



CHURCH TO STEELE
138 kV REBUILD PROJECT

RAPTOR NEST SURVEY REPORT



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TABLE OF CONTENTS

	Page No.
I. INTRODUCTION	2
II. METHODS	2
III. SURVEY RESULTS	5
IV. REFERENCES	7
V. APPENDIX.....	8

LIST OF TABLES

Table 1	Segment Names and Extents.....	4
Table 2	Summary of Raptor Nest Survey Results	5

LIST OF FIGURES

Figure 1	Project Location Map.....	3
Figure 2	Raptor Nest Location Map.....	6

I. INTRODUCTION

Delmarva Power & Light Company (DPL), a transmission owning affiliate of Pepco Holdings, Inc. (PHI) contracted McCormick Taylor, Inc. (MT) to perform a raptor survey along the existing 138 kV transmission line corridor from Church substation (Millington, Queen Anne's County, MD) to Steele substation (Denton, Caroline County, MD) (*Figure I*). The Church to Steele 230kV Rebuild project is approximately 26 miles long between DPL's Church Substation in Millington, MD and Steele Substation in Denton, MD. The project consists of replacing an existing 138 (kilovolt) kV transmission line on wood h-frame structures with new conductor and new steel structures. The old transmission line will be removed.

Birds have been identified as a wildlife group potentially at risk because of displacement through development and upgrades to transmission lines and towers. MT performed a survey for the presence of raptors and evidence of nests along the existing 138 kV transmission line between the Church and Steele substations. As part of the project coordination, MT solicited input from federal and state agencies regarding the potential presence of threatened and endangered species within the boundaries of the project area. Formal correspondence was received after field work was completed. A response from Maryland Department of Natural Resources was received on February 5th, 2014. Because of the known occurrence of raptors within and adjacent to the powerline corridor, PHI chose to conduct a raptor nest survey.

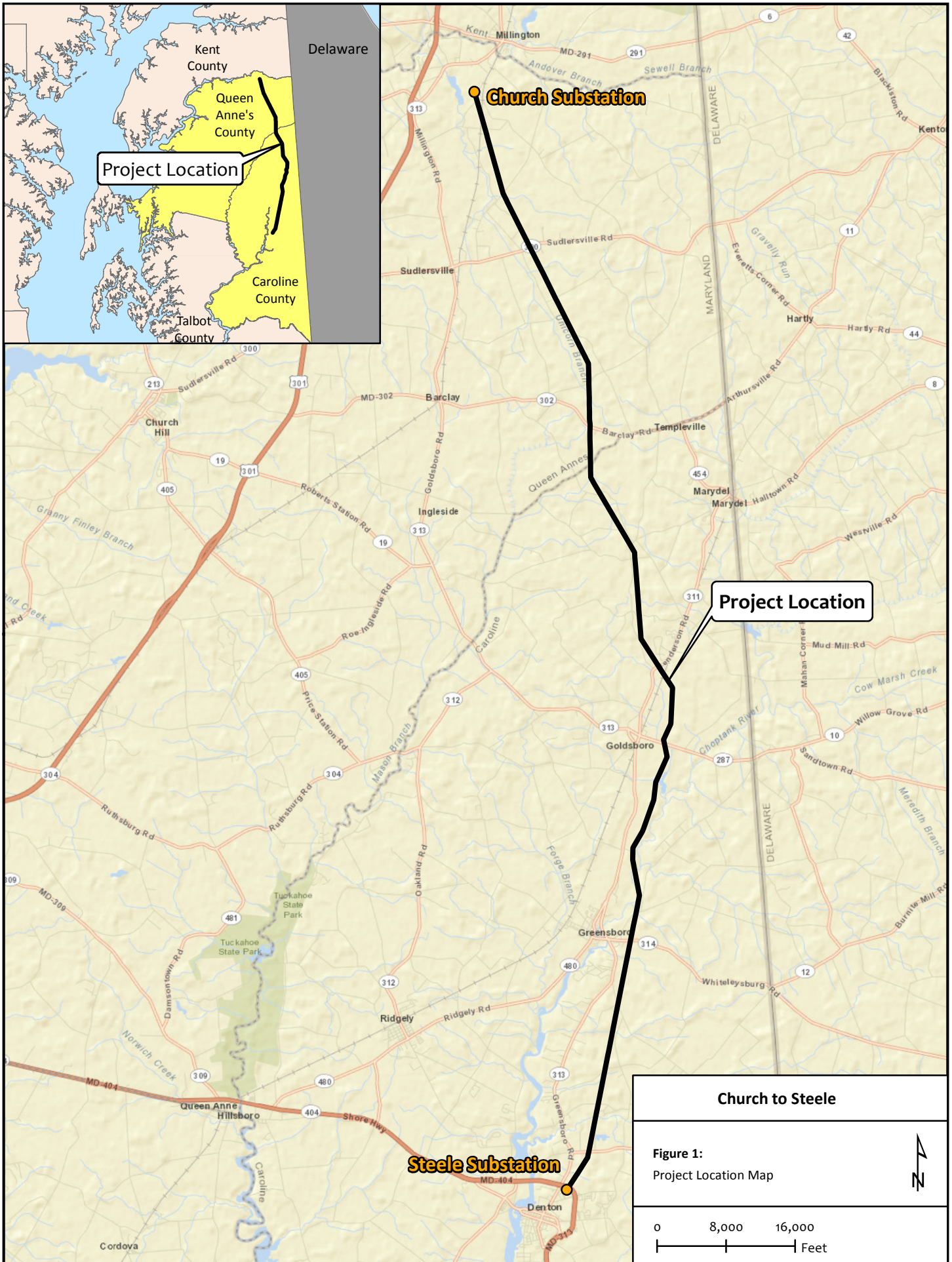
The Migratory Bird Treat Act of 1918 (MBTA) is administered by the U.S. Fish and Wildlife Service (USFWS), and prohibits take of or trade in most bird species native to the United States, including their eggs and nests. Raptors often use transmission structures as foraging or resting perches, as well as substrates for nesting. Nests may be maintained and used for multiple years or even decades, creating potential conflicts with maintenance activities on those structures (Arizona Power Line Interaction Committee 2006).

Additional laws protecting some raptors in the project area include the Bald and Golden Eagle Protection Act of 1940 (BGEPA), and the Endangered Species Act of 1973 (ESA), as amended. Amendments to the BGEPA set limits and guidelines relating to take of nests and disturbance of eagles using human-made structures (USFWS 2009). The ESA prohibits harassment and destruction of habitat as well as take.

II. METHODS

Nest Surveys were conducted traveling the transmission line corridor by vehicle and/or foot and visually surveying for raptor nests on or near the transmission structures or nearby trees.

Because the length of the project area covers many miles of transmission line corridor, the study area was divided into segments between one and two miles in length. Segment names were based on road crossings and identified at the beginning of each segment.



Church to Steele

Figure 1:
Project Location Map

0 8,000 16,000
Feet

Field crews began at Church Substation and continued south to Steele Substation. *Table 1* lists corridor segment names and identifies the respectful segment boundaries.

Table 1. *Segment Names and Extents*

Segment Name	Segment Extents
Church	Church Substation to Sudlersville Cemetary Rd.
Sudlersville	Sudlersville Cemetary Rd. to Sawmill Rd.
Sawmill	Sawmill Rd. to Duhamel Corner Rd.
Duhamel	Duhamel Corner Rd. to Basic Church Rd.
Basic	Basic Church Rd. to Barclay Rd.
Barclay	Barclay Rd. to Woodyard Rd.
Woodyard	Woodyard Rd. to Zion Rd.
Zion	Zion Rd. to Shults Rd.
Shults	Shults Rd. to Trunk Line Rd.
Trunk	Trunk Line Rd. to Bee Tree Rd.
Bee	Bee Tree Rd. to Henderson Rd.
Henderson	Henderson Rd. to Sandtown Rd.
Sandtown	Sandtown Rd. to Oldtown Branch
Broadway	Oldtown Branch to Red Bridges Rd.
Red Bridges	Red Bridges Rd. to Stallings Rd.
Stallings	Stallings Rd. to Whitleysburg Rd.
Whitleysburg	Whitleysburg Rd. to Knife Box Rd.
Knifebox	Knife Box Rd. to Kibler Rd.
Kibler	Kibler Rd. to Gary Rd.
Gary	Gary Rd. to Burrsville Rd.
Burrsville	Burrsville Rd. to Steele Substation

Identifier names were given to each nest found. The naming convention began with the segment name followed by “RN” (raptor nest) followed by a consecutive number (ex. Church-RN1). Locations of nests observed were recorded using a GPS (Trimble Geo XT) unit. Surveys were conducted November 11, 2013 through February 7, 2014.

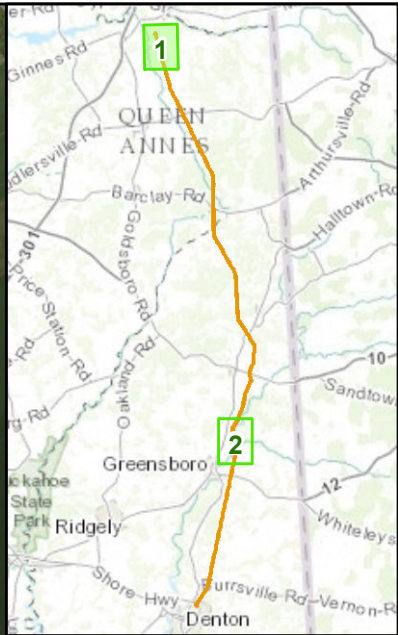
Characteristics recorded at each identified nest included: species (if possible), nearest waterbody, occupied or absent, nest substrate, evidence of occupation and nest condition. Other information collected included: vegetation/structure type, powerpole ID# and gps coordinates.

III. SURVEY RESULTS

Three raptor nests were observed at three independent locations. One of three nests was identifiable based on size and form; however no determination could be made about the remaining two nest. The nest that could be identified was determined to be from an osprey (*Pandion haliaetus*) based on size and appearance, however it was not occupied at the time of investigation. A summary of survey results is included in **Table 2** and each nest location is graphically presented in **Figure 2**.

Table 2 - Summary of Raptor Nest Survey Results.

Nest ID	Tower Number	Date	Species	Occupied	Latitude	Longitude
<i>Church-RN-1</i>	313	11/13/13	Unknown	No	39.237105	-75.846805
<i>Broadway-RN-1</i>	437	11/18/13	Osprey	No	39.001108	-75.788375
<i>Red Bridges-RN-1</i>	444	11/19/13	Unknown	No	38.986559	-75.785443



Church-RN-1

Glancing Rd

Potts Corner Rd

Hackett Corner Rd

Higham Mill Rd

Raptor Nest Survey Report
Church to Steele

Figure 2: Raptor Nest Location Map
Page 1 of 2

Legend



Raptor Nest



DPL Right-of-Way

1 inch = 1,000 feet

0 500 1,000
Feet





Raptor Nest Survey Report
 Church to Steele
Figure 2: Raptor Nest Location Map
 Page 2 of 2

1 inch = 1,000 feet
 0 500 1,000
 Feet



Legend

-  Raptor Nest
-  DPL Right-of-Way

IV. References

Avian Power Line Interaction Committee (APLIC). 2006 Suggested Practices for Avian Protection on Power Lines: the State of the Art in 2006. Edison Electric Institute, APLIC, and the California Energy Commission. Washington D. C. and Sacramento, CA. 207 pp.

U.S. Fish and Wildlife Service. 2009 Eagle Permits; take necessary to protect interests in particular localities. FR 74 (175): 46836-46879.

Appendix A – Raptor Nest Datasheets with Photos

Raptor Nest Inventory Data Sheet

Raptor Nest ID: Church-RN-1 **Date/Time First Observed:** 11/13/13 11:30
Observed By: SA, JB **Powerline ROW Segment:** Church
Species: Unknown
Location: On Tower 313
Nearest Waterbody: Unicorn Mill Pond
Nest Occupied/Active: unoccupied
Evidence of Occupation: No evidence observed below tower.
Nest Substrate: branches **Height of Substrate (ft.):** 1'
Nest Condition: Unknown
Vegetation/Structure Type: Utility Pole
Powerpole ID: 313
GPS Coordinates (Dec. Degrees): Latitude: 39.237105 N Longitude: -75.846805
Remarks/Comments: _____



Photo 1: Church-RN1 is a nest of an unknown species.

Raptor Nest Inventory Data Sheet

Raptor Nest ID: Broadway-RN-1 **Date/Time First Observed:** 11/18/13 13:30
Observed By: SA, JB **Powerline ROW Segment:** Broadway
Species: Unknown but probably osprey based on size of nest
Location: Broadway segment next to WET5
Nearest Waterbody: Choptank River within 2,000 feet
Nest Occupied/Active: unoccupied
Evidence of Occupation: No evidence observed below tower.
Nest Substrate: branches **Height of Substrate (ft.):** 1'
Nest Condition: Unknown
Vegetation/Structure Type: Utility Pole
Powerpole ID: 437
GPS Coordinates (Dec. Degrees): Latitude: 39.001108 N Longitude: -75.788375
Remarks/Comments: _____



Photo 1: Broadway-RN1 is a possible osprey

Raptor Nest Inventory Data Sheet

Raptor Nest ID: Red Bridges-RN-1 **Date/Time First Observed:** 11/19/13 13:45
Observed By: SA, JB **Powerline ROW Segment:** Broadway
Species: Unknown
Location: Tower 444 along Red Bridges segment
Nearest Waterbody: Choptank River
Nest Occupied/Active: unoccupied
Evidence of Occupation: No evidence observed below tower.
Nest Substrate: branches **Height of Substrate (ft.):** 1'
Nest Condition: Unknown. Nest is unfinished or has been mostly dismantled.
Vegetation/Structure Type: Utility Pole
Powerpole ID: 444
GPS Coordinates (Dec. Degrees): Latitude: 38.986559 N Longitude: -75.785443
Remarks/Comments: _____



Photo 1: Red Bridges-RN1 is a nest of an unknown species.