

COMPATIBILITY DETERMINATION

Use: Environmental Education, Interpretation, Special Events, and other programs

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:

Is the use a priority public use?

Environmental Education and Interpretation are priority public uses of the National Wildlife Refuge System as stated in the 1999 National Wildlife Refuge Improvement Act.

Where would the uses be conducted?

Environmental Education

Environmental education encompasses planned, often sequential, instructional programs and activities aimed at building skills, abilities, and knowledge about wildlife-related environmental topics. This use would primarily occur at an area of the Refuge developed as an environmental education site with an outdoor classroom.

Interpretation Including Special Events

Interpretation is a communication process that forges emotional and intellectual connections between the audience and the resource. Interpretation is less instructional than environmental education and is usually self-guided or directed. This use would primarily occur at existing interpretive facilities at the visitor center, along a 10-mile auto tour route, and the Refuge nature trail.

Other Programs

Other programs include conservation-related activities such as outdoor skills classes, landowner workshops, and scouting activities. These activities would occur at the Visitor Center, the Environmental Education site, the Nature Trail and as tours along open Refuge roadways.

When would the use be conducted?

These activities would occur throughout the year with greater activity expected when school is in session.

How would the use be conducted?

Environmental Education

Environmental Education is a priority public use that currently contributes about 500 visits to the Refuge each year. The Environmental Education program will be developed with a focus on partnerships with area schools, clubs, organizations, State and Federal agencies and Missouri Department of Conservation all participating in staff/volunteer led and self led Environmental Education activities on the Refuge. Programs will be designed to complement the Missouri public schools curriculum that requires students to learn about natural resources in preparation for the annual Missouri Mastery and Achievement Test. Environmental education programs will focus on Refuge specific issues including wildlife, history, archaeology, culture, and habitats. The Refuge will also connect and coordinate educational activities with resources at surrounding locations such as Fountain Grove Wildlife Management Area, Pershing State Park, and The Land Learning Foundation, all of which are near Swan Lake NWR.

Interpretation Including Special Events

In addition to interpretive facilities, Refuge staff and volunteers will provide guided tours and programs upon request. Special events will be planned out each year and posted on a Refuge calendar of events.

Other Programs

Other conservation related programs would be led by Refuge staff, volunteers, or others from State agencies or conservation organizations.

Why is this use being proposed?

Environmental education and Interpretation are priority general public uses of the National Wildlife Refuge System. These programs promote understanding and appreciation of natural and cultural resources and their management on all lands and waters of the Refuge System.

Availability of Resources:

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

Existing Refuge staff will be utilized when necessary to assist the environmental education, interpretation, and other programs in addition to their normal duties. The Refuge volunteer program will be utilized to carry the bulk of environmental education, interpretation, and

other related duties through the use of volunteers, work campers, and interns. If funding is sufficient, seasonal employees or an additional permanent employee may also be used to carry out these programs.

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

At the present level of use there are adequate Refuge resources to administer programs for environmental education, interpretation and other events. There is an opportunity to provide increased services through expansion of the Refuge volunteer program.

Anticipated Impacts of the Use:

How does environmental education affect Refuge purposes and the NWRS mission?

The Refuge was established to provide for the needs of migratory birds and other wildlife. Environmental education, interpretation, and other programs and events do not adversely affect the ability of the Refuge to fulfill this purpose. Environmental education and interpretation are priority general public uses of the National Wildlife Refuge System and supports two of the goals the NWRS.

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

Migratory Birds

Environmental education, interpretation, and other similar activities are not expected to adversely affect migratory bird populations that occur on the Refuge.

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 from various forms of recreation. The author documents that disturbance can alter behavior (e.g. foraging time), population structure, and distribution patterns of wildlife. It is probable that outdoor environmental education, interpretation, or other similar activities would cause some or all of these effects to some degree on Refuge wildlife. A number of measures mitigate these effects, and they are not expected to occur at levels that would interfere with the purposes of the Refuge. The area most directly impacted would be the environmental education site located along the perimeter of the Refuge at the site of the existing hunting headquarters building. School buses and personal vehicles would utilize developed roads and parking areas to access trails which are already in place. Self-guided interpretation would be sporadic use by small groups of people at established trails and kiosks. This may cause short term disturbance as well, but again would have minimal impact.

Habitat

Environmental education, interpretation and other similar activities may cause minor habitat disturbance, but are not expected to adversely affect Refuge habitats.

Biological Integrity, Diversity, and Environmental Health

Environmental education, interpretation and other similar activities are not expected to adversely impact the biological integrity, diversity, and environmental health of the Refuge.

Other Uses and Public Safety

Environmental education, interpretation and other similar activities are not expected to adversely affect other Refuge uses or public safety. As public use levels on the Refuge expand across time, unanticipated conflicts between user groups may occur. The Refuge's Visitor Services program would be adjusted as needed to eliminate or minimize each problem and provide quality wildlife-dependent recreational opportunities that include promoting public safety. Experience on many National Wildlife Refuges has proven that time and space zoning (e.g., establishment of separate use areas, use periods, and restrictions on the number of users) is an effective tool in eliminating conflicts between user groups. Overall, the cumulative impact of environmental education, interpretation and other similar activities on other wildlife-dependent recreation or public safety at Swan Lake NWR is expected to be minor since it is concentrated in a few locations.

Public Review and Comment: This compatibility determination was part of the Swan Lake NWR Draft Comprehensive Conservation Plan and Environmental Assessment. Public notification and review included a notice of availability published in the Federal Register, a 30-day comment period, local media announcements, and a public meeting at the Refuge. Comments received and agency responses are included in the final version of the Swan Lake NWR Comprehensive Conservation Plan.

Determination (check one below):

Use is Not Compatible

Use is Compatible with Following Stipulations

Stipulations Necessary to Ensure Compatibility:

1. Use of motorized vehicles is limited to maintained roads and parking areas except for extenuating circumstances approved by the Refuge Manager.
2. Environmental education activities not led by Refuge staff would require verbal approval or a Special Use Permit by the Refuge Manager to minimize conflicts with other groups, safeguard students and resources, and to allow tracking of use levels.
3. Harassment of wildlife or excessive damage to vegetation is prohibited.
4. Educational groups are required to have a sufficient number of adults to supervise their groups, a minimum of 1 adult per 10 students.
5. Visitors involved in environmental education or interpretive activities are to adhere to all Refuge regulations unless approved by the Refuge Manager.

Justification:

In view of the above and with the stipulations previously described, environmental education, interpretation and other similar programs will not materially interfere with or detract from the NWR's mission or purposes of the Refuge. Environmental education and interpretation are priority public uses of the Refuge System and providing these programs contributes to achieving one of the Refuge goals. Well-designed environmental education and interpretation

programs can be effective resource management tools that provide an opportunity to influence visitor attitudes about natural resources, refuges, the Refuge System, and the Service and to influence visitor behavior when visiting units of the Refuge System.

Refuge Manager: Steve Whitson 2-3-11
(Signature and Date)

Concurrence:

Regional Chief: Rick Schaff 2/15/11
(Signature and Date)

Mandatory 10- or 15-year Re-Evaluation Date: 2026