

Furthermore, several other rare plants typically associated with prairie vegetation inhabit semi-open diabase glades in Virginia may occur on site if suitable habitat is present. Diabase glades are characterized by historically fire-dominated grassland vegetation on relatively nutrient-rich soils underlain by Triassic bedrock. Diabase flatrock, a hard, dark-colored volcanic rock, is found primarily in northern Virginia counties and is located within the geologic formation known as the Triassic Basin. Where the bedrock is exposed, a distinctive community type of drought-tolerant plants occurs. Diabase flatrocks are extremely rare natural communities that are threatened by activities such as quarrying and road construction (Rawinski, 1995). In Northern Virginia, diabase supports occurrences of several global and state rare plant species: earleaf foxglove (*Agalinis auriculata*, G3/S1/NL/NL), purple milkweed (*Asclepias purpurascens*, G4G5/S2/NL/NL) downy phlox (*Phlox pilosa*, G5T5/S2/NL/NL), stiff goldenrod (*Oligoneuron rigidum* var. *rigidum*, G5/S2/NL/NL), and marsh hedgenettle (*Stachys pilosa* var. *arenicola*, G5/S1/NL/NL).

Due to the potential for this project area to support populations of natural heritage resources, DCR recommends an inventory for the resource in the study area. With the survey results we can more accurately evaluate potential impacts to natural heritage resources and offer specific protection recommendations for minimizing impacts to the documented resources.

### Prince William County

See above comments on diabase glades under Loudoun County and **Southern Bull Run Mountains Conservation Site/Bull Run Mountains Natural Area Preserve** under Fauquier County.

### Warren County

The **Crooked Run Conservation Site** has been given a biodiversity significance ranking of B3, which represents a site of high significance. Significant caves have been documented within this conservation site and the natural heritage resources associated with this site are:

<i>Antrolana lira</i>	Madison Cave Isopod	G2G4/S2/NL/LT
<i>Stygobromus gracilipes</i>	Shenandoah Valley Cave Amphipod	G2G4/S2S3/NL/SC

The Madison Cave isopod is an extremely rare troglobitic species that typically inhabits cave lakes (Holsinger, 1991). Isopods, also known as aquatic sow bugs, seldom come into open waters but remain secreted under rocks, vegetation, and debris. They are primarily inhabitants of the unpolluted shallows, rarely being found in water more than a meter deep. Most isopods are known only from single localities, generally caves or springs (Pennack, 1978). Threats to the Madison Cave isopod include groundwater pollution and disruptive human activities. Please note that this species is currently listed as threatened by the United States Fish and Wildlife Service (USFWS) and the Virginia Department of Game and Inland Fisheries (VDGIF). Due to the legal status of this natural heritage resource, DCR recommends coordination with VDGIF and USFWS.

The Shenandoah Valley cave amphipod occurs in small streams and pools in caves (Holsinger, 1991). Amphipods are common in freshwater ecosystems of Virginia; they also occur in brackish and marine waters along the coast. Most are eyeless, unpigmented troglobites restricted to caves and other subterranean groundwater habitats (Holsinger, 1991). Threats to the Shenandoah Valley cave amphipod includes urbanization and groundwater pollution. Please note that this species is currently classified as a special concern species by the Virginia Department of Game and Inland Fisheries (VDGIF).

In addition, the brook floater (*Alasmidonta varicosa*, G3/S1/NL/LE) has been historically documented within the North Fork Shenandoah River. The brook floater, is a small rare mussel species, typically occurs in and near riffles and rapids of smaller creeks with rocky or gravelly substrates. Threats include poor water quality as this species does not tolerate silt or nutrient pollution well (Stephenson, 1991). Please note that this species is currently listed as endangered by the Virginia Department of Game and Inland Fisheries (VDGIF).

## General Recommendations

- 1) DCR recommends avoidance of all natural heritage resources within the study area, including the Bull Run Mountains Natural Area Preserve in Fauquier County (see enclosed map).
- 2) To minimize adverse impacts to the aquatic ecosystem as a result of the proposed activities, DCR recommends the implementation of and strict adherence to applicable state and local erosion and sediment control/storm water management laws and regulations.
- 3) For the area west of the Blue Ridge, underlain by limestone or dolostone rock, only wetland approved herbicides should be applied of right of way maintenance should be accomplished by mechanical rather than chemical use.
- 4) Please coordinate further with DCR, as alignment alternatives are identified for this project.

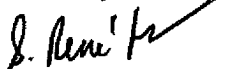
Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the Virginia Department of Conservation and Recreation (DCR), DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

New and updated information is continually added to Biotics. Please contact DCR for an update on this natural heritage information if a significant amount of time passes before it is utilized.

The Virginia Department of Game and Inland Fisheries 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 [www.dgif.virginia.gov/wildlife/info\\_map/index.html](http://www.dgif.virginia.gov/wildlife/info_map/index.html), or contact Shirl Dressler at (804) 367-6913.

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,



S. René Hypes

Project Review Coordinator

CC: Andy Zadnik, VDGIF  
Bob Munson, DCR-DPRR  
Eric Davis, USFWS  
Wil Orndorff, DCR-Karst

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**Definitions of Abbreviations Used on Natural Heritage Resource Lists  
of the  
Virginia Department of Conservation and Recreation**

**Natural Heritage State Ranks**

The following ranks are used by the Virginia Department of Conservation and Recreation to set protection priorities for natural heritage resources. Natural Heritage Resources, or "NHR's," are rare plant and animal species, rare and exemplary natural communities, and significant geologic features. The criterion for ranking NHR's is the number of populations or occurrences, i.e. the number of known distinct localities; the number of individuals in existence at each locality or, if a highly mobile organism (e.g., sea turtles, many birds, and butterflies), the total number of individuals; the quality of the occurrences, the number of protected occurrences; and threats.

**S1** - Critically imperiled in the state because of extreme rarity or because of some factor(s) making it especially vulnerable to extirpation from the state. Typically 5 or fewer populations or occurrences, or very few remaining individuals (<1000).

**S2** - Imperiled in the state because of rarity or because of some factor(s) making it very vulnerable to extirpation from the state. Typically 6 to 20 populations or occurrences or few remaining individuals (1,000 to 3,000).

**S3** - Vulnerable in the state either because rare and uncommon, or found only in a restricted range (even if abundant at some locations), or because of other factors making it vulnerable to extirpation. Typically having 21 to 100 populations or occurrences (1,000 to 3,000 individuals).

**S4** - Apparently secure; Uncommon but not rare, and usually widespread in the state. Possible cause of long-term concern. Usually having >100 populations or occurrences and more than 10,000 individuals.

**S5** - Secure; Common, widespread and abundant in the state. Essentially ineradicable under present conditions, typically having considerably more than 100 populations or occurrences and more than 10,000 individuals.

**S#B** - Breeding status of an animal within the state

**S#N** - Non-breeding status of animal within the state. Usually applied to winter resident species.

**S#?** - Inexact or uncertain numeric rank.

**SH** - Possibly extirpated (Historical). Historically known from the state, but not verified for an extended period, usually > 15 years; this rank is used primarily when inventory has been attempted recently.

**S#S#** - Range rank; A numeric range rank, (e.g. S2S3) is used to indicate the range of uncertainty about the exact status of the element. Ranges cannot skip more than one rank.

**SU** - Unrankable; Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.

**SNR** - Unranked; state rank not yet assessed.

**SX** - Presumed extirpated from the state. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.

**SNA** - A conservation status rank is not applicable because the element is not a suitable target for conservation activities.

**Natural Heritage Global Ranks** are similar, but refer to a species' rarity throughout its total range. Global ranks are denoted with a "G" followed by a character. Note GX means the element is presumed extinct throughout its range. A "Q" in a rank indicates that a taxonomic question concerning that species exists. Ranks for subspecies are denoted with a "T". The global and state ranks combined (e.g. G2/S1) give an instant grasp of a species' known rarity. **These ranks should not be interpreted as legal designations.**

**FEDERAL LEGAL STATUS**

The Division of Natural Heritage uses the standard abbreviations for Federal endangerment developed by the U.S. Fish and Wildlife Service, Division of Endangered Species and Habitat Conservation.

**LE** - Listed Endangered

**LT** - Listed Threatened

**PE** - Proposed Endangered

**PT** - Proposed Threatened

**C** - Candidate (formerly C1 - Candidate category 1)

**E(S/A)** - treat as endangered because of similarity of appearance

**T(S/A)** - treat as threatened because of similarity of appearance

**SOC** - Species of Concern species that merit special concern (not a regulatory category)

**NL** - no federal legal status

## STATE LEGAL STATUS

The Division of Natural Heritage uses similar abbreviations for State endangerment.

- LE** - Listed Endangered
- PE** - Proposed Endangered
- SC** - Special Concern - animals that merit special concern according to VDGIF (not a regulatory category)
- LT** - Listed Threatened
- PT** - Proposed Threatened
- C** - Candidate
- NL** - no state legal status

For information on the laws pertaining to threatened or endangered species, please contact:

**U.S. Fish and Wildlife Service** for all **FEDERALLY** listed species;  
**Department of Agriculture and Consumer Services**, Plant Protection Bureau for **STATE** listed plants and insects  
**Department of Game and Inland Fisheries** for all other **STATE** listed animals

## Conservation Sites Ranking

Rank is a rating of the significance of the conservation site based on presence and number of natural heritage resources; on a scale of 1-5, 1 being most significant. Sites are also coded to reflect the presence/absence of federally/state listed species:

<u>Conservation Site Ranks</u>	<u>Legal Status of Site</u>
<b>B1</b> - Outstanding significance	<b>FL</b> - Federally listed species present
<b>B2</b> - Very High significance	<b>SL</b> - State listed species present
<b>B3</b> - High significance	<b>NL</b> - No listed species present
<b>B4</b> - Moderate significance	
<b>B5</b> - Of general Biodiversity significance	



COMMONWEALTH of VIRGINIA

Department of Historic Resources

2801 Kensington Avenue, Richmond, Virginia 23221

L. Preston Bryant, Jr. Secretary of Natural Resources

Kathleen S. Kilpatrick Director

MEMORANDUM

Tel: (804) 367-2323 Fax: (804) 367-2391 TDD: (804) 367-2386 www.dhr.virginia.gov

DATE: 7-31-06

TO: Edward Bowers

FROM: Ethel R. Eaton, Manager, Office of Review and Compliance; ext. 112

PROJECT NAME/IDENTIFYING NUMBER: Meadowbrook to Loudoun

CITY/COUNTY: Transmission Line

\* Additional information is needed in order to complete our review of the project. Responses may be provided by fax or e-mail. For further guidance, please refer to the Project review Application on our web site at http://www.dhr.virginia.gov/review/ProjectReviewForm.doc.

X Results of a DHR archives search

\* Project Review Application Form

A map (USGS 7.5. minute series) showing the location of the project boundaries and the Area of Potential Effect. Maps can be accessed at http://topozone.com/ The A.P.E. means the entire geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. It may be different for archaeological (limited to direct ground disturbance) than for historic districts and structures (viewshed issues must considered).

Federal Agency (Name, address, phone, fax and e-mail of contact person)

\* More detailed description of the project, including:

Extent of anticipated ground disturbance.

Photographs of any structures within the project area or in the A.P.E. not listed in our inventory with date of construction, if known.

Actions directly affecting structures (repair, rehabilitation, demolition)

Other:

COMMENTS: Roger Kirchen, ext. 153, is DHR contact for this project.

Administrative Services 10 Courthouse Ave. Petersburg, VA 23803 Tel: (804) 863-1624 Fax: (804) 862-6196

Capital Region Office 2801 Kensington Office Richmond, VA 23221 Tel: (804) 367-2323 Fax: (804) 367-2391

Tidewater Region Office 14415 Old Courthouse Way 2nd Floor Newport News, VA 23608 Tel: (757) 886-2807 Fax: (757) 886-2808

Roanoke Region Office 1030 Penmar Avenue, SE Roanoke, VA 24013 Tel: (540) 857-7585 Fax: (540) 857-7588

Winchester Region Office 107 N. Kent Street, Suite 203 Winchester, VA 22601 Tel: (540) 722-3427 Fax: (540) 722-7535



# COMMONWEALTH of VIRGINIA

L. Preston Bryant, Jr.  
Secretary of Natural Resources

**Department of Historic Resources**  
2801 Kensington Avenue, Richmond, Virginia 23221

Kathleen S. Kilpatrick  
Director

Tel: (804) 367-2323  
Fax: (804) 367-2391  
TDD: (804) 367-2386  
www.dhr.virginia.gov

January 26, 2007

Mr. Eric Gilliland  
Principal Investigator  
Burns & McDonnell  
9400 Ward Parkway  
Kansas City, MO 64114-3319

RE: Meadow Brook to Loudoun Transmission Line Routing Study  
DHR File 2006-1202

Dear Mr. Gilliland:

Thank you for your most recent submission, dated January 4, 2007 regarding the Dominion Virginia Power's proposed Meadow Brook to Loudoun Transmission Line. We received the historic property lists and corresponding map of alternative routes on January 5, 2007. This letter outlines our comments on the preliminary information presented to us with respect to the impacts of the proposed project on historic resources. These comments are intended as technical assistance to Dominion in the selection of a preferred alternative and the preparation of an application to the Virginia State Corporation Commission. We retain the right to provide additional comment on the completed SCC application or pursuant to any applicable state or Federal regulation.

Crossing through three counties—Warren, Fauquier, and Prince William—the proposed corridor traverses a region with both national significance and longstanding community associations that still vibrantly define its history and character. The project lies within an extraordinarily rich cultural environment, illustrated by the volume of known historic resources (723 by the current lists) and their dense concentration (over 6670 acres per current boundaries). Specifically, our records indicate that within one mile of the proposed routes there is one National Historic Landmark, 21 resources listed on the National Register of Historic Places, and 29 resources considered by DHR as eligible for the National Register. The eligibility of the remaining surveyed resources has not been determined at this time. [See Attachment A for a partial list of significant resources within the current study area.] Ranging in scale from less than a quarter acre to nearly 1800 acres, the historic districts, rural historic districts, battlefields, historic farms, private residences, commercial buildings, community structures, cemeteries, and archeological sites collectively speak to the integrity of this historic landscape: its cultural setting, character, association, and feeling. We would characterize this study area as a *cultural landscape*, defined by the National Park Service as “a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein associated with a historic event, activity, or person, or that exhibits other cultural or aesthetic values.”

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Roanoke Region Office  
1030 Penmar Ave., SE  
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Fax: (540) 857-7588

Northern Region Office  
5357 Main Street  
PO Box 519  
Stephens City, VA 22655  
Tel: (540) 868-7031  
Fax: (540) 868-7033

The number and scale of *known* historic resources points to the likelihood that the study area has the potential to contain *additional* resources in unsurveyed areas. An excellent example is the newly-identified “Goose Creek to Cromwell’s Run” Rural Historic District. This historic district was not identified when you compiled your data, but on January 11, 2007, DHR found this historic district to be potentially eligible for listing on the National Register. The district contains approximately 13,500 acres of historic landscape embedded with 450 recorded properties, and the potential for many additional contributing resources. Unidentified historic road alignments and features, vernacular settlement patterns, archeological sites, and—critically—historic and contemporary viewsheds that contribute to the significance of this historic district are likely to be present and should be considered.

Based on the information submitted by Burns McDonnell, this project has the potential for extensive detrimental impacts to historic resources. When the integrity of the material fabric, setting, and associations within this cultural landscape is compromised, there will be grave consequences for its resources. In the context of the designation of National Interest Electric Transmission Corridors, the Advisory Council on Historic Preservation wrote to the Department of Energy about the Meadow Brook – Loudoun Transmission Line (see Attachment B) and noted the “scope and magnitude of its potential to adversely impact National Historic Landmarks and other historic properties.”

*Against this backdrop, we would like to advise you that the documentation provided to DHR demonstrates the magnitude and scale of the potential impacts to historic resources. It does not, however, provide sufficient information for informed decision-making in the selection of a preferred alternative. We recommend that you conduct further analysis of the available data so that we may better advise you on the selection of a preferred alternative.*

The following items are our recommendations for further analysis:

- **Identify consulting parties relevant to the project.** Adequate public comment requires identifying specific consulting parties as early as possible in the planning process. We understand that Dominion has initiated the public process and has met with various interested groups. If you have not done so already, we recommend contacting affected local governments, the National Park Service both at regional and local levels, NPS—American Battlefield Protection Program, Virginia Council on Indians, Federally-recognized Indian tribes who have expressed an interest in Virginia, local historical societies, land trusts and planning agencies, the National Trust for Historic Preservation, and Piedmont Environmental Council. We would appreciate receiving copies of any comments made to Dominion regarding historic resources.

- **Determine an appropriate Area of Potential Effect.** The Area of Potential Effect guides the identification and evaluation of historic properties that may be impacted by the various alternative routes proposed for the project. While the initial mapping of known historic resources within a one-mile study area is important from a “plan view perspective,” the indirect effects significant in terms of this project—visual effects—may not be revealed until the geographic and topographic contexts are illustrated. For example, the historic Thoroughfare Gap area contains natural systems and topographic features that are integral to its historical significance; the introduction of constructed features in that landscape may severely impact the setting of this resource. *An accurate Area of Potential Effect should take into consideration the height of the proposed towers and relative topography of the area in order to determine the range of visual effects upon individual resources.*

- **Use a Cultural Landscape Approach.** *We strongly recommend using the Cultural Landscape documentation standards developed by the National Park Service to analyze available data on historic resources within the study area.* Specific guidance may be found in the publications of the National Register of Historic Places (National Register Bulletins 18, 30, 40, and 41; *Preservation Briefs* #36; *Secretary of Interior Standards for Treatment of Historic Properties with the Treatment of Cultural Landscape*), found at [www.cr.nps.gov/nr/publications](http://www.cr.nps.gov/nr/publications)); NPS-28, *Cultural Resource Management*, ([www.cr.nps.gov/history/online\\_books](http://www.cr.nps.gov/history/online_books)); and NPS, *A Guide to Cultural Landscape Reports* (1998). The development of a Cultural Landscape Inventory will define the history and character of the study area and will enable Dominion to rank and assess the alternatives.

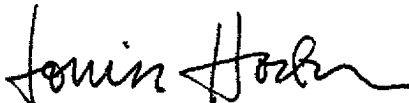
The first step in this cultural landscape approach is to designate *cultural landscape character areas*. These character areas are broadly defined as concentrations of resources at a landscape scale: topography, natural systems and features, spatial arrangement, buildings and structures, viewsheds, archeological sites, and circulation. Our initial review of the January 4, 2007 Burns McDonnell map suggests that there are potentially seven landscape character areas that illustrate discrete concentration of resources, with some overlap between areas. [A map depicting our preliminary landscape character areas is included as Attachment C.] As an example, large scale historic landscapes such as the Crooked Run Valley Rural Historic District can be viewed as a landscape character area.

Depicting each character area at the appropriate scale will further illustrate the location and type of all resources with more legibility than a single base map. There are striking differences in scale, complexity, and historic fabric between a single building such as St. Paul's Episcopal Church (Haymarket) and the assemblage of historic features located within the John Marshall/Leeds Manor Rural Historic District. Similarly, views from the historic Public School #18 (African-American) are significantly different than the panoramic viewsheds associated with Civil War battlefields such as Cedar Creek/Belle Grove or Buckland Mills.

In conclusion, DHR recognizes that Burns McDonnell has provided data to us in a timely fashion and we appreciate this opportunity to comment on this project. Unfortunately, however, we do not feel that the information submitted for our review provides sufficient basis for the comparison of alternative routes. We recommend a more comprehensive study, as described above, to assist Dominion's planning efforts. When a preferred alternative is selected, Dominion may use the conclusions of the Cultural Landscape Inventory to develop a scope for the full identification of historic properties, which will include complete archaeological, architectural, and landscape surveys.

We look forward to working with you and Dominion throughout this project. If you have any questions about these recommendations or which to discuss these comments further, please feel free to contact me through my email, [tonia.horton@dhr.virginia.gov](mailto:tonia.horton@dhr.virginia.gov) or by phone, 804.367.2323, x137.

Sincerely,



Tonia W. Horton, Ph.D.  
Office of Review and Compliance

**Attachment A. Representative Historic Resources within the Proposed One-Mile Study Area**

**Attachment B. Letter from Advisory Council on Historic Preservation to Department of Energy, 1/10/07**

**Attachment C. Map of Potential Landscape Character Areas**

**Cc: Mr. John Bailey. Dominion Virginia Power**

**Attachment A: Representative Historic Resources within the Proposed One-Mile Study Area**

The following is a partial list of the major resources within the current study area that are either listed on the National Register or considered by DHR as eligible for listing on the National Register. This list is organized by property type and name and the acreage of the resource is included in parentheses. This list is not comprehensive, but meant to illustrate the type and scale of resources that may be affected by this project.

**Historic Districts: 3805 acres**

Thoroughfare HD [8.7]  
Georgetown (Little Georgetown) HD [1.4]  
John Marshall/Leeds Manor Rural HD potential [1983]  
Marshall [7.4]  
Markham HD [7.8]  
Front Royal CC [5]  
Delaplane HD [1.58]  
Crooked Run Valley RHD [1765]  
Riverton HD [5.25]  
The Plains HD [12.7]  
Haymarket [1.8]  
Front Royal Country Club (Recreation Park HD) [5.04]

**Battlefields 2650 acres (including easements\*)**

Front Royal [317]  
Guard Hill [127]  
Thoroughfare Gap [45]  
Belle Grove and Cedar Creek [289]  
Buckland Mills Battlefield [409.9]  
Cedar Creek Battlefield [1462]\*

**Major sites: 216 acres (approx)**

Grassland Farm [<1]  
Ashleigh [9.4]  
Oak Hill [19.6]  
Yew Hill (Watts Ordinary) [10.4]  
The Hollow [30]  
Morven [14.8]  
Waveland [82]  
Mount Hope [30]  
Locust Bottom/Rollingwood Farm [17]  
LaGrange [1.7]

**Buildings (less than 1 acre)**

Public School #18 (African American)  
Heflin's Store  
Riverside House  
St. Paul's Episcopal Church  
Riverside House

**Attachment B. Letter from Advisory Council on Historic Preservation to Department of Energy, 1/10/07**



Preserving America's Heritage

January 10, 2007

Honorable Samuel W. Bodman  
Secretary of Energy  
Forrestal Building  
1000 Independence Avenue, SW  
Washington, D.C. 20585-1000

Dear Secretary Bodman:

On November 9, 2006, the Advisory Council on Historic Preservation received a press release stating that the Department of Energy, in consideration of comments received on its National Electric Transmission Congestion Study (August 8, 2006), has not yet decided whether, and if so where, it should designate any National Interest Electric Transmission (NIET) Corridors. Furthermore, DOE has determined that, *"prior to issuing a report that designates any National Corridor, the Department will first issue any designation that it is considering in draft form, so as to allow opportunities for review and comment by affected States, regional entities, and the general public."* We support this approach since it could be easily coordinated to accommodate the requirements of Section 106 of the National Historic Preservation Act and its implementing regulations, "Protection of Historic Properties" (36 CFR Part 800).

In accordance with the Energy Policy Act of 2005, the DOE is authorized to designate *"any geographic area experiencing electric energy transmission capacity constraints or congestion that adversely affects consumers as a national interest electric transmission corridor."* Such a designation then permits carriers to proceed with development of facilities along specific alignments designed to alleviate congestion within that corridor.

Pursuant to 36 CFR § 800.3(a), it is the responsibility of the DOE to determine if its designation of specific NIET Corridors constitutes an "undertaking;" meaning that it is

*"a project, activity or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of a Federal agency; those carried out with Federal financial assistance; and those requiring a Federal permit, license or approval"* [36 CFR § 800.16(y)].

If DOE determines that this action meets the definition of undertaking, it then must determine if the undertaking is the type of activity that has the potential to cause effects on properties that are either listed in or eligible for listing in the National Register of Historic Places. If there is potential to cause effects to historic properties, then DOE should determine that Section 106 is applicable to the undertaking.

ADVISORY COUNCIL ON HISTORIC PRESERVATION

1100 Pennsylvania Avenue NW, Suite 809 • Washington, DC 20004  
Phone: 202-606-8503 • Fax: 202-606-8647 • [achp@achp.gov](mailto:achp@achp.gov) • [www.achp.gov](http://www.achp.gov)

Even before completing its study to identify and evaluate congestion nationwide, the DOE received a request for the designation of a specific corridor in Virginia, known as the Meadowbrook Line. This proposed corridor has generated considerable public concern and opposition for a number of reasons, including the scope and magnitude of its potential to adversely impact National Historic Landmarks and other historic properties. Based on the available documentation that we have reviewed, the ACHP believes that Section 106 is applicable because the designation of specific NIET Corridors represents the approval of an activity under the direct jurisdiction of the DOE that has the potential to cause effects on historic properties.

The DOE appears to be aware that Section 106 and other environmental reviews will be needed when considering alternatives within a designated corridor. DOE has delegated responsibility for coordinating all applicable Federal authorizations and related environmental reviews to the Federal Energy Regulatory Commission. However, by initiating Section 106 review after Federal designation of a corridor, DOE could potentially eliminate consideration of project alternatives and solutions to adverse effects to historic properties. Accordingly, in order to ensure compliance with Section 106, we recommend that the DOE initiate review under the ACHP's regulations prior to taking any action to designate a specific corridor. In that manner, DOE can "*ensure that the Section 106 process is initiated early in the undertaking's planning, so that a broad range of alternatives may be considered during the planning process for the undertaking*" [36 CFR § 800.1(c)].

In our letter dated October 10, 2006, we encouraged DOE to consider adopting a tiered approach to completing Section 106 reviews in which the first step would address the effects of corridor designation. The next step would address effects caused by specific alignments within the designated corridor. There are examples that we could share with you that included designation of a corridor within which a preferred alignment eventually would be selected. Since the ACHP's regulations provide for program alternatives, a process could be developed that includes sufficient flexibility to permit DOE, working with the ACHP and others, to develop a tailored approach to Section 106 review for NIET corridor designation and development.

We understand the importance of this issue and the need to act quickly. Accordingly, we recommend that DOE formally invite the ACHP to participate in Section 106 consultation for this program. This will allow us to consult with DOE at the outset to ensure that Section 106 review is effectively coordinated at all steps in the process.

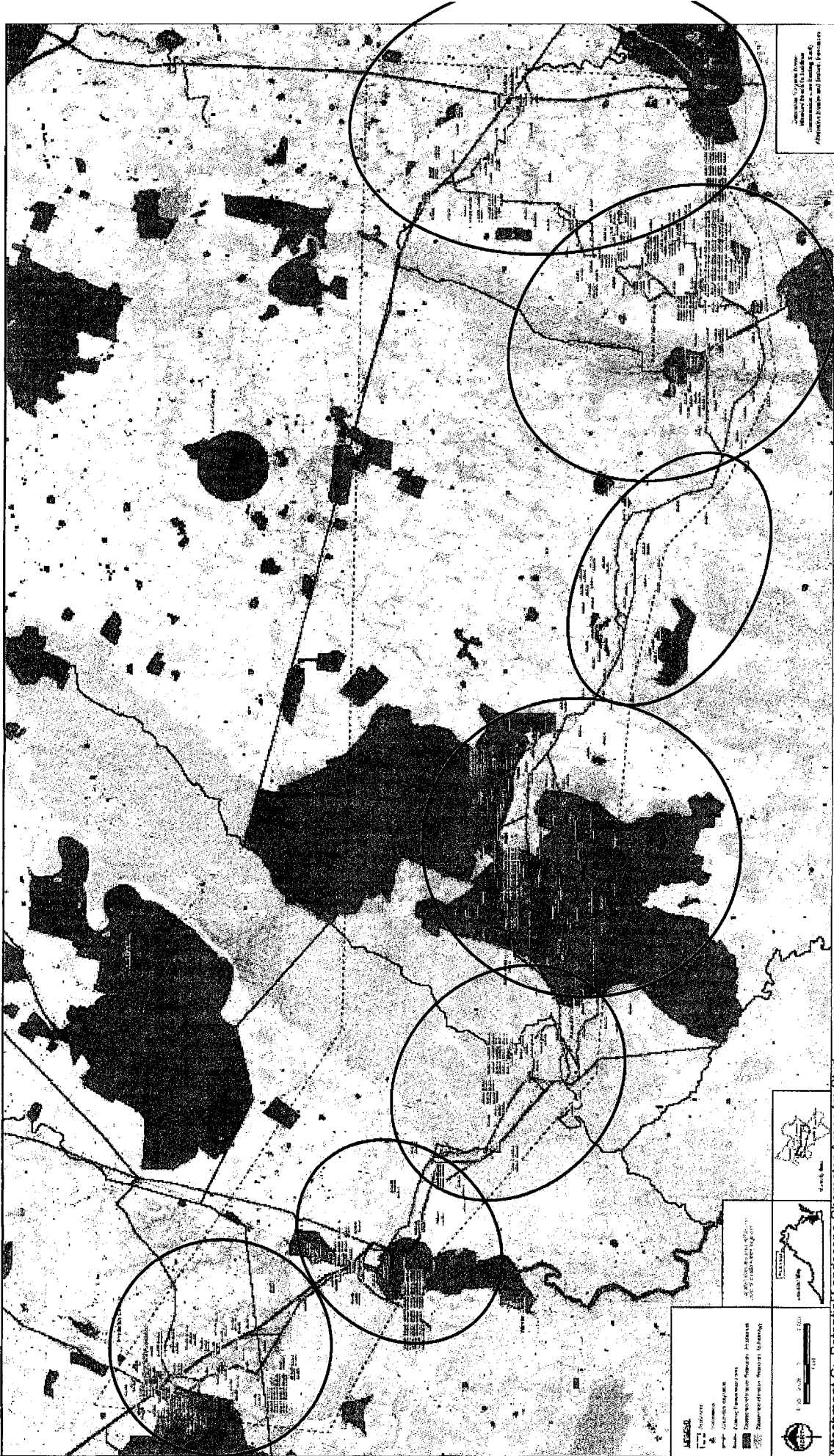
Should you have any questions or require additional information please contact Laura Dean at 202-606-8503. Your cooperation in this matter is appreciated.

Sincerely,



John M. Fowler  
Executive Director

**Attachment C. Map of Potential Landscape Character Areas**



Prepared by: [illegible]  
 Date: [illegible]  
 Project: [illegible]

**LEGEND**

- County Boundary
- Major Road
- Minor Road
- Water Feature
- Building
- Field
- Forest
- Pasture
- Other Land Use

Scale: 1 inch = 1 mile  
 0 0.5 1 1.5 2 Miles

State of Virginia  
 Department of Historic Resources

Attachment C: Potential Landscape Character Areas for Study  
 Virginia Department of Historic Resources Overlay, January 26, 2007 (CSW)



COMMONWEALTH of VIRGINIA  
DEPARTMENT OF TRANSPORTATION

GREGORY A. WHIRLEY  
ACTING COMMISSIONER

811 Commerce Road  
P.O. Box 2249  
Staunton, VA 24402-2249

August 22, 2006

Mr. Edward Bowers  
Environmental Scientist  
Burns & McDonnell  
9400 Ward Parkway  
Kansas City, Missouri 64114-3319

RE: Meadow Brook to Loudoun Transmission Line Project  
Project Number 42715

Dear Mr. Bowers:

In reference to your recent letter, the Virginia Department of Transportation (VDOT) will be consolidating its response for the Northern Virginia, Culpeper and Staunton Districts regarding Dominion Virginia Power's Meadow Brook to Loudoun Transmission Line Project.

Mr. Greg Wroniewicz, VDOT's State Utilities Engineer, has been in contact with Mr. John Bailey of Dominion Virginia Power in an effort to narrow the study area and better define their scope of work for VDOT to respond to. Mr. Bailey has indicated he will have better information on the lines' location in 2 - 4 weeks. With this information, we will then be able to communicate better our comments or potential concerns regarding the routing and properties or right of way that might be impacted.

If you have any questions, you may contact me at (540) 332-9128.

Sincerely,

*Robert S. Ryder*

Robert S. Ryder  
District Right of Way and Utilities Manager

RSR/mh

cc: Mr. Greg Wroniewicz  
Mr. John Bailey



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF TRANSPORTATION

811 Commerce Road  
Staunton, VA 24401  
[www.VirginiaDOT.org](http://www.VirginiaDOT.org)

DAVID S. EKERN, PE  
COMMISSIONER

October 5, 2006

Mr. Edward Bowers  
Environmental Scientist  
Burns & McDonnell  
9400 Ward Parkway  
Kansas City, Missouri 64114-3319

RE: Meadow Brook to Loudoun Transmission Line Project  
Project Number 42715

Dear Mr. Bowers:

This letter will serve as the Virginia Department of Transportation (VDOT) response for the Northern Virginia, Culpeper and Staunton Districts regarding Dominion Virginia Power's Meadow Brook to Loudoun Transmission Line Project.

We have researched our surplus, residue and operational properties in the study area and found no significant impacts by the proposed transmission line.

If you have any questions, you may contact me at (540) 332-9128.

Sincerely,

A handwritten signature in cursive script that reads "Robert S. Ryder".

Robert S. Ryder  
District Right of Way and Utilities Manager

RSR/mhd

cc: Mr. Greg Wroniewicz  
Mr. John Bailey

# Virginia Outdoors Foundation

Richmond Executive Office  
101 N 14<sup>th</sup> Street, 17<sup>th</sup> Floor, Richmond, VA 23219  
(804) 225-2147 FAX (804) 371-4810

Richmond Easement Office  
(804) 786-0801 FAX (804) 225-3236

[www.virginiaoutdoorsfoundation.org](http://www.virginiaoutdoorsfoundation.org)



Encouraging the preservation of open space

August 17, 2006

Edward Bowers, Environmental Scientist  
Burns & McDonnell  
9400 Ward Parkway  
Kansas City, MO 64114

Re: Request for Information, Meadow Brook to Loudoun Transmission Line Project, Project Number 42715

Dear Mr. Bowers:

The Virginia Outdoors Foundation (VOF) has received your request for information dated July 25, 2006. Thank you for this opportunity for VOF to provide Burns & McDonnell with comments regarding the 500 kilovolt electric transmission line proposed by Dominion Virginia Power (DVP) and Allegheny Power (Allegheny).

As you may know, the Virginia Outdoors Foundation is an instrumentality of the Commonwealth of Virginia created by the General Assembly in order to "promote the preservation of open-space lands and to encourage private gifts of money, securities, land or other property to preserve the natural, scenic, historic, scientific, open-space and recreational areas of the Commonwealth." *See*, Va. Code § 10.1-1800 (Michie 2006). VOF fulfills its statutory purpose primarily by protecting relatively undeveloped, natural land through open-space easements or through fee simple ownership. VOF is eager to work with DVP and Allegheny to locate a transmission line route that will not impair the conservation value of the open-space land that VOF protects.

VOF owns 467 open-space easements (totaling 72,057 acres) and 33 fee simple properties (totaling 2,593.37 acres) located within the study area shown on the U.S.G.S. maps that you enclosed with your July 25, 2006 letter. *See*, Appendix: Table 1. VOF has designated these easements and fee simple properties as open-space land pursuant to the Virginia Open-Space Land Act. The Code of Virginia provides that land designated as open space under the Open-Space Land Act shall not be converted or diverted from open-space land use unless the public body that designated the land as open-space finds that the conversion or diversion meets several criteria. *See*, Va. Code § 10.1-1704 (Michie 2006). The restrictions in the deeds for these protected lands do not permit the construction and use of an electric transmission line. In order for DVP and Allegheny to build a transmission line across open-space land, the land would have to be diverted from open-space land use. Meeting the statutory criteria for a diversion under the

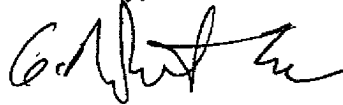
Mr. Edward Bowers  
Page 2  
August 17, 2006

Open-Space Land Act can be very time-consuming and expensive. The VOF Board of Trustees has approved very few diversions of open-space land in its forty-year history, and VOF intends to exercise its full authority under the law to protect its open-space lands within the study area.

In addition, one of VOF's fee simple properties located within the study area is the Bull Run Mountains State Natural Area Preserve, a State Natural Area dedicated pursuant to the Virginia Natural Area Preserve Act. *See*, Va. Code § 10.1-209 *et seq.* (Michie 2006). The Code of Virginia provides that once a State Natural Area has been dedicated, it "shall be managed in a manner consistent with continued preservation of the natural heritage resources it supports." *See*, Va. Code § 10.1-214 (Michie 2006). An electronic transmission line would not be consistent with the continued preservation of the natural heritage of the Bull Run Mountains State Natural Area Preserve.

In order to help your firm locate a route for the transmission line that will not traverse any of VOF's open-space lands, I have attached a map prepared by our staff. In addition to lands protected by VOF, the map shows lands protected by the Virginia Department of Conservation and Recreation and the Nature Conservancy. VOF is looking forward to working with Burns & McDonnell, DVP, and Allegheny to locate a transmission line route that does not cross open-space land. Please do not hesitate to contact me if you have any questions or would like more information.

Sincerely,



G. Robert Lee  
Executive Director

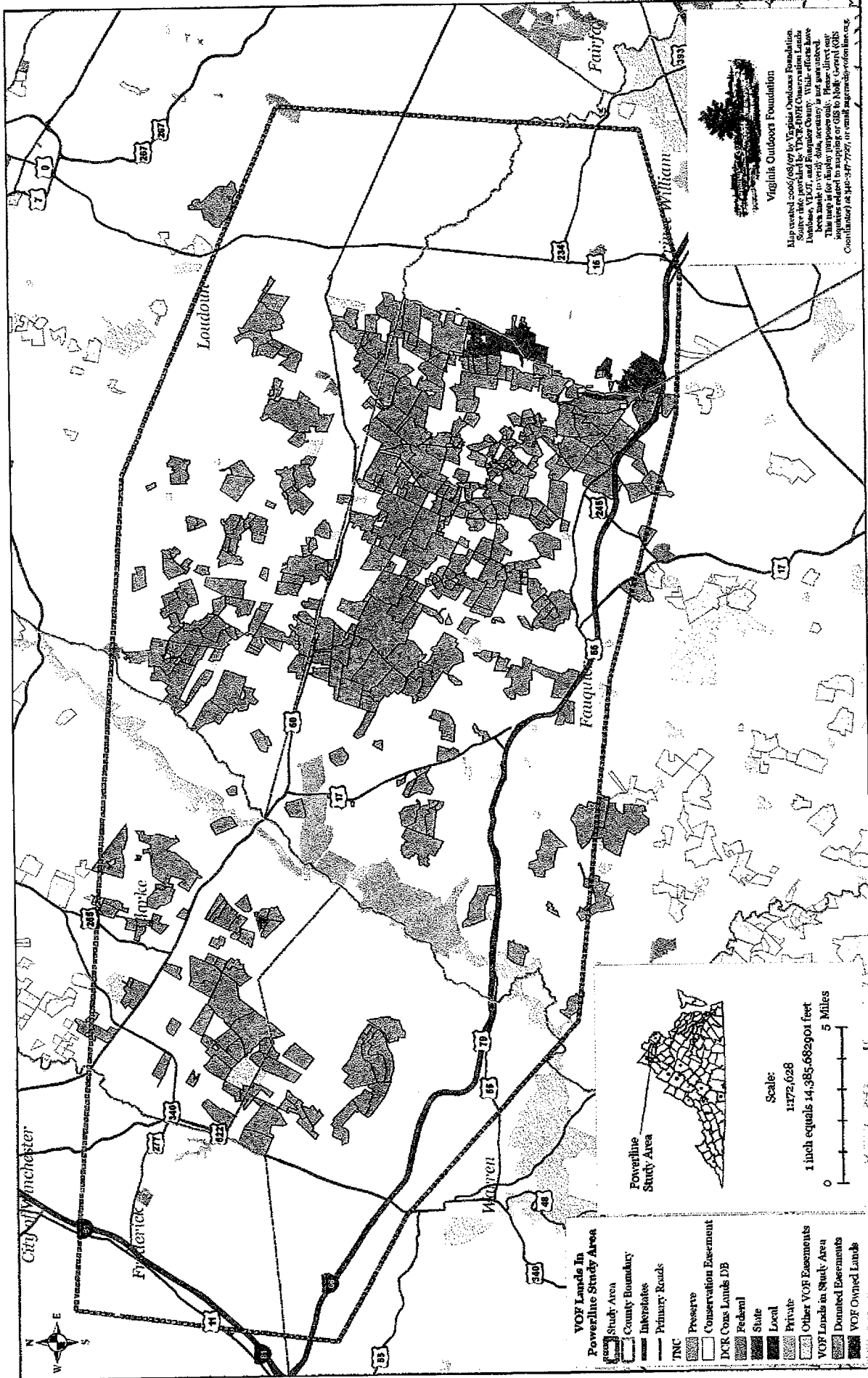
Attachments: Appendix, Map

cc: L. Preston Bryant, Jr., Secretary of Natural Resources  
VOF Board of Trustees  
Frederick S. Fisher, Special Assistant Attorney General

## Appendix

**Table 1**

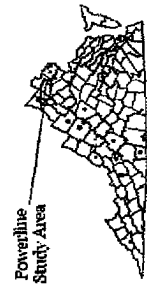
<b>VOF Lands that Intersect Study Area (plus 200 ft buffer)</b>	
Total VOF Easement Deed Acres in Study Area:	<b>72,057.00</b>
Total VOF Easement Deeds in Study Area:	<b>467</b>
Total VOF Easement Polygons (Easements in Gross) in Study Area:	<b>395</b>
Total VOF Owned GIS Calculated Acres in Study Area	<b>2,593.37</b>
Total VOF Owned Polygons in Study Area	<b>33</b>



Map revised 2006/09/09 by Virginia Outdoors Foundation.  
 Source data provided by TPOC 2004 Conservation Lands  
 Database, VDOT, and other sources. All data is not guaranteed.  
 This map is for display purposes only. Please direct any  
 inquiries related to a mapping or GIS to Mark Gentry (GIS  
 Consultant) at 340-347-7797, or email [markgentry@vof.org](mailto:markgentry@vof.org).

Scale:  
 1:172,628  
 1 inch equals 14,385.682901 feet  
 0 5 Miles

- VOF Lands in Powhatan Study Area**
- Study Area
  - County Boundary
  - Interstate
  - Primary Roads
  - TNC
  - Preserve
  - Conservation Easement
  - DCR Cons Lands DB
  - Federal
  - State
  - Local
  - Private
  - Other VOF Easements
  - VOF Lands in Study Area
  - Donated Easements
  - VOF Owned Lands





# COMMONWEALTH of VIRGINIA

L. Preston Bryant, Jr.  
Secretary of Natural Resources

## **Marine Resources Commission**

2600 Washington Avenue  
Third Floor  
Newport News, Virginia 23607

Steven G. Bowman  
Commissioner

August 4, 2006

Mr. Edward Bowers  
Burns & McDonnell  
9400 Ward Parkway  
Kansas City, Missouri 64114

**Re: Meadow Brook to Loudoun  
Transmission Line Project**

Dear Mr. Bowers:

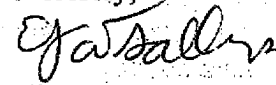
This is in reference to your letter dated July 25, 2006 requesting comment regarding the proposed study area for new electrical transmission line in northern Virginia.

Please be advised that the Marine Resources Commission, pursuant to Section 28.2-1204 of the Code of Virginia, has jurisdiction over any encroachments in, on, or over any State-owned rivers, streams, or creeks in the Commonwealth. Accordingly, if any portion of the subject project involves any encroachments channelward of ordinary high water along natural rivers and streams, a permit may be required from our agency.

The VMRC typically exerts its jurisdiction over projects impacting non-tidal streams with a drainage area of greater than five square miles, or an average stream flow of greater than five cubic feet per second. It appears from a preliminary review of the enclosed maps that there are several streams with drainage areas greater than five square miles. Any crossings of these streams would require a permit from the Marine Resources Commission.

Should you have any questions regarding this matter, please feel free to call me at (747) 247-8027.

Sincerely,

  
Elizabeth Gallup  
Environmental Engineer

EH/lcm  
HM

*An Agency of the Natural Resources Secretariat*

Web Address: [www.mrc.virginia.gov](http://www.mrc.virginia.gov)

Telephone (757) 247-2200 (757) 247-2292 V/TDD Information and Emergency Hotline 1-800-541-4646 V/TDD

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Faye C. Cooper

8 August 2006

Edward Bowers, Environmental Scientist  
Burns & McDonnell  
9400 Ward Parkway  
Kansas City, MO 64114

**RE: Dominion Virginia Power – Meadow Brook to Loudoun  
Transmission Line Project # 42715**

Dear Mr. Bowers:

Thank you for the opportunity to review the study area maps for the proposed transmission line for Dominion Virginia Power and Allegheny Power. I have looked the maps over and indicated (in orange) where on maps 1 and 2 your study area includes portions of the Cedar Creek and Front Royal Civil War battlefields. More detailed GIS-based maps of the battlefields' boundaries can be found on the websites for Frederick County and Warren County, Virginia respectively. Furthermore, the entire study area in Warren, Clarke, and Frederick counties is contained within the boundary of the Shenandoah Valley Battlefields National Historic District – a congressionally designated National Heritage Area. The federal Department of Transportation has determined that for purposes of transportation projects, the entire National Historic District is considered a Section 106 resource.

Apart from the battlefields themselves, there are a number of sites relating to the Civil War within the transmission line study area. You might want to check out the National Park Service website and the *Study of Civil War Sites in the Shenandoah Valley of Virginia* report prepared by the park service in 1992. This report lists sites related to the Civil War in the three counties here being considered – among others. The link to the NPS site and this document is <http://www.cr.nps.gov/hps/abpp/shenandoah/svs0-1.html>

While little of the battlefields are located within your study area, the Battlefields Foundation would have concerns about transmission lines running through core battlefield land or intruding into the viewshed of these historic properties.

I suggest that you contact Judy Reynolds, Executive Director of the Mosby Heritage Area if you have not done so. Ms. Reynolds would have information concerning Civil War and other historic sites in western Fauquier and Loudoun counties. She can be reached at 540.687.4616 or by mail at:



John D. Crim II

Claude P. Foster

Kay D. Frye

James Roderick O. Graves

W. Jackson Helm, Jr.

Richard R. G. Hobson

Donovan E. Hower

Kathleen S. Kilpatrick

Allen L. Louderback

Nicholas P. Picerno

Alexander L. Rives

Phillip C. Stone

James L. White

Doreen S. Williams

Patricia L. Zontine

Howard J. Kittell  
Executive Director

**Shenandoah Valley Battlefields Foundation**

Mosby Heritage Area  
PO Box 1487  
Middleburg, VA 20118

Lastly, I presume that you are in contact with the Virginia Department of Historic Resources and the Virginia Outdoors Foundation. Both state agencies hold conservation easements on structures and land within your study area.

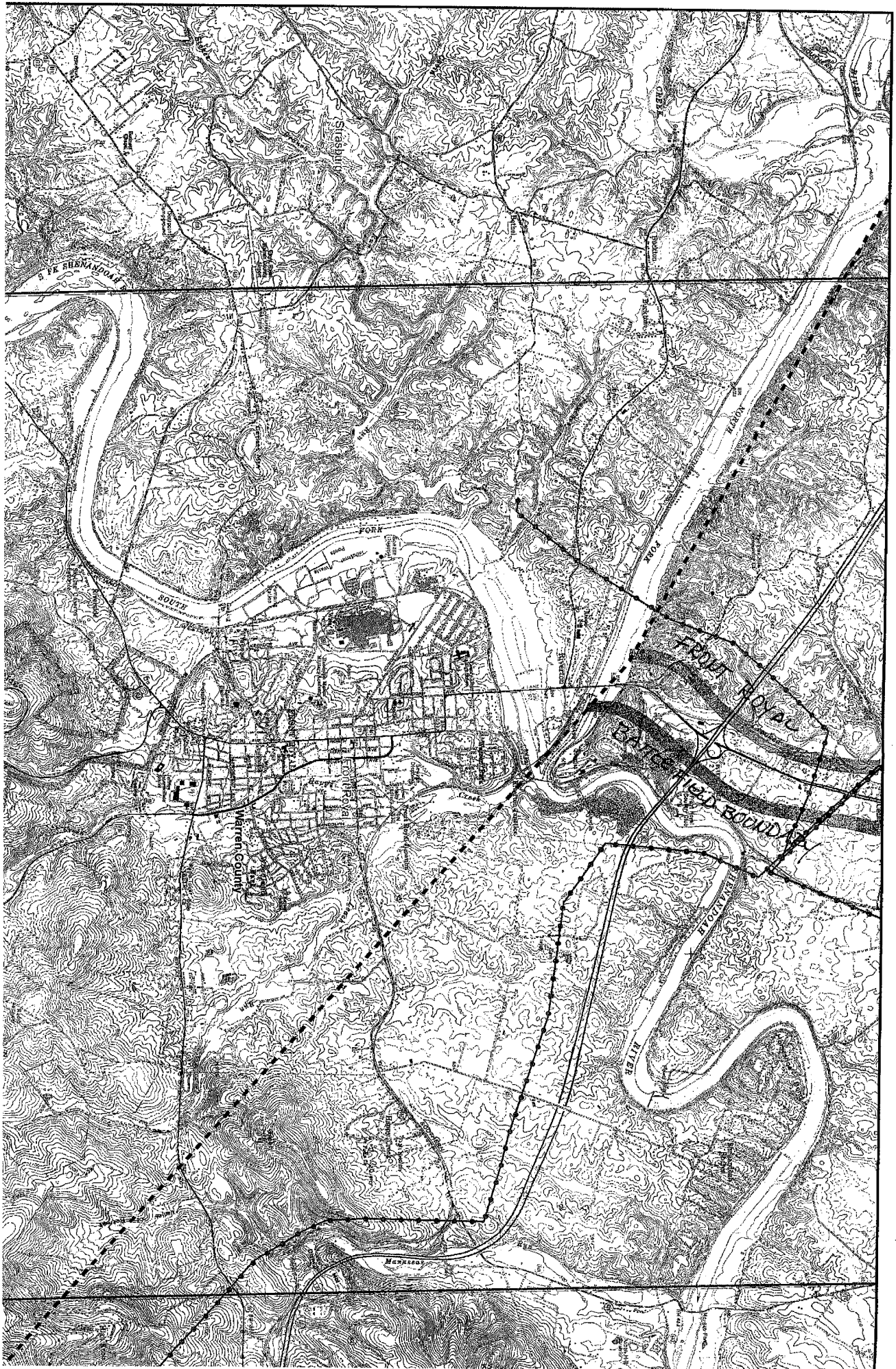
If you have further questions or I can be of further assistance, please contact me at 540.740.4545.

Sincerely yours,

A handwritten signature in black ink that reads "Howard J. Kittell". The signature is written in a cursive style with a large, prominent initial "H".

Howard J. Kittell  
Executive Director

Enc.







File 42715  
Agency Correspondence

# Northern Virginia Regional Park Authority

5400 Ox Road, Fairfax Station, VA 22039 • 703-352-5900 • Fax: 703-273-0905 • www.NVRPA.org

September 29, 2006

Edward Bowers, Environmental Scientist  
Burns & McDonnell  
9400 Ward Parkway  
Kansas City, Missouri 64114-3319

RE: Meadow Brook to Loudoun 500 kV Transmission Line

Dear Mr. Bowers:

Thank you for sending the maps of the proposed study area for the referenced project for our review and comment. We did not receive the typical structure drawing noted in your cover letter. The Northern Virginia Regional Park Authority has the following resources under its jurisdiction within the study area: Aldie Mill Historic Park, Brambleton Regional Park, Blue Ridge Regional Park, and Goose Creek State Scenic River, all in Loudoun County.

Aldie Mill is located on your map sheet 3 of 4, near the intersection of Route 50 and Snickersville Turnpike. The one-acre park contains restored and original early 19<sup>th</sup> century grist mill buildings. It is listed on the Virginia Landmarks Register and the National Register of Historic Places, and the property is subject to historic preservation restrictions of the Virginia Department of Historic Resources.

Brambleton Regional Park is located on map sheet 3 of 4 at the southern tip of Beaverdam Reservoir. Brambleton Regional Park currently includes the Authority's premiere 18-hole golf course, driving range, pro shop, and the headquarters of the National Recreation and Park Association. The remainder of the property is being planned as a "model park" featuring state-of-the-art recreational facilities and programs that will be unique to the region. The park preserves more than 360 acres of open space and protects important resources such as the drinking water supplies in Beaverdam Reservoir.

Blue Ridge Regional Park is 168 acres straddling the Loudoun County/Clark County line along Route 601 north of Mt. Weather. The park currently hosts the Northern Virginia Astronomy Club, and is being planned for primitive group camping and back-country trails.

In addition, the Park Authority is the state-appointed administrator of Goose Creek State Scenic River. The scenic river status extends along 27.5 miles of the stream from the Loudoun/Fauquier County line to the creek's confluence with the Potomac

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Su Webb

River. The creek is the main source of drinking water for the City of Fairfax and surrounding jurisdictions. The Goose Creek Scenic River Advisory Board and Loudoun County have guidelines addressing development within the scenic river corridor.

Because State Corporation Commission guidelines for transmission lines call for avoiding parks, scenic, wildlife and recreational resources where possible and minimizing adverse environmental impacts, the Park Authority strongly urges you to avoid these sensitive lands. Please contact me at 703-359-4615 or [krudacil@nvrpa.org](mailto:krudacil@nvrpa.org) with any questions.

Sincerely,



Katherine H. Rudacille  
Deputy Director of Planning and Grants

c: John Bailey  
Cliona Robb  
Charles Simmons

# Columbia Gas Transmission<sup>SM</sup>

A NiSource Company

Writers Direct Number: (540) 465-6429

Email Address: jeells@nisource.com

34646 Old Valley Pike  
Strasburg, VA 22657

August 8, 2006

Mr. Ed Bowers  
Burns & McDonnell  
9500 Ward Parkway  
Kansas City, Missouri 64114-3319

RE: Dominion Virginia Power - Meadow Brook to Loudoun Transmission Line Project, Project Number 42715

Dear Mr. Bowers,

Your letter of August 4, 2006 to Charles Ratts has been referred to me for response. It is noted that Burns and McDonnell are inquiring as to the width and number of Columbia Gas Transmission Corporation (Columbia) pipelines/rights of ways located within the study area indicated.

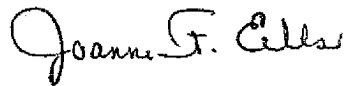
Columbia operates up to three (3) large diameter, high pressure natural gas pipelines within the study area indicated on the map provided. The widths of the rights of way vary by agreement. When a right of way agreement does not indicate width, Columbia exercises the right to use what is reasonable and necessary to operate, maintain and construct its pipelines and generally protects 25 feet on each side of a pipeline from encroachments. For parallel pipelines, Columbia protects 25 feet on the outside of the outer pipelines as well as the area between the pipelines.

I have enclosed for your planning benefit Columbia's *Minimum Guidelines for construction near natural gas pipeline facilities* brochure. These "Minimum Guidelines" provide guidance as to our minimum requirements regarding activities which affect our pipelines and rights of way. Please note Item 3 in the section titled Construction requirements within a right of way which states that **"Pipeline easements shall not be shared longitudinally with other utilities."** Columbia will allow crossings of its pipeline which are to be designed to cross at a 90 degree angle, but not less than 45 degrees so long as such crossings do not interfere with Columbia's ability to safely operate, maintain and construct its facilities.

Plans for all crossings require review and consent by Columbia's engineering representative and are subject to an engineering review fee. Your contact for this review remains as Charles Ratts, to whom you initially addressed your inquiry.

Should you have further questions regarding our "Minimum Guidelines" feel free to contact me at the phone number provided above.

Sincerely,

A handwritten signature in cursive script that reads "Joanne F. Eells".

Joanne F. Eells  
Operations Team Leader, Land Services

Enclosure

Cc: Charles Ratts  
Stan Parrish  
Sheree Parks Downey

Interstate natural gas pipelines are an important part of the nation's energy infrastructure. Pipelines and related facilities operated by Columbia Gas Transmission Corp. safely transport much of the clean-burning fuel used in homes, businesses and factories of the United States.

These minimum guidelines for construction near Columbia's natural gas pipeline facilities are intended to protect public safety and help assure the continuous safe flow of the nation's natural gas supplies.

#### Consult Columbia early in your plans

To expedite construction or excavation projects safely and without delay, property owners and developers planning any such activities in the vicinity of Columbia pipelines should consult with Columbia in the design phase of the project. Have your construction plans reviewed by company personnel before you apply for zoning permits or commit to construction schedules.

For more information, call the appropriate Columbia telephone number on the back of this brochure.

#### Note:

These guidelines supersede any and all prior guidelines pertaining to activities and placements on or near Columbia Gas Transmission facilities. Existence of, or the ramifications from, the implementation of prior guidelines will not dictate, direct or provide for exemption of any of the above guidelines.

February 2004

# Minimum Guidelines

for construction near natural gas pipeline facilities

## Dig Safely.

### State One-Call Notification Services Call Before Digging

Delaware, Maryland:	<b>1-800-257-7777</b>
Kentucky:	<b>1-800-752-6007</b>
New Jersey:	<b>1-800-272-1000</b>
New York:	<b>1-800-962-7962</b>
North Carolina:	<b>1-800-632-4949</b>
Ohio:	<b>1-800-362-2764</b>
Pennsylvania:	<b>1-800-242-1776</b>
Virginia:	<b>1-800-552-7001</b>
West Virginia:	<b>1-800-245-4848</b>

For more information, call the appropriate Columbia representative.

Ohio, West Virginia & Kentucky: **1-304-373-2410**

Delaware, Maryland, North Carolina, New Jersey, New York, Pennsylvania, Virginia: **1-540-465-6429**

**Columbia Gas Transmission**<sup>SM</sup>  
A NiSource Company

**WARNING**  
**PIPELINE**

Columbia Gas Transmission  
A NiSource Company

EMERGENCY  
TELEPHONE NUMBER  
1-800-635-7191

REPORT  
LOCATION AND  
LINE NUMBER

**Columbia Gas Transmission**<sup>SM</sup>  
A NiSource Company

Interstate natural gas pipelines are an important part of the nation's energy infrastructure. Pipelines and related facilities operated by Columbia Gas Transmission Corp. safely transport much of the clean-burning fuel used in homes, businesses and factories of the United States.

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**Consult Columbia early in your plans**

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For more information, call the appropriate Columbia telephone number on the back of this brochure.

**Note:** These guidelines supersede any and all prior guidelines pertaining to activities and placements on or near Columbia Gas Transmission facilities. Existence of, or the ramifications from, the implementation of prior guidelines will not dictate, direct or provide for exemption of any of the above guidelines.

February 2004

**Minimum Guidelines**

for construction near natural gas pipeline facilities

**Dig Safely.**

**State One-Call Notification Services Call Before Digging**

- Delaware, Maryland: **1-800-257-7777**
- Kentucky: **1-800-752-6007**
- New Jersey: **1-800-272-1000**
- New York: **1-800-962-7962**
- North Carolina: **1-800-632-4949**
- Ohio: **1-800-362-2764**
- Pennsylvania: **1-800-242-1776**
- Virginia: **1-800-552-7001**
- West Virginia: **1-800-245-4848**

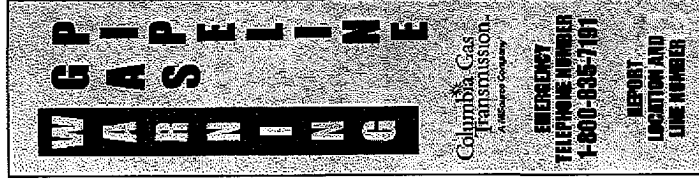
**For more information, call the appropriate Columbia representative.**

Ohio, West Virginia & Kentucky: **1-304-373-2410**

Delaware, Maryland, North Carolina, New Jersey, New York, Pennsylvania, Virginia: **1-540-465-6429**

**Columbia Gas Transmission**  
A NiSource Company

**Columbia Gas Transmission**  
A NiSource Company



### **Notify us before construction begins**

Columbia must be notified according to the state law before construction begins in the vicinity of its facilities. This notification shall be made through the appropriate state One-Call notification service, but follow up contact should be made with the local Columbia Gas Transmission office.

No construction or excavation activities of any kind, including blasting, shall be done on Columbia's right of way area before Columbia personnel have established the actual location of all affected facilities and the limits of the right of way. Columbia personnel must be present during any construction or excavation activities.

### **Construction requirements within a right of way**

The requirements listed below are minimum guidelines for construction in the vicinity of Columbia pipeline rights of way to protect public safety and the integrity of Columbia's facilities. A review of individual plans and property rights may reveal more specific requirements.

- 1.** The existing cover over pipelines and rights of way, which is normally a minimum of 36-inches and a maximum of 48-inches, shall be maintained. The minimum earth cover over pipelines at all street and road crossings, including the adjacent ditch line, shall be 36-inches; 60-inches minimum cover shall be maintained at stream and river crossings.
- 2.** Above-ground or below-ground structures or obstructions of any type shall not be placed within the easement area of any pipeline, which generally extends 25 feet on each side from the center of the pipeline, or as defined in the applicable right of way or land rights agreement.
- 3.** Pipeline easements shall not be shared longitudinally with other utilities. All water valves, curb boxes, manholes, etc. must be outside the easement. Other utilities which cross Columbia pipelines must do so at or as near 90 degrees as practical and with a minimum of 12-inches vertical clearance. Any crossing not installed below Columbia's pipelines must have prior written consent from Columbia (Location of Buried Facilities Form - Form 1050-P17). All crossings (excluding single telephone and single television drops) of Columbia facilities by cable and/or wire utilities, including but not limited to electric, fiber optic, telephone, and television lines crossing Columbia's pipelines must be encased with a minimum of 2-inch Schedule 80 PVC pipe. For safety reasons, electric and fiber optic lines shall also be surrounded with a minimum of six inches of concrete or encased with 4-inch minimum diameter, .250-wall, coated steel pipe for the full width of the right of way. Metallic warning flags shall also be buried above all cable, wire utility, or fiber optic lines crossing a Columbia right of way. All crossings must be approved by Columbia before installation begins.
- 4.** Roads shall cross pipelines at or as near 90 degrees as practical, but at angles not less than 45 degrees. The entity constructing the street must pay for any measures required by Columbia to protect its pipeline(s). Such protective measures shall be designed and/or approved by Columbia personnel.

**5.** Paved areas, such as parking lots, shall not be allowed over the easement unless the pavement can be altered so as not to impact the safe and reliable operation and maintenance of Columbia's pipeline. Concrete paving in Columbia's right of way, except for sidewalks and curbs, is prohibited. Consequently, all plans for pavement within a Columbia right of way must be submitted and approved by Columbia personnel before paving can begin.

**6.** Septic tanks and leach fields should be placed so they drain away from the pipeline where practical. In no case shall they be placed in the easement area.

**7.** The right-of-way may be planted in lawn and small shrubs (less than 5 feet tall) or may be used for normal agricultural purposes. However, shrubs will not be allowed within 5 feet each side of the pipeline. Shrubs greater than 5 feet tall and trees, including fruit or nut bearing trees of any kind, are prohibited within the right of way.

**8.** Fences that block visual inspection or interfere with access to Columbia's facilities are prohibited within Columbia rights of way. Fences permitted by Columbia to cross its rights of way must be designed with 12-foot gates centered on the pipelines and must cross at or as near to 90 degrees as possible.

### **Excavation near pipelines/buried facilities**

No excavation shall be made on the pipeline right of way without prior notification to Columbia through the state One-Call notification service. Subsequent follow-up must be made to Columbia to seek approval for the proposed construction. Approved excavations above, below or within three-feet of either side of the pipeline shall be dug using hand tools.

### **Crossing pipelines with heavy equipment**

Columbia may require heavy equipment operators to install mats, dirt pads, or other approved protective materials to adequately protect Columbia pipelines from potential damage by heavy equipment crossing the right of way. All proposed road crossings of buried facilities must be evaluated by Columbia personnel. Any additional over-burden must be removed after construction unless otherwise directed by Columbia personnel.

### **Blasting plans must be approved**

Any blasting proposed within 300 feet of Columbia facilities must be submitted to Columbia in advance along with a blasting plan outlining such proposed activity. No blasting may begin unless and until Columbia provides written confirmation that it does not object to such blasting. Any modifications to the blasting plan must also be submitted to Columbia for review and should not be implemented unless and until Columbia provides written confirmation that it does not object to such modifications. The blasting contractor may be required to monitor and record seismic shock at the facilities.

### **Allow adequate clearance for directional drilling**

Any directional drilling or boring proposed under Columbia's buried facilities must be submitted to Columbia for review and approval. Adequate clearance must be maintained from Columbia's facilities and additional excavations may be required to ensure adequate clearance. As-built plans are required for all borings.

### **Maintain up to 300-foot clear area around storage well heads**

Property owners or developers must notify Columbia of any proposed construction or excavation within 300 feet in any direction of a natural gas storage well. For safety, Columbia reserves the right to object to any such proposed activities or placement of objects closer than 300 feet to a storage wellhead.



October 5, 2006

Burns & McDonald  
Cyril J. Welter  
9400 Ward Parkway  
Kansas City, Missouri 64114

**RE: Frederick County Historic Resources Advisory Board (HRAB)  
Comments on Meadowbrook Powerline Extension**

Dear Mr. Welter:

On September 19, 2006, the monthly meeting for the Frederick County Historic Resources Advisory Board (HRAB) was used to review the Allegheny power line project expected to travel from Meadowbrook in Frederick County through to Loudoun County. The HRAB has indicated that it would be appropriate for all the historical properties that are listed in the Rural Landmark Survey as being potentially significant to be avoided by at least a ¼ mile buffer.

Below is a listing of some of the potentially significant properties, with descriptions from the text Frederick County, Virginia: History Through Architecture. Please find attached to this letter a map identifying the potentially significant properties with the above proposed buffers.

1. **Klines Mill.** This two-story log building sits on a raised stone foundation and was constructed in 1794 by Jacob Kline. Much of its original machinery is still in tact.
2. **Green Hill.** This property contains a mid-nineteenth century vernacular I-House. The most notable features are the façade and Greek-revival porch.
3. **Ridings McClunn House.** There are two unique features to this property. The house was laid in five course American bond brick and has one of the few surviving frame bank barn with a brick foundation.
4. **Gardner House.** This house is a great example of the Gothic-revival after the Civil War. It was characterized by its steeply pitched gable roof, double-front gables, pointed-arched windows, and decorative vergeboards.
5. **Guard House.** This structure is a good example of first quarter nineteenth century Federal-style brick dwelling.

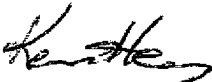
Cyril J. Welter  
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6. **Wheatlands.** An early nineteenth century building; Wheatlands combined national influences with vernacular trends. The main block of the house has two front entrances and the front façade is completely symmetrical.

The HRAB will be reviewing the Meadowbrook to Mt. Storm Study Area when the boundaries of that study area are available.

If you have any questions regarding the HRAB's comments, please do not hesitate to contact me, 540-665-5651.

Sincerely,



Kevin T. Henry  
Planning Technician

Enclosure

KTH/bhd

cc: Mr. John Riley, County Administrator  
Frederick County Board of Supervisors  
Dominion Virginia Power, John B. Bailey, 120 Tredegar St., Richmond, VA  
23219  
Allegheny Power, Alan J. Fleissner, P.E., 800 Cabin Hill Dr., Greensburg, PA  
15601-1689

