



# Location Restrictions Documentation

*Possum Point Power Station  
Ash Pond D*

Submitted to:

**Virginia Electric and Power Company d/b/a Dominion Energy Virginia**

5000 Dominion Boulevard  
Glen Allen, VA 23060

Submitted by:

**Golder Associates Inc.**

2108 West Laburnum Ave, Suite 200  
Richmond, Virginia 23227

Project No. 166-2150

October 17, 2018



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## APPENDICES

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### 1.0 CERTIFICATION

I certify that the information contained within this Location Restriction Demonstration Report was prepared by me or under my direct supervision, and meets the requirements of Sections §257.60 through §257.64 of the Federal Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals (CCR) from Electric Utilities; Final Rule (40 CFR 257; the *CCR rule*). The document and Certification/Statement of Professional Opinion are based on and limited to information that Golder has relied on from Dominion Energy (Dominion) and others, but not independently verified, as well as work products produced by Golder.

As used herein, the word “certification” and/or “certify” shall mean an expression of the Engineer’s professional opinion to the best of his or her information, knowledge, and belief, and does not constitute a warranty or guarantee by the Engineer.

Daniel McGrath, P.E.

Associate and Senior Consultant

Print Name

Title

*Daniel McGrath*

*10/17/18*

Signature

Date



## 2.0 INTRODUCTION

This Location Restriction Demonstration was prepared for the Possum Point Power Station Ash Pond D located in Prince William County, Virginia, in accordance with 40 CFR §257.60 through §257.64 (collectively – the *Location Restrictions*). Pond D is an *Existing CCR Surface Impoundment* as defined in 40 CFR §257.53. This report documents each condition in the CCR Rule and how Pond D complies or does not comply with the requirement.

### 2.1 Pond D Background

Pond D was established in 1988 as an approximately 63-acre CCR impoundment for the disposal of CCR from the Possum Point Power Station. A Site Location Map is included as Figure 1. The property is located near Quantico Creek and is in the Coastal Plain physiographic province of Virginia.

Pond D was established by construction of an earthen embankment across a natural drainageway. The embankment is approximately 112 feet high, 1700 feet long, and has sideslopes of 2.5:1 and 2.7:1 on the interior and exterior, respectively. The interior slopes of the pond contain a one-foot thick clay groundwater protection barrier. The principal spillway consists of a concrete intake tower with a weir inlet elevation of EL 142 feet. The emergency spillway is on the north side of the pond and consists of an earthen weir at elevation EL 144 feet. Combined, the principal and emergency spillways are capable of passing the Probable Maximum Flood (PMF) as calculated for this Pond.

Placement of CCR into Pond D ceased in 2003 when the adjacent Possum Point Power Station switched fuel sources from coal to oil and natural gas. At that time, Pond D was approximately 25% full of sluiced CCR material. In 2016, the Station began consolidating CCR material from Ponds ABC and E into Pond D in preparation for closure of these units.

### 2.2 Permitting and Construction History

The Pond D embankment was constructed in 1988 as a reconstruction and enlargement of a previous ash pond. No other major construction events or modifications have occurred since that time. Pond D has been licensed under the Virginia Impounding Structure Regulations (4 VAC 50-20; Inventory Number 153020) since its design in 1986 and subsequent construction.

### 2.3 Location Restrictions

The location restrictions in the CCR Rule, Sections §257.60 through §257.64, require a demonstration to show compliance with each restriction. The following sections in this report address each restriction individually, and supporting documentation is included as attachments as required.

- §257.60 – Placement above the uppermost aquifer
- §257.61 – Wetlands
- §257.62 – Fault Areas
- §257.63 – Seismic Impact Zones
- §257.64 – Unstable Areas

### **3.0 PLACEMENT ABOVE THE UPPERMOST AQUIFER**

#### **3.1 Requirement**

*§257.60 (a): New CCR landfills, existing and new CCR surface impoundments, and all lateral expansions of CCR units must be constructed with a base that is located no less than 1.52 meters (five feet) above the upper limit of the uppermost aquifer, or must demonstrate that there will not be an intermittent, recurring, or sustained hydraulic connection between any portion of the base of the CCR unit and the uppermost aquifer due to normal fluctuations in groundwater elevations (including the seasonal high water table).*

#### **3.2 Demonstration**

Pond D is constructed with a slurry wall and bottom clay liner as a means of separating the unit from the upper most aquifer. However, based on groundwater elevations obtained during the performance of background groundwater monitoring events, it appears portions of the base of Pond D are less than 1.52 meters (five feet) above the upper limit of the uppermost aquifer and therefore, Pond D does not meet the requirement in §257.60.

## 4.0 WETLANDS

### 4.1 Requirement

*§257.61 (a): New CCR landfills, existing and new CCR surface impoundments, and all lateral expansions of CCR units must not be located in wetlands, as defined in § 232.2 of this chapter, unless the owner or operator demonstrates by the dates specified in paragraph (c) of this section that the CCR unit meets the requirements of paragraphs (a)(1) through (5) of this section.*

### 4.2 Demonstration

The existing ash ponds and surrounding areas at the Possum Point Station were evaluated for the presence of wetlands in 2015 by GAI Consultants, Inc. Certification of the identified wetland areas on the property was provided by the U.S. Army Corps of Engineers (USCOE) on August 5, 2015. The USCOE has also further designated that any areas within the boundary of an existing CCR impoundment will not be considered jurisdictional wetlands, as the impoundments are considered “treatment units” and not subject to USCOE jurisdiction.

Pond D is not located in a wetland area, per the 2015 GAI study. Appendix B includes the wetland approval letter with attachments showing the pond boundaries with respect to the mapped wetland areas.

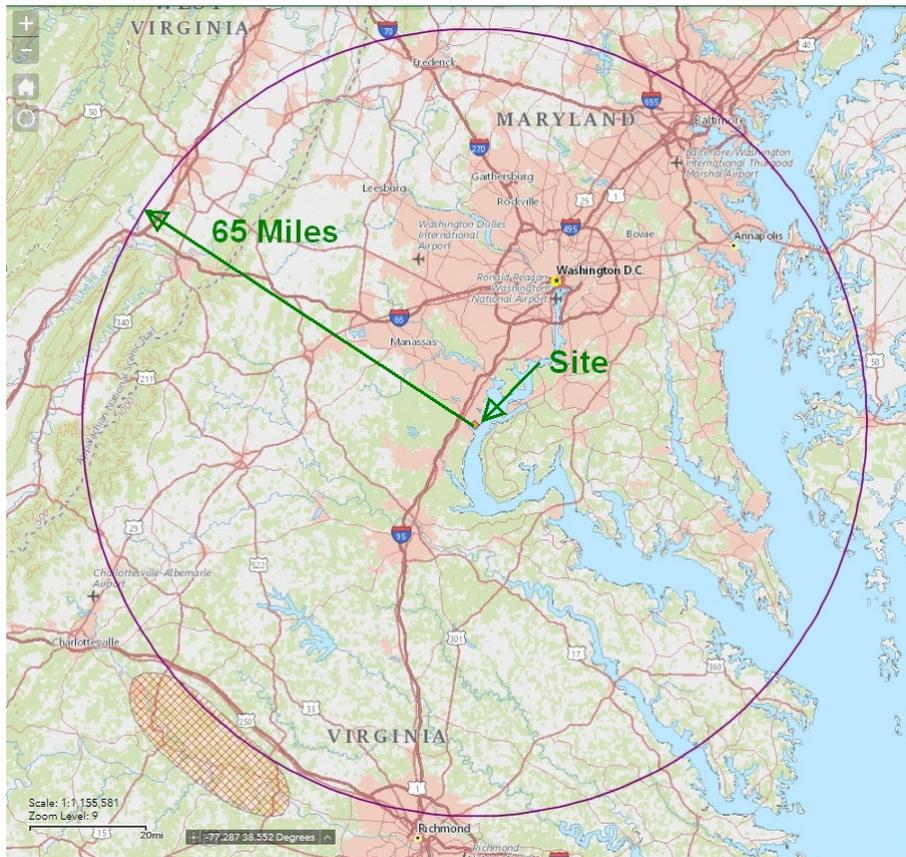
## 5.0 FAULT AREAS

### 5.1 Requirement

§257.62 (a): *New CCR landfills, existing and new CCR surface impoundments, and all lateral expansions of CCR units must not be located within 60 meters (200 feet) of the outermost damage zone of a fault that has had displacement in Holocene time unless the owner or operator demonstrates by the dates specified in paragraph (c) of this section that an alternative setback distance of less than 60 meters (200 feet) will prevent damage to the structural integrity of the CCR unit is defined as stormwater that may flow towards the active portion of the landfill from non-disposal areas.*

### 5.2 Demonstration

The closest area known to have evidence of displacement in the Holocene Epoch, i.e. 12,000 years ago to present, is the Central Virginia seismic zone and is approximately 65 miles from the site (see red hatched area in figure below). Pond D is not located within 60 meters (200 feet) of the outermost damage zone of the fault system.



**Figure 1 - Areas of Quaternary Deformation and Liquefaction, Virginia**  
(<https://viewer.nationalmap.gov/advanced-viewer/>)

## 6.0 SEISMIC IMPACT ZONES

### 6.1 Requirement

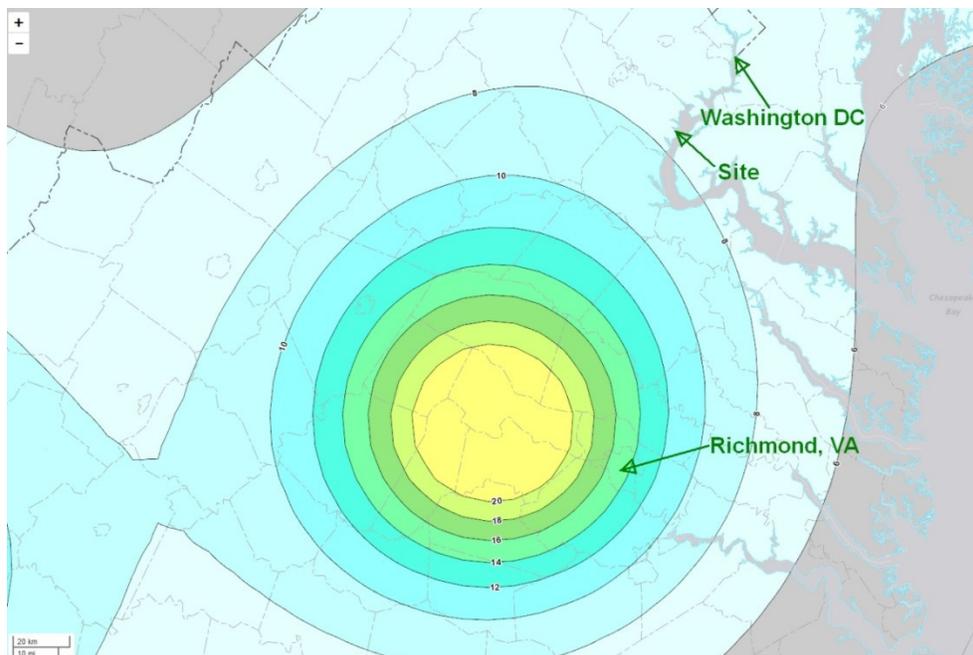
§257.63 (a): *New CCR landfills, existing and new CCR surface impoundments, and all lateral expansions of CCR units must not be located in seismic impact zones unless the owner or operator demonstrates by the dates specified in paragraph (c) of this section that all structural components including liners, leachate collection and removal systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material for the site.*

### 6.2 Demonstration

A seismic impact zone, as defined in the CCR Rule, means *an area having a 2% or greater probability that the maximum expected horizontal acceleration, expressed as a percentage of the earth's gravitational pull (g) will exceed 0.10 g in 50 years.*

Golder evaluated the site location and determined Pond D is not located in a seismic impact zone. The maximum anticipated horizontal acceleration for the site, based on coordinates of 38.552° north and 77.287° west, is **0.0781 g**. Figure 2 shows the mapped peak ground acceleration (pga) for the Possum Point site.

**Figure 2 – Peak Ground Acceleration (% g, 2014 mapping)**  
(<https://earthquake.usgs.gov/hazards/interactive/>)



## 7.0 UNSTABLE AREAS EVALUATION

### 7.1 Requirement

§257.64 (a): *An existing or new CCR landfill, existing or new CCR surface impoundment, or any lateral expansion of a CCR unit must not be located in an unstable area unless the owner or operator demonstrates by the dates specified in paragraph (d) of this section that recognized and generally accepted good engineering practices have been incorporated into the design of the CCR unit to ensure that the integrity of the structural components of the CCR unit will not be disrupted.*

### 7.2 Demonstration

Assessment of unstable areas includes an evaluation of the soil conditions at the site, which may result in significant differential settling, a review of site geologic or geomorphologic features, and consideration of human-made features on site that may cause unstable conditions. A summary of the unstable area evaluation is presented in this section.

#### 7.2.1 Soil Conditions

Based on the soil boring records and geotechnical testing of soils encountered, the subsurface conditions at Pond D are expected to adequately support the earthen embankment and retained materials without significant differential settlement. The site investigations did not identify features that suggest recent landslide activities or other indicators of unstable soil conditions, such as sinkholes or significant unconsolidated materials. Neither the embankment materials nor the embankment subgrade materials are subject to liquefaction.

Several subsurface investigations of the Possum Point site have been conducted by various engineering firms between 1985 and 2017. Test areas included the CCR material in Pond D and soils in the surrounding areas. The tests consisted of investigative test borings, Cone Penetrometer Tests (CPT), piezometer installations, test pits and monitoring wells to characterize the hydrogeologic and geotechnical properties of the subsurface soils. Geotechnical test borings were advanced to various depths ranging from 25 feet to over 100 feet below grade.

The soil layering is marine in nature and is influenced by the nearby Potomac River as would be expected in the Coastal Plain Physiographic Province of Northeastern Virginia. The subsurface site investigations show the soils generally consist of clay-rich soils underlain by poorly-sorted sands, further underlain by high-plasticity clays and marine clays. Top of bedrock is over 300 feet below grade, per the published geologic mapping for the area.

#### 7.2.2 Differential Settlement

Significant differential settlement is not anticipated to occur at the Pond D embankment or within the impoundment area. Prior to embankment construction, existing ash and soft alluvium soils were excavated, and the embankment was founded on stiff to very stiff sandy clays and sands. The materials used to construct the embankment were silty fine sands with minor amounts of clayey fine sand, that was placed and compacted in engineered lifts. The downstream portion of the embankment is underlain by a stone and sand underdrain, providing for adequate drainage of the embankment and foundation soils.

Embankment construction was completed in 1988, and no records of significant settlement or cracking due to settlement of the embankment since that time have been discovered. Long-term settlement of the embankment has likely occurred, and additional settlement is not anticipated. The water / CCR level in the pond was historically maintained at approximately elevation 115, providing for uniform long-term subgrade loading. As CCR materials

were hydraulically sluiced into the pond, the material would be expected to slowly consolidate. This material consolidation within the pond is not anticipated to influence or cause differential settlement in the subgrade.

### **7.2.3 Site Geology and Geomorphology**

Pond D is located on layers of competent clayey soils and dense marine sands as indicated in the boring logs. Pond D is not located in an area of karst topography as indicated by the presence of deep marine deposits of sand and clay, with depth to bedrock over 300 feet. No active seismic faults are located within 20 miles of Pond D. The closest active fault area is the Central Virginia Seismic Zone, located approximately 65 miles away. The Seismic Activity Map in Section 5.2 shows the location of the site relative to the Central Virginia Seismic Zone.

The southern toe of Pond D is located approximately 600 feet north of Quantico Creek and approximately 1/3 mile from the Potomac River. The Pond D embankment is not located within the 100-year floodplain of either waterway. The 100-Year flood map for the area is included in Appendix A.

### **7.2.4 Human-Made Features**

An evaluation of the site's history does not reveal, nor has evidence been found of, human-made conditions on site that could cause unstable conditions. Prior to the site's use by Dominion for CCR storage, the site appeared to be undeveloped woodlands. No evidence of surficial or shaft mining on the site has been encountered in either the literature or during on-site evaluations. There are no known impounding structures upstream or downstream of the site that pose inundation threat due to structure failure.

## 8.0 CONCLUSIONS

Golder Associates Inc. has performed an evaluation of site conditions and historical documentation in relation to requirements established in 40 CFR 257.60-64. Our evaluation shows that the Possum Point Power Station Pond D, as designed, constructed, and operated, meets the requirements of this regulation with one exception. Based upon the evaluation of Pond D groundwater elevations obtained during background groundwater monitoring events, it appears portions of the base of Pond D are less than 1.52 meters (five feet) above the upper limit of the uppermost aquifer and therefore, Pond D does not meet the requirement in §257.60.

## 9.0 REFERENCES

Sources evaluated for this report include the following:

1. United States Geological Service (USGS) National Map Viewer – USGS Earthquake faults (<https://viewer.nationalmap.gov/advanced-viewer/>)
2. USGS Earthquake Hazards Program – Unified Hazard Tool (<https://earthquake.usgs.gov/hazards/interactive/>)
3. U.S. Army Corps of Engineers “Preliminary Jurisdictional Determination – Possum Point Power Station PS CCB” letter, August 7, 2015
4. Soil boring logs, test pit logs, and well installation logs from Golder Associates, Inc., GAI Consultants, Inc., Law Engineering, Schnabel Engineering, Dames and Moore, and Froehling and Robertson, Inc.
5. Golder Associates Inc., Groundwater Monitoring Plan – Possum Point Power Station, September 2018
6. GAI Consultants, Inc. Subsurface Investigations Summary Report – Possum Point Power Station Coal Combustion Residuals Surface Impoundments, April 2017
7. GAI Consultants, Inc. Coal Combustion Residuals History of Construction – Pond D, October 2016
8. GAI Consultants, Inc. Coal Combustion Residuals factor of Safety Assessment – Pond D, October 2016
9. GAI Consultants, Inc. Coal Combustion Residuals Structural Stability Assessment – Pond D, October 2016
10. Virginia Department of Mines, Minerals and Energy (DMME) Interactive Maps (<https://www.dmme.virginia.gov/webmaps/options.shtml>)
11. United States Geological Service (USGS) historical topographic maps (<http://historicalmaps.arcgis.com/usgs/>)
12. USGS Historical Aerial Imagery (<https://earthexplorer.usgs.gov/>)
13. Prince William County historical aerial imagery (<https://gisweb.pwcgov.org/webapps/CountyMapper/>)
14. Google Earth (<https://www.google.com/earth/>)
15. Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) Viewer (<https://www.fema.gov/national-flood-hazard-layer-nfhl>)

**APPENDIX A**

**FIGURE 1 – SITE LOCATION MAP**

**FIGURE 2 – 100-YEAR FLOOD MAP**



**REFERENCE**

BASE MAP CONSISTS OF USGS TOPOGRAPHIC QUADRANGLE QUANTICO, VIRGINIA DATED 2016.



CLIENT  
DOMINION ENERGY

PROJECT  
POSSUM POINT POWER STATION  
PRINCE WILLIAM COUNTY, VIRGINIA

CONSULTANT

YYYY-MM-DD 2018-05-09

DESIGNED DPM

PREPARED BPG

REVIEWED BPG

APPROVED DPM

TITLE  
**SITE LOCATION MAP**

PROJECT NO.  
16-62150

REV.  
0

FIGURE  
1



# National Flood Hazard Layer FIRMette



38°33'3.87"N



## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
OTHER FEATURES		Levee, Dike, or Floodwall
		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
MAP PANELS		17.5 Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/12/2018 at 3:32:03 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

0 250 500 1,000 1,500 2,000 Feet 1:6,000

38°32'35.74"N

Figure 2

**APPENDIX B**  
**2015 WETLAND JURISDICTIONAL DETERMINATION**



DEPARTMENT OF THE ARMY  
US ARMY CORPS OF ENGINEERS  
NORFOLK DISTRICT  
FORT NORFOLK  
803 FRONT STREET  
NORFOLK VA 23510-1011

August 7, 2015

**PRELIMINARY JURISDICTIONAL DETERMINATION**

Northern Virginia Regulatory Section  
NAO-2012-00642 (Possum Point Power Station PS CCB)

Mr. David A. Craymer, V.P. Power Generation System Operations  
Dominion Virginia Power  
5000 Dominion Boulevard  
Glen Allen, Virginia 23060

Dear Mr. Craymer:

This letter is in regard to your request for a preliminary jurisdictional determination for waters of the U.S. (including wetlands) on property known as Possum Point Power Station PS CCB, located on an approximately 418.35 acre parcel, at the Possum Point Power Station, off Possum Point Road in Dumfries, Prince William County, Virginia.

The maps entitled "Possum Point Power Station CCB", by GAI Consultants, Inc. dated May 22, 2015 (*copies enclosed*) provides the location of waters and/or wetlands on the property listed above. The basis for this delineation includes application of the Corps' 1987 Wetland Delineation Manual and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region*, and the positive indicators of wetland hydrology, hydric soils, and hydrophytic vegetation and the presence of an ordinary high water mark.

Included in the above referenced map are isolated wetlands identified as "WVA-ADW-002 and WVA-ADW-005". Any discharge of dredged and/or fill material into these non-regulated isolated wetlands will not require a Department of the Army permit. However, a permit may be required from the Virginia Department of Environmental Quality (DEQ) and we are notifying them by copy of this letter.

Discharges of dredged or fill material, including those associated with mechanized landclearing, into waters and/or wetlands on this site may require a Department of the Army permit and authorization by state and local authorities including a Virginia Water Protection Permit from the Virginia Department of Environmental Quality (DEQ), a permit from the Virginia Marine Resources Commission (VMRC) and/or a permit from your local wetlands board. This letter is a confirmation of the Corps preliminary jurisdiction for the waters and/or wetlands on the subject property and does not authorize any work in these areas. Please obtain all required permits before starting work in the delineated waters/wetland areas.

This is a preliminary jurisdictional determination and is therefore not a legally binding determination regarding whether Corps jurisdiction applies to the waters or wetlands in question. Accordingly, you may either consent to jurisdiction as set out in this preliminary jurisdictional determination and the attachments hereto if you agree with the determination, or you may request and obtain an approved jurisdictional determination. "This preliminary jurisdictional determination and associated wetland delineation map may be submitted with a permit application."

Enclosed is a copy of the "Preliminary Jurisdictional Determination Form". Please review the document, sign, and return one copy to Ms. Theresita Crockett-Augustine either via email ([theresita.m.crockett-augustine@usace.army.mil](mailto:theresita.m.crockett-augustine@usace.army.mil)) or via standard mail to US Army Corps of Engineers, Northern Virginia Field Office at 18139 Triangle Plaza, Suite 213, Dumfries, Virginia 22026 within 30 days of receipt and keep one for your records. This delineation of waters and/or wetlands is valid for a period of five years from the date of this letter unless new information warrants revision prior to the expiration date.

If you have any questions, please contact Ms. Theresita Crockett-Augustine at (703) 221-9736 or [theresita.m.crockett-augustine@usace.army.mil](mailto:theresita.m.crockett-augustine@usace.army.mil).

Sincerely,



Theresita Crockett-Augustine  
Environmental Scientist  
Northern Virginia Regulatory Section

Enclosures

AUGUSTINE.THERESITA.  
CROCKETT.1230827040

Digitally signed by  
AUGUSTINE.THERESITA.CROCKETT.1230827040  
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI,  
ou=USA,  
cn=AUGUSTINE.THERESITA.CROCKETT.1230827040  
Date: 2015.08.07 16:15:20 -04'00'

**NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND  
REQUEST FOR APPEAL**

Applicant: Dominion Virginia Power		File Number: NAO-2012-00642	Date: 8/7/2015
Attached is:			See Section below
<input type="checkbox"/>	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)		A
<input type="checkbox"/>	PROFFERED PERMIT (Standard Permit or Letter of permission)		B
<input type="checkbox"/>	PERMIT DENIAL		C
<input type="checkbox"/>	APPROVED JURISDICTIONAL DETERMINATION		D
<input checked="" type="checkbox"/>	PRELIMINARY JURISDICTIONAL DETERMINATION		E

**SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://usace.army.mil/inet/functions/cw/cecwo/reg> or Corps regulations at 33 CFR Part 331.**

**A: INITIAL PROFFERED PERMIT:** You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the Norfolk District Engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations (JD) associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the Norfolk District Engineer. Your objections must be received by the Norfolk District Engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the Norfolk District Engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the Norfolk District Engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

**B: PROFFERED PERMIT:** You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the Norfolk District Engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the North Atlantic Division Engineer, ATTN: CENAD-PD-PSD-O, Fort Hamilton Military Community, Building 301, General Lee Avenue, Brooklyn, NY 11252-6700. This form must be received by the North Atlantic Division Engineer within 60 days of the date of this notice with a copy furnished to the Norfolk District Engineer.

**C: PERMIT DENIAL:** You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the North Atlantic Division Engineer, ATTN: CENAD-PD-PSD-O, Fort Hamilton Military Community, Building 301, General Lee Avenue, Brooklyn, NY 11252-6700. This form must be received by the North Atlantic Division Engineer within 60 days of the date of this notice with a copy furnished to the Norfolk District Engineer.

**D: APPROVED JURISDICTIONAL DETERMINATION:** You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the North Atlantic Division Engineer, ATTN: CENAD-PD-PSD-O, Fort Hamilton Military Community, Building 301, General Lee Avenue, Brooklyn, NY 11252-6700. This form must be received by the North Atlantic Division Engineer within 60 days of the date of this notice with a copy furnished to the Norfolk District Engineer.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

**SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT**

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

**POINT OF CONTACT FOR QUESTIONS OR INFORMATION:**

If you have questions regarding this decision and/or the appeal process you may contact:  
U.S. Army Corps of Engineers, Norfolk District  
ATTN: Ms. Theresita Crockett Augustine (CENAO-WR-R)  
18139 Triangle Plaza, Suite 213  
Dumfries, Virginia 22026  
Phone: (703) 221-9736  
Email: theresita.m.crockett-augustine@usace.army.mil

If you only have questions regarding the appeal process you may also contact:  
Mr. James W. Haggerty  
Regulatory Program Manager  
U.S. Army Corps of Engineers  
CENAD-PD-OR  
Fort Hamilton Military Community  
301 General Lee Avenue  
Brooklyn, NY 11252-6700  
Telephone: (347) 370-4650  
Email: james.w.haggerty@usace.army.mil

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

\_\_\_\_\_  
Signature of appellant or agent.

Date:

Telephone number:

# PRELIMINARY JURISDICTIONAL DETERMINATION FORM

## BACKGROUND INFORMATION:

**A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD):** Friday, August 7, 2015

**B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:**  
Mr. David A. Craymer, V.P. Power Generation System Operations  
Dominion Virginia Power  
5000 Dominion Boulevard  
Glen Allen, Virginia 23060

**C. DISTRICT OFFICE: Norfolk District (CENAO-REG)**

**FILE NAME:** Possum Point Power Station PS CCB

**FILE NUMBER:** NAO-2012-00642

**D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:**  
(USE THE ATTACHED TABLE TO DOCUMENT MULTIPLE WATERBODIES AT DIFFERENT SITES)

State: **VIRGINIA** County/parish/borough: Prince William City: Dumfries

Center coordinates of site (lat/long in degree decimal format):

Latitude: 38.538 ° N Longitude: -77.281 ° W

Universal Transverse Mercator:

Name of nearest waterbody: Potomac River

Identify (estimate) amount of waters in the review area:

Non-wetland waters: linear feet; width (ft); and/or acres.

Cowardin Class: Riverine

Stream Flow:

Wetlands: acres

Cowardin Class: Palustrine

Name of any water bodies on the site that have been identified as Section 10 waters:

Tidal: Quantico Creek

Non-Tidal:

**E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):**

Office (Desk) Determination. Date:

Field Determination. Date(s): June 25, 2015

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.
  
2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.
  
3. This preliminary JD finds that there "*may be*" waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

**SUPPORTING DATA:**

**Data reviewed for preliminary JD (check all that apply)** - checked items should be included in case file and, where checked and requested, appropriately reference sources below.

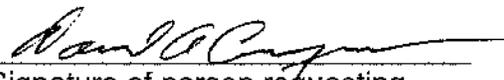
- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:

- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - Office concurs with data sheets/delineation report.
  - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps:
- Corps navigable waters' study:
- U.S. Geological Survey Hydrologic Atlas:
  - USGS NHD data.
  - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name:
- USDA Natural Resources Conservation Service Soil Survey.
  - Citation:
- National wetlands inventory map(s). Cite name:
- State/Local wetland inventory map(s):
- FEMA/FIRM maps:
- 100-year Floodplain Elevation: (National Geodetic Vertical Datum of 1929)
- Photographs:  Aerial (Name & Date):
  - or  Other (Name & Date):
- Previous determination(s):
  - File no. and date of response letter:
- Other information (please specify):

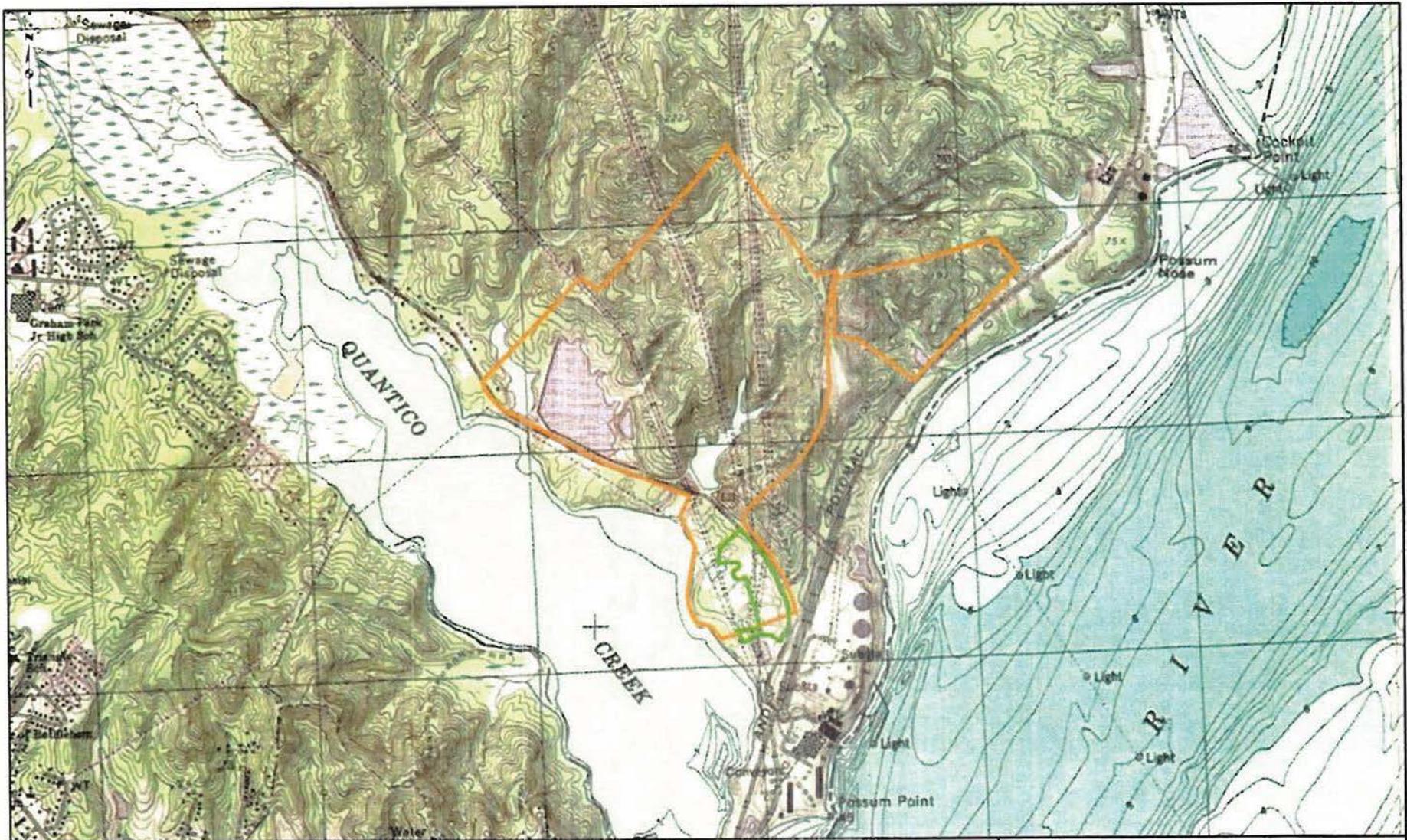
**IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.**

  
 \_\_\_\_\_  
 Signature  
 Regulatory Project Manager  
 (REQUIRED)

2015-08-07  
 \_\_\_\_\_  
 Date

  
 \_\_\_\_\_  
 Signature of person requesting  
 Preliminary JD  
 (REQUIRED, unless obtaining the signature is impracticable)

8/7/15  
 \_\_\_\_\_  
 Date



**PROJECT LOCATION**

PRINCE WILLIAM COUNTY,  
VIRGINIA

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: INDIAN HEAD (1983), QUANTICO (1984), VIRGINIA, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND USGS, ACCESSED 05/2015.

**LEGEND**

- NEW STUDY AREA
- OLD STUDY AREA

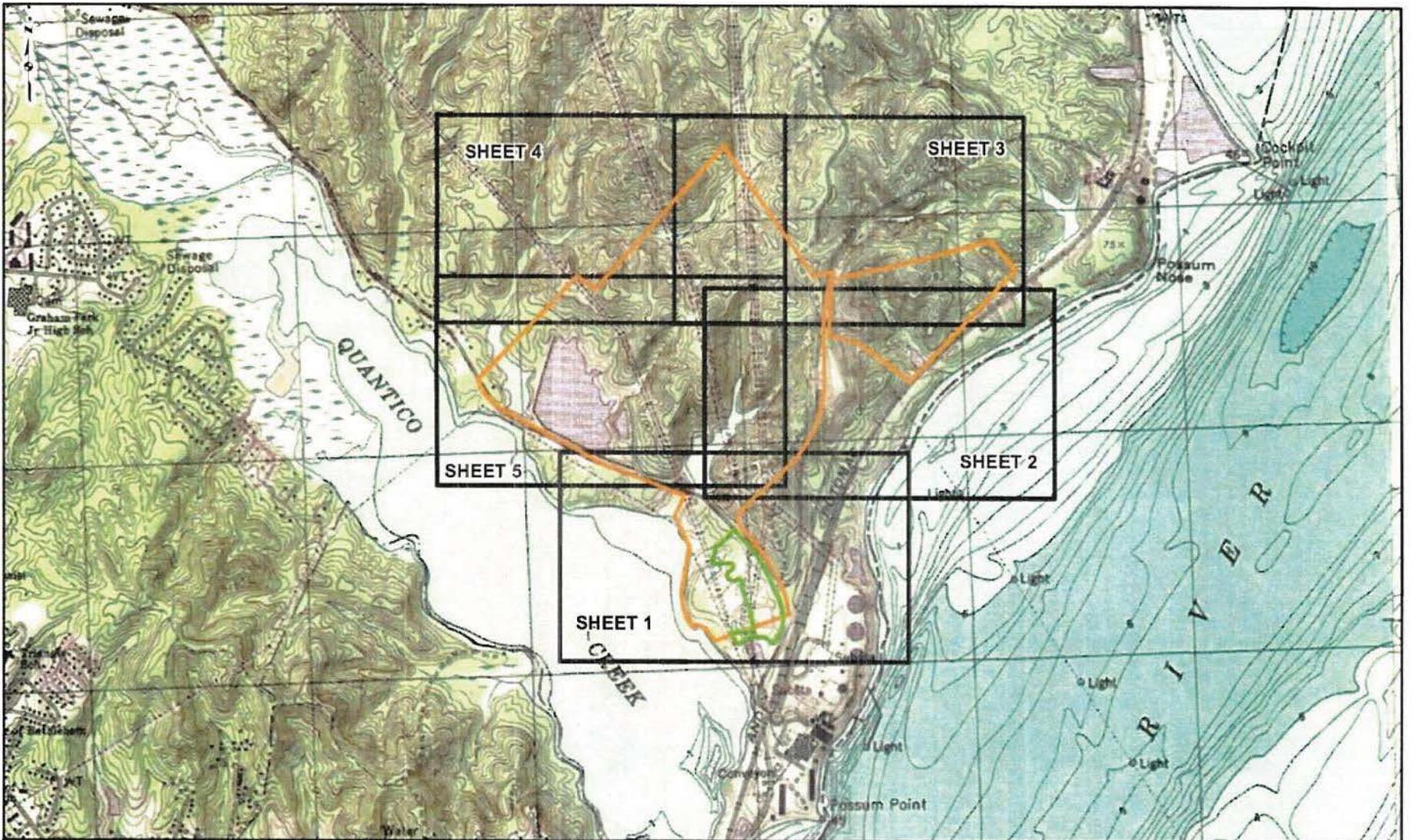
0 1,000 2,000 4,000  
Feet

**FIGURE 1  
PROJECT LOCATION MAP**

**POSSUM POINT  
POWER STATION CCB** **Dominion  
VIRGINIA POWER**

DRAWN BY: DAG      DATE: 5/22/2015  
CHECKED: SWW      APPROVED: WGW

USACE/Regulatory  
Rcvd by JSS 6/16/15



**PROJECT LOCATION**

PRINCE WILLIAM COUNTY,  
VIRGINIA

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: INDIAN HEAD (1983), QUANTICO (1984), VIRGINIA, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND USGS, ACCESSED 05/2015.

**LEGEND**

- NEW STUDY AREA
- OLD STUDY AREA
- INDEX SHEET

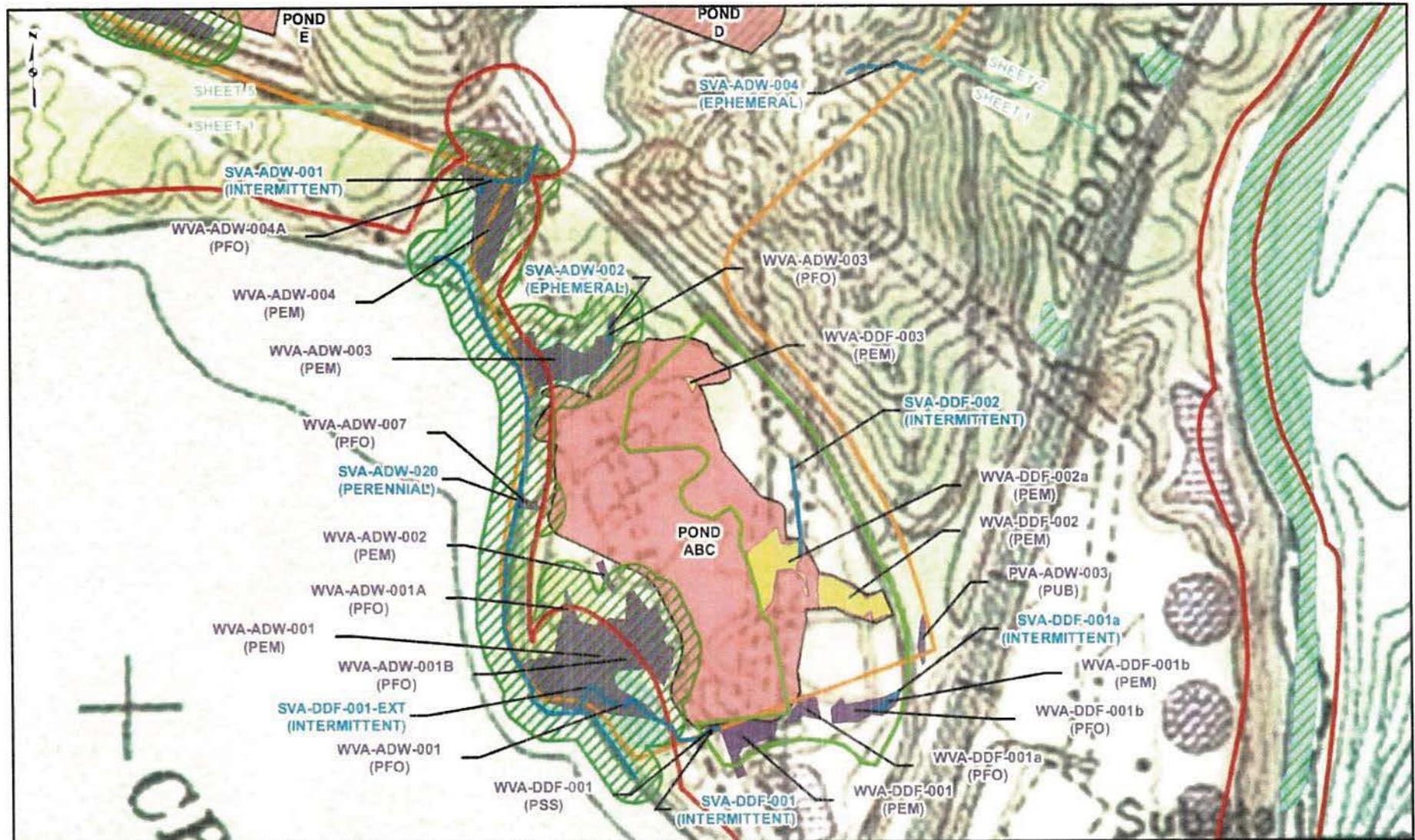
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Feet

**FIGURE 2  
RESOURCE LOCATION MAP  
SHEET INDEX MAP**

**POSSUM POINT  
POWER STATION CCB** **Dominion**  
**DOMINION VIRGINIA POWER**

DRAWN BY: DAG      DATE: 5/22/2015  
CHECKED: SWW      APPROVED: WGW

USACE/Regulatory  
Rcvd by JSS 6/16/15



**PROJECT LOCATION**

PRINCE WILLIAM COUNTY,  
VIRGINIA

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: INDIAN HEAD (1983), QUANTICO (1984), VIRGINIA, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND USGS, ACCESSED 05/20/15, NATIONAL HYDROGRAPHY DATASET (NHD), USGS, 2015, NATIONAL WETLAND INVENTORY (NWI) WETLANDS, USFWS, 2014, MODIFIED BY GAI CONSULTANTS, INC. BASED ON FIELD SURVEY AND GPS DATA COLLECTED BETWEEN 3/12/2015 AND 3/26/2015. RESOURCE PROTECTION AREAS DATA PROVIDED BY PRINCE WILLIAM COUNTY, VIRGINIA, 02/20/15.

**LEGEND**

- STREAM
- NHD STREAM
- WETLAND
- WETLAND WITHIN POND LIMIT
- RESOURCE PROTECTION AREA
- POTENTIAL RESOURCE PROTECTION AREA
- NWI WETLAND (MODIFIED)
- ASH POND BOUNDARY
- METAL POND BOUNDARY
- NEW STUDY AREA
- OLD STUDY AREA

0 250 500 1,000 Feet

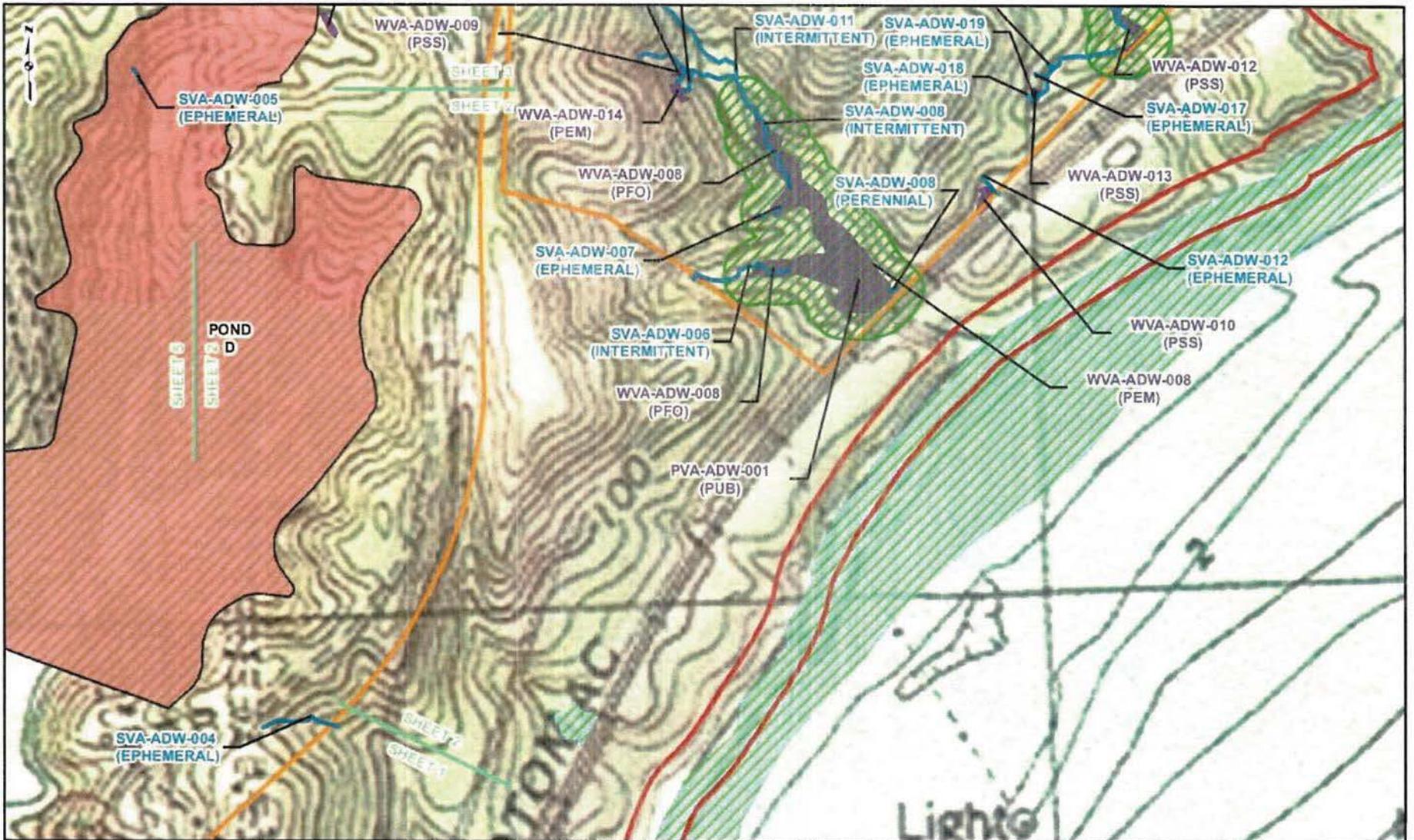
**FIGURE 2  
RESOURCE LOCATION MAP  
SHEET 1 OF 5**

**POSSUM POINT  
POWER STATION CCB**

**DOMINION VIRGINIA POWER**

DRAWN BY: DAG      DATE: 5/26/2015  
CHECKED BY: SWW      APPROVED: WGW

USACE/Regulatory  
Rcvd by JSS 6/16/15



**PROJECT LOCATION**

PRINCE WILLIAM COUNTY,  
VIRGINIA

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: INDIAN HEAD (1983), QUANTICO (1984), VIRGINIA, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND USGS, ACCESSED 05/2015. NATIONAL HYDROGRAPHY DATASET (NHD), USGS, 2015. NATIONAL WETLAND INVENTORY (NWI) WETLANDS, USFWS, 2014. MODIFIED BY GAI CONSULTANTS, INC. BASED ON FIELD SURVEY AND GPS DATA COLLECTED BETWEEN 3/12/2015 AND 3/26/2015. RESOURCE PROTECTION AREAS DATA PROVIDED BY PRINCE WILLIAM COUNTY, VIRGINIA, 02/2015.

**LEGEND**

STREAM	NWI WETLAND (MODIFIED)
NHD STREAM	ASH POND BOUNDARY
WETLAND	METAL POND BOUNDARY
WETLAND WITHIN POND LIMIT	NEW STUDY AREA
RESOURCE PROTECTION AREA	OLD STUDY AREA
POTENTIAL RESOURCE PROTECTION AREA	

0 250 500 1,000 Feet

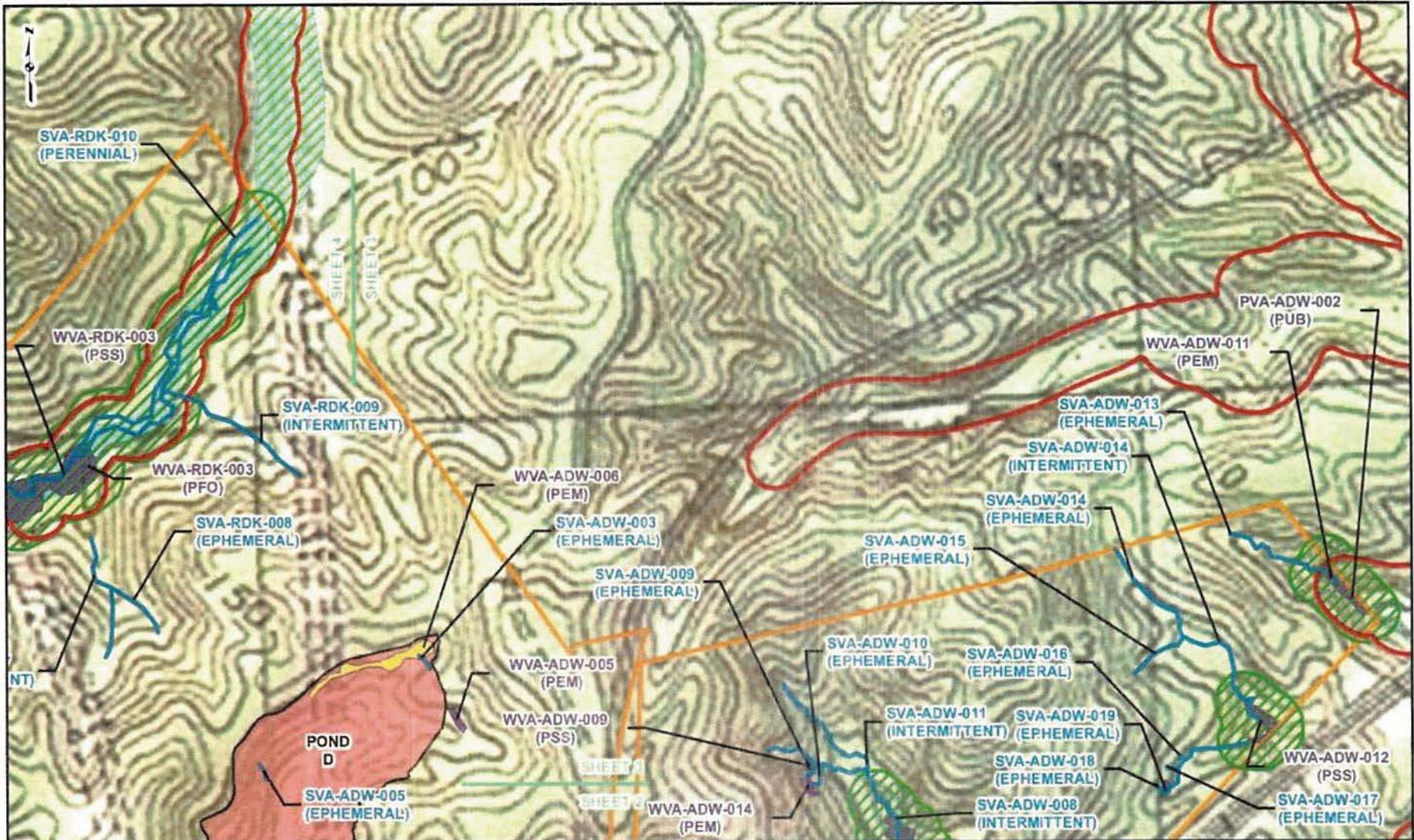
**FIGURE 2  
RESOURCE LOCATION MAP  
SHEET 2 OF 5**

**POSSUM POINT  
POWER STATION CCB**

**DOMINION VIRGINIA POWER**

DRAWN BY: DAG      DATE: 5/26/2015  
CHECKED: SWW      APPROVED: GWV

USACE/Regulatory  
Rcvd by JSS 6/16/15



**PROJECT LOCATION**

PRINCE WILLIAM COUNTY,  
VIRGINIA

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: INDIAN HEAD (1983), QUANTICO (1984), VIRGINIA, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND USGS, ACCESSED 05/2015, NATIONAL HYDROGRAPHY DATASET (NHD), USGS, 2015, NATIONAL WETLAND INVENTORY (NWI) WETLANDS, USFWS, 2014, MODIFIED BY GAI CONSULTANTS, INC. BASED ON FIELD SURVEY AND GPS DATA COLLECTED BETWEEN 3/12/2015 AND 3/26/2015. RESOURCE PROTECTION AREAS DATA PROVIDED BY PRINCE WILLIAM COUNTY, VIRGINIA, 02/2015.

**LEGEND**

- STREAM
- NHD STREAM
- WETLAND
- WETLAND WITHIN POND LIMIT
- RESOURCE PROTECTION AREA
- POTENTIAL RESOURCE PROTECTION AREA
- NM WETLAND (MODIFIED)
- ASH POND BOUNDARY
- METAL POND BOUNDARY
- NEW STUDY AREA
- OLD STUDY AREA

0 250 500 1,000 Feet

**FIGURE 2  
RESOURCE LOCATION MAP  
SHEET 3 OF 5**

POSSUM POINT  
POWER STATION CCB  
DOMINION VIRGINIA POWER

DRAWN BY: DAG DATE: 5/26/2015  
CHECKED BY: SWW APPROVED: GWG

USACE/Regulatory  
Rcvd by JSS 6/16/15



**PROJECT LOCATION**

PRINCE WILLIAM COUNTY,  
VIRGINIA

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: INDIAN HEAD (1983), QUANTICO (1984), VIRGINIA, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND USGS, ACCESSED 05/20/15. NATIONAL HYDROGRAPHY DATASET (NHD), USGS, 2015. NATIONAL WETLAND INVENTORY (NWI) WETLANDS, USFWS, 2014. MODIFIED BY GAI CONSULTANTS, INC. BASED ON FIELD SURVEY AND GPS DATA COLLECTED BETWEEN 3/12/2015 AND 3/26/2015. RESOURCE PROTECTION AREAS DATA PROVIDED BY PRINCE WILLIAM COUNTY, VIRGINIA, 02/2015.

**LEGEND**

- STREAM
- NHD STREAM
- WETLAND
- WETLAND WITHIN POND LIMIT
- RESOURCE PROTECTION AREA
- POTENTIAL RESOURCE PROTECTION AREA
- NWI WETLAND (MODIFIED)
- ASH POND BOUNDARY
- METAL POND BOUNDARY
- NEW STUDY AREA
- O, D STUDY AREA

0 250 500 1,000 Feet

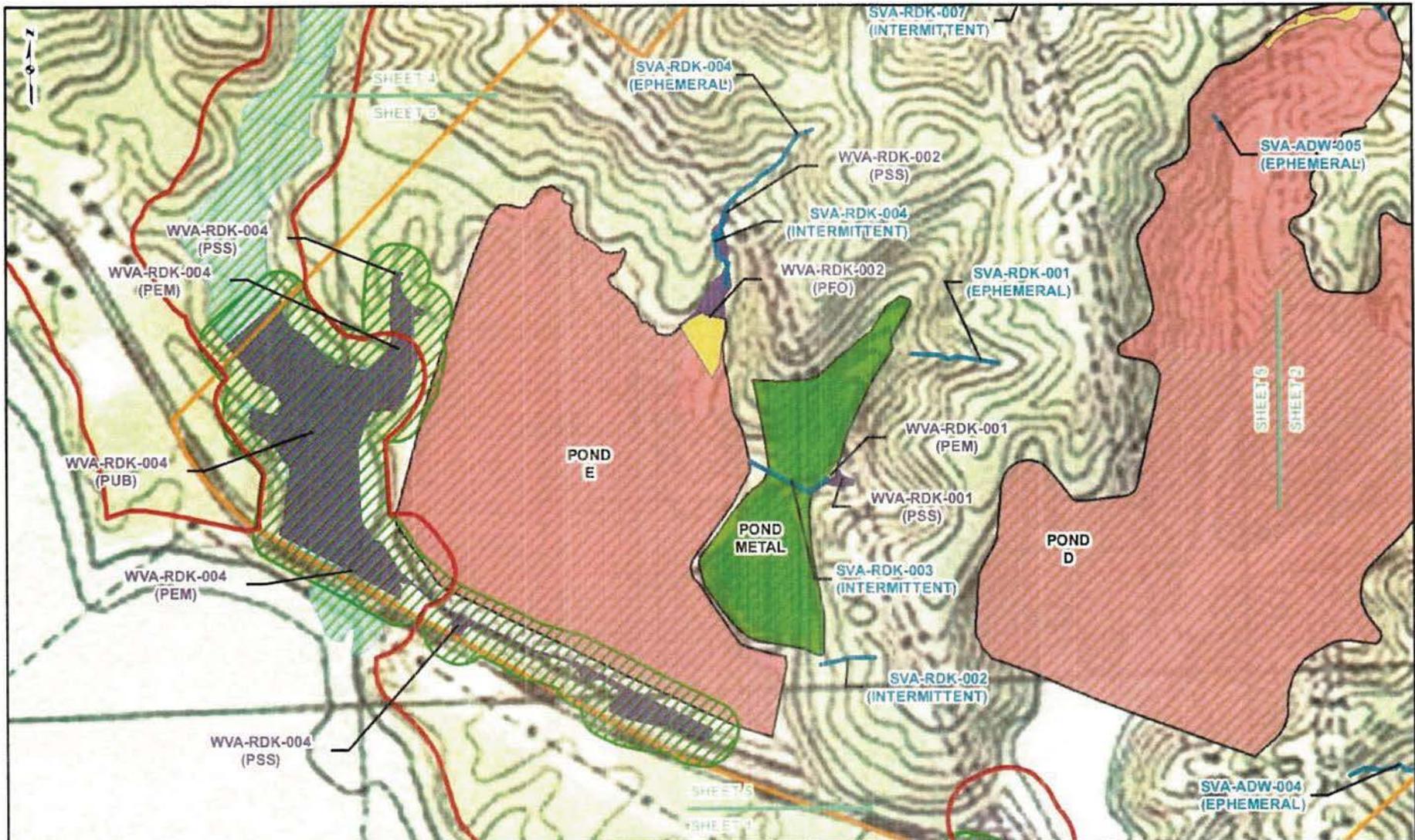
**FIGURE 2  
RESOURCE LOCATION MAP  
SHEET 4 OF 5**

**POSSUM POINT  
POWER STATION CCB**

**DOMINION VIRGINIA POWER**

DRAWN BY: DAG      DATE: 5/26/2015  
CHECKED: SWW      APPROVED: WGW

USACE/Regulatory  
Rcvd by JSS 6/16/15



**PROJECT LOCATION**



PRINCE WILLIAM COUNTY,  
VIRGINIA

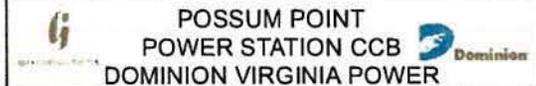
REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: INDIAN HEAD (1983), QUANTICO (1984), VIRGINIA, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND USGS, ACCESSED 05/2015, NATIONAL HYDROGRAPHY DATASET (NHD), USGS, 2015, NATIONAL WETLAND INVENTORY (NWI) WETLANDS, USFWS, 2014, MODIFIED BY GAI CONSULTANTS, INC. BASED ON FIELD SURVEY AND GPS DATA COLLECTED BETWEEN 3/12/2015 AND 3/26/2015. RESOURCE PROTECTION AREAS DATA PROVIDED BY PRINCE WILLIAM COUNTY, VIRGINIA, 02/2015.

**LEGEND**

- STREAM
- NHD STREAM
- WETLAND
- WETLAND WITHIN POND LIMIT
- RESOURCE PROTECTION AREA
- POTENTIAL RESOURCE PROTECTION AREA
- NWI WETLAND (MODIFIED)
- ASH POND BOUNDARY
- METAL POND BOUNDARY
- NEW STUDY AREA
- O.D STUDY AREA

0 250 500 1,000 Feet

**FIGURE 2  
RESOURCE LOCATION MAP  
SHEET 5 OF 5**



DRAWN BY: DAG

DATE: 5/26/2015

CHECKED BY: SWW

APPROVED: WGW



DEPARTMENT OF THE ARMY  
US ARMY CORPS OF ENGINEERS  
NORFOLK DISTRICT  
FORT NORFOLK  
803 FRONT STREET  
NORFOLK VIRGINIA 23510-1011

AUGUST 7, 2015

**Supplemental Preapplication Information**

Project Number: NAO-2012-00642 (Possum Point Power Station PS CCB)  
Applicant: Dominion Virginia Power  
Project Location: Dumfries, Prince William County, Virginia

1. A search of the Virginia Department of Historic Resources data revealed the following:
  - No known historic properties are located on the property.
  - The following known architectural resources are located on the property: See attached.
  - The following known archaeological resources are located on the property: See attached.
  - The following known historic resources are located in the vicinity of the property (potential for effects to these resources from future development):

**NOTE:**

- 1) *The information above is for planning purposes only. In most cases, the property has not been surveyed for historic resources. Undiscovered historic resources may be located on the subject property or adjacent properties and this supplemental information is not intended to satisfy the Corps' requirements under Section 106 of the National Historic Preservation Act (NHPA).*
  - 2) *Prospective permittees should be aware that Section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant.*
2. A search of the data supplied by the U.S. Fish & Wildlife Service, the Virginia Department of Conservation and Recreation and the Virginia Department of Game and Inland Fisheries revealed the following:
    - No known populations of threatened or endangered species are located on or within the vicinity of the subject property.
    - The following federally-listed species may occur within the vicinity of the subject property. See attached.
    - The following state-listed (or other) species may occur within the vicinity of the subject property:

***Please note this information is being provided to you based on the preliminary data you submitted to the Corps relative to project boundaries and project plans. Consequently, these findings and recommendations are subject to change if the project scope changes or new information becomes available and the accuracy of the data.***

### Legend

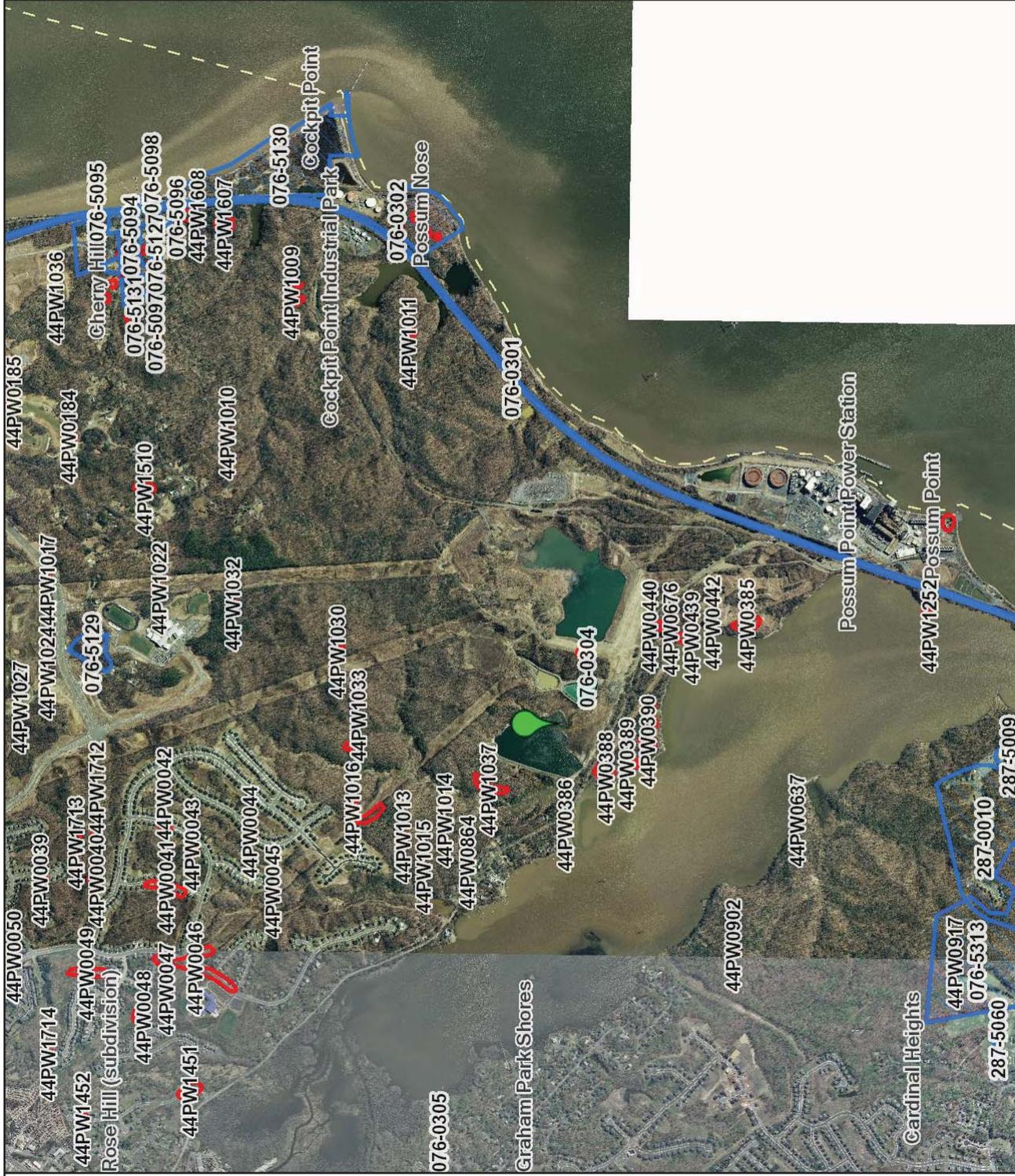
-  Architecture Resources
-  Architecture Labels
-  Individual Historic District Properties
-  Archaeological Resources
-  Archaeology Labels
-  DHR Easements
-  USGS GIS Place names
-  County Boundaries



Feet



1:36,112 / 1"=3,009 Feet



**Title:**

**Date:** 8/7/2015

*DISCLAIMER: Records of the Virginia Department of Historic Resources (DHR) have been gathered over many years from a variety of sources and the representation depicted is a cumulative view of field observations over time and may not reflect current ground conditions. The map is for general information purposes and is not intended for engineering, legal or other site-specific uses. Map may contain errors and is provided "as-is". More information is available in the DHR Archives located at DHR's Richmond office.*

*Notice if AE sites: Locations of archaeological sites may be sensitive to the National Historic Preservation Act (NHPA), and the Archaeological Resources Protection Act (ARPA) and Code of Virginia §2.2-3705.7 (10). Release of precise locations may threaten archaeological sites and historic resources.*

# Possum Point Power Station

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## *IPaC Trust Resource Report*

Generated August 06, 2015 06:27 AM MDT



US Fish &amp; Wildlife Service

# IPaC Trust Resource Report



## Project Description

**NAME**

Possum Point Power Station

**PROJECT CODE**

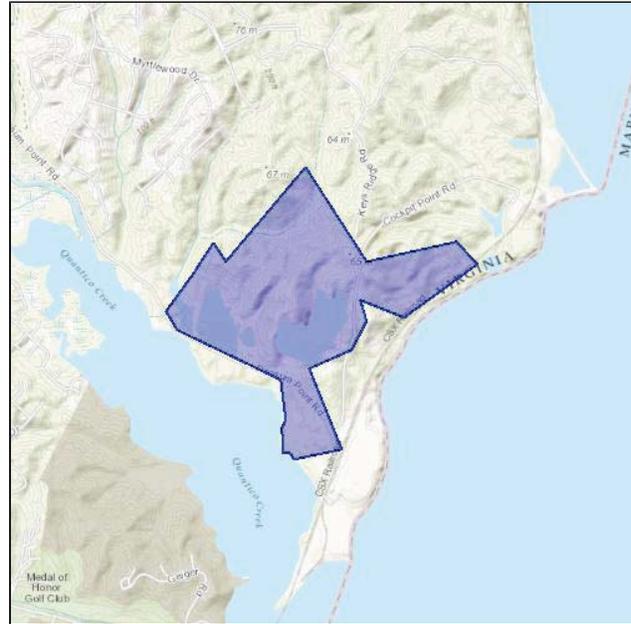
3M5SG-BR6MV-FCFFZ-HNTEI-XAGFZM

**LOCATION**

Prince William County, Virginia

**DESCRIPTION**

No description provided



## U.S. Fish & Wildlife Contact Information

Species in this report are managed by:

**Virginia Ecological Services Field Office**

6669 Short Lane

Gloucester, VA 23061-4410

(804) 693-6694

## Endangered Species

Proposed, candidate, threatened, and endangered species that are managed by the [Endangered Species Program](#) and should be considered as part of an effect analysis for this project.

This unofficial species list is for informational purposes only and does not fulfill the requirements under [Section 7](#) of the Endangered Species Act, which states that Federal agencies are required to "request of the Secretary of Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action." This requirement applies to projects which are conducted, permitted or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can be obtained by returning to this project on the IPaC website and requesting an Official Species List from the regulatory documents section.

## Flowering Plants

### **Harperella** *Ptilimnium nodosum*

**Endangered**

CRITICAL HABITAT

**No critical habitat** has been designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=Q2H9>

### **Small Whorled Pogonia** *Isotria medeoloides*

**Threatened**

CRITICAL HABITAT

**No critical habitat** has been designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=Q1XL>

## Mammals

### **Northern Long-eared Bat** *Myotis septentrionalis*

**Threatened**

CRITICAL HABITAT

**No critical habitat** has been designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=A0JE>

## Critical Habitats

Potential effects to critical habitat(s) within the project area must be analyzed along with the endangered species themselves.

There is no critical habitat within this project area

# Migratory Birds

Birds are protected by the [Migratory Bird Treaty Act](#) and the Bald and Golden Eagle Protection Act.

Any activity which results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service (1). There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

You are responsible for complying with the appropriate regulations for the protection of birds as part of this project. This involves analyzing potential impacts and implementing appropriate conservation measures for all project activities.

<p><b>American Oystercatcher</b> <i>Haematopus palliatus</i> Year-round <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B0G8">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B0G8</a></p>	<b>Bird of conservation concern</b>
<p><b>American Bittern</b> <i>Botaurus lentiginosus</i> Season: Wintering <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B0F3">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B0F3</a></p>	<b>Bird of conservation concern</b>
<p><b>Bald Eagle</b> <i>Haliaeetus leucocephalus</i> Year-round <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B008">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B008</a></p>	<b>Bird of conservation concern</b>
<p><b>Black-billed Cuckoo</b> <i>Coccyzus erythrophthalmus</i> Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B0H1">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B0H1</a></p>	<b>Bird of conservation concern</b>
<p><b>Fox Sparrow</b> <i>Passerella iliaca</i> Season: Wintering</p>	<b>Bird of conservation concern</b>
<p><b>Gull-billed Tern</b> <i>Gelochelidon nilotica</i> Season: Breeding</p>	<b>Bird of conservation concern</b>
<p><b>Kentucky Warbler</b> <i>Oporornis formosus</i> Season: Breeding</p>	<b>Bird of conservation concern</b>
<p><b>Least Bittern</b> <i>Ixobrychus exilis</i> Season: Breeding</p>	<b>Bird of conservation concern</b>
<p><b>Pied-billed Grebe</b> <i>Podilymbus podiceps</i> Season: Breeding</p>	<b>Bird of conservation concern</b>
<p><b>Prairie Warbler</b> <i>Dendroica discolor</i> Season: Breeding</p>	<b>Bird of conservation concern</b>
<p><b>Prothonotary Warbler</b> <i>Protonotaria citrea</i> Season: Breeding</p>	<b>Bird of conservation concern</b>
<p><b>Purple Sandpiper</b> <i>Calidris maritima</i> Season: Wintering</p>	<b>Bird of conservation concern</b>
<p><b>Red-headed Woodpecker</b> <i>Melanerpes erythrocephalus</i> Year-round</p>	<b>Bird of conservation concern</b>
<p><b>Rusty Blackbird</b> <i>Euphagus carolinus</i> Season: Wintering</p>	<b>Bird of conservation concern</b>

**Short-billed Dowitcher** *Limnodromus griseus*

Season: Wintering

**Bird of conservation concern****Short-eared Owl** *Asio flammeus*

Season: Wintering

**Bird of conservation concern**<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B0HD>**Snowy Egret** *Egretta thula*

Season: Breeding

**Bird of conservation concern****Wood Thrush** *Hylocichla mustelina*

Season: Breeding

**Bird of conservation concern****Worm Eating Warbler** *Helmitheros vermivorum*

Season: Breeding

**Bird of conservation concern**

## Refuges

Any activity proposed on [National Wildlife Refuge](#) lands must undergo a 'Compatibility Determination' conducted by the Refuge. If your project overlaps or otherwise impacts a Refuge, please contact that Refuge to discuss the authorization process.

There are no refuges within this project area

# Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes.

Project proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate [U.S. Army Corps of Engineers District](#).

## DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

## DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

## DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Wetland data is unavailable at this time.



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