# Lake Umbagog National Wildlife Refuge 

2007 Visitor Survey


$\qquad$
Date:
Time:
Interviewer:
Location:

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Lake Umbagog National Wildlife Refuge is located in northern New Hampshire and Maine. It includes Umbagog Lake, portions of the Androscoggin, Magalloway, Rapid, and Dead Cambridge Rivers, and surrounding uplands. A map of the refuge is on the last page of this questionnaire. The refuge and the lake are managed by the U.S. Fish and Wildlife Service and the States of New Hampshire and Maine.

1a. Is this your first visit to Lake Umbagog National Wildlife Refuge and/or Umbagog Lake?
$\square$ Yes $\rightarrow$ Skip to question 2 .
$\square$ No
b. Approximately how many times have you visited the refuge?

Approximate number of visits in the last 12 months: $\qquad$
Approximate number of visits overall: $\qquad$
c. Approximately how many years have you been visiting the refuge?

Approximate number of years: $\qquad$
2a. Please check the activities below that you participated in at the refuge.

- Looking for loons, ducks, eagles, osprey and other birds on or near the water
$\square \quad$ Looking for moose
- Boat fishing for bass
$\square \quad$ Boat fishing for trout and salmon
$\square \quad$ Boat fishing for other fish species
- Fishing from shore
- Motorboating (in a pontoon boat)
$\square$ Motorboating (not in a pontoon boat)
$\square \quad$ Paddling (canoeing or kayaking)
- Waterfowl hunting
$\square$ Wildlife photography opportunities
$\square$ Camping
$\square$ Swimming
$\square \quad$ Trapping
$\square \quad$ Other activities (Please list)
b. From the above list of activities, what was your primary reason for visiting the refuge today?

Primary activity: $\qquad$
3. Please rate the importance of the following items in determining the quality of your experience at the refuge today. (Circle one number for each item.)

|  |  | Importance |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Not at all Important | Somewhat Important | Moderately Important | Extremely Important |
| a. | The number of visitors to the refuge | 1 | 2 | 3 | 4 |
| b. | The number of boats on the lake/rivers | 1 | 2 | 3 | 4 |
| c. | The number of motor boats on the lake/rivers | 1 | 2 | 3 | 4 |
| d. | The number of canoes/kayaks on the lake/rivers | 1 | 2 | 3 | 4 |
| e. | The speed of boats | 1 | 2 | 3 | 4 |
| f. | The noise of boats | 1 | 2 | 3 | 4 |
| g.. | Visitors disturbing loons, eagles and other wildlife | 1 | 2 | 3 | 4 |
| h.. | Parking at access sites | 1 | 2 | 3 | 4 |
| i.. | Large groups of visitors/boats | 1 | 2 | 3 | 4 |
| j. | Congestion at popular fishing spots | 1 | 2 | 3 | 4 |
| k. | Seeing wildlife | 1 | 2 | 3 | 4 |
| 1. | Catching fish | 1 | 2 | 3 | 4 |

4. We would like to know how many and what types of boats you think could use the lake without you feeling too crowded. To help judge this, we have a series of photographs that show different numbers and types of boats on the lake. Please look at the photographs on Poster 1.
a. Please rate each photograph by indicating how acceptable you think it is based on the number and types of boats shown. A rating of " -4 " means the number and types of boats are very unacceptable, and a rating of " +4 " means the number and types of boats are very acceptable. (Circle one number for each photograph.)

|  | Very Unacceptable |  |  |  | Very Acceptable |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Photo 1 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |
| Photo 2 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |
| Photo 3 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |
| Photo 4 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |
| Photo 5 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |

b. Which photograph shows the number and type of boats you would prefer to see in the lake?

Photo number: $\qquad$
c. Which photograph shows the number and type of boats you think is so unacceptable you would not return to Umbagog Lake? (If none of the photographs represent this condition, you may indicate that.)

Photo number: $\qquad$
OR
$\square$ None of the photographs are so unacceptable that I would not return to Umbagog Lake.
d. Which photograph shows the highest level of use you think should be allowed on the lake? In other words, at what point should visitors be restricted from using the lake? (If use should not be restricted at any point represented by the photographs, or not restricted at all, you may indicate that.)

Photo number: $\qquad$
OR
$\square$ None of the photographs show a high enough level of use to restrict visitors from using the lake.

OR
$\square \quad$ Visitor use of the lake should not be restricted.
e. Which photograph looks most like the number and type of boats you typically saw on the lake today?

Photo number: $\qquad$
5a. Did you boat on any of the rivers included in the refuge today? (Circle one number.)

1. Yes

2 No (Skip to question 6.)
b. Which rivers did you boat on? (Circle all numbers that apply.)

1. Androscoggin
2. Magalloway
3. Rapid
c. We would like to know how many and what types of boats you think could use the river without you feeling too crowded. To help judge this, we have a series of photographs that show different numbers and types of boats on the river. Please look at the photographs on Poster 2.
d. Please rate each photograph by indicating how acceptable you think it is based on the number and types of boats shown. A rating of " -4 " means the number and types of boats are very unacceptable, and a rating of " +4 " means the number and types of boats are very acceptable. (Circle one number for each photograph.)

|  | Very Unacceptable |  |  |  |  | Very Acceptable |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Photo 1 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |
| Photo 2 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |
| Photo 3 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |
| Photo 4 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |
| Photo 5 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |

e. Which photograph shows the number and type of boats you would prefer to see on the river?

Photo number: $\qquad$
f. Which photograph shows the number and type of boats you think is so unacceptable you would not return to the river? (If none of the photographs represent this condition, you may indicate that.)

Photo number: $\qquad$
OR

None of the photographs are so unacceptable that I would not return to the river.
g. Which photograph shows the highest level of use you think should be allowed on the river? In other words, at what point should visitors be restricted from using the river? (If use should not be restricted at any point represented by the photographs, or not restricted at all, you may indicate that.)

Photo number: $\qquad$
OR
None of the photographs show a high enough level of use to restrict visitors from using the river.

OR
$\square \quad$ Visitor use of the river should not be restricted.
h. Which photograph looks most like the number and type of boats you typically saw on the river today?

Photo number: $\qquad$
6a. Did you fish using a boat at the refuge today? (Circle one number.)

1. Yes
2. No (Skip to question 7.)
b. We would like to know how many fishing boats you think you could see in an area without you feeling too crowded. To help judge this, we have a series of photographs that show different numbers of fishing boats in an area. Please look at the photographs on Poster 3.

Please rate each photograph by indicating how acceptable you think it is based on the number of fishing boats shown. A rating of " -4 " means the number of boats is very unacceptable, and a rating of " +4 " means the number of boats is very acceptable. (Circle one number for each photograph.)
Very Unacceptable Very Acceptable

| Photo 1 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Photo 2 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |
| Photo 3 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |
| Photo 4 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |
| Photo 5 | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |

c. Which photograph shows the number of boats you would prefer to see?

Photo number: $\qquad$
d. Which photograph shows the number of boats you think is so unacceptable you would no longer fish at the refuge? (If none of the photographs represent this condition, you may indicate that.)

Photo number: $\qquad$
OR
None of the photographs are so unacceptable that I would no longer fish at the refuge.
e. Which photograph shows the highest number of boats you think should be allowed at fishing areas at the refuge? In other words, at what point should visitors be restricted from fishing at the refuge? (If visitor use should not be restricted at any point represented by the photographs, or not restricted at all, you may indicate that.)

Photo number: $\qquad$
OR

None of the photographs show a high enough level of use to restrict visitors from fishing at the refuge.

## OR

Fishing should not be restricted at the refuge.
f. Which photograph looks most like the number of fishing boats you saw at the refuge today?

Photo number: $\qquad$
7. Please read and follow the instructions for each statement.
a. To avoid disturbing nesting loons and waterfowl, you should: (Circle all numbers that apply.)

1. Paddle or motor quietly, close to the shoreline.
2. Paddle or motor close to the shoreline, but try to make enough noise to warn incubating birds that you are coming.
3. Paddle or motor quietly, well away from the shoreline.
4. Paddle or motor well away from the shoreline, but try to make enough noise to warn incubating birds that you are coming.
b. It is best to observe or photograph wildlife by: (Circle all numbers that apply.)
5. Using binoculars or a telephoto lens to see the animal clearly, while keeping your distance.
6. Moving very slowly and quietly, while approaching the animal as closely as possible.
7. Using food to attract wildlife, so you can get a good photo.
8. Approaching the animal from behind, so it is less likely to see you.
c. What should you do if you see the nest or the young of a loon or duck? (Circle all numbers that apply.)
9. Approach no closer than 15 ft . and report what you see to a refuge staff member or State conservation officer.
10. Attempt to capture the young bird and return it to the nest or parent.
11. Stay near the nest or young to see if the parents will return.
12. You should never knowingly approach a nest or a young waterbird.
d. Which of the following statements is true? (Circle all numbers that apply.)
13. Loons are most sensitive to disturbance during the breeding season, from May-July.
14. When a loon leaves its nest, the eggs are exposed to predation and chilling, which may result in nest failure.
15. A boat wake close to shore can flood a loon nest and result in loss of the eggs.
16. A loon on a nest keeps its neck low and extended over the water, in order to keep cool while incubating eggs.
e. How do you know if you are getting too close to an animal? (Circle all numbers that apply.)
17. It changes its behavior in some way (e.g. from eating or grooming to alertly watching.)
18. It moves away from you.
19. It vocalizes.
20. It dives under the water.
21. The size of groups using Umbagog Lake and associated rivers in the refuge can vary. We would like to know how you feel about different group sizes. Please rate the acceptability of the following number of boats for a group of visitors to the refuge. (Circle one number for each group size.)

|  | Very Unacceptable |  |  |  | Very Acceptable |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 boat | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |
| 2 boats | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |
| 3 boats | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |
| 4 boats | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |
| 5 boats | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |
| 6 boats | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |
| 7 boats | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |
| 8 boats | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |
| 9 boats | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |
| 10 boats | -4 | -3 | -2 | -1 | 0 | +1 | +2 | +3 | +4 |

9. To help ensure a high quality visitor experience at the refuge, what is the minimum acceptable percentage of visitors who should be able to see each of the following types of wildlife each day? (Indicate a percentage for each type of wildlife.)
Minimum Acceptable Percentage
of Visitors
a. See a loon
b. See an eagle
c. See an osprey
d. See waterfowl
e. See a moose

| $\%$ |
| ---: |
| $\%$ |
| $\%$ |
| $\%$ |
| $\%$ |
| $\%$ |

10. [If you did not fish at the refuge today, please skip to question 11.]

To ensure a high quality visitor experience at the refuge, what is the minimum acceptable percentage of anglers who should catch the following types of fish each day? (Indicate a percentage for type of fish.)

| Minimum Acceptable Percentage <br> of Visitors |
| :---: |

a. Catch a bass $\quad$ \%
b. Catch a trout or salmon
— $\%$
c. Catch other fish species
\%
11a. Did you camp at a remote campsite at the refuge on this trip? (Circle one number.)

1. Yes
2. No (Skip to question 12.)
b. To help ensure a high quality visitor experience at the refuge, what is the maximum number of boats per day that should pass close to a remote campsite? (Enter a number.)

Maximum number of boats per day: $\qquad$
c. Approximately how many boats per day passed close by your remote campsite?

Number of boats per day: $\qquad$
12. The following management actions might be taken at the refuge to improve wildlife habitat and/or enhance the quality of the visitor experience. Please indicate the extent to which you support or oppose each of the following management actions. (Circle one number for each item.)

| Strongly <br> Oppose | Oppose | Support | Strongly <br> Support |
| :--- | :--- | :--- | :--- |

a. Limit the number of boats $\begin{array}{lllll}\text { on the lake/rivers } & -2 & -1 & +1 & +2\end{array}$
b. Limit the number of motor $\begin{array}{lllll}\text { boats on the lake/rivers } & -2 & -1 & +1 & +2\end{array}$
c. Limit the number of canoes/ kayaks on the lake/rivers
$-1 \quad+1+2$
d. Limit the speed of boats $\begin{array}{lllll}\text { on the lake/rivers } & -2 & -1 & +1 & +2\end{array}$
e. Limit the horsepower of motor boats on the lake/ rivers
-2
$-1 \quad+1 \quad+2$
f. Limit the noise generated by motor boats
g. Require clean emission engines for motor boats
h. Ban motor boats from the lake/rivers
-2
$-1 \quad+1$
$+2$
i. Educate visitors more aggressively about minimizing impacts on wildlife
$-2$
-1
$+1$
$+2$
j. Enforce regulations more aggressively about minimizing impacts on wildlife
$-2$
$-1 \quad+1$
$+2$
k. Close sensitive wildlife areas to visitor use
$-1 \quad+1$
$+2$

1. Improve wildlife habitat through forest management (e.g., selective cutting of trees) that might be seen from the lake. -2
m. Improve wildlife habitat by substantially reducing the depth of the lake $-2$
n. Reduce number of campsites to protect wildlife
o. Relocate campsites to protect wildlife
$-1 \quad+1 \quad+2$
p. Add more shore-based fishing access (e.g., docks) -2
$-1 \quad+1 \quad+2$
q. Separate recreation activities that conflict with each other
r. Regulate use and/or type of fishing tackle to protect wildlife
s. Close campsites during wildlife breeding seasons
t. Close areas to fishing to protect wildlife
$-1 \quad+1$
$+2$
u. Limit additional shoreline development
v. Expand parking at access areas
$-1 \quad+1$
$+2$
w. Add more boat ramps
$-2$

| -1 | +1 | +2 |
| :--- | :--- | :--- |
| -1 | +1 | +2 |

13. Do you live in the United States?
$\square$ Yes $\rightarrow$ What is your zip code?
$\square$ No $\rightarrow$ What country do you live in?
14. Are you?
$\square$ Male $\square$ Female
15. In what year were you born? $\qquad$

Thank you for completing the survey.

