visit?

The Refuge comprises two divisions: the Baring Division, which is the northern portion near Calias, and the Edmunds Division, which is the southern portion bordering Cobscook Bay. Over 80 percent of the respondents usually visited areas in both divisions of the Refuge. Three people usually visited only the Baring Division, and one usually visited only the Edmunds Division. In addition to asking which division respondents visited, the workbook asked about visitation to specific areas within those two divisions (fig. 3). Both divisions' lists included nature trails, wilderness areas, and the ability to specify other areas that respondents usually visited. The Baring Division list also included the bald eagle observation deck and Vose Pond areas, whereas the Edmunds Division list included coastal shoreline as an area to visit.

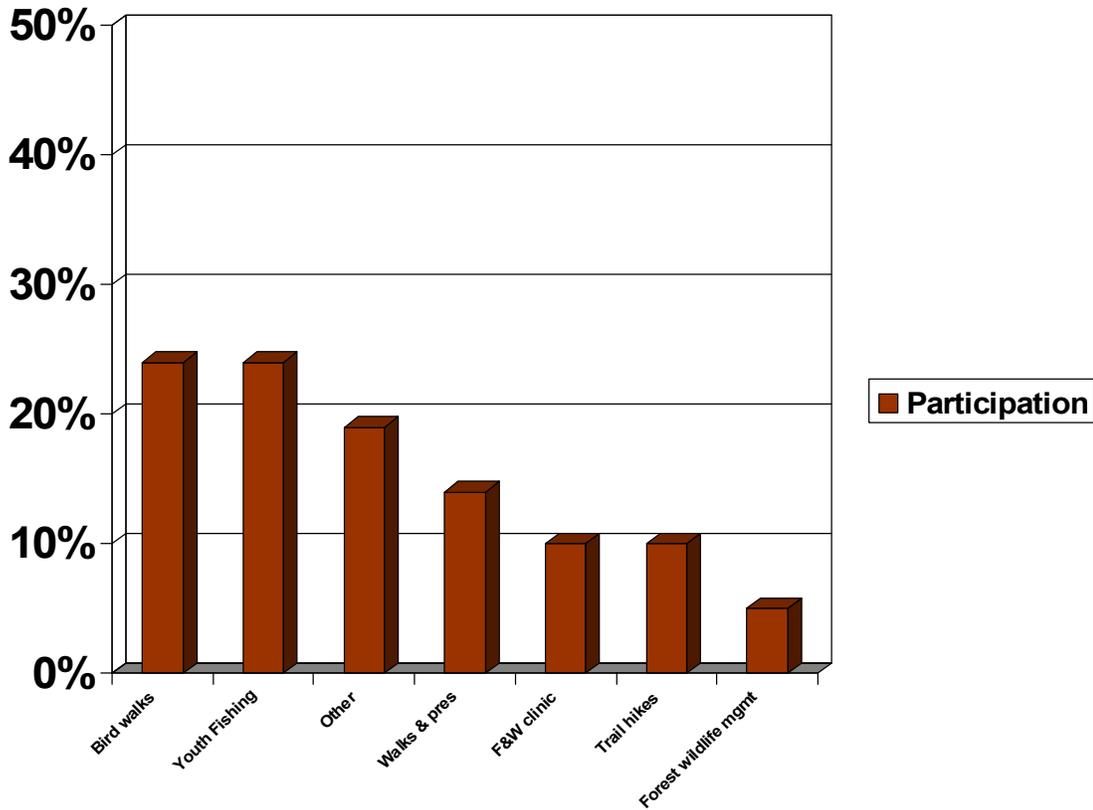


**Figure 3.** Percentages of respondents who usually visit specific areas of the Baring and Edmunds Divisions of the Refuge.

Under other areas in the Baring Division, four respondents mentioned trails in general, two mentioned water areas in general, one mentioned Barn Meadow, and one mentioned the YCC building/office. Under other areas in the Edmunds Division, five people mentioned water areas in general, and one mentioned the State park.

**Question 3. Have you participated in any Refuge-sponsored events or activities?**

The Refuge sponsors several different events/activities in which visitors can participate. This question listed eight such activities and allowed for respondents to check all that applied and to also identify other events that they attended. Around a quarter of respondents had gone on bird walks and participated in Youth Fishing Day (fig. 4). Under other activities, respondents identified cross-country races, duck banding, National Wildlife Refuge Week, and trail-work trips as Refuge-sponsored events in which they attended.



**Figure 4.** Percentages of respondents who have participated in Refuge-sponsored events or activities.

**Question 4. What do you value most about your visits to Moosehorn Refuge?**

In this open-ended question, most respondents listed more than one thing they value about the Refuge. The following provides the values respondents listed:

- Peace and quiet were mentioned most often (by seven people).

- Fish and wildlife were the next most frequently mentioned valued aspect of the Refuge, both for viewing and for hunting and fishing (by six people).
- Five respondents generally appreciated the Refuge, with one simply stating, "I'm pleased that it is here." They also appreciated the beauty of the Refuge.
- Four respondents valued the access to trails and recreation activities on Refuge land.
- Three respondents appreciated the staff of the Refuge, calling them "friendly," "cooperative," "great," and "experts."
- Three respondents also valued that the Refuge was preserving land for the long term. One valued "knowing that the land I'm enjoying today will be available to my children as well."

Starting with Question 5 and going through Question 12, the workbook questions focused on natural resource conservation within Downeast Maine and the role the Refuge could provide in conserving, protecting, and enhancing these resources.

### **Question 5. What do you consider to be the most important conservation problem facing Downeast Maine?**

This was an open-ended question allowing the respondents to discuss in their own words what they saw as important conservation issues. There were no constraints on what a respondent could mention as a problem; however, collectively the responses easily could be grouped into seven categories indicating similarity in concerns. Although the question asks for the "most important conservation problem," most respondents listed more than one problem. The conservation problems listed by the respondents included the following:

- Concerns about habitat, particularly loss of habitat, were mentioned most often (by seven people).
- Many respondents (six) were also concerned about development, with two specifically citing coastal development as the main problem.
- Five respondents were concerned about access to land, particularly for recreation such as hunting and fishing.
- Three respondents were worried about pollution, specifically water quality.
- Education of both locals and visitors was a concern for two respondents.
- Managing the Refuge appropriately was a concern for two respondents.
- One respondent did not believe there were any major conservation problems in Maine, but went on to say, "There is some clear-cutting, some coastal bird habitat reduction, potential liquid natural gas operations, and some 'development.'"

### **Question 6. Do you feel Moosehorn Refuge has a role to play in resolving this problem?**

Of the 15 people who answered this question, all but one felt the Refuge did have a role to play. Since this was an open-ended question, six respondents provided additional comments beyond yes or no. Three thought that the Refuge should continue and expand its current management. Two respondents implied management changes or additions, with one suggesting that the Refuge "be a leader in the proper matching between economic growth and conservation," and the other stating

that "deer habitat and herd management I don't believe are priorities." Another respondent wanted the Refuge to "educate the public as to the benefits of active resource management."

### **Question 7. Which wildlife species or habitats should be a management priority for Moosehorn Refuge?**

This was another open-ended question that provided a variety of responses. As with other open-ended questions, most respondents provided more than one species or habitat they felt should be a management priority. The following list highlights what species and habitats respondents mentioned:

- Birds were mentioned most frequently (by 11 respondents). Specifically, woodcock was mentioned six times; migratory birds and waterfowl, four times each; game birds, three times; and shorebirds, twice.
- Ungulates were mentioned seven times. All of those respondents listed deer, and three of them also listed moose.
- Rare, threatened, or endangered species were mentioned by four respondents.
- All species were a priority for four respondents. One stated, "I believe every natural occurring species within its borders should be protected, nurtured and scientifically encouraged."
- Two respondents mentioned other specific wildlife. One wanted bear to be a priority, and the other was concerned about "forest interior dwellers."
- One respondent wanted "successional" habitats to be a priority.

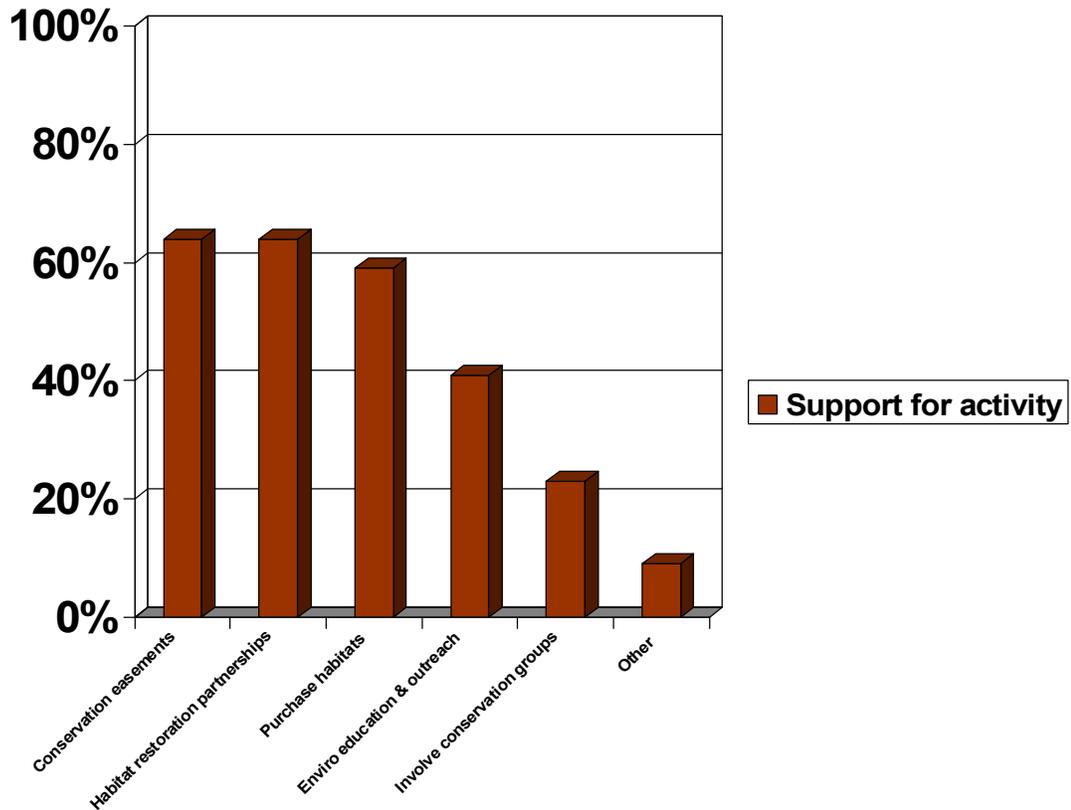
### **Question 8. Should the Service pursue the following activities in Downeast Maine?**

The Moosehorn Refuge was interested in identifying which conservation efforts the public believes should be supported by the U.S. Fish and Wildlife Service. Over a majority of the respondents indicated that "conservation easements," "habitat restoration partnerships," and the "purchase of habitats" should be pursued (fig. 5). Approximately 40 percent also indicated support for environmental education and outreach activities. There was considerably less support by respondents for "involving conservation groups" and "other" activities. Under "other" activities, one respondent wanted "more impoundments and more management of them - e.g., opening vegetative choked marshes." Another noted that he did not feel competent to make a recommendation.

### **Question 9. How do you feel about the Service acquiring land in fee from willing sellers at fair market value in the Downeast Maine area?**

The majority of respondents (81 percent) felt that acquiring land from willing sellers was acceptable (4 or 5 on a scale of 1-5). The mean was 4.1, which also indicates that, on average, respondents felt it was an acceptable activity.

Six of the respondents who felt that acquiring land is acceptable provided comments. Three were concerned about the lack of land open to the public for recreation. One suggested specifically targeting lake marshes and coastal areas, and another suggested easements as an alternative. Another expressed concern about spending too much on land acquisition, stating, "Great idea, but quite expensive - in a time when personnel needed to do the management on such lands are getting laid off."



**Figure 5.** Percentages of respondents who support specific activities to conserve wildlife and habitats.

Four respondents who did not feel that acquiring land is acceptable also provided comments. Two were concerned with the change of private land to public land and the effect that would have on the tax base. Another felt that "land sold to the service is lost forever to the average person," and another thought "we should do more with what land we have."

**Question 10. Are any of the following natural issues a concern to you in Downeast Maine?**

This question listed the following issues and asked that the respondent RANK the top three choices: (1) the development and fragmentation of habitats, (2) invasion of exotic plant and animal species, (3) increased recreational use in sensitive habitat areas, (4) degradation of water quality, (5) lack of active habitat restoration, and (6) other issues. Question 10 was not analyzed because of the lack of consistency in the way respondents answered the question. A few ranked the items, as the question asked, but the others who answered it did not.

**Question 11. If possible, please provide additional details on why you selected the issues in Question #10.**

Though this question was not analyzed in relation to question 10, it provided a wealth of information about the concerns of respondents. Most respondents mentioned more than one issue that concerned them.

The most often mentioned issue was development (mentioned by eight respondents). Some were concerned with the effects of development on habitat, with one respondent stating, "Private developers fragment habitat and cause it to be of lesser quality for woodcock and carnivores." Others were troubled by the loss of access to private lands for recreation: "Over the last 10-15 years I have lost the opportunity to hunt approximately 40 grouse covers and deer hunting areas because the land has left the ownership of often absent long-term owners to be purchased for development and split into smaller parcels and/or to be built upon for second homes."

Five respondents were concerned with the management, protection, and creation of habitat. Two were concerned with waterfowl and shorebird habitat. One felt that "Moosehorn should have more land on Cobscook Bay for waterfowl and shorebirds. Both of these types of birds have decreased on the Bay in the last 20-30 years." Two others felt that habitat for deer and for woodcock and grouse should be protected and improved. A fifth respondent was concerned about the impacts of invasive species on native species.

Five respondents were concerned with water quality. One stated, "Degradation of water quality affects many plant/animal/bird species and their health." Two mentioned the effect of declining water quality on fisheries.

Other issues that were mentioned included motorized off-road recreation, the creation of excessive numbers of trails in the area, poor forest management in the region, letting people know about the Refuge, opening more trails in the Refuge in the summer, and the detrimental influence of the public on natural resource management decisions.

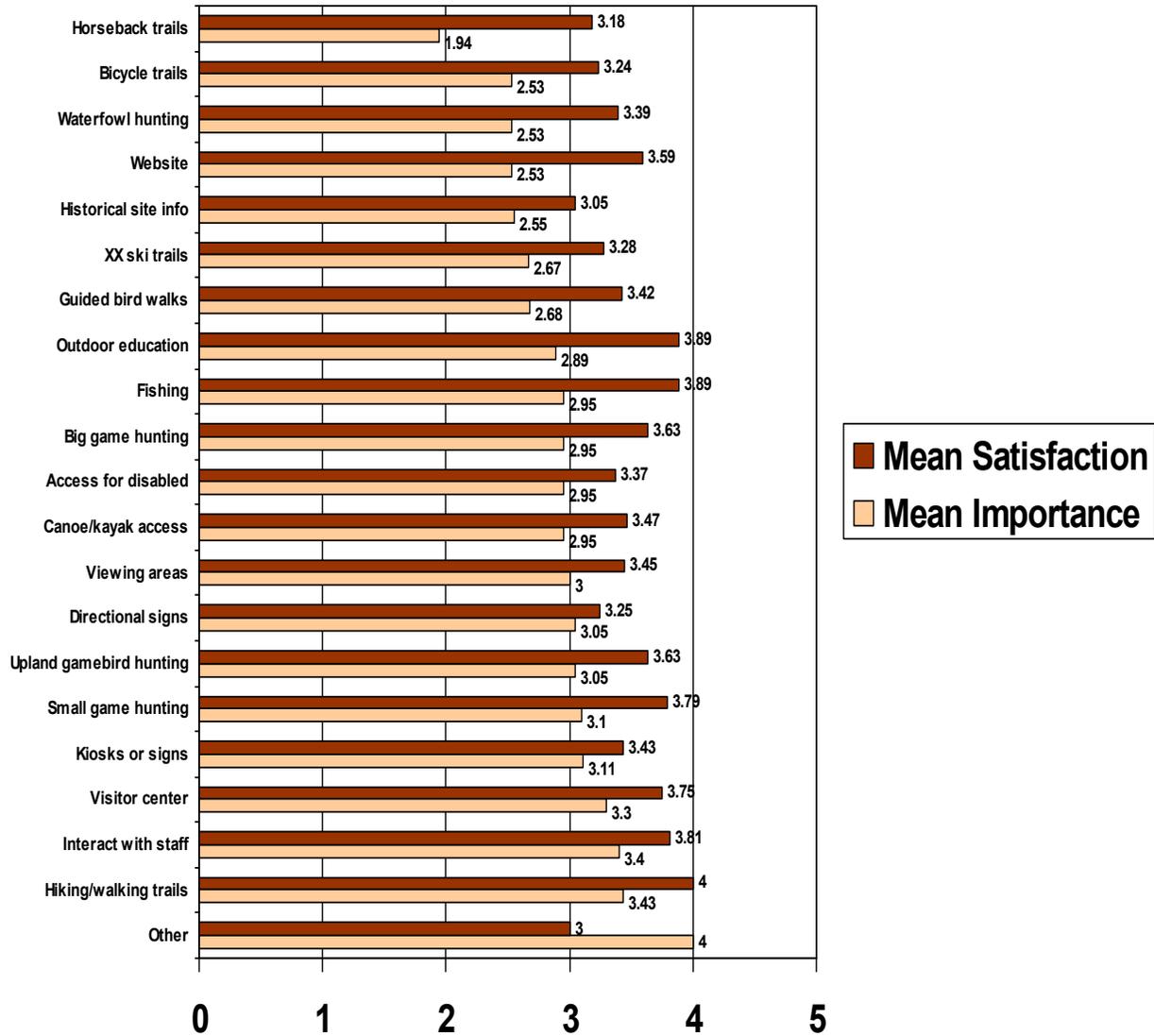
**Question 12. Please include here any additional thoughts you have on conserving fish and wildlife habitats in Downeast Maine that may not be captured in our questions.**

In this open-ended question, two respondents mentioned development as an issue of concern again, particularly with regard to the loss of habitat and access. One noted, "Once lost to development and/or degradation, these valuable assets may not be able to be reclaimed once again." Two others suggested more outreach by the Refuge. One felt "more education on the use of Refuge land in rural communities" would be beneficial. The other stated, "I wish they could mix with the public more, need more interaction. You need to have a column in the newspaper. That way we could know what is going on." Other concerns were the loss of tax revenue from private land turned public, that the "dwindling number of employees have to spend more time doing paperwork and chasing grants than looking out for our resources," and the emphasis on hunting and fishing in the CCP, as opposed to stressing ecosystem management and nonconsumptive activities.

**Question 13. For each activity listed in the middle column, please tell us how important that activity is to you when visiting Moosehorn Refuge. Then tell us how satisfied you are with the way the Refuge is managing each activity.**

The format of this question listed 21 activities and services for which respondents rated the importance and satisfaction of each. All of the listed activities and services, with the exception of horseback trails, were at least somewhat important on average to the respondents (fig. 6).

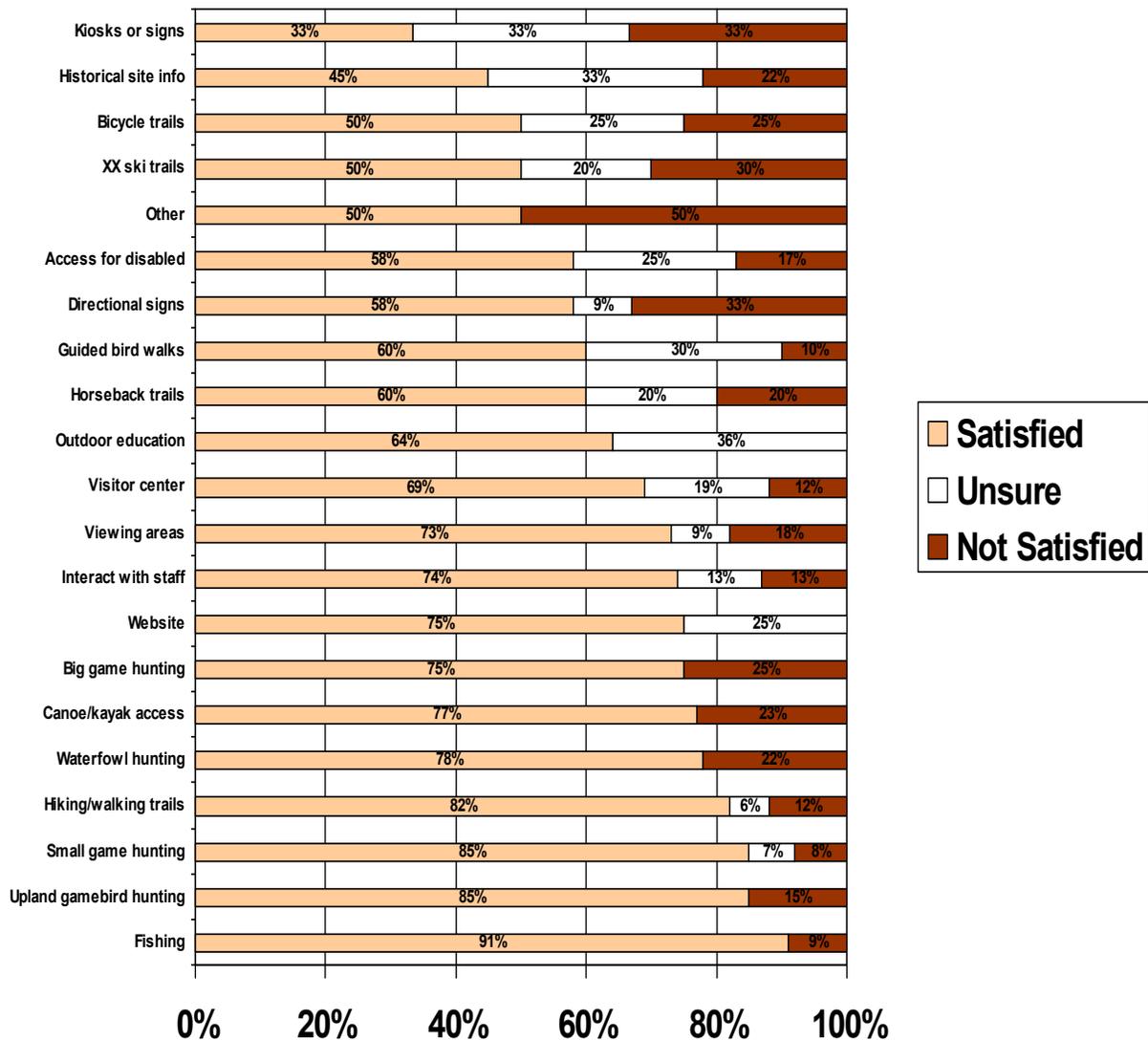
Hiking/walking trails, interacting with Refuge staff, the visitor center, informational kiosks or signs, small game hunting, upland bird hunting, and directional signs were moderately to very important to respondents on average. Under other activities, two respondents mentioned ATV trails and one respondent each mentioned access, an "HQ toilet," using existing roads to avoid impact on wildlife, joint training, and trapping. Not surprisingly, all of the respondents who wrote in another activity felt that these activities were very important.



**Figure 6.** Mean importance and satisfaction of a variety of activities and services offered at Moosehorn Refuge (importance was measured from 1, "Not at all important" to 4, "Very important," and satisfaction was measured from 1, "Not at all satisfied" to 5, "Highly satisfied").

In general, the respondents were satisfied with all of the activities and services. Hiking and walking trails, fishing, hunting, outdoor education, interacting with staff, the visitor center, and the website were among the activities with which respondents were most satisfied.

It is important for managers to know whether visitors are satisfied with the activities and services that they deem important. To examine this relationship between importance and satisfaction, for each activity or service that respondents felt were moderately or very important, their corresponding rating for satisfaction was also considered, and a new variable was created. If they were satisfied or highly satisfied with an activity or service, they were categorized as satisfied. If they were slightly satisfied or not at all satisfied, they were categorized as unsatisfied. If they were unsure about their satisfaction, they were categorized as unsure. Figure 7 displays the percentage of respondents who were satisfied, unsure about their satisfaction, and not satisfied with



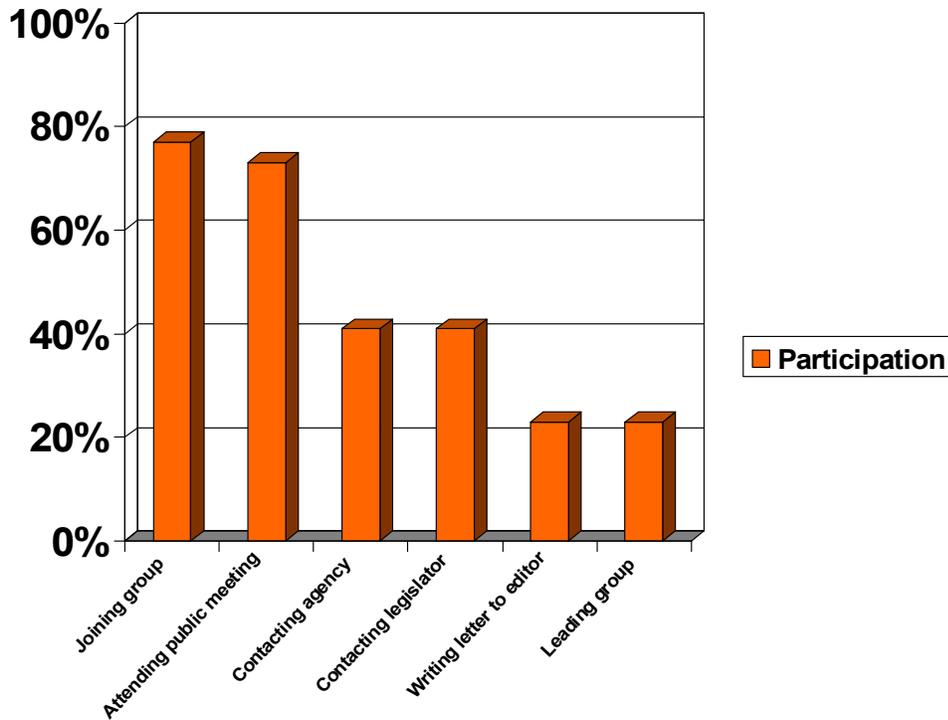
**Figure 7.** Percentages of respondents who were satisfied, unsure about their satisfaction, and not satisfied with activities and services they rated as moderately or very important.

each activity or service they rated as moderately or very important. Respondents who did not rate an activity or service as moderately or very important were not included in the analysis for that activity or service.

Most respondents who believed fishing or hunting of all types to be important were satisfied with those activities. However, up to a quarter of respondents were not satisfied with waterfowl or big game hunting opportunities. A third of respondents were not satisfied with directional signs for the Refuge or informational kiosks or signs. A quarter of respondents were also not satisfied with bicycle trails, and almost a quarter were not satisfied with canoe and kayak access or information on historical sites.

**Question 14. We are interested in the ways community residents engage in local or regional natural resource or environmental issues. Please indicate which of the activities you have participated in within the last 5 years.**

The most common means of engaging in natural resources or environmental issues was joining an interest group (fig. 8). Respondents who had joined a group were asked to list up to five organizations they had joined in the last 5 years. Twenty-three different organizations were named by respondents. The most frequently mentioned organizations were Friends of Moosehorn (four mentions), Sportsman’s Alliance of Maine (three), Quoddy Regional Land Trust (two), Audubon (two), and The Nature Conservancy (two). Respondents listed six local organizations, four State organizations, and nine National organizations. The higher level of engagement in these types of issues by respondents may indicate a higher willingness to complete the workbook and thus may not be representative of the overall population.



**Figure 8.** Percentages of respondents engaging in natural resources or environmental issues via participation in different activities in the last 5 years.

**Question 15. Are there activities or services that you think should be allowed at Moosehorn Refuge that currently are not allowed? If yes, please list these activities.**

Six people mentioned activities that they felt should be allowed at the Refuge. There were three main categories of activities: hunting, ATV access, and canoe access. Three people mentioned hunting activities. One wanted bear baiting to be allowed and another wanted "dog training for upland hunting with blank guns during periods as determined by biologists." The third was interested in more waterfowl hunting. Two people wanted trail access for ATVs. Another was concerned with canoe access, noting that "better canoe access in Edmunds salt water bays" is needed. This individual also wrote that "the area is noted for rocky cliffs and only one spot may be a reasonable canoe launch site per bay." Finally, one person was concerned that the Refuge was not letting people know what activities they could do and where they could go, but felt that the Refuge was improving in this area.

**Question 16. Are there activities or services that you think should not be allowed at Moosehorn Refuge that currently are allowed? If yes, please list these activities.**

Nine people mentioned activities that they felt should not be allowed at the Refuge. There were four main categories of these activities: motorized recreation, hunting, horseback riding, and logging. Five people mentioned motorized recreation, which included ATVs, snowmobiles, and jet skis. One person did make an exception for the use by Refuge staff. Another was particularly unhappy with the idea of any motorized recreation, writing, "I think there should be no ATV's allowed or snowmobiles and hunting. This is a refuge for us as a people and for the animals that live there. These practices insult the term refuge." This respondent also mentioned hunting as an activity that should not be allowed, as did another respondent, who stated, "It's a poor refuge for animals when hunting and trapping are permitted." Horseback riding was also mentioned by two respondents. One was concerned with the impact of horses on trails and the other with horses bringing in invasive species. One respondent expressed displeasure at the logging practices on the Refuge, saying, "In the past, loggers who are not certified logging professionals have bid on the harvesting jobs. The Refuge should set an example in my opinion. Use 'CLPs.'"

The discussions on what activities or services that should/should not be allowed highlight potential areas of conflict between Refuge visitors. There is strong support for motorized recreation and hunting but there is strong opposition to both as well. This could be expected since land management agencies often deal with strong differing attitudes toward these two issues. Although there is a small sample size, these results may indicate the need for more dialogue and collaboration between the Refuge and the affected stakeholders.

**Question 17. Please include here any additional comments on recreation, education, and public access.**

Ten people made comments in response to this open-ended question. There were five categories of responses: trail design and access, safety, education, communication and outreach, and hunting. Five respondents were concerned with trail design and access. Three specifically wanted a loop trail somewhere in the Refuge, with one respondent asking, "Would it be possible to have more connecting/loop trails? This might help users stay on designated areas better instead of trying to find other ways back to headquarters instead of backtracking." Another respondent would like better access for seniors, and one was concerned about improving public access in general.

Two respondents expressed concerns about safety. One did not believe that cross-country skiers should be using the same roads that snowmobilers do: "Cross country skiing has been difficult at the Refuge due to the plowing of roads for harvesting and other operations. This was especially true this past winter - portions of a commonly used loop (Headquarters Road, Two Mile Meadow Road, Mile Bridge Road) are shared with snowmobilers. This is not safe especially for children." Another felt unsafe during hunting season: "I have to travel through [the] Refuge on [a] daily basis via car. During hunting season I become wary and somewhat frightened. I've lived around hunters my whole life and am aware of their shortcomings. [I] wish, if hunting must be allowed, [it would be] back off [backed away from] public roads."

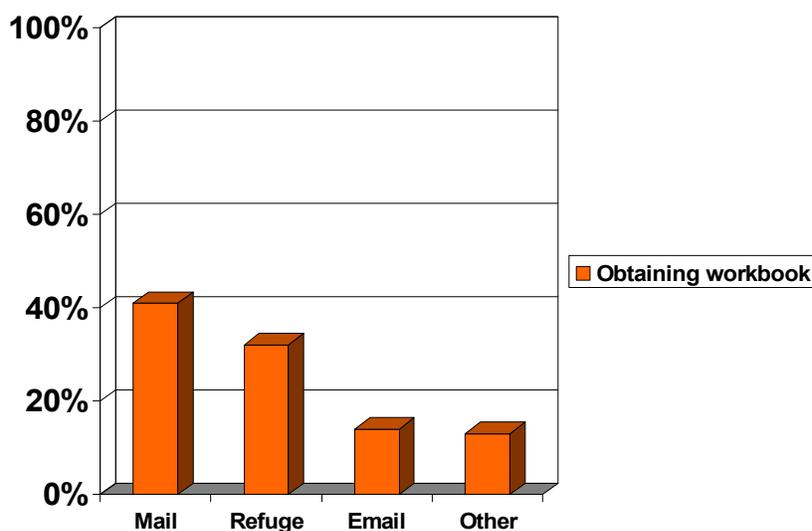
Two respondents made comments related to education. One wrote, "I always thought of wildlife refuges as spaces where extensive research is the prime mission. I think, now at Moosehorn with the current sale of large tracts of land being sold to developers, more emphasis needs to be considered for education and recreation of the public." Another stated, "Working in a park, I see many visitors with little knowledge of the natural world and processes," indicating a need for more education of visitors.

Communication and outreach were also mentioned by respondents. One felt more publicity of the programs at the Refuge would be beneficial. Another expressed gratitude to the Refuge for supporting local programs: "MNWR has provided invaluable assistance and support to the Down East Spring Birding Festival. I hope this continues and if possible increases."

One person expressed his belief that the steel shot requirement was not necessary, stating, "As a duck hunter, I believe steel shot requirement has backfired - for more birds are wounded, crippled, and/or lost/killed without recovery than birds poisoned by lead ingestion."

### Question 18. Where did you obtain this workbook?

The final question indicates how the respondent obtained the workbook. Several people received the workbook via the mail, and another substantial group received it at the Refuge, at a Refuge meeting or event, or from a Refuge-related organization (fig. 9). A few received it via email as well. This information can provide the Refuge with knowledge on how to best include the public in land management decision-making.



**Figure 9.** Percentages of respondents obtaining workbook from various sources.

## **Conclusion**

The Moosehorn Wildlife Refuge wanted participation from the public in order to identify issues and concerns that stakeholders felt may need to be addressed in the CCP process. As a way to engage the public, the Refuge had workbooks created that respondents could complete and turn in. Twenty-two workbooks were returned and reviewed. This report has presented descriptive statistics on the results as desired by the Moosehorn Wildlife Refuge staff. Although these results cannot be generalized due to the small sample size, they do indicate a range of viewpoints held by the public in regards to Refuge management.

## **Appendix. Responses to Open-Ended Questions in Moosehorn National Wildlife Refuge Workbooks**

This appendix includes the written answers from all open-ended questions in the Moosehorn Refuge Workbook. Some questions were primarily close-ended, but had an "other" option where respondents could write in answers. These questions have the word "other" in parentheses at the end of the question (for example, question 2a). Others were completely open-ended (for example, question 2b). Any comments in quotes are verbatim from the workbook. Those answers not in quotes were typically one- or two-word responses, which did not require verbatim recording. Within each question, the answers have been loosely categorized according to topic. Additionally, the number of respondents who mentioned each topic is in parentheses behind each topic heading. These numbers may add up to greater than the total number of respondents for any given question because some respondents mentioned several topics within a single response. Finally, in some instances, a word or phrase could not be determined in a response; assumptions of these segments are included below in italicized brackets.

### **Q. 2a - What activities have you participated in while visiting the Refuge over the past year? (other)**

- "Duck banding" (1)
- Snowmobiling (2)

### **Q. 2b - Which activity is the most important reason for your visit to Moosehorn Refuge?**

- Bicycling (2)
- Bird watching (3)
- Cross-country skiing (2)
- Fishing (2)
- Hiking (2)
- Horseback riding (1)
- Hunting (4)
- Nature/wildlife viewing (1)
- Other
  - "A chance to walk in nature, listen to nature, get away from 4 wheelers and noise and enjoy the wilderness"
  - "Protecting a large, forest area for protection and enjoyment of citizens in the above activities"
- Trapping (3)
- Volunteering (1)
  - "...for trails maintenance/use"

**Q. 2c - What areas of the Refuge do you usually visit? (other)**

Baring Division (8):

- "Barn Meadow"
- Trails (4)
  - "I have been on most trails wither on horseback or walking."
  - "All trails"
  - "Any of the numerous trails"
  - "Snowmobile trails"
- Water (2)
  - "Most water areas"
  - "All water, wetland"
- "YCC building – office"

Edmunds Division (6):

- "State park"
- Water (5)
  - "Most all waters"
  - "All water, wetland"
  - "Ponds"
  - "Trout streams"
  - "Fishing"

**Q. 3 - Have you participated in any Refuge-sponsored events or activities? (other)**

Other refuge-sponsored events or activities (4):

- "Cross country races"
- "Duck banding"
- "National Wildlife Refuge week in October"
- "Trail work trips"

**Q. 4 - What do you value most about your visits to Moosehorn Refuge?**

- Access (4)
  - "Access to wilderness, fishing, hunting, trapping"
  - "Public availability to use the Refuge, access to trails"
  - "Having a quiet and interesting place to walk or bicycle w/o getting lost"
  - "We love to walk for miles on the wilderness 'lanes.'"

- Fish and wildlife (6)
  - "Access to wilderness, fishing, hunting, trapping"
  - "Birding during migration"
  - "Wildlife and birds"
  - "Wildlife watching"
  - "The wildlife"
  - "Animals and fishing"
- General appreciation and beauty (5)
  - "The beauty, peace, and how nicely the Refuge is laid out"
  - "I'm pleased that it is here."
  - "Seeing my tax dollars at work for something besides war."
  - "Wild coastline"
  - "The ideal setting for healthy living: physically, socially, philosophically"
- Peace and quiet (7)
  - "Solitude"
  - "The beauty, peace, and how nicely the Refuge is laid out"
  - "The peace and quiet"
  - "Having a quiet and interesting place to walk or bicycle w/o getting lost"
  - "Peace and quiet - don't often see other people"
  - "The quiet"
  - "No motors on lakes"
- Staff (3)
  - "A great staff ready to assist visitors"
  - "Friendly cooperative staff"
  - "Talking with the experts, both resident staff and invited speakers"
- Time and preservation (3)
  - "Observing successional changes over the years"
  - "The knowledge that I can return next year to relatively unchanged habitat"
  - "Knowing that the land I'm enjoying today will be available to my children as well"

**Q. 5 - What do you consider to be the most important conservation problem facing Downeast Maine?**

- Access to land for recreation (5)
  - "Land access for public"

- "To keep fishing and hunting, trapping open"
- "Loss of access to privately owned land previously available for recreation"
- "I am happy to the Moosehorn acquire more land especially if it remains open to hunting"
- "Diminished opportunities for youth to access natural habitat"
- Development (6)
  - "Decimation of wildlife and habitat by development and non-caring people"
  - "Coastal development"
  - "To make sure the area is economically planned correctly so people can still enjoy what is already here"
  - "Loss of land to development, second and retirement homes"
  - "Urban sprawl"
  - "Waterfront development and the transition of commercial forests to subdivided lots"
- Education (2)
  - "Education of citizens, local and visitors"
  - "Mainers understanding what is going on"
- Habitat preservation and loss (7)
  - "Bird habitat preservation"
  - "Deer wintering habitat"
  - "Air quality and quality of habitat for both woman and most importantly our wildlife"
  - "Habitat loss and fragmentation"
  - "Lack of woodcock habitat"
  - "Deer herd"
  - "Keeping spaces such as the Refuge for conservation and propagation of wildlife"
- Management (2)
  - "Appropriate management of the whole area to conserve it for the future"
  - "Actually implementing sound conservation and natural resource management without interference from uninformed preservationists"
- No problems (1)
  - "At this time, downeast Maine has no major conservation problems. There is some clear-cutting, some coastal bird habitat reduction, potential LNG operations, and some 'development.'"
- Pollution (3)
  - "Water quality"
  - "Keeping spaces such as the Refuge for conservation and propagation of wildlife, unpolluted water and resources"

- "Air quality and quality of habitat for both woman and most importantly our wildlife. Water, also."

**Q. 6 - Do you feel Moosehorn Refuge has a role to play in resolving this problem?**

- Change current management (2)
  - "Although deer habitat and herd management I don't believe are priorities"
  - "To be a leader in the proper matching between economic growth and conservation"
- Continue with current management (3)
  - "But I think in the last year you have taken a big step in the right direction (providing habitat)"
  - "The refuge should continue its conservation and preservation goals and expand them and its area as possible"
  - "Continuing to manage MNWR to the benefit of its residents is the proper role. It can serve as a model for sustainable land use in the region."
- Education (1)
  - "It can educate the public as to the benefits of active resource management."

**Q. 7 - Which wildlife species or habitats should be a management priority for Moosehorn Refuge?**

- All species (4)
  - "All wildlife"
  - "I believe every natural occurring species within its borders should be protected, nurtured and scientifically encouraged."
  - "Continue current practices for birds, fish, land wildlife, population control through limited hunting/fishing"
  - "Data collection for analysis on all species is important work over time. They use volunteers with some expertise in certain areas, i.e., reptiles and amphibians. They could do more for bats, butterflies, and others."
- Birds (11)
  - Game birds (grouse, turkey) (3)
  - Migratory birds (4)
  - Shorebirds (2)
  - Waterfowl (ducks) (4)
  - Woodcock (6)
- Habitat (1)
  - "Successional habitats. Continued cutting to produce varied successional stages."

- Other fish and wildlife (2)
  - "Bear"
  - "Forest interior dwellers"
- Rare, threatened, or endangered species (4)
  - "Species on Maine's T&E list"
  - "Rare area species of animals and plants"
  - "Any endangered species should be top priority"
  - "ESF species"
- Ungulates (7)
  - Deer (7)
  - Moose (2)

**Q. 8 - Should the Service pursue the following activities in Downeast Maine? (other)**

- "More impoundments and more management of them - e.g., opening vegetative choked marshes"

**Q. 9 - How do you feel about the Service acquiring land in fee from willing sellers at fair market value in the Downeast Maine area?**

- Land acquisition acceptable (4 or 5 on scale) (6)
  - "I believe public lands are critical. Maine has relatively little that is available for sportsmen."
  - "There is too little coastal areas open to the public and that problem will only get worse"
  - "Lake marsh areas and coastal areas"
  - "Easements are also a good possibility"
  - "Great idea, but quite expensive - in a time when personnel needed to do the management on such lands are getting laid off"
  - "Loss of privately owned land previously open to recreation concentrates recreators (hunter, hikers, birdwatchers) in smaller and smaller areas"
- Land acquisition not acceptable (1 or 2 on scale) (4)
  - "Where loosing [*We're losing?*] our tax base"
  - "Land sold to the service is lost forever to the average person"
  - "Destroys tax base/higher taxes"
  - "I think we should do more with what land we have."

**Q. 10 - Are any of the following natural issues a concern to you in Downeast Maine? (other)**

- "Available land open for hunting"
- "Lack of \$ to do #1 [*active habitat restoration*]"

- "The fact that town governments are opposed to conservation lands that do not pay taxes to the towns."
- "ATV use in refuge lands, roads 'not bothered with,' I live on Meddybumps Lake, ATV traffic in unauthorized areas, trails not monitored"

**Q. 11 - If possible, please provide additional details on why you selected the issues in Question #10.**

- Access to land for recreation (2)
  - "Available land open to hunting will be a future concern"
  - "I live in the areas because I enjoy hiking, hunting, canoeing, kayaking, wildlife watching. Over the last 10-15 years I have lost the opportunity to hunt approximately 40 grouse covers and deer hunting areas because the land has left the ownership of often absent long-term owners to be purchased for development and split into smaller parcels and/or to be built upon for second homes. This concentrates hunters and other recreationists in fewer and smaller areas. Although not in the Moosehorn, I am speaking of Lubec, Trescott, Whitney[?]."
- Development (8)
  - "Private developers fragment habitat and cause it to be of lesser quality for woodcock and carnivores"
  - "Development of habitat along the coast is an increasing problem"
  - "Sipps Bay area in Perry is being developed now"
  - "Developers are scouring this area for their own wealth"
  - "Over the last 10-15 years I have lost the opportunity to hunt approximately 40 grouse covers and deer hunting areas because the land has left the ownership of often absent long-term owners to be purchased for development and split into smaller parcels and/or to be built upon for second homes."
  - "Born and raised here - watched as much of our lands have been developed without regard of consequence to wildlife. Continued pressure by those with profits in mind over welfare of environment."
  - "In many areas surrounding the Edmunds division all marketable timber has been removed and an extensive road network has been put in place. If this land is broken up into lots, I believe, it will degrade the quality of the existing Edmunds unit."
  - "Concern regarding adverse effects of habitat development and fragmentation are well known (i.e., increased cowbird parasitism of nesting songbirds)"
- General management (5)
  - "I believe nobody is really overseeing thousands of miles of "trails" being created legally and illegally through our lands and waterways."
  - "Motorized off-road recreation is everywhere. There needs to be somewhere where it does not occur. "S" Forest management is in a state of panic, many landowners are clearing their land without good practices. Only 1 state forester in this area, cannot monitor all the cutting."

- "More about people being able to see what we have. Open more trails in summer."
- "I am educated as a natural resource manager-type. I hate the way the public can protest recommendations that professionals try to implement (for example, Forest Service plans get challenged and delayed constantly.) If people want to be part of the consumer-based America, then preservation of everything is not an option! Let the professionals do what they trained to do. Here's another example - while it is interesting and necessary to have some areas of [no?] mgt. (NPS lands), eventually those lands become overmature and a hazard. People have confused "wilderness" with "wildness" these days."
- Habitat management/development for fish and wildlife (5)
  - "Habitat management for wildlife - especially deer. I think Moosehorn does a nice job with habitat for wildlife. I'd like to see deer habitat emphasized."
  - "Moosehorn should have more land on Cobscook Bay for waterfowl and shorebirds. Both of these types of birds have decreased on the Bay in the last 20-30 years. Edmunds unit - Trout Run and Hallowell need their marshes opened - better interspersed of marsh and water. Alder should have dug out potholes on west side (had been clearcut)."
  - "Coastal shoreline/mudflat feeding areas for waterfowl/shorebirds must be protected and preserved. Regulate access but allow access."
  - "Invasive plants/animals may tend to overwhelm native species and once established are hard to remove. Lack of restoration of habitats doesn't solve or help plant/animal/bird problems."
  - "Create more grouse and woodcock area"
- Water quality (5)
  - "Water quality for fishing; all fish habitat, especially brook trout fisheries"
  - "If LNG is allowed it will degrade the coastal area. Water quality and land development will be downgraded."
  - "Degradation of water quality affects many plant/animal/bird species and their health"
  - "Scott Brook and Little Musquash[?] streams used to support a good trout fishery but beaver dams/flowages[?] have reduced water quality"
  - "I see no one concerned with water as they should be - quality of life!"
- Other (2)
  - "I'm not aware of any problems and we need to know"
  - "Baring unit"

**Q. 12 - Please include here any additional thoughts you have on conserving fish and wildlife habitats in Downeast Maine that may not be captured in our questions.**

- "Perhaps some of the above thoughts would apply to Baring unit"
- "More education on the use of Refuge land in rural communities. Some of the land the Refuge bought, where 2 [lakes?] appear to be idle - and that's ok as long as the town has been informed of the use being made of the land. Does the gov't. pay anything in lieu of taxes? I haven't checked with authorities but I will."

- "Once lost to development and/or degradation, these valuable assets may not be able to be reclaimed once again"
- "In general, a good job is being done. However, I worry that the ever dwindling # of employees has to spend more time doing paperwork and chasing grants than looking out for our resources."
- "Once the shoreline has been purchased for development, access to the saltwater and shore by clam diggers, hunters, and others is restricted. Insufficient access to the shore exists now. South Bay is currently developed only a very little and would seem to be a good addition to the refuge. The price of land anywhere in the area will not be going down."
- "I wish they could mix with the public more, need more interaction. You need to have a column in the newspaper. That way we could know what is going on."
- "It was mentioned at meeting "This administration wants emphasis on hunting, fishing, etc, on refuge." I truly believe that a long-term, 15 year plan would be wise to de-emphasize refuge practices for sole purpose of killing and concentrate on creating a balanced ecosystem that can sustain itself and encourage non-consumptive uses. A refuge should be just that - a refuge for animal and human life alike to co-exist in peace."

**Q. 13 - For each activity listed in the middle column, please tell us how important that activity is to you when visiting Moosehorn Refuge. Then tell us how satisfied you are with the way the Refuge is managing each activity. (other)**

- "Access"
- ATVs (2)
  - "ATV riding"
  - "ATV trails"
- "HQ toilet"
- "Many roads already can be utilized, think animals first, humans last"
- "Offering joint training"
- "Trapping"

**Q. 14 - We are interested in the ways community residents engage in local or regional natural resource or environmental issues. Please indicate which of the activities you have participated in within the last 5 years.**

Organizations:

- Local organizations:
  - Friends of Moosehorn (4)
  - Quoddy Regional Land Trust (2)
  - Devil's Head [*Conservation Area?*]
  - Greenland Point Conservation Camp
  - Washington County Conservation Association

- Washington County Coop Extension
- State organizations:
  - Sportsman's Alliance of Maine (3)
  - Maine Guide [*Registered Maine Guide?*]
  - Organic Farmers of Maine
  - Small Woodlands Owners Association of Maine
- Multi-State organizations:
  - Appalachian Trail Conservancy
- National organizations:
  - Audubon (National or Maine chapter) (2)
  - Nature Conservancy (2)
  - Ducks Unlimited
  - National Parks Conservation Association
  - National Rifle Association
  - NRC of Maine [*National Research Council?*]
  - National Wildlife [*Federation?*]
  - Sierra Club
  - United States Sportsmen's Alliance
- Miscellaneous
  - Land trusts
  - Hunter education instruction
  - ATV club

**Q. 15 - Are there activities or services that you think should be allowed at Moosehorn Refuge that currently are not allowed? If yes, please list these activities.**

- ATVs (2)
  - "Have at least one trail dedicated to ATV riding"
  - "ATV trail access"
- Canoe access (1)
  - "Better canoe access in Edmunds salt water bays. The area is noted for rocky cliffs and only one spot may be a reasonable canoe launch site per bay."
- Communication (1)
  - "Just need improvement on letting people know what and where they can go (and Moosehorn is working on this with great leaps and bounds)."
- Hunting (3)

- "Bear baiting"
- "More water fowl hunting"
- "Dog training for upland hunting with blank guns during periods as determined by biologists"

**Q. 16 - Are there activities or services that you think should not be allowed at Moosehorn Refuge that currently are allowed? If yes, please list these activities.**

- Horseback riding (2)
  - "No horseback riding. Horses destroy trails."
  - "Horseback riding; I feel this activity brings in invasive plants...but it's probably not as bad as other activities in terms of wildlife disruption. They should not be allowed in wilderness areas (stay on roads)."
- Hunting (2)
  - "It's a poor refuge for animals when hunting and trapping are permitted."
  - "I think there should be no ATV's allowed or snowmobiles and hunting. This is a refuge for us as a people and for the animals that live there. These practices insult the term refuge."
- Logging (1)
  - "In the past, loggers who are not certified logging professionals have bid on the harvesting jobs. The refuge should set an example in my opinion. Use 'CLPs.'"
- Motorized recreation (5)
  - "Motorized recreation"
  - "ATV's, snowmobiles"
  - "No ATV or snowmobiles unless by staff"
  - "I think there should be no ATV's allowed or snowmobiles and hunting. This is a refuge for us as a people and for the animals that live there. These practices insult the term refuge."
  - "Jet skis"

**Q. 17 - Please include here any additional comments on recreation, education, and public access.**

- Communication and outreach (2)
  - "Better publicity on your programming."
  - "MNWR has provided invaluable assistance and support to the Down East Spring Birding Festival. I hope this continues and if possible increases."
- Education (2)
  - "I always thought of wildlife refuges as spaces where extensive research is the prime mission. I think, now at Moosehorn with the current sale of large tracts of land being sold to developers, more emphasis needs to be considered for education and recreation of the public."

- "Working in a park, I see many visitors with little knowledge of the natural world and processes."
- Hunting (1)
  - "I'm not a believer in the necessity of steel shot. As a duck hunter, I believe steel shot requirement has backfired - for more birds are wounded, crippled, and/or lost/killed without recovery than birds poisoned by lead ingestion."
- Safety (2)
  - "I have to travel through refuge on daily basis via car. During hunting season I become wary and somewhat frightened. I've lived around hunters my whole life and am aware of their shortcomings. Wish, if hunting must be allowed, back off public roads."
  - "Cross country skiing has been difficult at the refuge due to the plowing of roads for harvesting and other operations. This was especially true this past winter - portions of a commonly used loop (Headquarters Road, Two Mile Meadow Road, Mile Bridge Road) are shared with snowmobilers. This is not safe especially for children."
- Trail access and design (specifically loop trails) (5)
  - "Would it be possible to have more connecting/loop trails? This might help users stay on designated areas better instead of trying to find other ways back to headquarters instead of backtracking."
  - "More trails to loop for horseback riding as well as walking."
  - "Cross country skiing has been difficult at the refuge due to the plowing of roads for harvesting and other operations. This was especially true this past winter - portions of a commonly used loop (Headquarters Road, Two Mile Meadow Road, Mile Bridge Road) are shared with snowmobilers. This is not safe especially for children. A dedicated ski trail loop with nearby parking would be ideal."
  - "I feel seniors should be made available more trails to see the great place we have here."
  - "This [*public access?*] should be welcomed and encouraged in a well directed (i.e., signs, maps, brochures, et.) in order to build more support."

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