February 13, 2015

Clyde N. Thompson, Supervisor
Monongahela National Forests
200 Sycamore Street
Elkins, WV 26241

RE: Atlantic Coast Pipeline Survey Permit Comments

Dear Supervisor Thompson:

Thank you for the opportunity to comment on the September 29, 2014 application by Atlantic Coast Pipeline LLC (ACPLLC) for a permit to conduct surveying activities in the Monongahela National Forest (MNF). The following comments are provided on behalf of the Dominion Pipeline Monitoring Coalition.

First and most importantly, we point out that the applicant states that the purpose of the proposed surveys along the planned pipeline route is *to collect information needed by FERC and other regulatory agencies to review and permit the ACP*.[1] The design and scope of the proposed surveys cannot provide this information, and the Forest Service will significantly diminish its ability to properly review and make informed decisions concerning the ACP if it approves the submitted application for the purpose indicated by the applicant.

The following comments describe our concerns and identify the shortcomings of the application submitted by ACPLLC. We also endorse and incorporate the comments concerning the ACPLLC special use permit application submitted to the Forest Service by Appalachian Mountain Advocates and Southern Environmental Law Center.

This submission includes elements of comments that we submitted on January 23, 2015 to Mr. H. Thomas Speaks, Jr., Supervisor of the George Washington and Jefferson National Forests, concerning the application by ACPLLC to survey in the George Washington National Forest (GWNF). Many of the issues are similar, including those related to the completeness of the application, the adequacy of the proposed survey, and compliance with the required environmental review process. The proposed ACPLLC survey in the MNF also raises similar environmental issues, as well as issues that are specific to the MNF.

It is our opinion that the Forest Service should reject the ACPLLC survey application because it is incomplete and the proposed survey will not provide the data that will be required for (1) informed project planning and design by the applicant, (2) informed review of the proposed pipeline project by the

[1] From the application transmittal letter, dated September 30, 2014, to the Acting Forest Supervisor of the MNF from Mr. Robert M. Bisha, Director, Environmental Business Support, Dominion Resources Services, Inc.

Forest Service, and (3) comparative evaluation of multiple pipelines corridors that currently cross or are proposed to cross National Forest lands in Virginia and West Virginia.

We further believe that the Forest Service would be wrong to consider the proposed ACPLLC survey activity as an independent project rather than an integral component of the proposed ACPLLC pipeline project. Approval of the survey project on the basis of the submitted application would preempt meaningful review and consideration of the proposed pipeline project as a whole. A segmented approach to review of the proposed pipeline would be inconsistent with requirements of the National Environmental Policy Act (NEPA), and it would fall short of public expectations for National Forest management.

Our opinion that the ACPLLC special use permit application is incomplete is based on the following:

1) Failure to properly identify and evaluate route alternatives.

In Section 13a of the submitted application form (SF-299), the applicant states that no alternative routes have been identified for the surveys (field, environmental, cultural resource, and civil surveys). In Section 13b the applicant further states that the question concerning selection of alternatives is not applicable. These statements are inaccurate. Moreover, compliance with NEPA requires that the Forest Service consider alternatives in decision making associated with activities that have the potential to significantly affect the natural environment. The applicant has not provided the information that would allow the Forest Service to meet this NEPA obligation.

Contrary to the applicant's statements in the special use permit application form, the applicant has, in fact, identified and evaluated route alternatives both within and outside of the boundaries of the MNF. Although the analysis and consideration of alternatives is cursory, the applicant recognizes and describes evaluation of various sets of alternatives in its Resource Report 10 Alternatives pre-filing submission to the Federal Energy Regulatory Commission (FERC; Docket No. PF15-6-000). These alternatives include what the applicant designates as system and major alternatives, as well as alternatives specific to the MNF and the GWNF (see **Appendix I; Figures 1-5**). It is misleading for the applicant to assert to the Forest Service and other stakeholders that no alternatives were identified when that is clearly not the case. This is a significant misrepresentation, which should by itself be sufficient reason for the Forest Service to reject the submitted application.

Further compounding this misrepresentation is the applicant's failure to acknowledge that the MNF Management Plan provides that use of National Forest lands for utility corridors can be considered where such use cannot be accommodated off the National Forest.[2] In addition to minimizing the use of National Forest lands for utility corridors, the Forest Management Plan directs sharing of existing corridors where feasible.[3] More explicit still, the Forest Management Plan directs that proposals for utility corridors shall be considered only after improvement or expansion of existing facilities is

[2] Special Uses Goal LS17, Forest-Wide Management Direction. (MNF Management Plan, page II-52)
[3] Special Uses Goal LS19, Forest-Wide Management Direction. (MNF Management Plan, page II-52)

determined to be inadequate of impractical.[4] Again, the applicant failed to provide critical information in its submitted application form (SF-299). There are existing pipeline corridors in the MNF. Among the "system alternatives" identified and rejected by the applicant in the above cited submission to FERC is an existing interstate Columbia Gas pipeline that crosses the MNF and the GWNF (see **Figure 1**). ACPLLC failed to identify alternatives in its survey permit application, withheld information describing its analysis of alternatives, and provided no indication that it had considered the Forest Management Plan or its requirements concerning the use of existing utility corridors.

Contrary to the information submitted by ACPLLC, alternate routes for the ACP pipeline have been identified and evaluated by ACPLLC. ACPLLC has also taken the next step and selected a preferred alternative from among the identified alternative routes. At this point, however, none of the stakeholders except ACPLLC have had an opportunity to examine the alternatives and the information that serves as the basis for the selection among the alternatives —not the Forest Service, not FERC, and not the public. We share a responsibility to ensure that management of our public lands is based on informed decisions. We also share a responsibility to ensure that our national environmental policy, as represented by NEPA, is implemented. Acceptance of the incomplete and inaccurate application submitted to the Forest Service by ACPLLC would prevent meaningful exercise of these responsibilities.

2) Failure to address potentially significant environmental impacts.

The environmental survey design proposed to the Forest Service by ACPLLC is limited to the least amount of data collection required for minimal compliance with selected provisions of the Clean Water Act (CWA) and the Endangered Species Act (ESA). Moreover, the proposed survey design reflects minimal consideration of existing and available information related to environmental attributes and sensitivities. Of even more significance, the proposed survey design and other application material includes no reference to, nor apparent consideration of, the MNF Management Plan.

Forest Service responsibilities include, but are not limited to, compliance with the CWA and the ESA. As described in the MNF Forest Management Plan, the Forest Service has broad responsibilities associated with sound and sustainable National Forest management.

The proposed ACP is one of the largest and potentially most-significant developments proposed for the MNF and adjacent lands in recent years. Effective implementation of the MNF Management Plan and compliance with NEPA is critical. ACPLLC may take the position that the proposed survey is an independent activity, and that the potential impacts of the actual pipeline construction and maintenance should be addressed later and separately. However, a failure on the part of the Forest Service to require needed data collection and consideration of potential environmental impacts during the survey phase of the project will have the result that needed information will not be available when later decisions are made concerning pipeline construction. The Forest Service can and should require that the needed data

[4] Special Uses Goal LS25, Forest-Wide Management Direction. (MNF Management Plan, page II-52)

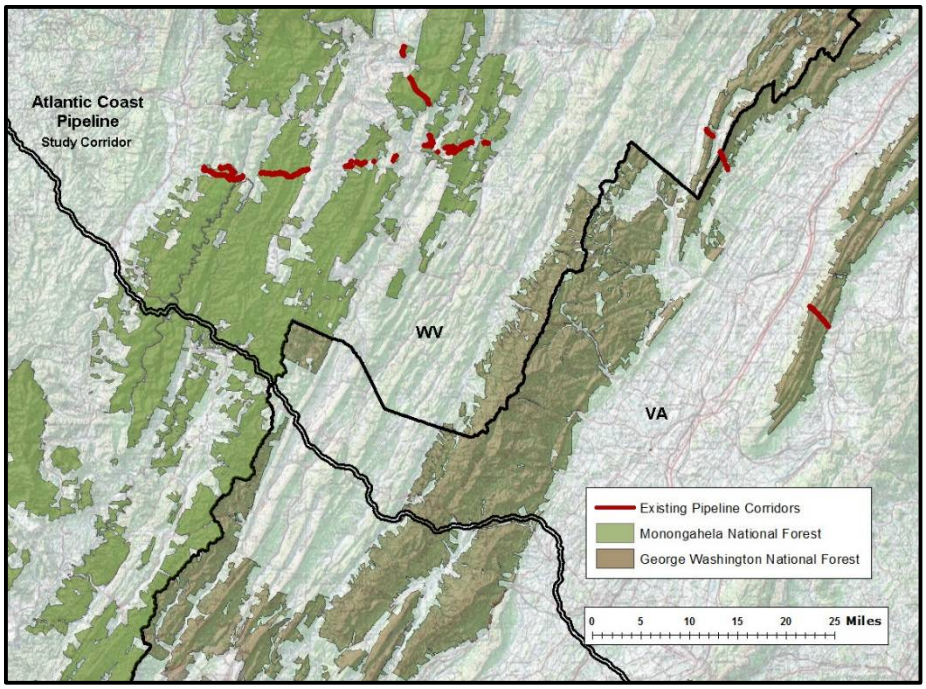

FIGURE 1 – The proposed Atlantic Coast Pipeline study corridor and existing Columbia Gas pipeline corridors across the MNF and the GWNF. The existing corridors across the MNF are permitted as special uses. The existing corridors across the GWNF are prescribed in the Forest Management Plan as Designated Utility Corridors. A more-complete view of the Columbia Gas pipelines depicting regional gas-transmission connectivity is provided in **Appendix I, Figure 1**.

are obtained now during the preliminary survey phase. This will both inform consideration of alternatives and provide an informed basis for decision making about the construction project, including identification of necessary permit conditions. Failure to require needed data collection and analysis now will result in less-competent National Forest management later.

ACPLLC survey plans do not include the data collection and analysis needed to assess and avoid or mitigate the environmental impacts of its proposed project in the MNF. As National Forest stakeholders we suggest that data collection and analysis is needed in the following areas:

Slope stability

Slope failure or earthen slippage is a problem with construction on steep slopes that results in impacts to downslope areas including damage to both terrestrial and aquatic habitat. ACPLLC has not addressed this critical issue in its survey permit application to the Forest Service.

Recent problems at multiple locations at Dominion pipelines construction sites in western West Virginia illustrate the importance of collecting information prior to pipeline construction in order to identify risks and provide the information necessary to avoid slope failures. As described in a Consent Order issued by the West Virginia Department of Environmental Protection (WVDEP; Order No. 8078, 10/01/14), slope failures associated with Dominion pipeline construction resulted in water quality violations affecting a number of separate streams in several West Virginia counties (see **Appendix II**). This poor performance

by a primary ACPLLC partner is a major cause for concern, given that the proposed ACP pipeline corridor across the MNF goes over much-higher mountains than those associated with the violations listed in the WVDEP Consent Order.

An important outcome of the above cited WVDEP Consent Order is that Dominion is required to conduct a geotechnical analysis and prepare a report that describes the causes of historical pipeline right-of-way failures. The order also requires that Dominion develop a company policy for avoiding such problems with future pipeline construction projects. This policy will evidently apply to the part of the ACP that crosses West Virginia and the MNF. It should also apply to the ACP in Virginia and the GWNF. This policy will certainly require collection of the type of geophysical and hydrologic data that are required to evaluate the potential for slope failure. The ACPLLC application to the Forest Service for a survey permit provides no indication that such data will be collected.

It should be noted here that the Forest Service has published a Slope Stability Reference Guide for National Forests in the United States.[5] It may be that this 1994 publication has been superceded by additional Forest Service guidance. In any case, the ACPLLC should not be permitted to conduct a survey in preparation for pipeline construction without addressing the slope failure issue and collecting the data needed both to evaluate the potential for and avoid slope failures.

There is certainly a large body of geotechnical information that ACPLLC can draw on, as well as the current or pending analysis of historic slope failures in West Virginia, in designing a corridor survey that includes collection of the data required for evaluation of slope failure potential.

Among the factors related to slope failure potential in the proposed pipeline corridor are soil mineralogy, slope steepness, bedrock structure, hydrology, and the presence of previous slope failures. The pipeline study corridor in the MNF includes many sections with steep slopes and problem soils (see **Appendix III**). Soil maps are available, but additional high-resolution soil surveys are needed to produce soil maps with the level of detail needed to reliably evaluate slope failure potential. Bedrock and hydrologic studies are probably not available at the needed scale, and previous slope failure information for construction and earth-disturbing activities in landscape of the type found in the MNF may not have been compiled. Additional data collection is needed. Here again, the survey permit application submitted by ACPLLC to the Forest Service is incomplete. It addressed none of these data needs, and it should be rejected.

[5] R.W. Prellwitz, T.E. Koler, and J.E. Steward. 1994. **Slope Stability Reference Guide for National Forests in the United States**. Publication EM-7170-13. Washington, DC: U.S. Department of Agriculture, U.S. Forest Service, Engineering Staff. 3 volumes, 1091 p.

Forest Fragmentation

The central Appalachian mountain forest region, including the MNF, is notably rich in biological diversity. This is due in large part to the extent of continuous interior-forest habitat. Construction of roads and utility corridors fragments forest habitat and threatens this biodiversity.

Interior forest is critical for a number of species. It's well known, for example, that many forest nesting birds are dependent on interior forests and that they do not thrive near forest edges due to nest parasitism and increased predation. Among these are species whose populations are currently in decline due in part to habitat fragmentation, including the Cerulean Warbler, Canada Warbler, Wood Thrush, and others.[6]

Many amphibians are also dependent on interior forest conditions. Many salamanders, for example, are unable to cross roads or other open areas, and thus, fragmentation of forests effectively divides and isolates populations making them less viable. Among the species of concern is the Cheat Mountain salamander.[7] See comments below concerning the Cheat Mountain salamander.

Ecologists with the Virginia Natural Heritage Program have conducted landscape integrity analysis for all of West Virginia.[8] Identification of areas with high landscape integrity is largely based on the presence of interior forest (specifically distance from cleared land, roads, disturbance, etc.).[9] **Figure 2** depicts the proposed ACP corridor in the MNF in relation to mapped high-integrity landscape or forest. The 300-foot-wide-survey corridor and the 2000-foot-wide-study corridor are indicated.

The proposed pipeline construction will result in the permanent loss of interior forest. The pipeline construction will involve clearing and bulldozing of a 125-foot-wide construction corridor and permanent maintenance of a cleared 75-foot right of way. It will also involve construction of access roads for pipeline construction and maintenance and clearing and excavation of staging areas somewhere within or in proximity to the proposed study corridors. There will be unavoidable, but thus far unstudied and unquantified, impacts to interior-forest-dependent species in the MNF.

The Forest Service should not approve the ACPLLC application for a surveying permit until the applicant has provided a design for surveying activities that describes a process whereby:

1. The loss of interior forest is quantified
2. The impacts on wildlife species that depend on interior forest are evaluated
3. The options for minimizing these losses and impacts are identified and evaluated

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[6] American Bird Conservancy. The United States Watch List of Birds of Conservation Concern (http://www.abcbirds.org/abcprograms/science/watchlist/index.html)

[7] The MNF contains all of the known occurrences of this salamander in the world. MNF Management Plan, page 1-7)

[8] M. Dougherty and E. Byers. 2008. Preliminary Calculation of Landscape Integrity in West Virginia Based on Distance from Weighted Disturbances, Technical Support and Wildlife Diversity Units, Wildlife Resources Section, West Virginia Division of Natural Resources, Elkins, WV.

[9] Within the MNF, which is 96% forest covered, high-integrity landscape is high-integrity forest.

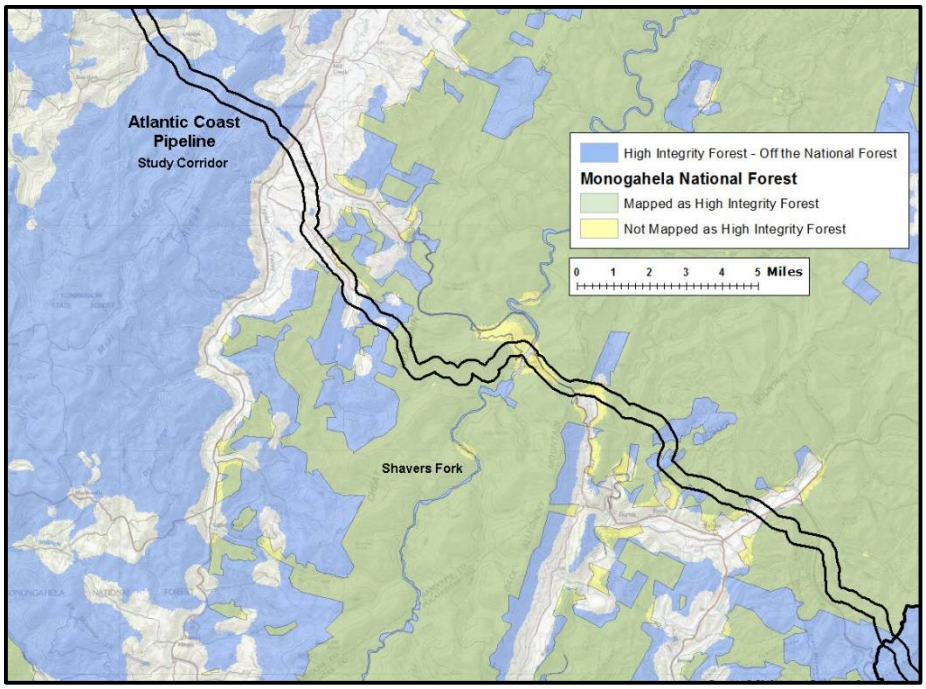

FIGURE 2 – Proposed Atlantic Coast Pipeline study and survey corridors in relation to high-integrity forest in the Monongahela National forest. The forest integrity classification is based on analysis conducted by the West Virginia Division of Natural Resources. For this map, areas designated high-integrity forest are those with landscape-integrity index scores exceeding 715 in a state-wide range of 208 to 880.

This analysis should include the associated roads and staging areas, as well as the construction corridor.

The Forest Service should take advantage of the opportunity to obtain this critical information that will be essential when the eventual construction permit is reviewed and the environmental review process required by NEPA is conducted. A failure on the part of the Forest Service to require collection of this critical information during the study phase of the ACP project will have the effect of thwarting meaningful implementation of NEPA.

Red Spruce Ecosystem Impacts

The proposed ACP will cross three different management prescription areas in the MNF (see **Figure 3**). Of these, the Red Spruce Restoration Area (Management Prescription 4.1 - Red Spruce-Spruce Hardwood Ecosystem Management) represents a specific ecosystem type or ecological community. This management prescription area, which comprises about 17% of the MNF, includes most of the central Allegheny Highland's red spruce forest, which is but a small fraction, less than 10%, of the red spruce forest that was present prior to the intensive logging that occurred in the early 1900s. The largest contiguous Red Spruce Restoration Area is the Cheat Mountain-Shavers Fork watershed area. It would be crossed by the proposed ACP (see **Figure 4**). The significance of the remnant red spruce ecosystem

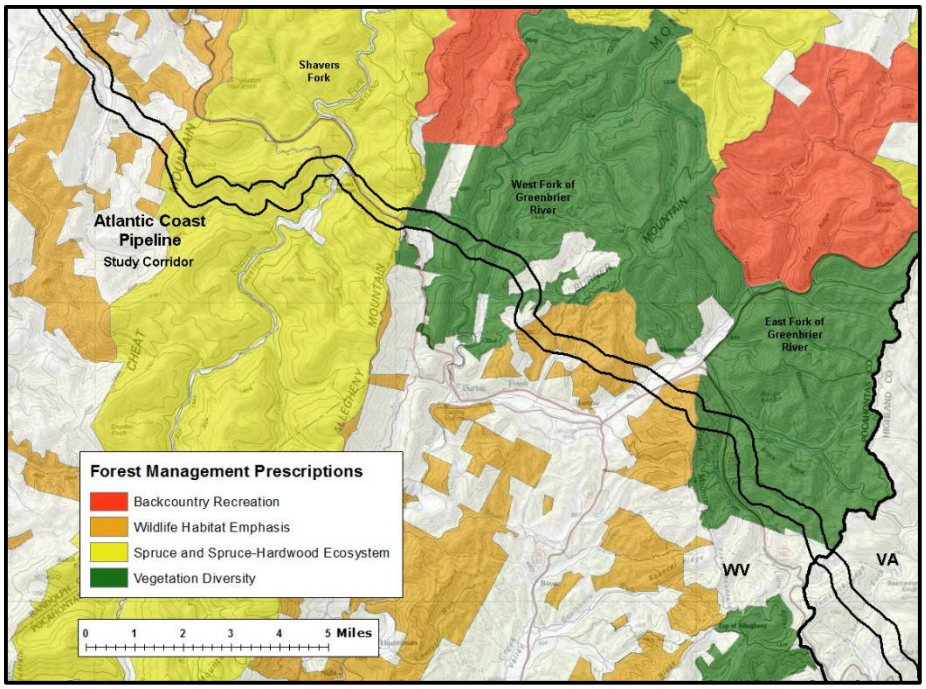

FIGURE 3 – Proposed Atlantic Coast Pipeline study and survey corridors in relation to designated land management prescriptions in the Monongahela National forest.

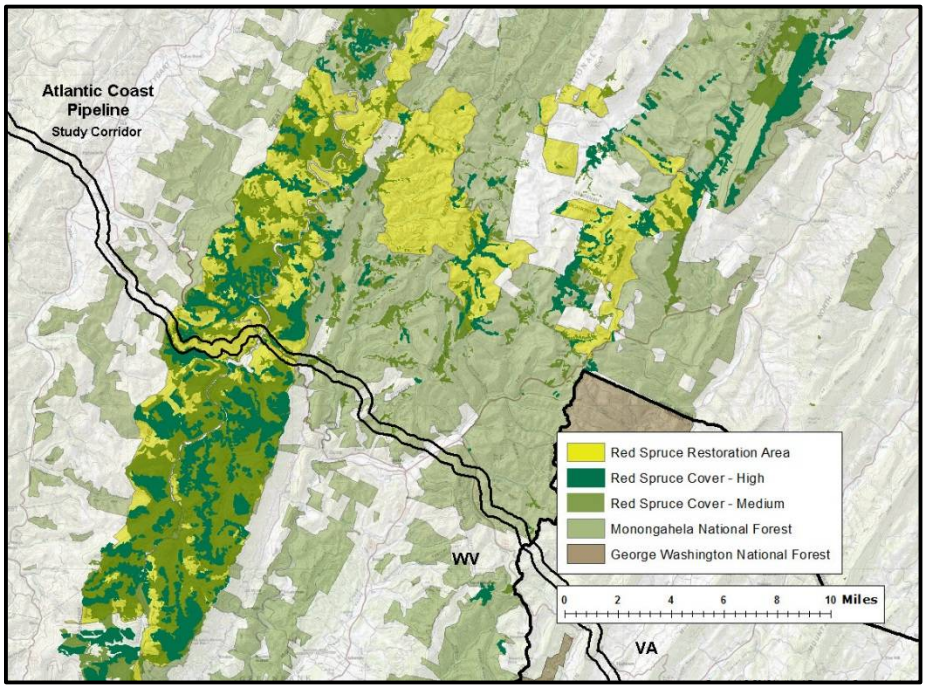

Figure 4 – The Red Spruce Restoration Area (MNF Management Prescription 4.1 -Red Spruce-Spruce Hardwood Ecosystem Management) in relation to the proposed ACP corridor. The indicated red spruce cover is based on E.S. Byers, K.C. Love, K.R. Haider, E.J. Burks, and J.E. Rowan. 2013. Red Spruce (*Picea rubens*) Cover in West Virginia. Version 1.0 West Virginia Division of Natural Resources, Central Appalachian Spruce Restoration Initiative, Appalachian Forest Heritage Area Americorps, Monongahela National Forest, and U.S. Fish and Wildlife Service.

to the natural biodiversity of the region is widely recognized. This area contains some of the highest concentrations of globally rare plant and animal species within the northeastern states.[10]

MNF management emphasis for the Red Spruce Restoration Area includes:

- Active and passive restoration of spruce and spruce-hardwood communities.
- Recovery of threatened and endangered species and other species of concern associated with spruce and spruce-hardwood communities.

The proposed ACP would bisect the largest contiguous Red Spruce Restoration Area in the MNF, increase and maintain fragmentation of the remaining red spruce ecosystem, diminish the prospects for recovery, and impact multiple plant and animal species of conservation concern associated with the red spruce ecosystem. Among these, the Cheat Mountain salamander is perhaps the most closely associated with the section of Red Spruce Restoration Area that would be crossed by proposed ACP.

The Red Spruce Restoration Area provides the primary habitat for the Cheat Mountain salamander (*Plethodon nettingi),* which is listed as a threatened species under provisions of the Endangered Species Act. The distribution of known locations and high potential habitat for the Cheat Mountain salamander in relation to the proposed ACP corridor and Red Spruce Restoration Area is indicated in **Figure 5**.

As stated in the MNF Forest Management Plan, the Red Spruce Restoration Area provides habitat to help meet recovery plan objectives for the Cheat Mountain salamander.[11] The MNF Forest Management Plan directs that opportunities shall be identified to reduce fragmentation of populations and habitat.[12] The U.S. Fish and Wildlife Service also cites this directive in its Biological Opinion provided for the MNF Forest Plan.[13] This directive is consistent with the recovery plan for the Cheat Mountain Salamander, which identifies habitat modifications that remove forest canopy as probably the primary factors affecting habitat of the Cheat Mountain salamander.[14]

The following statements are taken from the recovery plan:

- Since *Plethodon nettingi* requires moist cool habitats above 2,980 feet, any alternation of the habitat that reduces soil moisture and/or relative humidity may have detrimental effects on Cheat Mountain salamander populations. (page 10)

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[10] E.A. Byers, J.P. Vanderhorst, and B.P. Streets. 2010. Classification and Conservation Assessment of Upland Red Spruce Communities in West Virginia. West Virginia Natural Heritage Program, West Virginia Division of Natural Resources, Elkins, WV.

[11] MNF Management Plan, page III-12.

[12] Goal TE57, Management Direction for TEP Species. (MNF Management Plan, page II-26)

[13] U.S. Fish and Wildlife Service. 2006. Final Biological Opinion, 2006 Forest Plan Revision for the Monongahela National Forest. United States Department of the Interior, Fish and Wildlife Service, West Virginia Field Office, Elkins, WV.

[14] T.K. Pauley. 1991. Cheat Mountain Salamander (*Plethodon netting*) Recovery Plan. Northeast Region, U.S. Fish and Wildlife Service, Newton Corner, MA.

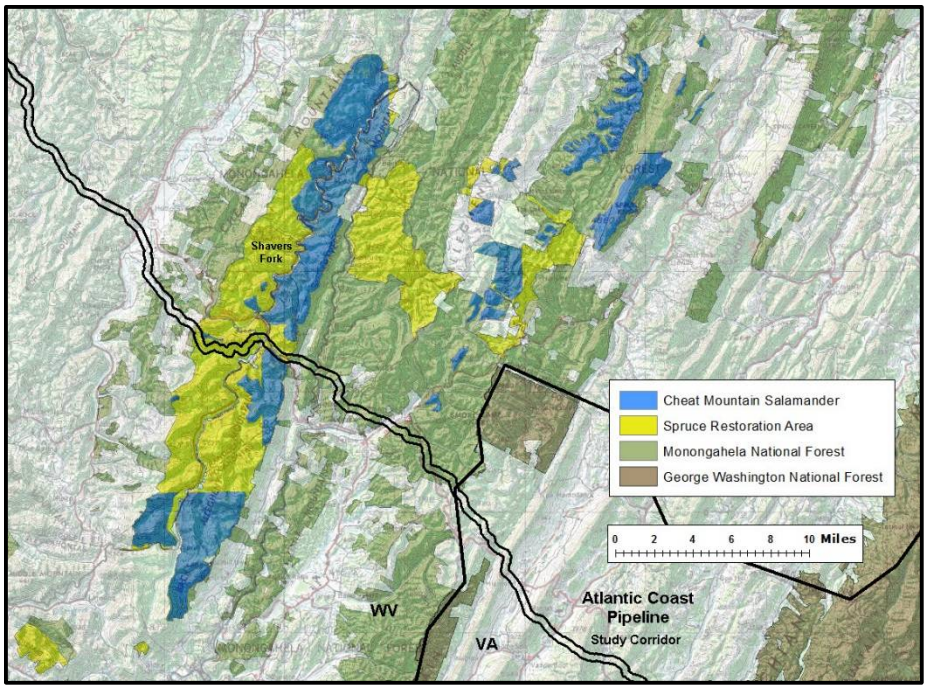

Figure 5 – Red Spruce Restoration Area (MNF Management Prescription 4.1 - Red Spruce-Spruce Hardwood Ecosystem Management) and Cheat Mountain salamander habitat in relation to the proposed ACP corridor. The mapped Cheat Mountain salamander habitat represents known and high probability habitat (data layer provided by the MNF to Dominion Resources and Natural Resource Group on July 21, 2014 and obtained by DPMC on August 12, 2014).

- Removal of the forest canopy permits a greater percentage of sunlight to reach the forest floor, resulting in an increase in soil temperature and a decrease in soil moisture. (page 10)
- Habitat alterations could also act to divide populations into subpopulations, thus preventing complete gene flow through original populations. (page 10)
- Salamanders use forest floor litter as foraging cover and refugia (especially during the day); removal of this litter can create a barrier to these activities and render them unsuitable for territories. Such barriers could also interfere with reproduction, since mating apparently occurs where territories overlap. (page 11)
- Smaller populations could be more susceptible to extirpation due to natural pressures such as periods of drought, natural reduction of the canopy by storms, and particularly by interspecific competition. (page 11)
- It has been shown that certain land activities such as roads, clear-cutting, ski slopes, utility rights-of-way, deep mines, and surface mines are definitely detrimental to *P. nettingi* and need not be studied further. (page 21)

The proposed ACP route would cross the Red Spruce Restoration Area, contributing to continued fragmentation and additional fragmentation of both current and potential red spruce forest and Cheat Mountain salamander habitat. A closer look at the proposed ACP corridor where it would cross the Red Spruce Restoration Area is provided in **Figure 6**.

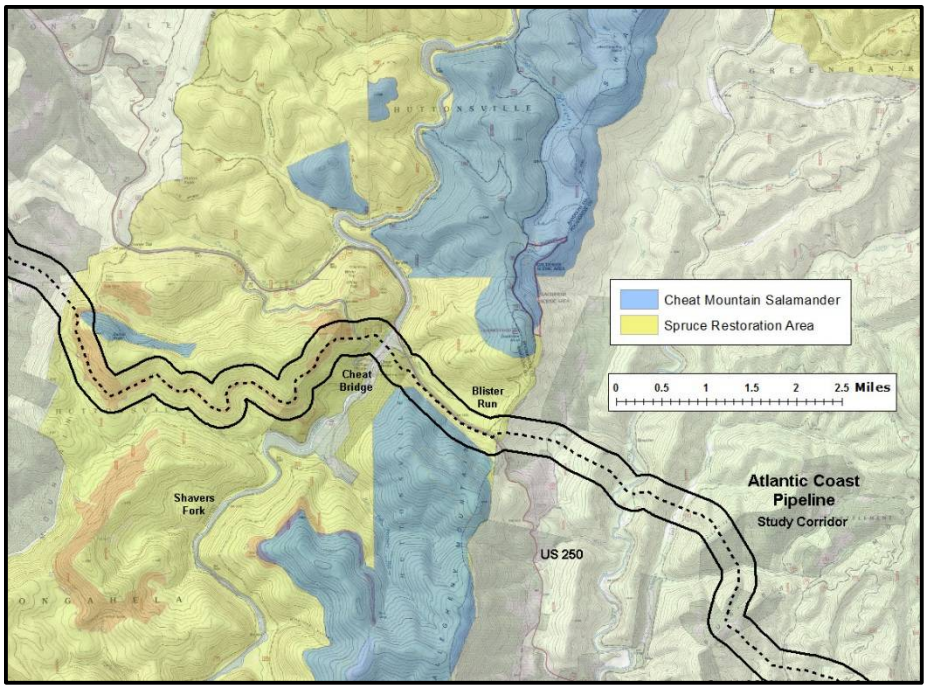

Figure 6 – Red Spruce Restoration Area (MNF Management Prescription 4.1 - Red Spruce-Spruce Hardwood Ecosystem Management) and Cheat Mountain salamander habitat in relation to the proposed ACP corridor. The mapped Cheat Mountain salamander habitat represents known and high probability habitat (data layer provided by the MNF to Dominion Resources and Natural Resource Group on July 21, 2014 and obtained by DPMC on August 12, 2014). This view shows the location of the proposed pipeline corridor in relation to U.S. 250 and strip mine reclamation areas.

From east to west, the proposed corridor would initially parallel U.S. 250, closely skirting known Cheat Mountain salamander habitat to the south and the Blister Run wetlands to the north, creating a much wider deforested area and adding to the existing habitat fragmentation associated with U.S. 250.[15]

Further to the west the proposed corridor would follow a strip mine bench, preventing restoration of continuous red spruce forest, and permanently isolating an area of Cheat Mountain salamander habitat between the pipeline corridor and U.S. 250. Pipeline construction along this route would severely damage a remarkably successful red spruce ecosystem restoration initiative undertaken in recent years by state and federal resource management agencies, conservation organizations, and citizen volunteers.[16]

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[15] Among other reasons for rejecting the proposed pipeline location, U.S. 250 is a notably scenic public route across the MNF and the high-elevation red spruce ecosystem. This section of U.S. 250 is a designated National Scenic Byway, and it should be protected.

[16] The Central Appalachian Spruce Restoration Initiative is a partnership of diverse interest with a common goal of restoring historic red spruce-northern hardwood ecosystems across the high elevation landscapes of the central Appalachian region. See www.restoreredspruce.org.

Forest Service approval of the proposed ACP corridor across the Red Spruce Ecosystem Recovery Area would contravene the direction provided in the MNF Management Plan, the associated U.S. Fish and Wildlife Biological Opinion, and the Cheat Mountain Salamander Recovery Plan. It would disregard a substantial investment of time and resources by the Central Appalachian Spruce Restoration Initiative.

Watershed and Water Resource Impacts

The MNF Management Plan emphasizes protection of water quality and quantity both within and downstream of the Forest. Water-resource-related data collection described in the ACPLLC survey permit application, however, is mainly limited to wetland and waterbody delineation surveys.[17] Substantially more water-resource-related data collection and analysis is needed to adequately inform pipeline construction planning and Forest Service permitting decisions. The following topics are among the additional watershed and water-resource-related issues that need to be addressed in the survey design:

1. **Erosion and sediment control and stormwater management**

   Based on observations and reports concerning construction of smaller pipelines in other areas, it seems highly unlikely that construction of a 42-inch pipeline over steep mountain landscape in the MNF can be done without significant erosion and sedimentation problems. A far greater level of care and management control will need to be maintained than has been seen on other pipeline construction projects studied by the Dominion Pipeline Monitoring Coalition.

   Detailed data collection and analysis of soil and hydrologic factors within and adjacent the construction corridor will be required to determine the adequacy of even the most carefully implemented best management practices to prevent erosion, sediment transport, and alteration of runoff properties on the extremely long, steep, rugged, and complex slopes that will be subject to clearing and excavation. This data collection and analysis will need to be done for each of the large number of individual watershed areas that will receive runoff from the disturbed construction corridor, access roads, and staging areas.

   This data collection and analysis will need to be conducted both to design temporary runoff control measures for use during construction and to design long-term runoff control measures for use post-construction. Long-term alteration of drainage patterns will need to be evaluated and carefully planned in order to avoid damage to the channel and habitat structure of receiving surface waters and wetlands.

[17] The ACPLLC permit application to the MNF further indicates that the surveys will assess the values and functions of those waters. In addition, visual observations of biological characteristics of wetlands, adjacent water bodies, and adjacent uplands will be obtained. Details or protocols for this assessment and data collection, however, are vague or missing.

The Forest Service should not permit preliminary surveys by ACPLLC without requiring the collection of the data that are necessary for informed development of erosion and sediment control and stormwater management plans.

2. Slope stability

Slope stability is a major issue for pipeline construction in steep mountain landscape. As evidenced by the recent Dominion Transmission, Inc. experience in West Virginia, slope failure can results in heavy and persistent sedimentation of downslope streams (see **Appendix II**), and substantial analysis and planning is needed if slope failures are to be avoided. The slope stability problem is addressed in a previous section of these comments, and recommendations for collection of data needed for evaluation of slope failure risk are provided.

3. Stream crossing

Multiple stream crossings will be required if the ACP is constructed across the MNF as proposed. ACPLLC should be required to collect the data needed to determine the methods by which each stream, riparian area, and wetland will be crossed and the problems or risks that will be confronted. Here again, the appropriate time to collect this information is during preliminary surveys rather than later after construction is authorized. Pipeline construction companies often make determinations about stream-crossing methods based on what is encountered during construction —a sequencing that precludes detailed, site-specific, and meaningful consideration of stream-crossing impacts during the environmental review process.

Among the stream, riparian area, and wetland crossing issues that need to be addressed by ACPLLC are:

- Whether streams, riparian areas, and wetlands will be crossed by horizontal drilling or channel excavation
- Whether crossings will be done by wet or dry methods
- Whether blasting of stream beds, riparian areas, and wetlands will be required
- The physical relationship and connectivity between locations of stream, riparian area, and wetland crossings and karst-related subsurface hydrologic flow paths
- What impacts to riparian and hyporheic zone water will occur with respect to seasonal and other variation in stream or wetland flow and temperature regimes

The Forest Service needs to ensure that this critical information is available well before it is needed for permitting decisions. The Forest Service should not approve any permit for preliminary environmental surveys that does not describe how this critical information will be obtained and analyzed.

4. High-integrity watersheds and streams

Restoration, protection, and maintenance of watersheds and water resources has been a high priority of the National Forest system since it was established over 100 years ago. First among the listed benefits associated with the selected management alternative in the 2006 MNF Management Plan is maintenance or restoration of watershed conditions to help provide for water quality, soil productivity, and functioning riparian and aquatic habitat.[18] One measure of success for this management objective is the extent and viability of wild (naturally reproducing) brook trout (*Salvelinus fontinalis*). The MNF Management Plan designates the brook trout as a Management Indicator Species. This makes sense based on the close link between land and forest management and the water quality and stream habitat conditions required by the brook trout. It is also appropriate given the importance of MNF management for brook trout in the region. More than 90% of the high-quality trout waters in West Virginia are said to be within the MNF boundary.[19]

One measure of current trout population status is provided by Trout Unlimited's Conservation Success Index (CSI). The CSI is derived from spatial information within watersheds related to population metrics and environmental conditions. Categorical scores (5-1, reflecting exceptional through poor condition) are assigned to watersheds in the brook trout range.[20] **Figure 7** depicts higher-scoring watersheds, with scores of 3-5, for trout population status in the central Appalachian region in relation to the proposed ACP route. **Figure 8** provides a more-detailed look at the MNF and the proposed ACP route, including designation of both wild trout streams and stocked trout streams. The proposed ACP route would cross multiple high quality trout watersheds in the central Appalachian region. About 60% of the proposed ACP in the MNF would cross high quality trout watershed areas.

The proposed ACP will expose multiple high quality trout streams and watersheds in the MNF to damage associated with erosion and sediment control, stormwater runoff, slope stability, and stream, riparian area, and wetlands crossing. The Forest Service can reduce the risk by rejecting the present survey application. The present application fails to describe how data will be obtained and analysis will be conducted to address these issues.

In conclusion, for all of the above-stated reasons, the Dominion Pipeline Monitoring Coalition believes that the Forest Service should reject the ACPLLC application for a special use permit to conduct preliminary surveys for the proposed ACP pipeline. The application is incomplete, it contains erroneous information, and the proposed survey will not collect the data that will be needed for responsible planning of the pipeline project and for informed decision making by the Forest Service.

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[18] Summary of the Final Environmental Impact Statement for Forest Plan Revision, page S-70.
[19] MNF Management Plan, page I-8.
[20] K. Fesenmyer. 2014. Central Appalachians Conservation Success Index. Trout Unlimited, Arlington, VA.

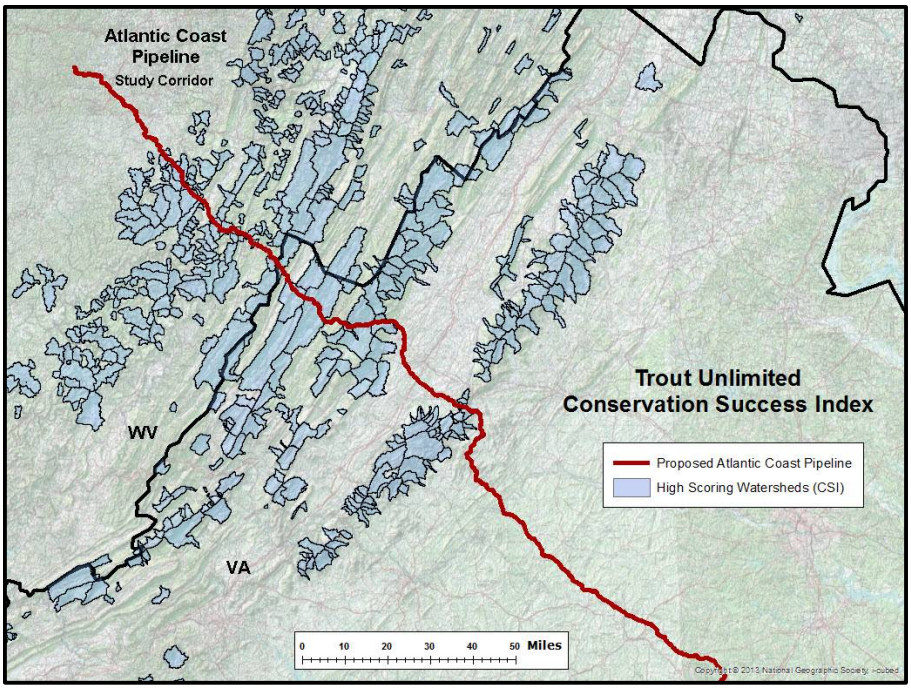

Figure 7 - Distribution of high-scoring watersheds in the central Appalachian region based on the Trout Unlimited Conservation Success Index. The indicated high-scoring watersheds have population score values of 3-5.

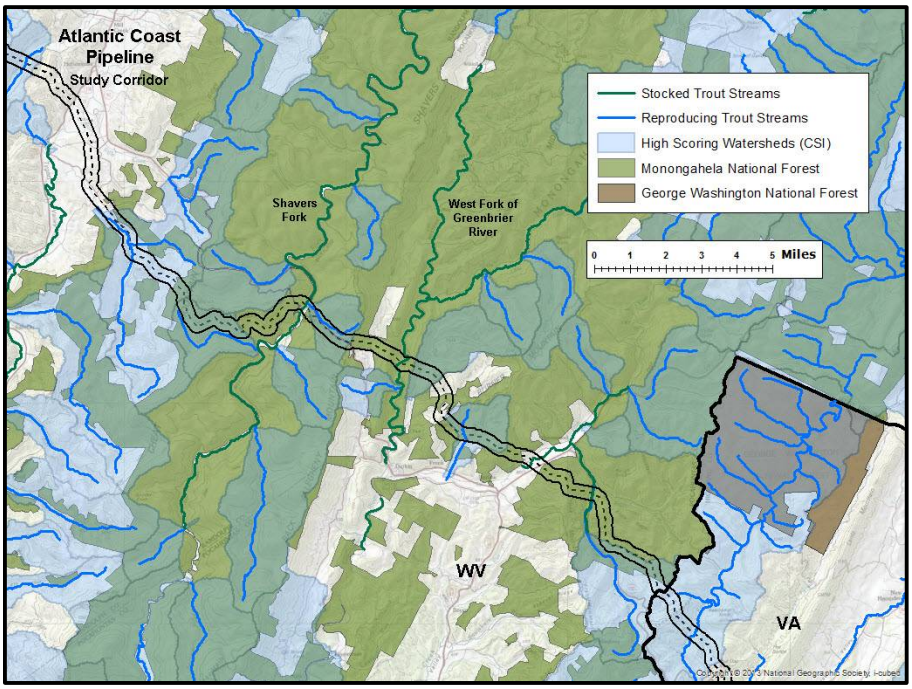

Figure 8 - Distribution of high-scoring watersheds in the eastern West Virginia and the MNF based on the Trout Unlimited Conservation Success Index. The indicated high-scoring watersheds have population score values of 3-5. The data layers for trout streams were obtained from the MNF and the Virginia Department of Game and Inland Fisheries.

Finally, we request that all environmental and geophysical data collected in the MNF by ACPLLC in the context of any permitted survey activities should properly be considered as belonging to the MNF and the public, and it should be made available on a timely basis in complete form for use by the MNF and the public for purposes of environmental review, permit evaluation, and project oversight.

Thank you again for the opportunity to comment on this important topic.

Sincerely,

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