

July 28, 2015

## **HABITAT MANAGEMENT DIVISION EVALUATION**

**VIRGINIA ELECTRIC & POWER COMPANY, #15-0533**, requests authorization to cross the Rappahannock River with a new, 115kV transmission line immediately downstream of the Route 3 Norris Bridge between Middlesex and Lancaster Counties. The existing line will be removed from the bridge and the new line will be suspended on ten (10) new towers, with a fender system to be installed around the two towers flanking the navigation channel. The project is protested by a citizen in Urbanna.

### **Narrative**

The project site is located near the mouth of Rappahannock River and approximately 100 feet downstream of the Norris Bridge. The existing line (Line 65) spans the river on seven (7) towers extending from each shoreline, but is attached to the bridge structure in the middle of the river. The line is nearing the end of its service life and needs to be rebuilt. The new line will be completely independent of the bridge, eliminating the potential for power interruptions to the Northern Neck in the event of maintenance activities on the bridge, as well as eliminating the need for lane closures on the bridge during any maintenance of the line by Virginia Electric and Power Company (VEPCO). The new towers will be steel H-frame structures, with a fender system at the channel for protection and navigation safety. The line will be suspended a minimum of 136 feet above mean high water, at the navigational channel, per U.S. Coast Guard requirements, and at no point will the line be lower than the lowest part of bridge structure. Since this new line would have crossed Public Oyster Ground (Public Ground number 1 in Middlesex and Lancaster Counties) legislation was passed during the 2015 legislative session (Acts of Assembly Ch 377) to remove an 8.27 acre portion of the public oyster beds. Since this area has been removed the Commission can issue a permit for the transmission line in proposed location.

### **Issues**

The project is protested by Emily Davies, a resident of Urbanna, in Middlesex County. Ms. Davies letter of opposition states that the project “poses a significant, negative, aesthetic and possibly ecological impact on the project area and environs.” Staff and the applicant have provided Ms. Davies with additional information in an attempt to address her concerns, but she maintains her objection to the project.

In addition to the protest by Ms. Davies, on July 23, 2015, staff received a resolution regarding the project that was adopted by the Lancaster County Board of Supervisor at their June 25, 2015, meeting. The resolution indicates the Board of Supervisors strongly supports the upgrading of the transmission line to improve reliability, efficiency and safety. However, the Board also strongly supports the installation of an underwater line rather than a new overhead line.

## Issues (cont'd)

Staff received a letter of support signed by Senator Ryan T. McDougle and Delegates Margaret Ransone and Keith Hodges, citing the need for the project.

The new transmission line will cross over two private oyster planting ground leases, and VEPCO and the leaseholders have an agreement wherein they do not object to the proposal. There will not be any support towers in the private leases, just the line suspended above them between the upland tower and the first tower on the Middlesex County side.

The Virginia Institute of Marine Science (VIMS) recommends a Time-of-Year (TOY) restriction from February 15<sup>th</sup> to June 30<sup>th</sup> of any year to minimize the acoustic impacts on anadromous fish and Atlantic Sturgeon associated with the driving of hollow concrete or fiber piles for the support towers.

The Department of Game and Inland Fisheries also recommends a TOY restriction between February 15<sup>th</sup> and June 30<sup>th</sup> for anadromous fish, and further recommends coordination with the National Oceanic and Atmospheric Administration (NOAA) regarding the potential for impacts to Atlantic Sturgeon. They further document the existence of a nest box for the state threatened Peregrine falcon on the bridge and recommend that no work within 600 feet of the nest box be conducted from the February 15<sup>th</sup> to July 15<sup>th</sup> nesting season to protect this species from harm. DGIF currently checks the nest boxes and may band chicks and relocate them to more appropriate habitat in western Virginia, and further recommends continued coordination by the applicant with DGIF during the 2016 nesting season.

The Department of Conservation and Recreation also notes that the project is within the Norris Bridge Conservation Site, due to the history of nesting by the Peregrine falcon on the bridge. They recommend the same TOY restriction (Feb 15 to July 15) for construction activities associated with the project, as well as coordination with DGIF, as Virginia's regulatory authority for the management and protection of this species to ensure compliance with the Virginia Endangered Species Act.

The U. S. Army Corps of Engineers (Corps) indicates the project will qualify for a Nationwide Permit #12 provided the project adheres to the anadromous fish TOY restriction of February 15<sup>th</sup> to June 30<sup>th</sup>.

The new line across the river is to be suspended from ten new towers which are supported by a total of 24 hollow concrete piles, 66-inches in diameter, and the fender system at the navigation channel is to be pile supported by a total of 46 hollow fiber piles, 42-inches in diameter. These are the direct impacts to the river bed associated with the project. All piles are to be driven with an impact hammer. This method, when using hollow piles, has been found to have adverse acoustic-related impacts to fisheries resources in the past. Accordingly, numerous agencies are recommending a time-of-year restriction from February 15<sup>th</sup> through June 30<sup>th</sup> to minimize adverse impacts to anadromous fishes (shad, herring, etc.) and the protected Atlantic sturgeon.

## **Issues (cont'd)**

VEPCO has requested to be permitted to work year-round due to time constraints associated with construction so that electrical reliability can be maintained. To address agency concerns related to fishery impacts, the applicant has offered measures to be employed to mitigate these impacts. The tower design has been modified to reduce the total number of piles from 31 to 24. VEPCO has also offered to use "bubble curtain" technology during the TOY restriction, wherein a sleeve is put around the outside of each pile and air is pumped into the space between the sleeve and the outside of the pile which acts to abate the noise resulting from the impact of the hammer on the hollow pile. Additionally they propose to use "ramp-up" methods which gradually increase hammer intensity, allowing any fish in the area to move away from the work area before more intense noise occurs. However, the applicant indicates it is not feasible to limit pile installation in the deep water areas in the river, given the extent of deep water habitat involved.

## **Summary/Recommendations**

The need for this project has been established and the General Assembly action to facilitate the review and issuance of a permit at this location supports that need. (Acts of Assembly Ch 377). Staff understands the desire to separate the power line from the Norris Bridge and has evaluated the alternatives analysis provided regarding other installation methodology (horizontal directional drilling under the river bed, jet-plowing into the surface of the river bed). Consequently, we believe that the purpose, need and proposed construction methodology for this project are reasonable.

There is currently a transmission line across the river in this location and staff does not believe that the new line and additional support towers would represent a significant aesthetic or ecological impact, once installed. Concrete piles have been shown to provide habitat for encrusting organisms such as filter-feeders like oysters and mussels, and the fisheries resources that feed upon them.

Staff understands the need by VEPCO to maintain electrical reliability to the Northern Neck and its citizens, but remains concerned over the potential adverse impacts to sensitive fisheries resources resulting from the driving of hollow concrete or fiber piles. Staff appreciates the efforts by the applicant to mitigate these impacts with measures that have been used in the past with some degree of success, but we continue to recommend the standard anadromous species time-of-year restriction between February 15<sup>th</sup> and June 30<sup>th</sup> of any year.

Regarding the Peregrine falcon, staff recommends a time-of-year restriction from February 15<sup>th</sup> through July 15<sup>th</sup> of any year for any construction activity within 600 feet of any active nest. If the nest is found to be inactive or the chicks have fledged or have been relocated, as confirmed by the Virginia Department of Game and Inland Fisheries, staff would be willing to waive the TOY restriction administratively in this area of the project.

### **Summary/Recommendations (cont'd)**

Accordingly, after evaluating the merits of the project and considering all of the factors contained in §28.2-1205 of the Code of Virginia, staff recommends approval of the project with above time-of-year restrictions for anadromous fish and the Peregrine falcon. However, staff would request authorization to administratively waive the Peregrin Falcon restriction if the nest is found by DGIF to be inactive, or if the chicks have fledged, or if they have been relocated by DGIF. In addition, staff recommends a royalty in the amount of \$30,960.00 for the encroachment off the transmission line crossing over 10,320 linear feet of State-owned submerged land at the prescribed rate of \$3.00 per linear foot, and a royalty in the amount of \$33,160 for the open-pile, commercial encroachment of the tower bents and fender system over 16,580 square feet of State-owned submerged land at the prescribed rate of \$2.00 per square foot for a total royalty of \$64,120.00.