

Draft Compatibility Determination

Use: 8th Grade Conservation Education Day

Refuge Name: Swan Lake National Wildlife Refuge (NWR)

Establishing and Acquisition Authorities: Executive Order 7563 established Swan Lake National Wildlife Refuge on February 27, 1937.

Refuge Purposes:

“... as a refuge and breeding ground for migratory birds and other wildlife: ...” Executive Order 7563, dated Feb. 27, 1937

“... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds.” 16 U.S.C. § 715d (Migratory Bird Conservation Act)

“... particular value in carrying out the national migratory bird management program.” 16 U.S.C. § 667b (An Act Authorizing the Transfer of Certain Real Property for Wildlife)

National Wildlife Refuge System Mission: The Mission of the National Wildlife Refuge System (NWRS) 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.

Description of Use: This use is a *Conservation Education Day* on which area schools are invited to bring their 8th graders to the Refuge for various displays and programs focused on conservation education and interpretation. The maximum number of 8th graders allowed to attend the event is capped at 250.

Is the use a priority public use?

This use falls under the category of Education and Interpretation, which is a priority public use of the National Wildlife Refuge System according to Executive Order 12996 (1996) and National Policy Issuance #96-09 (U.S. Fish and Wildlife Service 1996). All activities associated with this use are in support of carrying out a successful Conservation Education event. These activities allow Swan Lake NWR to promote the presence of local children to learn about its mission and the importance of conservation; with special regards to the National Wildlife Refuge System.

Where would the uses be conducted?

This use is conducted in the area around the Visitor Center. This area is identified in the approved Swan Lake CCP Objective 3-6, Strategy 1 as a site for environmental education and interpretation (U.S. Fish and Wildlife Service 2011: 44).

When would the use be conducted?

This use is conducted on a weekday from 9-3. It occurs sometime between May and June, as is suitable for Swan Lake NWR staff and area schools.

How would the use be conducted?

This event is designed for children in 8th grade. Area schools are contacted to establish a date on which it would be convenient to host the *Conservation Education Day*. Once this date is established volunteers are then contacted to run the stations that will be offered during the event. After a slate of suitable volunteer stations has been established and approved by the Refuge Manager a flyer is constructed by Refuge staff or volunteers that is then sent out to local schools. The flyer provides details for the event including the: date and time, educational opportunities being offered, contact information for the Refuge, and a date by which they must confirm whether or not they are attending. Once a school calls to confirm their attendance a Refuge staff member or volunteer records the: school, number of children coming, contact information for the teacher, when it is best to reach them, and when the school will be expected to arrive/depart. Schools are not allowed to come unless they register with us and confirm their attendance by a certain set date prior to the event.

The *Conservation Education Day* itself consists of various stations that the students move between. All stations are focused on some form of environmental or conservation education. The activities that could potentially be offered during the event are listed as follows:

Bird Identification Station: This station is conducted by Audubon volunteers at the nature trail overlook. It involves tips on bird identification, discussion of field guides and other birding tips. They utilize the viewing scopes that are permanently mounted on the overlook, as well as scopes provided by volunteers that are set up on the overlook and trail. A special emphasis is placed on illustrating why particular birds are present when and where they are. This presents students an opportunity to see how the management of the Refuge is promoting the presence of certain birds.

Tree Identification Station: This station is conducted by the Missouri Department of Conservation in an area surrounding the Visitor Center. It involves a tutorial of how to identify trees, the uses of such trees, and an opportunity to allow students to try identifying trees themselves. An emphasis is also placed on explaining the general importance of trees for ecosystems on the Refuge and how Refuge staff goes about managing the development of certain trees for various purposes.

Agency Stations: Various information booths staffed by different governmental and non-governmental agencies and organizations may be present depending upon availability. These include agencies and organizations such as the: Missouri Department of Conservation, Missouri Department of Natural Resources, USFWS Ecological Services, local chapter of Pheasants Forever, local chapter of Quail Forever, local chapter of Ducks Unlimited, and the Missouri Trappers Association. These agencies and organizations are approved by the Refuge Manager prior to being scheduled for the events.

Archery Station: This station is conducted by Refuge staff and volunteers that have been certified as archery instructors through the National Archery in the Schools Program

(NASP). The equipment utilized at this station is provided by the Missouri Department of Conservation. It is inspected by a certified inspector before each use. This activity is pending compatibility approval in a stand-alone Compatibility Determination. The activity will be carried out in accordance with the specifications of that Compatibility Determination.

Dog Retrieving Demonstration Station: This station is conducted by a volunteer dog handler that has been approved by the Refuge Manager. It is pending compatibility approval in a stand-alone Compatibility Determination. The activity will be carried out in accordance with the specifications of that Compatibility Determination.

Trapping Station: This station is coordinated and managed by volunteers of the Missouri Trappers Association. The station offers students the opportunity to see how trapping affects the environments in which they live. Special attention is given to the manner in which trapping can be utilized as an effective management tool for furbearers. Students are also given the opportunity to see and touch various pelts. Various types of traps and equipment used for trapping will be on hand to show students the tools utilized in trapping. No trapping will occur and students will not set traps or handle set traps.

Deer Antler Station: This station is organized and managed by a member of the Missouri Department of Conservation. At this station students learn about the cyclical growth of deer antlers and how this growth is affected by the environment in which the deer lives. Because of the ubiquity of deer today this offers students a chance to have a better understanding of the animals they regularly see around them. Students are also given a tutorial on how deer antlers are scored. Following this tutorial they are offered the opportunity to try and score a set of antlers themselves. Antlers for this station are provided by the Missouri Department of Conservation and antlers from the Touch Table in the Visitor Center are utilized as well.

Viewing Tower Tours: The Refuge viewing tower is open to groups of up to five students at a time to utilize for viewing purposes. This tower has been on the Refuge for many years, and is included in our Station Safety Audits. There is a Refuge volunteer that staffs the tower and controls the number of people utilizing it during this use. From the tower students have the opportunity to view a number of Refuge ecosystems and wildlife.

Turtle Tank/Reptile Station: This station includes a limited number of water turtles and, sometimes, small non-poisonous snakes that are captured on the Refuge and released after the event. A Refuge staff member and/or Ecological Services staff member is responsible for operating and managing the station. The staff member provides interpretations of reptiles and amphibians. Further, they illustrate the role these important animals play in the Refuge environment. Consequently, students have an opportunity to learn about animals that they might normally ignore. All live wild animals utilized in this station will be done in accordance with the "Handling of Live Wild Animals" subsection (#4) in the Stipulations Necessary to Ensure Compatibility section of this Compatibility Determination. See this section for more details.

Pollinators on the Refuge: This station is coordinated and managed by a volunteer who is a bee keeper. The station offers students a chance to learn about the manner in which bees and other insects play a crucially important role in the environment. Specifically, the volunteer

focuses on how insects pollinate and are therefore partially responsible for the regrowth of plants. Special attention is given to the manner in which humans have an affect on bees and other pollinators and how, as a result, this has consequences for ecosystems more generally.

Guided Refuge Tours: These tours are conducted by Refuge staff with our tractor drawn trailer that was especially manufactured to haul people, and they offer students a chance to get an in depth interpretation of various Refuge areas. This particular use is pending approval in a stand-alone Compatibility Determination. The activity will be carried out in accordance with the specifications of that Compatibility Determination.

Gardening and the Environment: This station is coordinated and managed by a volunteer who is a master gardener. Gardening is utilized as a means through which students can better see how the environment can affect their everyday lives, even at home. Students are taught the ins and outs of trying to grow fruits and vegetables at home. This includes the importance of seasons, sunlight, water, soil nutrients, and pest management. Additionally, an emphasis is placed on how home gardens relate to sustainable agriculture.

Sustainable Agriculture: This station is coordinated and managed by a volunteer from the Chariton County NRCS office. The station allows students from the largely rural area to get a better understanding of how the crops they see growing all around them affect the environment in which they live. Special emphasis is placed on illustrating the manner in which various agricultural practices have clear consequences for plants and animals in the area. Consequently, students are encouraged to view the environments in which they live in a new and more detailed light.

Canoeing: This station is managed by Refuge staff or volunteers. The necessary equipment (canoes, paddles, and lifejackets) is provided by the Missouri Department of Conservation at no cost to the Service. While the entirety of Swan Lake NWR is open to non-motorized boating from March through October, this activity takes place on the small pond by the Visitor Center. This small pond is often utilized for this activity. It is located in the approved area for these types of activities, as identified in the Swan Lake CCP Objective 3-6, Strategy 1 (U.S. Fish and Wildlife Service 2011: 44). This pond has an average depth of 3 feet, and may be up to 4 foot deep at the deepest point. All participants are required to put on a life jacket prior to boarding a boat. Before entering a canoe they are instructed on how to properly and safely enter, operate, and exit a canoe by who is in charge of the station. Additionally, the Refuge staff member or volunteer in charge of the station is equipped with a throw cushion in the case of an emergency.

Future Conservation Job Opportunities: This station is coordinated and managed by a volunteer from the University of Missouri's College of Agriculture, Food, and Natural Resources. The University is the flagship public institution in the state, and it offers a number of degrees related to conservation through this particular College. At this station students get the opportunity to learn about different conservation related jobs and what might be required to get such positions in the future.

Amphitheater Program: A feature program is usually conducted at the Refuge amphitheater in accordance with the Compatibility Determination that was approved for the Amphitheater

(Schulz and Whitson 2012). This program is done in accordance with the Compatibility Determination for the Amphitheater. It usually includes a live Birds of Prey program such as the Bald Eagle program that is utilized at Eagle Days. This program is presented by the raptor specialist at the Dickerson Park Zoo. If they are not available, we utilize a similar program from the Raptor Rehab Center affiliated with the University of Missouri.

Why is this use being proposed?

The Conservation Education Day is being proposed because it fulfills both general USFWS objectives and objectives that are specific to Swan Lake NWR, as determined by federal policy and the Swan Lake CCP (U.S. Fish and Wildlife Service 2011). Consequently, it facilitates the missions of USFWS and Swan Lake NWR in the short and long-term.

Regarding general Federal objectives, this is an event that meets two of the Big Six public uses of the Refuge. Specifically, this use promotes environmental education and interpretation and viewing wildlife. Moreover, it meets the 605 FW 1 General Guidelines for Wildlife-Dependent Recreation, which in Section 1.7 reads:

We promote the Refuge System mission through strong national and *local communication, consistent outreach*, wildlife-dependent recreation opportunities, and *special events that showcase the Refuge System's roles in conservation efforts*. We also use these means to increase the public's understanding and appreciation for conservation and natural resources and expose a broader spectrum of the public to the enjoyment of natural resources. *We encourage Refuge Managers to host special events* and seek local media coverage for National Wildlife Refuge Week, International Migratory Bird Day, National Hunting and Fishing Day, Youth Hunting Days, National Fishing Week, hunts for individuals with disabilities, and celebrations of Refuge anniversaries, where appropriate [*emphasis added*] (U.S. Fish and Wildlife Service 2006).

This event helps to achieve these stated purposes. In particular, it facilitates communication with the public, is an example of outreach, and is a special event that showcases the Refuge System's role in conservation. It accomplishes all this, while educating a spectrum of the public that might not normally visit the Refuge to learn about the benefits of the USFWS. Consequently, this use fulfills compatible uses outlined in the National Wildlife Refuge System Improvement Act of 1997 (U.S. Congress 1997). In particular, it achieves the objectives outlined in Sections 2.2 and 2.6 by facilitating an appreciation of wildlife conservation and promoting environmental education.

Additionally, it enhances partnerships with other conservation oriented agencies and members of the public who already are or who could become partners in conservation. Consequently, the proposed use fulfills USFWS objects as outline in Executive Order 12996 (1996) and the National Policy Issuance #96-09 (U.S. Fish and Wildlife Service 1996). Section 3 of the National Policy Issuance #96-09 reads:

Partnerships: America's sportsmen and women were the first partners who insisted on protecting valuable habitat within wildlife refuges. Conservation partnerships with other Federal agencies, State agencies, Tribes, organization s, industry, and the general public can make significant contributions to the growth and management of the Refuge System (U.S. Fish and Wildlife Service 1996).

This proposed use fulfills this objective of conservation partnerships by building relationships with: future partners in conservation (children), current partners (volunteers), and the Missouri Department of Conservation who will be involved in offering some of the available programs.

Moreover, the *Conservation Education Day* help staff achieve Objectives: 3-4 (Wildlife Observation and Photography); 3-5 (Interpretation); 3-6 (Environmental/Conservation Education); 3-8 (Friends and Volunteers); and 3-9 (Community Relations) of the approved Swan Lake NWR CCP (U.S. Fish and Wildlife Service 2011:44-45). Regarding Objective 3-4, wildlife observation is promoted through the use by allowing students the opportunity to observe a number of different wildlife. Regarding Objective 3-5, wildlife interpretation is facilitated by a number of the stations being offered. Regarding Objective 3-6, visitors receive environmental and conservation education through interpretation at the various stations. Specific emphasis is being placed on conservation education by illustrating to visitors the manner in which Refuge management facilitates the development of habitat on the Refuge. Regarding Objective 3-8, a volunteer opportunity is created for those that wish to become help during the *Conservation Education Day*. Regarding Objective 3-9, community relations are facilitated by offering students the opportunity to interact with Refuge staff and experience the Refuge in a way they would otherwise be unable to. This offers another opportunity to build connections with the community, increasing their stake and investment in the Refuge and USFWS more generally. In sum then, this use is being proposed because it meets multiple USFWS and Swan Lake NWR objectives.

Availability of Resources:

What resources are needed to properly (considering quality and compatibility) and safely administer the use?

Refuge staff is needed to help plan, coordinate, approve, and run aspects of this proposed use. This requires 2-3 coordination meetings in the months leading up to the event to ensure activities planned are appropriate and fit the approved compatibility determination. There are certain activities that are provided by Refuge staff that are listed in the “How Would This Use Be Conducted” Section of this Compatibility Determination that will require Refuge staff or qualified volunteers. Adequate grounds and facilities are necessary to carry out this event, such as water, buildings, trash cans, parking, and tables for some of the booths. Numerous volunteers are also needed to help with setting up, cleaning up and coordinating the day’s activities.

Are existing Refuge resources adequate to properly and safely administer the use?

The activities that are mentioned in the “How Would This Use Be Conducted” Section of this CD, require Refuge staff or qualified Refuge volunteers, if none are available these activities would not be carried out. The Refuge Visitor Center and grounds around the Visitor Center are adequate for this use. A cap has been set on the number of students allowed to come to ensure we have the resources capable of administering this use properly and safely. The Refuge has trash facilities capable of handling this use. Further, there is adequate parking in the Visitor Center area, with overflow parking in the area to the north of the Maintenance Shop facility. Both of these areas provide safe access to and from, and can accommodate the flow of traffic. We have volunteers that help oversee parking during events such as this.

Volunteers are provided with an orange safety vest. Current Refuge staff and volunteers are capable of adequately setting up, cleaning up, and coordinating the activities during this use.

Accessibility: The Visitor Center, amphitheater, restrooms, and nature trail overlook all meet accessibility standards requirements. There is accessible parking located in the Visitor Center parking lot. The areas these activities are carried out in the lawn areas around the Visitor Center are often utilized by people in wheel chairs without any problems. Within our capabilities, we will do everything necessary to ensure every station is accessible.

Anticipated Impacts of the Use:

How does the Activity affect Refuge purposes and the NWRS mission?

The Refuge was established to provide for the needs of migratory birds and other wildlife. Because special steps will be taken by the Refuge Manager to ensure areas crucial for migratory birds are not disturbed with this use, this use does not adversely affect the ability of the Refuge to fulfill this purpose. This activity fulfills two priority public uses designated by the National Wildlife Refuge System. Consequently, it supports the goals of the NWRS. Moreover, the use also offers the potential to build broader constituencies of users who are informed about the management practices of Swan Lake NWR in particular, and the NWRS more generally. Consequently, community members are encouraged to become active stakeholders that are supportive of the USFWS in the immediate and long-terms by encouraging them to recognize the active role the Service is playing in promoting wildlife near their homes. All together then, the use supports the goals of the USFWS in the short and long-term.

How does this activity affect fish, wildlife, plants, and their habitats; and the biological integrity, diversity, and environmental health of the Refuge/NWRS?

Migratory Birds

This event is not expected to adversely affect migratory bird populations that occur on the Refuge. There is no take involved, and the activity occurs in developed areas that provide little habitat benefit to migratory birds.

Disturbance

In *Managing Visitor Use and Disturbance of Waterbirds: A Literature Review of Impacts and Mitigations* DeLong (2002) includes a summary of effects on wildlife from disturbance by various forms of recreation. The author documents that disturbances can alter behavior (e.g. foraging time), population structure, and distribution patterns of wildlife. It is highly unlikely that the 8th Grade Conservation Education Day would cause some or all of these effects in any significant manner at Swan Lake NWR. A number of measures have been undertaken to mitigate these effects, and they are not expected to occur at levels that would interfere with the purposes of the Refuge. The area that will be primarily affected is the area surrounding the Visitor Center. This area has already been identified as suitable for educational activities (U.S. Fish and Wildlife Service 2011: 44). Areas adjacent to access roads and the interior roads of the Refuge would be affected by the increased traffic linked to the interpretive tours. Importantly though, all of these roads will already be open to the public when this use occurs. Consequently, additional impact on waterbirds would be

minimal.

Habitat

Activities from this use would cause little or no habitat disturbance, since they will take place in areas already open to public use that provide little habitat benefits to Refuge wildlife.

Biological Integrity, Diversity, and Environmental Health

Activities from these demonstrations are not expected to adversely impact the biological integrity, diversity, and environmental health of the Refuge. This event occurs only once a year and do not occur at peak wildlife migration times. Further, it occurs in a developed area that is not heavily used by Refuge wildlife. An Intra-Service Section 7 Biological Evaluation for listed Endangered Species present on the Refuge has been conducted. Species and determinations include Least Tern (*Stemula antillarum*), Indiana Bat (*Myotis sodalis*), and Piping Plover (*Charadrius melodus*) with a “No Effect” determination. A “Not Likely to Jeopardize candidate or proposed species/critical habitat” determination was made for the Proposed Northern Long-Eared Bat (*Myotis spetentrionalis*) found in the areas around the Refuge.

Other Uses and Public Safety

Public safety issues are addressed by the placement of this activity in areas that has been set up for these types of events. These different stations are pre-arranged to ensure safety is addressed with regards to the activities at the station and its placement in orientation to other activities. Safe and adequate parking is available, and volunteers are available to ensure proper parking. All parking volunteers are provided with an orange safety vest. There is a first aid station that is clearly identified at the Visitor Center, which is staffed with a Refuge volunteer during the use.

This use will be evaluated each time after it occurs to make sure unforeseen changes don't cause negative impacts upon other uses or safety issues for Refuge visitors.

Overall, the cumulative impact of this activity on other wildlife-dependent recreation or public safety at Swan Lake NWR is expected to be minor since it is concentrated in an isolated location, under a controlled situation, and only occurs occasionally on the Refuge.

Public Review and Comment:

Public notification and review includes a 30-day comment period with local media announcements and postings at the Refuge Visitor Center, Sumner Post Office and Chillicothe Public Library. Comments received will be included with this document in the final Compatibility Determination.

Determination (check one below):

- Use is Not Compatible
- Use is Compatible with Following Stipulations

Stipulations Necessary to Ensure Compatibility:

1. All activities are approved by the Refuge manager prior to it the event being formally publicized.
2. The placement of all activities is determined by the Refuge manager prior to the event.
3. No commercial services or sales of goods or services are to be conducted by individuals, agencies, or organizations that are involved or participating in the event.
4. Handling of Live Wild Animals for Demonstrations will be done so under the following stipulations:
 - Collection of amphibians and reptiles for outreach events are done in accordance with the Missouri Wildlife Code in that no more than 5 individuals of any one species is collected and none are species of concern, state listed, or federally listed. See the Missouri Code of State Regulations 3 CSR 10-9.110 (1) (A) (Kander 2013).
 - This use must be reviewed annually to make sure no other State or Federal statutes pertain to the collection and temporary holding of the herpetofauna.
 - Animals are maintained and handled humanely, and held for a short duration (less than a week). Efforts are made to minimize stress to animals while holding in captivity and during handling. Stress which may occur, however, is unlikely to impact survivorship or reproductive potential.
 - Handling of animals is closely supervised by a biologist, qualified Refuge staff, or approved volunteers. Disinfectant is provided to those individuals handling turtles or snakes to prevent disease transmission.
 - All animals are released at the original point of capture, which will not be in a sensitive habitat location.
 - Animals used for demonstrations are typically non-aggressive species.
 - When snapping turtles are included in the event, they are confined to an enclosure and closely supervised to ensure children maintain a safe distance and do not handle the animal.

Justification:

In lieu of the considerations above, and with the stipulations previously described, the *Conservation Education Day* will not materially interfere with or detract from the NWR mission or purposes of Swan Lake NWR. Environmental education and interpretation and wildlife viewing are priority public uses of the Refuge System that the Education Day fulfills. Further, the Education Day helps achieve five of the Refuge objectives detailed in the approved CCP for Swan Lake (U.S. Fish and Wildlife Service 2011). Consequently, providing this activity contributes to achieving USFWS goals and Swan Lake NWR objectives. Well-designed environmental education and interpretation programs can be effective resource management tools that provide an opportunity to encourage positive visitor attitudes of natural resource management, Refuges, the Refuge System, and the Service. Consequently, the short and long-term objectives of Swan Lake NWR and USFWS are supported by this use.

Signature: Refuge Manager _____
(Signature and Date)

Concurrence: Regional Chief _____
(Signature and Date)

Mandatory 10- or 15-year Re-Evaluation Date: _____

References

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