



# National Wildlife Refuge Visitor Survey 2012: Individual Refuge Results for Minnesota Valley National Wildlife Refuge

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

So much of our natural habitat, environment and heritage have been lost, that to preserve at least some natural areas where these plants, animals, and land forms can continue to live and exist now and for the future is vitally important in and of itself as well as for future generations. If we lose what's left, we are all diminished.

— *Survey comment from a visitor to Minnesota Valley National Wildlife Refuge*



Minnesota Valley National Wildlife Refuge. Photo credit: U.S. Fish and Wildlife Service.

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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 Minnesota Valley 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.

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  $n^{\text{th}}$  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.

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

<b>Pacific Region (R1)</b>
Ridgefield National Wildlife Refuge (WA)
<b>Southwest Region (R2)</b>
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)
<b>Great Lakes-Big Rivers Region (R3)</b>
La Crosse District, Upper Mississippi River National Wildlife and Fish Refuge (WI)
Minnesota Valley National Wildlife Refuge (MN)
<b>Southeast Region (R4)</b>
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)
<b>Northeast Region (R5)</b>
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)
<b>Mountain-Prairie Region (R6)</b>
Bear River Migratory Bird Refuge (UT)
Lee Metcalf National Wildlife Refuge (MT)
Rocky Mountain Arsenal National Wildlife Refuge (CO)
National Bison Range (MT)
<b>California and Nevada Region (R8)</b>
Don Edwards San Francisco Bay National Wildlife Refuge (CA)
San Luis National Wildlife Refuge (CA)

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) software<sup>1</sup>.

## 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 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

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

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 Minnesota Valley 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 Minnesota Valley National Wildlife Refuge**

Minnesota Valley NWR stretches along a 70-mile corridor of land that follows the Minnesota River from Bloomington, MN to Henderson, MN. The 14,000 acres of refuge are divided into multiple units, offering both urban and rural settings and different visitor opportunities and activities. Minnesota Valley NWR also manages 14 county wetland management districts. Habitat includes floodplain forests, wetlands, and tall-grass prairie. The refuge was established in 1976 to provide habitat for migratory waterfowl, fish and other wildlife species threatened by nearby human development. Many animal and plant species now call the refuge home, including a wide range of songbirds, waterfowl, reptiles, amphibians, an impressive number of butterfly species, deer, fox, coyotes, and many more.

The refuge has two Visitor Centers to accommodate the geographical expanse of refuge lands; the refuge headquarters are located in Bloomington, MN, while a second Visitor Center is located in Carver, MN. Many activities and opportunities are available for visitors at the refuge, including wildlife observation, biking, hiking, cross-country skiing, snowshoeing, fishing, hunting (big game, migratory birds, and upland game in select units), interpretation, photography, and environmental education. The Visitor Centers frequently offer activities and programs to the public and work closely with area schools to facilitate environmental education efforts. Proximity to Minneapolis, St. Paul, and their surrounding suburbs make this partially urban refuge easily accessible to millions of residents. Nearly a quarter of a million visitors use the refuge each year, making it one of the most visited refuges in the nation (2011 Refuge Annual Performance Plan measures; Rob Miller, U.S. Fish and Wildlife Service, 2012, written commun.). Figure 1 displays a map of the refuge. For more information, please visit [http://www.fws.gov/refuge/Minnesota\\_Valley/](http://www.fws.gov/refuge/Minnesota_Valley/).

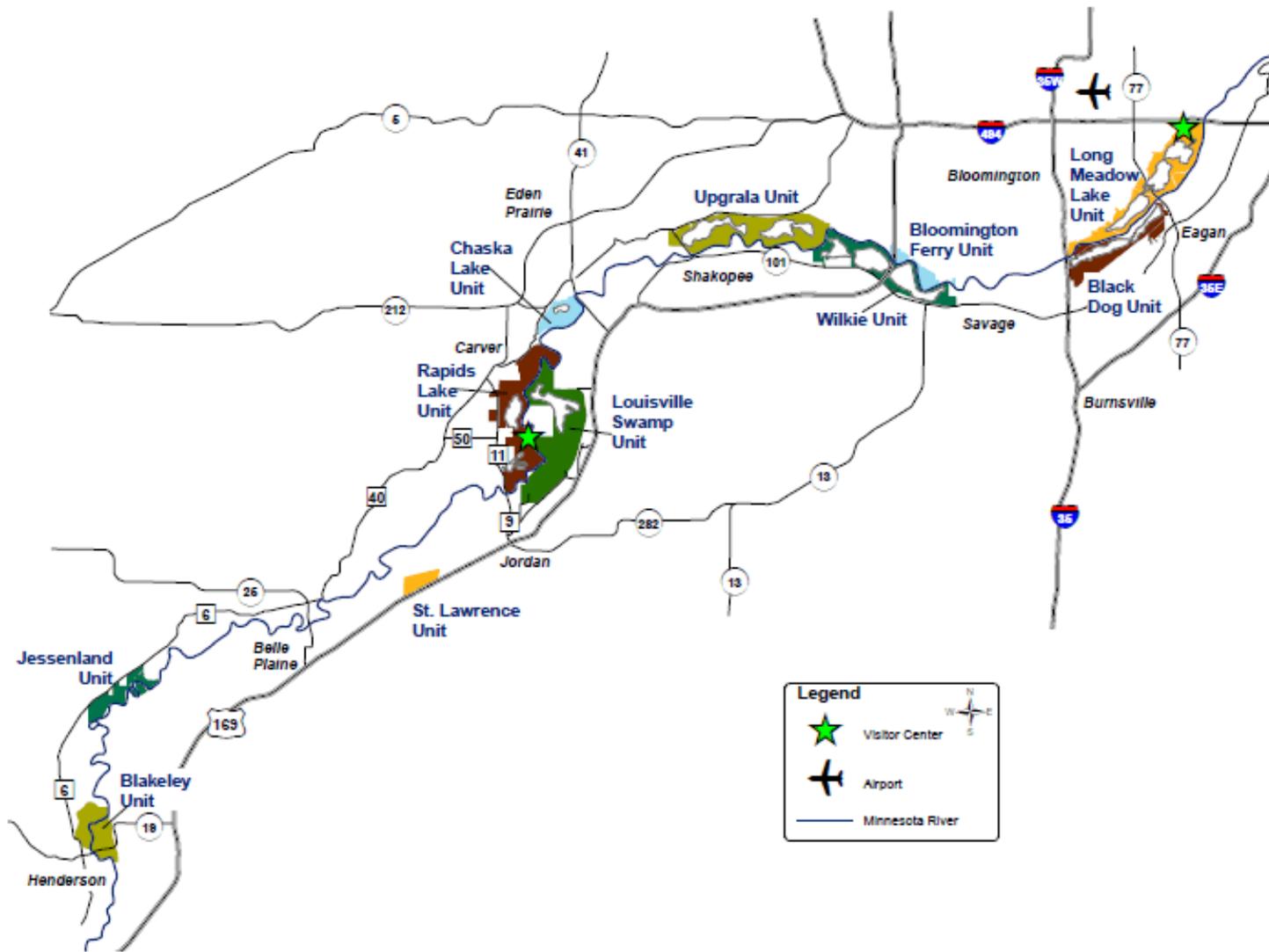


Figure 1. Map of Minnesota Valley NWR, courtesy of U.S. Fish and Wildlife Service.

## Sampling at Minnesota Valley National Wildlife Refuge

A total of 277 visitors agreed to participate in the survey during the two sampling periods at the identified locations at Minnesota Valley NWR (table 2). In all, 204 visitors completed the survey for a 74% response rate, and  $\pm 5.5\%$  margin of error at the 95% confidence level.<sup>2</sup>

**Table 2.** Sampling and response rate summary for Minnesota Valley NWR.

Sampling period	Dates	Locations	Total contacts	Undeliverable addresses	Completed surveys	Response rate
1	5/5/2012 to 5/19/2012	Rapids Lake Unit				
		Long Meadow Lake Unit				
		Wilkie Unit				
		Louisville Swamp Unit				
		Jessenland Unit				
SP1 Totals			148	1	108	73%
2	10/27/2012 to 11/10/2012	Rapids Lake Unit				
		Wilkie Unit				
		Jessenland Unit				
		Louisville Swamp Unit				
SP2 Totals			129	0	96	74%
Combined Totals			<b>277</b>	<b>1</b>	<b>204</b>	<b>74%</b>

<sup>2</sup> 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 Minnesota Valley NWR reported that before participating in the survey, they were aware of the role of the Service in managing refuges (79%) and that the Refuge System has the mission of conserving, managing, and restoring fish, wildlife, plants, and their habitats (90%). 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.

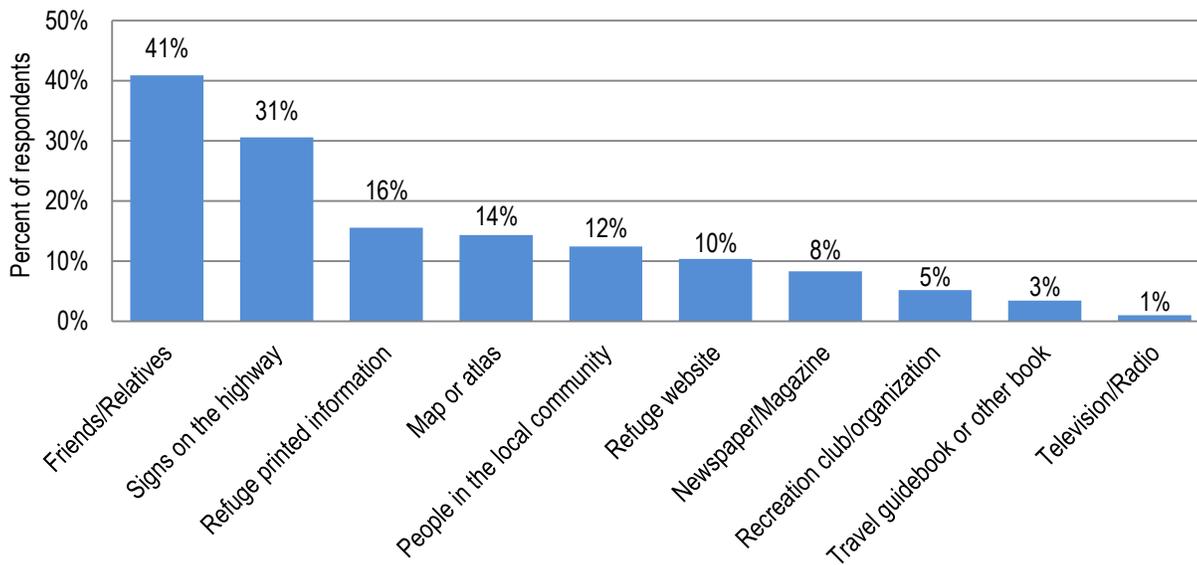
Most visitors (85%) feel that refuges, compared to other public lands, provide a unique recreation experience (see Appendix B for visitor comments on “What Makes National Wildlife Refuges Unique?”); however, reasons for why visitors find refuges unique are varied and may not directly correspond to their understanding of the mission of the Refuge System.

A majority of visitors to Minnesota Valley NWR had been to at least one *other* national wildlife refuge in the past year (58%), with an average of 7 visits to *other* refuges during the past 12 months.

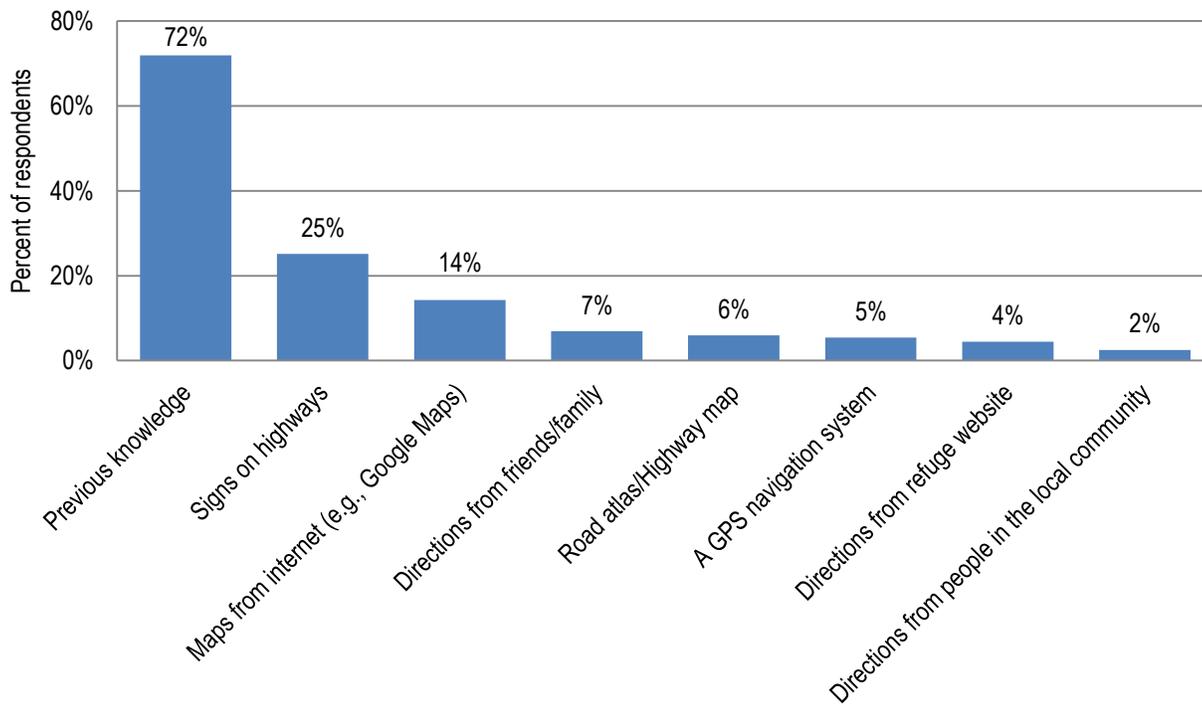
### Visiting This Refuge

Few surveyed visitors (16%) had only been to Minnesota Valley NWR once in the past 12 months, while most had been multiple times (84%). These repeat visitors went to the refuge an average of 22 times during that same 12-month period. Visitors used the refuge during only one season (35%), during multiple seasons (38%), and year-round (28%).

Visitors first learned about the refuge from their friends/relatives (41%), signs on the highway (31%), or refuge printed information (16%; fig. 2). Key information sources used by visitors to find their way to this refuge include previous knowledge (72%), signs on the highways (25%), or maps from internet such as Google Maps (14%; fig. 3).



**Figure 2.** How visitors first learned or heard about Minnesota Valley NWR (n = 193).



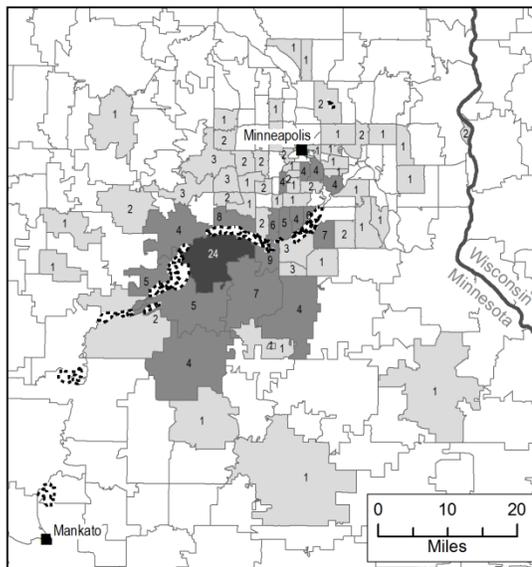
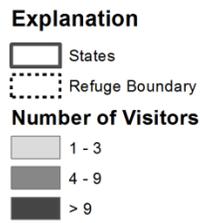
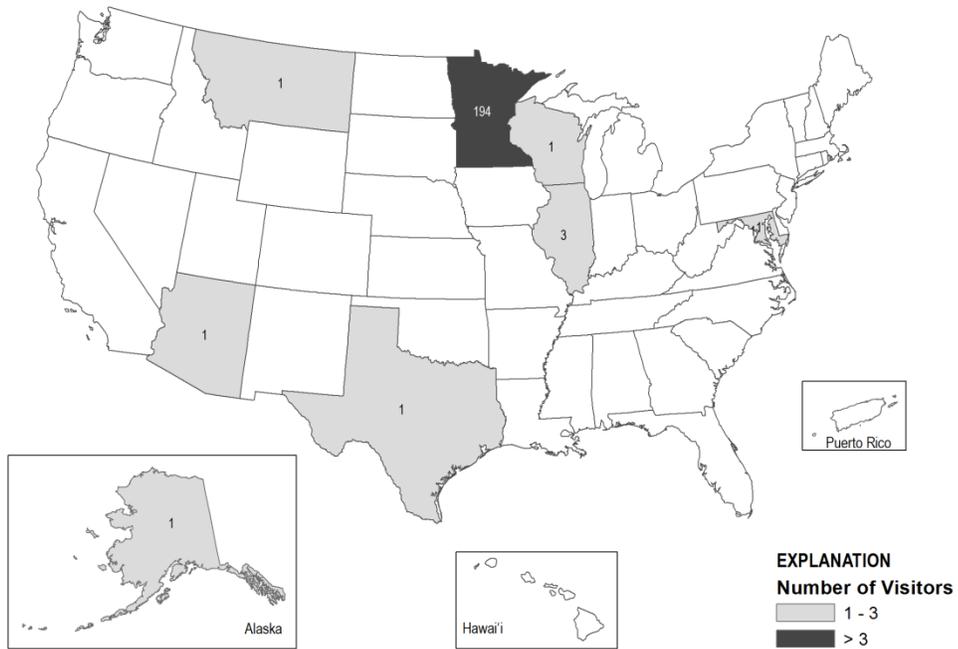
**Figure 3.** Resources used by visitors to find their way to Minnesota Valley NWR during this visit (n = 203).

Most visitors (94%) lived in the local area (within 50 mi of the refuge), whereas 6% were nonlocal visitors. For most local visitors, Minnesota Valley NWR was the primary purpose or sole destination of their trips (84%; table 3).

Local visitors reported that they traveled an average of 13 mi to get to the refuge. There were not enough nonlocal visitors (n = 13) to adequately estimate their travel distance. Figure 4 shows the residences of visitors traveling to this refuge. About 95% of visitors traveling to Minnesota Valley NWR were from Minnesota.

**Table 3.** Influence of Minnesota Valley 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	<i>The sample size of nonlocals was too low (n = 13) to adequately report these data.</i>		
Local	84%	9%	8%
All visitors	79%	10%	11%



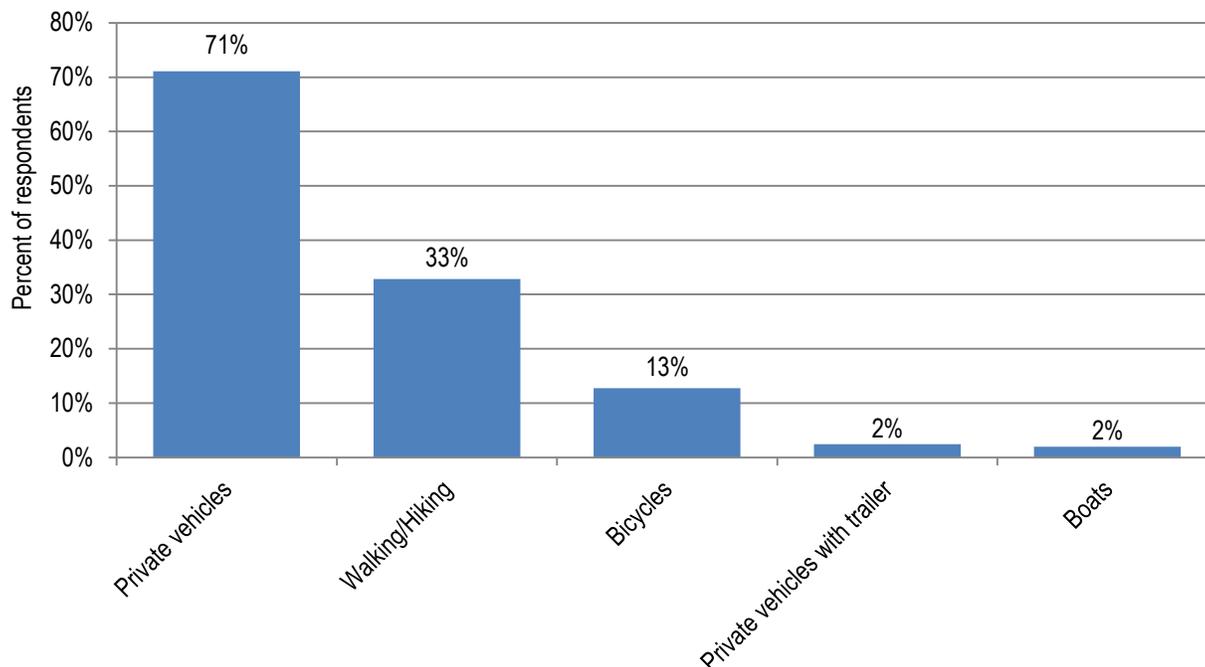
**Figure 4.** Number of visitors travelling to Minnesota Valley NWR by place of residence. The top map shows visitors residence by state and the bottom map shows residence by zip codes near the refuge (n = 204).

Surveyed visitors reported that they spent an average of 4 hr at the refuge during one day there, while the most frequently reported length of a day visit (the modal response) was 2 hr (27%). More than half of visitors indicated they were part of a group on their visit to this refuge (54%). 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 Minnesota Valley NWR (for those who indicated they were part of a group, n = 110).

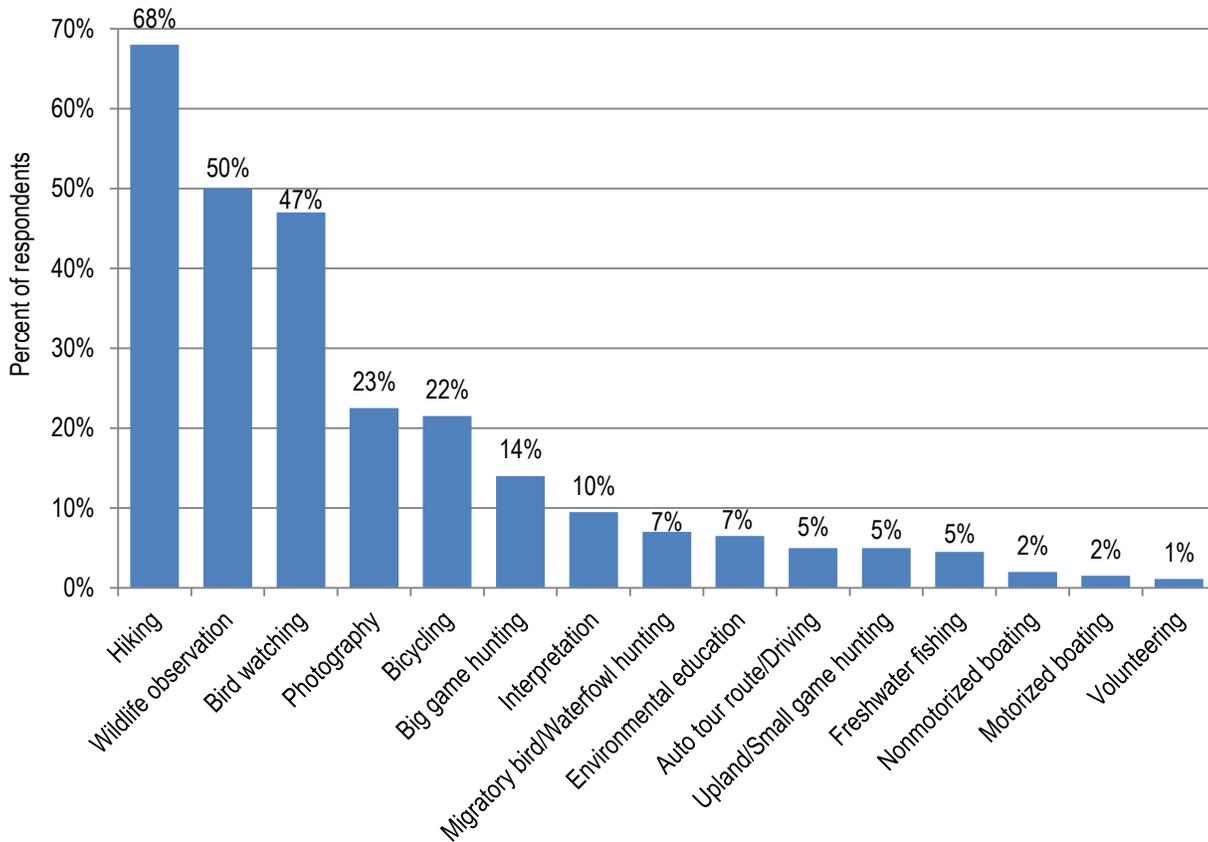
Group type	Percent (of those traveling in a group)	Average group size		
		Number of adults	Number of children	Total group size
Family/Friends	88%	2	0	2
Commercial tour group	0%	0	0	0
Organized club/School group	8%	8	8	16
Other group type	4%	10	1	11

The key mode of transportation used by visitors to travel around the refuge was private vehicles (71%), and to a lesser degree, walking/hiking (33%; fig. 5).

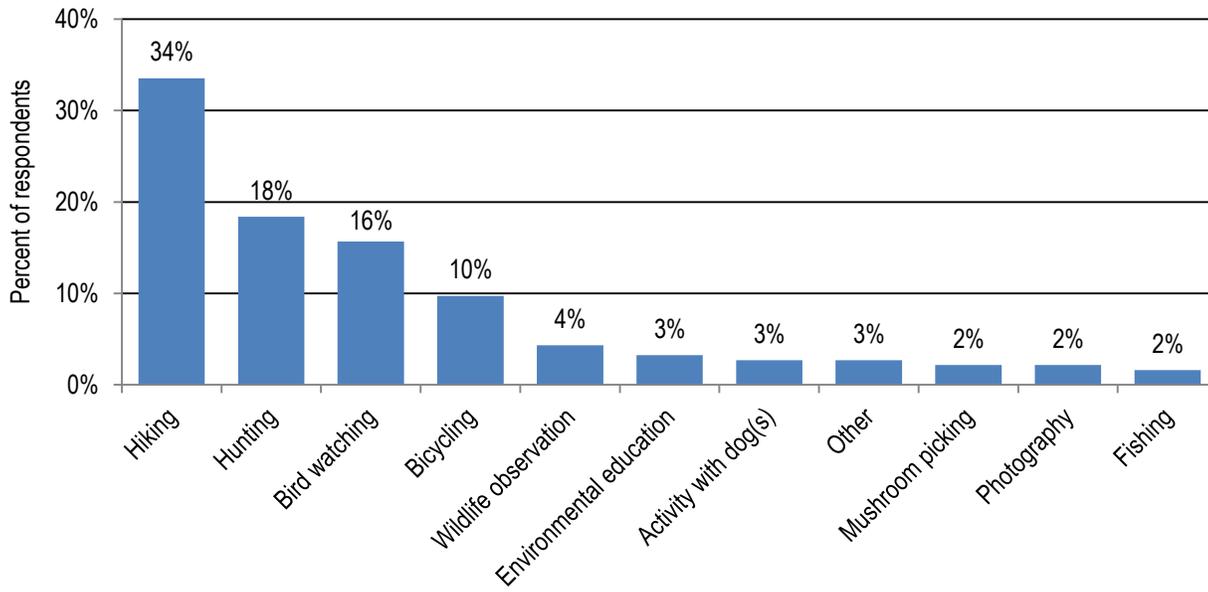


**Figure 5.** Modes of transportation used by visitors to Minnesota Valley NWR during this visit (n = 204).

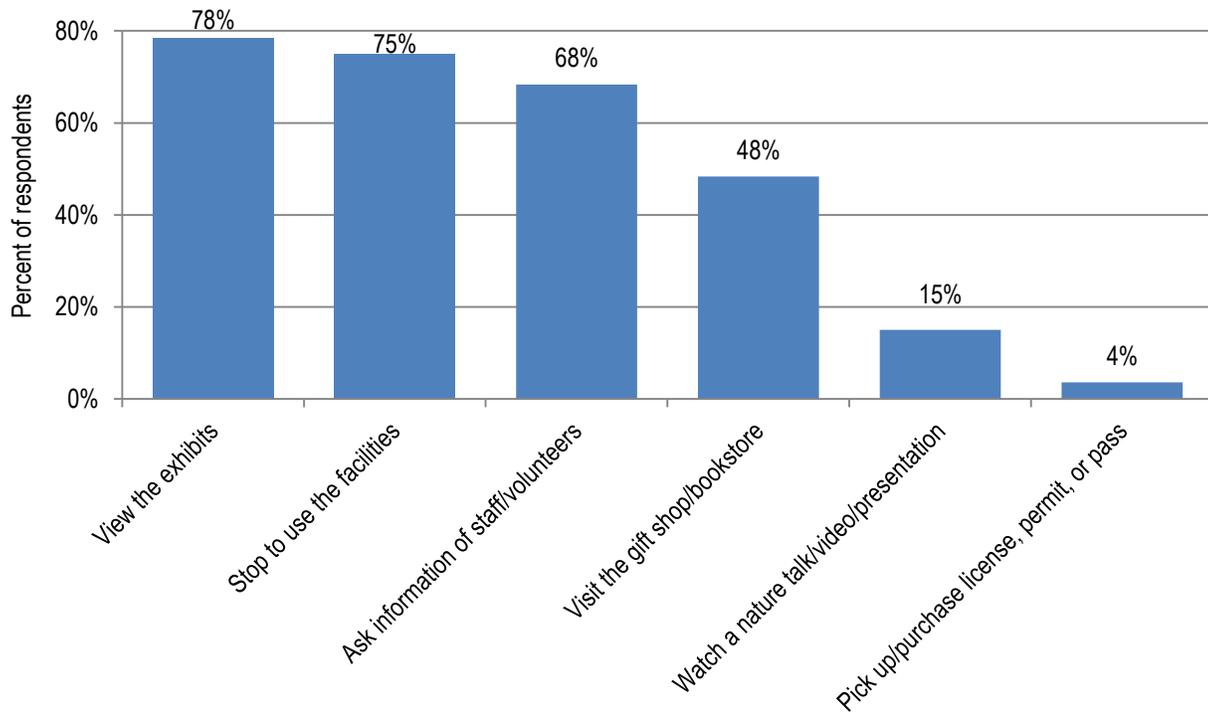
Surveyed visitors participated in a variety of refuge activities during the 12 months prior to completing the survey (fig. 6); the top three activities in which people reported participating were hiking (68%), wildlife observation (50%), and bird watching (47%). The primary reasons for visitors' most recent visits included hiking (34%), hunting (18%), and bird watching (16%; fig. 7). Some visitors also used the Visitor Center during their trips (30%), mostly to view the exhibits (78%), stop to use the facilities (75%), and ask information of staff or volunteers (68%; fig. 8).



**Figure 6.** Activities in which visitors participated during the past 12 months at Minnesota Valley NWR (n = 200). See Appendix B for a listing of “other” activities.



**Figure 7.** The **primary** activity in which visitors participated during this visit to Minnesota Valley NWR (n = 185). See Appendix B for a listing of “other” activities.



**Figure 8.** Visitor Center activities in which visitors participated at Minnesota Valley NWR (n = 60).

## Visitor Characteristics

Nearly all (99%) visitors who participated in the survey at Minnesota Valley NWR indicated that they were citizens or permanent residents of the United States. These visitors were a mix of 78% male (with an average age of 49 years) and 22% female (with an average age of 47 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 14 years (equivalent to an associate degree or two 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, 94% of surveyed visitors to Minnesota Valley NWR indicated that they live within the local 50-mi area, while 6% of visitors were nonlocal. Due to the very low numbers of nonlocals visitors ( $n = 9$ ), economic data for this visitor group are not reported. Table 5 shows summary statistics for local 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, local visitors spent an average of \$22 per person per day in the local area. 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 Minnesota Valley NWR expressed in dollars per person per day.

Visitors	n <sup>1</sup>	Median	Mean	Standard deviation	Minimum	Maximum
Nonlocal	<i>The sample size of nonlocals (<math>n = 9</math>) was too low to adequately represent this visitor group.</i>					
Local	127	\$8	\$22	\$34	\$0	\$150

<sup>1</sup>n = number of visitors who answered both locality *and* expenditure questions.

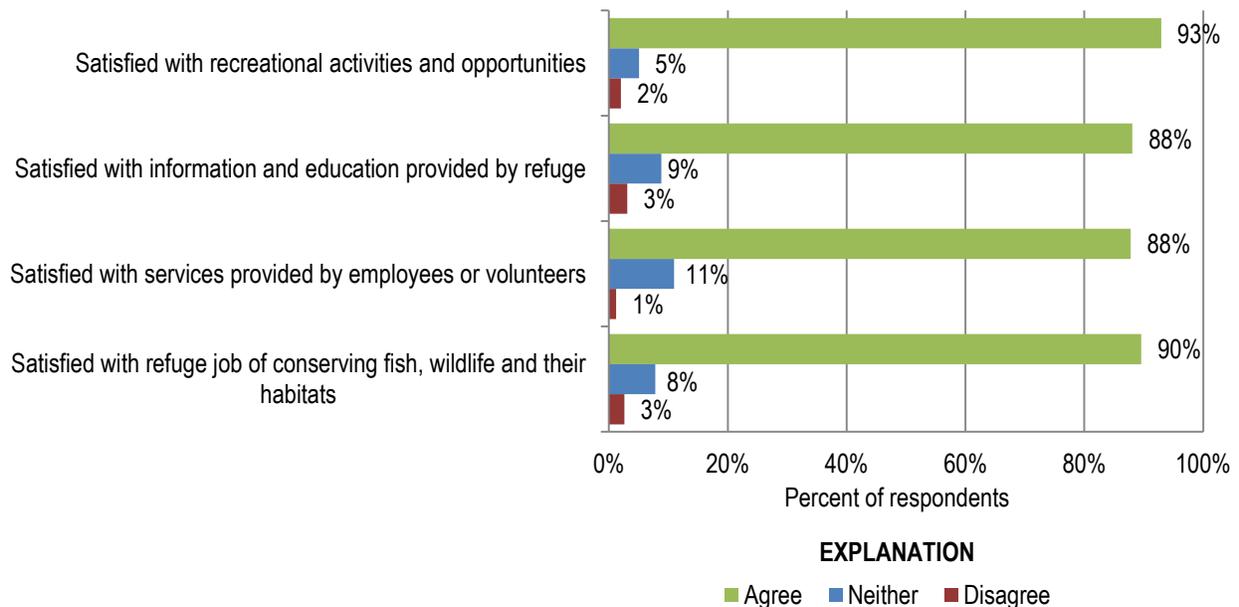
Note: For each respondent, reported expenditures were divided by the number of persons in their group that shared expenses in order to determine the spending per person per trip. This number was then divided by the number of days spent in the local area to determine the spending per person per day for 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 20<sup>th</sup> 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 Minnesota Valley NWR were as follows (fig. 9):

- 93% of visitors were satisfied with the recreational activities and opportunities,
- 88% of visitors were satisfied with the information and education about the refuge and its resources,
- 88% of visitors were satisfied with the services provided by employees or volunteers, and
- 90% of visitors were satisfied with the refuge's job of conserving fish, wildlife and their habitats.



**Figure 9.** Overall satisfaction with Minnesota Valley NWR during this visit (n ≥ 164).

## 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.

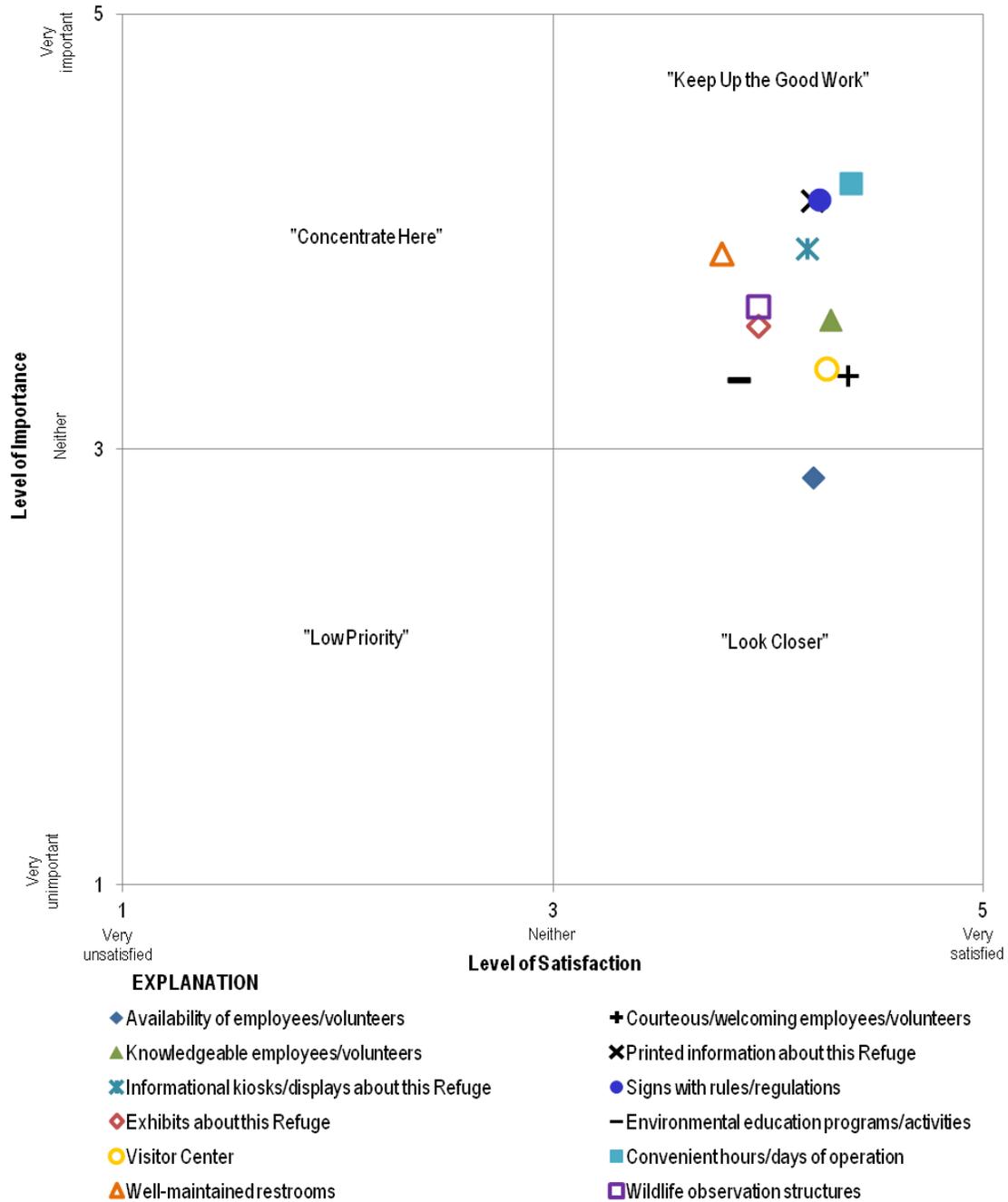
*Graphically plotting visitors' importance and satisfaction ratings for different services, facilities, and recreational opportunities provides a simple and intuitive visualization of these survey measures. However, this tool is not without its drawbacks. One is the potential for variation among different 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 Minnesota Valley NWR. Results are summarized as follows:

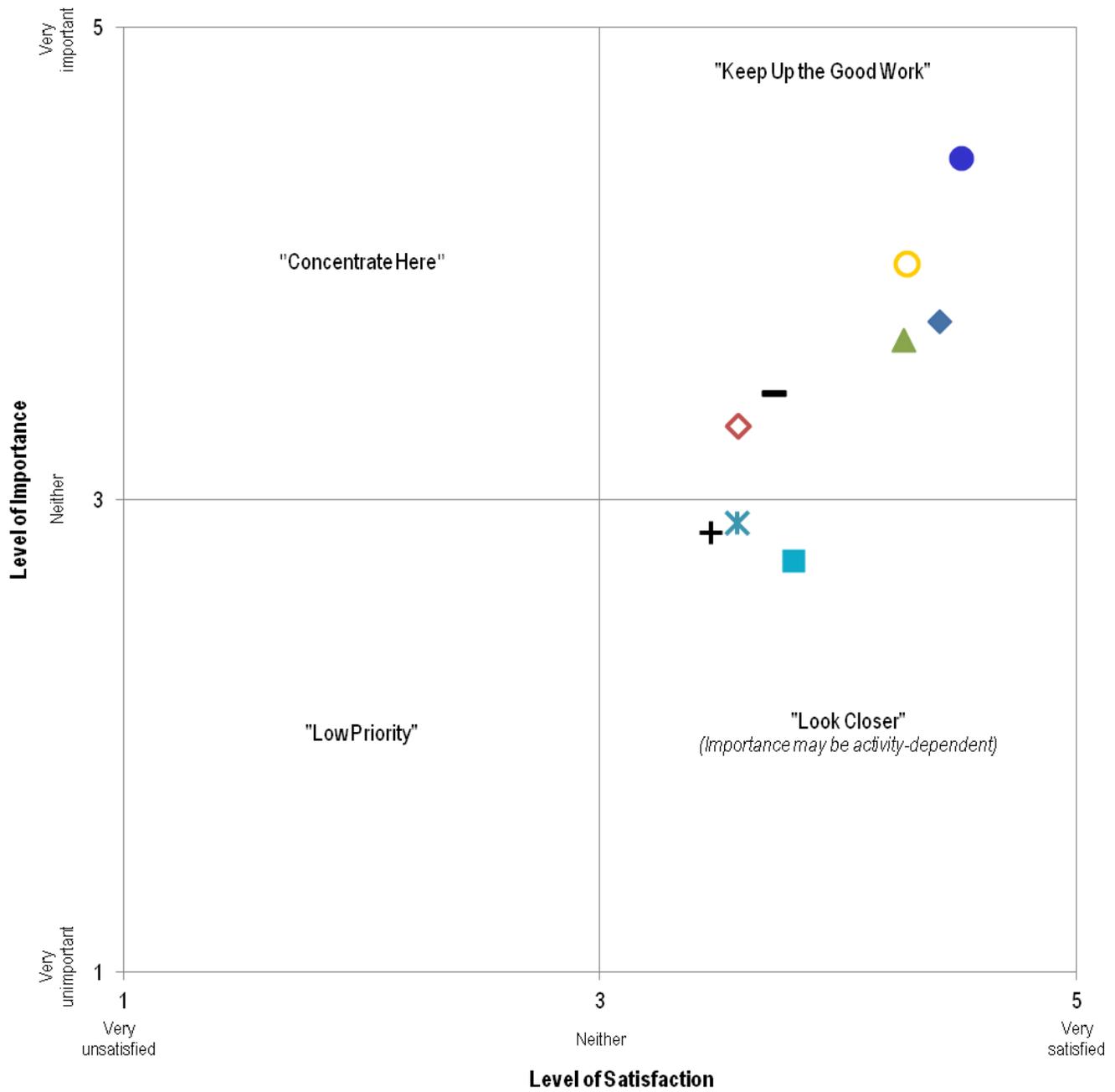
- All refuge *services and facilities* fell in the "Keep Up the Good Work" quadrant except for availability of employees/volunteers, which fell into the "Look Closer" quadrant (fig. 10).
- All refuge *recreational opportunities* fell in the "Keep Up the Good Work" quadrant except hunting, fishing, and volunteer opportunities, which fell into the "Look Closer" quadrant (fig. 11). The average importance of these activities is likely higher among visitors to Minnesota Valley NWR who actually participated in these activities during the 12 months prior to taking the survey than the score

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).



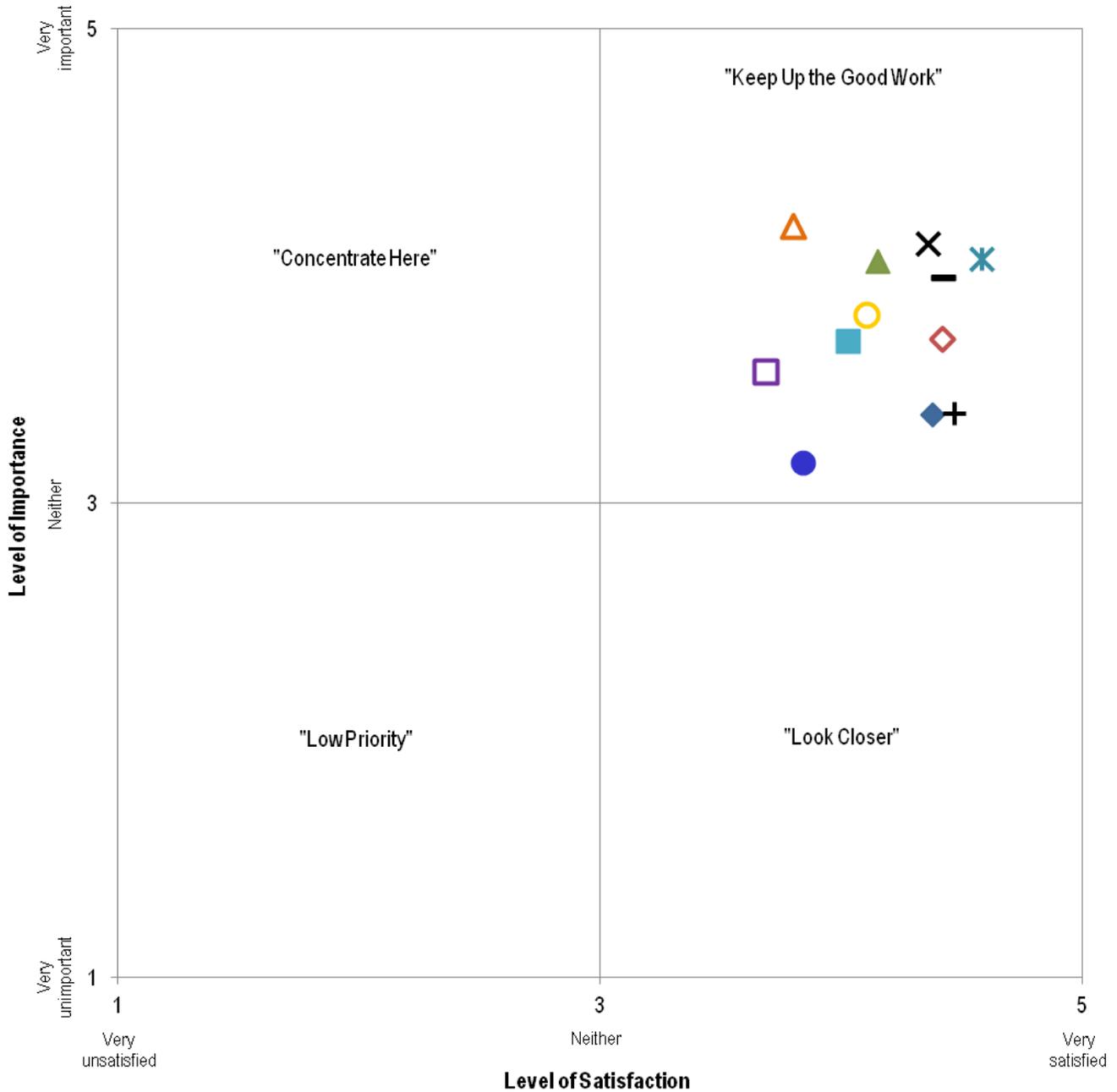
**Figure 10.** Importance-satisfaction ratings of services and facilities provided at Minnesota Valley NWR.



**EXPLANATION**

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

**Figure 11.** Importance-satisfaction ratings of recreational opportunities provided at Minnesota Valley 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 Minnesota Valley NWR.

## Visitor Opinions about National Wildlife Refuge System Topics

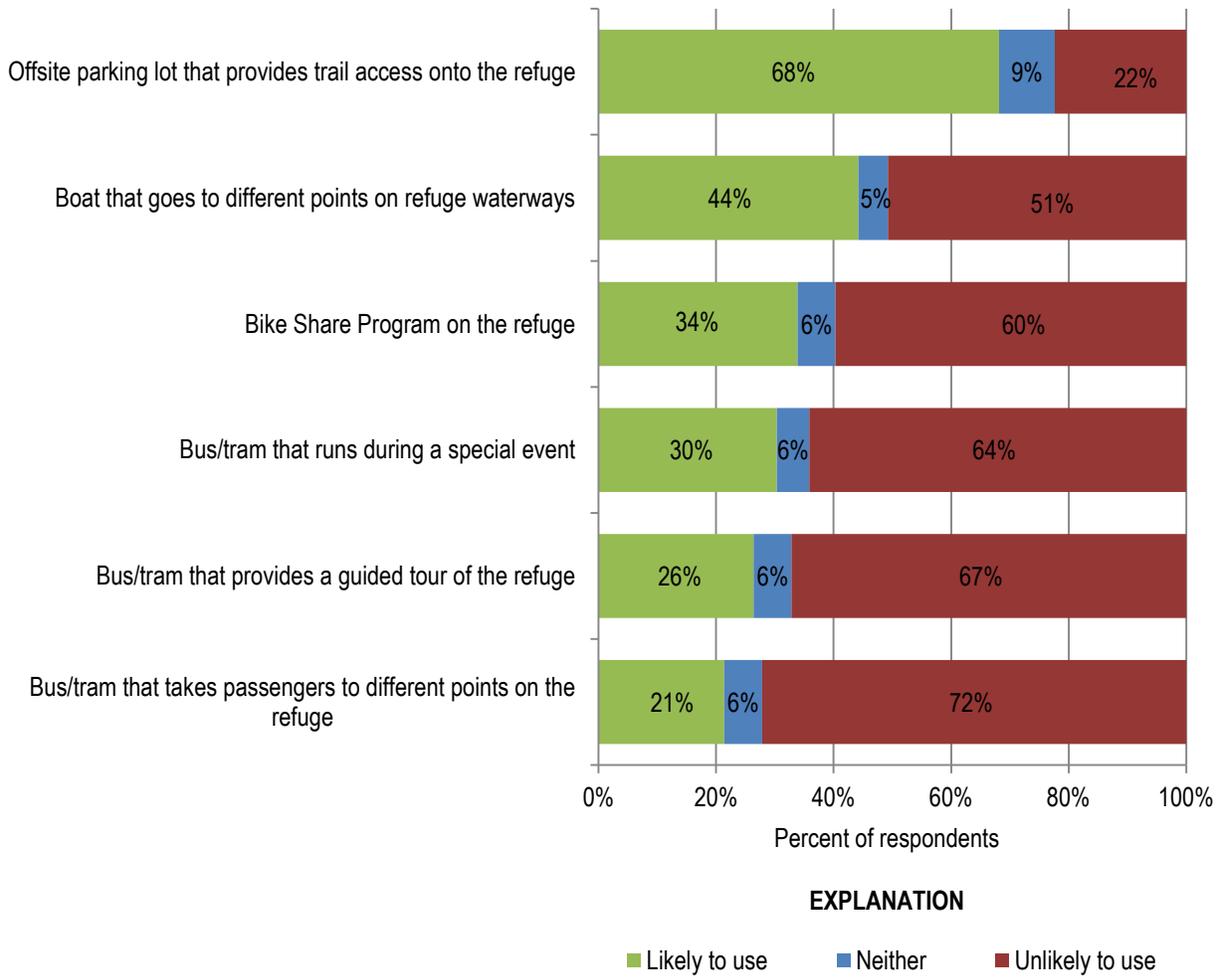
*One goal of this national visitor survey was to identify visitor trends across the Refuge System to more effectively manage refuges and provide visitor services. Two important issues to the Refuge System are transportation on refuges and communicating with visitors about climate change. The results of these questions will be evaluated in aggregate form (data from all participating refuges together) to better address national-level goals. Basic results for Minnesota Valley 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 Minnesota Valley NWR visitors were likely to use an offsite parking lot that provides trail access 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, a bus/tram that runs during a special event, a bike share program, a boat that goes to different points on refuge waterways, or a bus/tram that provides a guided tour.

When asked specifically about using alternative transportation at Minnesota Valley NWR, few visitors thought alternative transportation would enhance their experience (12%) while a majority of visitors thought it would not (59%). An additional 29% 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 ≥ 198).

## 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.*

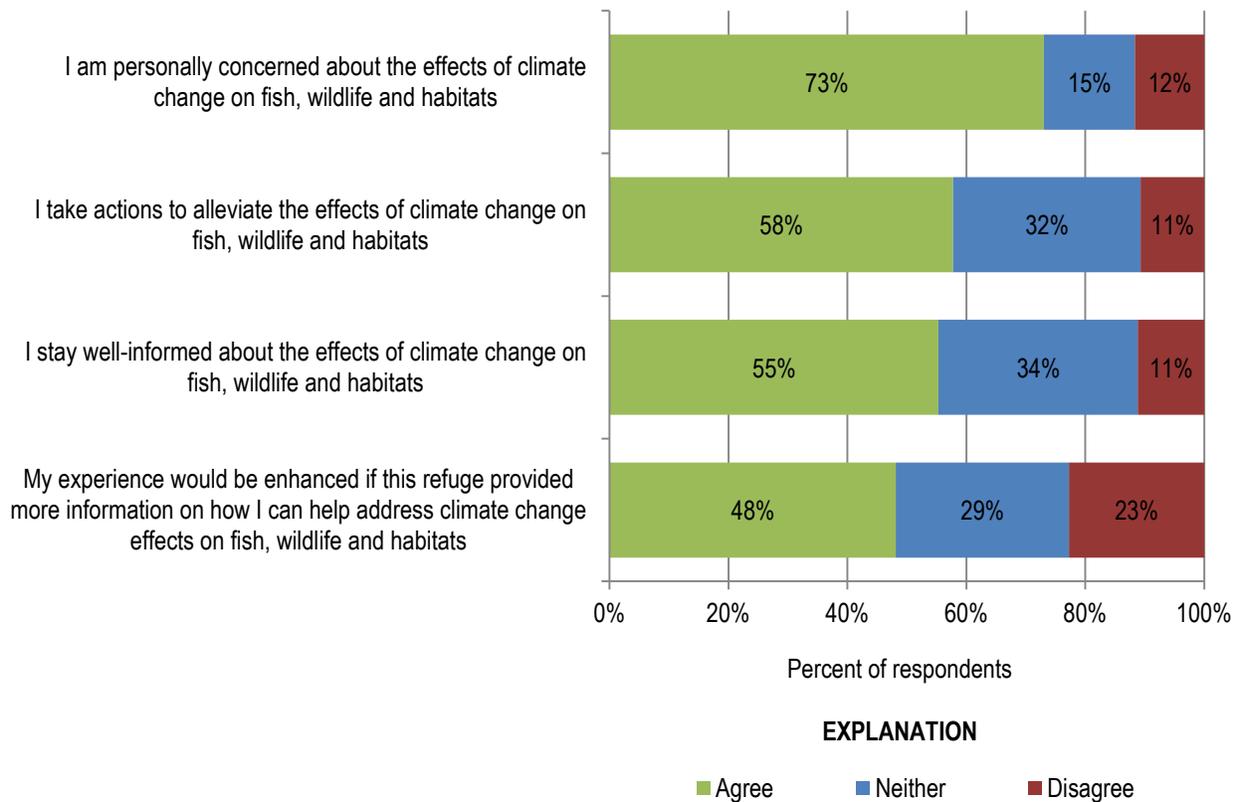
The majority of visitors to Minnesota Valley NWR agreed with the following statements related to their own *personal involvement* with the topic of climate change as it relates to fish, wildlife, and habitats (fig. 14):

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

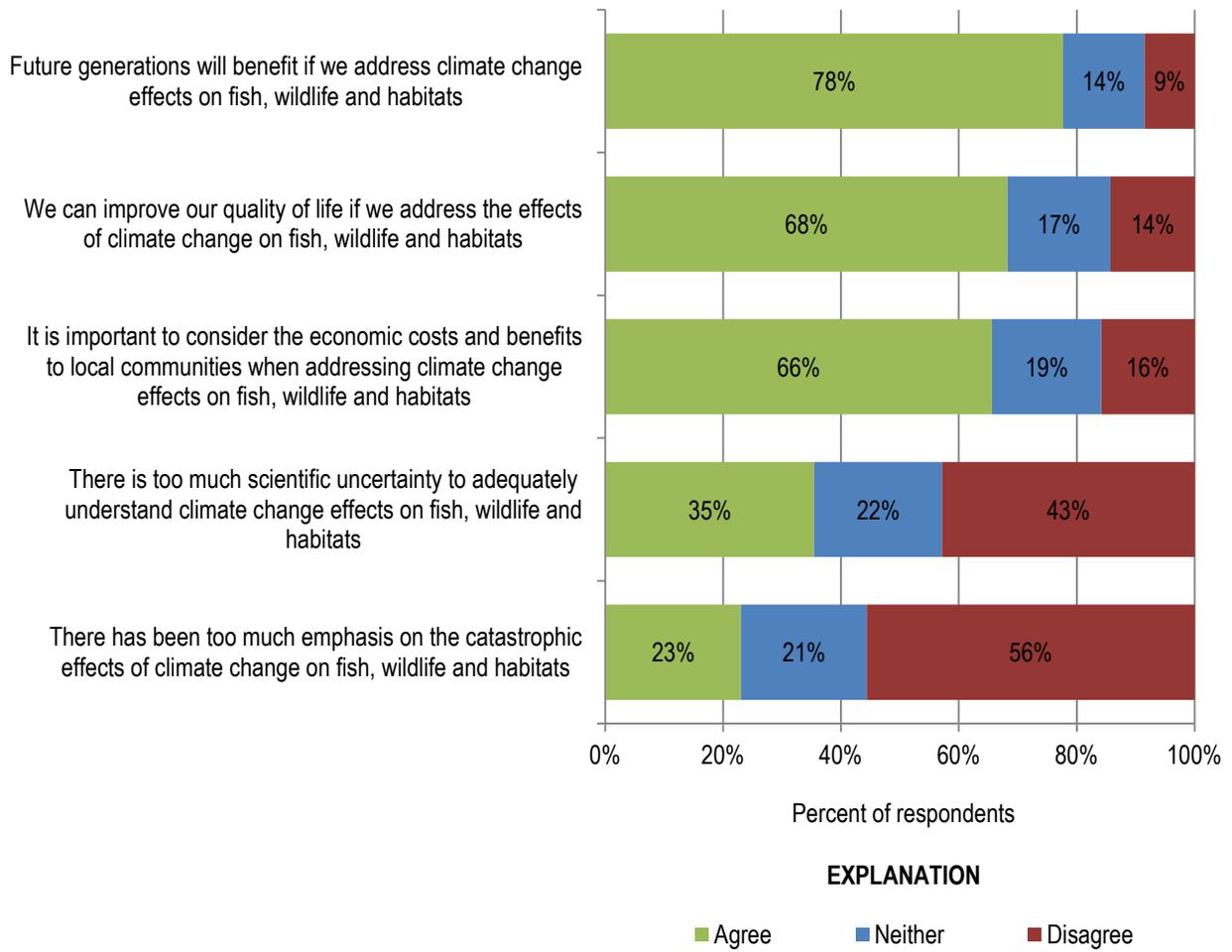
The majority of visitors also agreed with the following *belief statements* regarding climate change effects on fish, wildlife and their habitats (fig. 15):

- 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 (48%) indicated their experiences would be enhanced if Minnesota Valley 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 ≥ 187).



**Figure 15.** Visitors' beliefs about the effects of climate change on fish, wildlife and their habitats (n ≥ 187).

## Conclusion

These individual refuge results provide a summary of trip characteristics and experiences of a sample of visitors to Minnesota Valley 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](mailto:national_visitor_survey@usgs.gov) or 970.226.9205.

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# 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"/> 14% Big game hunting                | <input type="checkbox"/> 68% Hiking  | <input type="checkbox"/> 7% Environmental education (for example, classrooms or labs)               |
| <input type="checkbox"/> 5% Upland/Small game hunting        | <input type="checkbox"/> 22% Bicycling                                     |   |
| <input type="checkbox"/> 7% Migratory bird/Waterfowl hunting | <input type="checkbox"/> 5% Auto tour route/Driving                        | <input type="checkbox"/> 10% Interpretation (for example, exhibits, kiosks, videos)                 |
| <input type="checkbox"/> 50% Wildlife observation            | <input type="checkbox"/> 2% Motorized boating                              |   |
| <input type="checkbox"/> 47% Bird watching                   | <input type="checkbox"/> 2% Nonmotorized boating (including canoes/kayaks) | <input type="checkbox"/> 1% Refuge special event ( <i>please specify</i> )<br><u>See Appendix B</u> |
| <input type="checkbox"/> 12% Freshwater fishing              |  |   |
| <input type="checkbox"/> 0% Saltwater fishing                | <input type="checkbox"/> 1% Volunteering                                   | <input type="checkbox"/> 14% Other ( <i>please specify</i> )<br><u>See Appendix B</u>               |
| <input type="checkbox"/> 23% 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?

- 70% No
- 30% 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"/> 4% Pick up/purchase a license, permit, or pass                        |
| <input type="checkbox"/> 78% View the exhibits                      | <input type="checkbox"/> 75% Stop to use the facilities (for example, get water, use restroom) |
| <input type="checkbox"/> 68% Ask information of staff/volunteers    |  |
| <input type="checkbox"/> 15% Watch a nature talk/video/presentation | <input type="checkbox"/> 20% 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.**)

<b>Nonlocal</b>	<b>Local</b>	<b>All visitors</b>	<i>* There were too few nonlocal visitors to report these data.</i>
-----------------	--------------	---------------------	---

- |                            |                              |                              |   |
|----------------------------|------------------------------|------------------------------|---|
| <input type="checkbox"/> * | <input type="checkbox"/> 84% | <input type="checkbox"/> 80% | It was the primary purpose or sole destination of my trip.  |
| <input type="checkbox"/> * | <input type="checkbox"/> 9%  | <input type="checkbox"/> 10% | It was one of many equally important reasons or destinations for my trip.   |
| <input type="checkbox"/> * | <input type="checkbox"/> 8%  | <input type="checkbox"/> 11% | It was just an incidental or spur-of-the-moment stop on a trip taken for other purposes or to other destinations. |

5. Approximately how many **hours/minutes and miles** (one-way) did you travel from your home to this Refuge?

**Nonlocal**

*\*\*\*The sample size was too low (n=13) to adequately represent travel time and distance for nonlocals.\*\*\**

**Local**              0   Hours      23   Minutes    *and*      13   Miles

**All visitors**      0   Hours      38   Minutes    *and*      31   Miles

6. What type of group were you with on your visit to this Refuge?

46% None, I visited this Refuge alone

*(of those visiting with a group)*

88% Family and/or friends

8% Organized club or school group (for example, Boy/Girl Scouts, hiking club, bird watching group)

0% Commerical tour group

4% Other (*please specify*) See Appendix B

7. Including yourself, how many people were in your group? (*Please answer each category.*)

  2   number 18 years and over

  1   number 17 years and under

8. How did you **first learn or hear about** this Refuge? (*Please mark all that apply.*)

41% Family and/or friends

10% Refuge website

31% Signs on highway

8% Other website (*please specify*) See Appendix B

5% Recreation club or organization

1% Television or radio

12% People in the local community

8% Newspaper or magazine

16% Refuge printed information (brochure, map)

3% Travel guidebook or other book

14% Map or atlas

3% Other (*please specify*) See Appendix B

9. During which seasons have you visited this Refuge in the last 12 months? (*Please mark all that apply.*)

74% Spring  
(March-May)

56% Summer  
(June-August)

73% Fall  
(September-November)

39% Winter  
(December-February)

10. How many times have you visited...

...this Refuge (including this visit) in the last 12 months?      19   number of visits

...other National Wildlife Refuges in the last 12 months?      4   number of visits

**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"/> 71% Private vehicle without a trailer                            | <input type="checkbox"/> 0% Refuge shuttle bus or tram       | <input type="checkbox"/> 13% Bicycle                              |
| <input type="checkbox"/> 2% Private vehicle with a trailer<br>(for boat, camper or other) | <input type="checkbox"/> 0% Motorcycle                       | <input type="checkbox"/> 33% Walk/Hike                            |
| <input type="checkbox"/> 0% Commercial tour bus   | <input type="checkbox"/> 0% ATV or off-road vehicle          | <input type="checkbox"/> 0% Other ( <i>please specify below</i> ) |
| <input type="checkbox"/> 0% Recreational vehicle (RV)                                     | <input type="checkbox"/> 2% Boat                             | <u>See Appendix B</u>   |
|   | <input type="checkbox"/> 0% 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"/> 72% Previous knowledge/I have been to this Refuge before | <input type="checkbox"/> 14% Maps from the Internet (for example, MapQuest or Google Maps) |
| <input type="checkbox"/> 25% Signs on highways                                    | <input type="checkbox"/> 4% Directions from Refuge website                                 |
| <input type="checkbox"/> 5% A GPS navigation system                               | <input type="checkbox"/> 2% Directions from people in community near this Refuge           |
| <input type="checkbox"/> 6% A road atlas or highway map                           | <input type="checkbox"/> 7% Directions from friends or family                              |
|   | <input type="checkbox"/> 2% 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"/> 59%	<input type="checkbox"/> 13%	<input type="checkbox"/> 6%	<input type="checkbox"/> 15%	<input type="checkbox"/> 6%
...a bike that was offered through a Bike Share Program for use while on the Refuge?	<input type="checkbox"/> 43%	<input type="checkbox"/> 16%	<input type="checkbox"/> 6%	<input type="checkbox"/> 22%	<input type="checkbox"/> 11%
...a bus or tram that provides a guided tour of the Refuge with information about the Refuge and its resources?	<input type="checkbox"/> 52%	<input type="checkbox"/> 15%	<input type="checkbox"/> 6%	<input type="checkbox"/> 17%	<input type="checkbox"/> 9%
...a boat that goes to different points on Refuge waterways?	<input type="checkbox"/> 38%	<input type="checkbox"/> 13%	<input type="checkbox"/> 5%	<input type="checkbox"/> 30%	<input type="checkbox"/> 14%
...a bus or tram that runs during a special event (such as an evening tour of wildlife or weekend festival)?	<input type="checkbox"/> 49%	<input type="checkbox"/> 15%	<input type="checkbox"/> 6%	<input type="checkbox"/> 24%	<input type="checkbox"/> 7%
...an offsite parking lot that provides trail access for walking/hiking onto the Refuge?	<input type="checkbox"/> 17%	<input type="checkbox"/> 5%	<input type="checkbox"/> 9%	<input type="checkbox"/> 30%	<input type="checkbox"/> 38%
...some other alternative transportation option? ( <i>please specify</i> ) <u>See Appendix B</u>	<input type="checkbox"/> 6%	<input type="checkbox"/> 0%	<input type="checkbox"/> 12%	<input type="checkbox"/> 35%	<input type="checkbox"/> 47%

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

- 12% Yes       59% No       29% 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
11%	16%	12%	46%	15%	Surface conditions of roads	2%	5%	7%	26%	60%	NA
10%	15%	14%	50%	11%	Surface conditions of parking areas	1%	5%	7%	22%	65%	NA
4%	5%	15%	38%	39%	Condition of bridges	6%	6%	15%	17%	58%	NA
4%	7%	10%	36%	43%	Condition of trails and boardwalks	1%	7%	7%	26%	59%	NA
4%	4%	9%	51%	32%	Number of places for parking	1%	2%	6%	20%	71%	NA
13%	13%	30%	32%	12%	Number of places to pull over along Refuge roads	1%	7%	35%	22%	36%	NA
8%	8%	20%	35%	29%	Safety of driving conditions on Refuge roads	0%	2%	18%	18%	63%	NA
4%	4%	18%	41%	32%	Safety of Refuge road entrances/exits	0%	5%	10%	23%	62%	NA
7%	7%	14%	44%	28%	Signs on highways directing you to the Refuge	4%	6%	14%	29%	48%	NA
9%	6%	18%	40%	26%	Signs directing you around the Refuge roads	0%	5%	26%	31%	39%	NA
4%	4%	9%	39%	44%	Signs directing you on trails	2%	19%	13%	31%	36%	NA
8%	10%	25%	30%	26%	Access for people with physical disabilities or who have difficulty walking	1%	10%	39%	21%	30%	NA

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

See Appendix B

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**SECTION 3. Your expenses related to your Refuge visit**

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

94% Yes

6% 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: \_\_\_\_\_\* day(s)

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

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: \_\_\_\_\_ 3 \_\_\_\_\_ 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	<b>Amount Spent in Local Communities &amp; at this Refuge</b> <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
25%	28%	24%	4%	7%	1%	6%	0%	1%	1%	2%

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)

*Minnesota Valley 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.**

*Minnesota Valley National Wildlife Refuge does not charge an entrance fee. This question does not apply.*

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#### SECTION 4. Your experience at this Refuge

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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"/> 1%	<input type="checkbox"/> 2%	<input type="checkbox"/> 5%	<input type="checkbox"/> 32%	<input type="checkbox"/> 61%	NA
Overall, I am satisfied with the information and education provided by this Refuge about its resources.	<input type="checkbox"/> 0%	<input type="checkbox"/> 3%	<input type="checkbox"/> 9%	<input type="checkbox"/> 49%	<input type="checkbox"/> 39%	NA
Overall, I am satisfied with the services provided by employees or volunteers at this Refuge.	<input type="checkbox"/> 1%	<input type="checkbox"/> 1%	<input type="checkbox"/> 11%	<input type="checkbox"/> 40%	<input type="checkbox"/> 48%	NA
This Refuge does a good job of conserving fish, wildlife and their habitats.	<input type="checkbox"/> 0%	<input type="checkbox"/> 3%	<input type="checkbox"/> 8%	<input type="checkbox"/> 37%	<input type="checkbox"/> 53%	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
21%	18%	23%	29%	9%	Availability of employees or volunteers	1%	2%	26%	17%	54%	NA
14%	11%	22%	33%	20%	Courteous and welcoming employees or volunteers	1%	0%	23%	14%	62%	NA
11%	10%	16%	35%	28%	Knowledgeable employees or volunteers	2%	1%	22%	18%	58%	NA
4%	5%	6%	43%	42%	Printed information about this Refuge and its resources (for example, maps and brochures)	1%	8%	6%	37%	47%	NA
4%	6%	12%	48%	30%	Informational kiosks/displays about this Refuge and its resources	2%	6%	11%	36%	46%	NA
2%	4%	11%	43%	40%	Signs with rules/regulations for this Refuge	1%	6%	9%	36%	48%	NA
7%	11%	20%	46%	17%	Exhibits about this Refuge and its resources	2%	6%	25%	28%	39%	NA
9%	13%	33%	27%	18%	Environmental education programs or activities	2%	4%	35%	26%	34%	NA
11%	13%	24%	32%	20%	Visitor Center	4%	1%	20%	14%	61%	NA
2%	3%	10%	40%	45%	Convenient hours and days of operation	2%	4%	11%	21%	62%	NA
5%	5%	19%	37%	34%	Well-maintained restrooms	11%	10%	20%	8%	51%	NA
6%	8%	22%	43%	21%	Wildlife observation structures (decks, blinds)	4%	7%	20%	28%	41%	NA
7%	11%	13%	38%	31%	Bird-watching opportunities	1%	1%	15%	21%	62%	NA
2%	5%	14%	48%	31%	Opportunities to observe wildlife other than birds	1%	1%	14%	35%	49%	NA
7%	6%	26%	35%	26%	Opportunities to photograph wildlife and scenery	1%	1%	18%	29%	51%	NA
40%	7%	18%	9%	26%	Hunting opportunities	4%	5%	35%	21%	36%	NA
27%	11%	23%	24%	15%	Fishing opportunities	2%	8%	44%	22%	24%	NA
3%	3%	6%	22%	65%	Trail hiking opportunities	1%	2%	6%	27%	64%	NA
13%	11%	22%	40%	14%	Water trail opportunities for canoeing or kayaking	4%	12%	31%	30%	24%	NA
10%	15%	19%	32%	24%	Bicycling opportunities	4%	9%	28%	28%	31%	NA
18%	12%	40%	23%	6%	Volunteer opportunities	2%	4%	58%	17%	18%	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

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

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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?

79% Yes

21% No

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

90% Yes

10% No

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

85% Yes

15% No

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

See Appendix B

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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.	6%	6%	15%	33%	40%
We can improve our quality of life if we address the effects of climate change on fish, wildlife and their habitats.	7%	7%	17%	29%	40%
There is too much scientific uncertainty to adequately understand how climate change will impact fish, wildlife and their habitats.	21%	22%	22%	23%	13%
I stay well-informed about the effects of climate change on fish, wildlife and their habitats.	1%	10%	34%	48%	7%
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.	4%	12%	19%	52%	14%
I take actions to alleviate the effects of climate change on fish, wildlife and their habitats.	3%	7%	32%	44%	13%
There has been too much emphasis on the catastrophic effects of climate change on fish, wildlife and their habitats.	27%	29%	21%	12%	11%
Future generations will benefit if we address the effects of climate change on fish, wildlife and their habitats.	5%	4%	14%	32%	46%
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%	14%	29%	37%	12%

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## SECTION 6. A Little about You

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**\*\* 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?

99% Yes  1% No → *If not, what is your home country?* See Figure 2 in Report

2. Are you?  78% Male  22% Female

3. In what year were you born? 1963 (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)			
					0%			12%				58%				30%			

5. What ethnicity do you consider yourself?  2% Hispanic or Latino  98% Not Hispanic or Latino

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

2% American Indian or Alaska Native  1% Black or African American  96% White  
 3% Asian  0% Native Hawaiian or Pacific Islander

7. How many members are in your household? 3 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"/> 1% Less than \$10,000	<input type="checkbox"/> 10% \$35,000 - \$49,999	<input type="checkbox"/> 24% \$100,000 - \$149,999
<input type="checkbox"/> 6% \$10,000 - \$24,999	<input type="checkbox"/> 19% \$50,000 - \$74,999	<input type="checkbox"/> 11% \$150,000 - \$199,999
<input type="checkbox"/> 8% \$25,000 - \$34,999	<input type="checkbox"/> 17% \$75,000 - \$99,999	<input type="checkbox"/> 5% \$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.)?

28 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?

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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 Minnesota Valley 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
Bird watching class	1
Guided walk	1

Other Activity	Frequency
Access to MN state park	1
Dog sledding	1
Dog walking	6
Home school	1
Horseback riding	3
Meditation	1
Mushroom hunting	3
Mushroom hunting, walk dogs	1
Photo exhibit	1
Running	4
Sketching	1
Snowshoeing	2
Student book club; other classes for homeschoolers and preschoolers	1
Visited Visitor Center, talked with staff.	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
Gather information about this specific refuge.	1
Horseback riding	1
Just to see what the park was like. It was my first time visiting.	1
To see the big oaks	1
Visiting my grandparents farm	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
Ask about recently seen birds.	1
Class	1
Information on the land. Just the kiosk, not a Visitor Center.	1
Pick up park brochures (wildlife, plants, etc. found in the refuge)	1
Picked up a map	1
Raining heavily so used Visitor Center to observe bird feeders/birds.	1
Walk the adjacent trails	1
Watch feeders for birds	3
Watch the wildlife	1
Watched bird feeders for Yellow-headed Blackbird.	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
Home school	1
Hunting party	1
Osher life long learning course	1
Seniors group	1

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

Other Website	Frequency
Birdwatching websites from Minnesota Ornithologist's Union and MN bird ebird.org	1
Google maps	1
Home school email	1
Internet search	1
List serve for local birders	1
MARC website	1
Minnesota Off Road Cyclists	2
MN DNR hunting website	1
MN DNR website	2
Searched internet for parks in my area	1
www.meetup.org	1

Other Ways Heard about This Refuge	Frequency
Bird sightings	1
My children attended a school that went there for field trips.	1
One of my students is a FWS employee.	1
Traveled old roadway.	1
University of Minnesota ornithology class	1

## Survey Section 2

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

Other Ways Found This Refuge	Frequency
Directions from group leader.	1
Newspaper	2
Saw trails from the highway.	1

Question 3: "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
Battery operated bike	1
Bicycle if rack/locks were available	1
Bike	3
Boat/motorcycle	1
Canoe or row boat	1
Canoe rental	1
Chairlift up a mountain	1
Horseback	3
I go for hunting. I don't see myself putting a deer on a bus or cab.	1
Motorized hang glider	1
My car or bike	1
My feet! I love to walk and hike.	1
Onsite parking	1
Private transportation to onsite parking for trail access	1
Private vehicle	2
Segway or horseback	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 = 41)

Accessibility for people with physical disabilities were limited.

At this refuge, it is only important to have adequate parking, which it does, and easy access to walking trails, which it also does.

Battery operated bicycle would work great on trails. On this refuge there are solid walking paths for disabilities.

Freeway signage is lacking/limited.

I am more than satisfied in areas I have been in. Refuge does a great job. I am glad there are areas I can archery hunt. Thank you.

I feel a person with a disability should be able to use an ATV to help them get to a deer stand or to the entrance of the woods.

I like the ideas of bus/trams as alternatives to excessive vehicles within refuges but they should be able to accommodate bikes. Also would probably only use them as a means to get from one hiking trail to another but would still use them.

I prefer natural environment, status quo.

I want signs and improvements kept to a minimum. However, I do want to be able to find my way to a place with adequate signage placed at strategic intervals, outside leading to the refuge and inside on trails. I think the Minnesota Valley Wildlife Refuge does this quite well.

I was told the trails were closed to bikes because of trail damage. I find this ironic since my experience of refuge work trucks digging 8 inch deep ruts into trails just after frost had come out of the ground in spring.

It's helpful to have trails maintained so we can walk to different parts of the refuge; they do a good job here, but one was under construction on my last visit.

Last year's floods left the area in havoc.

Make bridge usable for bikes and walking. Some bridges over streams are unstable. Open Black Dog road.

Middle road entrance very bumpy. Gravel used too coarse in several areas. Easy to turn an ankle.

More bicycle access trails would be nice.

Most of the trails were flooded when we were there.

Not very well advertised (the two parks in Jordan areas).

Prefer to keep it a walk/bike transportation only refuge.

Restrict entrances and exits to better prevent possible vehicle accidents either entering or exiting in wrong way.

Signage along the trails could be more clear and more often.

Signage and distance information would be appreciated. It is easy to take the wrong trail at some points.

Signage to the refuge is important. I had to find a gas station, no one knew how to get there. A person offered to let me follow them and then I found the refuge. Also restroom facilities were locked at the Visitor Center (after a long hike) and no other facilities available.

Some of the trails were underwater so we couldn't use them.

Thanks for the road to ride my bike to work!

The old bridge is a very important element in the use of this refuge. It would be great to find a solution to reopening at least a smaller walk and bicycle bridge to cross and observe.

The old Cedar Ave bridge was an important connector of hike and bike trails, but has been closed for years. I wish it were fixed a bit, or a bike/pedestrian lane was added to the new bridge.

The parking lot was gravel and some potholes were bumpy to drive through. The trail conditions could have been better if they were more smooth and even to better allow viewing of the area as we walked instead of watching our foot placement so much. This could also help people with disabilities access the refuge.

The refuge is a great place to hunt, though I wish I saw more deer.

The signage to get to the park is pretty sparse, which I think is good. The trail marking in the park is sparse, out of date, faded, and not that complete.

The staff were extremely helpful, above and beyond expectations. Thanks.

The way the trails are marked for specific use or prohibited use can sometimes be confusing. We were on horseback and ended up mistakenly on a trail marked closed to horses. We didn't see the no horses sign until we were at an intersection quite a ways down the trail from where we had started where horses were allowed.

The wood posts in the right lane, upon exiting refuge, are not marked well with reflectors. Posts are difficult to see in the dark and are a hazard.

There is a lot of horse stool on trails, not good for bicycling.

This concerns maintenance vehicles for the refuges. One of the refuges that I visit is the MN Wildlife Refuge in Jordan, MN. I was so disappointed when the refuge built several "maintenance buildings" on a pristine prairie area. I know personally of an existing maintenance area at Wilkie Wildlife Refuge only 18 miles away.

This is not a handicap-friendly place.

This was a 240 acre forest with trails adjacent to a church parking lot. No problems or need for further development in my opinion.

Trails are not good for wheelchairs but the soft surface is great for people who have sensitive feet and can't walk on hard surfaces. If more access is made for wheelchairs, it would be great to have smooth packed crushed limestone, not blacktop. Wood or plastic boardwalks and observation decks are better than concrete.

Very helpful staff and volunteers at Visitor Center. Enjoyed the visit and have information about possibly volunteering also.

Waited for over 6 years for a footbridge over Sand Creek and then when one was finally made, a 2 ton vehicle bridge was made. All that was missing was a foot bridge.

We live so close we don't need any other transportation. We're within walking distance.

Why aren't vehicles allowed in the lower parking lot?

## 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 = 60)

A sign should have been posted that the trail is flooded. Volunteer at site should have been told this. I asked him especially as we had planned to go on a long hike but had to turn back twice due to high water over trails.

Adding loop trails would be good, 3 to 5 miles long.

As a strong supporter of local mountain biking, I don't feel that there is any reason to restrict mountain biking on hiking trails, as long as clearly posted signs stress that there should be no biking on wet trails. In fact, a maintained single track trail system would be a nice addition to the area. Local groups like MORC (Minnesota Off-road Cyclists - <http://www.morcmtb.org>) could be used to build and maintain the trails.

Because I was visiting with my parents who are elderly we only spent time in or near the Visitor Center. I have done a little hiking at the refuge but have only visited occasionally.

Better enforcement of hunting regulations would be greatly appreciated. I've seen a number of people (including under-age children, unsupervised) chasing deer during open-hunting season.

Build the path higher with 'overflow' culverts to make the path available for more weeks of hiking per year.

Could not find the Visitor Center. There was disappointment in the lack of information about the trails.

Do not build anything at this Minnesota Valley Wildlife Refuge site except for maintaining trail markers and trails. Keep it wild!

Friendly staff.

I believe the limited services and facilities are a positive feature at more wilderness-experience refuges- those where people just want to be away for private time and reflection.

I have visited and used this park for 17 years, by myself and with friends and family. I have been so thankful to have a place to come to where I may enjoy the beautiful outdoors. I really appreciate riding horses there. I don't know if this park has horseback riding because it butts up to the state trail. I ride out here and wish there were even more horse trails. I love to bike and hike also. The one improvement I wish this park had was restroom facilities. Even just outhouses, something. Please. Thank you so much for maintaining the trails, cutting grass, etc.

I like how it is, minimal and not many people crowd it up.

I plan to visit this refuge more in the future.

I used to hunt an area that is now closed to hunting. At the time I hunted the area, they closed it, they did not clearly let hunters know it was closed. I was walking up the ridge, bow strapped to my back pack, release in my fanny pack. The officer approached me, was rude, gave me a citation, but not a fine. I was disappointed that I learned the land was purchased with hunters fees by DNR, given to the Fish and Wildlife to manage, and now we can't hunt it?

I visited the Louisville Swamp and didn't see a Visitor Center or restroom. Also no signs about hunting.

I was not at the Visitor Center during this most recent visit so did not expect there to be employees, exhibits, programs, etc.

I was shocked at the Minnesota Valley Wildlife Refuge when I discovered that somebody was getting traps along the Minnesota River to trap beaver or otter. I thought that it was illegal to trap in a wildlife refuge. I was very disappointed that the staff did not discover that this was going on in this refuge.

I would guess most people wouldn't know the refuge is here, unless they live in the immediate area.

I would like any applicable surfaces plowed during the winter! Helps to usher in spring besides year round opportunities.

I would prefer that we do not over-commercialize our refuges and we retain a certain level of wilderness in these areas.

It is impossible to find the trail map online. I was wishing to print maps for the boys so they could experience map reading.

It is very much wilderness and wildlife. I do hope it stays that way. Glad to see archery for turkey becoming available.

It seems that each May, at the peak of the spring migration of birds, there has been trail closures due to maintenance or tree trimming. It is a great birding area due to the varied habitats. I wish that the main 2 weeks of the spring migration could be set aside except for emergency.

It would be nice to have bathrooms at this refuge. The use of this park is growing. Lots more hikers and hunters. There is not a Visitor Center either. The parking lot was very much improved. It is great for trailer parking.

It's a gem in the city, 5 minutes from an international airport but another world! A total escape.

Louisville Swamp is a great facility. Happy with it right now.

Love the bird feeding station and walkout view of the valley.

Maybe have bathrooms or porta-potties by the entrance to the hunting area.

More pavement trails would be nice. Better access to river.

Need a waterfowl viewing platform for the spring migration. Good passerine stopover habitat in spring migration, but airplane traffic really wrecks things compared to how it used to be before the new runway was built. Trails west of entry are stark and uninteresting.

Need restroom facilities, due to Visitor Center often closed. Birdfeeders were wonderful. Easier directions for finding refuge.

No comments! Except hours on fishing. I would like to see later hours for fishing.

No refuse receptacles are available. Provide.

No restroom facilities at this unit. A vault toilet would be nice or even a porta potty!

Not sure why the Visitor Center is not open on weekends.

Parking only at Louisville Swamp. Very adequate to hikers.

Ranger was very helpful and engaging.

Really appreciate classes offered to homeschoolers and summer education to youth.

Refuge borders not marked clearly.

Restrooms needed always.

Satisfactory.

Staff is great!

Staff was very knowledgeable and gave us loads of information, not just on this refuge, but also on the NWR system and what else we could see within the region. Also really enjoyed the exhibits as my family is seasoned exhibit visitors.

The one person that was there was very informative and had customer service skills. I would go back there in a flash.

There are no bathroom facilities at the Old Cedar Ave Bridge. Please put in a porta-potty for visitors!

There are no bathrooms at the Louisville Swamp.

There has been increased bicycle activity where it's marked 'not allowed'. I am concerned about bottom land habitat, erosion, and stress and disturbance bicycling causes to the birds and other wildlife including plants at this refuge.

This facility and park are gems, but little known since newer and farther out in Carver. It's difficult because there are few activities and I have little time to fit them in. Would like to bike more and there are limited trails for that.

This is a low-key, relaxing place to come to view birds and wildlife in a quiet environment. I applaud the educational efforts of the staff who work with many school groups of young people.

This park has no restroom facilities whatsoever. It really needs a couple at least, because my wife and I really like this park. No restroom can really be a drag.

Trails were accessible to mountain bikes at one time, but not anymore. There are many groups providing hiking, snowmobile, ski opportunities. In past years off-road trails for bikes have been taken away without systems to replace the ones that were lost.

Two locations in area of Jordan could use a lot more attention from the parks people and be allowed more resources. The rangers are nice, but I don't believe they get much help from outside sources.

Very friendly staff.

Very good waterfowl hunting. Two hour before shooting hours boat launch rule should be either enforced or abolished.

Very good work.

We are very fortunate to live so close to this refuge. It has lots to offer people both for hunting and recreational purposes. Everything at this refuge is very satisfactory.

We both would have appreciated at least a porta potty at the trailhead. We walked to an old farmstead on our trip but there were no informational boards. It would've been nice to know a brief history about the structures. I definitely would have liked to see topography on at least the refuge map at the trailhead kiosk so we could have a better idea about which hike to take (more intense or less intense hill climbs).

Wish the trails were marked better.

Would be nice if bathroom or portable outhouse were available.

Would like more trails open to bicycling.

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## 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 = 129)

A protected area with unique land and wildlife.

A refuge from city life.

Access to lands for recreation and wilderness experiences are becoming more and more restricted and limited, especially in the Eastern/Midwestern USA; wildlife refuges continue to provide access and opportunities for those.

Access.

Accessible, yet retains wilderness effect. I can go somewhere close and enjoy the outdoors.

Allows the visitor the opportunity to see more wildlife and at a closer range than parks.

An opportunity to experience a natural area where wildlife is the primary focus, not merely the experience of people.

Better managed!

Broad variety of wildlife available near my home.

Close proximity to home.

Conserving and restoring, also education.

Divided so that different styles of hunting do not interfere with each other (designated areas).

Easy trails to follow. Great view of the water.

Enjoy the outdoors.

Excellent opportunity to see wildlife up close and not be bothered by huge crowds!

Focus is different than other park-type systems.

Focus on wildlife is different than state parks, which are the other frequently-visited natural lands. Often bigger than TNC preserves and better access than DNR WMAs.

For the people and convenient. I now live in Phoenix, but when living in Apple Valley I visited it very often.

Good biking, hike, easy access.

Good place for duck hunting.

Great opportunity to hunt big game and waterfowl within the metro Minneapolis area. Difficult to find other similar opportunities.

Great trails, unique old stone farm houses. Very diverse landscape; woods, lakes, swamps, rivers, prairies, and glacial rocks. Challenging trails in wet conditions. The best part is that not many people go here. So it is very serene.

Great unique program for home school.

Habitat conservation.

Having various types of terrain for various types of observers/enthusiasts.

Highly focused on conserving wildlife, allowing humans to be considerate visitors.

Hunting opportunities for archery, size, and accessibility.

I enjoy it mainly because it is off trail hiking and the majority of the time I have it to myself or very little other people are there. Beautiful area except in the summer which is a magnet for ticks.

I enjoy the diversity of wildlife species in the refuge. I enjoy the intimacy with the ecosystem when hiking the trails, and not having to worry about an ATV or any other motorized vehicle coming along and spooking the wildlife while I'm observing them.

I feel ownership. It feels like part of our communal property.

I feel they are usually more rustic and aimed at people getting into the heart of the property and away from civilization. More hands on experience with other parks.

I have been going there for 35 years. Hunting, fishing, hiking, biking, etc.

I like it better there because it's for bow hunting only and I don't have to worry about people with guns.

I like that the refuge is left in its natural form.

I like that they have hiking trails, but this one in particular is not "overly managed". It has been left pretty wild except for the mowed trails. Better opportunity to see more birds and wildlife if you pay attention!

I like the fact that the refuge feels wild. Not too many signs and it's big enough to feel like you are exploring.

I like the untouched nature aspect. Provide access, trails, parking, all of the other activities mentioned are fine. For example, if a trail is blocked by a tree - I appreciate the help necessary for trail integrity, but I am not about the high volume park and recreation feel. That is why I return time and again. Thank you.

I love being able to hike on these trails.

I primarily use the refuge to bow hunt but enjoy the large system of trails along with the opportunity to escape into the forest.

I think they should be as primitive and protected from the day-to-day hubbub as they can be. They should remain set apart from other public lands with very minimal impact from people.

I'm new to nature. It looks good.

Incredible trees and forest floor.

It has been a favorite place of mine to get away to bow hunt and hike for many years.

It is an opportunity to get away from the hustle and bustle of the city. This one especially, since it is in the middle of the city. More marketing should be done to let others know about this place. See me, I have some ideas!

It is so important to preserve natural lands, for their own sake, and secondarily so that people have a place to go and appreciate uncluttered nature.

It seems like it is ours, it is so close. Our neighborhood loves it.

It's a beautiful place to visit, close to metro area, unique trails - natural.

It's a wonderful place. So thank you government, you do a marvelous job.

It's about the wildlife and not about me.

It's good to see the wildlife away from the cities and have their own freedom. God created all of them.

It's remote and well preserved but close enough to the city to go spend a day there.

Its large area, in a prime location, make it one of the best homes to wildlife in the state.

Large areas for waterfowl and other animals. Very affordable to visit.

Less development.

Less popular than state parks and less crowded. Don't have to pay a fee for this particular refuge.

Location.

Long walking pathways with plenty of riverside accessibility and sweeping views.

Love the undisturbed wildlife and land along the river. It's a wonderful place.

Maintained in a more natural state and not overdeveloped.

Maintained trails.

More freedom and opportunity to interact with wildlife than most places. You can hike, bike, hunt, fish, canoe, horseback ride, etc. in many refuges which can make the experience more fun and interesting.

More land than State Parks around the area.

More natural, no commercialization.

More of them in my location.

Mountain bike trails available to the public.

My husband and I have visited numerous refuges often while traveling. I feel that the NWR system offers wonderful opportunity access to wildlife and its habitat. My experiences have been very positive wherever we've gone. Thank you all.

National Wildlife Refuges are a great way to interact with nature and see restoration and maintenance of our precious ecosystems.

No development, no intrusion on nature's design. A place to come to observe birds and animals in their natural habitat. A place to come to disconnect from the hectic pace of modern life. A breath of fresh air, respite for the soul.

None are commercial. Low profile, so you can feel like you are in the great outdoors even when you are close to the city. But people still need to go to a bathroom. Going behind a tree in an area where someone else may step is unsanitary.

NWRs seem to take the conservation of resources more seriously than state or federal landholders. They seem to be in a constant struggle of trying to balance open space protection with recreation. I like the lack of recreation on NWR.

NWRs, in my experience, are often the best places for birding and wildlife observation. Usually without crowds or disturbance from other recreational activities.

Observation towers, information kiosks, and parking lot.

Opportunity to get close-up viewing without danger.

Positioned due to the importance to migrant birds, especially waterfowl, makes this a unique location and spring birding hot spot. Conservation is of great value.

Provides open access to all, very helpful staff, and well maintained facilities.

Public lands have too many hunters. National Wildlife Refuges do not let hunters use lead shot. So not too many hunters for small game and etc. It's more safe.

Seems to be more wild. Deer nearly walked right up to me.

So much of our natural habitat, environment and heritage have been lost, that to preserve at least some natural areas where these plants, animals, and land forms can continue to live and exist now and for the future is vitally important in and of itself as well as for future generations. If we lose what's left, we are all diminished.

Staff enthusiasm.

The ability to use the areas for birding, hunting, hiking and fishing. It's the closest I can get to land ownership to pass on my outdoor heritage to my family and friends.

The abundance and varied types of wildlife I have seen is unlike any other location I have been in a Minnesota city area.

The chance to get so close to the birds and on this day to a visiting raccoon. No need for binoculars. Plus it was pouring rain but we could enjoy nature without being miserable (we had an elderly person with a cane).

The emphasis is on the wildlife, instead of the people visitors. Definitely a need for this.

The great fresh air, along with all wildlife opportunities.

The hunting opportunities so close to home.

The large expanse of land, where a serious hiker can spend hours away from the congestion of modern urban life.

The less touched and changed by human, the better. I also live in Marco Island Florida part of the year, and the 10,000 islands are very dear to me.

The location.

The Minnesota River Valley National Wildlife Refuge offers a great opportunity to visit a wild place in a very large metropolitan area without traveling a great distance. I love this chain of refuges.

The Minnesota River, well maintained wildlife.

The Minnesota Valley National Wildlife Refuge is a gem. The parks system offers an unparalleled opportunity to see birds and wildlife. The staff are very helpful. This calendar year alone I have seen more than a half a dozen very rare birds in the park system and others have reported additional notable sightings. I start my annual list by visiting the bird feeders outside the park headquarters and count on other areas like Cliff Road Fen as reliable places to see American Woodcocks and a Bell's Vireo. I am disappointed the bridge at Old Cedar Avenue is not open to pedestrians, and Cliff Road Fen is not as accessible as it used to be. There used to be a path along inland lakes that are superb places to see birds during migration.

The Minnesota Valley National Wildlife Refuge is an oasis for wildlife and nature lovers in the heart of the twin cities.

The opportunity for so many activities.

The opportunity to be so close to nature. I horseback ride and I love riding down on the river trails. So much variety in terrain and lots of wildlife. Eagles, deer, beaver, etc.

The parks in Northern MN get lots of attention and money thrown their way. If other parks were given the same resources they would probably be visited more often.

The preservation of plants and habitat.

The refuge is large with varied habitat. It is interpreted at the Visitor Center and online. Many bird lists for E-bird are posted and so it can be accessed when something is there that I would like to see or photograph. It is in "the city" and yet provides diversity. I have chatted with birders from all over the state and other states while birding and photography at this refuge.

The refuge lands I've been on are typically well maintained. There is a baseline of services and facilities. Though mostly I'm just looking for a basic parking lot at a trail head and a variety of trails to hike that are moderately intact with the occasional map at intersections.

The signage is usually better executed than other places. Plus having the freedom to roam without advertising and marketing gimmicks.

The swamp is unique.

The types of habitat preserved (and hence, opportunities for observing various species of wildlife) are different than what state and national parks preserve.

The uniqueness of National Wildlife Refuges is in conservation; wildlife, plants, fish, and their habitats.

The use of an old abandoned highway/bridge approach area.

The Visitor Center is very helpful in helping visitors see what the refuge has to offer.

The Visitor Center, the employees, and the education they offered by simple interaction.

The way things are left in their natural state.

The Wilkie Unit is restricted to archery only during the big game hunting season, which makes this area unique.

There are many recreation lands that people can visit that are too civilized i.e.) signs, lighted ski trails, picnic areas, shelters. To be honest, for me, the MN Wildlife Refuge has darn near a wilderness feeling to it. It is a vast, wild, untamed area for the most part and I hope it stays that way. Now granted this area is a flood zone along the MN river. My wife and I donate much money to Nature Conservancy to buy land along waterways to provide cleaner water. Please contact me if I can help.

There are more primitive and natural than many of the more public parks.

There are usually less people than when we go to national parks, which makes us sometimes feel like we're in more remote areas.

They are a great resource for observing animals in their natural habitats.

They are peaceful, serene, and well maintained. Sometimes it's nice to open up off-limit areas though more often with events. That would be nice for guided hikes to these areas that are so often closed.

They are places that are focused on wildlife more than people.

They offer a variety of classes and naturalists are great with the kids!

They provide all ages with an opportunity to experience the beauty of nature. We want the Old Cedar Ave bridge re-opened to pedestrian traffic, but the government powers persistently refuse to do so. Can you help to change this logjam?

They provide hunting opportunity nearby the cities.

They strike a different balance between preservation and access/use. Preservation is taken more seriously than on forest service lands, but restrictions on use are less than at national parks and wilderness areas.

They tend to be larger with more opportunities per refuge.

Thick cover.

This is the only national wildlife refuge within a metropolitan area.

Unlike state and other local parks the intended emphasis here is on preserving wildlife habitat rather than other recreational activities.

Usually the location enables more wildlife viewing.

Very educated staff regarding habitat, wildlife and conservation.

We enjoyed the refuge, because it isn't commercialized. It is very quiet and peaceful. We were very interested in the ranch site. We think my father-in-law worked there as a young man. He told the story of working for room and board and one dollar a day. He said they slept in a bunk house. We think it would be interesting to see inside of the ranch house.

Well maintained area.

Well maintained.

Wildlife is featured and habitat is preserved and enhanced.

Wildlife viewing and relative absence of people.

Wonderful area for seeing migrating birds.

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Additional Comments (n = 46)

A great spot for a local getaway for a few hours. It's all about the birds.

A restroom facility near the parking area would be nice. While on a mid November outing at the refuge there were gun hunters in an archery-only area of the park which resulted in DNR officers driving trucks on the hiking paths searching for the trespassers in the middle of prime hunting season. I understand why the DNR was trying to track them down, but because someone wasn't following the rules it was extremely disruptive to others experience within the refuge. There are clearly users of the refuge that are either uninformed or chose to ignore some of the rules. Additional signs with legal action such as "No Firearms Beyond This Point - Violators Will Be Prosecuted" may help prevent this. Some of these trespassers may have the mentality that if they get caught they'll play dumb and they know there are no consequences. The refuge is too precious as well as others' time to let this happen. On this same outing this year I talked to a deer hunter in the parking lot that said he saw a dog chasing a deer run by his stand 30 yards from him. Leashes are a must for all pets taken into the refuge - again, carelessness of others impacts other visitor's experiences. Overall my experience with the refuge has been good, but these two incidents are disturbing and what gives public hunting land the reputation it has.

After not being able to hike very far at Louisville swamp, due to flooded trails, we went to hike the trails in the refuge near MSP airport. The trails there were dry but when we stopped at the Visitor Center and asked if the trail was flooded across the river the staff person said it was okay. We were doing a long loop between I-494 and cedar avenue bridges. When we got halfway we found that the trail was impossible and had to backtrack a considerable distance to our car. I know it's State Park land across the river but staff should be knowledgeable about current trail/river conditions. Our planned 12 to 13 miles of hiking between the two refuge areas and state park turned out to be 18 to 19 miles into the night.

Again we are very grateful for the National Wildlife Refuge system. Our nearest is the Benton Lake NWR outside of Great Falls, MT. One favorite is Malheur in southeast Oregon. Modoc NWR was new to us this spring - great!

As a bow hunter, I spend a considerable amount of time in the woods of the Wilkie Unit from September to December. It is my belief that hunters/fishers or anyone else spending large amounts of time pursuing these activities are the first to notice subtle changes to the habitat and behavioral patterns of the Wilkie area. The local deer herd was impacted by the mortality rate increasing as younger deer were unable to escape hence drowning. Secondly, the food sources for deer in the time was destroyed which I believe caused them to relocate to other areas with higher ground. Whether or not the flood is related to the issue of climate change, I certainly noticed how such an event affects the patterns of all inhabitants within that ecosystem. To this day, 2 seasons later, the deer are returning to the area, however, the herd size appears low in number comparing to other areas that were not impacted as significantly as the Wilkie Unit. It might be a good idea to post a sign at entrances of areas where hunting is allowed, to non-hunters to bring to their attention that they are entering a area where hunting is allowed.

Global climate change- I believe that we need to spell out the cost of losing those benefits provided by the Fish and Wildlife. This spring, I have seen corn planting and N application at least three separate time each followed by mega storms that flush the N and soil into the Mississippi from our state. (It may be short term gain for our corporate farmers, however it is costing the next several generations greatly). Please work hard to remove the concepts of wild animals as pets. Anthropomorphism is rampant in people I meet and talk to at the refuge. Thank you for your "great work".

Great bird watching!

I enjoy hunting at the refuge. Keep up the good work. Thanks, (signed)

I just want to say thanks and keep up the good work!

I live across the road from the Minnesota Valley National Wildlife Refuge. I like that we live across the road and can observe the activities and things that are going on. I am 80 years old and come from eastern South Dakota where wildlife was so abundant and hunting was great. Also respect your people for being concerned about wildlife and the future. As a farmer all my life it is hard to see the poor use of the land. I also was in the erosion business and started erosion control, so look at things different.

I live near Louisville Swamp and spend lots of time there getting exercise and taking pictures. I think it's great.

I love Louisville Swamp. It is a great little area so close to the cities and a nice place to get away. The only problem with access is when the renaissance festival is going on.

I love this refuge. It needs a bathroom. Thank you for maintaining the trails and putting in new bridges.

I really care about hunting, fishing, hiking, and camping. I don't think we should get too carried away with the idea that all climate change is due to modern man. The earth has made dramatic changes before us and will change with or without us. I do care a great deal about littering, water conservation, water quality, and air quality.

I really enjoyed the exhibits. Very well done. Only problem we had was getting rained on during our hike. Nothing you could have done about that!

I see many people harvesting plants at this refuge, such as ramps and morels. At least one on every visit in the spring. My understanding is that this is a violation of the rules. If this is so, perhaps some signs explaining this specific action to people? Possibly enforcement? Warnings?

I very much appreciate National Wildlife Refuges and all the efforts to preserve and conserve and educate. Thank you.

I would like to see the bridge across the lake refurbished into a walking/biking bridge and connected to the trails on the other side. This would enhance my experiences greatly. I would like to stay off of the Highway 77 bridge and visit the connected parks.

In regards to climate change: Conservation and habitat enhancement provide more benefits to wildlife that are immediately realized. Without conservation and habitat, any long-term planning for climate change(uncertain) is a waste of resources.

In this day and age, trapping should be outlawed throughout the limited states. It's a very cruel way to harvest animals. The animals that are caught in their traps must suffer tremendously. In the state of Minnesota this year, the wolves were taken off the endangered species list by the federal government. So what does the state of Minnesota do, they allow trapping and hunting of wolves this year. This is absolutely ridiculous. They spent 10 to 20 years bringing the wolves back into the state and then the first chance they get, they allow trapping and hunting. It makes no sense. This is also the fault of the federal government for taking the wolves off the endangered species list. What in God's name were they thinking. There should be some heads rolling someplace. I would appreciate some feedback on these comments.

It is a great place in the Twin Cities.

It is a great place to take my dog for walks. We have been going to the different units of the refuge since he was a puppy 11 years ago.

It was a really nice day and visit to the refuge. The only other recommendation I have is to install 1 or 2 picnic tables and a trash can near the parking lot/trailhead for a lunch break. Thanks!

Keep up the good work!

Keep up the good work.

My mom is a science teacher and says the climate changes are all natural evolution of the earth, so I don't buy into climate change. However, we are huge into the environment and recycle and take care of our surroundings.

My son and I enjoyed the exhibits and observation decks. The employee was friendly and helpful.

Need to improve signage of trails.

Please have more conservation officers onsite to enforce hunting regulations.

Please keep this refuge for the wildlife and not people. In other words keep it wild, no roads or motorized transportation.

Thank you for allowing us the opportunity to enjoy the refuge. We will return again to take in more areas.

Thank you for preserving nature especially in metro areas.

The climate change thing has been way too political to get a good pathology of the topic. I believe the targeting of carbon dioxide to be a result of a political push using poor science. The related climate change questions follow down this road. I believe in limited government and would prefer as much as possible to be done at the private level. I notice many more restrictions to my recreation activities such as lost access to biking trails. I see the loss of peoples' ability to make their own choice once their wealth has been confiscated, through taxes/fees, to promote public activities, is troubling. I would prefer a free market solution instead of government action. I would prefer people acting on behalf of the government/public to at least use discretion related to "cost-benefit" and allow as much of the decision making to be left to local or state agencies. At this refuge, the single track biking has been closed to biking. This is the same everywhere I use to be able to ride. It seems nobody has cared to compensate for trails that have been closed to mountain bikes. This may not be a concern of a refuge system, but the lack of access to single track technical biking trails has always bothered me. This refuge has old farm roads for bikes on the perimeter like what I've seen in the rails to trails programs. They do not address the need for single track biking. I've often thought single track bike trails could be formed as separate loops off of these main trail sections.

The MN Wildlife Refuge is one of the, if not the largest metro wildlife refuges in the country. It is gorgeous! It is too bad that people in the metro drive "up north" and do not take the time to visit such a beautiful place that is in their own back yard. I have camped, hunted, hiked, skied, dog sledged my own team for the past 28 years in the refuge. Recently, the Fish and Wildlife service built a huge Visitor Center and Maintenance Facility (smack dead in the middle of a pristine large tract of land) with funds from the airport money in Minneapolis because of airport flights. To my knowledge, use of the Visitor Center does not justify dividing the land, sadly. Please use money better. Build the next Visitor Center on the edge, not in the middle. Please continue to keep purchasing more land upstream to improve water quality of the vast river basin.

The Old Cedar Avenue Trail is not clearly marked on the western end as to non use by bikers. This must be corrected!

The refuge is not far from where I live, and I visit often, sometimes 3-4 times per week to go birdwatching.

The staff was excellent and we enjoyed our trip and hike there. Bird stations were great.

The wildlife refuge is a gem. So few people know about it or use it, despite the huge population so near at hand. I wish more people knew about it. I also wish nobody knew but us!

The women I met that talked to me about this survey were warm and courteous and knowledgeable about their job. I enjoyed talking to them.

There are no garbage cans at the remote parking areas, and I have noticed a lot of garbage on the ground around these areas.

This a beautiful refuge that is close to a major metropolitan area. I really like the diversity of the land within the refuge. Oak savannahs, river bottom country, prairies, woods, ponds, etc., as well as the diversity of upland and waterfowl, deer, beaver, etc.

This refuge is a national resource that ought to receive additional funding to maintain and enhance the park and facilities. I commented in an earlier entry about areas that I think need attention.

To more fully enjoy and appreciate this refuge, the Old Cedar Avenue Bridge should be opened to pedestrian traffic again. This is not a safety issue as the city of Bloomington claims. Can you help?

Very proud to have this refuge in our community.

Would like to see more attention given to the two parks in our area that I know about, the parks people I have met are great, but seem to be under-staffed and under-represented.