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**US Army Corps of
Engineers
Norfolk District
Regulatory Office
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Memorandum

To: Chief, Regulatory Branch, United States Army Corps
of Engineers, Norfolk District

From: Regional Director, Northeast Region *Michael G. Gabe*

Subject: Comments on Draft Memorandum of Agreement for Surry-Skiffes Creek-Wheaton
Aerial Transmission

Thank you for the opportunity to review the June 3, 2016, revised draft Memorandum of Agreement (MOA) for the Surry-Skiffes Creek Transmission Line application. Please find the attached National Park Service (NPS) comments on the draft MOA.

A number of issues related to the Section 106 process remain unresolved. Repeated comments from the NPS has noted significant concerns regarding: (1) completion of an adequate visual analysis; (2) evaluation of socioeconomic impacts; (3) proper assessment of effects for each historic property including understanding the effect and its severity; and (4) sufficient cumulative effects analysis. The ability to determine appropriate mitigation measures (Section 106 resolution of adverse effects step) depends on a satisfactory completion of the preceding assessment of effects step, particularly in a scenario such as this with many nationally significant resources affected. The NPS has repeatedly clarified the deficiencies that need to be addressed before the consultation can reasonably move into the resolution of adverse effects step.

In addition to comments on the MOA and Section 106 process, the NPS continues to encourage the USACE to analyze the impacts of the Surry-Skiffes line in an environmental impact statement (EIS) under NEPA, which will clearly demonstrate that the environmental impacts from this project, particularly to historic properties and scenic resources, are too significant to permit. As the agency with responsibility and experience caring for many of our nation's most significant historic resources, we request the USACE respectfully consider our input to help protect these remarkable resources for future generations.

Attachment

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**National Park Service Comments on
Draft Memorandum of Agreement and Related Documents
Surry-Skiffes Creek-Whealton Aerial Transmission Line Proposal
July 27, 2016**

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1. Introduction

The US Army Corps of Engineers (USACE) submitted a draft Memorandum of Agreement (MOA) and accompanying appendices on June 13, 2016, for the Dominion Virginia Power (Dominion) Surry-Skiffes Creek-Whealton aerial transmission line proposal (Surry-Skiffes line); subsequently, the USACE also sent an e-mail on “General Updates & Add'l Information addressing Outstanding Concerns of Consulting Parties” on June 20, 2016, to the consulting parties. The National Park Service (NPS) has reviewed these submittals, and provides comments below as part of the continuing consultation process under Section 106 of the National Historic Preservation Act. The NPS continues to assert that this project, as currently proposed, can not be mitigated. We continue to encourage the USACE to analyze the impacts of the Surry-Skiffes line in an environmental impact statement (EIS) under NEPA, which will clearly demonstrate that the environmental impacts from this project, particularly to historic properties and scenic resources, are too significant to permit.

NPS comments fall under three major categories: (A) deficiencies in impact analyses, (B) deficiencies in evaluation of the project need, and (C) deficiencies with the mitigation process/proposal. In addition to comments on the MOA and Section 106 process, the NPS also provides comments to assist the USACE in its deliberations under the National Environmental Policy Act (NEPA). Our comments in sections 2 through 5 pertain to our continuing concerns regarding the Section 106 process, shortcomings in visual, cumulative and socioeconomic impacts from the Surry-Skiffes proposal, and ongoing questions regarding the need for the project.

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The NPS emphasizes that the Section 106 process has not been adequately completed (section 2 below) and that the severity of the effects are not fully assessed and can not be mitigated. Nevertheless, the NPS feels compelled to provide comments on the mitigation proposed in the draft MOA and the context necessary for it. This is detailed in sections 6 through 8 below.

2. Status of Section 106 process

A number of issues related to the Section 106 process remain unresolved between the USACE and the consulting parties. Repeated comments from the ACHP, SHPO, NPS, and other consulting parties have noted significant concerns regarding: (1) completion of an adequate visual analysis; (2) evaluation of socioeconomic impacts; (3) proper assessment of effects for each historic property including understanding the effect and its severity; and (4) sufficient cumulative effects analysis. The ability to determine appropriate mitigation measures (Section 106 resolution of adverse effects step) depends on a satisfactory completion of the preceding assessment of effects step, particularly in a scenario such as this with many nationally significant resources affected.

The NPS and others have repeatedly clarified the deficiencies and referred the USACE to resources to complete these analyses before the consultation can reasonably move into the resolution of adverse effects step. However, the USACE's June 20 email does not appear to take into account the extensive thought, time, and effort the consulting parties have put into analysis of the assessment of effects. The email does not reflect a "reasonable and good faith effort" on the part of the USACE to consider the views of consulting parties expressed in the numerous pages of consulting party comments and several consulting party meeting discussions.

As discussed in detail below, the draft MOA and the MOA Context Document inaccurately state, in multiple instances, that the consulting parties agree with the USACE on their conclusions regarding adverse effect assessments and cumulative effects. The documents also inaccurately states that the parties participated in the development of and agree with both the concept behind the mitigation and the specific proposals. While we speak for the NPS alone, extensive comment letters from many of the consulting parties, as well as the record from prior consulting parties meetings, does not support these assertions.

The revised MOA relies on an inaccurate analysis of the approach used by the NPS for the Susquehanna to Roseland utility line project. Neither the project nor the mitigation proposal in that case are comparable to the Surry-Skiffes proposal, as discussed in detail below.

3. Issues with Impacts/Effects Analysis

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As NPS, the Advisory Council on Historic Preservation and others have made clear,¹ and as discussed in consulting parties meetings, the nature of this project calls for integrating Section 106 and NEPA review through an EIS. Our discussion below of two of the major shortcomings in analysis of effects / impacts illustrates this point. Visual effects must be considered under Section 106 as they affect integrity of setting and feeling of historic properties. Visual impacts must also be considered under NEPA as they affect historic properties, scenic resources and other aspects of the human environment. Moreover, visual impacts affect visitor experiences associated with the setting and feeling of historic properties, the recreational use of those properties and other resources, and scenic resources. For this reason, the comments below are applicable to both Section 106 and NEPA analyses.

Major Shortcomings in Visual Impact Assessment

While the applicant's analysis of impacts from the proposed project recognizes that several historic properties will be adversely affected by the project, it does not address the visual impacts to the **visitor experience** for visitors to the Captain John Smith Trail and nearby onshore locations within Colonial National Historical Park, including the Colonial Parkway, a National Scenic Byway and All American Road. The visual impact analysis also fails to address the impacts to the underlying scenic resources and impacts to views both to and from the multiple historic properties within the viewshed. Visual impacts to the visitor experience and to the underlying scenic and historic resources are major impacts of the proposed project, are clearly to be significant as defined by NEPA regulations, and therefore warrant a thorough analysis by qualified professionals through an EIS.

In addition to not addressing major effects of the proposed project, the lack of an analysis of the nature and magnitude of visual impacts of the project is important for the following reasons:

1. The decision to approve the project must be based on a complete and accurate understanding of the potential impacts to the human environment, including visitor experience and aesthetic impacts.
2. The siting of the proposed project should be informed by consideration of the likely environmental impacts. For electric transmission projects, which are well known to be a major source of visual impacts, consideration of visual impacts is particularly important; route selection through visually sensitive areas should only be undertaken **after** developing an accurate understanding of the likely visual impacts of the project².
3. Design of both onsite mitigation and offsite compensatory mitigation must be informed by thorough analysis of the potential impacts of the project. Again, for electric transmission

¹ NPS Northeast Region Associate Regional Director Frank Hays letter to USACE Chief William Walker, March 15 2016; ACHP Assistant Director Charlene Vaughn letter to USACE Chief William Walker, March 2 2016.

² Bureau of Land Management (BLM). (2013). *Best Management Practices for Reducing Visual Impacts of Renewable Energy Facilities on BLM-Administered Lands*. Cheyenne, WY: U.S. Department of the Interior.

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projects, consideration of visual impacts is particularly important in designing effective onsite mitigation and evaluation of off-site/compensatory mitigation options and values.

For the proposed project, no analysis of the visual impacts to visitor experience, scenic resources, or historic resources (outside of the Section 106 analysis that very narrowly examined the visual setting effects on the historic properties) has been conducted. The Section 106 analysis does not address these impacts, and in any event only finds that adverse effects to the historic properties occur, which while critically important, does not address other types of major visual impacts from the project, and is not useful for the purposes listed above.

While the visual impacts of the Surry Skiffes overhead transmission line project may be slightly minimized through project siting, design, and onsite mitigation methods, the project, as proposed, will still cause significant visual impacts that cannot be effectively mitigated through avoidance, minimization, rectification, or reduction over time. Under this specific overhead transmission line project, the bulk of the visual impacts will be unavoidable adverse impacts that may warrant compensatory mitigation; however, this can only be determined through a detailed and thorough visual impact assessment.

There are established methods available for identifying both the nature and magnitude of visual impacts, and they are routinely used for electric transmission projects. The *NPS Visual Impact Assessment Evaluation Guide for Renewable Energy Projects* (the NPS Guide)³ describes the most commonly used approach, but there are several other methods that could be used.⁴

As proved to USACE previously, and as discussed in the NPS Guide, *visual impacts* are defined as the changes to the scenic attributes of the landscape brought about by the introduction of visual contrasts (changes to what is seen by the viewer) from a proposed project, and the associated changes in the human visual experience of the landscape. Thus visual impact is both the change to the visual qualities of the landscape resulting from the visual contrasts of a project and the human response to that change. All of the major visual impact assessment systems conclude that three important considerations for determining the magnitude of visual impacts include: (1) the number of viewers, (2) the length of time the contrasting elements are in view, and (3) the sensitivity of the viewers to the changes to the view that result from the presence of the project.

³ Sullivan, R. G. and M. Meyer. 2014. *Guide to Evaluating Visual Impact Assessments for Renewable Energy Projects*. Natural Resource Report NPS/ARD/NRR-2014/836. Fort Collins, CO: USDI, National Parks Service.

⁴ California Department of Transportation. 2014. *Environmental Handbook, Volume I: Guidance for Compliance*. Bureau of Land Management. 1986. *Visual Resource Contrast Rating: BLM Manual Handbook 8431, Release 8–30*. Washington, DC: U.S. Department of the Interior.

Federal Highway Administration. 2015. *Guidelines for the Visual Assessment of Highway Projects*. FHWA-HEP-15-029. U.S. Department of Transportation

Smardon, R. C., J. F. Palmer, J. Knopf, K. Grinde, J. E. Henderson and L. D. Peyman-Dove. 1988. *Visual Resources Assessment Procedure for US Army Corps of Engineers*. Instruction Report EL-88-1, USACE, Waterways Experiment Station, Vicksburg, MS.

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The nature and magnitude of the visual contrasts created by transmission projects are well understood and well documented⁵. Important sources of visual contrast include the forms and lines of the towers, the conductors, insulators, and marker balls. A transmission facility visibility field study conducted by Argonne National Laboratory for the U.S. Department of the Interior Bureau of Land Management (BLM) analyzed the visibility of several 500 kV lattice-tower transmission facilities in western landscapes, and found the facilities to be plainly visible in some cases as far as 7 miles, and to dominate the view (i.e. strongly attract and hold visual attention) as far as 3 miles⁶. While the study noted that visibility in the eastern U.S. would be lower on average than in western landscapes, one of the applicant's simulations shows that the proposed project would be plainly visible at a distance of 2.5 miles, and the simulation shows only a small portion of the proposed project that would be visible, and thus the visual contrast would be substantially greater in reality. It should be noted that the BLM visibility study included 500kV projects with substantially shorter towers than the proposed project, and lacking the marker balls that are planned for the proposed project; both of these factors would further increase the visual contrast from the proposed project, as would the lack of screening vegetation or structures near the towers in the open river. The applicant's simulation from the viewpoint at 0.5 miles from the proposed project shows that the transmission line would tower above viewers and would stretch across nearly the entire field of view. It would be an overwhelming visual presence that would substantially interfere with views of the historic James River landscape, including its scenery and the nationally significant historic sites it contains.

Within the historic district visitors using the water route of the Captain John Smith Chesapeake National Historic Trail would be subjected to the high contrast levels, as would any viewers on the nearby shoreline, including those viewing the river from the affected national historic sites. Visitor statistics indicate there were more than 3.4 million visitors to the Colonial National Historical Park in 2010⁷, although official statistics almost certainly undercount visitation. NPS estimates that hundreds of thousands of visitors would be subjected to the visual impacts of the proposed project annually, with millions more exposed over the fifty year lifetime of the project.

View duration for many of these viewers will be relatively long. The unusually long length of the river crossing and its orientation to the river would substantially increase the view duration for persons on the Captain John Smith Chesapeake National Historic Trail. For the trail users, the transmission line would be in view for an extended period as it gradually increased in apparent size until it loomed

⁵ Sullivan, R. G. and M. Meyer, *op. cit.*

U.S. Dept. of Energy. 2008. *Final Programmatic Environmental Impact Statement, Designation of Energy Corridors on Federal Land in the 11 Western States* (DOE/EIS-0386).

⁶ Sullivan, R. G., Abplanalp, J. M., Lahti, S., Beckman, K. J., Cantwell, B. L., and Richmond, P. D. (2014). *Electric Transmission Visibility and Visual Contrast Threshold Distances in Western Landscapes*. Paper presented at the National Association of Environmental Professionals, 39th Annual Conference, April 7–10, St. Petersburg, FL.

⁷ National Parks Conservation Association. 2011. *Making Connections: Colonial National Historical Park Enhances Economic Vitality in Virginia's Historic Triangle*. Washington DC.

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overhead as they crossed under the line, with additional extended views afterward. Many onshore viewers would have long-duration views as well as they enjoyed the scenic vistas of the river.

A large proportion of viewers would likely be sensitive to a major visual intrusion such as the proposed project because many visitors to the area would be expressly seeking to experience the landscape as it would have been seen in its historically significant period, in essence to “recreate” the visual experience of the historically important period. Many of these same visitors would also be seeking high quality scenic views, especially given the presence of the river, which is a major scenic attraction. Although a limited number of other inconsistent man-made elements are visible in the view, they are much smaller and less intrusive than the proposed project. The proposed project’s massive size, modern, and highly industrial appearance would contrast greatly with the historic and scenic setting, would be wholly inconsistent with these visitors’ expectations, and would degrade the visitor experience. Although their views of the project would be generally of shorter duration, viewers on the Colonial Parkway would also be highly sensitive to visual intrusions such as the project, because the Parkway is a nationally designated scenic highway, well known and heavily visited expressly for the purpose of enjoying scenic and historic views from the roadway and its pull-offs.

Cumulative visual impacts from the proposed project are also a major concern. As discussed in the NPS Guide, cumulative visual effects include *simultaneous viewing*, where multiple projects are visible from one location, and *sequential viewing*, where multiple projects are in view as the viewer moves through the landscape. As viewshed analyses conducted by both NPS and the applicant have shown, because of the proposed project’s large size and the unusual height of the transmission towers, the viewshed is large, meaning the project will be visible over a large area, which increases the likelihood of both types of cumulative visual impact effects.

The proposed project would contribute to cumulative effects and extend the visual effects of river crossings approximately 15 miles upriver from the existing James River bridge crossing. The incremental increase in the frequency of crossings could alter the experience of river recreationists and NHT users and potentially increase the expectation that the river would be developed to higher intensity land uses.

More importantly, the increased availability of reliable power, noted by the applicant as an important aspect of heritage tourism, would likely also facilitate expansion of industrial and other land uses that are incompatible with the historic landscape setting. This would further degrade scenic quality not only of the area within the project viewshed, but other locations outside of the project viewshed, some of which are equally sensitive because they contain equally important historic and scenic resources. While some development has occurred within the project viewshed, the visibility of the facilities from many locations is somewhat limited. A comprehensive and detailed cumulative effects analysis should address the reasonably foreseeable increase in development that could transform the relatively low intensity land use of the area to a higher level that is incompatible with the existing visual setting.

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Furthermore, the presence of the project will result in a loss of scenic quality that may be important at a regional scale. Because of increasing development throughout the region, views that are relatively free from major visual intrusions are becoming increasingly rare. Despite the presence of some incompatible elements in the proposed project's viewshed, it is an area of relatively high scenic quality, in part because of the absence of developments like the proposed project. If the project is built, these qualities will be lost.

The evidence presented here clearly shows that the Surry-Skiffes Creek-Whealton project, because of its extremely large size (both the project as a whole and its individual components) and its other visual properties would create a high degree of visual contrast for a very large number of viewers, many with long duration views, and many sensitive to its distinctly man-made industrial appearance, which is wholly inconsistent with the historic character of the landscape and its scenic values. It is beyond question that it will cause significant visual impacts to persons using the Captain John Smith Chesapeake National Historic Trail and other viewers along the shore of the James River in the vicinity of the crossing. It is also likely to cause at least moderate visual impacts to many other viewers within the project viewshed, all of which is visually sensitive because of its historic values and its use as a major recreation amenity, including its scenic values. The proposed project will also contribute substantially to cumulative visual impacts in an area where the historical landscape character and scenic qualities are particularly sensitive to them.

USACE has not cited use of any of the readily available, peer-reviewed, science-based visual impact analysis methodology used in numerous other locations. Instead, the draft mitigation includes the applicant's suggestion that some viewers may find the transmission project to be a visual amenity. Visual impact analyses for other transmission projects clearly establish that most people do not consider high voltage transmission lines as a positive visual impact; in fact, transmission projects are routinely the subject of major public opposition because of their negative visual impacts on nearby landscapes⁸.

As noted above, the resources that would be negatively affected by visual impacts from the project include a National Park, a National Historic Trail, a National Scenic Byway/All American Road, a National Historic Landmark, two National Register Historic Districts and several sites listed or eligible for listing on the National Register of Historic Places. The National Park and National Historic Trail were designated as such by Congress because of their national historic importance and existing historic integrity, and were meant to receive the highest level of protection possible from impacts-including visual impacts-such as the proposed project would create. The National Scenic Highway/All American Road is the highest level of scenic designation possible for a roadway in this country, and the NRHP designation also confers importance and consideration of adverse effects on listed and eligible sites. For all of these resource areas, scenic values are important to the integrity of the resource and/or essential to the visitor experience and appreciation.

⁸ Furby, L., et al., 1988. Public Perceptions of Electric Power Transmission Lines. *Journal of Environmental Psychology* 8:19-43.

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The significant impacts of the proposed project in an area of such significance merits a formal visual impact analysis based on standard methodology for completing such an analysis.

Major Shortcomings in Socioeconomic Impacts Analysis

The documents provided by the USACE suggest the following:

1. Visual effects caused by the proposed undertaking will alter setting and feeling, however the effects, though adverse, are subjective per individual and cannot be quantitatively measured.
2. Historic data seems to indicate there is no correlating variation in visitorship when compared to past events. Dominion has provided historic visitorship data reportedly derived from multiple, publically available sources including the National Park Service. Visitor trends in this data were compared to the timing of past weather, promotional events and major construction projects within the APE. Dominion found that visitorship did not appear to fluctuate during these. Based on this data the USACE finds no compelling reason to further investigate this issue.

We find these rationales entirely unsupported by the literature, policy direction and evidence provided.

As noted in previous correspondence to the USACE, the NPS believes the socioeconomic analysis completed for a project with such significant impacts is insufficient.⁹ Federal agencies directed to consider ecosystem services in their planning and decision-making, and to monetize the value of those services where appropriate¹⁰. The most recent Principles, Requirements and Guidelines for Water and Land Related Resources Implementation Studies (PR&G), finalized in 2014, includes a new section on ecosystem services specifically. Page 22 notes that “A complete accounting identifies, at a minimum, impacted [ecosystem] services and the projected trend of each service flow. Where practicable, impacts should be quantified. When it can be done well and it is appropriate to do so, quantified impacts should be monetized.”

All of the above mentioned documents, as well as the Millennium Ecosystem Assessment and NRC (2005) categorize recreational opportunities and aesthetics (i.e., visual quality/effects) as cultural ecosystem services – services that have an economic value to people that can be monetized.¹¹

⁹ See for example: NPS Northeast Region Associate Regional Director Frank Hays letter to USACE Chief William Walker, January 29 2016; NPS Northeast Region Associate Regional Director Frank Hays letter to USACE Chief William Walker, March 15 2016.

¹⁰ Executive Memorandum M-16-01. 2015. Incorporating ecosystem services into federal decision-making. Office of Management and Budget, Council on Environmental Quality, and the Office of Science and Technology Policy. President’s Council of Advisors on Science and Technology (PCAST). 2011. Sustaining environmental capital: protecting society and the economy. Executive Office of the President of the United States, p. 8.

¹¹ National Research Council (NRC). 2005. Valuing ecosystem services: toward better environmental decision making. Washington, DC: National Academies Press.

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The USACE recently published two documents focused on ecosystem services. The first, released by the Institute for Water Resources, recognizes aesthetically pleasing landscapes as an ecological service.¹² The document discusses the role of ecosystem goods and services in various agencies, including the National Park Service, providing examples where their economic value has been quantified. The report notes that ecosystem goods and services may be a useful approach for the USACE in mitigation planning and stewardship decision-making, and evaluates how the USACE can “build on the growing interest in and acceptance of ecosystem goods and services in other agencies.” The second report, released by the Engineer Research and Development Center, categorizes natural areas for recreation and aesthetics as an ecosystem service that has a direct use economic value, and presents methods commonly used to quantify the value of this service.¹³

As described above, infrastructure associated with energy development has the potential to negatively impact the visual quality/aesthetics of a landscape. This, in turn, can impact the public’s values for these landscapes. As explained in Slusser, the Visual Resource Program Lead of the Bureau of Land Management Wyoming State Office notes that “the public is becoming better informed on scenery and visual resources on public lands. They value...the wide open spaces with little to no significant cultural modifications and want to keep the landscape on public lands as is.”¹⁴

Public values for the visual quality of a landscape can be quantified. In 2013, BLM released an instruction memorandum describing when and how to consider non-market environmental values in planning and project assessments.¹⁵ It explains that values should be monetized when a proposed action is likely to have a significant effect that can be clarified through the analysis of nonmarket values. It continues: “For example, a proposed wind energy installation may affect the viewshed of a nearby community in ways that alter scenic values.”

The natural resource economics literature finds that the scenic quality of landscapes can affect visitation and economic values held by the public.¹⁶ Krueger et al. quantified resident’s willingness to pay to

¹² Reed, D., L. Martin, and J.A. Cushing. 2013. Using information on ecosystem goods and services in Corps planning: an examination on authorities, policies, guidance, and practices. U.S. Army Corps of Engineers Engineer Institute for Water Resources.

¹³ Tazik, D.J., J. Cushing, E.O. Murray, and L. Wainger. 2013. Incorporating ecosystem goods and services in environmental planning— a literature review of definitions, classification, and operational approaches. ERDC/EL TR-13-17. U.S. Army Corps of Engineers Engineer Research and Development Center, p. 31, figure from NRC, 2005; p. 33, figure from Palmer, M. A. and S. Filoso. 2009. Restoration of ecosystem services for environmental markets. *Science* 325:575-575, p. 23.

¹⁴ Slusser, A.M. 2012. Transmission lines in wildland landscapes: gauging visual impact among casual observers. Master’s Thesis. University of Washington, p. 1.

¹⁵ Bureau of Land Management (BLM). 2013. Guidance on estimating nonmarket environmental values: Instruction Memorandum No. 2013-131.

¹⁶ Boyle, K.J., R. Paterson, R. Carson, C. Leggett, B. Kanninen, John M., and J. Neumann. 2016. Valuing shifts in the distribution of visibility in national parks and wilderness areas in the United States. *Journal of Environmental Management* 173: 10-22.

Mathews, L.G., S. Stewart and S. Kask. 2003. Blue Ridge Parkway scenic experience Project. Phase 2 Final Report. Asheville, NC: University of North Carolina--Asheville, Department of Economics.

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prevent wind turbines off the Delaware coast.¹⁷ Englin and Mendelsohn evaluate the influence of various trip attributes, including scenic views, on recreational values for hikers in Washington.¹⁸ These studies demonstrate that scenic resources have an economic value that can be quantified, and visual amenities and disamenities can influence the economic value of recreation trips.

Several studies have evaluated the impact of transmission lines in particular on economic values, in terms of the public's willingness to pay to reduce or remove visual effects of the lines. For instance, a study by Atkinson et al. quantified what residents in England would be willing to pay to redesign transmission lines for visual and aesthetic purposes.¹⁹ Navrud et al. also quantified what households in Norway living in close proximity to an existing transmission line that crosses a public park would be willing to pay to bury the line, with some citing "power lines affect the landscape" as a reason for their willingness to pay.²⁰ A number of studies have used the hedonic property method to determine the impact of transmission lines on property values.

These studies employ the same economic valuation techniques outlined in PCAST²¹, Tazik et al.,²² BLM,²³ NRC,²⁴ and so on, demonstrating that visual effects can be quantitatively measured and monetized using well-established and rigorous scientific methods. Values associated with visual impacts are of course subjective to the individual – that is a basic premise of economic valuation. As noted by Bockstael et al., "the economic value of an ecosystem function or service relates only to the contribution it makes to human welfare, where human welfare is measured in terms of each individual's own assessment of his or her well-being."²⁵

Even if the proposed transmission line does not cause a decline in the *quantity* of visitation/tourism, it has the potential to affect the *quality* of visitation/tourism. Monetizing the loss in economic value due to the diminished quality of a recreation experience on NPS lands is common practice.

Walsh, R., Bjonback, R., Aiken, R., and D. Rosenthal. 1990. Estimating the public benefits of protecting forest quality. *Journal of Environmental Management*, 30: 175-179.

¹⁷ Krueger, A., Parsons, G., and J. Firestone. 2011. Valuing the visual disamenity of offshore wind power projects at varying distances from the shore: an application on the Delaware shoreline. *Land Economics*. 87(2):268-283

¹⁸ Englin, J. and R. Mendelsohn. 1991. A hedonic travel cost analysis for valuation of multiple components of site quality: the recreation value of forest management. *Journal of Environmental Economics and Management*. 21 275-290

¹⁹ Atkinson, G., Day, B., Mouratos, S., and C. Palmer. 2004. 'Amenity' or 'Eyesore'? Negative willingness to pay for options to replace electricity transmission towers. *Applied Economics Letters*. 11: 203-208

²⁰ Navrud, S., Ready, R., Magnussen, K., and O. Bergland. 2008. Valuing the social benefits of avoiding landscape degradation from overhead power transmission lines: Do underground cables pass the benefit-cost test?. *Landscape Research*. Vol. 33. No. 3. 281-296.

²¹ President's Council of Advisors on Science and Technology (PCAST). 2011.

²² Tazik, D.J., J. Cushing, E.O. Murray, and L. Wainger. 2013.

²³ Bureau of Land Management (BLM). 2013.

²⁴ National Research Council (NRC). 2005.

²⁵ Bockstael, N. E., Freeman, A.M. III, Kopp, R.J., Portney, P.R., and V.K. Smith. 2000. On measuring economic values for nature. *Environmental Science and Technology* 34 (8), 1384-1389.

Using standard methods of economic valuation (stated preference techniques, revealed preference techniques, or benefit transfer), it would be feasible and worthwhile to evaluate the potential loss in economic value resulting from the possibility of diminished visitor experience due to aesthetic impacts from the proposed transmission line.

Beyond the potential impacts to visitor experience and direct use values, the proposed transmission line could affect non-use economic values. That is, some members of the public derive value from maintaining the scenic quality of public lands for current and/or future generations, regardless of their use of those lands. These nonuse values (also called existence or bequest values) can be difficult to quantify and would most likely require primary data collection. However, they are often addressed at least qualitatively.

The NPS has repeatedly requested the USACE undertake commonly accepted analysis such as described above. This is the kind of assessment that would normally be undertaken in any EIS conducted for a project of this magnitude. The USACE has noted that a socioeconomic impact analysis would be completed if the project permitted. Because critical information regarding the significance of the socioeconomic impacts should be available to both NEPA and NHPA compliance process, the NPS is independently contracting for appropriate socioeconomic impact analysis of the Surry-Skiffes overhead transmission line project. We anticipate results later this fall.

4. Change in Project Need and Its Effects on the Range of Alternatives

The need for the Dominion Surry-Skiffes Creek Whealton Project appears to have changed significantly over the course of time, as demonstrated through communication from the USACE, but the scale of the project proposed has not been reduced to reflect the new need. The most recent iteration presented in the MOA shows a significantly reduced need for the project, calling into question the alternatives currently proposed and the scale of the alternatives necessary to satisfy this new need.

The USACE has relied on its “USACE Preliminary Alternatives Conclusions White Paper”²⁶ (White Paper) for a description of the project and alternatives, absent the preparation of NEPA documents for the project at this time. This White Paper detailed the project purpose and need as follows:

“Project Need: Dominion currently supplies power to the North Hampton Roads Load Area (NHRLA) via generation from the Yorktown Power Station (approximately 1,141 Mw) and two transmission corridors that deliver power into the service area...Yorktown Power Station is comprised of two Coal fired plants (Yorktown 1 & 2) that produce approximately 323Mw and one oil fired plant (Yorktown 3) that produces 818Mw. Due to environmental restrictions Dominion can only operate Yorktown 3 intermittently (8% of year) and the unit has an

²⁶ USACE Preliminary Alternatives Conclusions White Paper, RE: NAO-2012-0080 / 13-V0408, October 1, 2015.

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approximately 3 day start-up time. Additionally, Dominion anticipates retiring Yorktown 3 by 2020.

With current configurations and without additional power input into the service area by 2019, Dominion would be unable to maintain compliance with the North American Electric Reliability Corporation (NERC) standards. The NHRLA is currently dependent on power generated from the Yorktown Power Station (approximately 1,141 Mw) and two transmission corridors that deliver power into the service area. Dominion's power flow studies project the demand for electricity in this area will grow by 8% between 2015 and 2020. This increase will cause a load growth that will exceed Dominion's ability to remain compliant with NERC standards given the current configuration. NERC has confirmed that these standards are absolute requirements that have no waiver provision. NERC has the authority to impose fines of up to \$1 million per day, per violation."²⁷

"Project Purpose:

(1) Basic: To continue providing the North Hampton Roads Load Area (NHRLA) with reliable, cost effective, bulk electrical service consistent with mandatory North American Electric Reliability Corporation (NERC) Reliability Standards for transmission facilities and planning criteria.

(2) Overall: Provide sustainable electrical capacity into the NHRLA in a manner that addresses future load growth deficiencies, replaces aging infrastructure, complies with Federal regulations, including MATS, and maintains compliance with NERC Reliability Standards."²⁸

(emphasis added)

Recently, the USACE released the MOA and attachments for comment from the consulting parties. The need for the project is now significantly less. The project need is described as follows:

"The Project is required to resolve projected violations of the North American Electric Reliability Corporation Reliability Standards resulting from the closure of two coal-fired power generating units at the Yorktown Power Station, which will be deactivated no later than in 2017 and to meet projected growth in regional demand."²⁹

(emphasis added)

More detailed examination of many of the elements highlighted above shows just how much the need for the project has been reduced from how it was first presented. Yet the proposed project has never been altered to reflect this reduced need, and alternatives that would meet this need and the purpose of the project have never been developed. We examine each of these elements in turn.

²⁷ *Ibid.*, pages 1-2.

²⁸ *Ibid.*, page 2.

²⁹ MOA Attachments, Attachment F: MOA Context Document, page 1.

The Power to be Replaced

Exactly how much power and when it is needed is a critical factor in determining need and the alternatives to meet it. The White Paper says that “the NHRLA is currently dependent on power generated from the Yorktown Power Station (approximately 1,141 Mw).”³⁰ The implications are that the power from all three units must be replaced, and this is the amount of power being generated and used on a consistent basis. But the MOA states that the project must now resolve potential NERC violations from the closure of just two of the units at Yorktown. These are the two coal fired plants. First, they have a combined maximum capacity of just 323 Mw of the 1,141 Mw total. The amount of power this project must replace is therefore significantly lower than first presented.

Secondly, it is important to examine the status of Unit 3. The White Paper is correct that “Dominion can only operate Yorktown 3 intermittently (8% of year).” This is to comply with EPA MATS rules. Even at the 8% limit there is plenty of capacity to generate electricity, which may be capable of replacing the power generated by Units 1 and 2. It also appears that Yorktown 3 will not be closed down in the timeframe stated in the White Paper, or perhaps at all. Dominion produces an Integrated Resource Plan (IRP) each year to submit to the Virginia State Corporation Commission and the North Carolina Utilities Commission. Each annual plan addresses a fifteen year planning period. The 2016 Integrated Resource Plan covers the fifteen year planning period 2017-2031 and describes “the potential retirement of Yorktown Unit 3.”³¹ Dominion’s 2015 IRP included similar language and the footnote, “Retiring this generation prior to the start date of the CPP may prove to be premature pending the final CPP rules.”³² This is one of the reasons NPS believes that replacing the power from Unit 3 is no longer part of the need for the project as stated in the MOA.

A second critical reason Unit 3 should not be an element in the project need is that the plant is capable of and has been running on natural gas as well as petroleum products (diesel and residual fuel oil). A Dominion Resources, Inc. subsidiary, Virginia Power Services, sells natural gas to Yorktown; and Dominion’s Atlantic Coast Pipeline (ACP) will serve to increase supplies to the load area via the proposed pipeline lateral. Continued use of Unit 3 could negate, or significantly reduce the need for the proposed project.

A third consideration in determining need is that none of these three units operate all the time. They appear to have become “peaking” plants: the power they produce is needed only on the hottest or

³⁰ USACE Preliminary Alternatives Conclusions White Paper, RE: NAO-2012-0080 / 13-V0408, October 1, 2015, page 2.

³¹ Dominion Virginia Power’s and Dominion North Carolina Power’s Report of Its Integrated Resource Plan, Public Version, Case No. PUE-2016-00049; Docket No. E-100, Sub 147, Filed: April 29, 2016. Available at: <https://www.dom.com/corporate/what-we-do/electricity/generation/2016-integrated-resource-planning>.

³² Integrated Resource Plan - Dominion Virginia Power and Dominion North Carolina Power, Before the Virginia State Corporation Commission and the North Carolina Utilities Commission, Filed: July 1, 2015. Page 11, footnote 2.

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coldest days of the year when demand is highest. Energy Information Administration (EIA) data³³ shows significant drop-offs in net generation for Units 1 and 2 over the last few years and operation during a decreasing number of months. The overall capacity to be replaced is likely not the critical factor in determining need, as much as actual generation.

Fourth, the characterization of these plants as “coal fired” plants is potentially misleading. Energy Information Administration (EIA) data³⁴ shows that Yorktown Unit 1 can and does burn natural gas to provide electricity, in addition to burning coal. Data from the 2015 and 2016 (through April) Forms EIA-923 shows that Unit 1 has consistently burned natural gas when Unit 1 has been in operation. Given Dominion’s proposed ACP pipeline lateral to the load area, Unit 1’s continued future operation as an exclusively natural gas burning plant may not be out of the question.

If NPS accurately understands the disparate information thus far presented on this project, it is our understanding that all of these factors combine to significantly lower the amount of bulk electrical service needed in the North Hampton Roads Load Area while complying with NERC standards. If the need has lessened, the number of alternatives that will meet that need has grown and must be explored. The issue of future load growth must also be examined. As NPS has previously pointed out, the role of the ACP pipeline in the determination of regional load growth needs to be made consistent so that the project is not over-built in supplying need and results in unnecessary damage to important historic resources.

Natural Gas Supplies, the Atlantic Coast Pipeline and Future Load Growth

The USACE has commented in the past that it cannot consider the effect Dominion’s Atlantic Coast Pipeline (ACP) would have on natural gas fired generation and natural gas supplies in the Hampton Roads area because the project has not been approved. NPS would appreciate clarification on this issue from the Council on Environmental Quality because it is our understanding that the ACP would likely qualify as a “reasonably foreseeable future action” under NEPA. Moreover, it appears Dominion is considering the ACP pipeline in its load growth calculations as a driver of future load growth: “Further, after the Atlantic Coast Pipeline (“ACP”) is completed, new industrial, commercial and residential load growth is expected to materialize as additional low-cost natural gas is made available to the geographical region.”³⁵ (Emphasis added.) A significant portion of that geographic demand would likely occur in the Hampton Roads area given the major lateral pipeline that is a prominent feature of the proposed ACP pipeline. Dominion is both the proponent of the ACP pipeline, a customer as 20% of the

³³ EIA, Form EIA-923 Detailed Data on electricity generation, fuel consumption, fossil fuel stocks and receipts at the power plant level, 2001-2016 (thru April) data available at <http://www.eia.gov/electricity/data/eia923/>.

³⁴ *Ibid.*

³⁵ Dominion Virginia Power’s and Dominion North Carolina Power’s Report of Its Integrated Resource Plan, Public Version, Case No. PUE-2016-00049; Docket No. E-100, Sub 147, Filed: April 29, 2016; page 26. Available at: <https://www.dom.com/corporate/what-we-do/electricity/generation/2016-integrated-resource-planning>.

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volume is calculated to go to Dominion Virginia Power, and likely the seller, from another Dominion subsidiary, Virginia Power Services.

NPS requests that the USACE explain why it will not consider the pipeline on the supply side, but simultaneously is considering the pipeline as driving demand and load growth. If future load growth is driving the need for and size of Dominion's proposed transmission line, and that load growth and line size is a function of the demand to be created by the construction and operation of Dominion's proposed natural gas pipeline, then it would seem to be that either: (1) the ACP pipeline must be considered as a source of natural gas to Dominion Virginia Power and a possible option to reduce the need and / or size of the transmission line due to the options for natural gas fired electricity generation, both at Yorktown and at other potential locations in the NHRLA; or (2) the ACP pipeline cannot be assumed to be built, future load growth and demand will not occur, demand as a driver of the transmission line should be appropriately reduced, and the line itself, or at minimum the size proposed, should be adjusted downward as well.

This then opens up a wider range of alternatives to consider as the USACE seeks the least environmentally damaging practicable alternative. NPS requests USACE ensure consistency in how natural gas supplies are considered in the context of this project, its purpose and need, range of alternatives and calculation of load growth.

5. Need for an Environmental Impact Statement (EIS)

Sec. 102 [42 USC § 4332] of NEPA specifies that an environmental impact statement is required for major Federal actions significantly affecting the quality of the human environment. The Council on Environmental Quality's NEPA regulations (Section 1508.27) define "significantly" as requiring considerations of both context and intensity.

The consideration of context "... means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant."

The consideration of intensity "...refers to the severity of impact" and should include (among other considerations) the following:

- "Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.
- The degree to which the effects on the quality of the human environment are likely to be highly controversial.

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- The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.”

The proposed project clearly meets both significance criteria:

1. *Context:* The visual impacts of the project would be significant in the national, regional, and local contexts. The project would cause major short- and long-term visual impacts to a Congressionally designated National Park and National Historic Trail. It would also cause visual impacts to a National Scenic Byway/All American Road, and has already been found to have adverse impacts to a National Historic Landmark and several NRHP or NRHP-eligible sites and districts. These impacts would be significant in the national context. The project would cause major visual impacts to several regionally significant recreation sites, and would also degrade scenic resource values in the project area (impacts of local significance), with potential cumulative impacts that could be important at a regional level.
2. *Intensity:* As shown above, the project would degrade the visitor experience of millions or tens of millions of NPS visitors over the lifetime of the project. They would be subjected to strong visual contrasts from close-up views of a large-scale industrial project that is wholly inconsistent with the existing historic and scenic landscape character and their expectations for enjoyment of the views of historic and scenic resources they often have traveled significant distances to enjoy.

Furthermore, the proposed project is in immediate proximity to and will seriously affect unique historic resources and park lands of national significance.

The visual impacts of the proposed project are already highly controversial as demonstrated by opposition from several stakeholder organizations in addition to strenuous opposition from NPS and continues to be. The controversy has been ongoing for several years and is well documented in public media³⁶.

³⁶ Streator, Scott. "NPS@100: Massive energy projects near parks: 'Are you kidding me?'" *Greenwire*. E&E Publishing. June 28, 2016. Web. Accessed June 30 2016.

Petersen, Kirsten. "In draft memorandum, Dominion considers submerging power lines." *WyDaily.com*. Williamsburg Yorktown Daily, June 17, 2016. Web. Accessed June 30 2016.

Ress, Dave. "Corps still sees power needs, few alternatives to Skiffes Creek line." *Daily Press*. Daily Press, April 14, 2016. Web. Accessed June 30 2016.

Bogues, Austin. "Corps asks Dominion for more information on second Surry-Skiffes Creek mitigation proposal." *The Virginia Gazette*. The Virginia Gazette, March 25, 2016. Web. Accessed June 30 2016.

Marmet, Rob. "Commentary on Surry-Skiffes Creek Transmission Line." *Piedmont Environmental Council*. Piedmont Environmental Council, January 13, 2014. Web. Accessed June 30 2016.

"National Treasures: James River." *National Trust for Historic Preservation*. National Trust for Historic Preservation, 2016. Web. Accessed June 30 2016.

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Lastly, the applicant's Section 106 analysis has already determined that the proposed project would adversely affect multiple sites on or eligible for listing on the NRHP.

Because the project clearly meets the CEQ significance criteria for a project having the potential to significantly affect the human environment, an EIS is required.

The applicant has suggested that only an environmental assessment is needed for the project. CEQ guidance (Section 1508.9) defines an Environmental Assessment as a concise document that: "Briefly provide(s) sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact."

The evidence presented above that demonstrates that the proposed project meets the criteria for a project likely to significantly affect the human environment makes a "finding of no significant impact" in this case not possible. Common sense dictates that a major transmission line crossing a National Historic Trail and adjacent to a National Park will cause significant visual impacts to trail users passing under or near it and the nearby viewers in the National Park. In fact, EISs are routinely prepared for major transmission projects that affect National Trails and National Parks, and the visual impacts of the transmission projects are routinely a central issue in these EISs. A small sample of recent EISs conducted for transmission projects comparable to the proposed project are listed below, with references and notes relevant to the finding of the visual impact analyses in these EISs³⁷. While NPS recognizes that the impacts of different projects in different settings will vary, it is noteworthy that in each case, substantial visual impacts were identified, including impacts to National Historic Trails the transmission projects either crossed or merely approached closely.

- **Boardman to Hemingway 500 kV Transmission Line Project:** The EIS visual impact analysis found that after onsite mitigation there would be strong contrast and impacts for viewpoints in both foreground and background, with long-term adverse impacts to the Oregon National Historic Trail.

³⁷ BLM. 2014. *Draft Environmental Impacts Statement and Land Use Amendments for the Boardman to Hemingway Transmission Line Project*. U.S. Department of the Interior, Bureau of Land Management, Vale District Office, Vale, Oregon.

U.S. Department of Energy. 2015. *Northern Pass Transmission Line Project Draft Environmental Impact Statement*. U.S. Department of Energy, Office of Electricity Delivery and Energy Reliability, Washington, D.C. July.

NPS. 2012. *Susquehanna to Roseland 500kV Transmission Line Right-of-Way and Special Use Permit Final Environmental Impact Statement*. U.S. Department of the Interior, National Park Service, Appalachian National Scenic Trail, Delaware Water Gap National Recreation Area, and Middle Delaware National Scenic and Recreational River. August.

BLM and WAPA 2015. *TransWest Express Transmission Project Final Environmental Impact Statement*. U.S. Department of the Interior, Bureau of Land Management, Wyoming State Office and Western Area Power Administration, Lakewood, Colorado. April.

BLM. 2013. *Final Environmental Impact Statement for the Gateway West Transmission Line Project Wyoming and Idaho*. U.S. Department of the Interior, Bureau of Land Management, Wyoming State Office. April.

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- **Northern Pass Transmission Line Project:** The EIS visual impact analysis found that the primary impact of overhead line alternatives would be to visual resources. The analysis found that the project would result in short-term and long-term impacts to New Hampshire's visual resources. Strong contrast would be observed from some KOPs, including Scenic Byways. Contrast-dominance ratings included *moderate*, *strong*, and *severe* for some KOPs depending on the alternative. KOPs include locations along River Heritage Tour and Appalachian Trail.
- **Susquehanna to Roseland 500kV Transmission Line:** The EIS visual impact analysis found significant adverse impacts to visual quality, scenic views, and visitor experience under all alternatives. Quoting the EIS: "The presence of large and obtrusive infrastructure in a relatively undeveloped zone would be a distraction and would detract from the experience visitors seek at the parks. ... A crossing at this location poses high risk for drastic scenic degradation."
- **TransWest Express 600-kV DC Transmission Line:** The EIS visual impact analysis found that transmission line elements would contrast with existing characteristic landscapes to a moderate to strong degree and impacts to the human environment would be moderate to high.
- **Gateway West 230/500-kV Transmission Line:** The EIS visual impact analysis identified moderate to strong visual contrasts from the project that resulted in significant impacts on historical resources (historic trails) and visual quality.

Lastly, the applicant has cited a court opinion that "Aesthetic impacts alone will rarely compel the preparation of an environmental impact statement..."³⁸. The court's use of the word "rarely" is noteworthy. The court did not say that aesthetic impacts could not compel the preparation of an environmental impact statement, only that it would rarely be the case. The proposed Surry-Skiffes Creek-Whealton transmission project would cause major visual impacts to a National Historic Trail and a heavily used National Historical Park in what is arguably one of the most important historic landscapes in the country, and both are major tourist destinations based on their historic and scenic values. It will cause adverse visual impacts to a National Scenic Byway, a National Historic Landmark and several NRHP listed or eligible sites. It will degrade the visitor experience of millions of NPS visitors over the life of the project. It will cause a loss of scenic quality locally and within the region, and deprive people of scenic views of a historic landscape that they value. It is likely to cause substantial cumulative visual impacts. It meets multiple criteria for causing significant impacts to the environment under the appropriate Federal environmental law and regulations. This is, in fact, that rare case where aesthetic impacts do compel the preparation of an environmental impact statement. It is hard to imagine a case that would provide greater justification for a full, accurate, and unbiased assessment of visual impacts. However, the aesthetic impacts are not the only adverse impacts of the proposed project, which has already been shown to have adverse effects on important historic properties through the Section 106 analysis. An EIS is clearly justified, appropriate, and required in this case.

6. MOA Context and Precedent

³⁸*River Rd. Alliance v Army Corps of Engineers*, 784 F 2d 451 (7th Cir. 1985).

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The “Basis for an MOA...” document (Attachment F to the MOA) relies heavily upon the *Susquehanna to Roseland 500 kV Transmission Line Right-of-Way and Special Use Permit Environmental Impact Statement* (S-R Line EIS) prepared by three units of the NPS (Delaware Water Gap National Recreation Area, Middle Delaware National Scenic River, and Appalachian National Scenic Trail) as justification for the appropriateness of compensatory mitigation. However, there are several important differences between the S-R Line and the Surry-Skiffes Line projects that demonstrate that the two projects are not comparable.

First and most significantly, in the case of the S-R Line, a power line had existed in this location for 90 years, long predating the establishment of the national park units. The two power companies applying for the special use permit and right-of-way already possessed certain legal rights as to what they could do on the property. Therefore, while the NPS has authority to govern the manner in which activities within the existing easement might occur, the NPS did not have authority to deny the utilities the use of their easement to the extent that their deeded rights allowed.

Ultimately, while the new S-R Line required taller towers and some additional widening of the vegetation clearing, it was a magnification of adverse effects that *already existed*, whereas the Surry-Skiffes Line will create an entirely new intrusion and suite of adverse effects. Dominion also does not possess the same long-standing deeded interest for the proposed James River crossing that the S-R Line companies did at the Delaware River.

Second, there is a marked difference between the significance of the historic resources affected by the two projects, as well as the intensity of their respective effects. While the S-R Line adversely affected numerous historic structures and landscapes, their primary significance was at a state and local level and they were not unique, one of a kind resources. In contrast, the Surry-Skiffes Line will adversely affect historic properties and landscapes of national significance, including a National Historic Landmark. Mitigation methods that are appropriate for properties at one level of significance are not necessarily appropriate for those of a higher level. In addition, while the area of potential effects for the S-R Line was extensive, partly due to the hillside-placement of towers, the geography and abundance of trees in the area provided partial shielding to most of the historic properties and helped to reduce the intensity of the effects. On the James River, however, the flat landscape, minimal shielding, and river-focused nature of the affected historic properties heightens the severity of the Surry-Skiffes Line’s effects, making them inescapable.

Third, the value of the compensatory mitigation for the S-R Line was determined through the development of various fact-based cost estimates and scientific research; the majority of the money set aside for mitigation to historic properties (only one element of the compensation package) was determined through cost estimates of repairs to historic structures and historic landscape restoration within the APE. The Surry-Skiffes Line mitigation, however, has no apparent basis for the amounts of money set aside for each of the four funds. USACE and Dominion need to share the methodology and

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documentation used to develop the proposed mitigation funding with the consulting parties, including all cost estimates, case studies, and research.

Finally, the compensatory mitigation scheme for the S-R Line was only deemed appropriate after a lengthy analysis of potential alternatives and the environmental impacts of the project through the development of an environmental impact statement (EIS) and incorporation of all possible measures to avoid and minimize adverse impacts; i.e., compensatory mitigation was considered only after all other mitigation measures had been applied and adverse impacts could not be further mitigated. To date, the USACE has not completed an EIS or similar level of analysis for the Surry-Skiffes Line. Accordingly, there is no comparable level of effort or examination for this project as justification for the compensatory mitigation. The eight-page “Preliminary Alternatives Conclusions White Paper” prepared by USACE for this project does not merit comparison to the analytical process that ultimately resulted in the three-volume EIS for the S-R Line.

A more informative example may be the Northern Pass Transmission Line Project. The New Hampshire portion of the project involves new construction primarily in a previously undisturbed landscape of a proposed single circuit ± 300 kilovolt (kV) high voltage direct current (HVDC) transmission line running approximately 158 miles (254 km) from the U.S. border crossing with Canada in Pittsburg, NH, to a new direct current-to-alternating current (DC-to-AC) converter station to be constructed in Franklin, NH. From Franklin, NH, to the Project terminus at the Public Service of New Hampshire’s existing Deerfield Substation located in Deerfield, NH, the Project would consist of 34 miles (55 km) of 345 kV AC electric transmission line. The total length of the Project would be approximately 192 miles (309 km). As noted above, the EIS visual impact analysis found that the primary impact of overhead line alternatives would be to visual resources. The proposed action was altered in response to these concerns, resulting in burial of an additional 52 miles of the line through the most visually sensitive areas of the proposed route. Impacts to important resources such as the Appalachian National Scenic Trail and the White Mountain National Forest have been significantly reduced. The need for additional mitigation has also therefore been reduced.

7. Considering Impact Assessment and the Mitigation Hierarchy in a Landscape Scale Context

In recent years the need and principles for addressing infrastructure planning and permitting in the context of landscape level analysis has been well documented.³⁹ This recognizes that individual cultural or natural resources are not independent from a broader landscape context; they may have much

³⁹ For example: US Department of the Interior, *Secretarial Order 3330: Improving Mitigation Policies and Practices of the Department of the Interior*, October 31, 2013; US Department of the Interior, *A Strategy for Improving the Mitigation Policies and Practices of The Department of the Interior, A Report to The Secretary of the Interior From The Energy and Climate Change Task Force*, April 2014; Bruce McKenney & Jessica Wilkinson, *Achieving Conservation And Development - 10 Principles for Applying the Mitigation Hierarchy*, The Nature Conservancy; Daniel Odess, *DRAFT A Landscape-scale Approach to Mitigating Adverse Effects on Historic Properties*, National Park Service, June 6, 2016; US Department of the Interior, *Environmental Statement Memorandum No. ESM 16-2: Landscape-Scale Mitigation in NEPA Analysis, Decision-making and Implementation Monitoring*; June 21 2016.

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greater significance due to their influence or role in a wider region or pattern of resources. Further, it recognizes that impacts to those resources can have repercussions on a landscape level.

Fundamental principles include the following:

- *Landscape Context*: Proper application of the mitigation hierarchy must begin with understanding the proper landscape context for the resources involved. “A landscape-scale approach is one in which individual resources are considered within the context of the broader cultures and historical themes to which they relate across a wide geographical area. It takes a comprehensive view of resources (both cultural and natural) related to those cultures and themes to assess the significance of the particular resource in question for preserving, studying, and interpreting aspects of our history and heritage.”⁴⁰
- *Mitigation hierarchy steps must be followed sequentially*: Prior to considering offsets to compensate for impacts from a project all efforts must be made to determine options for (1) avoiding, and (2) minimizing those impacts.
- *Equivalence*: Offsets should provide conservation results that are equivalent in value, function and significance as the resources being impacted. This means: (1) a clear understanding of the scope of resource impacts is required; and (2) a clear articulation of how offsets provide the same value, function and significance is necessary.
- *Durability*: Mitigation actions should last at least as long as the impact they are intended to offset - the life of the impact. There are two aspects to this: (1) mitigation actions should be carried out for the duration of the impact; and (2) any specific actions should be durable for the life of the project.
- *Limits to offsets*: There is a recognition that some resources are too unique and irreplaceable for impacts to be effectively offset. Secretary of the Interior Sally Jewell noted “the inherent tensions that can exist with development and conservation. Part of the answer is encouraging development in the right ways and in the right places. Part of the answer is recognizing that there are some places that are too special to develop.”⁴¹

In developing or reviewing any proposal for applying the mitigation hierarchy it is crucial to consider these principles.

Landscape Context: First, it is essential to begin with articulating and understanding the proper landscape context. Jamestown and the nationally important landscape surrounding it have long had landscape-scale influence. As noted in Regional Director Michael Caldwell’s January 26, 2016, letter:

Jamestown is at the heart of the nation’s beginning – and is central to why the Congress recognized the James as “America’s Founding River.” The significance of the area has led to a more than century-long conservation effort. It has led to huge investments on a landscape scale

⁴⁰ Daniel Odess, *DRAFT A Landscape-scale Approach to Mitigating Adverse Effects on Historic Properties, National Park Service, June 6, 2016*

⁴¹ Remarks at the National Press Club. Secretary of the Interior Sally Jewell. October 31, 2013. Washington, DC.

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throughout the region in land conservation, tourism, resource documentation, archaeology, cultural landscape designations, numerous National Register of Historic Places listings, the establishment of three historical units of the National Park system, and the pursuit of World Heritage Site designation for Jamestown.

The project proposal would slice at the heart of this landscape, cutting away a piece of the significance of the whole watershed and the multi-state historic trails.⁴²

The proposed MOA fails to articulate or recognize the broader landscape context of the resources affected by the project proposal--or the scope and significance of the direct, indirect and cumulative impacts the project would cause within that landscape. As a result, the proposed mitigation actions are limited, isolated measures with no grounding or connection to any direct assessment of the magnitude of landscape scale context and effects.

There are several reasonable landscape contexts in which the Jamestown area resources should be viewed and assessed:

- *Tidewater Virginia*: The indigenous, colonial and post-colonial resources of the Jamestown area are directly associated with peoples, events and sites throughout the tidal stretches of the James, York, Rappahannock, Potomac and Eastern Shore rivers. As just one example, in 1607 Captain John Smith and the English settlers found an interconnected tidal region landscape populated with many indigenous cultures and communities. Smith himself was taken captive along the Chickahominy River by a multi-tribe hunting party and led to several sites along the York River.
- *Chesapeake Bay/Chesapeake Watershed*: Through the Captain John Smith Chesapeake NHT the nation has recognized an even broader culturally connected landscape. The 3,000 mile trail route--extending through all of the Bay and much of the watershed--links (1) the many historically significant places and landscapes still evocative of the native Chesapeake environment; (2) the history, stories and places associated with American Indians in the Chesapeake; and (3) Captain John Smith's 1607-1609 voyages of exploration in the Chesapeake and the changes that have resulted over time.
- *The Nation*: Jamestown Island is at the heart of the nation's founding; there is no counterpart. Colonial National Historical Park conveys this story and the landscape surrounding it for the American people. It is one of a kind on the national landscape.

The NPS requests the USACE to show: How have the effects of the project proposal been assessed in terms of each of these landscape contexts? How would each context be altered or changed as a result of the project? What is the extent of this change? How does application of the mitigation hierarchy avoid, minimize or offset landscape level impacts? The proposed MOA fails to articulate clear answers to these central questions. It fails to articulate a landscape-scale response comparable to the national

⁴² Regional Director Michael Caldwell letter to Colonel Jason Kelly, January 26, 2016

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significance of the resources and magnitude of the impact. It does not address the impact/repercussions to a multi-state trail, nor does it address the impact/repercussions to the broader James.

Sequence of the Mitigation Hierarchy: Section 106 and NEPA both clearly place avoidance at the front of the mitigation hierarchy. All efforts should be made to avoid impacts to affected resources prior to seeking to offset impacts.

The proposed MOA does little to follow the mitigation hierarchy by simply noting that the USACE has sought to avoid and minimize impacts through considering alternatives. As we have noted multiple times previously, there has been a failure to fully and adequately consider a reasonable range of alternatives and their impacts. Only the proposed project--a single alternative--has been subject to Section 106 review. No alternatives have been subject to open public review under NEPA. The State Corporation Commission review process--that led to federal consideration of only a single alternative--did not even consider the impacts to historic properties that have been identified through the Section 106 review; some resources now known to be NRHP eligible were not even considered and impacts on other resources--now acknowledged--were considered non-existent. This includes the Captain John Smith Chesapeake National Historic Trail and the 84,000 acre historic district through which the project passes. Moreover, as noted elsewhere in this letter, serious questions have been raised about the overall purpose and need for the project as proposed.

The lack of consideration of alternatives fundamentally affects the process to date. It has failed to apply the mitigation hierarchy sequentially and assess which *alternatives* best balance public need and the avoidance of impacts to nationally significant resources.

Equivalence: Offsets or mitigation actions should provide conservation results that are equivalent in value, function and significance as the resources being impacted. For this to be achieved, a clear understanding of the scope of resource impacts is required. In addition, a clear articulation of how offsets provide the same value, function and significance is necessary.

The proposed MOA achieves neither of these requirements. In fact, the proposed "MOA Context Document" states:

the types of resources at issue have qualities and values that are not quantifiable in a rational and useful way, and thus, the effects to those qualities and values cannot be assessed or measured in a quantifiable way. Instead, as is the case here, these qualities and values and the potential effects thereto have been assessed and measured qualitatively. Thus, because there is no exact science or measure to quantify these types of effects, there is also no exact science or measure in determining the amount of mitigation necessary to resolve an adverse effect."⁴³

⁴³ Basis for Proposed Memorandum of Agreement to Resolve Adverse Effects to Historic Properties, June 8, 2016, p. 4.

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Further, the document states:

The Corps, SHPO, ACHP, Dominion, NPS and consulting party experts could indefinitely debate the merits of the various parties' argument about the adversity and severity of effects to individual properties as a whole.⁴⁴

Again, we find these statements entirely unsupported by the literature, policy direction and evidence provided. First, the document completely ignores standing and previously employed methods for quantifying effects. Second, it claims to have employed qualitative measures for characterizing level of effect, but there is little in the record to support this. Time and again, the NPS has commented and written to the USACE asking for the use of clear methods for measuring impacts; we have previously provided examples of methods for doing so⁴⁵ and we have done so again in the sections above on visual and socioeconomic analysis.

On June 20, 2016, the USACE transmitted "General Updates & Add'l Information addressing Outstanding Concerns of Consulting Parties."⁴⁶ We addressed specific comments relevant to this information in the sections above. Given those comments, we see nothing that changes our conclusions that the USACE has never adequately assessed impacts in a way that ensures equivalence of value, function and significance in the proposed mitigation.

The context document outlines only the most vague and general statements about impacts -- "the Project will detract from the resource's characteristics and integrity qualifying it for listing on the National Register."⁴⁷ The proposed MOA draws no rationale for establishing equivalence in offsets. Moreover, none of the proposed offsets are at all related to a landscape context or landscape impact analysis.

We provide specific comments on the proposed offsets/mitigation actions by unit in section 8 below. We also address the inadequacies in considering impacts and mitigation in landscape scale in those comments.

Durability: Mitigation actions should last at least as long as the impact they are intended to offset - the life of the impact. The lifespan of the proposed Project is fifty years.

There is no real concept of durability or provisions for it within the proposed MOA. While a certain individual offset/mitigation action might provide a degree of durability--most specifically land acquisition--even on this the MOA has shortcomings. None of the specific offsets have life-cycle costs built into them. There is no provision for operations and maintenance costs associated with long-term

⁴⁴ Ibid, p. 8.

⁴⁵ See, for example: NPS Associate Regional Director Frank Hays letters to USACE William (Tom) Walker dated January 29, 2016, March 15, 2016, and March 25, 2016.

⁴⁶ Email from USACE Randy Steffey to VDHR, ACHP, and Consulting Parties

⁴⁷ See for example page 15.

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stewardship of acquired lands throughout the project lifespan. Similarly, there are no provisions for operations, maintenance or replacement of shoreline treatments, interpretive signage or other identified actions to ensure they last through the project lifespan. The extremely limited heritage tourism provisions provide only a single contribution related to a single average annual cost.

The life-cycle or sustainability costs associated with offsets can be quite significant, particularly over a minimum period of fifty years. Including endowments for covering such costs is not uncommon in offset requirements.

The proposed MOA also does not address the other aspect of durability -- creating offsets that continue to compensate for impacts over the lifetime of the project. The proposed offsets are essentially one-off isolated individual projects intended to be implemented within a ten year period.⁴⁸ Virtually none of the proposed mitigation actions actually directly reduce impacts to specific resources; they are purely compensatory. Moreover, it assumes specific offset projects that can be described today are the best solutions year-in and year-out for fifty years. Will twenty interpretive signs have value in forty-five or fifty years? Or even twenty or thirty years?

The proposed MOA differs dramatically from thoughtful programmatic approaches to ensuring durability over the entire fifty year project lifespan. As just one example, the proposal does not provide a programmatic approach for measures that help visitors and students understand and experience Virginia, regional and national history and heritage--responsive to the scale of the resources' significance, nor does it recognize the project's landscape scale impacts on visitor experiences, interpretation and heritage tourism throughout the 45-50 year lifespan of the project. There is no programmatic approach for planning, development, recruitment, training, promotion, maintenance, partner engagement, management, funding and implementation of visitor and interpretive programs -- throughout the lifetime of the project -- at American Indian sites and English settlement sites contributing to the national significance of the impacted sites and Captain John Smith Chesapeake National Historic Trail. Given the significance of the sites involved, the landscape context and relevant landscape scale geographies would be: (a) all Virginia rivers flowing to the Chesapeake Bay, which are related by close association with the American Indian and English settlement patterns and themes of affected resources; and/or (b) along the entire route of the Captain John Smith National Historic Trail.

Limits to Offsets: The NPS has been clear in consistently stating that many of the resources impacted by the proposed project are entirely unique and nationally significant. There is no other locale in the nation where the first permanent English settlement--and the associated interactions with American Indian communities--occurred. As NPS Director Jon Jarvis stated: "On the eve of the centennial of the NPS, this proposal has become one of the most serious threats to our nationally significant historic resources. This nation has only one Jamestown."⁴⁹

⁴⁸ Provision II.e.5.H directs that any funds leftover after ten years be transferred to the VLCF for expenditure on a general range of projects; however there are absolutely no details or criteria on how this would be administered.

⁴⁹ NPS Director Jon Jarvis letter to USACE Lt. General Thomas Bostick, December 11 2015.

The NPS has also been clear that many of the impacts that would be created by the project cannot be minimized or directly offset in a way that restores the specifically impacted resources. One cannot screen--or make invisible--a 17 tower transmission line over open water. Those impacts can only be avoided through an alternative. Notwithstanding the comments on the proposed MOA elsewhere in this document, no compensatory offsets can undo the fifty years of impacts to nationally significant resources this project would cause. The project "...would set a precedent for additional development and cumulative effects. It would forever degrade, damage, and destroy the historic setting of these iconic resources. This is not acceptable for resources designated by Congress to ensure their permanent protection."⁵⁰

8. Issues with proposed Memorandum of Agreement

As stated previously, the NPS asserts that the severity of the effects have not been fully assessed and can not be mitigated. Nevertheless, the NPS feels compelled to provide comments on the mitigation proposed in the draft MOA and the context necessary for it.

The core of any memorandum of agreement to resolve adverse effects is the proposed offsets or mitigation measures. These measures should be directly linked to the historic properties affected, in their proper landscape context(s), and be commensurate with the severity of the effects. In the case of the Surry-Skiffes line, the consulting parties have agreed that the severity of the effects is insurmountable, both in the magnitude of the visual intrusion and the significance of the affected properties.

The draft MOA developed by USACE and Dominion includes suggestions of potential mitigation measures, none of which are specific or mandatory; in fact, they are written in such a manner as to seem to make no more than a nominal effort to implement proposed concepts such as land acquisition and easements. Stipulation II(d)(5) of the MOA sets a time limit of the *earlier* of 12 months from signature of the MOA or "Dominion's reasonable conclusion that the actions cannot be satisfied." Leaving aside for the moment the impropriety of the applicant rather than the responsible federal agency deciding when a mitigation measure is or is not feasible, the idea that land acquisition efforts in a populated area like this one are likely to be completed within one year of the signature of the MOA, much less the issuance of the permit, is at best unrealistic.

The proposed mitigation concepts include shoreline stabilization and interpretive "programs and products" at various sites, including the NPS units of Colonial NHP and CAJO and, potentially, Fort Monroe National Monument. These products, or even their desirability, have not been coordinated with the NPS as part of the Section 106 four-step process; attempts to discuss mitigation across the past year were entirely premature, as the assessment of adverse effects - the essential precursor to mitigation - had not been completed. Some mitigation measures proposed are already obsolete due to recent

⁵⁰ *ibid.*

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events. Had the USACE completed the assessment of effects step sufficiently enough to engage in consultation with the NPS on appropriate mitigation, we could have ensured that the proposed mitigation measures would not duplicate or contradict existing plans.

Any projects designed for NPS lands will require NPS approval, which must be acknowledged in the MOA.

As demonstrated by the lack of coordination with the NPS for measures that affect NPS units, the draft MOA does not establish a clear process for consulting parties to review and provide input on the identification and implementation of proposed mitigation measures. The language at Stipulation V on “Preparation and Review of Documents” speaks solely of formal technical reports, treatment plans, and “other required Permittee documentation.” However, with a mitigation plan as imprecise and undefined as this one, continued discussion with all consulting parties is a necessity, and not just with the select “recognized subject matter experts” with whom Dominion will choose to speak, as specified in Stipulation II(e)(1). Many, if not all, of the presented mitigation concepts require the participation and input of partners, often the consulting parties; it is important to have a process that includes consulting parties in the review of preliminary plans and implementation and subsequent monitoring methods. This is particularly vital when the mitigation concepts proposed were developed without the input of consulting parties, and may not represent the best measures available.

Any MOA would require an oversight role for the USACE and indication of the agency’s ultimate responsibility for ensuring that the mitigation measures are completed sufficiently. To return to the earlier discussion of the one-year deadline for land acquisitions, as the federal agency with responsibility for compliance with Section 106, the USACE needs to be the party that decides whether it is reasonable to continue pursuing acquisition after twelve months, not the applicant. The USACE also has responsibility for determining and documenting that Dominion has satisfied all its responsibilities under the MOA (Stipulation III), not Dominion itself. Dominion should submit all products and documentation to the USACE first, to ensure its sufficiency; as the responsible agency, the USACE should submit the products to the consulting parties. This would have the added benefit that the USACE would receive all consulting party comments to assist it in the assessment of the sufficiency of the completion of the mitigation.

Following are specific comments on the draft MOA Whereas clauses, proposed stipulations, and supporting information in the MOA Context Document (Attachment F to the MOA). There are twenty-five Whereas clauses in the draft MOA and the following comments are organized according to the order in which they appear in the draft. Note the MOA incorrectly uses “adversely effected” rather than “adversely affected” throughout, and should be corrected.

1st Whereas Clause: The Advisory Council on Historic Preservation regulations (36 CFR Part 800) provide the regulatory requirements for meeting the requirements of Section 106. 33 CFR Part 325, Appendix C is an unapproved regulation that has been disavowed by the ACHP and should not be referenced here.

2nd Whereas Clause: Despite language in the project's "Purpose and Need" statements, this Whereas Clause makes it clear that the use or retirement of Yorktown 3 is not part of what is being considered here, further confusing the ability to understand the need for the proposed project.

3rd Whereas Clause: A more accurate description of the project would include the length of the river crossing and number and height of the towers crossing the river. The details of the impacts to the river bottom and conversion of wetlands are immaterial to the 106 process; a statement that "the project includes a river crossing and conversion of wetlands, which will require a Corps permit pursuant to Section 10 of the Rivers and Harbor Act and Section 404 of the Clean Water Act" will suffice.

10th - 16th Whereas Clauses: These clauses state which parties were invited to participate in the consultation, and identifies which will be full signatories of the MOA, with the implication that the remainder will be concurring parties without the same rights and privileges as full signatories. However, several of these "concurring" parties will be required to have an active role and responsibilities in implementing the proposed mitigation and would need to be full signatories, in accordance with the regulations [36 CFR 800.6(c)(2)(iii)].

19th Whereas Clause: This Whereas clause speaks directly to the ongoing problem repeatedly mentioned by the consulting parties and continually disregarded by the USACE regarding the USACE overlapping of the 4 steps in the Section 106 process. The USACE declared steps 1 - 3 complete in October 2015 and began step 4 (resolution of effects) and even drafted an earlier MOA before allowing the consulting parties to even review or comment on the Cultural Resources Effects Assessment.

21st Whereas Clause: The USACE identified a preferred alternative before any Section 106 analysis had been undertaken, much less the analysis required to protect National Historic Landmarks under Section 110 of the National Historic Preservation Act. No consulting party discussion or correspondence from the USACE shows any evidence that the effects to Carter's Grove National Historic Landmark were considered beyond the identification of an adverse effect. No consultation took place to minimize those effects, and in fact, the proposed project is the most harmful to the NHL of the possible alternatives. This clause should be deleted as it is not true.

22nd Whereas Clause: This clause should simply be deleted since the NPS and, to our knowledge, none of the consulting parties have agreed that the proposed mitigation measures creates "acceptable mitigating value". In fact many, including the NPS, have stated that the effects of this project cannot be mitigated. In addition, the concept of "additional value" has no place in the Section 106 process and only speaks further to the concept that this project cannot be mitigated.

23rd Whereas Clause: Avoiding and minimizing adverse effects are the first critical steps of the Section 106 process. Efforts to accomplish either of these have not been discussed with the consulting parties and all comments provided to the USACE on this topic have not been addressed.

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24th Whereas Clause: This Whereas clause (and the USACE June 20, 2016 email) state that cumulative effects have been “fully identified.” This statement is simply false. At our Feb. 18, 2016, meeting (NPS and USACE) the USACE recognized (per comments from the NPS, ACHP and SHPO) that Dominion’s cumulative effects analysis was insufficient. The ACHP, SHPO and NPS requested further analysis to fully understand the cumulative effects of the project and the USACE requested the NPS assist in that effort. The NPS provided that analysis to the USACE on July 5, unaware that the USACE had apparently decided not to consider further analysis.

25th Whereas Clause: The landscape within the Historic District has survived astonishingly intact for 400 years, assisted in no small part by conservation efforts. But if these many years of community effort can be rendered meaningless by this one project, how would additional conservation efforts have any value?

Specific Comments on Stipulations:

The language within the stipulations regarding Dominion’s authority versus the USACE’s role as the lead federal agency is not at all clear. The language, in general, is vague and seems to give Dominion the authority to decide how to proceed with mitigation and to determine when each effort is satisfactorily completed. The USACE is the lead agency and must have final authority. In addition, many stipulations describe efforts that will be conducted within or affect properties owned or managed by others, such as NPS units. There is no clear direction that those land managers have the final authority in how those stipulations are carried out.

Stipulation II(a) Interpretive Signage

1. The MOA Context Document states the twenty interpretive signs provided by this stipulation will “enhance and improve the setting and feeling of the CAJO Trail within historic district, the district itself, and all of the historic properties therein.” As we will repeat several times in comments below, in the context of the National Register, setting and feeling pertain to aspects of the landscape and are *not* enhanced or improved by interpretive or visitor facilities. To suggest otherwise is to display a fundamental lack of understanding.
2. The concept of interpretive media as a compensatory offset to adverse effects can have value for enhancing visitor experiences in some circumstances. However, any proposals must be based on a full evaluation of existing interpretive signage, other media and programming. Further, proposals must take into account evolving interpretive methods over the fifty year lifespan of the project to ensure for durability. Such an evaluation would need to be undertaken in collaboration with other organizations and agencies with expertise in this field, such as the NPS and the SHPO. Proposing to add new signage without thorough study of existing programs and potential needs is not sound.
3. Interpretation of this area is not a new effort. Interpretive signs are a relatively minor component of programming. Frankly, installation of twenty new interpretive signs would be a rather trivial compensatory mitigation measure in the landscape context of these resources. As we have noted previously, this stipulation and others make no provisions for ensuring durability

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over the lifetime of the project. All interpretive media and programs have lifecycles and maintenance and replacement costs. Best practices in offsets take a different approach to ensure landscape scale treatment and to avoid specific projects that may be inappropriate or infeasible. See, for example, the approach described above under “Durability.”

Stipulation II(b) Viewshed Documentation of the James River

1. This stipulation is described in the MOA Context Document in the category “Stipulations that Compensate for Visual and Physical Effects to Historic Properties.” To be clear, this stipulation has no compensatory value. It merely documents the existing conditions prior to construction, something that should be done as part of the Section 106 and NEPA analysis to begin with.
2. The Context Document further states the resulting documentation would “inform preservation and education missions that focus on supporting the reasons the district and the properties were determined to be eligible for the National Register.” The irony of this is readily apparent: here are photos showing what could have been saved if preservation, alternatives and avoidance had been pursued.
3. If a HALS documentation were to be prepared it would seem it should be submitted to all consulting parties and any locally affected land management agencies.

Stipulation II(c) Surry-Skiffes Creek Tower Coatings

1. Application of tower coatings to reduce visibility of towers is one technique for potentially minimizing visual impacts. However, the effectiveness of coatings in reducing visibility is not documented or detailed in the MOA, nor in any of the prior information for this project. Nor is there evaluation of how any reductions in visibility from coatings may be offset by measures to ensure visibility for safety purposes. In a normal Section 106 and NEPA process this would have been a factor in evaluating the impacts of alternatives.
2. The structure of the stipulation is such that there is no guarantee any coating would be effective or applied or any indication of what the coating options are, merely that Dominion will make a determination. There is no analysis proposed prior to execution of the MOA. There is no detail at all on which if any towers, including land based towers would be treated. There are no provisions for scheduled maintenance of coatings over the fifty year project lifespan.
3. To be clear, coatings should not be anticipated to cause any substantial reduction in visibility of the towers at close or medium range.

Stipulation II(d) Pre-construction Mitigation Assurances

1. This stipulation is oddly placed and addresses only a portion of the pre-construction efforts. Parts 1 - 4 of this stipulation should be relocated to become Stipulation II(f) and cover all of the pre-construction activities currently described in Stipulation II(a - c) and (e - f). It would be more appropriate to outline the proposed mitigation before describing the limitations placed on the efforts. The language also needs to specify that Dominion will gain written approval from the USACE as a final step after securing approval from the entities involved (such as NPS, land managers/owners, etc).

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2. While parts 1 - 4 of this stipulation pertain to specific stipulations, part 5 declares limitations on parts 1 - 4. Also oddly placed within the MOA, the limitations described in part 5 are entirely unreasonable. First, any deadlines for efforts should begin with the issuance of the permit, rather than the execution of the MOA. There is no guarantee that the permit will be issued even close to the MOA execution date.
3. Part 4 of this stipulation references the wrong stipulation, which should be II(e).
4. The language in part 5 of this stipulation places inappropriately relies on Dominion's efforts to complete the mitigation. The draft includes phrasing such as "Dominion shall pursue... diligently" or "Dominion's reasonable conclusion that the actions cannot be satisfied...". Any decision on what is diligent or what level of effort is reasonable solely rests with the USACE.
5. Most importantly, as we point out in elsewhere in this document, these assurances refer for the most part to proposed measures that are fundamentally flawed. The MOA picks and chooses numerous specific projects with no context for whether they are suitable or feasible, let alone adequate. As we have noted best practices in offsets take a different approach to ensure landscape scale treatment and to avoid specific projects that may be infeasible. They generally establish funds with criteria and procedures for management over the lifespan of a project. This makes it far easier to structure and guarantee assurances. An obvious shortcoming of the draft MOA's approach relates to Dominion's touted benefits of conservation efforts, while allowing only 1 year to plan and accomplish what is a lengthy task. Planning and implementing a single effective land conservation project can span over several years alone. We note further that the decision to cease pursuing such an option should not be left to Dominion, but should be by the USACE, after consultation with all the consulting parties.
6. While mitigation is intended to balance out adverse effects from a particular project, there is not a single mitigation proposal within this MOA that "enhances the integrity" of the adversely affected resource in as stated in part 5. Suggesting so only solidifies the lack of understanding of resolving adverse effects.

Stipulation II(e) Additional Mitigation Compensation for Adverse Effects on Historic Properties Within the APE

1. This stipulation should be relocated to precede Stipulation II(d) Pre-construction Mitigation Assurances. The "assurances" and limitations described in (d) should follow the description of the mitigation they reference which is outlined in (e).
2. Stipulation II(e) is the heart of this MOA in regards to an attempt to mitigate the specific adverse effects to historic properties within the APE. Titling this stipulation as "Additional Mitigation Compensation..." emphasizes what the NPS has stated throughout this process. The stipulations that precede it are more typical methods of mitigation aimed directly at the resources they affect. Unlike those, Stipulation II(e) truly is compensatory, recognizing that the adverse effects cannot be mitigated, resulting in financial compensation. The use of the word "Additional" in its title downplays the importance of the mitigation detailed within and further solidifies the misunderstanding of the severity of the adverse effects.

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Stipulation II(e)(1) The Jamestown Island-Hog Island-Captain John Smith Trail Historic District Mitigation

1. As described by Dominion, the lifespan of this project is 50 years. Any MOA must reflect that fact. The draft MOA places a 10-year limit for actions in this stipulation (less in other stipulations). While some of the actions described could possibly be completed in less than ten years, the time frame limitations within the MOA need to respond to two possibilities. First, some of the actions require a combination of activities including land acquisition, planning and design efforts, consultation, NEPA and Section 106 compliance and other permitting, construction and ultimately, ongoing maintenance. An MOA must include mechanisms that allow proper time frames that reflect the necessary and sometimes complicated steps involved and the potential continuation of maintenance needs over the lifespan of the project. Second, no one has actually seen the permit conditions yet, nor do we know the construction specification or what this project will truly look like post-construction. Confirming all aspects of mitigation for a project of this nature may not be possible ahead of permit issuance. It's not unlikely that the mitigation needs (possibly the remaining funds) may need to be reconfigured post-construction, possibly 10 years later.
2. This stipulation speaks directly to our previous mention of how this MOA reads as a Dominion document with implementing the mitigation also as a Dominion responsibility. In fact, this MOA should be a product and responsibility of the lead federal agency. The MOA states Dominion "shall seek input on specificity for these projects" and seems to allow Dominion the responsibility to determine who would provide that input. Various mitigation proposals will affect, often directly, resources owned or managed by parties that might or might not be signatories of the MOA. Resource managers responsible for the properties affected by any one mitigation effort would have to be involved and likely be the decision makers on whether or how the proposed mitigation measures would proceed. The USACE needs to coordinate and lead all such efforts.
3. The MOA Context Document, which explains the rationale for the proposed mitigation, downplays the severity of the effects on the district as have all previous documents prepared by Dominion or the USACE. We previously provided specific comments on the severity of effect noting that it is significant and would result in the actual loss of a character-defining feature. Further, we provided one assessment of the scope of the effect in terms of the overall acreage from which the project would be visible.⁵¹ We also note this severity of effect is occurring to a district composed of nationally significant resources.
4. The proposed MOA and Context Document make no attempt at all to calibrate proposed mitigation actions with the severity of effect within the district. Nor does it attempt to state the effects on the broader landscape context or calibrate mitigation actions with those effects. There is simply no system, method or rationale provided for correlating magnitude of effect with offset and there is little connection between the specific mitigation measures (discussed in detail below) and a holistic or landscape-scale mitigation vision.

⁵¹ See NPS Associate Regional Director Frank Hays letters to USACE William (Tom) Walker dated January 29, 2016, pp. 2-3.

Stipulation II(e)(1)(A)(i) Carter's Grove NHL Shoreline Landscape Enhancement & Stabilization

1. To date, the USACE has merely recognized that the project would have an adverse effect on Carter's Grove but has not in any way described what that effect is, other than visual. The mitigation proposed does not address the damage the project will cause to the setting of Carter's Grove or the integral views from it to the River. How will shoreline stabilization counteract the existence of the power line at such close proximity? This stipulation lacks purpose other than to throw funding at Carter's Grove.
2. The historical significance of Carter's Grove, a National Historic Landmark, including the contribution of its elaborate landscape and expansive views, must be considered in understanding the effect and then determining appropriate mitigation. The stipulation assumes that shoreline enhancement and stabilization would occur for the entire 6,000 linear feet of shoreline, with no understanding of the level of need, appropriateness, treatment or cost. There is no clarity as to whether or not the funding provisions included in the proposed MOA are comparable or sufficient. A landscape study should be completed to document the existing landscape and understand the critical views that would be affected by the proposed project. A landscape treatment plan would also need to be completed that identifies possible shoreline protection that may or may not be required and explores the possibility of altering the landscape in ways that attempt to screen views of the project from various locations within Carter's Grove.

Stipulation II(e)(1)(A)(ii) Colonial Parkway Landscape Enhancement & Shoreline Protection

1. Designating funds to enhance the landscape and protect the shoreline of the Colonial Parkway is an attempt at mitigation that does not begin to understand what the adverse effects truly are. The views of the river from the Parkway are a critical and character-defining element of the Parkway. The project would have major adverse visual effects to the Colonial Parkway, adversely affecting the views from the Parkway and therefore the setting and feeling. The result would alter the experience for visitors not only on the Parkway but as they travel among and experience the historic sites of the Historic Triangle that the Parkway connects.
2. Any mitigation proposals aimed at counteracting the adverse effects to the Colonial Parkway are premature at this point. The NPS has, repeatedly, stated that the adverse effects must be clearly defined and understood before attempting to resolve them. Reference to the NPS Cultural Landscape Inventory (CLI) as a tool for determining ways to "enhance" or "protect" the Parkway is a misguided approach. A CLI is a NHPA Section 110 tool that identifies cultural landscapes eligible for the National Register. A thorough cultural landscape report and cultural landscape treatment plan would be needed to fully explore any efforts that might include physical treatments to the Parkway. Potential mitigation would have to include full study of the Parkway, in its entirety, and examination of treatment options, and implementation of any treatment that might be determined appropriate.
3. The level of analysis and planning required for such treatment efforts could not be completed within the time limitations set in Stipulation II(d)(5), reinforcing our previous comments above

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that such timeframes are too restrictive and appropriate timeframes should be set that would allow for thoughtful consideration of minimization and mitigation efforts.

4. Even after a full evaluation of the adverse effects and any attempts at physical treatments to mitigate the effects, the best anyone could hope for would be to possibly minimize the effects in a few areas along the parkway. There is no way to fully mitigate the adverse effects the project would cause to the historical integrity of the Parkway or the experience of those travelling it.

Stipulation II(e)(1)(A)(iii) Historic Jamestowne at Colonial National Historical Park Seawall Rehabilitation or Replacement

1. As described above regarding proposed mitigation along the Colonial Parkway, designating funds to protect the shoreline of Historic Jamestowne and restore Back Creek has no relation to the actual adverse effects caused by the project. The historic integrity of Jamestowne is directly tied to its setting along the James River within the Historic District that retains its character evocative of the 17th century. Neither of the two mitigation proposals described here begin to address that adverse effect.
2. Any mitigation proposals aimed at counteracting the adverse effects to Jamestowne are premature until the USACE clearly defines those effects. Once those effects are understood, a thorough cultural landscape report and cultural landscape treatment plan would be needed to fully explore any efforts that might include physical treatments to Jamestowne.
3. We again state that the level of analysis and planning required for such treatment efforts could not be completed within the time limitations set in Stipulation II(d)(5).

Stipulation II(e)(1)(A)(iv) Werowocomoco and York River State Park:

1. The Context Document states projects under this provision “will enhance and improve the setting and feeling of the CAJO Trail within the historic district.”⁵² We correct two points: (1) Neither of the sites mentioned in this provision are within the historic district; thus they cannot enhance or improve its setting and feeling; (2) in the context of the National Register, setting and feeling pertain to aspects of the landscape and are *not* enhanced or improved by interpretive or visitor facilities.
2. Though neither the proposed MOA nor the Context Document clearly articulate the reason, we acknowledge that Werowocomoco, the York River and many other American Indian sites along the John Smith Chesapeake Trail are related to--and form crucial aspects of the landscape context of--historic properties in the APE.
3. However, the MOA does not articulate a programmatic approach to offsets for that landscape context or at sufficient landscape scale.
4. Rather, the MOA outlines specific terms and sums (\$25 million) for one specific place without sufficient information on their practicality. The MOA proposes funds for acquisition of Werowocomoco. In June 2016 the NPS acquired the entire Werowocomoco property with funds from the federal Land and Water Conservation Fund. The MOA proposes funds for creating a gateway to Werowocomoco at York River State Park with a visitor center and exhibits. In late

⁵² MOA Context Document, p. 17-18

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2016, the NPS will be initiating a collaborative planning effort for guiding the future visitor use, development and management of Werowocomoco. It is premature to specify the location and nature of investments in advance of the outcome of that planning effort. Had the USACE completed the assessment of effects step sufficiently enough to engage in consultation with the NPS on appropriate mitigation, we could have ensured that the proposed mitigation measures would not duplicate or contradict existing plans.

5. Best practices in offsets take a different approach to ensure landscape scale treatment and to avoid specific projects that may be infeasible. See, for example, the approach described in section 7 above under “Durability.”

Stipulation II(e)(1)(B)(i) Historic Jamestowne archaeology:

1. While additional archaeology at Historic Jamestowne may be a valid proposal for mitigation, the adverse effects to Jamestowne have not been clarified by the USACE, and without specific consultation on actual research and planning needs for Jamestowne this proposal is premature.

Stipulation II(e)(1)(C)(i-iii) Heritage Tourism:

1. The Context Document states projects under this provision “will enhance and improve the historic properties’ setting and feeling.”⁵³ Similarly, the proposed MOA states that the heritage tourism activities further articulated in provision II(f) “will enhance the setting and feeling, among other aspects of integrity, of the adversely affected resources.”⁵⁴ We must again correct: in the context of the National Register, setting and feeling pertain to aspects of the landscape’s historical integrity and are *not* enhanced or improved by heritage tourism promotion, interpretive or visitor facilities.
2. This provision addresses visitor interpretation and engagement opportunities at Colonial National Historical Park and for the Captain John Smith Chesapeake NHT at the Colonial NHP visitor center at Jamestown. The proposed funding level is not clear, but by subtraction as described in II(e)(5)(D) it would appear to be some fraction of \$27.7 million [which also appears to address II(e)(1)(A)(i-iii) and II(e)(1)(B)(i)].
3. Again, this provision singles out visitor interpretation and engagement at two specific locales: at Colonial NHP and, for the Captain John Smith Chesapeake NHT, at the NPS visitor center on Jamestown Island. We recognize the proposed MOA also includes provisions elsewhere for twenty interpretive signs at publicly accessible locations within the historic district (II(a)) and a viewing and interpretation facility at Hog Island (II(e)(2)(A)(iv)).

While there may be logic in addressing these sites, there is no assessment, evaluation, consultation or plan regarding the heritage tourism needs associated with these sites; a similar lacking noted for other project specific measures. Further, the provisions are limiting and do not address the scope and scale of effects to the Historic District, the trail or the park. Clearly the trail and the district are both directly affected at multiple locations throughout the APE. Further, their current and future interpretation and visitor engagement within the APE is by no means

⁵³ MOA Context Document, p. 18

⁵⁴ Proposed MOA, p. 20

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limited to the specified sites. The provisions do not address how interpretation and visitor engagement needs may change over the course of fifty years nor how projects such as these are sustainably managed over that period. Finally, and as noted elsewhere on other provisions, these provisions do not take into account the broader landscape context or ensure landscape scale treatment.

4. Best practices in offsets take a different approach to ensure landscape scale treatment and to avoid specific projects that may be infeasible. As noted previously, see, for example, the approach described above in section 7 under “Durability.”

Stipulation II(e)(1)(D) Alternative Mitigation

1. It is understandable that various identified mitigation efforts may experience difficulties in implementation. This stipulation provides for an “out” if such a situation occurs.
2. As we have noted multiple times above, this issue is created because of the lack of a more logical approach to contemplating mitigation measure. Again, best practices in offsets take a different approach to ensure landscape scale treatment and to avoid specific projects that may be infeasible. They generally establish funds with criteria and procedures for management over the lifespan of a project. This makes it far easier to structure and guarantee assurances.
3. Still, there needs to be specificity and accountability regarding the efforts to complete the mitigation described in Stipulation II(e)(1)(A-C), and the decisions regarding the inability to complete any aspect of that mitigation must be made in consultation and with the USACE being the decision maker.
4. Alternative mitigation proposals included here affect NPS units but have not been discussed with the NPS. Again, such measures would need to be discussed with and approved by the NPS.

Stipulation II(e)(2) Historic Property Treatment at Hog Island Wildlife Management Area

1. This stipulation is at best mis-titled. It includes a variety of measures, some of which have nothing to do with Hog Island WMA. Beyond this, it suffers from the same significant flaws identified above for other stipulations: project specific prescriptions; a lack of information and clarity on the assessment, planning or permitting of those projects or others which may have higher priority; a lack of landscape scale context or rationale explaining the logic behind the projects; etc.
2. For example, stipulation II(e)(2)(A)(iv) speaks to a “History and remote viewing and interpretation facility” related to the Captain John Smith Chesapeake NHT. While the concept could be sound, it is not clear how such a proposal would be implemented, or what remote means? Furthermore, has there been any thought placed on the fact that Hog Island will be sitting directly under and next to the power lines and towers in such a way that might make the idea of a viewing facility impractical at best? It is likely such a feature would merely give visitors an up close and personal experience of the towers.
3. The statement “Dominion shall seek input...” is vague and inappropriate. The USACE is the lead agency on this MOA and must lead Dominion’s efforts to carry out its terms.

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Stipulation II(e)(3) Water Quality Improvements

1. *Structurally, we should note this stipulation is somewhat more logically formed in that it appears to create a fund without pre-selecting specific projects that may be infeasible or inappropriate. That said, the rational connection between this stipulation and the historic property impacts which are the focus of this MOA is not at all clear.*
2. This stipulation speaks to projects that “enhance water quality and mitigate the cumulative impacts of the projects” yet makes no connection to what those cumulative impacts are to begin with. Despite NPS comments on the lack of such cumulative effects analysis, no such impacts have been clarified by the USACE. Also unclear is the concept that Dominion seems to be stating that water quality is a contributing feature of the Historic District. If so, that has not been discussed or analyzed in the Corps’ various Section 106 assessments. If not, then it has no place in a Section 106 document, and should be more appropriately addressed elsewhere.
3. Riparian buffer creation and erosion and sediment control measures provide natural resources value, and limited, if any, mitigation to effects to historic properties. Accordingly, while efforts to improve water quality may be admirable, this mitigation is inappropriate for the MOA and should be documented as part of the larger mitigation package for effects to non-historic environmental resources.

Stipulation II(e)(4) Landscape and Battlefield Conservation:

1. This provision allocates \$12.5 million for landscape conservation and open space easement projects for (a) lands associated with the Battle of Yorktown and Fort Crawford and (b) the indirect APE and James River watershed benefitting the historic properties and district. Generally speaking, establishing a fund for land conservation is a reasonable offset for development projects. Permanent land protection can help avoid future impacts.
2. However, the proposed MOA and Context Document make no attempt to calibrate this proposed stipulation with the severity of effect within the district.
3. We calculate there are currently 11,225 acres of permanently protected lands within the indirect APE (including 8,720 within the district). The investments by federal, state and local government and non-governmental organizations in protecting these lands over decades are substantial. Visual analysis indicates that many of these lands will be impacted.
4. In addition, we calculate there are 16,493 acres of land within the indirect APE (including 14,400 within the district) which are not permanently protected. Many of these lands will be impacted as well.
5. Further, as we have stated previously implementation of the proposed project would have cumulative effects beyond the district.⁵⁵ If such a project can be sited within this district-- “among the most historically significant portions of the overall National Historic Trail’s 3,000 plus miles of waterways”⁵⁶--across two national historic trails and within view of a national

⁵⁵ See NPS Associate Regional Director Frank Hays letters to USACE William (Tom) Walker dated January 29, 2016, p. 8.

⁵⁶ NPS Keeper of the National Register Stephanie Toothman letter to USACE William (Tom) Walker dated August 14, 2015, p. 4.

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historical park and a national historic landmark, a similar project could reference this project as precedence to justify construction in other historically significant locations. Given similar facts how could the USACE not issue a permit for a transmission line across the York River in view of Werowocomoco? Or across the Rappahannock River in view of Fones Cliff? Or across the Potomac River in view of Mount Vernon and Piscataway National Park? Each of these places is thematically related to the district in multiple ways. They are part of the landscape context for the proposed project. Ways to address this issue might include establishing a landscape level land conservation fund sufficient to permanently protect all lands necessary for precluding such crossings at these types of locations in the future.

6. How has the USACE confirmed--or even attempted to ascertain--that the proposed stipulation is calibrated to the level of impacts within the district and on a landscape scale? How has the USACE confirmed that there is equivalence in value, function and significance? There is no evidence of any such calculations, quantitative or qualitative. Given the points outlined above, combined with knowledge of recent real estate activity in the region. It does not appear that the proposed funding would support future land conservation equivalent with the irreparable impacts caused by the project.
7. Planning and implementation of any such conservation efforts would need extensive input from all of the consulting parties, local governments and the Commonwealth and need to be coordinated by the USACE. Stipulations within the MOA on this subject require substantial consultation regarding the overall concept, parameters, potential lands and much greater detail than exists within this draft. The existing language within this draft can only be considered a starting point for further consultation on this concept.

Stipulation II(e)(5) Allocation and Expenditure of Funds

1. We believe our comments above address many of the aspects of this stipulation; we do not repeat those here.
2. We do however, call special attention again to our comments regarding time frames, the lifespan of the project, the specificity of projects, and funding levels.

Stipulation II(f) Enhancement of Heritage Tourism

1. Some of the entities that could be included in such a Program may not have an annual marketing budget. The "contribution" calculated in part 4 should be based differently, such as on the aggregate of the entities combined rather than of each individual entity. Through consultation, the USACE could determine any final distribution of marketing funds.
2. More importantly, this stipulation views this as a one-time funding level commensurate with merely a one-year average funding level. The project has a fifty year life span with impacts to heritage tourism and visitation which would occur 365 days per year for all fifty years. A compensatory mitigation measure based on only addressing a single year does not match the significance of the impacts.
3. As written, it seems the language in part 5 is forcing the concurring parties to agree that the marketing program "will enhance the setting and feeling, among other aspects of integrity, of

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the adversely effected [sic] historic properties, as well as inform and enhance heritage tourism and visitor experiences with the Indirect APE.” The marketing Program does not have the ability to enhance the National Register aspects of integrity such as setting and feeling.

Stipulation II(g) Avoidance and Minimization of Potential Future and Cumulative Effects within the Direct and Indirect APE of the River Crossing

1. We note that provision II(g)(2) does nothing to address cumulative effects beyond placement of new or heightened infrastructure within the indirect APE. No other linear infrastructure projects by any other public or private entity would be controlled by this. Further, as mentioned elsewhere in our comments, approval of this project would create a precedent making it difficult if not impossible for the USACE to deny other linear infrastructure projects impacting the same or comparable resources.
2. The results of the forecast data noted in II(g)(3) would need to be shared with the USACE and consulting parties.
3. Stipulations II(g)(4-5) rest sole authority with Dominion for assessing continuing need for the project. The USACE should be responsible to review Dominion’s assessments with consulting parties and other appropriate agencies.
4. Neither stipulation II(g)(5), nor any other part of this MOA, make provisions for mitigating continuing impacts after fifty years if Dominion concludes the line is still necessary. At the end of 50 years, should Dominion (or its commercial heirs) decide that the existing river crossing is still required, either with the existing or with new infrastructure of the line, and that an underground crossing is infeasible, the USACE and Dominion should reinitiate consultation under Section 106 with the consulting parties to assess the continued adverse effects and whether new minimization or mitigation efforts are required.

Stipulation III - Reporting Requirements

1. After USACE and consulting party review of Dominion’s completion memos (for individual MOA requirements) the USACE will determine if Dominion has satisfied the requirements of the MOA.

Stipulation IV - Professional Qualifications

1. Each project outlined under this MOA will require the involvement of historic preservation professionals that may include, but not be limited to, the following: archaeologist, historical architect, historical landscape architect, or museum curator. Individuals with these skills will need to be involved, as appropriate, in many of the MOA tasks and they must meet the professional qualification standards. This point is crucial as we saw throughout the Section 106 process during which we continually, yet unsuccessfully, requested that Dominion’s contractors include a professional with skills in analyzing historic landscapes - the essence of the Historic District after all.

Stipulation VIII - Human Remains

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1. Resulting from the USACE permit, NAGPRA is likely the law that would guide the treatment of any human remains. A Section 106 MOA does not have the authority to alter the procedures of another federal law, and can only commit to following the procedures identified in the regulations.

Stipulation IX - Dispute resolution

1. The signatory and concurring parties to the MOA need to be informed of, and possibly participate in, the resolution of any disputes or objections to which the USACE responds.
2. Part (f) of this stipulation speaks to objections raised by the public, however, there is no mention in this section of how an objection raised by a concurring party would be handled by the USACE.

Signatories

1. The correct signatory for USACE should be the agency official who has legal and financial responsibility for the action, usually the head of the agency unit (i.e, the commanding officer of the USACE District) – see 36 CFR 800.2(a).
2. Any party with a role in the implementation of this MOA should be a full-signatory.

9. Conclusion

The National Park Service's extensive comments in this document reflect the significance of impacts associated with this project proposal. The NPS has consistently expressed our deep concerns over the unprecedented impacts the project would have on nationally significant resources. The NPS has consistently provided extensive comments on the 106 process, the need for a thorough analysis of alternatives, complete assessment and description of adverse effects using standard methodologies, and the need for integrating 106 and NEPA review because of the interrelationship of effects on historic properties and the human environment. We have commented on consequential issues that have been raised about the project's purpose and need which call into question the entire basis for the proposal. We have consistently made clear that a project of this magnitude, impacting one-of-a-kind resources of national importance, requires the full analysis of alternatives and impacts through an EIS.

Notwithstanding the comments on the proposed MOA elsewhere in this document, no compensatory offsets can undo the fifty years of impacts to nationally significant resources this project would cause. The project "...would set a precedent for additional development and cumulative effects. It would forever degrade, damage, and destroy the historic setting of these iconic resources. This is not acceptable for resources designated by Congress to ensure their permanent protection."⁵⁷

As noted previously, there is no other locale in the nation where the first permanent English settlement--and the associated interactions with American Indian communities--occurred. As NPS Director Jon Jarvis stated: "On the eve of the centennial of the NPS, this proposal has become one of the most serious

⁵⁷ *ibid.*

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threats to our nationally significant historic resources. This nation has only one Jamestown.”⁵⁸ As the agency with responsibility and experience caring for many of our nation’s most significant historic resources, we request the USACE respectfully consider our input to help protect these remarkable resources for future generations.

⁵⁸ NPS Director Jon Jarvis letter to USACE Lt. General Thomas Bostick, December 11 2015.