



COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

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March 19, 2014

Tamsen S. Dozier
Environmental Project Manager
Office of New Reactors, NRC
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Re: Supplemental Information to BA for North Anna Unit 3 Combined License

Dear Ms. Dozier:

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

North Anna 3 Project Site

According to the information currently in our files, this site may support habitat appropriate for Small whorled pogonia (*Isotria medeoloides*, G2/S2/LT/LE) in forested areas within the proposed project areas. Small whorled pogonia grows in a variety of woodland habitats in Virginia, but tends to favor mid-aged woodland habitats on gently north or northeast facing slopes often within small draws. Direct destruction as well as habitat loss and alteration are principle reasons for the species' decline (Ware, 1991). Please note that Small whorled pogonia is currently classified as threatened by the United States Fish and Wildlife Service (USFWS) and as endangered by the Virginia Department of Agriculture and Consumer Services (VDACS).

DCR has reviewed the Survey for the Small Whorled Pogonia North Anna Power Station dated August 3, 2012 and concurs with the methodology and negative findings of the report. However, due to the legal status of this species, DCR recommends continued coordination with the USFWS to ensure compliance with protected species legislation. DCR also supports the updating of this survey as recommended by the Army Corps of Engineers on page 15 of the biological assessment.

North Anna to Ladysmith Transmission Corridor

According to the information currently in our files, the Blanton's Powerline Conservation Site is within the powerline corridor (see Figure 5-page 15- Supplemental to the Biological Assessment). Conservation sites are

*State Parks • Nonpoint Pollution Prevention • Outdoor Recreation Planning
Natural Heritage • Dam Safety and Floodplain Management • Land Conservation*

tools for representing key areas of the landscape that warrant further review for possible conservation action because of the natural heritage resources and habitat they support. Conservation sites are polygons built around one or more rare plant, animal, or natural community designed to include the element and, where possible, its associated habitat, and buffer or other adjacent land thought necessary for the element's conservation. Conservation sites are given a biodiversity significance ranking based on the rarity, quality, and number of element occurrences they contain; on a scale of 1-5, 1 being most significant.

The Blanton's Powerline Conservation Site has been given a biodiversity significance ranking of B5, which represents a site of general significance. The natural heritage resources occurring within this conservation site are:

<i>Stachys eplingii</i>	Epling's Hedge-nettle	G5/S1/NL/NL
<i>Carex buxbaumii</i>	Brown Bog Sedge	G5/S2/NL/NL
<i>Dichanthelium consanguineum</i>	Blood Witchgrass	G5/S1?/NL/NL

DCR concurs with the findings of the July 2010 Detailed Survey for the Epling's Hedge-nettle, Blanton's Powerline Conservation Site and the Small whorled pogonia survey dated August 3, 2012. DCR supports avoidance of these rare plants within the powerline right-of-way during project construction and maintenance activities through the use of the existing service road within the transmission line corridor as well as strict adherence to E & S control measures as stated in the conclusion section of the Detailed Survey for Epling's Hedge-nettle at Blanton's Powerline Conservation Site report and placement of towers in the March 7, 2011 Dominion letter.

Large Component Transport Route

In addition, Swamp pink (*Helonias bullata*, G3/S2S3/LT/LE) may occur in specific areas along the large component transport corridor, Swamp pink inhabits groundwater-influenced, perennially saturated, nutrient-poor headwater wetlands and is sensitive to hydrologic alterations to its habitat. The major direct threat to this species is habitat loss. Indirect threats result from activities that affect the hydrologic regime including such upslope activities as timber harvesting, land clearing and development, and agriculture. Downstream threats to the hydrology of a swamp pink habitat arise from flooding caused by road crossings with culverts that become blocked and beaver activity (VanAlstine, 1994). In Virginia, swamp-pink is currently known from 45 locations, 3 of which are historic.

Please note that this species is currently classified as threatened by the United States Fish and Wildlife Service (USFWS) and as endangered by the Virginia Department of Agriculture and Consumer Services (VDACS)

According to the information provided, existing roads will be used for this project activity therefore DCR does not anticipate impact to Swamp pink. However, if the scope of the project changes including road widening in the potential Swamp pink areas as depicted on the attached maps, DCR requests re-coordination with this office to determine potential impacts.

Walkerton Roll-off Location

According to the information currently in our files, the Mattaponi River-Walkerton to Courthouse Landing Stream Conservation Unit has been documented within the project site at the Walkerton Roll-off location. SCUs identify stream reaches that contain aquatic natural heritage resources, including 2 miles upstream and 1 mile downstream of documented occurrences, and all tributaries within this reach. SCUs are given a biodiversity significance ranking based on the rarity, quality, and number of element occurrences they contain; on a scale of 1-5, 1 being most significant. Mattaponi River-Walkerton to Courthouse Landing SCU has been given a biodiversity significance ranking of B3, which represents a site of high significance. The natural heritage resources of concern at this site are:

Bacopa innominata
Eriocaulon parkeri

Tropical Water-hyssop
Parker's Pipewort

G3G5/S2/NL/NL
G3/S2/NL/NL

Tropical water-hyssop, a state endangered species, has been documented in the meandering sections of tidal tributaries to the Chesapeake Bay on narrow shores or on the borders of freshwater marshes (Porter, 1991; Rawinski, 1987). Threats to tropical water-hyssop in Virginia include erosion and activities leading to wetland destruction such as shoreline development activities, impoundments, and marina development (Virginia Natural Heritage Program, 1988).

Parker's pipewort is classified as very rare to uncommon in Virginia. This diminutive pipewort species displays a greyish-white button flower and often occurs with other rare mudwort species in the intertidal zone of tidal regions from Maine to North Carolina. Potential threats include activities that alter natural river currents causing sedimentation, which could inhibit germination of seeds or smother seedlings, and/or erosion of the habitat. Other potential threats include activities that result in increased salinity levels, water pollution, and displacement by aggressive species (J. C. Ludwig, 1996).

In addition, Small waterwort (*Elatine minima*, G5/S1/NL/NL) has been historically documented in the project area. Small waterwort is often found in the same intertidal habitats as Parker's pipewort and tropical water-hyssop: narrow shores and marsh edges (J.C. Ludwig, pers. com.). Virginia is the southern limit of this species range, where it is limited to three counties. These tiny plants reach less than two inches in height. At the base of their leaves, pin-head sized, transparent pod contain the plant's seeds (Hotchkiss, 1972).

DCR has reviewed the Survey for Sensitive Joint-vetch [*Aeschynomene virginica* (L.) B.S.P.] Walkerton Property, King William County, Virginia report by VHB dated October 15, 2012 and concurs with the findings of the report. Please note DCR surveyed the area directly across from the Walkerton Property and documented Parker's Pipewort and Tropical Water-hyssop 100m east of the bridge over a 30x5m area. Therefore, if the project footprint and/or scope of the proposed activities at the Walkerton property change, DCR recommends re-coordination with this office to determine potential impacts. To minimize adverse impacts to the aquatic ecosystem as a result of the proposed activities, DCR also recommends the implementation of and strict adherence to applicable state and local erosion and sediment control/storm water management laws and regulations.

The Virginia Department of Agriculture and Consumer Services (VDACS), which has regulatory authority to conserve rare and endangered plant and insect species through the Virginia Endangered Plant and Insect Species Act, has established a Memorandum of Agreement with the Virginia Department of Conservation and Recreation (DCR). Under this Agreement DCR's Division of Natural Heritage, in consultation with VDACS, represents VDACS in its comments and recommendations regarding the potential impact of reviewed projects or activities on state-listed plant and insect species.

In regards to the potential for Smooth coneflower (*Echinacea laevigata*, G2G3/S2/LE/LT) to occur within the project area, according to DCR botanist John Townsend there is no suitable habitat for Smooth coneflower and he does not recommend a survey. However due to federal status of Smooth coneflower, DCR recommends coordination with USFWS to ensure compliance with protected species legislation.

Our files do not indicate the presence of any State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

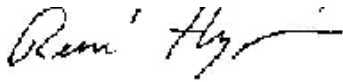
New and updated information is continually added to Biotics. Please re-submit project information and map for an update on this natural heritage information if the scope of the project changes and/or six months has passed before it is utilized.

The Virginia Department of Game and Inland Fisheries (VDGIF) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain

information not documented in this letter. Their database may be accessed from <http://vafwis.org/fwis/> or contact Gladys Cason (804-367-0909 or Gladys.Cason@dgif.virginia.gov). According to the information currently in our files, South Anna River 2, which has been designated by VDGIF as a “Threatened and Endangered Species Water” for the Dwarf wedgemussel (*Alasmodonta heterodon*), is within 2 miles of the project area. Therefore, DCR recommends coordination with USFWS and VDGIF, Virginia's regulatory authority for the management and protection of this or these species to ensure compliance with the Virginia Endangered Species Act (VA ST §§ 29.1-563 – 570).

Should you have any questions or concerns, feel free to contact me at 804-371-2708. Thank you for the opportunity to comment on this project.

Sincerely,

A handwritten signature in black ink, appearing to read "René Hypes", with a stylized flourish at the end.

S. René Hypes
Project Review Coordinator

CC: Troy Andersen, USFWS
Ernie Aschenbach, VDGIF

Literature Cited

Hotchkiss, Neil. 1973. Common marsh, underwater and floating-leaved plants of the United States and Canada. Dover Publications, Inc., New York. p. 63.

Ludwig, J. Christopher. 1996. Personal communication. Virginia Department of Conservation and Recreation, Division of Natural Heritage.

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Porter D.M. 1991. Mat-forming water-hyssop. In Virginia's Endangered Species: Proceedings of a Symposium. K. Terwilliger ed. The McDonald and Woodward Publishing Company, Blacksburg, Virginia. pp. 141-143.

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Van Alstine, N.E. 1994. Information on Swamp Pink (*Helonias bullata*). Compiled for Endangered Species Workshop.

Virginia Natural Heritage Program. 1988. Status survey report for *Bacopa stragula* (Mat-forming Water-hyssop) in Virginia. Unpublished report submitted to the Department of Agriculture and Consumer Services, Bureau of Plant Protection and Pesticide Regulation