

Draft Compatibility Determination

Use:

Environmental Education, Interpretation, Wildlife Observation, and Wildlife Photography

Refuge Name:

Great Dismal Swamp National Wildlife Refuge

Date Established:

August 30, 1974

Establishing and Acquisition Authorities:

- Dismal Swamp Study Act of 1972 (P.L. 92-478)
- Dismal Swamp Act of 1974 (P.L. 93-402)
- Authorizing the Transfer of Certain Real Property for Wildlife, 16 U.S.C. 667b
- Fish and Wildlife Act of 1956, 16 U.S.C. 742f(a)(4), 16 U.S.C. 742f(b)(1)
- Migratory Bird Conservation Act, 16 U.S.C. 715-715d, 715e, 715f-715r

Refuge Purposes:

- Subject to such restriction, conditions, and reservations as are specified in deeds [granted to the United States by The Nature Conservancy] ... the Secretary shall administer the lands and waters and interests therein in accordance with the provisions of the National Wildlife Refuge System Administration Act ... the Secretary may utilize such additional statutory authority as may be available to him for the conservation and management of wildlife and natural resources, the development of outdoor recreation opportunities, and interpretive education as appropriate to carry out the purposes of this Act ... the Secretary may not acquire any such lands and waters and interests therein by purchase or exchange without first taking into account such recommendations as may result from the study required under Public Law 92-478. (Dismal Swamp Act of 1974, P.L. 93-402)
- ... particular value in carrying out the national migratory bird management program. (Authorizing the Transfer of Certain Real Property for Wildlife, 16 U.S.C. 667b)
- ... for the development, advancement, management, conservation, and protection of fish and wildlife resources. (16 U.S.C. 742f(a)(4));... for the benefit of the United States Fish and Wildlife Service, in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition servitude. (16 U.S.C. 742f(b)(1), Fish and Wildlife Act of 1956)
- ...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds. (16 U.S.C. Migratory Bird Conservation Act)

National Wildlife Refuge Mission:

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.

Description of Use:

A. What is the use? Is the use a priority use?

Wildlife observation, wildlife photography, environmental education, and interpretation are often referred to as non-consumptive wildlife-dependent recreational uses. These are four of the six priority public uses of the National Wildlife Refuge System under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee), as amended by the National Wildlife Refuge System Improvement Act of 1997 (Improvement Act).

B. Where would the use be conducted?

Wildlife observation, wildlife photography, environmental education and interpretation uses occur on all existing ditch roads, trails, the piers on Lake Drummond and the lake itself, at the refuge headquarters and at other locations designated for public uses. The activities will also occur at all new trails, observation platforms and blinds, designated outdoor classroom sites, and at the future visitor center complex. Access to the refuge will continue to be focused at the primary public use entrances of Jericho Lane, Washington Ditch Road, Railroad Ditch Road, Feeder Ditch, Portsmouth Ditch Road, the refuge headquarters, and at the future visitor center complex.

C. When would the use be conducted?

Hiking and biking for wildlife observation, wildlife photography, environmental education and interpretation are allowed on the refuge trails and ditch roads daily, sunrise to sunset. There is no fee to enter the refuge for hiking or biking.

Vehicle access through to Lake Drummond for wildlife observation, wildlife photography, environmental education and interpretation is allowed daily on the Auto Tour route through the Railroad Ditch entrance. Auto tour access hours are seasonal with April 1 through September 30, 7:00am to 7:00pm and October 1 through March 31 as 7:30am to 5:00pm.

Access to the other primary public use entrances, Washington Ditch Road, Jericho Lane, and Portsmouth Ditch Road for wildlife observation, wildlife photography, environmental education and interpretation is controlled by electronically programmed gates to allow entry to the parking areas daily, sunrise to sunset.

Staff- led programs and special events featuring these priority uses are scheduled based upon staff availability and public request.

Temporary closures may occur on any trail or ditch road due to conflicts with a management activities or extenuating circumstances necessitating a change from the normal schedule. Closures for management activities, scheduled hunt and scouting days, extensive flooding, downed trees, ice storms, wildfires, or other events affecting human safety are examples that would require these uses or access to be temporarily suspended.

D. How would the use be conducted?

Wildlife observation, wildlife photography, environmental education and interpretation uses occur on established and newly developed roads, trails, boardwalks, observation decks, piers, parking areas, on Lake Drummond, and in buildings that have been designed to accommodate such uses. The general public and organized groups are allowed to participate in these uses.

Interpretation programs are delivered by staff, volunteers, Refuge Friends, contracted and guest presenters, teachers and other youth leaders on designated trails and education sites on the refuge. Programs are also presented at special events and at displays, both on and off the refuge. Educational and interpretive information is provided by signage, kiosks, printed information, exhibits, audiovisual presentations, web based information, podcasts, radio messages, staff and volunteer contacts, and lecture programs.

Non-staff program leaders are required to obtain a special use permit.

Wildlife observation and photography are usually self-conducted activities and are facilitated through the access to trails, viewing areas, tours, programs, and related materials. Viewing scopes are provided at appropriate viewing areas. Wildlife observation programs such as birding field trips and other nature walks or photography workshops are advertised and scheduled based on staff availability.

The public are expressly restricted to designated ditch roads, trails, outdoor classroom sites, boardwalks, observation platforms, Lake Drummond, and its piers for these priority uses. Some designated ditch roads and trails are open to

the public for hiking or biking only. These roads and trails account for more than 90% of the access routes into and through the refuge. The boardwalk trails are limited to hikers only.

Automobile access to the refuge for wildlife observation, wildlife photography, environmental education and interpretation uses is controlled through the use of electronic gates located at the entrances of Railroad Ditch Road, Portsmouth Ditch Road, Washington Ditch Road, and Jericho Lane. At the Portsmouth Ditch Road, Washington Ditch Road and the Jericho Lane entrances, vehicle access is allowed only to the designated parking areas, daily, sunrise to sunset. Vehicles are allowed passage to Lake Drummond through the Railroad Ditch entrance, including those with authorized boats, by terms of a self-serve fee permit, refuge annual pass, or permit and Duck Stamp. Conditions of the permit or pass are defined and include required compliance to all refuge rules and regulations, to the stated tour hours, and by payment of the self-serve fee of \$5.00 or annual pass or Duck Stamp fee of \$25.00. The self-serve fee is deposited at the entrance gate and the annual pass and Duck Stamps can be purchased from the refuge headquarters. Auto Tour access will be daily, with seasonal hours of April 1 through September 30, 7:00am to 7:00pm and October 1 through March 31 as 7:30am to 5:00pm. Education groups may request a special use permit allowing automobile access through other gated areas to designated outdoor classroom sites when necessary for permitted, site-specific, learning-based activities.

Water access for wildlife observation, wildlife photography, environmental education and interpretation uses is limited to Lake Drummond. Boating access to Lake Drummond from the east is through the Feeder Ditch and is allowed daily, from sunrise to sunset with no required access permit. However, to access the lake from the east, boaters must portage their craft or use the electric railway tram to cross around the spillway at the Lake Drummond Reservation. The U.S. Army Corps of Engineers manages the Reservation and the tram. They impose a craft weight limit of 1,000 lbs. for tram use. When access to the lake is from the Railroad Ditch Road entrance, access is regulated by terms of the Railroad Ditch Auto Tour self-serve fee permit, annual pass, or permit and Duck Stamp. Boats on the lake are limited to 25 horsepower or less. Canoes and kayaks are allowed. Boats are not allowed in the ditches other than in the Feeder Ditch.

During the refuge white-tail deer and black bear hunt, designated days in October and November, most primary entrances are closed to all public activity other than to visitors with refuge hunt permits. The Washington Ditch entrance, Washington Ditch Boardwalk trail, and the Washington Ditch trail to Lake Drummond are set aside as a no hunt zone to allow hikers and bikers a safe area for these uses. The Railroad Ditch Auto tour is not open to the general public on hunting and scouting days.

E. Why are these activities being proposed?

Wildlife observation, wildlife photography, environmental education, and interpretation are Priority Public Uses as defined by The National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57), and if compatible, are to receive enhanced consideration over other general public uses.

These uses are conducted to provide compatible educational and recreational opportunities for visitors to enjoy the resource and to gain understanding and appreciation for fish, wildlife, wildlands ecology, the relationships of plant and animal populations within the ecosystem, and wildlife management. These uses will provide opportunities for visitors to observe and learn about wildlife and wildlands at their own pace in an unstructured environment and to observe wildlife habitats firsthand.

. Access for these uses will expose the public to natural resource management programs and ecological concepts, and to the problems facing our wildlife and wildlands resources. A better understanding of the biological facts upon which management programs are based will foster an appreciation for the importance of the Fish and Wildlife Services' role in conservation. It is anticipated that participation in these uses will result in a more informed public, with an enhanced stewardship ethic and will enhanced support and advocacy for wildlife conservation everywhere.

Priority public uses provide an intrinsic, safe, outdoor recreational opportunity in a scenic setting, with the realization that those who come strictly for recreational enjoyment will be enticed to participate in the more educational facets of the visitor use program, and can then become informed advocates for wildlife conservation.

Availability of Resources:

Allowing the priority uses of environmental education, wildlife observation, photography, and interpretation is within the resources available to administer our Visitor Services program with the current level of participation. Facilities or materials needed to support these uses include maintaining access roads, parking areas, roadside pull-offs, boat launch area, kiosks, signs, visitor center exhibits, wayside exhibits, observation platforms, photography blinds and trails. Funding also provides for refuge programs, special events, publications, social media sites, the refuge's website as well as other information sharing venues.

Anticipated Impacts of the Use

Environmental education, wildlife observation, photography and interpretation can result in varying impacts to wildlife resources. A positive effect of allowing visitors to access the refuge will be the provision of additional wildlife-dependent recreational opportunities and a better appreciation and more complete understanding of the wildlife and habitats associated with the refuge, the National Wildlife Service, and the world at large.

The refuge expects that environmental education, wildlife observation, wildlife photography, and interpretation will continue to have short-term, long-term and cumulative positive impacts on the economies of the cities and counties in which the refuge lies. While not as significant as the nearby summer beach tourism, visitors participating in these wildlife oriented recreational pursuits come in noteworthy numbers, staying and spending in the local communities.

Access for and activities of environmental education, wildlife observation, wildlife photography, and interpretation are expected to have negligible adverse short-term, long-term or cumulative impacts on soils, vegetation, local or regional air quality, and hydrology or water quality. Impacts are more often related to access for the uses than for the use itself. Regulations requiring the visitor to enter the refuge through existing entrance gates, dirt or gravel roads, or by limited access for vehicles and boats reduce impacts. These roads and trails constitute less than 1% of the total habitat found in the refuge. The dirt roads, which serve as the hiking and biking paths with little exception, were constructed prior to the establishment of the refuge. Their initial impact on the habitat was significant in that they have altered the natural hydrology, interrupted natural wildlife corridors, and brought daylight into the dense canopy. The priority uses occur on these existing roads, trails, and hardened sites where minimal additional impacts will occur. Boardwalks are constructed to limit negative impacts to the habitat such as soil compaction and vegetation trampling but allowing access to more naturalized areas of the forest.

Wildlife disturbances for environmental education, wildlife observation, wildlife photography, and interpretation typically result in indirect short-term adverse impacts, which would be negligible because they would not cause long-term effects on individuals and populations. In general, the presence of humans would disturb most mammals, most bird species, and most reptiles. These types of disturbances more often result in the wildlife avoiding the road, trail, or immediate vicinity. Visitors for wildlife observation, wildlife photography, and interpretation are required to remain on designated roads, trails, piers, and boardwalks further reducing wildlife disturbances. Staff will educate visitors to the importance of remaining on the designated trails and boardwalks to reduce disturbances to both wildlife and to the habitat.

The requirement for visitors to stay on the designated roads and trails is posted and printed in all visitor information. The uses are regulated by signing at refuge trail heads and entrance roads (posting Prohibited/Permitted signing, posting time of day use is authorized, maximum speed limit signing, maps and interpreted information, and distribution of refuge leaflets). Law enforcement patrols and compliance checks by refuge officers are used to enforce the regulations. Staff and volunteers at the refuge office give instructions to visitors on how these uses are to

be conducted. Brochures and maps further depicting the roads and trails open for these uses are available at trailheads, on the refuge's website, at the refuge headquarters, and in the future, at the visitor center complex.

Additional anticipated impacts from hiking and biking access for these uses include collecting, poaching, plant removal, littering, vandalism, and conflict with other uses. Refuge Law Enforcement Officer(s) promote compliance with refuge regulations, monitor visitor use patterns and public safety, and document visitor interactions. Refuge Law Enforcement Officer(s) monitor all areas and enforce all applicable State and Federal Regulations. The dirt roads are wide enough to prevent conflicts between bicyclist and hikers. Bicyclists are not allowed to use the boardwalks in order to avoid conflict there.

Vehicle access is restricted to the entrance roads and parking areas or to the auto tour route to Lake Drummond to minimize wildlife conflicts. The Jericho Ditch, Washington Ditch, and Portsmouth Ditch entrances restrict vehicle access by monthly adjustments to sunrise to sunset tables. The auto tour route has seasonally adjusted hours to prevent wildlife disturbances during twilight when some wildlife are more active.

Activities on and around Lake Drummond are restricted to pier or boat use. The dense forest vegetation forms a barrier around the lake rim. There is virtually no accessible bank or shore line, providing physical protection to the habitat and wildlife populations.

Disturbance factors resulting from visitor use are always considered for all state and Federal listed species. Bald eagles may nest in areas visible to the public making for excellent wildlife observation, interpretative and photography opportunities. At this time these activities are not expected to have any negative impacts on bald eagles.

Environmental education activities occasionally occur off the roads and trails on a limited basis to achieve on-site, hands-on, action-oriented education objectives. These activities may produce short-term impacts on the sites used for the activities. Impacts include trampling of vegetation and temporary disturbance to wildlife species in the immediate use area. Group activities would not be done where impacts would be permanent or long-lasting.

The functioning of these uses as part of the overall public use program will be reviewed annually to ensure that it contributes to refuge objectives in managing quality recreational opportunities and protecting habitats, and is subject to modification if on-site monitoring by refuge personnel or other authorized personnel results in unanticipated negative impacts to natural communities, wildlife species, or their habitats or other refuge uses.

Public Review and Comments

This compatibility determination was advertised and released for a public comment period from June 5 to June 30, 2015. Written and verbal comments were accepted and taken under consideration. Following the comment period, the final document was posted on the refuge website and became part of the refuge management plan.

Determination (Check one Below)

Use is NOT compatible

Use is compatible, with the following stipulations

Stipulations Necessary to Ensure Compatibility:

To ensure compatibility with refuge purposes and the mission of the Refuge System environmental education, wildlife observation, photography, and interpretation can occur on the refuge if the refuge-specific regulations are followed and the following stipulations are met:

- Access for these uses is limited to designated roads, trails, observation decks, the piers on Lake Drummond and the lake itself, and in facilities that are listed on refuge brochures, maps, and signs.
- Opportunities for environmental education, wildlife observation, wildlife photography and interpretation are available on existing roads and during normal operational hours. Access to closed areas or use during the refuge's closed hours requires a special use permit, which is subject to the refuge manager's approval, unless the activity is in conjunction with a refuge staff or volunteer led program.
- Pets are permitted on the refuge but must be leashed at all times.
- Bicycling is allowed only on designated ditch roads and trails.
- Boating access on Lake Drummond is limited to daylight hours only. Boaters must be out of the water and have exited the refuge by established designated times based on how you accessed the lake. Boaters exiting east by the Feeder Ditch must be off the lake by sunset. Boaters exiting west must observe the seasonal hours of the Auto Tour permit.
- All boaters would be required to operate their craft and possess all safety equipment in accordance with Commonwealth of Virginia and U.S. Coast Guard Regulations.
- A special use permit is required of commercial touring groups.
- The public use program will be reviewed annually to ensure that it contributes to refuge objectives in managing quality recreational opportunities and protecting habitats, and is subject to modification if on-site monitoring by refuge personnel or other authorized personnel results in unanticipated negative impacts to natural communities, wildlife species, or their habitats or other refuge uses.
- Refuge Law Enforcement Officer(s) promote compliance with refuge regulations, monitor visitor use patterns and public safety, and document visitor interactions. Refuge Law Enforcement Officer(s) monitor all areas and enforce all applicable State and Federal Regulations.
- This use must be conducted in accordance with Federal regulations (50 CFR), and special refuge-specific regulations available from the refuge headquarters, in refuge brochures, or from the refuge web-site.
- The following activities are prohibited, including, but not limited to: ice skating, camping, rollerblading, traditional geocaching/metal detecting, off-road or off-trail biking, ATVs, operation of kites, model boats and airplanes, soliciting of funds (per 50 CFR 27.97 for Private Operations and per 50 CFR 27.86 for Begging), and other activities identified in 50 CFR Part 27.

Justification:

Environmental education, wildlife observation, photography, and interpretation are priority wildlife-dependent uses for the National Wildlife Refuge System through which the public can develop an appreciation for fish and wildlife (Executive Order 12996, March 25, 1996 and the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57)). USFWS's policy is to provide expanded opportunities for wildlife-dependent uses when compatible and consistent with sound fish and wildlife management and ensure that they receive enhanced attention during planning and management.

Specific refuge regulations address equity and quality of opportunities for visitors and help safeguard refuge habitats. Any impacts from this proposal, short-term and long-term, direct, indirect, and cumulative, are expected to be minor and are not expected to diminish the value of the refuge for its stated objectives. Available parking and size of the facilities will typically limit use at any given time, except during special events. Conflicts between visitors are localized and are addressed through law enforcement, visitor education, and continuous review and updating to visitor use regulations.

Stipulations above ensure proper control of the means of use and provide management flexibility should detrimental impacts develop. Allowing these uses also furthers the mission of the Refuge System by providing renewable resources for the benefit of the American public while conserving fish, wildlife, and plant resources on the refuge.

This activity will not materially interfere with or detract from the mission of the Refuge System or the purpose for which the Refuge was established.

Signature: Refuge Manager _____ Date _____

Concurrence: Regional Chief _____ Date _____

Mandatory 10 year Re-evaluation Date: _____

References

- Banks, P.B., J. V. Bryant. (2007) Four-legged friend or foe? Dog walking displaces native birds from natural areas. *Biol. Lett.* Doi:10.1098
- Boyle, S.A., F.B. Samson, (1985) Effects of nonconsumptive recreation on wildlife: a review. *Wildlife Society Bulletin*. **13**, 110-116.
- Blumstein, D.T. (2006) Developing an evolutionary ecology of fear: how life history and natural history traits affect disturbance tolerance in birds. *Animal Behaviour*. **71**, 389-399.
- Reed, S., A. Merenlender. (2008) Quiet, nonconsumptive recreation reduces protected area effectiveness. *Conservation Letters*. **XX**, 1-9.
- Taylor, A.R., R. L. Knight. (2003) Wildlife responses to recreation and associated visitor perceptions. *Ecol Appl* **13**, 951-963.