



National Wildlife Refuge Visitor Survey 2012: Individual Refuge Results for Lee Metcalf National Wildlife Refuge

By Alia M. Dietsch, Natalie R. Sexton, Lynne Koontz, and Shannon J. Conk

The Lee Metcalf National Wildlife Refuge provides a close, convenient and safe environment to explore and learn while appreciating the importance of respecting a trail system and the animals nesting and foraging around it. I feel that our frequent use of this resource has allowed me to better instill a sense of respect and appreciation for nature and public lands in my child. A jungle gym and slide is one thing, but watching a blue heron catch fish, great-horned owls nesting with their young, and having bald eagles land in a tree above your head is way cooler. Thank you.

— *Survey comment from a visitor to Lee Metcalf National Wildlife Refuge*



Lee Metcalf National Wildlife Refuge. Photo credit: U.S. Fish and Wildlife Service.

Contents

Acknowledgments	iv
Introduction	1
Organization of Results	2
Methods	3
Selecting Participating Refuges.....	3
Developing the Survey Instrument	3
Contacting Visitors	3
Interpreting the Results	5
Refuge Description.....	5
Sampling at This Refuge	8
Selected Survey Results	9
Visitor and Trip Characteristics.....	9
Visitor Spending in Local Communities	17
Visitor Opinions about This Refuge	18
Visitor Opinions about National Wildlife Refuge System Topics	23
Conclusion	28
References Cited	29
Appendix A: Survey Frequencies for This Refuge.....	A-1
Appendix B: Visitor Comments for This Refuge	B-1

Figures

1.	Map of this refuge.....	7
2.	How visitors first learned or heard about this refuge.....	10
3.	Resources used by visitors to find their way to this refuge during this visit.....	10
4.	Number of visitors travelling to this refuge by place of residence.....	12
5.	Modes of transportation used by visitors to this refuge during this visit.....	13
6.	Activities in which visitors participated during the past 12 months at this refuge.....	14
7.	The primary activity in which visitors participated during this visit to this refuge.....	15
8.	Visitor center activities in which visitors participated at this refuge.....	15
9.	Overall satisfaction with this refuge during this visit.....	18
10.	Importance-satisfaction ratings of services and facilities provided at this refuge.....	20
11.	Importance-satisfaction ratings of recreational opportunities provided at this refuge.....	21
12.	Importance-satisfaction ratings of transportation-related features at this refuge.....	22
13.	Visitors' likelihood of using alternative transportation options at refuges in the future.....	24
14.	Visitors' personal involvement with climate change related to fish, wildlife and their habitats.....	26
15.	Visitors' beliefs about the effects of climate change on fish, wildlife and their habitats.....	27

Tables

1.	Refuges participating in the 2012 national wildlife refuge visitor survey.....	4
2.	Sampling and response rate summary for this refuge.....	8
3.	Influence of this refuge on visitors' decisions to take their trips.....	11
4.	Type and size of groups visiting this refuge.....	13
5.	Total visitor expenditures in local communities and at this refuge expressed in dollars per person per day.....	17

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Introduction

The National Wildlife Refuge System (Refuge System), established in 1903 and managed by the U.S. Fish and Wildlife Service (Service), is the leading network of protected lands and waters in the world specifically dedicated to the conservation of fish, wildlife, and their habitats. There are 560 national wildlife refuges (refuges) and 38 wetland management districts nationwide, including possessions and territories in the Pacific and Caribbean, encompassing more than 150 million acres (U.S. Fish and Wildlife Service, 2013). As stated in the National Wildlife Refuge Improvement Act of 1997, the mission of the Refuge System is “to administer a national network of lands and waters for the conservation, management and, where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.” Part of achieving this mission is the goal “to foster understanding and instill appreciation of the diversity and interconnectedness of fish, wildlife, and plants, and their habitats” and the goal “to provide and enhance opportunities to participate in compatible wildlife-dependent recreation” (U.S. Fish and Wildlife Service, 2006, p. 2). The Refuge System attracts nearly 45 million visitors annually, including 34.8 million people who observe and photograph wildlife, 9.6 million who hunt and fish, and nearly 675,000 teachers and students who use refuges as “outdoor classrooms” (U.S. Fish and Wildlife Service, 2012). Understanding visitor perceptions of refuges and characterizing their experiences on refuges are critical elements of managing these lands and meeting the goals of the Refuge System.

The Service contracted with the U.S. Geological Survey (USGS) to conduct a national survey of visitors regarding their experiences on refuges. The purpose of the survey was to better understand visitor experiences and trip characteristics, to gauge visitors’ levels of satisfaction with existing recreational opportunities, and to garner feedback to inform the design of programs and facilities. The survey results will inform performance, planning, budget, and communications goals. Results will also inform Comprehensive Conservation Plans (CCPs), visitor services, and transportation planning processes.

Organization of Results

These results are specific to visitors who were contacted at Lee Metcalf National Wildlife Refuge (NWR) (this refuge) during the specified sampling periods and are part of USGS Data Series 754. All refuges participating in the 2012 survey effort will receive individual refuge results specific to the visitors to that refuge. Each set of results is organized by the following categories:

- **Introduction:** An overview of the Refuge System and the goals of the national survey effort.
- **Methods:** The procedures for the national survey effort, including selecting refuges, developing the survey instrument, contacting visitors, and guidance for interpreting the results.
- **Refuge Description:** A brief description of the refuge location, acreage, purpose, recreational activities, and visitation statistics, including a map (where available) and refuge website link.
- **Sampling at This Refuge:** The sampling periods, locations, and response rate for this refuge.
- **Selected Survey Results:** Key findings for this refuge, including:
 - Visitor and trip characteristics
 - Visitor spending in the local communities
 - Visitors opinions about this refuge
 - Visitor opinions about Refuge System topics
- **Conclusion**
- **References Cited**
- **Survey Frequencies (Appendix A):** The survey instrument with frequency results for this refuge.
- **Visitor Comments (Appendix B):** The verbatim responses to open-ended survey questions for this refuge.

Methods

Selecting Participating Refuges

The national visitor survey was conducted from January–December 2012 on 25 refuges across the Refuge System (table 1). Each refuge was selected for participation by the Refuge Transportation Program National Coordinator in conjunction with regional office Visitor Services Chiefs. Selection was based on the need to inform transportation planning processes at the national level and to address refuge planning and transportation needs at the individual refuge level.

Developing the Survey Instrument

Researchers at the USGS developed the survey in consultation with the Service Headquarters Office, managers, planners, and visitor services professionals. The survey was peer-reviewed by academic and government researchers and was further pre-tested with eight Refuge System Friends Group representatives (one from each region) to ensure readability and overall clarity. The survey and associated methodology were approved by the Office of Management and Budget (OMB control #: 1018-0145; expiration date: 6/30/2013).

Contacting Visitors

Refuge staff identified two separate 15-day sampling periods, and one or more locations at which to sample, that best reflected the diversity of use and specific visitation patterns of each participating refuge. Sampling periods and locations were identified by refuge staff and submitted to the USGS via an internal website that included a customized mapping tool. A standardized sampling schedule was created for all refuges that included eight randomly selected sampling shifts during each of the two sampling periods. Sampling shifts were 3–5 hour (hr) time bands, stratified across AM and PM as well as weekend and weekdays. In coordination with refuge staff, any necessary customizations were made to the standardized schedule to accommodate the identified sampling locations and to address specific spatial and temporal patterns of visitation.

Twenty visitors (18 years of age or older) per sampling shift were systematically selected, for a total of 320 willing participants per refuge (or 160 per sampling period) to ensure an adequate sample of completed surveys. When necessary, shifts were moved, added, or extended to alleviate logistical limitations (for example, weather or low visitation at a particular site) in an effort to reach target numbers.

Table 1. Refuges participating in the 2012 national wildlife refuge visitor survey.

Pacific Region (R1)
Ridgefield National Wildlife Refuge (WA)
Southwest Region (R2)
Balcones Canyonlands National Wildlife Refuge (TX)
Hagerman National Wildlife Refuge (TX)
Kofa National Wildlife Refuge (AZ)
Santa Ana National Wildlife Refuge (TX)
Tishomingo National Wildlife Refuge (OK)
Great Lakes-Big Rivers Region (R3)
La Crosse District, Upper Mississippi River National Wildlife and Fish Refuge (WI)
Minnesota Valley National Wildlife Refuge (MN)
Southeast Region (R4)
Crystal River National Wildlife Refuge (FL)
Eufaula National Wildlife Refuge (AL)
Felsenthal National Wildlife Refuge (AR)
Lacassine National Wildlife Refuge (LA)
National Key Deer Refuge (FL)
Savannah National Wildlife Refuge (GA/SC)
Northeast Region (R5)
Assabet River National Wildlife Refuge (MA)
Back Bay National Wildlife Refuge (VA)
Chincoteague National Wildlife Refuge (VA)
Edwin B. Forsythe National Wildlife Refuge (NJ)
Rachel Carson National Wildlife Refuge (ME)
Mountain-Prairie Region (R6)
Bear River Migratory Bird Refuge (UT)
Lee Metcalf National Wildlife Refuge (MT)
Rocky Mountain Arsenal National Wildlife Refuge (CO)
National Bison Range (MT)
California and Nevada Region (R8)
Don Edwards San Francisco Bay National Wildlife Refuge (CA)
San Luis National Wildlife Refuge (CA)

Refuge staff and/or volunteers (survey recruiters) contacted visitors onsite following a protocol provided by the USGS that was designed to obtain a representative sample. Instructions included contacting visitors across the entire sampling shift (for example, every nth visitor for dense visitation, as often as possible for sparse visitation) and contacting only one person per group. Visitors were informed of the survey effort, given a token incentive (for example, a small magnet or temporary tattoo), and asked to participate. Willing participants provided their name, mailing address, and preference for language (English or Spanish) and survey mode (mail or online). Survey recruiters were also instructed to record any refusals and then proceed with the sampling protocol.

All visitors that agreed onsite to fill out a survey received the same sequence of correspondence regardless of their preference for survey mode. This approach allowed for an assessment of visitors' likelihood of completing the survey by their preferred survey mode (see Sexton and others, 2011). Researchers at the USGS sent the following materials to all visitors agreeing to participate who had not yet completed a survey at the time of each mailing (Dillman, 2007):

- A postcard mailed within 10 days of the initial onsite contact thanking visitors for agreeing to participate in the survey and inviting them to complete the survey online.
- A packet mailed 9 days later consisting of a cover letter, survey, and postage paid envelope for returning a completed paper survey.
- A reminder postcard mailed 7 days later.
- A second packet mailed 14 days later consisting of another cover letter, survey, and postage paid envelope for returning a completed paper survey.

Each mailing included instructions for completing the survey online, so visitors had an opportunity to complete an online survey with each mailing. Those visitors indicating a preference for Spanish were sent Spanish versions of all correspondence (including the survey). Finally, a short survey of six questions was sent to nonrespondents four weeks after the second survey packet to determine any differences between respondents and nonrespondents at the aggregate level. Online survey data were exported and paper survey data were entered into Microsoft Excel using a standardized survey codebook and data entry procedure. All survey data were analyzed using *Statistical Package for the Social Sciences* (SPSS, v.20) software¹.

Interpreting the Results

The extent to which these results accurately represent the total population of visitors to this refuge is dependent on the number of visitors who completed the survey (sample size) and the ability of the variation resulting from that sample to reflect the beliefs and interests of different visitor user groups (Scheaffer and others, 1996). The composition of the sample is dependent on the ability of the standardized sampling

¹ Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

protocol for this study to account for the spatial and temporal patterns of visitor use unique to each refuge. Spatially, the geographical layout and public-use infrastructure varies widely across refuges. Some refuges can be accessed only through a single entrance, while others have multiple unmonitored access points across large expanses of land and water. As a result, the degree to which sampling locations effectively captured spatial patterns of visitor use will vary from refuge to refuge. Temporally, the two 15-day sampling periods may not have effectively captured all of the predominant visitor uses/activities on some refuges during the course of a year, which may result in certain survey measures such as visitors' self-reported "primary activity during their visit" reflecting a seasonality bias. Results contained within this report may not apply to visitors during all times of the year or to visitors who did not visit the survey locations.

In this report, visitors who responded to the survey are referred to simply as "visitors." However, when interpreting the results for Lee Metcalf NWR, any potential spatial and temporal sampling limitation specific to this refuge needs to be considered when generalizing the results to the total population of visitors. For example, a refuge that sampled during a special event (for example, birding festival) held during the spring may have contacted a higher percentage of visitors who traveled greater than 50 miles (mi) to get to the refuge than the actual number of these people who would have visited throughout the calendar year (that is, oversampling of nonlocals). Another refuge may not have enough nonlocal visitors in the sample to adequately represent the beliefs and opinions of that group type. If the sample for a specific group type (for example, nonlocals, hunters) is too low ($n < 30$), a warning is included in the text. Finally, the term "this visit" is used to reference the visit during which people were contacted to participate in the survey.

Refuge Description for Lee Metcalf National Wildlife Refuge

Lee Metcalf National Wildlife Refuge is located along the Bitterroot River in the Bitterroot Valley of western Montana. The 2,800 acre refuge was established in 1963 to provide habitat for migratory birds and is named after the late Senator Lee Metcalf, an avid conservationist and local high school graduate. The refuge is managed primarily to provide ideal nesting, feeding, and cover habitat for the 238 different bird species that have been spotted on the refuge. Management efforts include a series of water control structures to provide varying water depths and characteristics for wetland habitats. The refuge is one of the last undeveloped areas in the valley.

Each year, just over 160,000 visitors spend time at the refuge enjoying a wide range of activities, including wildlife observation, birding, photography, archery deer hunting, waterfowl hunting, fishing, environmental education, over two miles of nature trails and a scenic driving route (2011 Refuge Annual Performance Plan measures; Rob Miller, U.S. Fish and Wildlife Service, 2012, written commun.). The refuge has an intact homestead built circa 1885 that offers an excellent historical lesson in vernacular frontier architecture, and is also situated on land that was once home to the Salish Native American Tribe. Figure 1 displays a map of Lee Metcalf NWR. For more information regarding the refuge, please visit <http://www.fws.gov/leemetcalf/>.

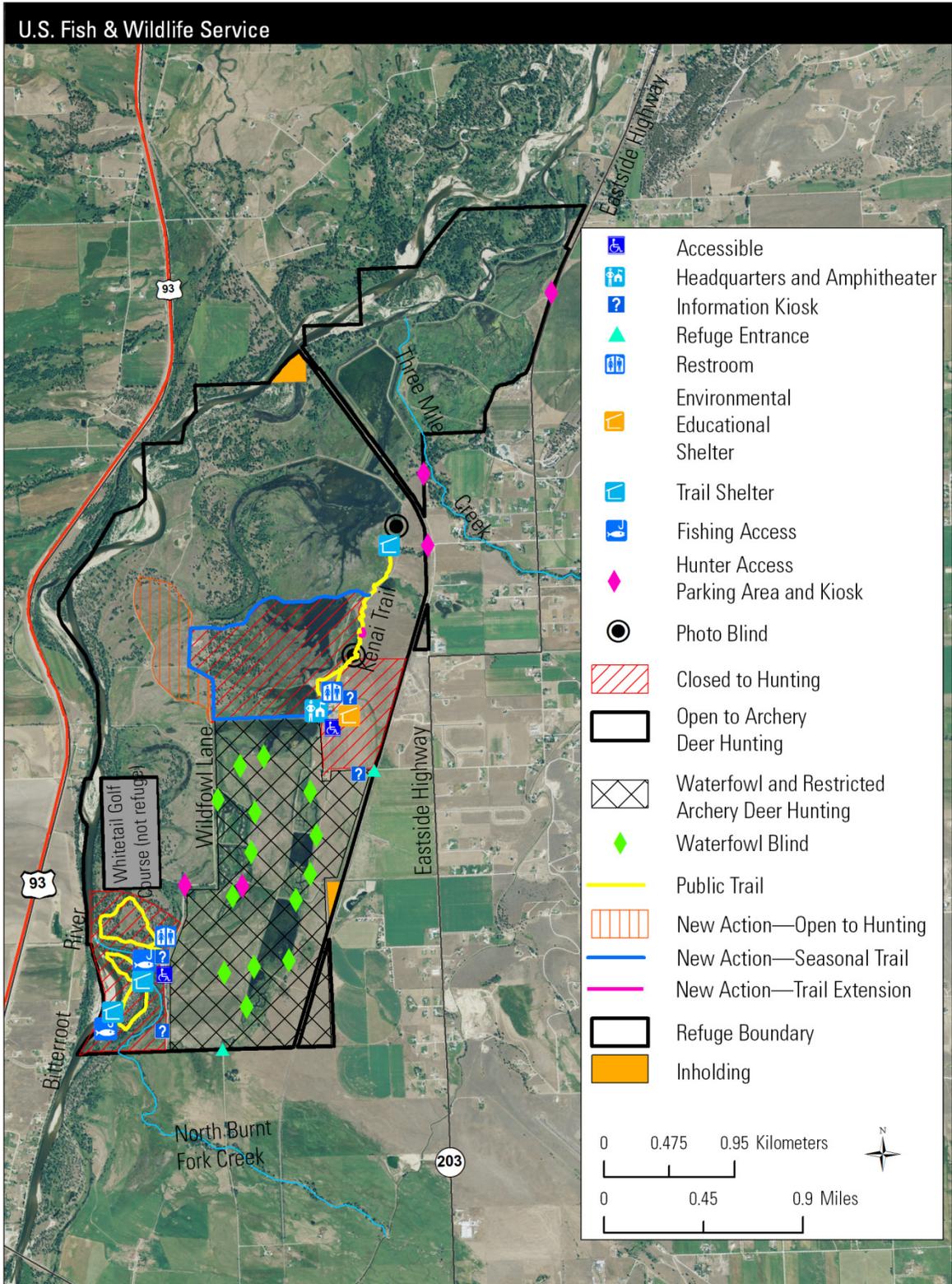


Figure 1. Map of Lee Metcalf NWR, courtesy of U.S. Fish and Wildlife Service.

Sampling at Lee Metcalf National Wildlife Refuge

A total of 241 visitors agreed to participate in the survey during the two sampling periods at the identified locations at Lee Metcalf NWR (table 2). In all, 171 visitors completed the survey for a 74% response rate, and $\pm 6.0\%$ margin of error at the 95% confidence level.²

Table 2. Sampling and response rate summary for Lee Metcalf NWR.

Sampling period	Dates	Locations	Total contacts	Undeliverable addresses	Completed surveys	Response rate
1	6/9/2012 to 6/23/2012	Visitor Center Wildlife Viewing Area				
		SP1 Totals	91	0	74	81%
		Wildlife Viewing Area				
2	9/29/2012 to 10/13/2012	South Rathbun Hunter Access Parking Visitor Center and Kenai Nature Trail Waterfowl Hunt Area				
		SP2 Totals	150	11	97	70%
		Combined Totals	241	12	171	74%

² A margin of error of $\pm 5\%$ at a 95% confidence level, for example, means that, if a reported percentage is 55%, then 95 out of 100 times, that sample estimate would fall between 50% and 60% if the same question was asked in the same way. The margin of error is calculated with an 80/20 response distribution, assuming that for a given dichotomous choice question, approximately 80% of respondents would select one choice and 20% would select the other choice (Salant and Dillman, 1994).

Selected Survey Results

Visitor and Trip Characteristics

A solid understanding of visitor characteristics and details about their trips to refuges can inform communication and outreach efforts, inform managers about desired types of visitor services and modes of transportation used on refuges, and help forecast use and gauge demand for services and facilities.

Familiarity with the Refuge System

Many visitors to Lee Metcalf NWR reported that before participating in the survey, they were aware of the role of the Service in managing refuges (91%) and that the Refuge System has the mission of conserving, managing, and restoring fish, wildlife, plants, and their habitats (93%). It is important to note that we did not ask visitors to identify the mission of the Refuge System or the Service, and positive responses to these questions concerning the management and mission of the Refuge System do not necessarily indicate that these visitors fully understand the day-to-day management practices of individual refuges, only that visitors feel they have a basic knowledge of who manages refuges and why.

Most visitors (87%) feel that refuges, compared to other public lands, provide a unique recreation experience (see Appendix B for visitor comments on “What Makes National Wildlife Refuges Unique?”); however, reasons for why visitors find refuges unique are varied and may not directly correspond to their understanding of the mission of the Refuge System.

Some visitors to Lee Metcalf NWR had been to at least one *other* national wildlife refuge in the past year (44%), with an average of 4 visits to *other* refuges during the past 12 months.

Visiting This Refuge

Few surveyed visitors (18%) had only been to Lee Metcalf NWR once in the past 12 months, while most had been multiple times (82%). These repeat visitors went to the refuge an average of 30 times during that same 12-month period. Visitors used the refuge during only one season (27%), during multiple seasons (32%), and year-round (41%).

Most visitors first learned about the refuge from friends/relatives (53%), signs on the highway (33%), or people in the local community (30%; fig. 2). Key information sources used by visitors to find their way to this refuge include previous knowledge (81%), signs on highways (20%), or directions from friends/family (7%; fig. 3).

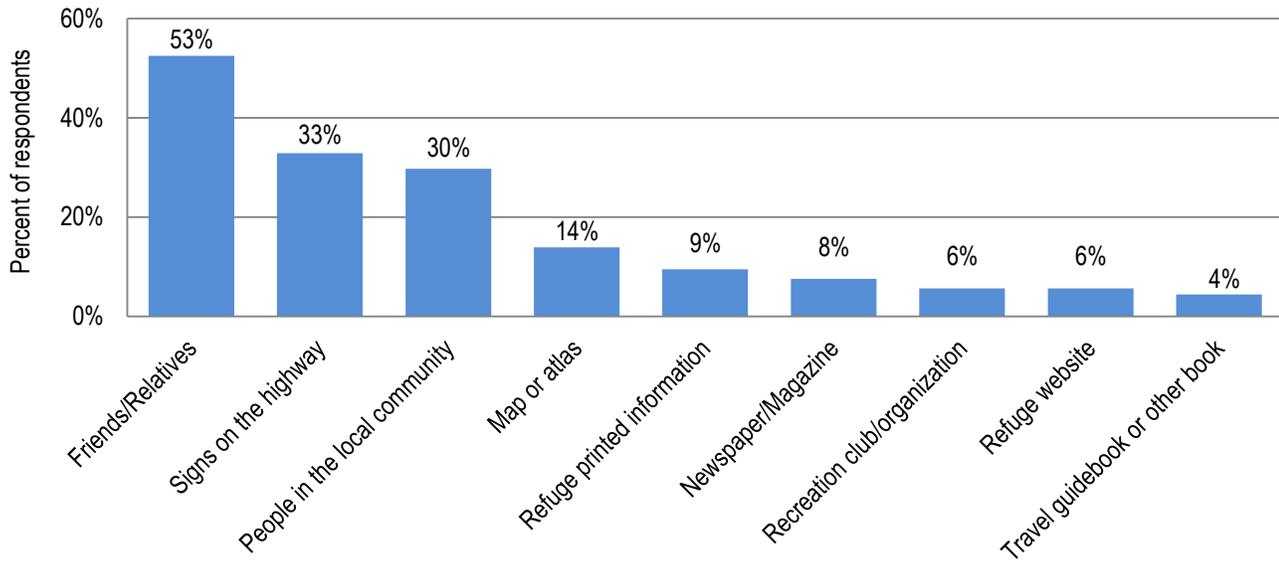


Figure 2. How visitors first learned or heard about Lee Metcalf NWR (n = 158).

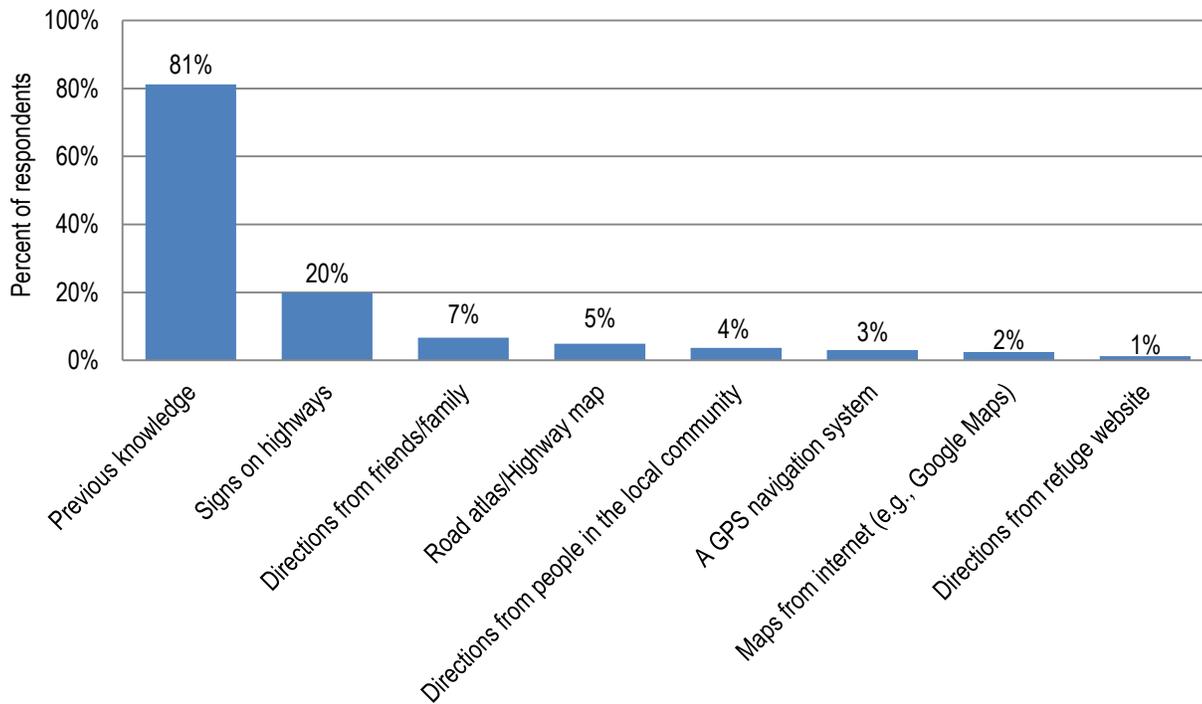


Figure 3. Resources used by visitors to find their way to Lee Metcalf NWR during this visit (n = 165).

Most visitors (85%) lived in the local area (within 50 mi of the refuge), whereas 15% were nonlocal visitors (n = 25). For most local visitors, Lee Metcalf NWR was the primary purpose or sole destination of their trips (77%; table 3). For almost half of nonlocal visitors, the refuge was one of many equally important reasons or destinations for their trips (48%). *It is important to note that summary statistics based on a small sample size (n < 30) may not provide a reliable representation of that population.*

Local visitors reported that they traveled an average of 15 mi to get to the refuge, while nonlocal visitors traveled an average of 694 mi. The average distance traveled for all visitors to this refuge was 68 mi, while the median was 12 miles. Figure 4 shows the residences of visitors traveling to this refuge. About 90% of visitors traveling to Lee Metcalf NWR were from Montana.

Table 3. Influence of Lee Metcalf NWR on visitors' decisions to take their trips.

Visitors	Visiting this refuge was...		
	the primary reason for trip	one of many equally important reasons for trip	an incidental stop
Nonlocal	32%	48%	20%
Local	77%	16%	7%
All visitors	70%	21%	9%

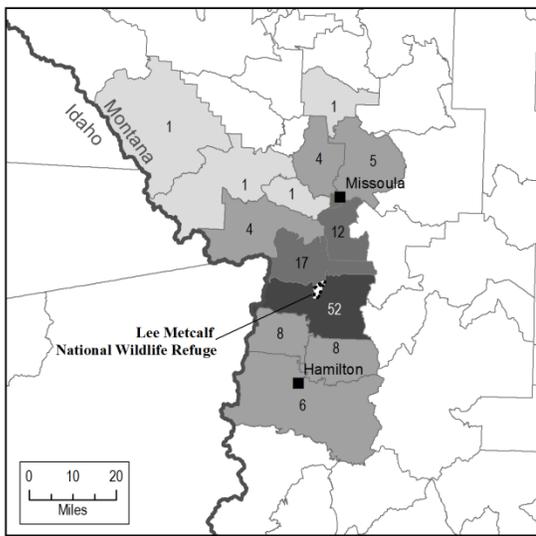
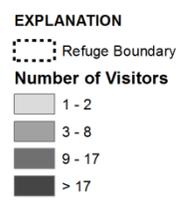
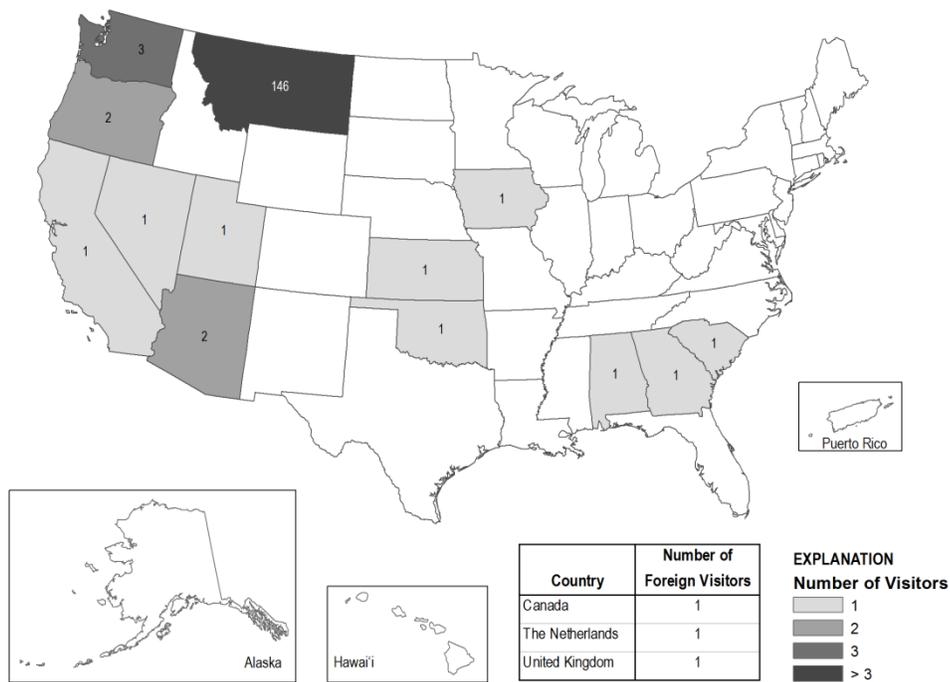


Figure 4. Number of visitors travelling to Lee Metcalf NWR by place of residence. The top map shows visitors residence by state and the bottom map shows residence by zip codes near the refuge (n = 166).

Surveyed visitors reported that they spent an average of 3 hours at Lee Metcalf NWR during one day there, while the most frequently reported length of a day visit, the modal response, was 2 hours (33%). Most visitors indicated they were part of a group on their visit to this refuge (75%). Of those people who indicated they traveled with a group, visitors primarily traveled with family/friends (table 4).

Table 4. Type and size of groups visiting Lee Metcalf NWR (for those who indicated they were part of a group, n = 164).

Group type	Percent (of those traveling in a group)	Average group size		
		Number of adults	Number of children	Total group size
Family/Friends	91%	2	1	3
Commercial tour group	0%	0	0	0
Organized club/School group	6%	12	9	21
Other group type	3%	15	0	15

The key modes of transportation used by visitors to travel around the refuge were private vehicles (90%) and walking/hiking (28%; fig. 5).

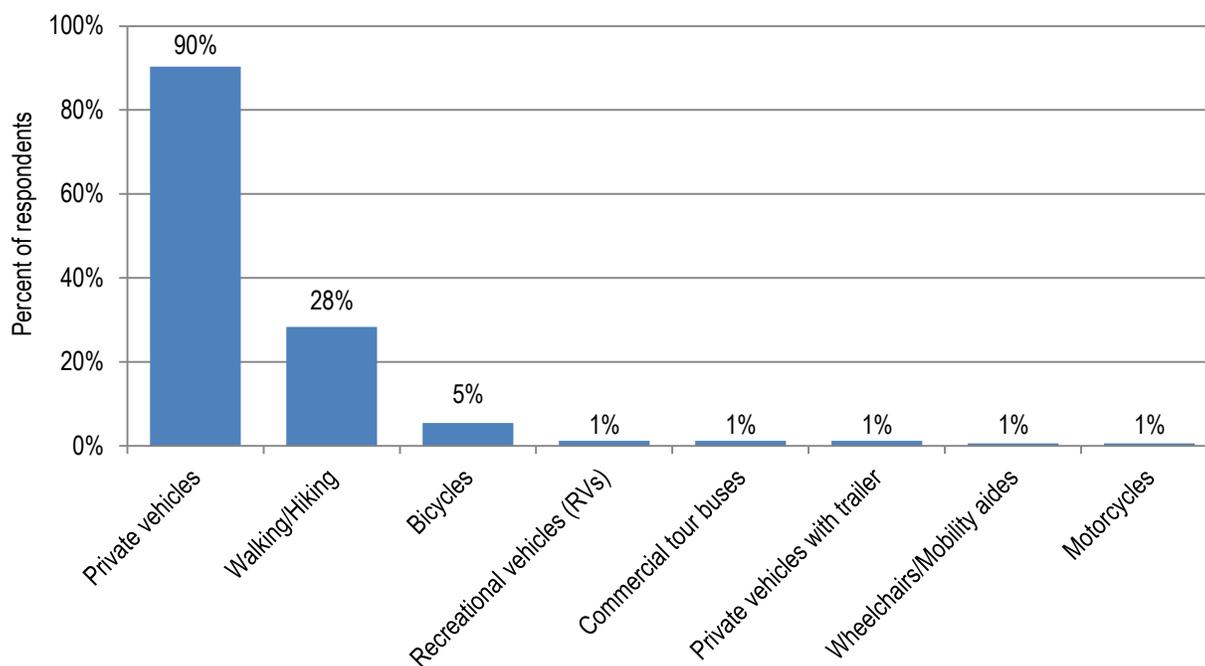


Figure 5. Modes of transportation used by visitors to Lee Metcalf NWR during this visit (n = 166).

Surveyed visitors participated in a variety of refuge activities during the 12 months prior to completing the survey (fig. 6); the top three activities in which people reported participating were wildlife observation (71%), bird watching (69%), and hiking (69%). The primary reasons for visitors' most recent visits included hiking (27%), bird watching (23%), and wildlife observation (12%; fig. 7). Many visitors also used the Visitor Center during their trips (50%), mostly to view the exhibits (83%), ask information of staff or volunteers (63%), or stop to use the facilities (55%; fig. 8).

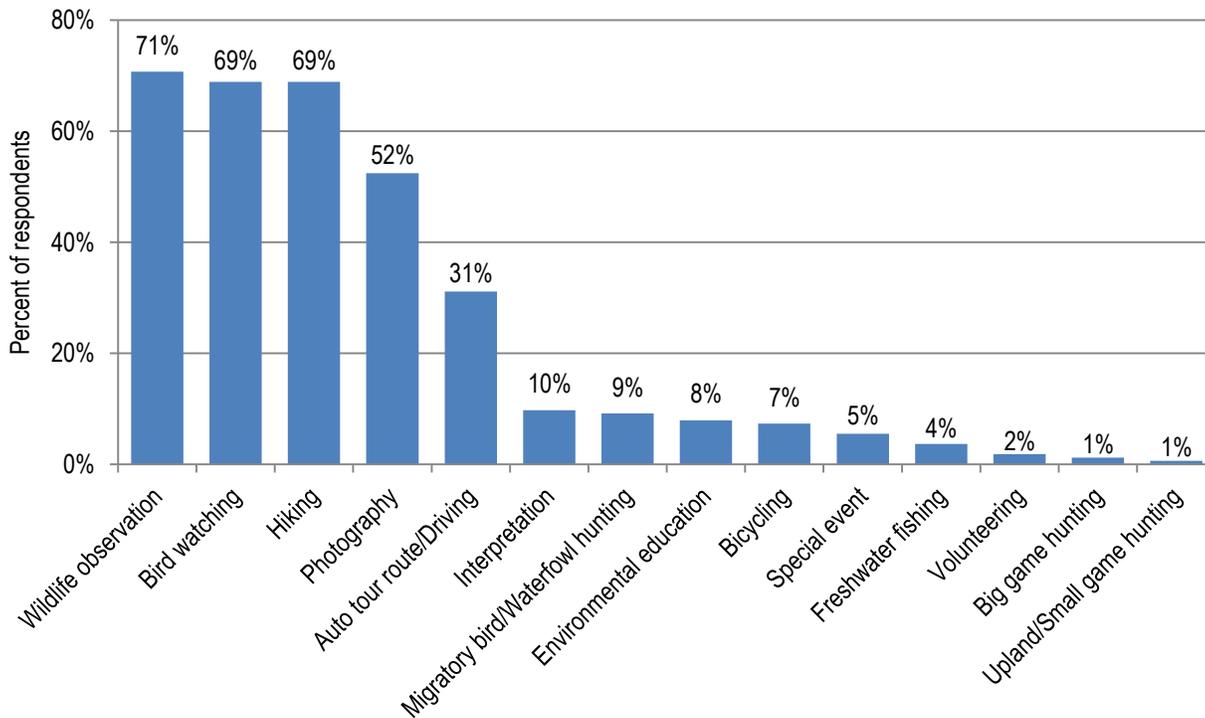


Figure 6. Activities in which visitors participated during the past 12 months at Lee Metcalf NWR (n = 164). See Appendix B for a listing of “other” activities.

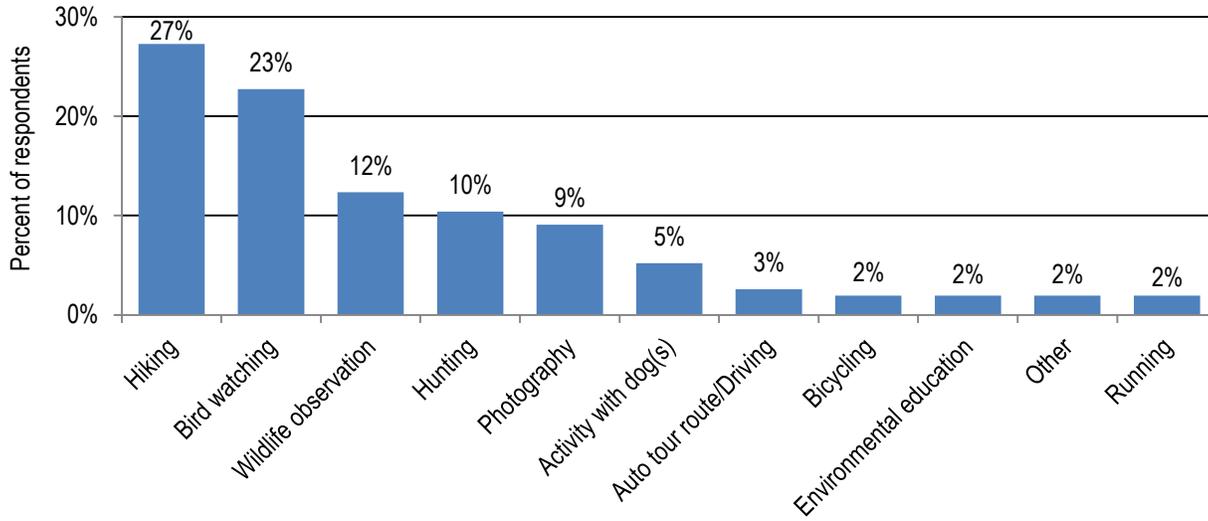


Figure 7. The **primary** activity in which visitors participated during this visit to Lee Metcalf NWR (n = 154). See Appendix B for a listing of “other” activities.

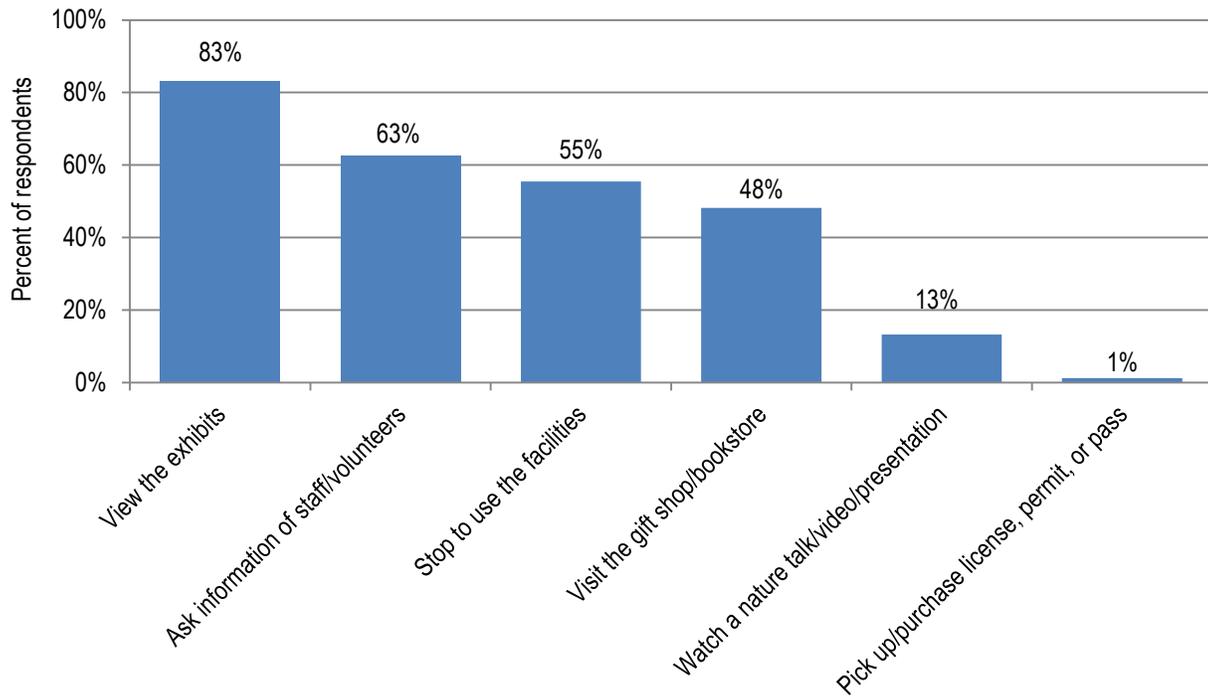


Figure 8. Visitor Center activities in which visitors participated at Lee Metcalf NWR (n = 83).

Visitor Characteristics

Most (95%) visitors who participated in the survey at Lee Metcalf NWR indicated that they were citizens or permanent residents of the United States. These visitors were a mix of 41% male (with an average age of 53 years) and 59% female (with an average age of 51 years). Visitors, on average, reported they had 16 years of formal education (equivalent to four years of college or technical school). The median level of income was \$75,000-\$99,999. See Appendix A for more demographic information.

In comparison to these results, the 2006 National Survey of Fishing, Hunting and Wildlife-Associated Recreation (U.S. Fish and Wildlife Service, 2007) found that participants in wildlife watching and hunting on public lands were 55% male and 45% female with an average age of 46 years, an average level of education of 16 years (equivalent to four years of college), and a median income of \$50,000-\$74,999 (Anna Harris, U.S. Fish and Wildlife Service, 2011, written commun.). Compared to the U.S. population, participants in wildlife-related recreation are more likely to be male, and tend to be older with higher education and income levels (U.S. Fish and Wildlife Service and U.S. Census Bureau, 2007).

Visitor Spending in Local Communities

Tourists usually buy a wide range of goods and services while visiting an area. Major expenditure categories include lodging, food, supplies, and gasoline. Spending associated with refuge visitation can generate considerable economic benefits for the local communities near a refuge. For example, more than 34.8 million visits were made to refuges in fiscal year 2006; these visits generated \$1.7 billion in sales, almost 27,000 jobs, and \$542.8 million in employment income in regional economies (Carver and Caudill, 2007). Information on the amount and types of visitor expenditures can illustrate the economic importance to local communities of visitor activities on refuges. Visitor expenditure information also can be used to analyze the economic impact of proposed refuge management alternatives.

Visitors that live within the local 50-mi area of a refuge typically have different spending patterns than those that travel from longer distances. During the two sampling periods, 85% of surveyed visitors to Lee Metcalf NWR indicated that they live within the local 50-mi area while nonlocal visitors (15%) stayed in the local area, on average, for 7 days. Table 5 shows summary statistics for local and nonlocal visitor expenditures in the local communities and at the refuge, with expenditures reported on a per person per day basis. During the two sampling periods, nonlocal visitors (n = 20) spent an average of \$59 per person per day and local visitors spent an average of \$15 per person per day in the local area. ***It is important to note that summary statistics based on a small sample size (n < 30) may not provide a reliable representation of that population.*** Several factors should be considered when estimating the economic importance of refuge-visitor spending in the local communities. These factors include the amount of time spent at the refuge, influence of the refuge on the visitors' decision to take this trip, and the representativeness of primary activities of the sample of surveyed visitors compared to the general population. Controlling for these factors is beyond the scope of the summary statistics presented in this report.

Table 5. Total visitor expenditures in local communities and at Lee Metcalf NWR expressed in dollars per person per day.

Visitors	n ¹	Median	Mean	Standard deviation	Minimum	Maximum
Nonlocal	<i>The sample size of nonlocals (n=20) was too low to adequately represent this visitor group.</i>					
Local	91	\$8	\$15	\$20	\$0	\$110

¹n = number of visitors who answered both locality *and* expenditure questions.

Note: For each respondent, reported expenditures were divided by the number of persons in their group that shared expenses in order to determine the spending per person per trip. This number was then divided by the number of days spent in the local area to determine the spending per person per day for each respondent. For respondents who reported spending less than one full day in the local community, trip length was set equal to one day. These visitor spending estimates are appropriate for the sampling periods selected by refuge staff (see table 2 for sampling period dates and figure 7 for the *primary* visitor activities in which people participated), and may not be representative of the total population of visitors to this refuge.

Visitor Opinions about this Refuge

Refuges provide visitors with a variety of services, facilities, and wildlife-dependent recreational opportunities. Understanding visitors' perceptions of refuge offerings is a key component of the Refuge System's mission. In particular, a baseline understanding of visitor experiences provides a framework from which the Refuge System can monitor trends in visitor experiences overtime, which is increasingly useful in the face of changing demographics and wildlife-related interests. Some studies on wildlife-related recreation trends have indicated declines in participation over the latter part of the 20th century in traditional activities such as hunting (for example, U.S. Department of the Interior and others, 2007), while others highlight a need to connect the next generation of people to nature and wildlife (for example, Charles and Louv, 2009). These types of factors highlight a need to better understand visitors' opinions of their refuge experiences and to monitor trends in these opinions over time.

Surveyed visitors' overall satisfaction ratings with the services, facilities, and recreational opportunities provided at Lee Metcalf NWR were as follows (fig. 9):

- 91% of visitors were satisfied with the recreational activities and opportunities,
- 87% of visitors were satisfied with the information and education about the refuge and its resources,
- 87% of visitors were satisfied with the services provided by employees or volunteers, and
- 91% of visitors were satisfied with the refuge's job of conserving fish, wildlife and their habitats.

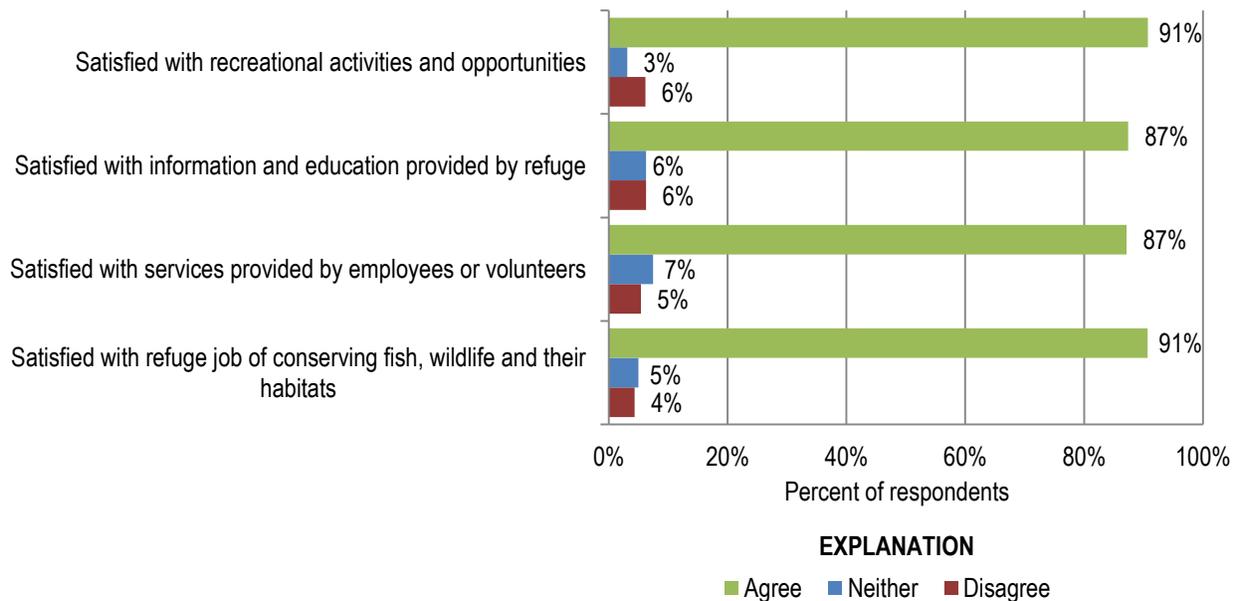


Figure 9. Overall satisfaction with Lee Metcalf NWR during this visit (n ≥ 148).

Importance/Satisfaction Ratings

Comparing the importance and satisfaction ratings for visitor services provided by refuges can help to identify how well the services are meeting visitor expectations. The importance-performance framework presented in this section is a tool that examines the importance of an attribute to visitors in relation to their satisfaction with that attribute (Martilla and James, 1977). Drawn from marketing research, this tool has been applied to outdoor recreation and visitation settings (for example, Tarrant and Smith, 2002). Results for the attributes of interest are segmented into one of four quadrants (modified slightly for this study):

- Keep Up the Good Work = high importance/high satisfaction;
- Concentrate Here = high importance/low satisfaction;
- Low Priority = low importance/low satisfaction; and
- Look Closer = low importance/high satisfaction.

Graphically plotting visitors' importance and satisfaction ratings for different services, facilities, and recreational opportunities provides a simple and intuitive visualization of these survey measures. However, this tool is not without its drawbacks. One is the potential for variation among different visitor groups regarding their expectations and levels of importance (Vaske and others, 1996; Bruyere and others, 2002; Wade and Eagles, 2003); certain services or recreational opportunities may be more or less important for different segments of the visitor population. For example, hunters may place more importance on hunting opportunities and amenities such as blinds, while school-group leaders may place more importance on educational/informational displays than would other visitors. This potential for highly varied importance ratings needs to be considered when viewing the average results of this analysis. This consideration is especially important when reviewing any attribute that falls into the "Look Closer" quadrant. In some cases, these attributes may represent specialized recreational activities in which a small subset of visitors participate (for example, hunting or kayaking) or facilities and services that only some visitors experience (for example, exhibits about the refuge). For these visitors, the average importance of (and potentially their satisfaction with) the attribute may be much higher than the overall importance (and satisfaction) would be for the sample of visitors summarized in this report.

Figures 10–12 depict surveyed visitors' importance-satisfaction ratings for refuge services and facilities, recreational opportunities, and transportation-related features at Lee Metcalf NWR. Results are summarized as follows:

- All refuge *services and facilities* fell in the "Keep Up the Good Work" quadrant (fig. 10).
- All refuge *recreational opportunities* fell in the "Keep Up the Good Work" quadrant except hunting and fishing opportunities, which fell into the "Look Closer" quadrant (fig. 11). The average importance of these two activities is likely higher among visitors to Lee Metcalf NWR who actually participated in the activities during the 12 months prior to taking the survey than the scores reported

here. For example, hunters, as part of the 2010-2011 national visitor survey, had an average importance score of 4.6 for this recreational opportunity, while the average importance score of hunting activities across all visitors was lower.

- All *transportation-related features* fell in the “Keep Up the Good Work” quadrant (fig. 12).

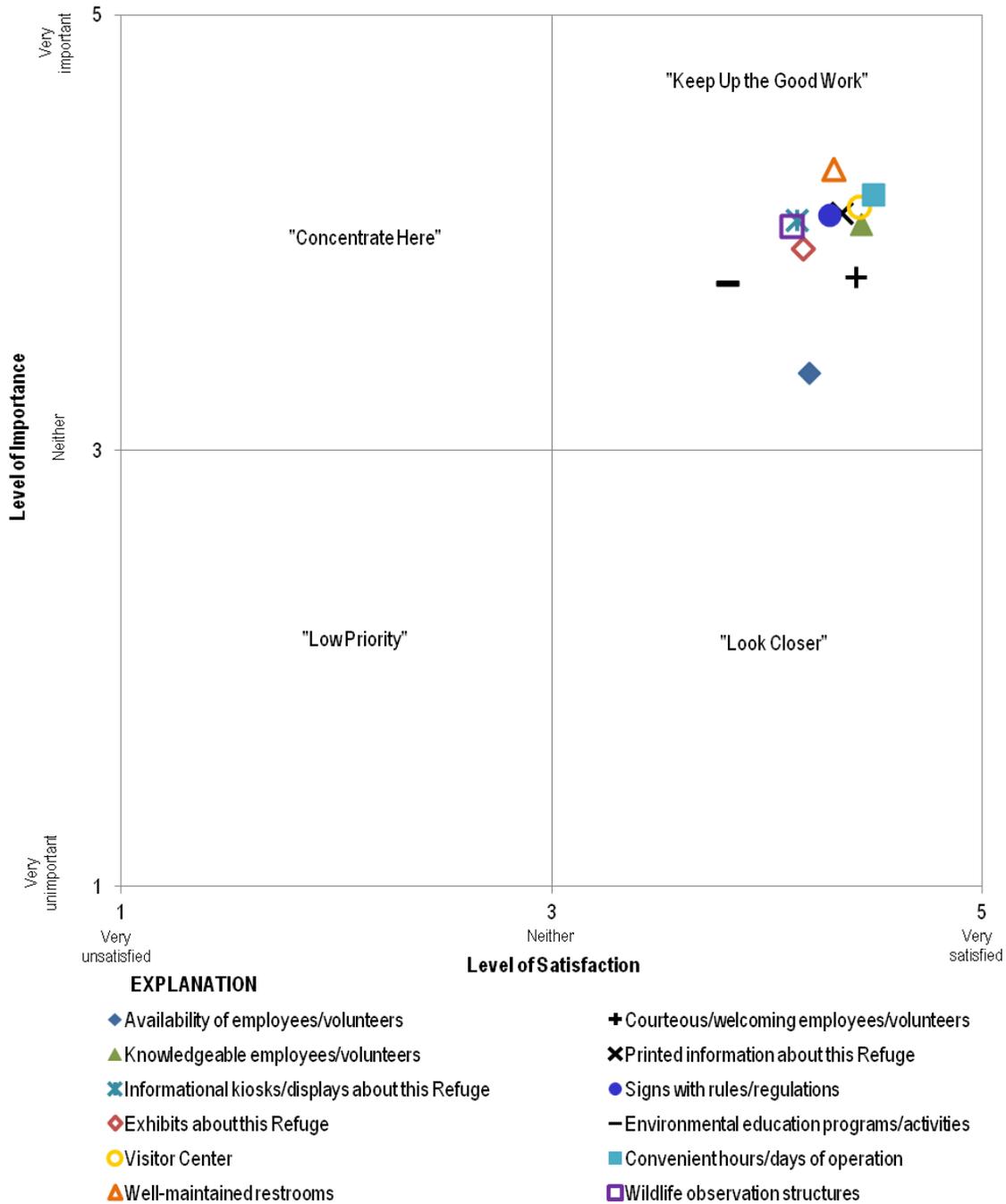
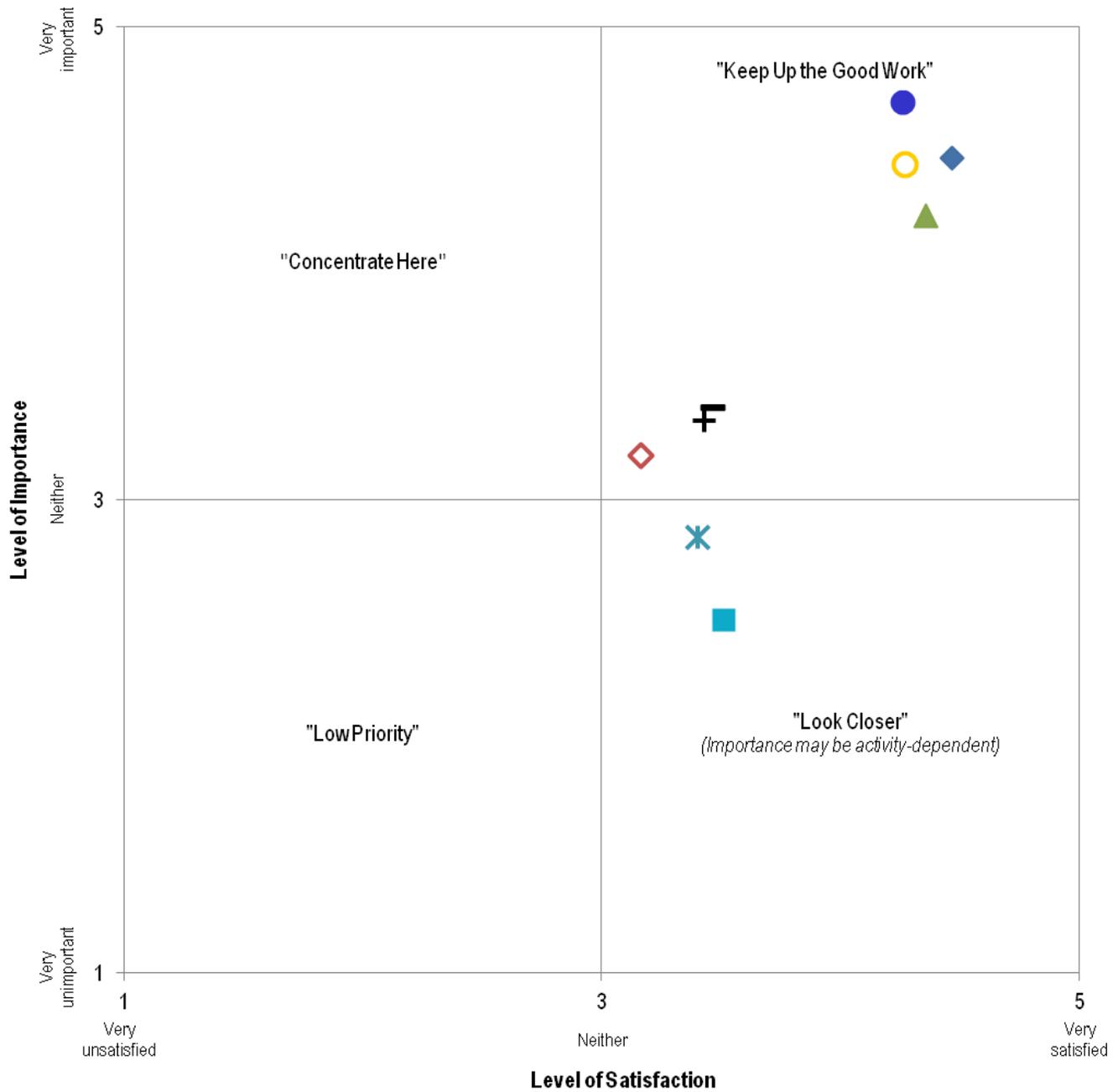


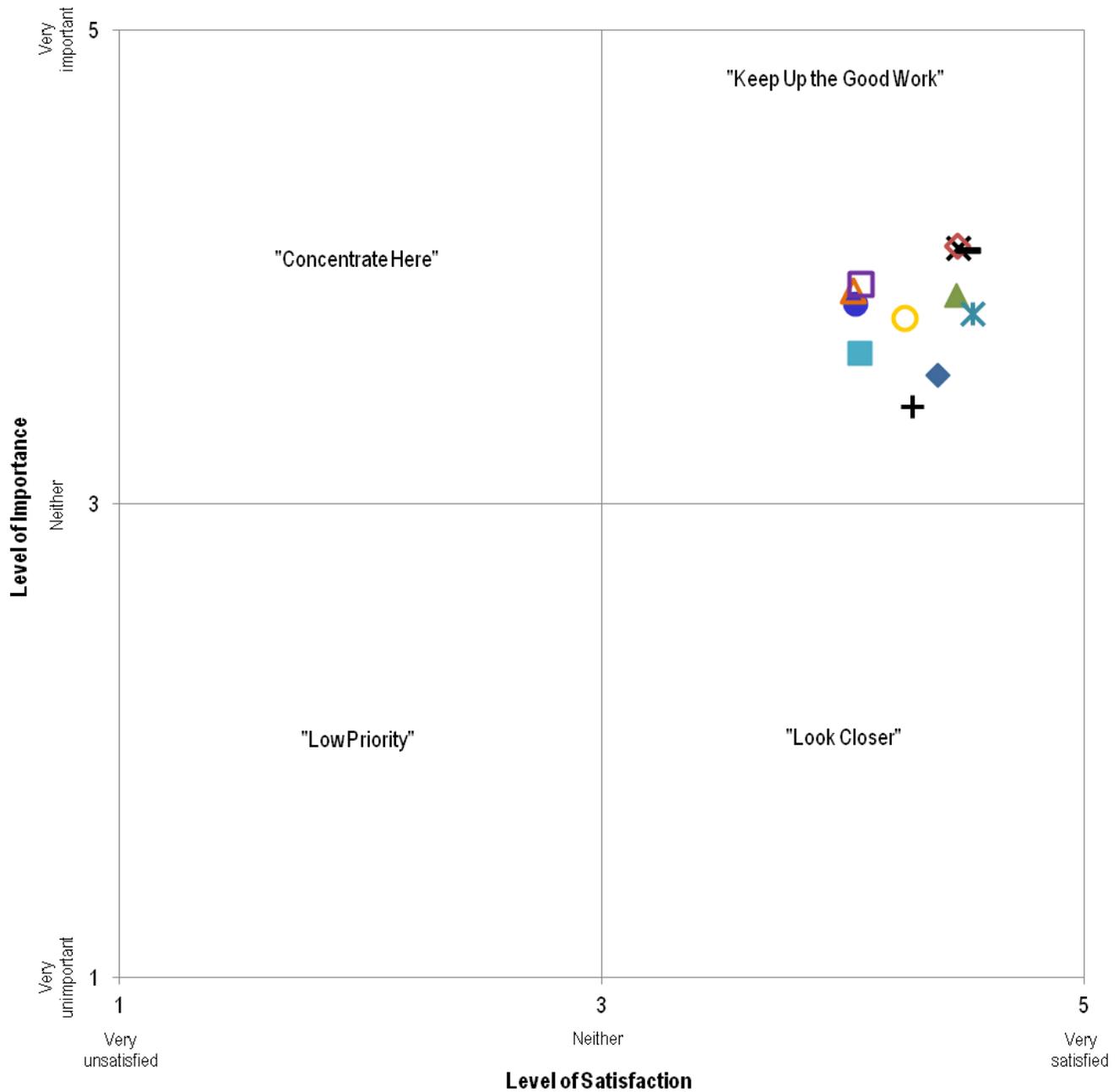
Figure 10. Importance-satisfaction ratings of services and facilities provided at Lee Metcalf NWR.



EXPLANATION

- ◆ Bird watching opportunities
- Hunting opportunities
- ◇ Kayak/Canoe opportunities
- Wildlife viewing opportunities
- ✕ Fishing opportunities
- Bicycling opportunities
- ▲ Photography opportunities
- Hiking opportunities
- ⊕ Volunteer opportunities

Figure 11. Importance-satisfaction ratings of recreational opportunities provided at Lee Metcalf NWR.



EXPLANATION

- ◆ Condition of roads
- ◆ Condition of parking areas
- ▲ Condition of bridges
- ✕ Condition of trails/boardwalks
- ✕ Number of parking places
- Number of pullovers
- ◇ Safety of driving conditions
- Safety of Refuge entrances
- Directional signs on highways
- Directional signs on Refuge
- ▲ Directional signs on trails
- Disabled access

Figure 12. Importance-satisfaction ratings of transportation-related features at Lee Metcalf NWR.

Visitor Opinions about National Wildlife Refuge System Topics

One goal of this national visitor survey was to identify visitor trends across the Refuge System to more effectively manage refuges and provide visitor services. Two important issues to the Refuge System are transportation on refuges and communicating with visitors about climate change. The results of these questions will be evaluated in aggregate form (data from all participating refuges together) to better address national-level goals. Basic results for Lee Metcalf NWR are reported here.

Alternative Transportation and the Refuge System

Visitors use various types of transportation to access and enjoy refuges. While many visitors arrive at the refuge in private vehicles, alternatives such as buses, trams, watercraft, and bicycles are increasingly becoming a part of the visitor experience. Previous research has identified a growing need for transportation alternatives within the Refuge System (Krechmer and others, 2001), and recent efforts are beginning to characterize the use of transit and non-motorized transportation modes for visitor access to refuges (Volpe Center, 2010). However, less is known about how visitors perceive these new transportation options. An understanding of visitors' likelihood of using certain alternative transportation options can help in future planning efforts. Visitors were asked their likelihood of using alternative transportation options at refuges in the future.

Of six alternative transportation options listed on the survey, a majority of Lee Metcalf NWR visitors were likely to use an offsite parking lot that provides trail access and a boat that goes to different points on refuge waterways at refuges in the future (fig. 13).

A majority of visitors indicated they were not likely to use a bus/tram that takes passengers to different points on the refuge or a bus/tram that provides a guided tour.

When asked specifically about using alternative transportation at Lee Metcalf NWR, some visitors thought alternative transportation would enhance their experience (16%) while others thought it would not (53%). An additional 31% of surveyed visitors indicated they were unsure whether alternative transportation would enhance their experiences.

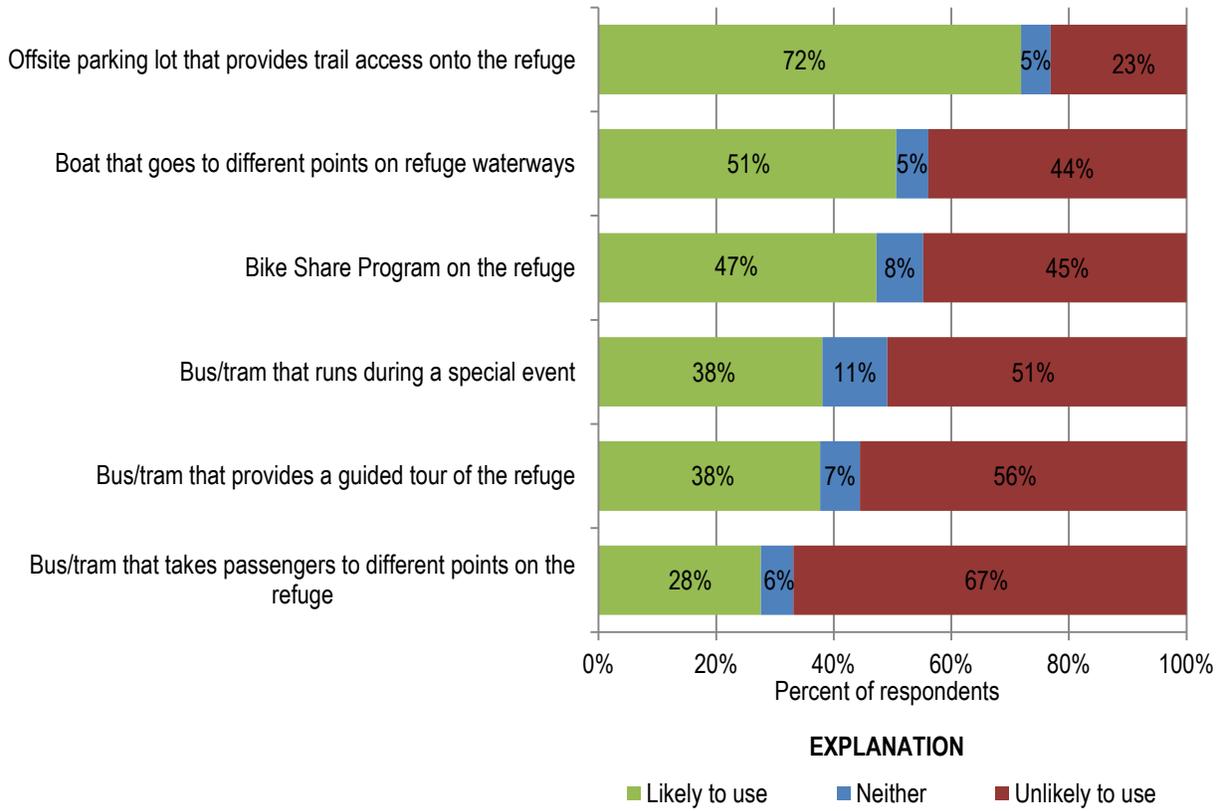


Figure 13. Visitors' likelihood of using alternative transportation options at refuges in the future (n ≥ 160).

Climate Change and the National Wildlife Refuge System

Climate change represents a growing concern for refuge management. The Service's climate-change strategy, titled "Rising to the Urgent Challenge," establishes a basic context for the agency to work within a larger conservation community to ensure wildlife, plant, and habitat sustainability (U.S. Fish and Wildlife Service, 2010). To support the guiding principles of the strategy, refuges will be exploring options for more effective engagement with visitors on the topic of climate change. Previous research suggests that human thought about climate change is influenced by individuals' levels of concern, levels of involvement, preferences for policies, and associated behaviors (Maibach and others, 2009). The results presented below provide baseline information on these factors in relation to the effects of climate change on fish, wildlife, and their habitats.

These results are most useful when coupled with responses to belief statements, because such beliefs may be used to develop message frames (or ways to communicate) about climate change with a broad coalition of visitors. Framing science-based findings does not alter the overall message, but rather places the issue in a context in which different audience groupings can relate (Nisbet, 2009). The need to mitigate impacts of climate change on refuges could be framed as a quality-of-life issue (for example, preserving the ability to enjoy fish, wildlife, plants, and their habitat) or an economic issue (for example, maintaining tourist revenues or supporting economic growth through new jobs/technology). Framing information in ways that resonate with visitors' beliefs may result in more engaged audiences who support strategies aimed at alleviating climate-change pressures. Data will be analyzed further at the national level to inform the development of a comprehensive climate change communication and engagement strategy.

The majority of visitors to Lee Metcalf NWR agreed with the following statements related to their own *personal involvement* with the topic of climate change as it relates to fish, wildlife, and habitats (fig. 14):

- I am personally concerned about the effects of climate change on fish, wildlife and habitats;
- I stay well-informed about the effects of climate change; and
- I take actions to alleviate the effects of climate change.

The majority of visitors also agreed with the following *belief statements* regarding climate change effects on fish, wildlife and their habitats (fig. 15):

- Future generations will benefit if we address climate change effects;
- We can improve our quality of life if we address the effects of climate change; and
- It is important to consider the economic costs and benefits to local communities when addressing climate change effects.

Results regarding such beliefs are important to consider when communicating with visitors about this topic, since almost half of visitors (49%) indicated their experiences would be enhanced if Lee Metcalf NWR provided information about how visitors can help to address climate change impacts on fish, wildlife, and their habitats (fig. 14).

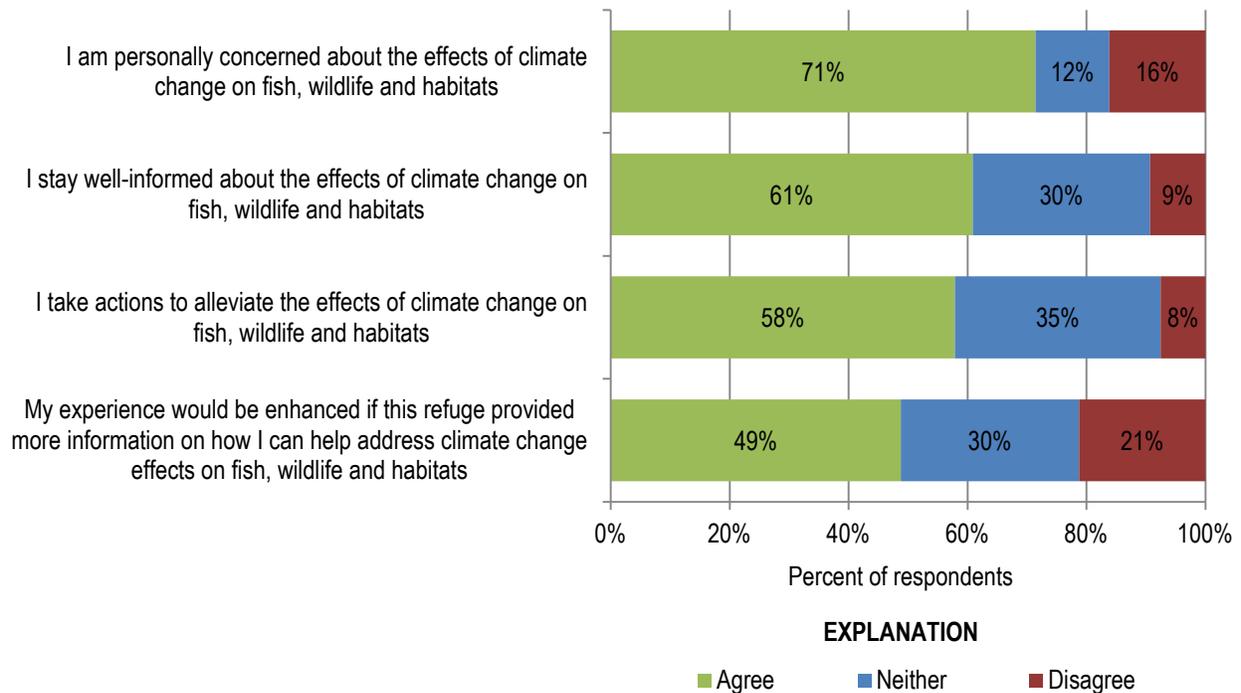


Figure 14. Visitors’ personal involvement with climate change related to fish, wildlife and their habitats (n ≥ 159).

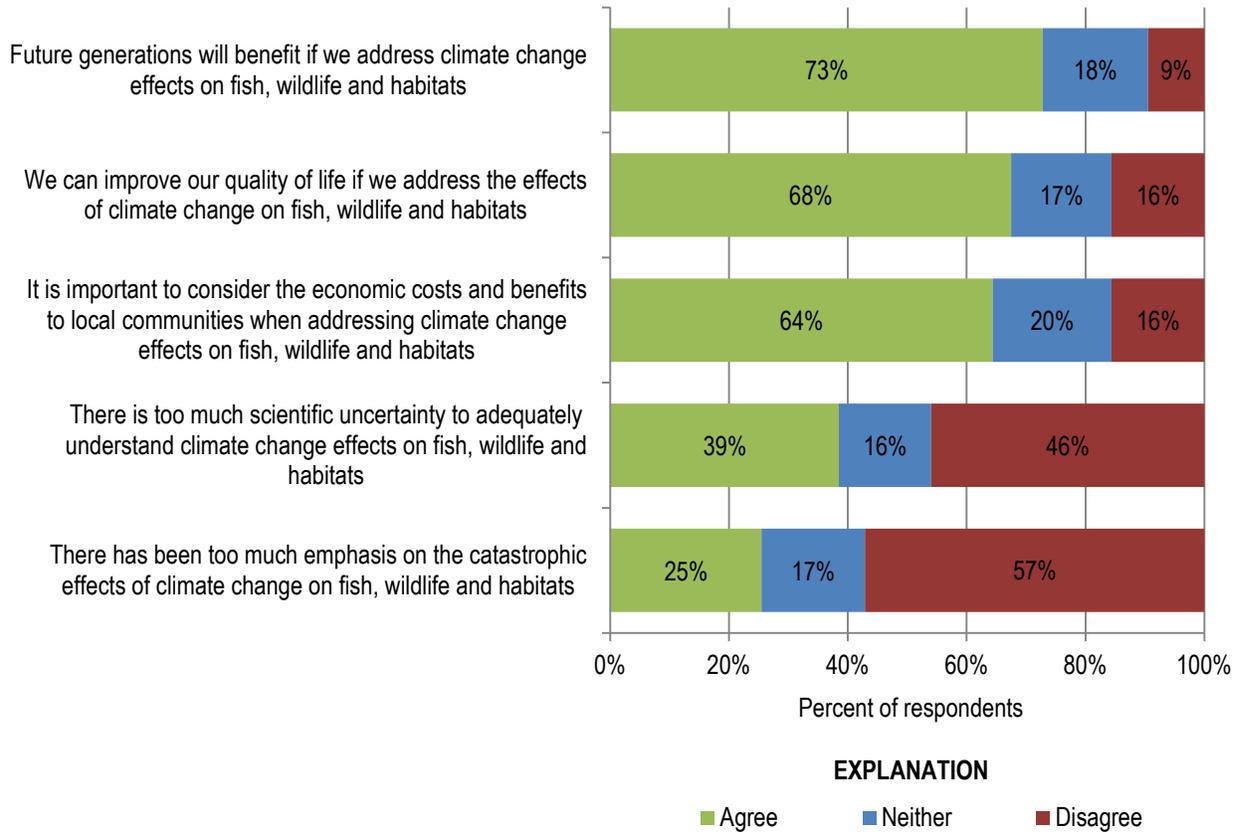


Figure 15. Visitors' beliefs about the effects of climate change on fish, wildlife and their habitats (n ≥ 158).

Conclusion

These individual refuge results provide a summary of trip characteristics and experiences of a sample of visitors to Lee Metcalf NWR during 2012 and are intended to inform decision-making efforts related to visitor services and transportation at the refuge. Additionally, the results from this survey can be used to inform planning efforts, such as a refuge's Comprehensive Conservation Plan. With an understanding of visitors' trip and activity characteristics and visitor-satisfaction ratings with existing offerings, refuge managers are able to make informed decisions about possible modifications (whether reducing or enhancing) to visitor facilities, services, or recreational opportunities. This information can help managers gauge demand for refuge opportunities and inform both implementation and communication strategies. Similarly, an awareness of visitors' satisfaction ratings with refuge offerings can help determine if potential areas of concern need to be investigated further. As another example of the utility of these results, community relations may be improved or bolstered through an understanding of the value of the refuge to visitors, whether that value is attributed to an appreciation of the refuge's uniqueness, enjoyment of its recreational opportunities, or spending contributions of nonlocal visitors to the local economy. Such data about visitors and their experiences, in conjunction with an understanding of biophysical data on the refuge and its resources, can ensure that management decisions are consistent with the Refuge System mission while fostering a continued public interest in these special places.

Individual refuge results are available for downloading at <http://pubs.usgs.gov/ds/754/>. For additional information about this project, contact the USGS researchers at national_visitor_survey@usgs.gov or 970.226.9205.

References Cited

- Bruyere, B.L., Rodriguez, D.A., and Vaske, J.J., 2002, Enhancing importance-performance analysis through segmentation: *Journal of Travel and Tourism Marketing*, v. 12, no. 1, p. 81–95.
- Carver, E., and Caudill, J., 2007, Banking on nature 2006—The economic benefits to local communities of National Wildlife Refuge visitation: Washington, D.C., U.S. Fish and Wildlife Service, Division of Economics, 372 p., accessed September 30, 2011, at http://www.fws.gov/refuges/about/msWord/BankingonNature_2006_11-23.doc.
- Charles, C., and Louv, R., 2009, Children’s nature deficit—What we know and don’t know: Santa Fe, N.M., Children & Nature Network, 28 p., accessed November 15, 2012, at <http://www.childrenandnature.org/downloads/CNNEvidenceoftheDeficit.pdf>.
- Dillman, D.A., 2007, Mail and internet surveys—The tailored design method (2d ed.): Hoboken, N.J., John Wiley and Sons, Inc., 523 p.
- Krechmer, D., Grimm, L., Hodge, D., Mendes, D., and Goetzke, F., 2001, Federal lands alternative transportation systems study—Volume 3—Summary of national ATS needs: Cambridge Systematics, Inc., and BRW Group, Inc., prepared for Federal Highway Administration and Federal Transit Administration in association with National Park Service, Bureau of Land Management, and U.S. Fish and Wildlife Service, 80 p., accessed March 23, 2010, at http://www.fta.dot.gov/documents/3039_study.pdf.
- Maibach, E., Roser-Renouf, C., and Leiserowitz, A., 2009, Global warming’s six Americas 2009—An audience segmentation analysis: New Haven, Conn., Yale University, 144 p.
- Martilla, J.A., and James, J.C., 1977, Importance-performance analysis: *Journal of Marketing*, v. 41, p. 77–79.
- Nisbet, M.C., 2009, Communicating climate change—Why frames matter for public engagement: *Environment*, v. 51, p. 12–23.
- Salant, P., and Dillman, D.A., 1994, How to conduct your own study: New York, John Wiley and Sons, Inc., 256 p.
- Scheaffer, R.L., Mendenhall, W., III, and Ott, R.L., 1996, Elementary survey sampling (5th ed): Belmont, Calif., Duxbury Press, 324 p.
- Sexton, N.R., Miller, H.M., and Dietsch, A.D., 2011, Appropriate uses and considerations for online surveying in human dimensions research: *Human Dimensions of Wildlife*, v. 16, no. 3, p. 154–163.
- Tarrant, M.A., and Smith, E.K., 2002, The use of a modified importance-performance framework to examine visitor satisfaction with attributes of outdoor recreation settings: *Managing Leisure*, v. 7, no. 2, p. 69–82.

- U.S. Fish and Wildlife Service and U.S. Census Bureau, 2007, 2006 National survey of fishing, hunting, and wildlife-associated recreation: Washington, D.C., U.S. Department of the Interior and U.S. Department of Commerce, 168 p.
- U.S. Fish and Wildlife Service, 2006, National Wildlife Refuge System Mission and Goals and Refuge Purposes (601 FW 1), 7 p., accessed May 31, 2011 at <http://www.fws.gov/policy/601fw1.pdf>.
- U.S. Fish and Wildlife Service, 2007, Final strategic plan for the National Wildlife Refuge System FY 2006–2010: U.S. Fish and Wildlife Service, Washington, D.C., 53 p.
- U.S. Fish and Wildlife Service, 2010, Rising to the urgent challenge—Strategic plan for responding to accelerating climate change: Washington, D.C., U.S. Fish and Wildlife Service, Division of Refuges, 32 p., accessed April 2, 2011 at <http://www.fws.gov/home/climatechange/pdf/CCStrategicPlan.pdf>.
- U.S. Fish and Wildlife Service, 2012, FWS Budget Proposal: Washington, D.C., U.S. Fish and Wildlife Service, 48 p.
- U.S. Fish and Wildlife Service, 2013, National Wildlife Refuge System: Overview: Washington, D.C., U.S. Department of the Interior, 1 p., accessed April 2013 at <http://www.fws.gov/refuges/about/pdfs/OverviewFactSheetApril2013.pdf>.
- Vaske, J.J., Beaman, J., Stanley R., and Grenier, M., 1996, Importance-performance and segmentation—Where do we go from here?, *in* Fesenmaier, D.R., O’Leary, J.T., and Uysal, M., eds., Recent advances in tourism marketing research: New York, The Haworth Press, Inc., p. 225–240.
- Volpe Center, 2010, Transit and trail connections—Assessment of visitor access to national wildlife refuges: The U.S. Department of Transportation Volpe National Transportation Systems Center and the U.S. Fish and Wildlife Service, 47 p., accessed October 1, 2011, at http://www.fta.dot.gov/documents/Transit_Trails_Layout_Final_123010.pdf.
- Wade, D.J., and Eagles, P.F.J., 2003, The use of importance-performance analysis and market segmentation for tourism management in parks and protected areas—An application to Tanzania’s National Parks: *Journal of Ecotourism*, v. 2, no. 3, p. 196–212.

National Wildlife Refuge Visitor Survey



PLEASE READ THIS FIRST:

Thank you for visiting a National Wildlife Refuge and for agreeing to participate in this study! We hope that you had an enjoyable experience. The U.S. Fish and Wildlife Service and the U.S. Geological Survey would like to learn more about National Wildlife Refuge visitors in order to improve the management of the area and enhance visitor opportunities.

Even if you have recently visited more than one National Wildlife Refuge or made more than one visit to the same Refuge, please respond regarding only the Refuge and the visit when you were asked to participate in this survey for any question that uses the phrase “this Refuge.” Please reference the cover letter included with this survey if you are unsure of which refuge you visited.

SECTION 1. Your visit to this Refuge

1. Including your most recent visit, which activities have you participated in during the past 12 months at this Refuge?
(Please mark **all that apply.**)

- | | | |
|--|--|---|
| <input type="checkbox"/> 1% Big game hunting | <input type="checkbox"/> 69% Hiking | <input type="checkbox"/> 8% Environmental education (for example, classrooms or labs) |
| <input type="checkbox"/> 1% Upland/Small game hunting | <input type="checkbox"/> 7% Bicycling | |
| <input type="checkbox"/> 9% Migratory bird/Waterfowl hunting | <input type="checkbox"/> 31% Auto tour route/Driving | <input type="checkbox"/> 10% Interpretation (for example, exhibits, kiosks, videos) |
| <input type="checkbox"/> 71% Wildlife observation | <input type="checkbox"/> 0% Motorized boating | |
| <input type="checkbox"/> 69% Bird watching | <input type="checkbox"/> 0% Nonmotorized boating (including canoes/kayaks) | <input type="checkbox"/> 5% Refuge special event (<i>please specify</i>)
<u>See Appendix B</u> |
| <input type="checkbox"/> 12% Freshwater fishing | | |
| <input type="checkbox"/> 0% Saltwater fishing | <input type="checkbox"/> 2% Volunteering | <input type="checkbox"/> 10% Other (<i>please specify</i>)
<u>See Appendix B</u> |
| <input type="checkbox"/> 52% Photography | | |

2. Which of the activities above was the ***primary*** purpose of your visit to this Refuge?
(Please write **only one activity** on the line.) See report for categorized results; see Appendix B for miscellaneous responses

3. Did you go to a Visitor Center at this Refuge?

- 50% No
- 50% Yes → If yes, what did you do there? (Please mark **all that apply.**)
- | | |
|---|--|
| <input type="checkbox"/> 48% Visit the gift shop or bookstore | <input type="checkbox"/> 1% Pick up/purchase a license, permit, or pass |
| <input type="checkbox"/> 83% View the exhibits | <input type="checkbox"/> 55% Stop to use the facilities (for example, get water, use restroom) |
| <input type="checkbox"/> 63% Ask information of staff/volunteers | |
| <input type="checkbox"/> 13% Watch a nature talk/video/presentation | <input type="checkbox"/> 11% Other (<i>please specify</i>) <u>See Appendix B</u> |

4. Which of the following best describes your visit to this Refuge? (Please mark **only one.**)

Nonlocal**	Local	All visitors	
<input type="checkbox"/> 32%	<input type="checkbox"/> 77%	<input type="checkbox"/> 70%	It was the primary purpose or sole destination of my trip.
<input type="checkbox"/> 48%	<input type="checkbox"/> 16%	<input type="checkbox"/> 21%	It was one of many equally important reasons or destinations for my trip.
<input type="checkbox"/> 20%	<input type="checkbox"/> 7%	<input type="checkbox"/> 9%	It was just an incidental or spur-of-the-moment stop on a trip taken for other purposes or to other destinations.

SECTION 2. Transportation and access at this Refuge

1. What **forms of transportation** did you use on your visit to this Refuge? (*Please mark **all that apply.***)

- | | | | | | |
|------------------------------|---|-----------------------------|----------------------------------|------------------------------|---------------------------------------|
| <input type="checkbox"/> 90% | Private vehicle without a trailer | <input type="checkbox"/> 0% | Refuge shuttle bus or tram | <input type="checkbox"/> 5% | Bicycle |
| <input type="checkbox"/> 1% | Private vehicle with a trailer
(for boat, camper or other) | <input type="checkbox"/> 1% | Motorcycle | <input type="checkbox"/> 28% | Walk/Hike |
| <input type="checkbox"/> 1% | Commercial tour bus | <input type="checkbox"/> 0% | ATV or off-road vehicle | <input type="checkbox"/> 2% | Other (<i>please specify below</i>) |
| <input type="checkbox"/> 1% | Recreational vehicle (RV) | <input type="checkbox"/> 0% | Boat | <u>See Appendix B</u> | |
| | | <input type="checkbox"/> 1% | Wheelchair or other mobility aid | | |

Which of the following did you use to find your way to this Refuge? (*Please mark **all that apply.***)

- | | | | |
|------------------------------|--|-----------------------------|---|
| <input type="checkbox"/> 81% | Previous knowledge/I have been to this Refuge before | <input type="checkbox"/> 2% | Maps from the Internet (for example, MapQuest or Google Maps) |
| <input type="checkbox"/> 20% | Signs on highways | <input type="checkbox"/> 1% | Directions from Refuge website |
| <input type="checkbox"/> 3% | A GPS navigation system | <input type="checkbox"/> 4% | Directions from people in community near this Refuge |
| <input type="checkbox"/> 5% | A road atlas or highway map | <input type="checkbox"/> 7% | Directions from friends or family |
| | | <input type="checkbox"/> 3% | Other (<i>please specify</i>) <u>See Appendix B</u> |

2. Below are different alternative transportation options that could be offered at some National Wildlife Refuges in the future. Considering the different Refuges you may have visited, please tell us **how likely you would be to use each transportation option.** (*Please circle one number for each statement.*)

How likely would you be to use...	Very Unlikely	Somewhat Unlikely	Neither	Somewhat Likely	Very Likely
...a bus or tram that takes passengers to different points on the Refuge (such as the Visitor Center)?	<input type="checkbox"/> 53%	<input type="checkbox"/> 14%	<input type="checkbox"/> 6%	<input type="checkbox"/> 23%	<input type="checkbox"/> 5%
...a bike that was offered through a Bike Share Program for use while on the Refuge?	<input type="checkbox"/> 33%	<input type="checkbox"/> 12%	<input type="checkbox"/> 8%	<input type="checkbox"/> 29%	<input type="checkbox"/> 18%
...a bus or tram that provides a guided tour of the Refuge with information about the Refuge and its resources?	<input type="checkbox"/> 41%	<input type="checkbox"/> 14%	<input type="checkbox"/> 7%	<input type="checkbox"/> 31%	<input type="checkbox"/> 7%
...a boat that goes to different points on Refuge waterways?	<input type="checkbox"/> 33%	<input type="checkbox"/> 11%	<input type="checkbox"/> 5%	<input type="checkbox"/> 34%	<input type="checkbox"/> 16%
...a bus or tram that runs during a special event (such as an evening tour of wildlife or weekend festival)?	<input type="checkbox"/> 40%	<input type="checkbox"/> 11%	<input type="checkbox"/> 11%	<input type="checkbox"/> 28%	<input type="checkbox"/> 10%
...an offsite parking lot that provides trail access for walking/hiking onto the Refuge?	<input type="checkbox"/> 19%	<input type="checkbox"/> 4%	<input type="checkbox"/> 5%	<input type="checkbox"/> 22%	<input type="checkbox"/> 50%
...some other alternative transportation option? (<i>please specify</i>) <u>See Appendix B</u>	<input type="checkbox"/> 0%	<input type="checkbox"/> 8%	<input type="checkbox"/> 0%	<input type="checkbox"/> 23%	<input type="checkbox"/> 69%

3. If alternative transportation were offered at *this* Refuge, would it enhance your experience?

- 16% Yes 53% No 31% Not Sure

4. For each of the following transportation-related features, first, **rate how important** each feature is to you when visiting this Refuge; then **rate how satisfied** you are with the way this Refuge is managing each feature. *If this Refuge does not offer a specific transportation-related feature, please rate how important it is to you and then circle NA "Not Applicable" under the Satisfaction column.*

Importance						Satisfaction					
Circle one for each item.						Circle one for each item.					
Very Unimportant	Somewhat Unimportant	Neither	Somewhat Important	Very Important		Very Unsatisfied	Somewhat Unsatisfied	Neither	Somewhat Satisfied	Very Satisfied	Not Applicable
8%	16%	11%	45%	20%	Surface conditions of roads	2%	4%	4%	31%	58%	NA
8%	21%	14%	37%	20%	Surface conditions of parking areas	2%	6%	10%	27%	56%	NA
7%	5%	19%	33%	37%	Condition of bridges	2%	2%	11%	16%	68%	NA
8%	7%	6%	30%	50%	Condition of trails and boardwalks	3%	5%	5%	19%	70%	NA
4%	13%	11%	43%	29%	Number of places for parking	1%	3%	5%	21%	69%	NA
6%	9%	12%	43%	31%	Number of places to pull over along Refuge roads	1%	11%	12%	36%	40%	NA
7%	7%	9%	25%	52%	Safety of driving conditions on Refuge roads	0%	5%	7%	22%	65%	NA
4%	8%	8%	33%	46%	Safety of Refuge road entrances/exits	0%	2%	7%	29%	62%	NA
9%	8%	13%	37%	34%	Signs on highways directing you to the Refuge	1%	5%	14%	29%	52%	NA
10%	9%	15%	39%	27%	Signs directing you around the Refuge roads	1%	8%	20%	27%	45%	NA
6%	8%	11%	41%	34%	Signs directing you on trails	1%	8%	17%	34%	40%	NA
6%	7%	16%	33%	39%	Access for people with physical disabilities or who have difficulty walking	1%	5%	22%	27%	45%	NA

5. If you have any comments about transportation-related items at this Refuge, please write them on the lines below.

See Appendix B

SECTION 3. Your expenses related to your Refuge visit

1. Do you live in the local area (within approximately 50 miles of this Refuge)?

85% Yes

15% No → How much time did you spend **in the local area** on this trip?

Nonlocals If you spent one day or more in the local area, enter the number of days: 8 day(s)

only If you spent less than one day in the local area, enter the number of hours: 3 hour(s)

****It is important to note that summary statistics based on a small sample size ($n < 30$) may not provide a reliable representation of that population.**

2. How much time did you spend **at this Refuge** during your most recent visit?

If you spent one day or more at this Refuge, enter the number of days: 2 day(s)

If you spent less than one day at this Refuge, enter the number of hours: 2 hour(s)

3. Please record the amount that **you and other members of your group** with whom you shared expenses (for example, other family members, traveling companions) spent in the local 50-mile area during **your most recent visit** to this Refuge. (*Please enter the amount spent to the nearest dollar in each category below. Enter 0 (zero) if you did not spend any money in a particular category.*)

Categories	Amount Spent in Local Communities & at this Refuge <i>(within 50 miles of this Refuge)</i>
Motel, bed & breakfast, cabin, etc.	
Camping	
Restaurants & bars	
Groceries	
Gasoline and oil	
Local transportation (bus, shuttle, rental car, etc.)	
Refuge entrance fee	
Recreation guide fees (hunting, fishing, wildlife viewing, etc.)	
Equipment rental (canoe, bicycle, kayak, etc.)	
Sporting good purchases	
Souvenirs/clothing and other retail	
Other (<i>please specify</i>) _____	

See Report for Results

4. Including yourself, how many people in your group shared these trip expenses?

2 number of people sharing expenses

5. As you know, some of the costs of travel such as gasoline, hotels, and airline tickets often increase. If your total trip costs were to increase, what is the maximum extra amount you would pay and still visit this Refuge? *(Please circle the highest dollar amount.)*

\$0	\$10	\$20	\$35	\$50	\$75	\$100	\$125	\$150	\$200	\$250
21%	31%	19%	9%	11%	3%	5%	0%	1%	1%	1%

6. If you or a member of your group paid a fee or used a pass to enter this Refuge, how appropriate was the fee? *(Please mark **only one**.)*

100% Did not pay a fee *(skip to Section 4)*

Lee Metcalf National Wildlife Refuge does not charge an entrance fee. This question does not apply.

7. Please indicate whether you disagree or agree with the following statement. *(Please mark **only one**.)*

The value of the recreation opportunities and services I experienced at this Refuge was at least equal to the fee I paid.

Lee Metcalf National Wildlife Refuge does not charge an entrance fee. This question does not apply.

SECTION 4. Your experience at this Refuge

1. Considering your visit to this Refuge, please indicate the extent to which you disagree or agree with each statement. *(Please circle one number for each statement.)*

	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Not Applicable
Overall, I am satisfied with the recreational activities and opportunities provided by this Refuge.	<input type="checkbox"/> 2%	<input type="checkbox"/> 4%	<input type="checkbox"/> 3%	<input type="checkbox"/> 34%	<input type="checkbox"/> 57%	NA
Overall, I am satisfied with the information and education provided by this Refuge about its resources.	<input type="checkbox"/> 2%	<input type="checkbox"/> 4%	<input type="checkbox"/> 6%	<input type="checkbox"/> 35%	<input type="checkbox"/> 53%	NA
Overall, I am satisfied with the services provided by employees or volunteers at this Refuge.	<input type="checkbox"/> 2%	<input type="checkbox"/> 3%	<input type="checkbox"/> 7%	<input type="checkbox"/> 32%	<input type="checkbox"/> 55%	NA
This Refuge does a good job of conserving fish, wildlife and their habitats.	<input type="checkbox"/> 2%	<input type="checkbox"/> 2%	<input type="checkbox"/> 5%	<input type="checkbox"/> 30%	<input type="checkbox"/> 61%	NA

2. For each of the following services, facilities, and activities, first, **rate how important** each item is to you when visiting this Refuge; then, **rate how satisfied** you are with the way this Refuge is managing each item.
If this Refuge does not offer a specific service, facility, or activity, please rate how important it is to you and then circle NA "Not Applicable" under the Satisfaction column.

Importance					Refuge Services, Facilities, and Activities	Satisfaction					
Circle one for each item.						Circle one for each item.					
Very Unimportant	Somewhat Unimportant	Neither	Somewhat Important	Very Important		Very Unsatisfied	Somewhat Unsatisfied	Neither	Somewhat Satisfied	Very Satisfied	Not Applicable
9%	13%	24%	40%	13%	Availability of employees or volunteers	1%	3%	21%	23%	51%	NA
8%	7%	15%	38%	32%	Courteous and welcoming employees or volunteers	2%	2%	16%	14%	66%	NA
4%	4%	17%	34%	41%	Knowledgeable employees or volunteers	1%	1%	17%	17%	64%	NA
3%	5%	11%	42%	39%	Printed information about this Refuge and its resources (for example, maps and brochures)	1%	1%	17%	22%	59%	NA
3%	3%	12%	50%	32%	Informational kiosks/displays about this Refuge and its resources	2%	2%	21%	30%	45%	NA
3%	7%	10%	38%	42%	Signs with rules/regulations for this Refuge	2%	4%	11%	29%	54%	NA
3%	7%	14%	46%	30%	Exhibits about this Refuge and its resources	1%	2%	23%	26%	48%	NA
5%	6%	25%	35%	29%	Environmental education programs or activities	2%	5%	35%	27%	31%	NA
2%	3%	15%	42%	38%	Visitor Center	1%	1%	12%	24%	62%	NA
1%	3%	18%	34%	45%	Convenient hours and days of operation	1%	0%	12%	21%	65%	NA
4%	3%	6%	34%	53%	Well-maintained restrooms	2%	5%	12%	22%	59%	NA
3%	5%	12%	42%	36%	Wildlife observation structures (decks, blinds)	1%	8%	13%	33%	45%	NA
1%	4%	9%	19%	66%	Bird-watching opportunities	1%	3%	10%	19%	67%	NA
1%	5%	5%	31%	58%	Opportunities to observe wildlife other than birds	2%	3%	10%	34%	50%	NA
4%	7%	9%	24%	55%	Opportunities to photograph wildlife and scenery	1%	4%	13%	22%	60%	NA
46%	6%	20%	11%	18%	Hunting opportunities	6%	3%	50%	16%	25%	NA
28%	11%	26%	19%	16%	Fishing opportunities	6%	9%	48%	13%	24%	NA
0%	0%	5%	23%	73%	Trail hiking opportunities	4%	3%	10%	30%	53%	NA
14%	10%	37%	20%	19%	Water trail opportunities for canoeing or kayaking	5%	8%	63%	13%	11%	NA
12%	11%	26%	28%	23%	Bicycling opportunities	5%	11%	37%	26%	21%	NA
11%	11%	36%	16%	25%	Volunteer opportunities	6%	5%	54%	13%	23%	NA

3. If you have any comments about the services, facilities, and activities at this Refuge, please write them on the lines below.

See Appendix B

SECTION 5. Your opinions regarding National Wildlife Refuges and the resources they conserve

1. Before you were contacted to participate in this survey, were you aware that National Wildlife Refuges...

...are managed by the U. S. Fish and Wildlife Service?

91% Yes

9% No

...have the primary mission of conserving, managing, and restoring fish, wildlife, plants and their habitat?

93% Yes

7% No

2. Compared to other public lands you have visited, do you think Refuges provide a unique recreation experience?

87% Yes

13% No

3. If you answered "Yes" to Question 2, please briefly describe what makes Refuges unique. _____

See Appendix B

There has been a lot of talk about climate change recently. We would like to know what you think about climate change as it relates to fish, wildlife and their habitats. To what extent do you disagree or agree with each statement below? (Please circle one number for each statement.)

Statements about climate change	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
I am personally concerned about the effects of climate change on fish, wildlife and their habitats.	7%	9%	12%	27%	44%
We can improve our quality of life if we address the effects of climate change on fish, wildlife and their habitats.	7%	9%	17%	28%	40%
There is too much scientific uncertainty to adequately understand how climate change will impact fish, wildlife and their habitats.	19%	27%	16%	23%	16%
I stay well-informed about the effects of climate change on fish, wildlife and their habitats.	2%	7%	30%	45%	16%
It is important to consider the economic costs and benefits to local communities when addressing the effects of climate change on fish, wildlife and their habitats.	7%	9%	20%	51%	13%
I take actions to alleviate the effects of climate change on fish, wildlife and their habitats.	3%	5%	35%	40%	18%
There has been too much emphasis on the catastrophic effects of climate change on fish, wildlife and their habitats.	31%	26%	17%	14%	11%
Future generations will benefit if we address the effects of climate change on fish, wildlife and their habitats.	4%	5%	18%	29%	44%
My experience at this Refuge would be enhanced if this Refuge provided more information about how I can help address the effects of climate change on fish, wildlife and their habitats.	9%	12%	30%	28%	21%

SECTION 6. A Little about You

**** Please tell us a little bit about yourself. Your answers to these questions will help further characterize visitors to National Wildlife Refuges. Answers are not linked to any individual taking this survey. ****

1. Are you a citizen or permanent resident of the United States?

95% Yes 5% No → *If not, what is your home country?* See Figure 2 in Report

2. Are you? 41% Male 59% Female

3. In what year were you born? 1959 (YYYY)

4. What is your highest year of formal schooling? (Please circle one number.)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20+
(elementary)					(junior high or middle school)			(high school)				(college or technical school)				(graduate or professional school)			
					1%			16%				43%				40%			

5. What ethnicity do you consider yourself? 1% Hispanic or Latino 99% Not Hispanic or Latino

6. From what racial origin(s) do you consider yourself? (Please mark **all that apply**.)

<input type="checkbox"/> 1%	American Indian or Alaska Native	<input type="checkbox"/> 0%	Black or African American	<input type="checkbox"/> 97%	White
<input type="checkbox"/> 2%	Asian	<input type="checkbox"/> 0%	Native Hawaiian or Pacific Islander		

7. How many members are in your household? 2 persons

8. How many members of your household contribute to paying the household expenses? 2 persons

9. Including these members, what was your approximate household income from all sources (before taxes) last year?

<input type="checkbox"/> 4%	Less than \$10,000	<input type="checkbox"/> 17%	\$35,000 - \$49,999	<input type="checkbox"/> 16%	\$100,000 - \$149,999
<input type="checkbox"/> 12%	\$10,000 - \$24,999	<input type="checkbox"/> 22%	\$50,000 - \$74,999	<input type="checkbox"/> 2%	\$150,000 - \$199,999
<input type="checkbox"/> 8%	\$25,000 - \$34,999	<input type="checkbox"/> 17%	\$75,000 - \$99,999	<input type="checkbox"/> 1%	\$200,000 or more

10. How many outdoor recreation trips did you take in the last 12 months (for activities such as hunting, fishing, wildlife viewing, etc.)?

34 number of trips

Thank you for completing the survey.

There is space on the next page for any additional comments you may have regarding your visit to this Refuge.

Comments?

See Appendix B for Comments

PAPERWORK REDUCTION ACT STATEMENT: The Paperwork Reduction Act requires us to tell you why we are collecting this information, how we will use it, and whether or not you have to respond. The information that we collect in this survey will help us understand visitor satisfaction with and use of National Wildlife Refuges and to make sound management and policy decisions. Your response is voluntary. An agency may not conduct or sponsor and you are not required to respond to a collection of information unless it displays a valid OMB Control Number. We estimate it will take an average of 25 minutes to complete this survey. You may send comments concerning the burden estimate or any aspect of the survey to the Information Collection Clearance Officer, Fish and Wildlife Service, 4401 North Fairfax Drive, MS 222-ARLSQ, Arlington, VA 22203. OMB CONTROL #1018-0145 EXPIRATION DATE 6/30/2013

Appendix B: Visitor Comments to Open-Ended Survey Questions for Lee Metcalf National Wildlife Refuge

Survey Section 1

Question 1: "Including your most recent visit, which activities have you participated in during the past 12 months at this Refuge?"

Special Event	Frequency
A presentation given by a Lee Metcalf National Wildlife Refuge employee (sorry I forgot his name...he is awesome!) on birds and animal furs.	1
Audubon field trip	1
Bitterroot Bill/Groundhog Day	1
Children's fishing clinic	1
Duck Stamp Recognition Ceremony	1
Guided beginning birdwatching	1
Waterfowl Day - March 24, 2012	1
Welcome Back Waterfowl Day	1

Other Activity	Frequency
Dog swimming	1
Dog walking	4
Enjoying the river	1
Enjoying the Visitor Center	1
Great spot for a picnic lunch	1
Mushroom hunting	1
Placement of ashes	1
Plant identification and peace and quiet	1
Running	2
Running/walking	1
Trail running	1
Using them as a resource for bird identification.	1

Question 2: "Which of the activities above was the primary purpose of your visit to this Refuge?"
Primary activities are categorized in the main report; the table below lists the "other" miscellaneous primary activities listed by survey respondents.

Other Miscellaneous Primary Activities	Frequency
Enjoying the river	1
Mushroom hunting	1
Placement of Ashes	1

Question 3: "Did you go to a Visitor Center at this Refuge?"; If Yes, "What did you do there?"

Other Visitor Center Activity	Frequency
Blind drawings	1
Education	1
Get maps/regional information	1
Obtain bird list of the refuge.	1
Pick up trail map.	1
Register for opening day duck hunt opportunity.	1
To buy a National Geographic Field Guide Birds of Western North America -- not available.	1
To complain about dogs off leash in an area where they are supposed to be on a leash.	1
View the wall quilt I made for the center.	1

Question 6: "Were you part of a group on your visit to this Refuge?; If Yes, "What type of group were you with on your visit?"

Other Group Type	Frequency
FSSS (Foreign Students and Scholar Service) of University of Montana.	1
Group home for women	1
One other person	1
Volunteer	1

Question 8: "How did you first learn or hear about this Refuge?"

Other Website	Frequency
tripadvisor.com	1

Other Ways Heard about This Refuge	Frequency
As a young child at Stevensville elementary school, we went on field trips to the refuge.	1
Bob Wards sporting store.	1
From ornithology class at University of Montana.	1
FSSS of University of Montana.	1
Map of all National Wildlife Refuges.	1
The Lewis and Clark Bicentennial activities of 2003-2006 brought our attention to Lee Metcalf.	1

Survey Section 2

Question 1: "What forms of transportation did you use on your visit to this Refuge?"

Other Forms of Transportation	Frequency
12 passenger van	1
School bus	2

Question 2: "Which of the following did you use to find your way to this Refuge?"

Other Ways Found This Refuge	Frequency
Bus driver had directions	1
Driving directions on my smart phone	1
Guide book	1
Led by person in FSSS of UM	1
My car!	1

Question 5: "Below are different alternative transportation options that could be offered at some National Wildlife Refuges in the future...please tell us how likely you would be to use each transportation option."

Other Transportation Option Likely to Use	Frequency
Bike paths within the refuge to ride personal bike.	1
Horseback riding trail	1
More hunting access	1
My own car	3
Personal bicycle	3
Ride with a friend	1
Scooter or segway	1
To be able to bring horses for trail rides	1
Wheelchair	1

Question 6: "If you have any comments about transportation-related items at this Refuge, please write them on the lines below."

Comments on Transportation-related Items at This Refuge (n = 29)

A paved and board walk with viewing piers from the Visitor Center to the end of the large ponds.

A walking trail between the two areas so it would be easier to go to both interpretive sites without walking in the road or getting back into a car.

Fixing the trails would be a great idea! Especially where they have been washed out during flood season. Or at least rerouting them so they don't just dead-end partway through.

Frankly, the less people the better.

I love coming bicycling and birdwatching at Lee Metcalf. There the fact that drivers go slowly and carefully is especially important.

I think this refuge is doing a great job keeping up on the roads and trails!

I was a passenger, so I wasn't really paying that much attention to the driving conditions. We hiked on one very nice trail. The other trail we hiked was narrow, somewhat overgrown and not well marked.

I wish downed trees on the trails were cleared in a more timely manner. There have been three downed trees this year and it has taken 2-4 months for them to be cleared, causing me to crawl under, over, or go around large trees.

I would like to see all the refuge roads open to hikers whenever possible.

If there is a lot of vehicle traffic then I would support small electric vans on refuges. I think motorized transportation should be avoided.

It is always nice.

Kenai Trail could be more accessible for disabled and parents with strollers. Needs to be wider.

Main road at refuge is a county road.

Need more nature trails for specific activities, birdwatching/overlooks. Horseback trails to ride in on to other points.

Need more places to pull off the road to watch wildlife.

Pave the parking area, take out all gravel. The parking area also has holes and makes driving difficult. Thank you!

Small refuge. Just need to know where trails are. Making where I can go apparent.

Snow needs to be plowed in the winter so the trails will be safe to walk.

The road surface could be better maintained.

The short road to the waterfowl blind area parking lot has some very big potholes. If you are in a car and do not have a lot of ground clearance it can be a bit unpleasant.

The turn-off from the highway needs to be marked better and maybe a pullout to allow cars to get off the main highway prior to turning, since it is only a two-lane highway.

There is a railroad crossing that is in disrepair, recently the wooden crossing at the entrance to the refuge has deteriorated and it's a problem driving over it.

This is a small Montana refuge where public transportation not relevant.

This is a very small refuge so there really are not a lot of transportation issues or problems.

This refuge has a nice roadway that is well maintained year round.

Tree roots are pushing blacktopped trails up making tripping hazards for older people and wheelchairs.

We specifically went here because the baby strollers. Very nice trails. Wonderful shade.

Would be nice if entire road through refuge is paved.

Would like to be able to take dogs on all trails.

Survey Section 4

Question 3: "If you have any comments about services, facilities, and activities at this Refuge, please write them on the lines below."

Comments on Services, Facilities, and Activities at This Refuge (n = 55)

Birdwatching can be limited at times due to the location away from vehicle viewing for waterfowl due to no road access to the back areas.

Great place to visit.

I didn't go to the Visitor Center and so didn't have experiences either way with staff or volunteers.

I enjoy coming to the refuge. I often bring my granddaughter and am impressed with the Visitor Center and friendly staff.

I enjoy having the opportunity to use the roads and trails of the Lee Metcalf. I am in the immediate area due to my employment with the USFS.

I enjoy it very much for what I do as in getting out and walking my dog, it refreshes me.

I had a very short time to spend at the refuge, mostly just a drive through. But I did visit the Visitor Center which I thought was very nice and enjoyed talking to the employee there who was very knowledgeable of the refuge.

I hope that the refuge never closes down because it's one of my favorite places to walk and exercise my dog. Very enjoyable place to see all kinds of birds and wildlife.

I love going to view all the wildlife, always see something cool. :) Makes my day.

I think the embankment along the river should be restored and made safer to visitors. The day I was there someone could easily fall "down" into the cold, fast moving current, if the embankment gave way. Or use signs saying to not get too close to the edge of the embankment. This may be obvious to some but maybe not to others. I also would like a fishing access that is easy to get to.

I tried contacting this refuge before about educational activities for homeschoolers and never got a reply back after the initial contact. I was disappointed and we missed an opportunity for the kids to learn about this refuge as a group.

I use only a small part of this refuge and if other areas have hiking trails, I'm not aware of them.

I went to the refuge on the 5th of July. It was around 1:00P.M. The mosquitoes were so thick. I was bit over and over. I would like to take part in the kayaking. I didn't know you had all those activities.

I wish the bike path along the river was longer so you could actually go for a hike that was longer.

I would like to take my dog on all refuge trails.

It is unfortunate that hunting "must" be part of management at this and other refuges in the refuge system.

It seems way more managed for hunting than viewing opportunities. It would be great to have more areas open for exploration even if only limited numbers of people and at limited times of year.

It would be great if the land between the River Park in Stevensville and Lee Metcalf could be purchased so that the two parks could be connected by a trail along the river. Also, it would be great if the Visitor Center had a small cafe/espresso stand in it. And finally, there is a really nice outdoor amphitheater at the Visitor Center. It would be great if outdoor concerts with local musicians could be held there to raise money for the refuge. Oops, one more thing: The wetlands area is off-limits for fishing. I understand that this is to protect the waterfowl, but it would be nice if part of it were open to fishing. Maybe not the area right by the Visitor Center, but maybe to the northwest of the center. Thanks for asking! I'd just like to add that we love the Lee Metcalf Wildlife Refuge. We've been walking our dogs there now for over 11 years and have had some truly memorable moments with our pups there. It's a magical place! You never know what you're going to see there.

It would be incredible to be able to bike and view wildlife.

Lee Metcalf Refuge should open up areas to all users that are only open to hunters. No consumptive user shouldn't have the same access at some time of the year that hunters do. Hiking and canoeing could be opened up in the hunter-only area during the off season in the area alongside Eastside Highway. It would be a very relaxing hike during the day when hunting is not in season.

Love the trails. Perfectly shaded. Beautiful fall color. Smooth trails perfect for a baby stroller. I do not feel, however that hunting should be permitted at a wildlife refuge.

More access to other parts of the refuge. Existing trails were flooded by Bitterroot River- add raised board walks.

More activities for volunteers and visitors (for both adults and children) would be ideal! A better volunteer program!

More strategically placed observation platforms and end of trail seating.

My (3 year old) son and I walk at the Lee Metcalf National Wildlife Refuge 4 to 5 times a week weather permitting. It is close and has provided a wealth of opportunities to teach him about nature, biodiversity, habitats, and conservation.

My husband and I are retired, he is disabled. We often drive the refuge. I like to hike yet he walks a little on the blacktop path. I take pictures a lot. Sadly we only see a few ducks and the osprey in the spring. We have been here many years. The Visitor Center is nice as are the folks that run it.

Nice paved walking trail, drive through refuge affords the opportunity to view waterfowl.

Nice place, usually not too crowded, wish the Visitor Center was open on Sundays.

Restrooms needed at end of trail!

Services and facilities are fine. We always enjoy our visit to this refuge.

Since I live locally and visit the refuge, I have little need for information. More areas should be open to hiking, birdwatching, and wildlife observation, and less to hunting.

Small refuge with very limited budget; they (USFWS) do the best they can.

Some blinds for waterfowl need work, last time 3 of them has 6 inches or more of water in them.

The inconsistency of management from director to director is frustrating. I live here. The directors don't. Make their mark, sometimes negative, and leave.

The Lee Metcalf is ALWAYS well staffed with cheery helpful people. It is amazing how many knowledgeable volunteers they keep available for visitors.

The only problem with the restrooms is that there are not any close by in the winter for hiking the north Kenai Trail on weekends. The Visitor Center is closed in the winter months. It has ideal parking for the trail but no weekend facilities.

The outhouses by the wildlife trail are always dirty.

The refuge is well maintained.

The signs directing people from the main road to the secondary road for this refuge are very poor. I miss the turn nearly every time.

The staff does a good job and is always courteous. I imagine that they have a lot of people to please who come to the refuge with different agendas: bird watching versus hunting, for example.

The twin outhouses always seem to need maintenance.

The waterfowl blinds badly need either dog ports or at least holes so the hunting dog can "mark" shot birds. Pheasant hunting should also be allowed on this refuge.

There is an awful lot of fallen timber in the refuge. It is beginning to look like a lumber supply house for a log home manufacturer. I know it is supposed to be a "natural" area; however, there is planting going on???

Think you can get too carried away with management practices.

This is a wonderful refuge. It is convenient and very well maintained. If you could put out a collection for donation at the Visitor Center I'm sure people would donate.

This refuge has great employees who are very friendly and helpful and the Visitor Center is really beautiful and full of information and exhibits.

This refuge is awesome! Beautiful area and very knowledgeable employees. Kind-hearted, good and very, very clean.

To enhance the quality of hunting I would prefer if the big game hunting was limited to blind/tree stands. This would make the hunting more productive by limiting the impact of bowhunters walking around during the prime hunting hours.

Waterfowl hunting and the use of refuge blinds is very important to me! The tag in/out system the refuge has works great and I like it very much! Thank You.

We have had nothing but positive visits to this refuge.

We LOVE Lee Metcalf and visit often. It is well maintained, safe and clean. Ranger Bob is a well known local resource for the elementary schools and ALL my kids know him well. As a parent, we appreciate having such a wonderful place to visit with our children almost literally in our backyard. We also appreciate the annual Duck Stamp competition. Our sons all participate and enjoy it very much.

Why do hunters have more access than birders and photographers?

You need law enforcement.

Survey Section 5

Question 3: "If you answered "Yes" to Question 2, please briefly describe what makes Refuges unique."

Comments on What Makes Refuges Unique? (n = 111)

A local condensed opportunity to view birds and other wildlife in a wonderful setting.

A place for birds and for me to photograph them. Love it!

A quiet, introspective experience. An opportunity to see the river and the wetlands and the waterfowl and other birds. Love to see the owls.

A wildlife refuge that allows hunting- totally hypocritical. Do not allow hunting on refuges.

Access to fish and watch wildlife.

At this time, I appreciate the uncrowded conditions at this place, in contrast to visiting the National Parks such as Glacier, Yellowstone, and the Tetons -- all of which I visit several times a year.

Beautiful scenery, very pristine. Great Visitor Center.

Beautiful views, variety of birds.

Because it is accessible to seniors and disabled people.

Because it's a great place to interact with nature and get an up close view of the wildlife. Also you can take great pictures.

Because refuges are managed to protect and improve habitat, the visitor knows that the birds and animals enjoy a degree of haven there. I am not fond of hunting on refuges (seems oxymoronic) but can appreciate the role hunting plays in managing populations.

Because they contain habitat over large areas that attracts large numbers and variety of bird.

Better management= more control= pristine animal viewing environment.

Compared to most USFS and BLM lands, NWRs are much more interactive, there are more interpretive exhibits and they often provide better wildlife viewing experience. They often are located where there is better habitat for wildlife (i.e. in valley bottoms where there are ponds and rivers and not just a lot of the "rocks and ice" characteristic of many National Forests. They are often smaller in size which helps make them better managed (or at least appear to be).

Dedication of staff, opportunity to hunt in areas where there might not be a lot of public lands or private lands open to hunting.

Generally, they are smaller and not as many people are seen. You get quiet time and people that you do see really respect the homes of the animals.

Good balance of conservation and public access.

Good opportunity for education and wildlife observation.

Great location, good habitat, and lots of ducks. We always have fun with family and friends.

I am pleased that plants, animals, and the environment are respected and measures taken to sustain nature in a harmonious and balanced manner.

I appreciate the educational aspect of the Visitor Center and the knowledge of staff members about the particular refuge and its inhabitants.

I appreciate the wildlife/wildfowl sanctuary and preservation of habitat.

I can count on NWRs to have some educational aspects. Whenever I visit an NWR for the first time, I go to the Visitor Center first. The staff usually is enthusiastic and helpful. Exhibits usually are informational and interesting. I am a big fan of the refuge system.

I have visited this refuge for 30 years. It's beautiful, peaceful, and has always been a nice and fun experience.

I like being able to just drive for 20 minutes to get to Lee Metcalf. I like seeing wildlife and I like to fish. I like walking in the woods.

I like the fact that it offers easy access to good waterfowl hunting. That allows me to make it a fun and enjoyable time for my 5 year old boy. It is a great place to teach hunting, ethics, wildlife, and the importance of conservation. I think it is a great learning grounds for children and it should be more encouraged.

I love the nature: birds, chipmunks, beaver, river otters, osprey with a black snake in its mouth, the ducks, deer, all the wildlife. I've seen beautiful things even the flowers and trees.

I love the refuge because it is not as crowded as National and State Parks and there is a great chance of seeing wildlife!

It provides more room for observation of animals.

I think that the mission of our local refuge, for example, is complex. Not just tourists out sightseeing like in a National Park but hunting deer and waterfowl. I feel less crowded and far less commercialization than in a National Park. A much more private, relaxing atmosphere! Something for everyone! Plus I know that the staff is working hard to protect the native vegetation and wildlife.

I think the emphasis on conservation and restoration is highly commendable.

It is a good opportunity to educate our grandchildren on natural wildlife habitat.

It is a peaceful haven for birds to come and nest and see some species you don't seem to see anywhere else in the area.

It offers hunting when others do not.

It provides a unique way to protect habitat and biodiversity that would be too small to be a National Park. It's also accessible to most people to experience some of its wonders.

It's a larger refuge. You can drive through, see animals and take a quiet walk without crowds.

It's convenient, well maintained, no hassle.

It's good to conserve some open area.

It's unique because of how everything is set up. You have more of a chance to actually see new wildlife than other opportunities that one may have experienced.

It's very homey and fits our little town and everyone that visits and you always see a smiling face and friendly people.

Just getting a relaxing hike and enjoying a bit closer view of the wildlife here. There seems to be more kinds of birds especially here.

Lee Metcalf is a beautiful walk along the Bitterroot. Lots of birds, deer, and small wildlife.

Lee Metcalf is beautiful, well maintained, has a great Visitor Center and knowledgeable friendly staff (specifically Ranger Bob) and volunteers.

Managed for education and viewing vs. camping etc.

Many of them manage/retain high quality habitats for a wide range of species, which I consider a high priority use for public lands.

Many offer great auto-tour routes and wonderful opportunities to view birds and other animals in quiet, peaceful, scenic surroundings.

Much greater focus on wildlife than NPS, USFS, BLM, or state lands.

No other areas set aside seem to be large wetlands or riparian areas. This seems to be the hallmark of the NWR's- thank you! Most natural areas are forests/deserts/geologic wonders and aren't specifically for wildlife.

Not hard to take my 8 year old son out to hunt. Easy to get blinds.

Observation blinds.

One of the uses of my tax dollars that I approve of. Unfortunately tax money is also used to create the destruction of landscapes that refuges are not trying to restore.

Opportunity to observe wildlife, especially birds.

Opportunity to see birds and wildlife in natural setting, environment and the opportunity to explore the refuge alone without being part of a group. Did not have to make reservation, could visit on my own schedule.

Opportunity to view wildlife in a safe but natural environment.

Overall just enjoy the quiet, the number of birds, wildlife. It is fairly easy to navigate.

Presentation/talk/video provided. Get to know more about the place I'm visiting. Knowledgeable and available employees. Short distance from where I live.

Preservation of wildlife through refuge regulations while allowing limited and structured access to them for viewing and educational opportunities.

Provides the opportunity to hunt in a very healthy environment and enjoy the variety of wildlife while outdoors.

Public access.

Refuges offer the chance to see what it looks like to rehab an area - to see the FWS at work.

Refuges provide an environment where visitors can learn about wildlife and habitat while observing it as well as learn about the management and the necessity of such management at the same time.

Refuges provide great opportunities to observe birds at a range close enough to be able to identify.

Respect, protection and the work always done to keep it beautiful and unique. Those who see it, walk, drive, listen- they know the feeling of learning.

Scenery, birds, and animals.

Somewhat less restrictive than NPS and more than USFS. They are more specific in their goals for protection of particular species and their habitat. Even to the point of no visitation only protection, which has its merits.

That I can see and enjoy the wildlife like baby deer and birds and the beautiful mountain views.

The ability to hike within natural areas and to have a refuge providing observation of migratory birds.

The ability to observe nature.

The ability to see birds and take pictures.

The ability to see/watch wildlife.

The ability to view wildlife.

The accessibility for anyone without a fee makes them unique.

The diversity.

The focus does not seem to be on me as a tourist/sightseer, seems to be on having open space. I enjoy that it isn't necessarily catering to me.

The habitat really draws in a variety of bird activity and migration of birds.

The layout of the wildlife viewing trails makes it easy to use without frequent bumping into others at the refuge. The number and variety of birds and waterfowl is higher here.

The location.

The Lee Metcalf NWR provides a close, convenient and safe environment to explore and learn while appreciating the importance of respecting a trail system and the animals nesting and foraging around it. I feel that our frequent use of this resource has allowed me to better instill a sense of respect and appreciation for nature and public lands in my child. A jungle gym and slide is one thing but watching a blue heron catch fish, great-horned owls nesting with their young and having bald eagles land in a tree above your head is way cooler. Thank you.

The NWRs are easily accessible and accommodate a fun and educational experience for all ages.

The NWRs I have visited all have been well kept and clean with helpful people. I think the area that is controlled by them is laid out in a user friendly way to accommodate everyone.

The preservation of habitat for wildlife and opportunities for hunting and fishing and observation.

The preserved habitat makes it possible to see an amazing array of birds and wildlife in an hour-long hike.

The refuge is more personal and gives the individual the opportunity to see wildlife in their habitat.

The refuge we visit is near our home. It is peaceful and quiet. Lots of easy hiking trails we can use with our children. A great conservation of habitat.

The waterfowl hunting opportunities and blind system is what makes the refuge unique and an awesome place to visit.

The wildlife has a chance to survive!

The wildlife is always available to see.

The wildlife viewing areas, hiking, non-motorized boat access. I don't feel hunting should be permitted. It should be a safe haven for all. No trapping should ever be allowed!

Their primary purpose relates to wildlife and humans are secondary.

There are many of them and they are local to many communities. They afford citizens an opportunity to get out in nature without a long drive to a park or forest. I wish I could say that they are a TRUE "refuge" for animals, but they are not, since hunting is allowed. When hunters appear, the wildlife disappear.

There is usually more wildlife readily available for viewing than other public lands.

They are great birding opportunities.

They are managed solely by the Federal Government.

They are unique in that they are managed for the critters (and plants) and their habitats as the primary focus rather than recreational opportunities. The visitors tend to have a different mindset from those in areas where the primary focus is people and their recreation needs.

They concentrate on providing the opportunity for visual contact with local and migrating birds, waterfowl, deer, etc., and enhance that experience by providing easy access to special habitat areas the refuge has created to attract specific wildlife species.

They tend to focus on ability to observe and/or participate in wildlife observation and if so inclined, hunting or fishing.

They try to provide access and participation for all ages and abilities to experience the great America we live in.

They usually have far more waterfowl than other public lands.

This refuge allows hunting.

To be able to see wildlife in their own habitat and not on a zoo.

Unique opportunity to view birds and wildlife in their native habitat. We do not support hunting on the refuge.

Usually see more wildlife and are guided in the way you view the area.

Viewing wildlife in their own environment without outside people interfering.

Visitor Center, volunteers and employees.

We are able to see the wildlife in their natural environment. We're also able to appreciate the land as it is, undeveloped/changed.

We are in a safe environment to observe wildlife and to enjoy their presence and to see them up close.

Well maintained; variety of wildlife.

Well-maintained trails and interpretive signs.

Where else can you go to see so much nature, ducks, osprey, eagles, hawks, swans, geese, cranes, and of course the many birds. I love Lee Metcalf.

Wildlife management is their primary goal, so they are not required to manage for other purposes. Oftentimes they have unique geographical features like rivers, ponds and lakes.

Wonderful wildlife viewing opportunities. Great outdoor experience for a young child. Different trees, waterways, wildlife. My baby will grow up learning from this refuge. We love it!

Additional Comments (n = 35)

Add more property to this refuge. Make it a true refuge for wildlife. Not a private hunting retreat for a small portion of the public.

As a local resident, I very much appreciate the refuge, its habitats, and wildlife viewing/recreational opportunities. While I'm not aware of the specifics of the refuge's noxious weed management program, I believe it should be an emphasis as much as possible at this refuge.

Bob Danley and Deb Goslin are exceptional employees. Would be nice to open up some of the old roads for hiking. There are limited opportunities for hiking at Lee Metcalf.

Cattails are becoming a problem in the last 4 years.

Climate is cyclical. Worrying about it is a bunch of hooley.

Facilities very well maintained. A favorite spot for many of us that live locally. Someplace I always take visitors. Well done!

Greatly enjoy riding my bike around the refuge and appreciate the opportunity to lock my bike to a rack and take nature walks. The Visitor Center enhances the experience. Thank you.

I believe this management does a very good job of managing this refuge and greatly appreciate the fact they seem to listen to the public who visits this refuge. They continue to make improvements for the hunting public's enjoyment and access. There is much more that could be done, however.

I consider myself fortunate to have a National Wildlife Refuge conveniently close to where I live.

I consider myself very lucky to have such a beautiful place to go run, walk, or bike just 10 minutes from my home. I'm at the Refuge 3-4 times per week. I wish there were a few more signs reminding people to keep their dogs on leash in the wildlife viewing trails (my dog is always on a jogging belt leash), pick up after their dogs, and NO bike riding on the trails in the wildlife viewing area.

I greatly enjoy the refuge. I am elderly and find it a lovely place to walk my dog and enjoy nature. I was very pleased and impressed that all those ugly power lines were removed a few years back to enhance the view and protect the wildlife. I understand that such is the nature of a refuge, but it makes no sense to me to allow hunting and it greatly deters from my enjoyment of the natural setting to encounter hunters or even to see them.

I have a degree in water resource tech. I know what mans impact is on our world and am very worried about it. I have lived here all my life and have seen my recreation possibilities shrink every year. I have also been a fly fisherman all my life and noticed the decline in fish. Also the decline in fish size. Overfishing by taking of fish and not releasing. The increase in fires denuding hillsides. Car traffic and carbon emissions changing the PH of water. I know it's a hard subject to handle but I believe overpopulation in this world will be the death of us yet.

I love the Lee Metcalf Wildlife Refuge! I have been coming to this refuge for over 20 years on a regular basis, even before I moved to the area. I think the management practices have had a very positive impact on the scenic value and even more so on the wildlife variety and abundance. The managers have worked hard on accessibility so well as preserving some old structures which provide a sense of our heritage in this area. Thank you to all the individuals who work and volunteer to meet this end.

I love walking my dog there and so does she -- always on a leash.

I really would love it if there were more hiking and biking opportunities.

I was on a month long road trip when I made a stop at this refuge. I typically spend 4-5 hours when visiting refuges but got to this one late in the day so my time was limited.

I would like to see other hunting trails and blinds for waterfowl hunting along the river area of the Lee Metcalf. I would like to have more archery hunting area in the refuge. I would like to see the refuge propagate pheasants and turkeys and quail. Transplant game birds all over the Bitterroot Valley

I'd love to have more access to the refuge. I have offered to do volunteer work at the Visitor Center and haven't had a response which is disappointing.

Looking forward to my next visit, but don't know when.

Love the bird watching. Please do something about the cattails around ponds. A couple of years ago cows were sent in to eat cat tails. Seemed to help. Not able to view ducks as well as in past years. I love the asphalt trail for walking since I'm getting on in years!

Loved it.

My husband and I spend a lot of time at the Metcalf Refuge. We love it and hope to continue using the refuge for many years to come.

My wife and I really enjoy hiking wildlife refuge trails and do so wherever we can. We do appreciate the information we see posted along their trails and thank you all for that and your keeping fallen trees etc. off the trails. Now that we've joined the older generation, flatter, cleaner trails appeal more. Thanks for what you all do!

My wife and I walk daily. I hike into the mountains weekly. We always take our camera and binoculars.

Not the best duck hunting blind placements, but my dog and I still had a great time duck hunting on opening day. Getting out on opening day of a duck season is very important to me.

Thank you for the work you do.

Thank you. This refuge is important to me and I would like to see it to continue to grow.

Thanks for allowing me to make comments. I am a professional forester by trade with 40 years experience. My opinion is that measures taken to control climate change along with many other environmental agendas are actually destroying the environment that they propose to save. For example one 30,000 acre forest fire produces the same carbon as all vehicles in Orange County, CA produce in 7 years. This year we burned over 9 million acres and the average for last 12 years is over 7 million. Forget the carbon, that is over 50 million acres that are not using CO2 and producing oxygen as they were created to do. We can argue why the fires are burning but simply stated a well managed forest was unacceptable to our environmental friends. Ironically, one of the reasons to shut down forest management was silt in the streams, so we opt to burn our forests instead and put tons of dirt directly in the streams. The North Fork of Rye Cr. had 8 inches of dirt for its entire length after the 2000 fires. What's the good news in all this destruction. This "Pale Blue Dot" that we live on is so incredibly able to cleanse itself and restore itself because it is such an incredible creation by God. To think that we who are described as grasshoppers can change the climate by some puny action of ours is a level of arrogance that is dangerous.

The Lee Metcalf is a wonderful refuge. The employees and volunteers are great. You can see the life cycles of various animals through the changing seasons. The staff really are always glad to address questions and reply to problems that nature sometimes present. Such as wasps under the benches on the trails. They also take your sightings of birds and wildlife seriously. Since the staff is up to their necks in paperwork they do not get out as often as they should. Consequently, they are careful to get the message out if there is nesting bird that might abandon the site if disturbed when it is reported by visitors.

The Lee Metcalf Visitor Center is always well staffed, clean, comfortable and interesting to visit.

The refuge is a great place to walk your dog and enjoy seeing nature. The only complaint I have is there are so many mosquitoes. I love the wildlife, it's really beautiful there.

This is a place for replenishing the soul.

This is a wonderful place in a fantastic location in the Bitterroot Valley. It must be maintained.

Visiting the refuge is fine, but the website is very poor when trying to find information. In particular some of the hunting regulations should be posted. Since this refuge is closed to hunting 2 days a week it would be very helpful to have that information actually available on their website, along with maps of the areas open and closed to hunting etc., so that it is easier to plan a trip to the refuge.

Would like to see the dirt road paved or graveled so that access in the winter and spring is more accessible. It is very messy when the mud melts.