

Draft Compatibility Determination

Title

Draft Compatibility Determination for Installation of an electric underground utility line on Lantern Acres Game Land owned by the North Carolina Wildlife Resources Commission with restrictions on uses through a Conservation Easement Deed (FmHA) administered by Pocosin Lakes National Wildlife Refuge.

Refuge Use Category

Rights-of-way and Rights to Access

Refuge Use Type(s)

Rights of Way – Utility. The installation of the underground utility Line to power two electric pumps is being evaluated to ensure compatibility with the intent of the FmHA Conservation Easement (U.S. Fish and Wildlife Service 1997 and 1989). This project will support habitat management and hunting opportunities for wintering, migratory waterfowl.

Refuge

Pocosin Lakes NWR

Refuge Purpose(s) and Establishing and Acquisition Authority(ies)

Refuge Establishment and Acquisition Authority: 16 U.S.C. Sec. 664 (Migratory Bird Conservation Act of 1929), 16 U.S.C. Sec 3901 (b) 100 Stat. 3583 (Emergency Wetland Resources Act of 1986), and 16 U.S.C. Sec 742f(a)(4) (Fish and Wildlife Act of 1956)

Refuge Purpose: "—to protect and conserve migratory birds and other wildlife resources through the protection of wetlands, in accordance with the following laws:

...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds... 16 U.S.C. Sec. 664 (Migratory Bird Conservation Act of 1929);

...for the conservation of the wetlands of the Nation in order to maintain the public benefits they provide and to help fulfill international obligations contained in various migratory bird treaties and conventions... 16 U.S.C. Sec 3901 (b) 100 Stat. 3583 (Emergency Wetland Resources Act of 1986)

...for the development, advancement, management, conservation, and protection of fish and wildlife resources... 16 U.S.C. Sec 742f(a)(4) (Fish and Wildlife Act of 1956)

...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 restriction or affirmative covenant or condition of servitude... 16 U.S.C. Sec 742f(a)(4)

(Fish and Wildlife Act of 1956)"

National Wildlife Refuge System Mission

The mission of the National Wildlife Refuge System, otherwise known as 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 (Pub. L. 105-57; 111 Stat. 1252).

Description of Use

Is this an existing use?

No

What is the use?

The U.S. Fish and Wildlife Service (Service) is proposing to grant approval for the North Carolina Wildlife Resources Commission (NCWRC) to obtain an underground utility line right-of way (ROW) on Pocosin Lakes NWR Farmers Home Administration (FHA) Conservation Easement (CE) property which is owned by NCWRC. The North Carolina Wildlife Resources Commission (NCWRC) manages the Lantern Acres Game Lands for waterfowl habitat including waterfowl impoundments that are currently operated with a diesel pump. The NCWRC is proposing to replace the existing diesel powered generator with an all-electric pumping station in the same footprint as the existing diesel station at the Game Land impoundments. This action would involve extending electric service from the current terminus on South Phelps Road down to Northern (Dove Field) Road and then follow Northern Road to the impoundment well. A second well is proposed to provide more efficient water management for the two impoundments on the property.

Is the use a priority public use?

No

Where would the use be conducted?

This use will be conducted on the FHA Conservation Easement Deed (USFWS 1989, 1997) administered by the refuge and owned by the NCWRC Lantern Acres Game Land. This action would involve extending electric service from Point A (Figure 2) on South Phelps Road down to Point B on Northern (Dove Field) Road (Figure 2) and then follow Northern Road to Point C (Figure 2) at the impoundment well. Point D (Figure 2) shows the location for the second well subject to State approval.

When would the use be conducted? Due to the relatively small scope of this work and the short period of time of approximately one month required to install the electric cable, it is anticipated that work will begin soon after receipt of concurrence from the USFWS. However, periods of peak biological activity and public use will be avoided to the maximum extent possible.

How would the use be conducted?

There will be an aerial crossing of the canal adjacent to South Phelps Road. A new pole will be installed approximately 10 feet from the canal bank at Point A (Figure 2). From that point on the electric cable will be installed underground beneath a maintained trail and graveled road shoulder. One canal crossing at Northern Road will be required. The cable will be placed in a narrow trench 3-4 feet deep. A trenching machine with a narrow kerf (≤ 6 inches) will be used to create the trench. After cable placement the trench will be backfilled. All disturbed areas will be graded to adjacent contours and then seeded with native species and mulched.

A Special Use Permit will not be required because the use is on the NCWRC Lantern Acres Game Lands.

Why is this use being proposed or reevaluated?

At the present time the generator has over 16,000 hours on it and it consumes about 300 gallons of fuel per week during peak periods. The diesel generator will likely need to be replaced or rebuilt in the relatively near future. During periods of low precipitation it may take over 5 months to reach full pool by pumping with the generator. Maintaining and fueling the generator requires significant staff time since re-fueling is required 4 times per week. Converting the diesel powered pump station to an all-electric station would eliminate the risk of fuel spills and fossil fuel emissions.

In addition, this use will benefit wintering, migratory waterfowl and support hunting opportunities on the Lantern Acres Game Lands

Availability of Resources

Preparation of the compatibility determination, coordination with other offices, public involvement, and assembly of the package for concurrence with the requested use requires some refuge staff time. Document preparation for the request package to be submitted to the Division of Realty, coordination, review, and monitoring will likely require 20-30 hours of refuge staff time. Consultation with the Division of Ecological Services Raleigh Field Office and an Intra-Service Section 7 Endangered Species Act Biological Evaluation will be necessary, as endangered species occur in the project vicinity. Cultural and archaeological resource consultation is also required. Some resources, such as staff time and transportation expenses, will be required for monitoring the project during construction. Expenditures for equipment, facilities, improvements, maintenance, and other materials and supplies are not anticipated for this project.

Table 1. Estimated staff time to administer and monitor installation of an underground electric utility line on the Lantern Acres Game Land (NCWRC) Conservation Easement Area administered by Pocosin Lakes National Wildlife Refuge.

Table 1. Costs to Administer and Manage the Right of Way for underground utility line.

Category and Itemization	One-time Cost	Recurring Annual Expenses
Construction compliance checks	\$304 (4 hours @ \$76/hr)	--
Staff time (LE, administration and management)	\$1,280 (20 hours @ \$64/hr)	--
Monitoring costs, annually (to assess the effects of the use over time on natural resources and quality of the visitors' experience)	\$76 (1 hour @ \$76/hr)	--
Total one-time expenses	\$1,660	
Total recurring annual expenses	--	--
Offsetting revenues	--	--

Total expenses	\$1,660	--
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Anticipated Impacts of the Use

Potential impacts of a proposed use on the refuge's purpose(s) and the Refuge System mission

This project, located on the Lantern Acres Game Lands, will improve water management capabilities in the waterfowl impoundments and provides waterfowl hunting opportunities for the public. Therefore, this project supports the refuge's purposes and mission for habitat management and for hunting opportunities wintering migratory waterfowl. In addition, this project supports the following goals and objectives from the refuge's Comprehensive Conservation Plan (2007):

Wildlife Populations Goal (pg 84): Conserve, protect, and maintain healthy and viable populations of migratory birds, wildlife, fish, and plants, including Federal and State endangered and trust species.

Habitat Goal (pg 84): Restore, protect, and enhance pocosin wetlands and other natural habitats for optimum biodiversity. Intensively manage habitats specific to waterfowl on the Pungo Unit.

Moist-soil Units (Managed Wetlands Objective (pg 91): Manage 593 acres of moist-soil habitat and manage water on 550 acres of other wetlands (hardwood swamp forests, mixed pine flatwoods, etc.), to provide wintering habitat for migratory waterfowl, shorebirds, wading birds, and land birds and breeding habitat for marsh birds and land birds.

Public Use Goal(pg 84): Develop programs and facilities to increase public use opportunities, including hunting, fishing, wildlife observation, wildlife photography, and environmental education and interpretation.

Hunting Objective (pg 94): Provide 10,000 annual quality daylight hunting opportunities for selected species of game animals during the State hunting season on the entire refuge except the Pungo Unit.

As with many projects, there will be some impacts as a result of constructing the project. Most of the impacts resulting from this project will be short-term and localized to the actual area of disturbance. Different techniques including directional boring, plowing, or trenching may be used depending upon conditions. All work areas will be restored to original elevation and contours upon project completion.

Short-term impacts

Impacts from the installation of the underground powerline will be minimal. Short-term impacts include disturbance associated with operating equipment during the installation of the single power line pole and trenching for the underground cable. The disturbance includes noise from the equipment from the installation. In addition, a small area of ground disturbance will occur where the single pole is installed. Once the power line pole is in place the area will be graded as needed, seeded, and mulched. The electric cable along Northern Road will be located in the road shoulder. This will cause disturbance to the graveled road shoulder with the primary disturbance to wildlife occurring only during construction. Once the area is graded, compacted, seeded and mulched wildlife use will resume (Tablado 2017). It is expected that the use will be conducted as a one-time event in the spring or summer season to minimize disturbance to wintering migratory waterfowl. There is little to no future maintenance required.

The white-tailed deer, black bear, and wild turkey are the primary species that will realize the greatest disturbance. The red wolf is known to use the project area mostly as a travel corridor. It is conceivable that some migratory birds could be affected by the disturbance but the project will not involve construction in any nesting or denning area. Noise and air pollution from construction activities, particularly from equipment emissions, may cause disturbance to wildlife and visitors. With wildlife, this will result in temporary displacements (Radle 1998). Within a relatively short period, any wildlife displaced during construction is expected to resume full use of the area. Currently, vehicle traffic from visitors engaged in various activities throughout the work site creates similar disturbances and increases are not anticipated to be significant. If construction activities take place during wildlife nesting seasons, surveys will be conducted by appropriate staff and if nests are found, construction activities will be modified as directed by the Refuge Manager.

Long-term impacts

Long-term impacts from this project are mostly associated with maintenance requirements of the electric cable. Repairing breaks or other problems could result in future excavation in relatively small areas. Another long-term impact is that the easement granted by NCWRC to Dominion Energy will obligate that right-of-way for as long as the electric line is in place. NCWRC will coordinate future maintenance activities with the Refuge Manager or designated staff.

The project area is located wholly within the Game Land owned and managed by NCWRC under a CE held by the Refuge. The easement granted by NCWRC to Dominion Energy obligates the land to a use for an electric line. There are no other easements impacting the CE Area. Future projects not intended to facilitate or

improve wildlife management, including habitat are not anticipated at this time.

There are clearly identifiable benefits resulting from converting from the diesel powered generator at the pump station to an all-electric pump station. Perhaps the greatest benefit is derived from eliminating fuel spill hazards associated with frequent refueling. Broken fuel lines can also dump diesel fuel on the ground or into the water. An added benefit to removing the diesel powered generator is the elimination of fossil fuel emissions. Another benefit is derived from eliminating the noise associated with a diesel engine running 24 hours/day for up to five months. The second well will result in more efficient water management and use of staff time. This will lead to improved water management in the impoundments resulting in improvement in the quantity and quality of food production for migratory birds.

Public Review and Comment

This draft document will be made available electronically to newspapers with local and statewide distribution and at the Tyrrell County Library. It will be posted on the Refuge webpage (<https://www.fws.gov/refuge/pocosin-lakes>) as well as at the information desk at the Pocosin Lakes NWR headquarters and visitor center for a period of 14 days beginning on December 14, 2023 and ending close of business on December 29, 2023.

State and Tribes will be asked to review and comment on the draft compatibility determination. A printed copy of this document will be posted at the Refuge Headquarters **or Visitor Center (205 South Luddington Drive, Columbia, NC 27925)**. Comments on the Draft Compatibility Determination or other aspects of the project being proposed by NCWRC will be addressed in the final version. A final copy will be maintained in Refuge files.

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

These stipulations were prepared to ensure that the refuge purposes and the National Wildlife Refuge System mission can be achieved with the proposed project.

Stipulations include:

1. Within the project area, NCWRC shall be responsible for ensuring that the

contractor fully comply with required sedimentation and erosion control measures.

2. All areas disturbed during construction shall be graded to original contour and elevation, seeded with plant species native to the area and approved by NCWRC. After seeding disturbed areas will be mulched.
3. To the maximum possible, construction will be planned to avoid working during periods of peak biological activity.
4. Prior to beginning construction, NCWRC shall provide proof that all other required Federal and state permits were acquired. Notice will also be provided prior to beginning construction.

Justification

The proposed addition of the underground electric line and associated right-of-way will result in minimal and mostly short-term impacts on biological resources using the area. NCWRC and Dominion Energy will employ many strategies, including best management practices for construction and maintenance activities to avoid and minimize impacts to the project area during construction and maintenance. These actions will minimize the level of impact on fish and wildlife resources inhabiting or using the Game Land. Assuming full compliance with the stipulations in this CD, there should be no net loss in habitat quantity or quality associated with this project. The project will neither materially interfere with nor detract from the mission of the National Wildlife Refuge System or the purpose for which the Refuge was established.

Signature of Determination

Refuge Manager Signature and Date

Signature of Concurrence

Assistant Regional Director Signature and Date

Mandatory Reevaluation Date

Delete this text and insert year for reevaluation

Literature Cited/References

Radle, Lyn Autumn, 1998, "The Effect of Noise on Wildlife: A Literature Review" World Forum for Acoustic Ecology Online Reader

<http://interact.uoregon.edu/MediaLit/wfae/readings/radle.html>

U.S. Fish and Wildlife Service. 2007. Pocosin Lakes National Wildlife Refuge Comprehensive Conservation Plan. United States Department of Interior, Southeast Region, Atlanta, GA. 275 pp

U.S. Fish and Wildlife Service. 1997. Agreement No. 1448-40181-97-G-052. Charge Code: 42420-1121-04HR-4120 (FY97). Grant Agreement between Department of Interior Fish and Wildlife Service and North Carolina Wildlife Resources Commission.

U.S. Fish and Wildlife Service. 1989. Conservation Easement Deed, Book 7, page 325, Tyrrell County, NC Tax Office.

Tablado, Zulima, L. Jenni. 2017. Determinants of uncertainty in wildlife responses to human disturbance. *Biological Reviews*. 92 pp. DOI: 10.1111/brv.12224.

<https://onlinelibrary.wiley.com/doi/pdf/10.1111/brv.12224>

Figure(s)

Figure 1. Lantern Acres Game Land is located in Tyrrell County in northeastern North Carolina. Pocosin Lakes National Wildlife Refuge borders the tract on the eastern boundary.

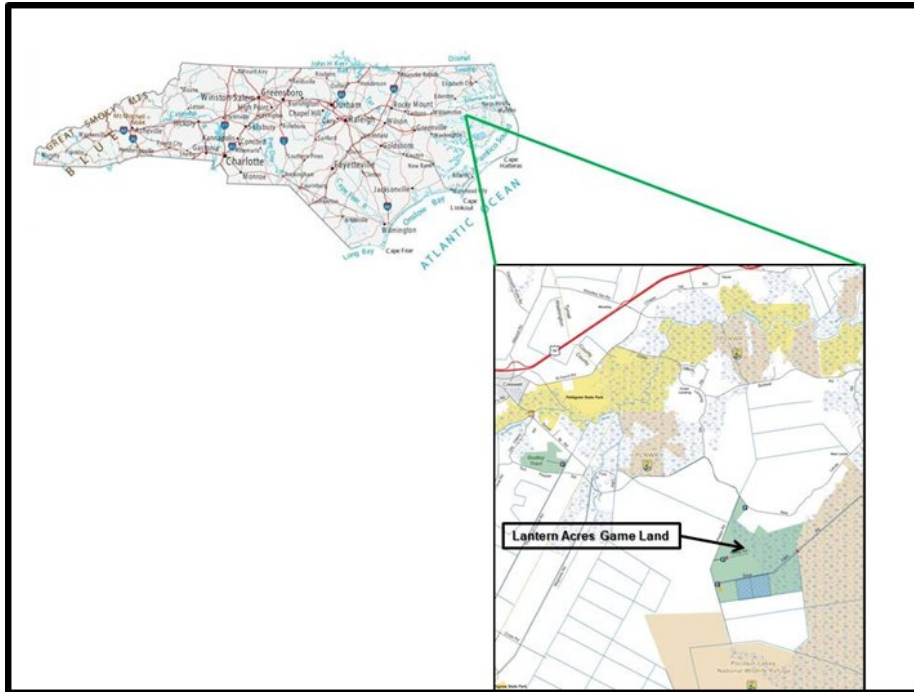


Figure 2. Approximate locations for the proposed underground electric utility line project on Lantern Acres Game Land in Tyrrell County, North Carolina. Red lines show approximate locations and distances for the underground utility line. Point D (in yellow) shows the approximate location for a future well and pump station.

