

April 6, 2017

Nathaniel J. Davis, Sr., Deputy Secretary  
Federal Energy Regulatory Commission  
888 First Street NE, Room 1A  
Washington, DC 20426

RE: Docket Numbers CP15-554-000, CP15-554-001; Draft Environmental Impact Statement for the proposed Atlantic Coast Pipeline

Dear Mr. Davis:

The Nature Conservancy appreciates the opportunity to provide comments on the Draft Environmental Impact Statement (DEIS) that has been prepared for the Atlantic Coast Pipeline (ACP).

The mission of The Nature Conservancy (The Conservancy) is to conserve the lands and waters on which all life depends. The Conservancy is a leading conservation organization working in all 50 states and more than 35 countries. We have helped conserve nearly 15 million acres of land in the United States and more than 118 million acres with local partner organizations globally.

The proposed route of the ACP crosses through the Central Appalachian and Longleaf Pine Whole System Projects, both of which are areas of deep investment for the Conservancy. Within these regions, The Conservancy has worked with public agencies, corporations, private landowners, and local communities to undertake land protection, management, and restoration actions across public and private lands. We have worked with others to develop and implement strategies to protect the best large, intact habitats that will continue to support a diversity of species, in the face of a changing landscape and a changing climate.

Below we address the issues we initially raised in EIS scoping letters The Conservancy filed with FERC on April 28, 2015 and June 2, 2016.

**Extend the Comment Period for the DEIS or Provide a Supplemental DEIS**

**The Conservancy strongly recommends that FERC either formally extend the Comment Period for the DEIS or prepare a Supplemental DEIS to allow public review and comment on the information that has yet to be submitted in response to 36 recommendations by FERC staff.** The public has a compelling interest not only in the benefits that would accrue from the expanded transport of natural gas, but also in the consequent impacts of such expansion. As such, the Conservancy submits that FERC must provide the public with a complete analysis of those impacts and how they can be avoided, minimized, and the amount and type of compensation that can offset the impacts. Because the FERC process does not provide a comment period on a Final EIS, the only means by which this can be achieved is through a supplement to the current DEIS.

In our scoping comments, the Conservancy requested that FERC detail how impacts will be avoided, then minimized, and how compensatory measures can offset impacts that cannot reasonably be avoided. In the DEIS, FERC staff conclude that *“construction and operation of ACP and SHP would result in limited adverse environmental impacts, with the exception of impacts on about 6,800 acres of forested vegetation/wildlife habitat; the federally listed Indiana bat, northern long-eared bat, Roanoke logperch, Running Buffalo Clover, and Madison Cave isopod, which would likely be adversely affected by the projects. . .[and] constructing the pipelines in steep terrain or high landslide incidence areas could increase the potential for landslides to occur. As part of our review, we developed specific mitigation measures that we determined would appropriately and reasonably reduce the environmental impacts resulting from construction and operation of ACP and SHP. We are therefore recommending that our mitigation measures be attached as conditions to any authorizations issued by the Commission.”*

FERC has made 36 recommendations to Atlantic to provide information by the end of the comment period for the DEIS. As of this date, Atlantic has not provided FERC all of the information of interest to The Conservancy (see comments below on karst and forests). In order for the public, including The Conservancy, to be able to comment on FERC’s assessment of impacts and measures to mitigate them, a formal extension of the comment period must be provided and/or a Supplemental DEIS must be issued for public review when the requested information has been submitted and deemed complete. In particular, it is important to allow public consideration of the appropriateness and practicability of the avoidance, minimization, and compensatory mitigation measures.

#### **Avoid All Preserves and Conservation Easements**

We have been consistent in our requests to FERC and ACP that the pipeline avoid all conservation easements. Yet *Section 4.8.5.2* of the DEIS states that *“The AP-1 mainline would cross 8.7 miles of easements held by the Virginia Outdoors Foundation (VOF).”* The Conservancy is deeply concerned that the DEIS exhibits a lack of understanding of the implications of allowing the pipeline route to cross lands protected by conservation easement.

Conservation easements have a clear public benefit, documented in many state and federal statutes and regulations. The donation of perpetual conservation easements has been incentivized both by the Commonwealth of Virginia and the federal government in the form of tax benefits to the donor of the easement. Easements represent the intent of a landowner to ensure a durable conservation outcome on their property for the benefit of the public. Both this intent and its public benefit would be thwarted by construction of a pipeline across these properties. Perpetuity is what makes conservation easements unique, and perpetuity is essential to their efficacy as a conservation tool. Allowing land under a conservation easement to be converted to a non-conservation use to accommodate infrastructure such as natural gas pipelines calls into the question the extent to which such easements are actually perpetual.

FERC seems to have placed undue emphasis on the fact that state law contains a process for such conversions. But we do not think that process is applicable in the current case. As we stated in our June 8, 2016 letter to VOF:

We recognize that §10.1-1704 provides an avenue through which, under very limited circumstances, land under a VOF easement can be diverted from open-space use. Under this statute, VOF can only allow such a diversion after making a finding that the diversion is *“essential to the orderly development and growth of the locality.”* The Conservancy submits that such a finding cannot be made at this time. There exists no rationale for concluding that the project, which is at this stage merely a proposal, constitutes *“essential”* development for these localities.

Further, FERC has failed to analyze the consistency of the ACP with the easements held by VOF, the impacts of conversion, or the extent to which such conversion would meet the above requirements under §10.1-1704. **We therefore request that FERC direct ACP to develop a buildable route variation that avoids these conservation easements, and that FERC perform and make available for public review the necessary analyses to determine that conversion of VOF easements is the environmentally preferable alternative.**

If FERC chooses, over the objections of the Commonwealth, The Nature Conservancy, and many other organizations, to allow the pipeline to be routed through lands under conservation easement, then it is essential that FERC ensure that measures to minimize impacts to conservation values and compensate for remaining unavoidable impacts are conditions of the Certificate of Public Necessity and Convenience.

We have urged VOF to delay consideration of ACP's conversion request until after FERC makes a final decision on the pipeline route, and this appears to be the approach that VOF is taking. If and only if FERC approves a pipeline route that includes lands under easement, effectively having made the determination that avoidance of these lands is not possible, would it become appropriate for compensation for impacts to be considered. As we stated in our letter to VOF: "The mitigation hierarchy must, in our view, be implemented sequentially. Only after impacts are avoided and then minimized to the fullest extent possible is it appropriate to consider how to offset the remaining impacts."

State law does provide an adequate standard for ensuring adequate compensation. Virginia Code § 10.1-1704 requires that "there is substituted other real property which is (a) of at least equal fair market value, (b) of greater value as permanent open-space land than the land converted or diverted and (c) of as nearly as feasible equivalent usefulness and location for use as permanent open-space land as is the land converted or diverted." FERC can and should ensure compliance with this standard, if any easements are converted for this project.

### **Avoid Critical Habitats**

In our previous scoping comments, the Conservancy requested that ACP avoid impacts to Critical Habitats for Conservation. In that letter we described Critical Habitats as designated areas with high biodiversity value, consistent with the definitions of Critical Habitats as outlined in the [International Finance Corporation Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources](#). For the Central Appalachians, these habitats include very large and diverse patches of intact forest, ecologically significant cave and karst systems, and rare, threatened and endangered species known to occur in less than 10 locations globally. We made these datasets publicly available so that they may be used in siting decisions and impact assessment.

#### *Forest*

Our June 2016 scoping comments noted that three areas containing large patches of intact forest classified as critical habitats are avoided by what is now the AP-1 mainline. This is consistent with The Conservancy's request to avoid impacts to critical habitats.

In the DEIS, FERC concludes: "that the primary impact from construction and operation would be on forested areas crossed by ACP and SHP, including the removal of approximately 6,800 acres of forested vegetation (includes 3,800 acres of permanent impacts) and fragmentation of interior forest blocks". We note that page ES-10 cites different figures and request this discrepancy be resolved. Nonetheless, The Conservancy concurs with FERC's conclusion that the project would adversely affect a significant area of natural forest habitat, and appreciates FERC's effort to ensure that adequate compensatory mitigation is provided for these impacts. We particularly appreciate the thorough description of interior forest fragmentation and edge effects in *Section 4.5.6 Habitat Fragmentation and Edge Effects*.

Effects of forest fragmentation are extensively described within a very large body of peer reviewed research. Haddad et al (2015) synthesized fragmentation experiments spanning multiple habitats and scales, five continents, and 35 years, and concluded that habitat fragmentation reduces biodiversity by as much as 75%.

We also concur with the finding in *Section 4.4.3 General Impacts and Mitigation on Vegetation Resources* that although areas where no permanent facilities or roads would occur may be considered temporary impacts, “the clearing and restoration of forested areas would be a long-term to permanent impact because of the extended length of time it takes trees to grow to maturity from seedlings or saplings planted as part of the revegetation process.”

We question the note in *4.4.10 Conclusion* “that the operational impacts calculated are based on a 75-foot-wide permanent right-of-way for AP-1, and we recommend in section 2.2.1 that Atlantic only maintain a 50-foot-wide permanent right-of-way; therefore, impacts are currently overestimated.” While The Conservancy fully supports FERC’s recommendation that Atlantic maintain only a 50’ permanent right-of-way, we find that the associated reduction in impacts to upland forest to be marginal because the long term to permanent impact initiated by clearing of forest vegetation would only be affected by a reduction in the construction right-of-way and associated temporary workspaces (ATWS).

Recommendation 37 states: “Prior to the close of the draft EIS comment period, Atlantic and DTI shall file with the Secretary a revised fragmentation analysis . . .” Atlantic’s Supplemental Filing of February 24, 2017 APPENDIX D Revised Forest Fragmentation Analysis appears to respond to this recommendation; however, we find the response incomplete. Appendix D consists solely of a data table, presumably as specified in part d. The total area of 12,139 acres “Indirectly Affected” is significantly lower than what The Conservancy calculated in a similar analysis. We assume that the reason for the discrepancy is that while Atlantic included a 300’ buffer in its calculation to account for new edge, it did not calculate “*areas of remaining forest immediately adjacent to one or both sides of the new corridor that would no longer be classified as interior forest due to the new, project-related disturbances.*” We understand this language to mean the area of forest which, due to the fragmentation of the patch, no longer consists of interior forest. We are unable to verify our assumption regarding the source of the discrepancy because there is no text accompanying the data table explaining the methods used to calculate acreage impacts.

We note that the filing does not include discussion of “how the creation of forest edge or fragmentation would affect habitat and wildlife, including potential impacts on federally listed threatened and endangered species and migratory birds.” Neither does it “[d]escribe measures that Atlantic and DTI will implement to avoid, minimize, or mitigate impacts on interior/core forest habitat.” (paragraph e.), nor include any reference to applicable state and federal agency datasets, as specified in paragraph a. It is our understanding that the Commonwealth of Virginia has developed a methodology for calculating impacts to forest that is consistent with FERC’s recommendation. The Conservancy supports the use of the Commonwealth’s methodology to determine appropriate mitigation for forest fragmentation and loss of interior forest habitat.

The Conservancy holds that the public should have an opportunity to review mitigation measures for impacts to interior/core forest. Given that the Revised Forest Fragmentation Analysis is currently incomplete, **we reiterate our request that FERC extend the comment period for the DEIS or draft a Supplemental DEIS for public review.**

The Conservancy finds that the DEIS fails to address impacts to old growth forest. TABLE 1.3-1

*Environmental Issues and Concerns Raised During Public Scoping for the Atlantic Coast Pipeline and Supply Header Project* indicates that impacts to old growth forests are covered under *Section 4.4.4*, however this section addresses noxious weeds and not the destruction of old growth forest. We were unable to include Old Growth forests within our Critical Habitats assessment because there is no comprehensive database of old-growth stands, however old-growth forests in the eastern U.S. are clearly “highly threatened and/or unique ecosystems” which is one of the criteria for critical habitats promulgated under IFC Performance Standard 6.

In its supplemental filing, dated March 10, 2017 (Appendix B), Atlantic notes that preconstruction timber surveys in areas to be impacted by construction activities will document old growth trees and stands on both the Monongahela National Forest (MNF) and George Washington National Forest (GWNF) and that information will be shared with the US Forest Service prior to tree removal. This practice would not ensure consistency with each Forest’s Land and Resource Management Plan which specify management direction for old growth, including restrictions on harvesting. The supplemental filing also states: “No old growth forest is known to occur in the Project area based on a review of the GWNF Management Plan and Region 8 Guidelines for GWNF South Half GIS data.” In fact, very little existing old growth has been verified on the ground of the GWNF, thus Forest Plan direction that old growth will be surveyed and subsequently evaluated during project analysis to determine its suitability for harvest. The Conservancy supports FERC’s recommendation that “Prior to the close of the draft EIS comment period, Atlantic should file with the Secretary and FS a revised BE that . . . d. provides start and end milepost and acreage of impacts on old growth forests according to the MNF and GWNF old growth forest definition;” Again, since this information has yet to be provided, **The Conservancy reiterates our request that FERC either formally extend the comment deadline or issue a supplemental DEIS for public review when the requested information has been submitted and deemed complete.**

Just as old growth has not been inventoried extensively on the two National Forests, even less is known about old growth status on private lands. The DEIS states that “Results of . . . timber cruises would be used to develop a *Timber Extraction Plan*, which would identify areas of old growth impacted by construction activities. Construction of ACP would convert mature and/or old growth forests to grass/forbs habitat, while the balance of the acres would be converted to an early successional condition”. However, there are no recommendations in the document regarding avoidance and minimization of impacts to old-growth forest on private lands. **The Conservancy requests that FERC ensure that the National Forest’s old growth definitions are used to inventory old-growth forest on private lands, and that Atlantic demonstrate avoidance and minimization measures for all old-growth forest.**

#### *Intact Floodplains*

The Conservancy appreciates that the DEIS makes note of the special value and relative scarcity of intact floodplain forest in its discussion of forest resources. We also note that the use of horizontal directional drilling (HDD) will avoid impacts to floodplain forest at many stream crossing, which is consistent with requests we made during scoping. We reiterate our request **that FERC require ACP to avoid and minimize removal of intact floodplain forest by reducing the construction ROW through these forests to the 50’ even if the floodplain forest is not a delineated wetland.**

River health depends on a wide array of processes that require dynamic interaction between the water and land through which it flows. The Conservancy created the Active River Area (ARA) framework to explicitly consider the spatial area necessary for natural processes and disturbance regimes to occur, and thereby allow the inherently dynamic formation, modification, and maintenance of aquatic and riparian habitat (Smith et al, 2008). The ARA framework is incorporated into the Conservancy’s Critical

Habitats assessment through the inclusion of zones within the ARA adjacent to rivers identified as conservation priorities that are in natural vegetative cover (see further description of priority streams and rivers below). This area may include less active terraces and high slope riparian land which does not usually receive overbank flooding, but which contribute to other important riverine processes such as shading, input of woody debris, sediments, and nutrients which influence river health. (The Nature Conservancy, 2009).

#### *Rare, Threatened and Endangered Species*

In the DEIS FERC states: “Based on these [Agency] consultations, current information, and assuming implementation of our recommendations, we determined that construction and operation of ACP and SHP *may affect* and is *likely to adversely affect* five federally listed species (Indiana bat, northern long-eared bat, Roanoke logperch, running buffalo clover, and Madison Cave isopod)”.

FERC recommendation 45 states: “Atlantic and DTI shall not begin construction of the proposed facilities until:

- a. all outstanding biological surveys are completed;
- b. the FERC staff complete any necessary Section 7 consultation with the FWS;
- c. Atlantic and DTI have received written notification from the Director of OEP that construction and/or use of mitigation (including implementation of conservation measures) may begin.

FERC appears to have determined that these impacts will occur and can be mitigated for, however there is no explanation given as to why the project should proceed given these impacts, nor evidence to support the assumption that they can be mitigated for. We find this to be a serious failing of the document and believe this recommendation is more properly a prerequisite for issuance of a Certificate of Convenience and Necessity, rather than for commencing construction.

In contrast, recommendations 46 through 65 more appropriately recommend action to assess impacts and determine potential remedies for various special status species prior to the close of the draft EIS comment period. While we are unclear how public review and comment would occur on such submissions, we believe that requiring submission of this information prior to the development of a Final EIS is essential to ensuring full implementation of the mitigation hierarchy, including avoidance of impacts. **The Conservancy commends FERC for its efforts to implement the mitigation hierarchy and reiterates our request that FERC either formally extend the comment period for the DEIS or provide a supplemental DEIS for public review when the requested information has been submitted and deemed complete.**

#### *Cave and Karst Systems*

In our June 2016, scoping comments, The Conservancy requested “that FERC use the best available data, expert consultation, and field inventory to identify and avoid impacts to biologically significant cave systems along this and all other mid-Atlantic shale gas pipeline routes.” Overall, we find that FERC has been thorough in its analysis of impacts to these systems, and we appreciate the treatment of karst terrain not only as a substrate that can cause construction and operational challenges to the project but also as a vulnerable and important habitat for subterranean species.

The DEIS finds that ACP would cross 32.5 miles of karst terrain and SHP would cross 1.1 miles of land that has the potential to contain karst features. In *Section 4.1.7*, FERC concludes that “While small, localized, and temporary impacts on karst features, water flow, and water quality could occur, the impacts would be minimized and mitigated through Atlantic’s and DTI’s plans.” In its February 23, 2017 letter Re: Atlantic Coast Pipeline, Karst Terrain Assessment, Construction, Monitoring, and Mitigation

Plan – Review, VDCR notes that “DCR-DNH has reviewed the Karst Terrain Assessment, Construction, Monitoring, and Mitigation Plan (Karst Mitigation Plan). The overall plan is comprehensive and reduces the potential risk posed by the Atlantic Coast Pipeline to karst resources.” The Conservancy hereby incorporates by reference the additional recommendations in this letter.

On page ES-4, FERC recommends that “Atlantic consult with the VDCR to determine potential impacts to the Cochran’s Cave Conservation Site or Cochran’s Cave No. 2, and if required, identify and adopt a pipeline route that would avoid impacts on the cave and conservation site.” In its February 23 letter Re: Atlantic Coast Pipeline, Cochran’s Cave Conservation Area and Moffett Lake Investigation Update – Review, VDCR states: “While DCR-DNH continues to recommend the avoidance of the Cochran’s Conservation Site entirely, the investigations underway and ongoing adjustments to the details of the alignment have reduced the likelihood of a significant impact to the cave or its associated biological and hydrological resources.” We note that in its supplemental filing dated March 24, 2017 (which appears to duplicate a March 10, 2017 filing), Atlantic fails to report the recommendation by DCR-DNH to avoid the conservation site, quoting only the phrase regarding reduction of the likelihood of a significant impact. **The Conservancy supports the recommendation by DCR-DNH to avoid the Cochran’s Cave Site and requests that FERC require Atlantic to develop an alternative route that would entirely avoid impacts to it.**

#### **Consider Additionality of Impacts from Climate Change**

In previous scoping comments, the Conservancy described our efforts to advance species conservation in the face of a changing climate ([Anderson et al. 2014](#), [Anderson et al. 2012](#); [see here for related work](#)) that focus on inherent site resilience. The activity of traversing a relatively unfragmented area with a permanently maintained clearing diminishes the connectedness and therefore resiliency of the site. We requested then that the DEIS fully consider the loss of site resilience to climate change consequent to an interruption in connectedness within large patches of intact habitats. **The Conservancy requests that a supplement to the DEIS be prepared to address how climate change will amplify environmental impacts from this project, particularly impacts to wildlife and wildlife habitat including forests.**

#### **Specify Mitigation Actions for Migratory Bird Habitat**

*Section 4.5.3.5 General Impacts and Mitigation for Migratory Birds* of the DEIS states that “Atlantic and DTI would provide mitigation to compensate for remaining impacts on migratory birds. In addition to their compensatory wetland mitigation, Atlantic and DTI are in ongoing consultations with federal and state agencies regarding compensatory mitigation to offset impacts specific to migratory birds. Atlantic and DTI would quantify the mitigation needed to offset these impacts via a Habitat Equivalency Analysis (HEA). The HEA would be provided in Atlantic’s and DTI’s final *Migratory Bird Plan*.”

FERC makes specific recommendations regarding direct impacts to nesting birds (35) and to rookeries (36), followed by a recommendation regarding forest fragmentation (37). The Conservancy acknowledges that impacts to migratory bird habitat will have substantial overlap with impacts to interior forest. It is our assumption that compensatory actions taken to restore habitat for migratory birds will count towards the larger set of actions taken to compensate for losses of interior forest. If this is correct, then we suggest that Atlantic and DTI complete the HEA in order to evaluate the effectiveness of the forest fragmentation mitigation measures. **The Conservancy requests that FERC include a specific recommendation regarding the completion of a migratory bird HEA in the Supplemental Draft or Final EIS.**

## **Reduce Risks of Sedimentation, Erosion, and Slope Failure**

*Section 4.1.4.2; Geologic Hazards, Landslides* states that “In West Virginia, 73 percent of the AP-1 mainline route would cross areas with a high incidence of and high susceptibility to landslides. In Virginia, approximately 28 percent of the AP-1 mainline route would cross areas with a high incidence of and high susceptibility to landslides (Highland, Bath, Augusta, and Nelson Counties); [and] 21 percent would cross areas with a moderate incidence of and high susceptibility to landslides.”

In *Section 4.1.7* FERC concludes: “constructing the pipelines in steep terrain or high landslide incidence areas could increase the potential for landslides to occur. . . Adherence to DOT’s pipeline safety regulations would minimize the risk of landslides in the project area. However, Atlantic and DTI are currently working to provide documentation of the likelihood that their proposed design features and mitigation measures would minimize the risk of landslides in the project area.”

We note that while the referenced DOT pipeline safety regulations reduce the risk of damage to a pipeline from a landslide, those regulations do not claim to address the risk of landslide occurrence. Overall, while the DEIS takes serious consideration of steps that may be taken to protect the integrity of the pipe, it fails to consider the impacts to stream and vegetation that could occur as a result of mass sediment movement. The Conservancy is seriously concerned about the possible impacts to vegetation and stream resources that could result from project-induced landslides, such as failures of cut slopes or fill slopes, or the projects’ alteration of surface and subsurface drainage in areas of construction and adjacent natural slopes along the pipeline and access roads.

We have met with Atlantic to learn about their efforts to manage landslide and sedimentation and erosion risk, and believe that the company is taking that risk seriously and developing an effective risk management process. At the same time, as we noted in those discussions and consistently in our scoping comments, evidence of the efficacy of the proposed control measures in this terrain and climate is limited.

**We request that a supplement to the DEIS address potential impacts to vegetation and aquatic habitats from landslides and sedimentation and erosion during both normal and high intensity rain events.** We further request that the applicant provide evidence – including examination of all available records maintained by state and federal regulators and anecdotal evidence pertaining to the sufficiency of landslide risk control measures for recent pipeline construction projects in VA and WV - that proposed strategies to reduce landslide risk will be effective given the project scale, terrain, and climate.

## **Conclusion and Summary**

The Conservancy reiterates it’s overarching finding that there is a need for public review and thorough analysis of the information that FERC staff have requested be submitted prior to the end of the DEIS comment period, and that much of that information has not been provided in the supplements filed by Atlantic. **We strongly recommend that FERC either formally extend the Comment Period for the DEIS or prepare a Supplemental DEIS to allow public review and comment on the information that has yet to be submitted in response to 36 recommendations by FERC staff.**

**In addition, we request that FERC direct ACP to:**

- Develop a buildable route variation that avoids VOF’s conservation easements, and that FERC perform and make available for public review the necessary analyses to determine that conversion of VOF easements is the environmentally preferable alternative;
- Avoid impact to all Critical Habitats, including Cochran’s Conservation Site and old-growth forest



stands on both public and private land;

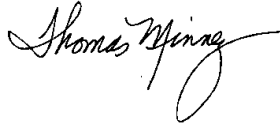
- Appropriately compensate for impacts to intact forest, including fragmentation effects such as the creation of new forest edge and newly created forest fragments that no longer meet minimum size criteria for forest cores;
- Address how climate change will amplify environmental impacts from this project, particularly impacts to wildlife and wildlife habitat including forests;
- Include a specific recommendation regarding the completion of a migratory bird HEA in the Supplemental Draft or Final EIS;
- Assess potential impacts to vegetation and aquatic habitats from landslides and sedimentation and erosion during both normal and high intensity rain events, and;
- Provide evidence that proposed strategies to reduce landslide risk will be effective given the project scale, terrain, and climate.

Thank you for the opportunity to provide comments to FERC on this important issue. If you have any questions about these comments, please contact Judy Dunscomb, Senior Conservation Scientist at [jdunscomb@tnc.org](mailto:jdunscomb@tnc.org) or (434) 951-0573.

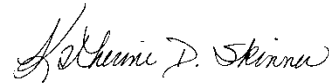
Sincerely,



Bill Kittrell  
Acting Virginia Executive Director



Thomas Minney  
West Virginia Executive Director



Katherine D. Skinner  
North Carolina Executive Director

Enclosures

Cc: Elizabeth Gray, Mid-Atlantic Division Director, The Nature Conservancy  
Nels C. Johnson, North American Energy by Design Project Director, The Nature Conservancy  
Clyde Thomson, Forest Supervisor, Monongahela National Forest  
Jennifer Adams, Project Coordinator, USFS  
Joby Timm, Forest Supervisor, George Washington and Jefferson National Forests  
Pam Faggert, Vice President & Chief Environmental Officer, Dominion Resources

## References

- Anderson, M.G., A. Barnett, M. Clark, C. Ferree, A. Olivero Sheldon, and J. Prince. 2014. Resilient Sites for Terrestrial Conservation in the Southeast Region. The Nature Conservancy, Eastern Conservation Science. 127 pp.
- Anderson, M.G., M. Clark, and A. Olivero Sheldon. 2012. Resilient Sites for Terrestrial Conservation in the Northeast and Mid-Atlantic Region. The Nature Conservancy, Eastern Conservation Science. 168pp.
- International Finance Corporation, World Bank Group. 2012. Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources. Available at: [http://www.ifc.org/wps/wcm/connect/topics\\_ext\\_content/ifc\\_external\\_corporate\\_site/ifc+sustainability/our+approach/risk+management/performance+standards/environmental+and+social+performance+standards+and+guidance+notes](http://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/ifc+sustainability/our+approach/risk+management/performance+standards/environmental+and+social+performance+standards+and+guidance+notes).
- Smith, M.P., Schiff, R., Olivero, A. and MacBroom, J.G., 2008. The Active River Area: A Conservation Framework for Protecting Rivers and Streams. The Nature Conservancy, Boston, MA.
- The Nature Conservancy. 2009. TNC Portfolio Rivers. The Nature Conservancy Eastern Conservation Science Office. Boston, MA.