Understanding Urban Audiences Community Workshop Results for Rocky Mountain Arsenal NWR

Background

In the summer of 2010, the U.S. Fish and Wildlife Service (Service) began creating an updated vision for the future of the National Wildlife Refuge System. More than 100 people from across the Service worked together to craft *Conserving the Future: Wildlife Refuges and the Next Generation*.¹ This document lays out an ambitious plan for the next decade that addresses opportunities and challenges in the face of a changing America and conservation landscape.

To implement the new vision, nine teams consisting of Service employees were created, one of which was the Urban Wildlife Refuge Initiative team. The Initiative team aims to increase the Service's relevancy to urban citizens and contribute to the vision's goal of diversifying and expanding the Service's conservation constituency over the next decade. It grew out of the recognition that America's increasing population is more diverse and increasingly living in urban areas. Objectives set by the Initiative team include establishing measures that help to define and achieve excellence, creating a framework for developing new urban partnerships, and establishing a refuge presence in ten demographically and geographically varied cities in the U.S.

An underlying need for the Initiative is a better understanding of factors that facilitate or inhibit connecting urban audiences with wildlife and nature. To address this need, the Service's Human Dimensions Branch collaborated with U.S. Geological Survey and North Carolina State University on a research project aimed at understanding urban audiences, identifying barriers to engagement in wildlife-dependent recreation, and identifying strategies that the Service can implement to overcome these barriers.

This multiple-method research project includes: (1) a review and synthesis of the current literature to better understand what is known about barriers, motivations, and proven successful strategies of urban engagement in outdoor recreation; (2) interviews with refuge staff and partner organization representatives in urban areas to understand current refuge visitation in these settings, identify programs and strategies that have been successful, and identify institutional factors that promote or impede the ability to connect with urban audiences; and (3) community workshops to hear from community representatives about the needs and motivations for outdoor recreation participation, perceptions of barriers that exist, and suggested strategies to better connect and engage diverse urban residents with wildlife.

¹<u>http://americaswildlife.org/vision/</u>

Site Selection

Community workshops were conducted at seven refuges (see Table 1) selected through a multistage process. First, Service GIS specialists compiled a list of urban areas within a 25-mile radius of a National Wildlife Refuge, using the Census Bureau's definition of an urban area. The 25mile radius was selected as the distance because it was the average distance traveled by local refuge visitors who participated in the 2010/2011 National Wildlife Refuge Visitor Survey.² A list of 301 refuges was generated and further refined by omitting refuges that met the following criteria:

- Refuges in U.S. territories (e.g., Puerto Rico)
- Refuges with populations less than 250,000 within 25 miles (based on 2010 U.S. Census data)
- Refuges with no public access
- Refuges whose 2012 annual visitation was less than 22,000

Seventy-one refuges were identified and further refined by Service employees with extensive knowledge about refuges. Through this process, some refuges were removed based on various access or physical attribute restraints. The research team then selected twelve refuges in geographically and culturally diverse urban areas; this list was modified and narrowed down to six locations based on input from key contacts from regions, the Urban Initiative team, and others in the Service. Potomac River NWR was later added to the project based on the utility of the research for their needs and available refuge funds.

Refuge	Urban Area(s) within 25 miles [*]	Population within 25 miles [*]	Visitors 2013 ^{**}
Tualatin River NWR	Portland, OR-WA	1,727,100	131,709
Don Edwards San Francisco Bay NWR	San Francisco-Oakland, CA San Jose, CA Concord, CA	5,019,028	685,400
Rocky Mountain Arsenal NWR	Denver-Aurora, CO	2,277,371	180,000
Minnesota Valley NWR	Minneapolis-St. Paul, MN-WI	2,610,793	230,000
John Heinz NWR at Tinicum	Philadelphia, PA-NJ-DE-MD	3,949,328	140,000
Potomac River NWR Complex			
Featherstone NWR	Washington, DC-VA-MD	2,479,129	20 ^{***}
Mason Neck NWR	Washington, DC-VA-MD	2,832,706	38,210
Occoquan Bay NWR	Washington, DC-VA-MD	2,774,276	38,210
Arthur R Marshall Loxahatchee NWR	Miami, FL	2,586,378	276,680

Table 1. National Wildlife Refuge locations for community workshops

^{*} Based on 2010 U.S. Census.

** Based on 2013 RAPP.

*** Featherstone NWR is currently only accessible by water, and has very low visitation as a result.

² <u>http://pubs.usgs.gov/ds/685/DS685.pdf</u>

Methods

For each refuge, a protocol for contacting and inviting potential participants was followed. With assistance from refuge managers and staff, people with extensive ties to the local residents and communities of interest were identified. Individuals or organizations were contacted by the researchers to participate in a workshop at the refuge. See Community Workshop Findings, below, for more refuge-specific methods.

The research team for each workshop typically consisted of a discussion facilitator and two note takers. Notes were recorded on flipcharts that participants could view throughout the discussion to ensure that key points were captured accurately. Participants had multiple opportunities to review, clarify, and fill-in any information they felt might be missing. A second note taker recorded near verbatim notes on a laptop, identifying individual speakers with an anonymous coding system. Notes were edited for clarity immediately following the workshop. No audio or visual recording was used.

Both workshops lasted approximately two hours. All participation was voluntary; no money or other incentives were provided to the participants. To begin each session, participants were welcomed by the facilitator and refuge staff (if available), and then asked to introduce themselves and indicate the organization or community they represent. If present, the refuge staff was excused before the discussion began. Then, the facilitator reviewed the goal and guidelines for the session and began the discussion, which was guided by the following questions:

- Speaking on behalf of local community residents, what comes to mind when they hear outdoor recreation?
- What motivates people in this community to participate in outdoor recreation?
- What barriers prevent greater access or enjoyment of outdoor recreation opportunities by people in this community?
- What can be done to promote greater participation in outdoor recreation and use of the refuge by people in your community?

Following the discussion on barriers to outdoor recreation opportunities, participants were asked to indicate the three barriers they perceive as the greatest factors in limiting participation in outdoor recreation for nearby communities by marking them on the flip-chart notes. Participants were asked to do this again for strategies that could encourage greater engagement with the refuge. At the conclusion of the discussion, refuge representatives were invited to speak with the workshop participants and answer any specific questions about the refuge. The primary role of the refuge staff at this point in the discussion was to listen to the workshop participants, and be available to answer any specific questions the facilitator may not have been able to answer.

Analysis and Reporting

All notes from the workshop were compiled and organized by the guiding questions. Each set of notes was analyzed to identify themes representing workshop participants' comments. Themes for each question are summarized below, and, where appropriate, specific examples are provided from the notes. While these should not be considered verbatim quotations, as no recording devices were used, they adhere to the meaning and context of the speaker's original statements.

This report captures workshop findings for an individual refuge. Findings for individual refuges were prepared independently of one another by the workshop leaders, therefore variations in presentation may exist across the seven reports. Results for this refuge will be combined with results from workshops held at the other 6 refuges in a final report. A final report will include major themes and patterns that emerged from the combined data, as well as management and communication implications that could be drawn from the themes and patterns. Final results will be instrumental in the design of future strategies for communicating with diverse urban audiences, and for providing tools and resources that Service staff and affiliates can use to better engage all of America.



Deer at Rocky Mountain Arsenal with the Denver skyline. Credit: Mike Mauro/USFWS

Community Workshop Findings for Rocky Mountain Arsenal NWR

Workshops were conducted with community representatives at Rocky Mountain Arsenal NWR (RMA) in September 2013 and March 2014. To recruit participants for these workshops, contacts were identified by the refuge staff and research team, and then a snowball technique was used; those identified were asked to recommend other individuals and organizations to participate in the workshops. These individuals were then contacted. Furthermore, following an extensive Internet search, organizations with a focus on recreation, conservation, environmental education, or other community-based activities (e.g., social or environmental justice, libraries) that work within the communities near the refuge were also contacted to participate. Forty different organizations were identified and contacted via email and phone to participate through a rigorous process of multiple contacts; twelve people participated in the workshops (Table 2).

Table 2. Organization of individuals who p	participated in the community workshops.
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Organization	
City of Denver: Parks and Planning	
Commerce City: Government representative	
Commerce City: Recreation Center	
Commerce City: Recreation Division	
Commerce City: Youth and Teen Recreation	
Environmental Learning for Kids (ELK)	
Green Valley Ranch Community Member	
Groundwork Colorado - Youth and Water Programs	
Lincoln Hills Cares	
Denver Community Member	
Stapleton Development Corp	
WildEarth Guardians	

Summary of Key Themes

The following summarizes themes that emerged from discussions around the following questions for the workshop.

1. Speaking on behalf of your local community residents, what comes to mind when they hear outdoor recreation?

Seven general themes emerged from discussions on outdoor recreation. These themes are summarized below.

Common outdoor recreation activities: Participants described activities that are commonly associated with outdoor recreation, including walking; camping; hiking and general trail use; trail running; fishing; hunting; wildlife watching, particularly of bison and prairie dogs; birding; and mountain, road, and commuter biking. Participants described walking outdoors as the most common activity for local community residents. Geocaching,

boating, and four-wheeling were also described as activities people participate in outdoors. Participants indicated that getting outside was considered important to many local families.

- Winter-based recreation: Participants discussed winter-based recreation, such as skiing, snowboarding, and snowmobiling, as common activities for some Colorado residents. However, other residents in the local area may be unable to participate in these types of activities because of associated high costs (e.g., equipment, ski passes). One winter activity that was described as important to members of local communities was a nativity walk held during the winter holidays.
- **Family-based activities:** Another focus of discussion in terms of outdoor recreation was activities, programs, and facilities (e.g., shelters, picnic areas) that encourage socialization among friends and families. For example, RMA is considered a great place to go with the family by many local community residents who value different types of outings that they can do with their families.
- **Food-related activities:** Participants indicated that many families from diverse backgrounds engage in food-related activities in the outdoors. These types of activities include having picnics and barbeques, as well as gardening at home or in classes offered within local communities.
- **Sports:** Sports such as soccer, basketball, golf, and Frisbee or disc golf were mentioned by participants as forms of outdoor recreation that are common in local communities. Soccer was mentioned as particularly important. Other activities mentioned were fitness classes and doing yoga outdoors.
- **Educational activities, including learning the history of the site:** Participants discussed activities that are associated with environmental or science-based education. Specific educational activities mentioned included water-quality monitoring, biological monitoring, and conservation in general. Participants also described learning more about the history of the site as an activity that was important to some local residents.
- **Service-related activities:** Participants indicated that community members also participated in outdoor activities that were perceived as providing benefits to others or the environment (i.e., service-related). Activities included rehabilitation (e.g., of prairie habitat, improved water quality), as well as programs that serve the needs of youth, urban kids, and veterans.

2. What motivates people in this community to participate in outdoor recreation?

Participants' responses to this question were grouped into eleven themes. These themes were broadly related to why people participate in outdoor recreation as well as why people are drawn to RMA. These themes represent important ideas voiced by members of communities located near the refuge. The themes are as follows:

Family and social interaction: Participants indicated that time with family and friends was a strong motivator for people to be outdoors. Activities that were family-based were

mentioned as being very important to local community members. Word-of-mouth between friends and family can also motivate people to explore something new. One example of this was that people who hear about RMA from a family member or friend are much more motivated to go check out the refuge than if they just read about it, because they can then talk with their family or friend about the experiences they had after returning from a visit.

- **Escape:** Participants also discussed that outdoor recreation, as well as RMA, provided an opportunity for people to "get away" or to "escape from the city." Therefore, outdoor recreation gave people a break from the day-to-day routine. RMA also provides a change of venue in which people could do the things they like to do in a new place.
- **Exploration/Adventure:** Participants considered exploration and adventure as motivations for why people participate in outdoor recreation. When outdoors, people can discover new places they had not yet visited or experience something new in places they already know well. Participants described getting outside an important way to enjoy "the real Colorado."
- **Unique experience:** RMA in particular was described as a place that was unique, and as being "its own magical kingdom." For example, nonnative fish are being protected in a native environment to provide a range of fishing opportunities. This offers a different kind of experience than what most people are used to experiencing. This opportunity to do something out-of-the-ordinary was a motivator for some residents.
- **Pushes the comfort zone:** Participants indicated that RMA is a place where people can come to terms with their discomforts and fears of the outdoors. People can still see the city, have cell phone reception, and be "found" if something were to happen while they are outside. It is far enough away from what people know (e.g., urban environments, their own homes) to push their comfort levels, but not far enough away that they would hit the panic zone.
- **Entertainment that is affordable:** Many outdoor recreation activities were considered to be cheap or free ways to entertain young kids or large groups of people, as opposed to going to places like the zoo or museums. People want to have fun, and being outdoors allows for this in a more affordable way.
- **Connection:** Participants indicated that some people are motivated to participate in outdoor activities because they want to be in a natural place or have some form of connection with the natural world. An activity described as an example of this was gardening, in which kids are allowed to use their hands and touch dirt. The outdoors was also described as a more powerful way to connect kids to nature and the environment than the classroom, because kids can have hands-on experiences with what they are learning (e.g., seeing and exploring a creek vs. only reading about it).
- **Educational opportunities:** The educational value of nature was identified as a motivator of outdoor recreation participation. Participants discussed several aspects of learning about nature and ecosystems, whether individually or through traditional educational classes, that draw people to spend time outdoors.

- **Service:** Participants described certain activities performed outdoors as a way for people to be of service to others and their community. Environmental monitoring, creating a safer environment, and addressing environmental justice concerns were ways in which people were motivated to be outside.
- **Improve health and wellness:** Participants described outdoor recreation as a means for ensuring general health and wellness, improving mental health or obtaining mental peace, and providing opportunities for exercise. Participants also described how some community members may participate in outdoor recreation as a form of training (e.g., for upcoming bicycle or running races).
- **Transportation:** Participants mentioned that some community members participate in the activity of bicycling as their main form of transportation and to get around the area.
- **Convenience:** The location of RMA was seen as a motivation to participate in outdoor recreation because it was convenient to local communities, particularly when compared to many other outdoor recreation places in Colorado (e.g., the Rocky Mountains are considered too far away by some residents).
- 3. What barriers prevent greater access or enjoyment of outdoor recreation opportunities by people in this community?

The major themes that emerged as barriers are summarized below.

The site's history: One barrier that participants discussed was the historical context of RMA during World War II and in the following decades. Many perceptions about its current condition, due to this negative historical context, act as a barrier to engaging some local community members. This is particularly true for communities that have been in existence for several decades prior to clean-up and restoration efforts. For some community members, even the inclusion of "Arsenal" in the refuge's name was perceived as a barrier as it refers to the site's history as a production facility and repository of weapons and chemicals. Participants thought that newcomers would not necessarily know or care as much about past injustices, but that it would be important for the refuge to address the perceptions of residents in communities that have been around longer.

"When we were growing up, we heard elected officials say, 'Don't go to the refuge, the deer glow.' It was chemical pollution, not radioactive or nuclear. It's important from an environmental justice standpoint; historically it was not a safe place to be. Even up until recently. They are still monitoring pollution levels in nearby communities."

"Elderly or 30-year residents of the community have a different relationship with the refuge. They pushed to find out more about what was going on once it was declared a Superfund site. Even today, there is wading through layers of bureaucracy – and then the settlement between Shell oil and U.S. Army... there is a lot going on. There were very purposeful barriers instituted to not have community members gain access to what was going on."

"The site served a purpose, to protect this country, but poisoned communities around here. People are not going to forget that."

Access: Participants indicated that access to RMA was a barrier, as the refuge is fenced off and there was only one entrance point. For families with limited transportation options or low incomes, that entrance gate might be too far away to access. Participants also noted that specific recreation opportunities were limited on the refuge, making it difficult to participate in those activities.

"Transportation is pricey, even if the refuge is 'right down the road'."

"The youth of Montbello have the most amazing place, right here, and they can't access it [due to the fence]."

"Families might only have one vehicle or no vehicle. This makes access an issue."

"Having only one entrance on the west side is really discouraging to people on the other side."

"Fishing access is restricted. There is currently more interest than accessibility."

"They prohibit more things than the things you can do."

Unwelcoming: Participants discussed the fact that some members of local communities did not feel welcomed at RMA. Reasons for this included the presence and look of the fence, the gates being closed, and staff members who may be well-meaning, but unaware of how people from different cultures want to be treated.

"The gates, the people. Both can be unwelcoming. You can judge in half a second if people are welcoming."

"The fence says, 'you're not welcome, stay in your neighborhood.' ... Why would you want to become a wildlife biologist when that's the message?"

"RMA is not a welcoming neighbor necessarily. It has a big chain link fence – all you have to do is put razor wire over it and it looks like you're trying to keep us out, or something in. In the area that flooded in the fall and needed repairs, the fence was replaced with buffalo fence. It's much nicer, and you can see through it."

"The public school system is 44% English language learners. We know you can't post signs in every language, but dual languages could help people to feel welcomed."

Cultural and socio-economic barriers: Participants discussed a range of barriers that are related to cultural or socio-economic factors. Examples included people of color not feeling comfortable in the outdoors, not having outdoor experience, and not wanting to be perceived as an outsider when participating in outdoor recreation. Some people may be perceived or feel they are perceived as a threat to others when they are outdoors

and far from home. Another example included not having the right gear, whether due to financial constraints or a lack of knowledge about what gear is needed.

"For many, many years white families have had a cultural confidence – they feel absolutely comfortable in many situations. This is not true for other groups – how do you instill this in others?"

"They don't want to be the only black people out there, out in the woods by themselves. This is a huge thing, a HUGE barrier."

"The cost associated with activities and equipment is definitely a barrier."

"Some don't have the gear or don't know what is needed. Water bottles, fishing equipment, even sunscreen. People don't know."

Negative stigma associated with outdoors: Participants indicated that some families do not encourage their children to go outside or pursue careers working in the outdoors. This may be related to historically negative associations with the outdoors, as well as perceptions that the outdoors is a scary or unsafe place to be.

"Growing up I was not encouraged to go outdoors. Look at the historical reference point of people of color in the outdoors and what access and safety they have."

"I told my grandmother I was going to be a wildlife biologist and work outdoors. She said, 'No, no, we worked too hard for you to be outdoors.' People equate working in an office with upper-level positions. There is still thinking like that among Latinos. It's a very real barrier... My husband's dad didn't think he had a real career because he was outside teaching kids to fish."

Fear of and discomfort when outdoors: Participants indicated that many people had a fear of the outdoors or feel uneasy when participating in outdoor recreation. Examples included a fear of the quiet in comparison to city life or fear of noises that they were not used to hearing. Other examples include fear of encounters with animals, such as bears or snakes. For some people, just the fear of the unknown can be a barrier, as people are not comfortable doing things that are uncommon to them. There was some discussion that RMA provides a transition zone between urban and the "real" outdoors because you can still see the city in the background and have cell phone service.

"Getting kids to just touch dirt is hard. People were afraid to touch dirt during a gardening class! But they still sign up."

"Some had Walkmans with city noises to help them sleep when camping outdoors."

"For a lot of urban kids, the outdoors is exotic, strange, and scary."

"We had tough gang kids, and took them camping – it scares the crap out of them."

"They have a fear because they have never done it."

Lack of knowledge and awareness: Participants indicated that some communities did not know RMA existed or, if they did know of its existence, they were unaware of the opportunities on the refuge. There was acknowledgement that staffing cuts had resulted in fewer classes and programs provided by RMA, which also decreased the opportunity for greater knowledge and awareness.

"People who come here already know about the refuge. People from my community don't know. They think it's army land and that they can't go on it. We're right there and don't use it. It's right smack in the neighborhood, but outreach is really lacking."

"People over in that community don't know that it exists."

"Community members don't know what's on the other side of the fence. They hear that there are deer and coyotes, but they don't know."

Institutional barriers: Participants discussed that there were institutional barriers that limited engagement with diverse audiences. These types of barriers included lack of funding for programs and hiring of and maintaining necessary staffing. There was also discussion that staff and volunteers do not reflect the diversity of people in the area.

"The refuge doesn't have staff anymore to do programs. You can't blame the staff... their lack of staff is totally based on funding through the Department of the Interior."

"It's perceived as being mostly old white guys who work there."

"The refuge has one of the greatest volunteer programs there is. But, the average age is about 70 years old. We're not replenishing with younger volunteers. Volunteers are working more and more with less and less. And, at a certain point, they just aren't there anymore."

4. What can be done to promote greater participation in outdoor recreation and use of RMA by people in your community?

Eight themes were identified as possible ways to engage urban audiences and promote greater participation in outdoor recreation. These themes are summarized below.

Capitalize on the history and educational value of the site: Participants indicated that the history of RMA made it distinctive and interesting, and that this was an important tool for education and enticement. Whereas participants indicated that the historic context is a sensitive issue to some community members due to the negative impact past site uses had on water quality and safety, other participants saw the restoration of RMA as a success story of overcoming past injustices. RMA could help to enhance environmental awareness (e.g., people could learn about flooding, restoration, prairie ecosystems, different wildlife species, and sustainability), provide a place for traditional environmental education, and allow for greater understanding of the refuge's history during World War II and the following decades.

"It's a really important point that even if you're not interested in critters, maybe you are interested in the story of this site. There's a lot of history here."

"Every time I talk about the refuge to people in my community they bring up the chemicals. They think the only reason the refuge was cleaned up is because they found some bald eagles. The past is a huge issue, but you can't just ignore it."

"It's a story of hope and reclamation after so much happened here."

"This is a different kind of refuge... It's a great experiment. 'Come and share the excitement' should be the message."

Improve cultural-competency: Participants indicated that training of staff in culturalsensitivity was important, and that a shift was needed from a past emphasis on biological restoration to one that is more inclusive of all people. Ways to increase the participation levels of diverse audiences included having marketing materials that represented a broad range of people (e.g., people from different ethnicities, same-sex couples). Also, having volunteers that represented diverse backgrounds would be an important strategy.

"Staff might treat a teenage African American male differently than he wants to be treated. It's important to have sensitivity and inclusivity training. The one time you try to talk slow to a Latino family, they're out, and won't want to go there again. It can be well-meaning, but not have the outcome you want."

"The refuge put a great video together that is very well done. But watch and see how many persons of color are represented... There are large populations of Hispanics and blacks near the refuge, but not one person like this in the video. The video says "you're not welcome"... It wouldn't be hard to reshoot parts of it and add people of color."

"The refuge could hold cultural days and highlight prominent persons related to the outdoors that aren't just old white guys. This would be important for neighborhoods that won't come out for events like 'prairie dog day'."

Create a safe and welcoming environment: Participants discussed a need to help local community members feel welcomed at RMA. A number of suggestions were made, including creating a "welcome zone" with a nicer fence, assuming that the fence is necessary at all. Furthermore, the fence could be used as a marketing strategy with signs that encouraged visitors to come explore what RMA has to offer. Efforts to ensure the safety of people while visiting the refuge are also important considerations.

"The refuge could be more purposeful in how it fences. Some areas are different. One size does not fit all. Make entrances welcoming, and help preserve views from around the refuge."

"Beautify the area [to help people feel more welcome]. Even just putting up a sign that says the refuge is there, like at the zoo. In some cases, having signs saying where the entrance is would help... or that "coyotes live here". They need to invoke people's curiosity."

"The old gate wasn't welcoming. It was intimidating. Now it is inviting. It needs better visibility!"

"We want people to be safe when they come to the refuge. If something bad happened to someone, it would undo all the progress made."

Increase access: Participants indicated that allowing additional access points onto RMA was an important strategy for encouraging greater participation. This could be achieved in multiple ways, including opening up walk-in gates where they used to exist, removing the fence where possible, and even providing transportation options to local community members through the use of the RMA shuttle bus.

"They have a shuttle bus here, but it only stays on the refuge. It should be out there picking people up from the local community. Pick people up from church, drive them around; you don't even have to make people walk. First introduce the Arsenal to them in a non-threatening way."

"You have to have suitable access points."

"We would love to have a walk-through gate nearby."

Engage youth: Participants discussed a need to encourage more participation and volunteerism from youth audiences. These youth could then go out into the community and help to spread the word on what RMA has to offer.

"We started an urban ranger program. Now, these kids are out there teaching younger kids... It would be awesome for Fish and Wildlife Service to do this type of work. We can talk about the refuge and help to get the word out... It's so much cooler for a 17-year-old to tell a 10-year-old why they should love a prairie ecosystem than for adults to tell them."

"There is a high school requirement to volunteer. We need to get them here. Kids can then learn from other kids."

"If you reach the kids you reach parents and grandparents. It's exciting for kids to be the knowledge holders."

Create effective and enduring partnerships: Participants were interested in RMA being open to new ideas and new ways to partner with existing organizations that are keen on involvement with the refuge and are able to do much of the work. Example strategies included allowing fishing guides onto RMA, and working with established groups such as non-governmental organizations and service groups who provide opportunities, but may not have a place to host events. Some ideas for such events included Species Day, Art Contests, Prairie Dog Day, and Cultural Days.

"We always try to set up some type of event – the refuge could plug into a lot of local non-profits if it was willing to host events."

"We intended to introduce families on how to get outside fishing [as a way to engage people], and first contacted the refuge to get ideas. No one had an answer for us. We weren't talking mass quantities of people, just families of 4 to 5. This happens monthly, where we are selling out these opportunities. We wanted to come to RMA but weren't allowed."

"We want to do family-type programs, and would love to work with the staff here."

"The refuge should work with hiking groups, fishing groups, and online groups that already bring people together."

Improve marketing and outreach efforts: Participants discussed ways that RMA could engage diverse audiences through a variety of communication means. Example strategies included enhanced signage on the fence, social media (particularly to engage youth), placing articles in community newsletters and brochures to new homeowners, and getting local community members to help spread the word. Other opportunities included connecting with local sporting and community events (e.g., speaking at the end of church services). Participants also indicated a need to engage community members in RMA planning activities much earlier in the process, which would help with outreach and ensure enough time so that refuge staff can adequately incorporate the input of local community members.

"Different communities have their own newsletters – put an article out in those. Like about Refuge Week. I learned stuff then that I didn't know that week, and I think other people would want to know too."

"People like to see pictures, so share them and encourage others to share them." [Example outlets for sharing included Facebook and other social media sites.]

"Recreation centers have huge basketball and soccer tournaments with lots going on. The Arsenal could be there to say, 'Come out to refuge'." [Example strategies included increasing visibility at the nearby Dick's Sporting Goods Park field complex by having public service announcements during soccer events, having pictures of bald eagles with announcements about the refuge's location, relating the wildlife at the refuge to local schools' mascots, having a table in the mezzanine, and using ticket stubs to allow for free fishing, programs, or movies.]

"There a lot of faith-based groups in this community. One church, Church of Ascensions, has 2,000 people in its congregation. Right there you have that many people. You would have to go into Sunday mass and at the end have the priest introduce you and you could say your piece. It's really important to be grassroots if you want to connect."

Increase RMA programs: Participants indicated an interest in RMA having more programs available than what currently exist. Participants also offered strategies to engage

families as an additional way to provide opportunities that would appeal to diverse audiences. Example programs included activities for preschoolers (e.g., story-time, day programs), engaging with service groups, hosting outdoor events and film festivals, and having bonfires. Other strategies included offering programs around a particular topic, including individual species of interest, the prairie, or star-gazing. Participants also noted that this approach would include a need to partner with other organizations, as limited staff and resources at RMA are a constraint to implementing this important strategy.

"We used to have outdoor education programs in school and they'd bring them here to acclimate kids as to what it is about. They don't have staff anymore to do it."

"We need to generate a desire for the refuge so it's easier to justify expanding the programs. The refuge needs to be needed by the community. That's the balance."

"Here at the refuge, in terms of programs, you could do a movie, then go on the shuttle, then have a campfire. They can keep people engaged here for a good time span. You could have families out here, and have vendors with water and snacks."

"You could get a lot of people out here to watch a controlled burn and learn about it. They could relate the controlled burn to what's happening in the mountains."

Identifying Top Barriers and Strategies

During the workshop, participants were asked to identify the three most important barriers and the three most important strategies that the USFWS could implement to reduce those barriers when considering the best ways to engage local communities in outdoor recreation.

Collectively, the three largest barriers were identified as:

- 1) lack of knowledge and awareness of outdoor recreation opportunities in general and of what RMA has to offer,
- 2) perceptions about RMA due to its history, and
- 3) the unwelcoming presence of RMA (e.g., fence, gates, staff/volunteer reception).

The three strategies for engagement that were most heavily emphasized were:

- 1) increase access to RMA through a variety of means (e.g., additional access points),
- 2) strengthen marketing and outreach efforts, and
- 3) improve cultural diversity and sensitivity of staff and volunteers.

Conclusion: Addressing Barriers at Rocky Mountain Arsenal NWR

Participants in the community workshops suggested several strategies that RMA management could implement to engage urban audiences and address barriers to participation in outdoor recreation for local community members. **First, participants indicated that increasing access to RMA was an important strategy for overcoming barriers that exist.** Example ways to increase access included taking down the fence where it was no longer needed, opening walk-in gates in

areas that previously allowed access for local community members (such as the gates off of Havana Street or near Montbello), and providing transportation to local community members by taking the RMA shuttle bus off of the refuge. The shuttle bus option could be implemented by partnering with local community organizations (e.g., through churches, nonprofits, or social groups) to help encourage a sense of trust, excitement, and awareness that this new opportunity exists. People could then be taken to the refuge and around the auto tour route to view wildlife, stop at the Visitor Center, and return home. By providing a shuttle bus option, refuge staff would help to provide opportunities for whole families to join the adventure, create a more welcoming way to invite people onto the refuge, and provide those who have limited transportation options (e.g., one or no cars at home) a way to access the refuge. Removing the fence and opening closed gates would also help to create a more welcoming environment and increase access to the refuge for neighboring communities, which could reduce or eliminate the need for motorized transportation. These efforts would further encourage the community to visit RMA.

Second, participants felt that more outreach and marketing efforts would greatly increase the draw of RMA to urban audiences. Several options were suggested. Refuge staff could use social media to communicate with new and diverse audiences; however, staff would need a dedicated person who really understood the interests of the local community members in order to inform people about RMA in ways that made the refuge appealing to diverse audiences. One way to do this might be to engage students from local schools through competitions (e.g., art or writing contests), where a prize is awarded and voting for the winners was open to local community members. This could help students to develop a sense of pride and ownership over their own work as well as their time exploring RMA, and encourage students to share their experiences through stories told to friends and family. Another option suggested for marketing and outreach was placing articles in local community newsletters, hanging fliers at community centers and libraries, and distributing brochures to new homeowners through realty companies. Not all local community members have access to the internet on a regular basis, suggesting that social media will not reach all audiences. Some community members may only have limited internet access through public places such as the library. Outreach efforts could also include reaching out to and building partnerships with local organizations, neighborhood associations, community groups, and other established outdoor groups (e.g., fishing and hiking clubs). These partners often have extensive ties to particular communities, which could greatly reduce the difficulty of connecting with these communities. Participants also indicated that going into local communities and having face-to-face contact with the organizations RMA wants to partner with is a very important strategy. For many local community members, word-ofmouth is an important form of knowledge transfer, and beginning this process is a crucial step in creating a more welcoming and overall friendly relationship between RMA and local communities. Participants also indicated that having signs on the fence that were encouraging, enticing, and informative could also be a form of outreach. Signs could say "Entrance this way" (with an arrow), "Welcome, glad you are here!", or "Coyotes live here" - something that would invoke a sense of curiosity in local community members to come check out RMA, and to let community members know that they can actually go beyond the fence.

Finally, participants thought improving the cultural sensitivity and diversity of staff and volunteers would help to engage surrounding communities in refuge programs and activities, including decision-making and planning, in more meaningful ways. Participants felt that this particular strategy would go a long way to reduce some of the perceptions that currently exist. These perceptions relate to concerns about the health and safety of the land, and how local communities may have been minimally included or excluded altogether from past decisionmaking in regards to the land. Ignoring that the past happened and that environmental injustices occurred, which are known by some community members and told to others, does little to encourage people to come to participate in outdoor recreation at RMA. Ignoring the past propagates a sense of mistrust and fear of what and who is behind the fence. Participants felt that efforts to increase the diversity of refuge staff and volunteers would be a critical next step for the refuge to take. Suggested ways to do this would be to engage with local high schools that have volunteer requirements for students, and get students from the diverse communities surrounding RMA to volunteer on the refuge. Related to this, a suggestion to start or partner with a local "urban rangers" program would help to alleviate some of the barriers that exist. These types of programs work much like the Youth Conservation Corps, which does service projects (e.g., build trails, fishing docks, or bridges) on federal lands. Such a program would get youth from the diverse local communities out on the refuge while still being close to home. Being close to home would ensure that youth stay connected to their family and friends, which was voiced by many workshop participants as something that is important to youth. This approach would also help to build a more enduring relationship between RMA and local residents, as youth then become spokespersons for the refuge within their communities.

Overall, participants indicated that there were many ways to address the barriers that exist for local urban residents, and they were interested in opportunities to engage with RMA to overcome these barriers.