

# APPENDIX B1

## RESPONSES TO FEDERAL AGENCY COMMENTS



D.C. TO RICHMOND SOUTHEAST HIGH SPEED RAIL

# Appendix B1

## RESPONSES TO FEDERAL AGENCY COMMENTS

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This Appendix Section B1 provides detailed responses to Federal agency letters, presented in the below order:

- US Environmental Protection Agency (EPA), Region III ..... B-4
- US Army Corps of Engineers (USACE) ..... B-19
- Department of the Interior (DOI) ..... B-30
- Federal Aviation Administration (FAA) ..... B-59



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103-2029

November 6, 2017

Marlys Osterhues  
Chief, Environmental Planning Division  
U.S. Department of Transportation  
Federal Railroad Administration  
1200 New Jersey Avenue, SE  
Rm W36-317  
Washington, DC 20590

Re: Washington, D.C. to Richmond High Speed Rail Project Tier II Draft Environmental Impact Statement, September 2017 CEQ # 20170172

Dear Ms. Osterhues:

In accordance with the National Environmental Policy Act (NEPA), Section 309 of the Clean Air Act and the Council on Environmental Quality regulations implementing NEPA (40 CFR 1500-1508), the United States Environmental Protection Agency (EPA) has reviewed the Washington, D.C. to Richmond High Speed Rail Project (DC2RVA) Tier II Draft Environmental Impact Statement (DEIS). The purpose of the proposed action is to increase railroad capacity between Washington, DC and Richmond to deliver higher speed passenger rail, expand commuter rail, and accommodate growth of freight rail service in an efficient and reliable multimodal rail corridor.

The DEIS divides the 123-mile corridor into six sections with multiple alternatives within the sections. The project's Preferred Alternative is 2A, 3B, 4A, and 6F. The alternative decision on Segment 1 (Arlington) is deferred until after completion of the Long Bridge Study and the decision on Section 5 (Ashland) is deferred until the Final EIS. We understand that the project team will be working with the Community Advisory Committee (CAC) to look at alternatives in the DEIS as well as potential new alternatives for the Ashland segment. We suggest that the project team also work with EPA, the U.S. Army Corps of Engineers and other federal and state agencies as the process moves forward. It should be noted that additional NEPA analysis may be needed if new alternatives are developed.

Based on our review, EPA has rated the Preferred Alternative (and Section 5) as Environmental Concerns - Insufficient Information (EC-2) and the Arlington section as Lack of Objections (LO). A description of our rating system can be found at <https://www.epa.gov/nepa/environmental-impact-statement-rating-system-criteria>. The basis for our ratings and general comments for your consideration is provided in the enclosed Technical Comments.

Please continue to work with EPA and other stakeholders as the Final EIS, Record of Decision and additional NEPA analysis for the various components of this plan move forward. We suggest efforts to avoid and minimize impacts to the community and natural environment and close coordination with the public continue as the project moves forward.

## US EPA REGION III

1. The Department of Rail and Public Transportation (DRPT) has continued to coordinate with federal and state agencies, affected localities, the general public, and other stakeholders during the preparation of this Final Environmental Impact Statement (EIS) and its associated Record of Decision (ROD), and will continue coordination efforts during final design and permitting (after funding becomes available and incremental improvements are scheduled) in accordance with all applicable federal and state laws and regulations. Neither the Federal Railroad Administration (FRA) nor DRPT anticipates that any new alternatives would be developed as part of this Project; however, if any new alternatives are developed, DRPT and FRA would determine whether supplemental National Environmental Policy Act (NEPA) documentation is warranted in accordance with Council on Environmental Quality regulations (40 CFR 1502.9), at that time.
2. The ratings of the Preferred Alternative (and Section 5) and the Arlington section that were provided by the Environmental Protection Agency (EPA) are noted, and all comments were considered as part of the recommendation process for the Preferred Alternative upon which the Final EIS is based. DRPT has endeavored to address EPA's concerns by providing information in response to each of EPA's Technical Comments; refer to DRPT numbered statements #3 through #32 of this response

**US EPA REGION III (continued)**

*(No comments on this page)*

Thank you for providing EPA with the opportunity to review this project. If you have questions regarding these comments, the staff contact for this project is Ms. Barbara Okorn; she can be reached at 215-814-3330.

Sincerely,



Barbara Rudnick  
NEPA Review Coordinator  
Office of Environmental Programs

Enclosure (1)

Washington, D.C. to Richmond High Speed Rail Project  
Tier II Draft Environmental Impact Statement  
Technical Comments

**Purpose and Need and Alternatives**

- We suggest clarification be provided related to the Southeast High Speed Rail (SEHSR) Program and the DC2RVA project needs. Accommodating freight rail movement through the corridor, including to and from Virginia ports, is listed as a project purpose and need for the DC2RVA but it is not specifically mentioned as need for the SEHSR project. Please discuss any changes occurring between studies. **3**
- We suggest additional information be provided related to freight transport which may help inform alternatives. For example, are hazardous materials transported currently or will they be in the future? Are there certain design criteria or safety requirements that should be factored in to the design? We recommend an explanation of any impacts that might be associated with hazardous release response or risk minimization (eg access roads, runoff controls/cleanouts, reduced infiltration in ROW) be discussed and analyzed in the NEPA study. **4**
- We suggest coordinating with local governments and emergency services to address response and potential issues with release of hazardous substances in the event of accidents. Special consideration should be given to close proximity to reservoirs and other areas at risk areas. **5**
- While the DEIS states that some avoidance and minimization of impacts has been considered, we suggest that efforts to avoid and minimize impacts to community and environmental resources continue. **6**
- It is unclear if impacts associated with construction and operation are considered in the limits of disturbance (i.e. access roads, noise walls, station locations etc.) EPA recommends that the final EIS clarify any associated temporary or permanent impacts. **7**

**Aquatic Resources**

- It is unclear what methodologies were used to assess aquatic impacts. We suggest the project team closely coordinate with U.S. Army Corps of Engineers, EPA and other agencies as the project moves forward. Page 3-4 states that field surveys were conducted to verify the existence of potential ephemeral, intermittent and perennial streams and wetlands within 100 feet of the existing rail on the side of the track where improvements are proposed. We recommend the study document the methods used to identify and classify these resources. Please state if potential impacts beyond 100 feet from the existing rail were considered at this time (i.e. changes in hydrology, etc.) **8**
- Page 4-11 of appendix M describes Long-Term Temporary impacts which seem to be permanent (i.e. introduction of invasive species, decreased groundwater recharge due to increased impervious surfaces, increased potential for toxic compounds entering the wetland system from construction, equipment, increased train traffic, application of snow and ice removal chemicals, and application of herbicides to keep tracks clear of vegetation, altered hydrologic patterns). We suggest the study clarify the definition of Long-Term Temporary, and possibly re-consider if above-mentioned impacts can be considered temporary. **9**  
Specific details are provided related to the Section 404 permit process. While these may be true in a general sense, it is premature to assume the details of what may be required at that time of the permit process and without consideration of specific project impacts and lost functions **10**
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**US EPA REGION III (continued)**

3. Clarifying language on the Project Need, including the unique needs of the DC2RVA corridor as well as developments since the 2002 Tier I EIS, can be found in Final EIS Section 1.3, which has been added since the Draft EIS.
4. The DC2RVA Project's stated Purpose is to increase railroad capacity between Washington, D.C. and Richmond, VA to deliver higher speed passenger rail service, while also supporting the planned expansion of VRE commuter rail service and accommodating the forecasted growth of freight rail service by developing an efficient and reliable multimodal rail corridor. As stated in Section 1.3.1 of the Final EIS, while the corridor where the Project is located is owned and operated by freight railroad CSXT, the infrastructure and service proposed for the Project are not expected to create increased freight volumes because freight transport responds to economic demands created by commercial activities and independent market forces, separate from this Project. As Project alternatives were developed and compared, DRPT did consider the volume of total freight traffic by identifying the volume of total freight traffic by the general number, schedule, and type of freight train. Neither FRA nor DRPT anticipate that the additional 9 new daily intercity passenger round-trip trains (18 total trains per day) proposed by the Project would result in any change in either the types or quantities of freight shipped on the corridor, including hazardous materials.

Please see response to DRPT-numbered statement #5 below for more specific information about discussion of hazardous materials in the Draft EIS.

*(Responses are continued on next page)*



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**US EPA REGION III (continued)**

5. As summarized in Chapter 2 of the Final EIS, coordination with local governments occurred during Project scoping and continued throughout the development of the Draft EIS, which was then distributed to local governments for review and comment. Draft EIS Section 4.5 addresses hazardous materials in the corridor, with a focus on known existing sites containing hazardous materials, and Final EIS Section 5.5 presents this information for the Preferred Alternative. As indicated in these sections, hazardous materials within sites impacted by construction, including any additional hazardous materials discovered during construction or demolition of existing structures, will be removed and disposed of in compliance with all applicable federal, state, and local regulations. All necessary remediation will be conducted in compliance with applicable federal, state, and local environmental laws and will be coordinated with EPA, the Virginia Department of Environmental Quality (VDEQ), and other federal, state, or local agencies as necessary. Final EIS Section 5.1.4 provides detail on public surface waters, including additional information since the Draft EIS. Final EIS Section 5.18 addresses public health and safety associated with hazardous materials transport on the rail line, with clarifications provided since the Draft EIS, including regulation of transport of hazardous materials on railroads.
6. DRPT will continue efforts to avoid and minimize impacts to community and environmental resources throughout final design and permitting, after funding becomes available and incremental improvements are scheduled.

*(Responses are continued on next page)*

Washington, D.C. to Richmond High Speed Rail Project  
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**US EPA REGION III (continued)**

7. In response to EPA's recommendation that the Final EIS clarify impacts in relation to the Limits of Disturbance (LOD), the opening section of Chapter 5 of the Final EIS provides additional definitions of permanent and temporary LOD. Appendix L of the Final EIS provides a detailed mapbook of the Preferred Alternative, including identification of both temporary and permanent limits of disturbance. As described in Final EIS Chapter 5, temporary LOD represent areas encompassed by short-term construction easements, affected by short-term impacts from construction activity, or other non-permanent Project-related land disturbance, and permanent LOD represent the final long-term boundaries of the Project where the land would be disturbed. For potential effects caused by the operation of the proposed additional intercity passenger rail services, such as noise and effects to water quality or air quality, DRPT used analysis thresholds which extend beyond the physical LOD. Both temporary and permanent limits of disturbance are discussed as appropriate for each environmental attribute evaluated in the Final EIS; in addition, Section 5.19 Construction Impacts, summarizes the short-term or temporary impacts from construction activities for the Preferred Alternative.

*(Responses are continued on next page)*

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**US EPA REGION III (continued)**

8. As indicated on page 3-5 of the Draft EIS, the delineation of wetlands along the corridor followed methods contained in the Eastern Mountains and Piedmont – Version 2.0 or the Atlantic and Gulf Coastal Plain Region – Version 2.0 regional supplements of the United States Army Corps of Engineers (USACE) delineation manual, as applicable to each given location. Potentially impacted stream channels were assessed using the Unified Stream Methodology form. Field reviews by USACE and the Virginia Department of Environmental Quality (VDEQ) were conducted at several intervals during the field surveys to ensure that surveys were conducted according to agency expectations. As indicated in Draft EIS Section 3.1.4, wetlands were classified using an abbreviated version of the Cowardin System (Cowardin, et al., 1979). The majority of the Preferred Alternative involves the construction of one additional new track approximately 15 feet from the existing tracks, and the permanent Limits of Disturbance (LOD) are generally within 40 feet of the existing CSXT right-of-way (see the beginning of Chapter 5 of the Final EIS for full LOD descriptions, and Appendix L of the Final EIS for mapbooks of the Preferred Alternative). Therefore, 100-foot delineation for wetland identification provides adequate buffer to encompass areas that would be impacted by the Project. Possible impacts to aquatic resources beyond 100 feet are addressed in the analysis of indirect effects in Draft EIS Section 4.10.1.6. DRPT has coordinated with the USACE on wetland and related assessments since Project inception, including several joint field visits to ensure that survey and assessment methods were consistent with agency expectations. The USACE also commented on the Draft EIS (refer to their letter and responses) and as indicated therein, DRPT will use the methodology in use by USACE at the time of application for determining compensation requirements.
9. DRPT quantified potential impacts to natural resources based on limits of disturbance identified as permanent (i.e., areas where Project infrastructure would physically replace existing conditions) and temporary (i.e., areas required for construction that would be regraded and reseeded). Please see response to DRPT-numbered statement #7: these definitions have been clarified in Final EIS Chapter 5.

*(Responses are continued on next page)*



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**US EPA REGION III (continued)**

10. Comment noted. DRPT will determine specific requirements at the time of permitting in coordination with the permitting agencies during final design, after funding becomes available and incremental improvements are scheduled. Final EIS Chapter 7 provides an overview of future steps of the Project, including final design and permitting and other regulatory actions, approvals, and permits that would be required.
11. The abbreviated Cowardin classifications (as provided in Table 4.1-2 of the Draft EIS and Table 5.1-2 of the Final EIS) include cypress-tupelo swamps and tidal wetlands and communities. However, there are no cypress-tupelo swamps present within the Project area (i.e., the 100-foot delineation). The presence of tidally-influenced wetlands is identified in Draft EIS Section 4.1.2, and updated in Final EIS Section 5.1.2 (0.85 acres of permanent impact in Preferred Alternative 2A and 4A, and 0.50 acres of temporary impact in Preferred Alternative 1B, 2A, and 4A). As indicated in Final EIS Section 5.1.6.1, efforts to avoid and minimize impacts to wetlands will continue into final design, after funding becomes available and incremental improvements are scheduled. At that time, the functions, values and condition of wetlands and the availability of mitigation sites will be evaluated.

identify, avoid and minimize impacts to higher quality and potentially unmitigable aquatic habitats such as cypress tupelo swamps and tidal wetlands and communities. EPA would be pleased to discuss methodologies to classify aquatic resources and identify functions, values and condition. Also, we suggest the document recognize that mitigation banks are not available for every type of impact.

- Appendix M, page 4-16 states that before construction, Virginia Department of Rail and Public Transportation (DRPT) will evaluate the potential for contamination to wellhead protection areas. It would be helpful if the study stated how wellhead protection areas will be identified, coordination that will take place with local government or municipal offices, approaches for communication with landowners, monitoring that may be established, and how results from additional evaluation will be analyzed and disseminated. We recommend the study discuss efforts that will be in place to minimize risk to drinking water.

#### Miscellaneous Environmental Resources

- We suggest effort be made to coordinate with the U.S. Fish and Wildlife Service and other state and federal agencies regarding listed species. Early identification of potential concerns may assist planning, allow avoidance of impacts, protecting rare and endangered species and expedite the coordination process.
- We suggest effort be made in project design to accommodate terrestrial and aquatic wildlife passage and reduce population fragmentation and isolation. Improvements to wildlife passage may be possibly integrated into design along the existing as well as any new corridor.
- Page 4-8 of appendix M mentions major storms and flooding within the project area. We suggest that information be included as to how the project considers extreme weather events, in particular in relation to resiliency design.

#### Stormwater Management

- The recommended Preferred Alternative would be designed and constructed in accordance with the Virginia Erosion and Sediment Control Law (§10.1-560 et seq. of the Code of Virginia) and the Stormwater Management Act (§10.1-603.1 et seq. of the Code of Virginia). The project would require stormwater management facilities associated with the increase impervious areas from the railway, parking lots maintenance yards and related buildings. Where appropriate, EPA recommends that Green Infrastructure (Rain Gardens, Riparian Stream Buffers, Vegetative Swales, Green Roofs, and Porous Pavement) be incorporated into the project's Stormwater Management Strategy. Stormwater management facilities should not be placed in wetlands or other aquatic habitats.

#### Noise

- According to Section 4.7.1.2 Noise Prediction Methodology, actual noise levels from passenger trains between Poughkeepsie and Albany, New York (the Empire Line) were used because of their similarity to the trains proposed on DC2RVA corridor. However, due to track maintenance and other unknown factors, none of the Empire Line trains were traveling at or above 90 mph during measurement of pass-by noise. It would be helpful if the document clarified if noise levels measured at or below 90 mph are the same as noise levels above 90 mph. If not, we recommend the study include how noise levels above 90 mph are being determined.
- As stated in the same section, growth in the passenger (non-SEHSR) and freight train rail use were not considered in the noise modeling analysis (with the exception of Fredericksburg and

### US EPA REGION III (continued)

(Response to comment 11 on previous page)

- Locations of public groundwater sources and private wells within the Project corridor were mapped according to datasets maintained by the Virginia Department of Health (VDH), Virginia Department of Mines, Minerals & Energy (DMME), and Virginia Department of Transportation (VDOT). Wellhead protection areas were identified based on designations by the Virginia Department of Environmental Quality (VDEQ) in its Wellhead Protection Plan (2005), which was approved by the US Environmental Protection Agency (EPA). There are no Project-specific regulatory requirements relative to wellhead protection areas. Rather, localities are encouraged, through state and federal technical assistance and grants, to develop strategies to protect community water system sources at the local level, largely through land use management authorities (e.g., zoning and comprehensive planning). Notwithstanding, as indicated in Section 5.1.6.4 of the Final EIS, efforts to minimize impacts to drinking water could involve modifications, such as further alignment shifts to avoid or minimize impacts; the use of best management practices (BMPs); the use of retaining walls; and temporary and permanent stormwater management measures to reduce transportation of chemicals by stormwater, and they should include limited use or avoidance of snow removal and vegetation maintenance chemicals near source protection areas and well locations. Measures that would be implemented to comply with surface water pollution protection under Virginia's erosion and sediment control regulations, stormwater management program, and stormwater pollution prevention plan requirements also would protect against groundwater contamination. These measures, as well as hazardous materials spill response measures (see response to DRPT-numbered statement #5 above) would minimize risks to drinking water. Coordination with local government or municipal offices and the public during final design, as well as the findings of any additional evaluations that may be conducted, will occur in a manner similar to the coordination during the EIS development. Monitoring is not anticipated at this time but could be implemented if determined necessary as a condition of state or federal water quality permits that would need to be acquired for the Project.

(Responses are continued on next page)

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### US EPA REGION III (continued)

13. DRPT solicited agency concerns about listed species through the scoping process, participating agency meetings, and ongoing consultation with regulatory agencies, including the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), Virginia Department of Game and Inland Fisheries (VDGIF), Virginia Department of Conservation and Recreation (VDCR), and Virginia Marine Resources Commission (VMRC). In addition, information regarding federally listed threatened and endangered species that may be impacted by the Project was obtained from USFWS via the Information, Planning, and Conservation (IPaC) system, and included in Draft EIS Section 4.10.3; updated IPaC information was obtained in February 2018 and is presented in Final EIS Section 5.10.3 for the Preferred Alternative. As indicated in Final EIS Section 5.10.3.2, DRPT will continue to coordinate with USFWS, EPA, VDCR, VDGIF, and other regulatory agencies regarding habitat and wildlife, including any future updates to listed species, to ensure impacts are avoided to the extent practicable throughout final design (after funding becomes available and incremental improvements are scheduled) and that appropriate mitigation is developed where impacts are unavoidable.
14. Subsequent to submitting these written comments on the Draft EIS, the EPA and DRPT discussed the Project's potential impact to wildlife crossing in a call on June 6, 2018. At that time, the EPA suggested inclusion of natural bottom culverts as an example to improve wildlife passage, and it was agreed that those types of accommodations would be determined during final design (refer to Section 5.10.1.1 of the Final EIS for further details). Accordingly, DRPT will continue to consider special design features to improve wildlife corridors during final design.

*(Responses are continued on next page)*



**US EPA REGION III (continued)**

15. As presented in Section 5.1.6.2 of the Final EIS, the Project will be designed in accordance with Executive Order 11988-Floodplain Management and 23 CFR 650 Subpart A - Location and Hydraulic Design of Encroachments on Flood Plains. Accordingly, the Project is not expected to increase flood height elevations, the probability of flooding, or the potential for property loss and hazard to life. A detailed hydraulic survey and study will be conducted during final design (after funding becomes available and incremental improvements are scheduled) to ensure that no substantial increases to flooding would occur as a result of the Project. Examples of extreme weather events, which could include unusual heat or cold, prolonged or intense rainfall, and flooding, and resiliency to such events, would be addressed during the final design of the Project, after funding is secured and incremental improvements are scheduled. Potential for expansion and contraction of rails in response to extreme heat and cold also would be considered in the design and specifications for the rails at that time. Additional design, operational, and maintenance elements would also be considered, as appropriate, during further Project development as federal and state guidance with regard to resiliency design continues to evolve.

16. While much of the rail bed is permeable to rainfall (i.e., ballast and side slopes), measures to avoid or minimize impacts to water quality and adjacent habitat could include use of vegetative buffers and swales (see Final EIS Section 5.1.6.3) and minimizing clearing and grubbing in riparian areas (see Final EIS Section 4.10.1.4). Placement of stormwater management facilities will avoid wetlands and other aquatic habitats, to the extent feasible, to be determined during final design after funding becomes available and incremental improvements are scheduled. DRPT will consider opportunities to incorporate additional green infrastructure or low impact design, where appropriate, during final design (after funding becomes available and incremental improvements are scheduled).

*(Responses are continued on next page)*

identify, avoid and minimize impacts to higher quality and potentially unmitigable aquatic habitats such as cypress tupelo swamps and tidal wetlands and communities. EPA would be pleased to discuss methodologies to classify aquatic resources and identify functions, values and condition. Also, we suggest the document recognize that mitigation banks are not available for every type of impact.

- Appendix M, page 4-16 states that before construction, Virginia Department of Rail and Public Transportation (DRPT) will evaluate the potential for contamination to wellhead protection areas. It would be helpful if the study stated how wellhead protection areas will be identified, coordination that will take place with local government or municipal offices, approaches for communication with landowners, monitoring that may be established, and how results from additional evaluation will be analyzed and disseminated. We recommend the study discuss efforts that will be in place to minimize risk to drinking water.

**Miscellaneous Environmental Resources**

- We suggest effort be made to coordinate with the U.S. Fish and Wildlife Service and other state and federal agencies regarding listed species. Early identification of potential concerns may assist planning, allow avoidance of impacts, protecting rare and endangered species and expedite the coordination process.
- We suggest effort be made in project design to accommodate terrestrial and aquatic wildlife passage and reduce population fragmentation and isolation. Improvements to wildlife passage may be possibly integrated into design along the existing as well as any new corridor.
- Page 4-8 of appendix M mentions major storms and flooding within the project area. We suggest that information be included as to how the project considers extreme weather events, in particular in relation to resiliency design.

**Stormwater Management**

- The recommended Preferred Alternative would be designed and constructed in accordance with the Virginia Erosion and Sediment Control Law (§10.1-560 et seq. of the Code of Virginia) and the Stormwater Management Act (§10.1-603.1 et seq. of the Code of Virginia). The project would require stormwater management facilities associated with the increase imperious areas from the railway, parking lots maintenance yards and related buildings. Where appropriate, EPA recommends that Green Infrastructure (Rain Gardens, Riparian Stream Buffers, Vegetative Swales, Green Roofs, and Porous Pavement) be incorporated into the project's Stormwater Management Strategy. Stormwater management facilities should not be placed in wetlands or other aquatic habitats.

**Noise**

- According to Section 4.7.1.2 Noise Prediction Methodology, actual noise levels from passenger trains between Poughkeepsie and Albany, New York (the Empire Line) were used because of their similarity to the trains proposed on DC2RVA corridor. However, due to track maintenance and other unknown factors, none of the Empire Line trains were traveling at or above 90 mph during measurement of pass-by noise. It would be helpful if the document clarified if noise levels measured at or below 90 mph are the same as noise levels above 90 mph. If not, we recommend the study include how noise levels above 90 mph are being determined.
- As stated in the same section, growth in the passenger (non-SEHSR) and freight train rail use were not considered in the noise modeling analysis (with the exception of Fredericksburg and



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- As stated in the same section, growth in the passenger (non-SEHSR) and freight train rail use were not considered in the noise modeling analysis (with the exception of Fredericksburg and

### US EPA REGION III (continued)

- EPA is correct that the Empire Line in New York did not reach speeds above 90 mph. As described in Draft EIS Section 4.7.1.2, the sound exposure levels measured along the Empire Line were used to calculate noise for passenger trains traveling below 90 mph, and the sound exposure levels for proposed intercity passenger trains traveling at 90 mph were obtained from FRA's "High Speed Ground Transportation Noise and Vibration Impact Assessment" (September 2012) guidance document, which includes procedures to adjust train noise levels to the actual speeds being modeled. Note that the maximum authorized speed for passenger trains would vary in the 123-mile Project corridor from 90 miles per hour (which would be achieved in different segments of the corridor that, combined, total approximately 41 miles) to 35 miles per hour (approximately 2 miles of the corridor).
- In response to EPA's recommendation that noise be included as a secondary and cumulative impact, refer to Section 5.20 of the Final EIS for qualitative discussion of growth in freight volumes as a cumulative effect, which has been added since the Draft EIS. Noise measurements taken as the baseline for the noise analysis (see Draft EIS Section 4.7 for methodology details) reflect the cumulative impacts of past and present projects within the area of potential noise effects of the Project. Noise impacts associated with future development are anticipated to occur mostly within existing urban and suburban environments consistent with local community comprehensive plans. The noise analysis completed for the DC2RVA Project measured existing noise from trains currently using the corridor, which also accounts for all other background noise sources near each measurement location. The noise analysis then calculated noise levels associated with the proposed 9 new daily intercity passenger round-trip trains (18 total trains per day) along the corridor. There were also some instances where the DC2RVA Project proposes to realign tracks on which freight trains may operate, and these were included in the noise analysis performed for the Project. It is important to note that all existing or planned increases in other trains using that corridor would occur irrespective of and independent from the DC2RVA Project. Section 5.7 of the Final EIS presents the noise analysis associated with the Preferred Alternative, and includes additional clarification since the Draft EIS.

Ashland Bypasses). EPA recommends noise be included in secondary and cumulative impact analysis in the DEIS and any anticipated change in rail use in the long term be assessed for noise impacts (for passenger and freight).

#### Environmental Justice and Children's Health

- Assessment of Environmental Justice (EJ) communities was conducted at the census tract level, which provides a reasonable overview of this study area. As the project moves forward, refinement of demographic data may be needed to identify specific communities to engage regarding the project to assure information is gathered and disseminated to EJ community members.
- There are significant areas along the project route with minority and low-income populations that exceed their respective benchmarks. With such large numbers of minority and low-income residents being present throughout the study area, it is hoped that there will be proactive strategies in place to assure the appropriate involvement of these populations in the communication and outreach processes.
- We suggest careful consideration be given to both the potential impacts and benefits of this project. Will the resulting project make travel more accessible to more of the citizens? Are there portions of the population for which access and affordability are a concern?
- We suggest the FEIS include consideration of Children's Health risk related to the project. Executive Order 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, requires each federal agency to identify and assess environmental health and safety risks to children.

#### Indirect and Cumulative Effects

- While the DEIS evaluates the indirect and cumulative effects to some extent, additional analysis should be provided discussing the loss and impact to aquatic habitats and loss of functions in the impacted watersheds. Also, the impact of additional fragmentation and on the environment should be evaluated. EPA would be pleased to discuss approaches to analyze indirect and cumulative impacts. It is recommended that noise be included in indirect and cumulative effects analysis.

#### Air Quality

Overall, the study appears complete. Please find below EPA's recommendation for clarifications and additions (mostly added references) to the DEIS Air Quality analysis section. Additionally, there are a few minor typographic corrections we recommend (please contact us for this, if needed).

#### Volume 1

##### 1.5.2.7 Air Quality

- EPA recommends identifying the listed cities and counties as part of the Washington, DC-MD-VA marginal nonattainment area and citing EPA's Green Book. The following are EPA's suggested edits:
  - o "The cities of Alexandria, Fairfax, Falls Church, Manassas and Manassas Park, and the counties of Arlington, Fairfax, Loudon, and Prince William are currently part of the Washington, DC-MD-CA marginal nonattainment areas for the 2008 8-hour ozone standard."<sup>21</sup>

#### US EPA REGION III (continued)

(Response to comment 18 on previous page)

- Comment noted. The Project has followed an extensive community outreach and participation process, and details regarding Environmental Justice (EJ) / Title VI outreach were provided in Chapter 6 Public Involvement and Agency Coordination of the Draft EIS. DRPT agrees that refinement of demographic data that was appropriate for EIS analyses may be required during future design phases of the Project, to be determined at that time.
- Title VI, EJ, and Limited English-Proficiency populations and communities were identified early in the Project and were targeted with public outreach materials at a variety of locations within their communities, as detailed in Section 6 of the Draft EIS. Census data were updated to confirm existing locations of Title VI, EJ, or LEP populations and communities twice during the Project, and any field-identified communities were also included in the public outreach process.
- Comment noted. The potential direct and indirect impacts of the Preferred Alternative are evaluated in Chapter 5 of the Final EIS, and have been updated since the Draft EIS. The potential benefits of the Project were considered during the development of the Purpose and Need of the Project, and are further quantitatively evaluated as part of the Corridor Service Development Plan (which is being developed as part of this Project, refer to Section 7.3 of the Final EIS for further details) as part of a public benefits analysis, per US Department of Transportation guidance. The greater frequency of intercity passenger service, the extension of service within Richmond to Main Street Station, and the allowance of new intercity passenger trains from Norfolk and into North Carolina, all of which would be provided by the Project, makes travel more accessible within and beyond the DC2RVA corridor. DRPT anticipates that the 9 new daily intercity passenger round-trip trains (18 total trains per day) to be added by the Project would be operated by Amtrak, like other intercity passenger trains in the corridor. The fares for passenger service on these new trains would be set by Amtrak in coordination with DRPT and other stakeholders at the time the trains are brought into service.

(Responses are continued on next page)

Ashland Bypasses). EPA recommends noise be included in secondary and cumulative impact analysis in the DEIS and any anticipated change in rail use in the long term be assessed for noise impacts (for passenger and freight).

18

#### Environmental Justice and Children's Health

- Assessment of Environmental Justice (EJ) communities was conducted at the census tract level, which provides a reasonable overview of this study area. As the project moves forward, refinement of demographic data may be needed to identify specific communities to engage regarding the project to assure information is gathered and disseminated to EJ community members.
- There are significant areas along the project route with minority and low-income populations that exceed their respective benchmarks. With such large numbers of minority and low-income residents being present throughout the study area, it is hoped that there will be proactive strategies in place to assure the appropriate involvement of these populations in the communication and outreach processes.
- We suggest careful consideration be given to both the potential impacts and benefits of this project. Will the resulting project make travel more accessible to more of the citizens? Are there portions of the population for which access and affordability are a concern?
- We suggest the FEIS include consideration of Children's Health risk related to the project. Executive Order 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, requires each federal agency to identify and assess environmental health and safety risks to children.

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#### Indirect and Cumulative Effects

- While the DEIS evaluates the indirect and cumulative effects to some extent, additional analysis should be provided discussing the loss and impact to aquatic habitats and loss of functions in the impacted watersheds. Also, the impact of additional fragmentation and on the environment should be evaluated. EPA would be pleased to discuss approaches to analyze indirect and cumulative impacts. It is recommended that noise be included in indirect and cumulative effects analysis.

23

#### Air Quality

Overall, the study appears complete. Please find below EPA's recommendation for clarifications and additions (mostly added references) to the DEIS Air Quality analysis section. Additionally, there are a few minor typographic corrections we recommend (please contact us for this, if needed).

#### Volume I

##### 1.5.2.7 Air Quality

- EPA recommends identifying the listed cities and counties as part of the Washington, DC-MD-VA marginal nonattainment area and citing EPA's Green Book. The following are EPA's suggested edits:
  - o "The cities of Alexandria, Fairfax, Falls Church, Manassas and Manassas Park, and the counties of Arlington, Fairfax, Loudon, and Prince William are currently part of the Washington, DC-MD-CA marginal nonattainment areas for the 2008 8-hour ozone standard."<sup>21</sup>

24

#### US EPA REGION III (continued)

22. As requested by EPA, Executive Order 13045 is addressed in Section 5.18 of the Final EIS, which has been added since the Draft EIS.
23. The analysis of indirect effects followed a detailed seven-step process based on National Cooperative Highway Research Program Report 466, Desk Reference for Estimating the Indirect Effects of Proposed Transportation Projects. The cumulative effects analysis in the Draft EIS used a five-part evaluation process based on FHWA guidance. Subsequent to submitting these written comments on the Draft EIS, the EPA and DRPT discussed the Project's indirect and cumulative effects in a call on June 6, 2018. EPA and DRPT discussed analysis methodology, specifically in regard to past / present / future actions for all resources, including water quality, aquatic systems, habitat fragmentation, noise, induced development, and the Shockoe Bottom area near Main Street Station. DRPT updated the discussion of indirect and cumulative effects (Section 5.20 in the Final EIS) as agreed to with FRA during this call, as summarized below.

In the context of impact-causing activities related to construction and operation of the rail facilities, DRPT assessed two kinds of indirect impacts, those associated with potential induced development and those associated with proximity or downstream (in time and place) impacts. With respect to EPA's comments regarding watershed/ water quality impacts, DRPT employed a qualitative assessment; as suggested during the teleconference, DRPT added more discussion on the impacts of other past and present actions in the Final EIS. With respect to noise, based on scoping and the nature of the corridor and the expected impacts, DRPT did not conclude that indirect noise impacts were likely to represent a potentially significant issue, and therefore excluded it from detailed quantitative analysis in the indirect effects evaluation; however, as discussed on the teleconference, a high-level qualitative discussion was added to the Final EIS. The cultural resources discussion in the Richmond Main Street Station area is more thoroughly discussed throughout the Final EIS (refer to Section 3.1 of the Final EIS for additional historical context).

(Response to comment 24 on next page)



## US EPA REGION III (continued)

24. through 29. The requested text / source / data / citation clarifications are included in the errata table for the Draft EIS, which is Appendix A of the Final EIS.

- 21 U.S. Environmental Protection Agency, *Green Book*, [https://www3.epa.gov/airquality/greenbook/hbca.html#Ozone\\_8-hr2008](https://www3.epa.gov/airquality/greenbook/hbca.html#Ozone_8-hr2008). Washington
- 3.6 Air Quality
- EPA recommends that the source of the data pertaining to the decrease in concentrations of the criteria pollutants be cited. EPA notes that values from 1980 to 2016 are available at <https://www.epa.gov/air-trends/air-quality-national-summary>.
- 3.6.2 Clean Air Act Conformity
- EPA recommends including the Federal Register (FR) citation. The following are EPA's suggested edits:
    - o *"The regulations for Determining Conformity of General Federal Actions to State or Federal Implementation Plans were published in the Federal Register on November 30, 1993 (58 FR 63214)."*
    - o *"On March 24, 2010 (75 FR 14260), EPA revised the general conformity regulations to improve the process federal entities use to demonstrate that their actions will not contribute to a violation of an NAAQS."*
  - EPA recommends including a citation of Virginia's "Regulation for General Conformity". The following are EPA's suggested edits:
    - o *"In Virginia, general conformity criteria and procedures are set forth in 9 Virginia Administrative Code (VAC) 5-10-20 and 9VAC5-160."*
  - EPA recommends including the full citation for the District of Columbia's general conformity rule. The following are EPA's suggested edits:
    - o *"In the District of Columbia, these criteria and procedures are set forth in 20-15 DCMR (January 8, 2010, 57 DCR 527)."*
- 3.6.3 Clean Air Nonroad Diesel Rule
- EPA recommends including the FR citation for the "Control of Emissions of Air Pollution from Nonroad Diesel Engines and Fuel" rule. The following are EPA's suggested edits:
    - o *"In On June 29, 2004 (69 FR 38958), as part of the Clean Air Nonroad Diesel Rule, EPA finalized new requirements for nonroad diesel fuel ..."*
- 3.6.4 Mobile Source Air Toxics Rule
- EPA recommends including the FR citations for EPA's rulemakings. The following are EPA's suggested edits:
    - o *"Effective April 27, 2007, EPA adopted controls on mobile source air toxics (MSATs) (February 26, 2007, 72 FR 8428)."*
    - o *"In On June 30, 2008 (73 FR 37096), EPA published the final rule adopting a comprehensive program..."*
  - EPA recommends citing EPA's June 30, 2008 final rule as source of information for the following paragraphs:
    - o *"According to EPA's June 30, 2008 final rule, locomotives and marine diesel engines account for approximately 20 percent of mobile source NO<sub>x</sub> emissions and..."*
    - o *"Based on EPA's final rule, On a nationwide annual basis, these reductions will amount to 800,000 tons of NO<sub>x</sub> and 27,000 tons of PM by the year 2030."*
- 3.6.5.1 Attainment/Nonattainment/Maintenance Designations: EPA recommends citing EPA's Green Book here and in Table 3.6-2: Attainment Status. EPA also recommends indicating in the table that the Arlington County, Alexandria, Fairfax County, and Prince William County are part of the Washington DC-MD-VA marginal nonattainment area.



3.6.5.3 Air Quality Index: Please verify that the percentages displayed in Table 3.6-4: 2014 Air Quality Index Summary are correct.

Volume 2

4.6.1 Locomotive Operations – NO<sub>x</sub>, VOC, and PM

- EPA recommends clarifying that the standards described are for switch locomotives (ie. Table 2 in 40 CFR 1033.101). The following are EPA's suggested edits:
  - o *"EPA established a comprehensive program to dramatically reduce emissions from locomotives, including line-haul, switch, and passenger engines (40 CFR Part 1033). The program establishes emission standards with applicability dependent on the date a locomotive is first manufactured. For switch engine locomotives, the first set of standards (Tier 0) applies to most locomotives originally manufactured before 2001."*
- For consistency, EPA recommends referring to the nonattainment area as a marginal nonattainment area. The following are EPA's suggested edits:
  - o *"Annual pollutant emissions were calculated for the one marginal nonattainment area in the study area (ie. the Washington, D.C.-Maryland-Virginia ozone marginal nonattainment area)."*

Table 4.6-1: Predicted Build Alternative Project-Generated Locomotive Emissions

- The CFR citation should be 40 CFR 93.153. EPA recommends the following edits in the second row of the table:
  - o *"De minimis (allowable) levels in the nonattainment/maintenance areas according to the rates listed in 40 CFR 93.153 for "other ozone NAA's inside an ozone transport region".*
- The Federal Highway Administration (FHWA) released updated guidance titled "Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents" on October 18, 2016. EPA recommends referring to the updated guidance, which can be found at: [https://www.fhwa.dot.gov/environment/air\\_quality/air\\_toxics/policy\\_and\\_guidance/msat/](https://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/msat/)
- EPA recommends clarifying that "322,000 vehicle miles" per day will be removed. (Please include "per day".
- EPA recommends updating the following per FHWA's October 18, 2016 "Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents":
 

*"Regardless of the Build Alternatives, emissions would also likely be lower than present levels in 2045 because of EPA's national control programs that are projected to reduce annual priority MSAT emissions by over 90 percent from between 2010 to and 2050 even if VMT increases by 102 percent over that same period. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures; however, the magnitude of the EPA-projected reductions are so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future as well nearly all cases."*

## US EPA REGION III (continued)

30. The 2014 air quality index data presented in Table 3.6-4 of the Draft EIS reflects the most recent data that was available from the USEPA website at the time of preparation of the Draft EIS. While the 2014 data has since been updated, the changes are relatively minor and would not affect any of the conclusions drawn in the Draft EIS.
31. The requested text clarifications have been addressed in Section 5.6.1 of the Final EIS.
32. The requested text clarifications have been addressed in Section 5.6.1 of the Final EIS.



DEPARTMENT OF THE ARMY  
US ARMY CORPS OF ENGINEERS  
NORFOLK DISTRICT  
FORT NORFOLK  
803 FRONT STREET  
NORFOLK VA 23510-1011

November 6, 2017

Special Projects Regulatory Section  
NAO-2014-01959  
DC2RVA High Speed Rail Project

U. S. Department of Transportation  
ATTN: Mr. John Winkle  
USDOT Federal Railroad Administrator  
1200 New Jersey Avenue SE  
Washington, DC 20590

Virginia Department of Rail and  
Public Transportation  
ATTN: Ms. Emily Stock  
600 East Main Street, Suite 2102  
Richmond, VA 23219

Dear Mr. Winkle and Ms. Stock:

This letter provides comments on the Tier II Draft Environmental Impact Statement (DEIS) prepared for the Washington, D.C. to Richmond High Speed Rail Project (DC2RVA) Tier II from Washington, D.C. to Richmond, VA. The DEIS was prepared by the U. S. Department of Transportation Federal Rail Administration (FRA) and the Virginia Department of Rail and Public Transportation. Based on the information in the document, the project will involve a discharge of fill into waters of the United States and will require authorization from the Corps of Engineers (USACE). If an application is submitted for any part of the DC2RVA, USACE will make a permit decision after conducting a full public interest review, including review of any responses to our public notice of receipt of a complete application.

As confirmed in a letter dated March 9, 2015, USACE is a cooperating agency in accordance with the National Environmental Policy Act (NEPA; 40 CFR 1501.6) for the development of the EIS. We have reviewed the DEIS. As noted in our earlier comments, in accordance with the 404(b)(1) Guidelines, the Corps can authorize only the least environmentally damaging practicable alternative (LEDPA). In addition to wetland and waters impacts, we must consider factors such as economics (including displacements of homes and businesses), floodplain hazards and values, water supply and conservation, water quality, safety, cost, economics, threatened and endangered species, historic and cultural resources, and environmental justice. As part of our public interest review, we will consider operability and constructability, cost, and impacts to the social/economic factors as well as the natural environment in our identification of the LEDPA further in our review process.

## US ARMY CORPS OF ENGINEERS

1. The Department of Rail and Public Transportation (DRPT) anticipates submitting a Joint Permit Application (JPA) for review by the United States Army Corps of Engineers (USACE), Virginia Department of Environmental Quality (VDEQ), and Virginia Marine Resources Commission (VMRC) during final design, after funding becomes available and incremental improvements are scheduled. USACE's public interest review process is noted.

1

We recommend that you coordinate with USACE prior to making a selection of your preferred alternative for each section. We will consider the preferred alternative in light of aquatic resource impacts and practicability. The USACE definition of practicable is "Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes." Coordination with our office is important because if you move forward with a preferred alternative that does not appear to be the LEDPA, it may not be permissible. It is also important to note that we will consider all comments from the public, including our Federal Advisory Agencies, in making a final determination of the LEDPA as part of our permit decision.

2

USACE notes that the Purpose and Need (P&N) has been revised as the project has progressed. Chapter 5, Section 5.1.2 states that the, "The purpose of the current DC2RVA Project described here is to fulfill the purpose of the Southeast High Speed Rail (SEHSR) Tier I Environmental Impact Statement (EIS) within this segment of the larger SEHSR corridor." The Tier I P&N stated in the SEHSR Tier I EIS is different from the Tier II P&N. The original SEHSR Tier I EIS did not include any references to freight as a consideration and instead focused on the importance of passenger travel. The original P&N in the Tier I FEIS included the following, *"The purpose of the proposed SEHSR project is to reduce travel time for intercity passenger rail service, thus offering an additional competitive modal choice for transportation within the overall travel corridor."* The Tier II P&N in the Draft EIS (Chapter 5, Section 5.1.2) has the inclusion of, *"Accommodating freight rail movement through the corridor, including to and from Virginia's ports."* In the evaluation of alternatives for both Fredericksburg and Ashland Areas, both reference the two-track bypass in order to carry through freight and passenger trains. For example, in Table 5.1-10, Ashland Build Alternatives: 5C and 5C-Ashcake it states that *"Both alternatives would construct a two-track bypass, west of Ashland, to serve all freight rail as well as all Interstate Corridor (SEHSR) and Amtrak Interstate Corridor (Carolinian), Long Distance, and Auto Train passenger trains."*

3

The Tier II document also states *"The purpose of the current DC2RVA Project described here is to fulfill the purpose of the Southeast High Speed Rail (SEHSR) Tier I Environmental Impact Statement (EIS) within this segment of the larger SEHSR corridor."* Yet the Tier II P&N is different from the Tier I P&N with regard to freight rail. Should a new location alternative be proposed, we will need to see an explanation of the change in the P&N from the Tier I to the Tier II document. We will also need an analysis of the practicability of continuing to accommodate freight traffic on existing rail facilities and whether passenger traffic could be sufficiently accommodated on a one track option. This analysis is necessary to assess whether impacts to aquatic resources could thereby be reduced.

While we note that it is a lengthy project and avoidance and minimization of wetlands and streams has been an important consideration in your identification of the

2

## US ARMY CORPS OF ENGINEERS (continued)

2. DRPT will apply for and obtain any required USACE permit(s) once funding becomes available and incremental improvements are scheduled. DRPT recognizes that in order to be permitted by the USACE, the Project must comply with the Section 404(b)(1) Guidelines [40CFR 230.10(a)] and USACE must determine that the alternative is the Least Environmentally Damaging Practicable Alternative (LEDPA). DRPT appreciates the cooperation and guidance provided by USACE during the development of the EIS and is confident that the Preferred Alternative identified in the Final EIS will meet USACE's requirement as the LEDPA.
3. Clarifying language on the Project Need, including the unique needs of the DC2RVA corridor as well as developments since the 2002 Tier I EIS, can be found in Final EIS Section 1.3, which has been added since the Draft EIS.



alternatives, impacts to aquatic resources are substantial. Wetland impacts are estimated at approximately 22.14 to 49.64 acres of permanent impact, 25.25 to 30.86 acres of temporary impacts, and stream impacts are estimated between 26,377 and 35,422 linear feet. These impacts do not account for any further effects to aquatic resources that may ultimately be proposed for required stormwater management facilities, noise walls, rail stations, or other appurtenant features. It appears that all impacts are based on the estimated limits of disturbance and that actual impacts could be lessened as additional measures to avoid and minimize impacts to streams and wetlands are incorporated into the design (such as the use of bridges, reduced fill slopes where feasible, and use of retention walls to reduce fill footprint). Chapter 4, Section 4.1.6.1 identifies some potential measures to minimize impacts; these should be implemented. Rail stations should be located outside of waters of the US; if construction or expansion of stations will be the responsibility of localities or other parties, they should be advised of this recommendation. Stormwater management facilities should also be located outside of streams and wetlands.

The document correctly notes that compensation for impacts to jurisdictional waters and wetlands will be required in accordance with the Mitigation Rule (33 CFR Parts 325 and 332), which indicates a preference for using credits from mitigation banks; use of Virginia Aquatic Resources Trust Fund, an in-lieu fee program, and permittee-responsible mitigation are other potential options. It also further states that USACE typically uses standard ratios for determining the amount of compensation required for wetland impacts. The project proponent should remain informed about credit availability if the project goes forward to permitting, in order to be prepared to propose adequate and appropriate compensation. If insufficient bank or in lieu fee credits are available, permittee-responsible compensatory mitigation may be necessary. If so, early efforts to identify suitable sites will be important to avoid delays in the permitting process. It is important to note that in addition to the compensatory mitigation ratios discussed in Chapter 4, Section 4.1.6.1, based on a site visit conducted on February 3, 2016 there appears to be evidence of wetland systems that could be considered of high value (such as Tupelo or Cypress Swamp). These areas should be avoided, and compensatory mitigation at a higher ratio may be required for any impacts to these systems.

Chapter 4, Section 4.1.6.1 also notes that the Unified Stream Methodology (USM) is currently used for determining the amount of appropriate stream compensation. If an application is submitted, the methodology in use by USACE at that time will be utilized for determining compensation requirements.

We note that the jurisdictional determination delineations have been conducted but not finalized. It is important to note that a preliminary jurisdictional determination (PJD) simply identifies the limits of USACE jurisdiction. As part of a PJD, USACE does not

## US ARMY CORPS OF ENGINEERS (continued)

4. The estimated Limits of Disturbance (LOD) for each Build Alternative evaluated in the Draft EIS and Preferred Alternative evaluated in the Final EIS includes proposed station locations and appurtenant features. While additional stream and wetland impacts may be identified for Project facilities to be designed during future phases (e.g., stormwater management facilities and noise mitigation), impacts could also be lessened through continued efforts to further avoid and minimize impacts (see Final EIS Section 5.1.6.1) as part of final design, after funding becomes available and incremental improvements are scheduled.
5. Minimization measures listed in Final EIS Section 5.1.6.1 have been incorporated into the conceptual design for the Preferred Alternative. As noted, DRPT will continue efforts to further avoid and minimize impacts as part of final design, after funding becomes available and incremental improvements are scheduled. Stations and stormwater management facilities would be located outside of streams and wetlands to the extent practicable.
6. DRPT will consult the Regulatory In-Lieu Fee and Bank Information Tracking System (RIBITS) to investigate the availability of mitigation bank credits during final design, after funding becomes available and incremental improvements are scheduled. If there are insufficient bank or in-lieu fee credits, DRPT is prepared to develop a permittee-responsible mitigation proposal in coordination with USACE early in the permitting process. Proposed compensatory mitigation will be developed in coordination with the USACE during preparation of the JPA.
7. DRPT has confirmed that there are no cypress-tupelo swamps within the LOD for the Preferred Alternative (refer to the wetland determination data forms for the Project, which are included as Attachment G to Appendix M of the Draft EIS). DRPT will continue to strive to avoid impacts to any wetland systems through final design (after funding becomes available and incremental improvements are scheduled). If avoidance of such wetlands is not feasible, DRPT will compensate for impacts at ratios identified in coordination with USACE.

*(Responses are continued on next page)*



alternatives, impacts to aquatic resources are substantial. Wetland impacts are estimated at approximately 22.14 to 49.64 acres of permanent impact, 25.25 to 30.86 acres of temporary impacts, and stream impacts are estimated between 26,377 and 35,422 linear feet. These impacts do not account for any further effects to aquatic resources that may ultimately be proposed for required stormwater management facilities, noise walls, rail stations, or other appurtenant features. It appears that all impacts are based on the estimated limits of disturbance and that actual impacts could be lessened as additional measures to avoid and minimize impacts to streams and wetlands are incorporated into the design (such as the use of bridges, reduced fill slopes where feasible, and use of retention walls to reduce fill footprint). Chapter 4, Section 4.1.6.1 identifies some potential measures to minimize impacts; these should be implemented. Rail stations should be located outside of waters of the US; if construction or expansion of stations will be the responsibility of localities or other parties, they should be advised of this recommendation. Stormwater management facilities should also be located outside of streams and wetlands.

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Chapter 4, Section 4.1.6.1 also notes that the Unified Stream Methodology (USM) is currently used for determining the amount of appropriate stream compensation. If an application is submitted, the methodology in use by USACE at that time will be utilized for determining compensation requirements.

We note that the jurisdictional determination delineations have been conducted but not finalized. It is important to note that a preliminary jurisdictional determination (PJD) simply identifies the limits of USACE jurisdiction. As part of a PJD, USACE does not

## US ARMY CORPS OF ENGINEERS (continued)

8. Comment noted. While the Unified Stream Methodology (USM) is the current approved methodology in Virginia for assessing existing stream conditions, and DRPT met with USACE prior to conducting the fieldwork to ensure that survey and assessment methods were consistent with agency expectations, DRPT will use the methodology in use by USACE at the time of permit application for determining compensation requirements.

verify Cowardin classifications. The delineations in the appendices had a "Wetland Functions & Values Form," but we did not see the reference to the methodology used. Please confirm what method was used. Please note that the functions and values determinations and the USM results have not been verified by USACE. To verify these will take a separate and lengthy effort, and we recommend coordination of this verification prior to the permitting process. Additionally, USACE questions some of the functions and values assessments; further discussions and perhaps a different methodology may be required for evaluation of the aquatic resources proposed to be impacted.

In our letter commenting on the initiation of the EIS, we designated FRA as the lead Federal agency to fulfill the collective Federal responsibilities under Section 106 of the National Historic Preservation Act of 1966 for the proposed undertaking [in accordance with 36 CFR 800.2(a)(2)]. In accordance with 50 CFR 401.07, FRA was also designated as the lead Federal agency for consultation with the U. S. Fish and Wildlife Service concerning potential effects to Federally-listed threatened and endangered species. In addition, FRA is designated as the lead Federal agency for consultation with NMFS for Essential Fish Habitat, in accordance with Section 305(b)(2) of the Magnuson Stevens Fishery Conservation and Management Act.

We appreciate the opportunity to comment on the Tier II DEIS. Should you have any questions about our comments, please contact Lee Fuerst at email [lee.fuerst@usace.army.mil](mailto:lee.fuerst@usace.army.mil) or by telephone at 757-201-7832.

Sincerely,

FUERST.LEE.A  
1052791762

Lee Fuerst  
Environmental Scientist  
Special Projects  
Regulatory Section

Copies Furnished:

National Marine Fisheries Service, Gloucester, MA  
U. S. Fish and Wildlife Service, Gloucester  
Environmental Protection Agency, Region III, Philadelphia  
NOAA Fisheries Service, Gloucester Point, VA  
Virginia Department of Environmental Quality, Richmond

## US ARMY CORPS OF ENGINEERS (continued)

9. The wetland functions and values assessment conducted as part of the DC2RVA Project was a qualitative field-level check of functions and values of each wetland based on the professional judgment of the wetland scientists conducting the surveys; this assessment approach provides consistent scoring amongst the 335 wetlands identified in the 123-mile Project corridor. DRPT recognizes that the functions and values determinations and the USM results have yet to be verified by USACE, and DRPT will coordinate with USACE regarding the functions and values assessments prior to the permitting process.
10. Comment noted. DRPT concurs that the Federal Railroad Administration (FRA) is the lead federal agency to fulfill the collective federal responsibilities under Section 106 of the National Historic Preservation Act of 1966, for Section 7 consultation with USFWS, and consultation with National Marine Fisheries Service (NMFS) for essential fish habitat in accordance with Section 305(b)(2) of the Magnuson Stevens Fishery Conservation and Management Act.

Additional Technical Comments

## 1. Alternative Analysis:

- a. Area 2, Alternative 2A for Northern Virginia and Area 4, Alternative 4A for Central Virginia each have one build alternative. We agree that using the existing corridor generally has less impact than construction on new location, and typically we support using an existing alignment. However, impacts over 5 acres and 7000 linear feet of stream impacts for Alternative 2A and over 8 acres of wetland impacts with 3600 linear feet of stream impact for Alternative 4A are substantial impacts. We will need documentation that there are not practicable alternatives with less impact. If no other practicable alternatives with less impact are identified, then a thorough analysis of minimization measures to reduce these impacts should be conducted and documented.
  - b. Area 3, Alternative 3(c) has very high wetland impacts compared to other impacts within the area. We recommend that you select one of the other alternatives for Area 3.
  - c. Under the potential alternatives for Area 5, the preference is using existing tracks unless not practicable. Impacts to historic resources (Section 106) are an important consideration in our review, but impacts to historic resources do not eliminate an alternative that has higher impacts to aquatic resources. Alternatives that appear practicable but have greater impacts to aquatic resources may not be permitted. We recommend coordination with the Corps in identifying your preferred alternative.
  - d. In Area 6, Richmond, wetland impacts are similar for the various options; however, we note that 6c has substantially more stream impact.
  - e. As stated earlier in our comments, we recommend that you coordinate with USACE prior to making a selection of your preferred alternative for each section through an interagency meeting to include other cooperating agencies.
2. In your assessments of LOD, as discussed earlier in our comments, be sure to include impacts from access roads, stations, noise barriers, et al.
  3. We recommend that you review the Regulatory In-Lieu Fee and Bank Information Tracking System (RIBITS; [https://ribits.usace.army.mil/ribits\\_apex/f?p=107:2](https://ribits.usace.army.mil/ribits_apex/f?p=107:2)) to ensure there are no potential mitigation banks within the proposed study area (in addition to the VDOT mitigation site referenced in the DEIS).
  4. We recognize that you anticipate an accelerated permit schedule. We recommend a pre-application meeting whether the application will be for the

**US ARMY CORPS OF ENGINEERS (continued)**

11. Where feasible, FRA and DRPT recommended the Preferred Alternative that is located within the existing CSXT right-of-way and utilized existing bridges or recommended new parallel structures, thereby minimizing potential impacts of the Project. Additionally, prior to conducting the detailed evaluation of Project alternatives shown in the Draft EIS, FRA and DRPT conducted a thorough evaluation of multiple alignments and optional alternatives along the DC2RVA corridor, including Alternative Areas 2 and 4, as documented in Appendix A Alternatives Technical Report of the Draft EIS. Chapter 5 of Appendix A documents the alternatives development and screening process for the Project, and Chapter 6 of Appendix A presents the results of the screening process. Potential impacts to wetlands was an important criterion in the screening process. The process establishes a range of alternatives for consideration and then systematically evaluates and screens the range of alternatives down to only the more reasonable alternatives for detailed analysis in the Draft EIS. Reasonable alternatives are those that meet the Project's Purpose and Need, are buildable and cost-effective compared to other similar alternatives, and are anticipated to have acceptable levels of impact to the human and natural environments. DRPT believes that the set of "practicable" alternatives as defined by USACE's permitting regulations would be either the same or a subset of the "reasonable" alternatives identified in the Draft EIS. As described in Appendix A of the Draft EIS, DRPT identified approximately seven optional rail alignments for each rail section. During the screening process documented in Chapters 5 and 6 of Appendix A of the Draft EIS, DRPT evaluated each alignment option for its potential impacts on wetlands. Section alignments with greater wetland impacts were eliminated from further consideration. The remaining section alignments were combined to form the area alternatives carried forward for further evaluation in the Draft EIS.

(Responses are continued on next page)



Additional Technical Comments

1. Alternative Analysis:

- a. Area 2, Alternative 2A for Northern Virginia and Area 4, Alternative 4A for Central Virginia each have one build alternative. We agree that using the existing corridor generally has less impact than construction on new location, and typically we support using an existing alignment. However, impacts over 5 acres and 7000 linear feet of stream impacts for Alternative 2A and over 8 acres of wetland impacts with 3600 linear feet of stream impact for Alternative 4A are substantial impacts. We will need documentation that there are not practicable alternatives with less impact. If no other practicable alternatives with less impact are identified, then a thorough analysis of minimization measures to reduce these impacts should be conducted and documented.
- b. Area 3, Alternative 3(c) has very high wetland impacts compared to other impacts within the area. We recommend that you select one of the other alternatives for Area 3.
- c. Under the potential alternatives for Area 5, the preference is using existing tracks unless not practicable. Impacts to historic resources (Section 106) are an important consideration in our review, but impacts to historic resources do not eliminate an alternative that has higher impacts to aquatic resources. Alternatives that appear practicable but have greater impacts to aquatic resources may not be permitted. We recommend coordination with the Corps in identifying your preferred alternative.
- d. In Area 6, Richmond, wetland impacts are similar for the various options; however, we note that 6c has substantially more stream impact.
- e. As stated earlier in our comments, we recommend that you coordinate with USACE prior to making a selection of your preferred alternative for each section through an interagency meeting to include other cooperating agencies.

2. In your assessments of LOD, as discussed earlier in our comments, be sure to include impacts from access roads, stations, noise barriers, et al.
3. We recommend that you review the Regulatory In-Lieu Fee and Bank Information Tracking System (RIBITS; [https://ribits.usace.army.mil/ribits\\_apex/f?p=107:2](https://ribits.usace.army.mil/ribits_apex/f?p=107:2)) to ensure there are no potential mitigation banks within the proposed study area (in addition to the VDOT mitigation site referenced in the DEIS).
4. We recognize that you anticipate an accelerated permit schedule. We recommend a pre-application meeting whether the application will be for the

**US ARMY CORPS OF ENGINEERS (continued)**

12. Consistent with the Commonwealth Transportation Board (CTB) resolution from December 6, 2017, Alternative 3B: Add One Track East of Existing was selected as the Preferred Alternative, and is consistent with the USACE's recommendation. Other Area 3 Build Alternatives that were evaluated in the Draft EIS are not recommended in the Final EIS.
13. Refer to DRPT-numbered statement #2 for response. Alternative 5A was selected as the Preferred Alternative through this area, which maintains two tracks through the Town of Ashland, and is consistent with the USACE's stated preference.
14. Consistent with the CTB resolution from December 6, 2017, Alternative 6F: Full Service (Staples Mill Road Station and Main Street Station) was selected as the Preferred Alternative. Other Area 6 Build Alternatives that were evaluated in the Draft EIS are not recommended in the Final EIS.
15. Refer to DRPT-numbered statement #2 for response.
16. Please refer to the opening section of Chapter 5 of the Final EIS, which provides additional definitions of permanent and temporary Limits of Disturbance (LOD) since the Draft EIS. The LOD for each Build Alternative evaluated in the Draft EIS and for the Preferred Alternative evaluated in the Final EIS includes proposed station locations and appurtenant features, as well as access roads. The estimated temporary LOD include areas of anticipated construction access. As discussed in Final EIS Section 5.7.1.3, noise barriers are not commonly used on rail projects because it is not cost effective to treat multiple individual locations across large areas. If noise barriers are included in the final design, the construction footprint of such barriers would be included in the refined LOD at that time.
17. See response to DRPT-numbered statement #6.
18. Comment noted. DRPT will continue to coordinate with USACE throughout future final design and permitting.



project in its entirety or in segments. If you propose to permit segments of the project, any such segment must have independent utility with logical termini (such as a rail station). It is important that you work with us as you develop not only the preferred alternative but design elements as well prior to submitting your permit application. For a project of this magnitude with these types of impacts and high public interest level, we anticipate the permitting process may take up to or longer than one-and-a-half years.

5. We recommend developing a conceptual plan for compensatory mitigation as you prepare the Final EIS, and present it in that document. Mitigation banks are the preferred form of compensation, and the amount and type of available bank credits for wetlands and streams should be identified as soon as possible, as there are some impact areas along your project that have no credit availability. If it does not appear that there are sufficient bank or in-lieu fee credits, you may find it necessary to propose permittee-responsible mitigation, and suitable sites would need to be identified and coordinated with USACE and other permitting agencies very early in the permitting process.
6. Chapter 4, Section 4.20.1.7, notes that, "while it is reasonable to predict that direct impacts to water quality may occur at stream crossings by the railroad, there is not enough information to determine how far downstream such impacts would persist." We recognize that you may not be able to determine exactly where such impacts could extend, but you should discuss potential impacts that could occur downstream, including the potential type and effects of such impacts.
7. Chapter 4, Natural Resources Technical Report, Section 4.1.2, discusses long term temporary impacts. USACE considers any impacts not restored within one calendar year to be permanent impacts. In addition, it states that the introduction of invasive species is a long-term temporary impact. We recognize that land disturbance causes the introduction of invasive species, but unless there is a program to remove these species, these impacts would be considered permanent.
8. In Chapter 4, page 4-23 of the Natural Resources Technical Report: We appreciate efforts to identify potential impacts to interior habitats. The Final EIS should address measures to avoid and minimize impacts to species dependent on interior forest habitat and discuss how they could be affected.
9. Chapter 3, Section 3.1 references that the length of streams and areas of wetlands within the study corridor were calculated using GIS. What are your sources of data within your GIS layers? We recommend using USGS

## US ARMY CORPS OF ENGINEERS (continued)

(Response to comment 18 on previous page)

19. Draft EIS Section 4.1.6.1 provides a conceptual level mitigation strategy based on USACE's and EPA's *Compensatory Mitigation for Losses of Aquatic Resources*, Final Rule (June 2008); the corresponding section of the Final EIS (Section 5.1.6.1) contains an expanded discussion of conceptual compensatory mitigation. DRPT recognizes the importance of early identification of the amount and type of available bank credits for wetlands and streams. DRPT will conduct a more detailed investigation of the availability of mitigation bank credits and prepare a more detailed compensatory mitigation plan during final design. If there are insufficient bank or in-lieu fee credits, DRPT is prepared to develop a permittee-responsible mitigation proposal in coordination with the USACE early in the permitting process.
20. The referenced statement in Draft EIS Section 4.20.1.7 regarding the indirect downstream effects was intended as a lead-in to the discussion in the bullet points which describes DRPT's rationale for concluding that the potential impacts are expected to be limited. The indirect and cumulative effects discussion has been updated in Section 5.20 of the Final EIS.
21. Estimates of construction timeframes would be developed as part of final design, after funding becomes available and incremental improvements are scheduled. DRPT quantified potential impacts to natural resources based on limits of disturbance identified as permanent (i.e., areas where Project infrastructure would physically replace existing conditions) and temporary (i.e., areas required for construction that would be regraded and reseeded); these definitions have been clarified in the opening paragraph of Final EIS Chapter 5. As clarified in Final EIS Section 5.10.1.2, there is potential for the Preferred Alternative to inadvertently introduce additional invasive species into the corridor during construction; however, with implementation of the measures identified in Final EIS Section 5.10.1.4, including prompt seeding of disturbed areas with seeds that are tested in accordance with the Virginia Seed Law and implementation of Best Management Practices (BMPs), DRPT does not anticipate temporary and/or permanent invasive species impacts.

(Responses are continued on next page)

**US ARMY CORPS OF ENGINEERS (continued)**

22. The effects of fragmentation of interior forest habitat are addressed in Draft EIS Section 4.10.1 Habitat and Natural Communities and Draft EIS Section 4.10.2.2 Migratory Birds. The importance of interior forest habitat to forest interior dwelling species (FIDS) is introduced in Draft EIS Section 4.10.1. As noted there, fragmentation of interior forest habitat is of particular concern for neotropical migratory birds; therefore, further discussion of the effects of fragmentation of interior forest habitat, including predation, displacement, and competition, is provided within the discussion of migratory birds in Draft EIS Section 4.10.2.2. Avoidance and minimization measures provided in Draft EIS Section 4.10.1.4 and Draft EIS Section 4.10.2.4, including minor alignment shifts, minimizing clearing and grubbing, tree replacement, native revegetation, and wildlife crossings, would reduce impacts of fragmentation of interior forest habitats. Final EIS Sections 5.10.2.3 (avoidance, minimization, and mitigation evaluation for wildlife) and 5.20 (indirect and cumulative effects) have been updated since the Draft EIS and include further clarifications on this topic.

*(Responses are continued on next page)*

project in its entirety or in segments. If you propose to permit segments of the project, any such segment must have independent utility with logical termini (such as a rail station). It is important that you work with us as you develop not only the preferred alternative but design elements as well prior to submitting your permit application. For a project of this magnitude with these types of impacts and high public interest level, we anticipate the permitting process may take up to or longer than one-and-a-half years.

18

5. We recommend developing a conceptual plan for compensatory mitigation as you prepare the Final EIS, and present it in that document. Mitigation banks are the preferred form of compensation, and the amount and type of available bank credits for wetlands and streams should be identified as soon as possible, as there are some impact areas along your project that have no credit availability. If it does not appear that there are sufficient bank or in-lieu fee credits, you may find it necessary to propose permittee-responsible mitigation, and suitable sites would need to be identified and coordinated with USACE and other permitting agencies very early in the permitting process.

19

6. Chapter 4, Section 4.20.1.7, notes that, "while it is reasonable to predict that direct impacts to water quality may occur at stream crossings by the railroad, there is not enough information to determine how far downstream such impacts would persist." We recognize that you may not be able to determine exactly where such impacts could extend, but you should discuss potential impacts that could occur downstream, including the potential type and effects of such impacts.

20

7. Chapter 4, Natural Resources Technical Report, Section 4.1.2, discusses long term temporary impacts. USACE considers any impacts not restored within one calendar year to be permanent impacts. In addition, it states that the introduction of invasive species is a long-term temporary impact. We recognize that land disturbance causes the introduction of invasive species, but unless there is a program to remove these species, these impacts would be considered permanent.

21

8. In Chapter 4, page 4-23 of the Natural Resources Technical Report: We appreciate efforts to identify potential impacts to interior habitats. The Final EIS should address measures to avoid and minimize impacts to species dependent on interior forest habitat and discuss how they could be affected.

22

9. Chapter 3, Section 3.1 references that the length of streams and areas of wetlands within the study corridor were calculated using GIS. What are your sources of data within your GIS layers? We recommend using USGS

23



project in its entirety or in segments. If you propose to permit segments of the project, any such segment must have independent utility with logical termini (such as a rail station). It is important that you work with us as you develop not only the preferred alternative but design elements as well prior to submitting your permit application. For a project of this magnitude with these types of impacts and high public interest level, we anticipate the permitting process may take up to or longer than one-and-a-half years.

5. We recommend developing a conceptual plan for compensatory mitigation as you prepare the Final EIS, and present it in that document. Mitigation banks are the preferred form of compensation, and the amount and type of available bank credits for wetlands and streams should be identified as soon as possible, as there are some impact areas along your project that have no credit availability. If it does not appear that there are sufficient bank or in-lieu fee credits, you may find it necessary to propose permittee-responsible mitigation, and suitable sites would need to be identified and coordinated with USACE and other permitting agencies very early in the permitting process.
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8. In Chapter 4, page 4-23 of the Natural Resources Technical Report: We appreciate efforts to identify potential impacts to interior habitats. The Final EIS should address measures to avoid and minimize impacts to species dependent on interior forest habitat and discuss how they could be affected.
9. Chapter 3, Section 3.1 references that the length of streams and areas of wetlands within the study corridor were calculated using GIS. What are your sources of data within your GIS layers? We recommend using USGS

## US ARMY CORPS OF ENGINEERS (continued)

23. Data sources vary by resource. Streams, wetlands, and floodplains within a 500-foot-wide study area centered on the DC2RVA corridor were initially identified by reviewing aerial photographs and topographic maps, Virginia Wetlands Catalog maps from the Virginia Department of Conservation and Recreation (VDCR) Division of Natural Heritage, wetlands digitized by the City of Richmond, National Hydrography Dataset (NHD) maps from the United States Geological Survey (USGS), National Wetlands Inventory (NWI) maps from the United States Fish and Wildlife Service (USFWS), Virginia Department of Transportation's (VDOT) "Comprehensive Environmental Data and Reporting System" (CEDAR) Geographic Information System (GIS) data, VDOT mitigation sites, and Flood Insurance Rate Maps (FIRM) from the Federal Emergency Management Agency (FEMA). DRPT conducted field surveys in September 2015 through September 2016 to verify the existence of potential ephemeral, intermittent, and perennial streams and wetlands within 100 feet of the existing rail on the side of the track where improvements are proposed. The field survey findings augmented and updated the NHD and NWI mapping.

In the Draft EIS, a full detailed listing of the GIS source data is included in the Alternatives Technical Report (which is Appendix A of the Draft EIS); see its Appendix B: Data Received for Washington, D.C. to Richmond Southeast High Speed Rail Project.



**US ARMY CORPS OF ENGINEERS (continued)**

*(Response to comment 23 on previous page)*

24. The referenced text appears on Page 3-19 of Appendix M of the Draft EIS, which is the Natural Resources Technical Memorandum; DRPT concurs, by way of this comment, that the referenced sentence regarding low overall functional values of tidally-affected wetlands should be removed. Section 5.1.2 of the Final EIS documents the impact of the Preferred Alternative on wetlands and does not include any reference to low overall functional values of any wetlands that are adjacent to the railway.

topographic maps as an additional tool to assist in identifying the location of streams.

23

10. Chapter 3, Section 3.19 references the acreage of tidally-affected wetlands in the DC2RVA corridor as, "very small (approximately 23.2 acres), and the tidally-affected wetlands adjacent to the railway had low overall functional values." We question this assertion; most tidal wetlands regardless of their level of distribution serve important values and functions. You should remove this statement or provide documentation of the basis for your assertion.

24



IN REPLY REFER TO:

## United States Department of the Interior

OFFICE OF THE SECRETARY  
Office of Environmental Policy and Compliance  
Custom House, Room 244  
200 Chestnut Street  
Philadelphia, Pennsylvania 19106-2904

November 7, 2017

9043.1  
ER 17/0414

John Winkle  
Federal Railroad Administration  
1200 New Jersey Avenue, SE  
Washington, DC 20590

**Subject: Tier II Draft Environmental Impact Statement and Section 4(f) Evaluation—  
DC to Richmond Southeast High Speed Rail**

Dear Mr. Winkle:

The Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement (DEIS) and Section 4(f) Evaluation for the proposed improvements to rail lines between Washington D.C. and Richmond, Virginia to allow for high speed rail service. The purpose of this project is to deliver higher speed passenger rail service, increase passenger and freight rail capacity, and improve passenger rail service frequency and reliability in a corridor shared by growing volumes of passenger, commuter, and freight rail traffic, thereby providing a competitive option for travelers going between Washington, D.C. and Richmond and those traveling to and from adjacent connecting corridors. We offer the following comments on this project for your consideration.

### Section 4(f) Evaluation Comments

The Department appreciates your efforts to coordinate with various agencies regarding this project and the development of the Section 4(f) Evaluation. We encourage continued coordination with these agencies and tribes throughout the life of this project. DOI comments on the DEIS indicate that additional consulting parties may still need to be contacted, including the superintendents of George Washington Memorial Parkway and the Potomac Heritage National Scenic Trail. These parties and any others identified during the review of the DEIS should be asked to work with you on the development of an agreement document to determine the effect of the project on NPS units and other Section 4(f) properties, and resolve or minimize adverse effects that may be identified through the review of the DEIS and additional consultation.

Although the Section 4(f) Evaluation identifies numerous Section 4(f) resources that have the potential for 4(f) use, the Department of the Interior is unable to provide concurrence that there is no feasible and prudent alternative and that all measures have been taken to minimize harm until

## DEPARTMENT OF THE INTERIOR

- Chapter 6 of the Final EIS includes a discussion of the coordination on Section 4(f) uses that has taken place since the publication of the Draft EIS. As noted in that chapter, eight offices of the National Park Service (NPS) are consulting parties under Section 106 of the National Historic Preservation Act for this undertaking (including both agencies that the Department referenced in the comment): American Battlefield Protection Program, Captain John Smith Chesapeake National Heritage Trail (NHT), Potomac Heritage National Scenic Trail, Washington-Rochambeau National Historic Trail, George Washington Memorial Parkway (GWMP), Fredericksburg & Spotsylvania National Military Park (FRSP), Richmond National Battlefield Park, and the National Capital Regional Office. FRA and DRPT will continue to coordinate with these agencies, and others as needed, to resolve or minimize potential use of Section 4(f) properties and on NPS units, and regarding the content of an agreement to mitigate any adverse effects/impacts, through final design, which would occur after funding becomes available.
- Comment noted; FRA and DRPT appreciate the Department's continued cooperation on this Project.

**DEPARTMENT OF THE INTERIOR (continued)**

(Response to comment 2 on previous page)

3. Alternative 1B: Add Two Tracks on the West was selected as the Preferred Alternative (refer to Final EIS Section 4.3.1 for details). Park impacts from the Preferred Alternative are presented in Section 5.14 of the Final EIS, and are based on the Limits of Disturbance that have been revised since the publication of the Draft EIS. No permanent right-of-way will need to be acquired from the GWMP or the Mount Vernon Trail; there will only be temporary easements needed along these facilities. No permanent or temporary right-of-way will need to be acquired from the Roaches Run Waterfowl Sanctuary. The land adjacent to the railroad to the east in this area is owned by Arlington County.

The Final Section 4(f) Evaluation is Chapter 6 of the Final EIS. FRA and DRPT will continue to coordinate with the NPS regarding the temporary occupancy of these Section 4(f) resources during final design, after funding becomes available and incremental improvements are scheduled. Note that temporary occupancies are excepted from the requirement for Section 4(f) approvals if they meet the conditions listed in 23 CFR 774.13(d) and would not be considered a de minimis use. It important to note that the Section 4(f) Evaluation for this Project follows FHWA and FTA procedures; while FRA is not directly subject to these rules, FRA has determined that these procedures are appropriate for use on this Project.

4. As presented in Section 5.14 of the Final EIS, no permanent right-of-way will need to be acquired from the Fredericksburg and Spotsylvania National Military Park (both the Prospect Hill area and the Stonewall Jackson National Shrine). Additionally, the Final Section 4(f) Evaluation is Chapter 6 of the Final EIS. FRA and DRPT will continue to coordinate with the NPS regarding the temporary occupancy of these Section 4(f) resources during final design, after funding becomes available and incremental improvements are scheduled. Note that temporary occupancies are excepted from the requirement for Section 4(f) approvals if they meet the conditions listed in 23 CFR 774.13(d) and would not be considered a de minimis use.

(Responses are continued on next page)

there is a formal determination, which FRA indicates will be included in the Final EIS and 4(f). The Department will offer its concurrence at that time.

Additionally, the National Park Service has concerns regarding the characterization of impacts to some NPS sites and sites it has an interest in as *de minimis*. Additional information is requested regarding potential impacts to:

- George Washington Memorial Parkway and units administered by it, including Mount Vernon Trail and Roaches Run Wildfowl Sanctuary
- Units of Fredericksburg and Spotsylvania National Military Park, including Stonewall Jackson National Shrine and the Prospect Hill area along Lee's Drive.
- Civil War battlefields

Although the land needed for temporary access in both parks is a small portion of the overall parks, the analysis fails to take into account that these resources are composed of a series of smaller, distinct units or to identify how much of each unit would be affected. It is also important to review these impacts through the lens that they are historic properties as well as park and recreational resources, thus subject to Section 106 review. This information will be important in determining the effect of the project on each unit, which isn't well captured in the existing analysis. Additionally, the type of vegetation proposed for removal and the restoration proposals will also affect the determination, especially in forested areas that currently serve to screen the train tracks from the park units and battlefields.

A draft of any agreement document and better explanation of the *de minimis* findings should be included with the Final EIS so that we can determine if an appropriate process to minimize harm and to mitigate the adverse effect to the Section 4(f) resources has been developed. We would appreciate the opportunity to review any Section 106 agreement documents that are developed as part of the Section 4(f).

**DEIS Comments**

The Department looks forward to working closely with FRA in their Tier 2 analysis to minimize or mitigate any impacts to Departmental resources. Attached to this letter, are substantial comments submitted by the National Park Service. Contacts for each set of comments are identified at the top of each Appendix.

We appreciate the opportunity to provide these comments.

Sincerely,



Lindy Nelson  
Regional Environmental Officer



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#### DEPARTMENT OF THE INTERIOR (continued)

- Of the eight offices of the NPS that are consulting parties on this undertaking, three are stewards of Civil War-related resources: American Battlefield Protection Program, FRSP, and Richmond National Battlefield Park. FRA and DRPT commenced coordination with these groups in February 2015 and have continued communicating through letters, emails, telephone calls, and in-person meetings. In addition, DRPT has undertaken extensive coordination with Virginia Department of Historic Resources (DHR) since November 2014, including acquiring data on previously recorded resources (including battlefields) and conducting identification- and evaluation-level studies as needed to meet Section 106 of the National Historic Preservation Act. DRPT viewed mapping data of all historic properties, including war-related resources, and sought to avoid these properties. If avoidance was not possible, DRPT worked closely with the agencies to minimize the Project's footprint and reduce any potential impacts. This data was shared with all NPS branches and consulting parties, including dialogues with the DHR on Project effects. FRA and DRPT have been and will continue to consult with the NPS in production of the Section 106 Memorandum of Agreement (MOA) to outline stipulations to mitigate any adverse effects caused by the undertaking (the Section 106 Draft MOA is Appendix K of the Final EIS).
- Chapter 6 of the Final EIS includes clarification to address the impacts relative to the smaller park units as well as the overall park for the referenced parks. Specifically, the two units of Fredericksburg and Spotsylvania National Military Park (Stonewall Jackson Shrine and the area near Prospect Hill; the Draft EIS already addressed Mount Vernon Trail and GWMP separately. There are no impacts to Roaches Run from the Project. Additional information on Civil War battlefields is provided in Section 5.13.3 of the Final EIS.
- The Project is complying with Section 106 of the National Historic Preservation Act of 1966 to determine the effect of the Project on each unit; refer to Section 5.13 of the Final EIS.

(Responses are continued on next page)

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Lindy Nelson  
Regional Environmental Officer

#### DEPARTMENT OF THE INTERIOR (continued)

8. DRPT will continue to coordinate with the Department of the Interior regarding temporary impacts during final design, after funding becomes available and incremental improvements are scheduled. At that time, types of vegetation impacted will be determined and DRPT will work with the Department to develop mutually agreeable restoration plans.
9. The Final Section 4(f) Evaluation is Chapter 6 of the Final EIS, and Appendix E presents the Section 106 and Section 4(f) coordination efforts since the beginning of the Project. FRA and DRPT have described the coordination and information in support of FRA's Section 4(f) determinations. In addition, as a Section 106 consulting party, all steps in the cultural resource compliance process are shared with the NPS, which includes determining eligibility, evaluating effect, examining ways to avoid and/or minimize impacts, and forming Section 106 Memorandum of Agreement stipulations set forth to mitigate any adverse effects/impacts on NPS-related properties (the Section 106 Draft MOA is Appendix K of the Final EIS).
10. DRPT has responded to DOI's detailed comments below.

**DEPARTMENT OF THE INTERIOR (continued)**

*(No comments on this page)*

cc: SHPO-VA ([julie.langan@dhr.virginia.gov](mailto:julie.langan@dhr.virginia.gov))  
Joel Gorder ([joel\\_gorder@nps.gov](mailto:joel_gorder@nps.gov))  
Bob Campbell ([bob\\_campbell@nps.gov](mailto:bob_campbell@nps.gov))  
Kirsten Talken-Spaulding ([kirsten\\_talken-spaulding@nps.gov](mailto:kirsten_talken-spaulding@nps.gov))  
Dave Ruth ([dave\\_ruth@nps.gov](mailto:dave_ruth@nps.gov))  
Kristen McMasters ([Kristen\\_mcmasters@nps.gov](mailto:Kristen_mcmasters@nps.gov))

Attachments:

Appendix A: Comments from National Capital Regional Office  
Appendix B: Comments from the Captain John Smith Chesapeake National Historic Trail  
Appendix C: Comments from Fredericksburg & Spotsylvania National Military Park and  
Richmond National Battlefield Park  
Appendix D: Comments from the American Battlefield Protection Program



DEPARTMENT OF THE INTERIOR (continued)

Appendix A to DOI Letter - Comments from National Park Service:

A1. Section 3.14 of the Draft EIS identifies lands owned and administered by NPS that are within the Build Alternative limits of disturbance, including the GWMP, the Roaches Run Waterfowl Sanctuary (which is part of the GWMP property), Mount Vernon Trail, and Fredericksburg and Spotsylvania National Military Park. As noted in Final EIS Section 5.14.1, only temporary impacts during construction are expected for the GWMP, Mount Vernon Trail, and the Fredericksburg and Spotsylvania National Military Park. As noted in Chapter 6 of the Final EIS, the Preferred Alternative would have no permanent or temporary impacts to Roaches Run Waterfowl Sanctuary.

DRPT will continue to coordinate with the NPS during the final design and construction phases of the Project to further avoid and minimize the temporary impacts to NPS lands. Should temporary impacts be unavoidable, DRPT will apply to NPS for temporary construction access permits and/or special use permits.

These actions have been addressed in a manner consistent with NPS's Director's Order 12 - Conservation Planning, Environmental Impact Analysis, and Decision-Making and should allow NPS to adopt this NEPA document to carry forward with the agency's federal action (i.e., issuing a permit).

A2. As noted above, FRA and DRPT do not anticipate any permanent impacts to NPS lands. DRPT will continue to coordinate with the NPS during final design and construction to avoid the indicated temporary impacts. Should such temporary impacts be unavoidable, DRPT will ask NPS for temporary construction access permits, as required, at that time.

(Responses are continued on next page)

| Appendix A: NATIONAL CAPITAL REGION<br>COMMENTS  |                              |   |
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| Draft Environmental Impact Statement (EIS) and Section 4(f)<br>Evaluation for the<br>Southeast High Speed<br>Rail from Washington,<br>DC to Richmond, VA |                              |   |
| CONTACT:   |                              | JOEL GORDER, Regional Environmental Coordinator, 202-619-7405,<br>joel_gorder@nps.gov   |
| OFFICE:  |                              | NCRO  |
| REVIEWERS:   |                              | Joel Gorder, Simone Monteleone, Brenda Wasler, Laurel Hammig, Don Briggs  |
| DATE REVIEWED:   |                              |   |
| NO.  | Page/line<br>number          | NPS COMMENT   |
| 1  |                              | General: The document seems silent on actions that would be required by NPS in order for this to move forward. For example, should this project require access permits, special use permits, land exchange from NPS, NPS would be required to make a federal decision. It is our hope that we would be able to adopt this NEPA document to make carry forward with our federal action (i.e., issuing a permit). Acknowledging those NPS decision points would help facilitate that process. Also, in general, those areas where NPS would be directly impacted needs to be called out. Lastly, the document needs to do a better job at identifying NPS administrative units as being administered by the NPS.  |
| 2  | Exec Summary                 | A NPS permit will also be needed for any access, staging, temporary, or permanent impacts from the project.   |
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| 5  | 02-26                        | Purpose and Need- The "Purpose and Need" should recognize the inter-connected and multi-modal character of transportation in the 21st century and, in the Tier II DEIS, recognize ways in which rail stations associated with a potential high speed rail line would serve as trailheads for domestic and international travelers and as gateways to outdoor recreational experiences, including local and long-distance bicycling, hiking and paddling. While recognizing some impacts to parks and trails, the document fails to describe adequately mitigation opportunities, including a continuous, associated non-motorized trail network between, at minimum, Leesylvania State Park and Falmouth and the need for crossings that meet ADA guidelines. |
| 6  | 2.53                         | 1A,1B, 1C How can you add two tracks either southwest, or east of the GWMP, when the current alignment and drawings show the tracks intersecting the GWMP at a perpendicular angle? Confusing. Is there any encroachment onto the parkway? This needs to be made clear. Should NPS need to adopt this document in order to either provide easements or special use permits, information like this needs to be made clear.   |
| 7  | Page 2-54, Figure            | The figure doesn't accurately show National Park Service property around Roaches Run. In addition, all three figures appear to show adding one new track to the east at the southern end of Roaches Run, but it is unclear how far that extends. This would all be adjacent to the NPS-George Washington Memorial Parkway, a National Register listed property. Please clarify the graphics.  |
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## TO DEPARTMENT OF THE INTERIOR (continued)

DRPT will continue to coordinate with NPS during final design (after funding becomes available and incremental improvements are scheduled) to provide the information needed to apply for permits from NPS for temporary construction impacts to GWMP and Fredericksburg and Spotsylvania National Military Park.

- A3. The requested text clarification is addressed in the errata table for the Draft EIS, which is Appendix A of the Final EIS
- A4. The requested text clarifications are addressed in the errata table for the Draft EIS, which is Appendix A of the Final EIS.
- A5. The DC2RVA Project Purpose and Need recognizes the multimodal transportation network within which intercity passenger rail operates. Intercity passenger rail carries passengers long distances between cities, towns, and other populated urban or suburban areas, with one or two stations in or near the city center, as compared to commuter rail which carries passengers shorter distances to and from city center with more frequent stops. In keeping with the history of rail development along this corridor, most of the current stations providing intercity passenger rail service are located in or near their respective downtowns, or in nearby suburban locations. Business and leisure travelers using the stations rely on local transportation options, including light rail, bus, car, bicycle, or foot, to move between the station and their respective origin/destination points, including outdoor recreation venues. While these factors played a key role in the recommendation for a downtown Richmond station location, the physical improvements recommended by the Project are limited to rail access and rail service frequency to stations, and do not extend to improvements to other modes of transportation. Refer to Chapter 7 of the Final EIS for details about the Corridor Service Development Plan, which is being developed as part of this Project and includes a station analysis that assesses each intercity passenger rail station's capacity (i.e., parking, roadway, intermodal connection, and ADA accessibility) to meet the needs of the intercity passenger rail service.

(Responses are continued on next page)



DEPARTMENT OF THE INTERIOR (continued)

If a Preferred Alternative alignment impacts (i.e., crosses) an existing pedestrian and/or bicycle crossing, that crossing will be designed to current safety standards and in compliance with Americans with Disabilities Act (ADA) as part of this Project. FRA considered the addition of a greenway, but determined such a bicycle/walking path was not part of the Project's Purpose and Need as it does not support or enhance passenger rail service, nor does it provide a reasonable transportation choice for intercity corridor travel. The decision to establish a new bicycle and pedestrian greenway is a separate and distinct action from establishing high speed passenger rail service under the National Environmental Policy Act (NEPA) and is not part of the Purpose and Need of this Project. The addition of a greenway along the corridor from Leesylvania State Park to Falmouth is outside the Project Purpose and Need, and would be ineligible for FRA funding as part of the DC2RVA Project.

A6. DRPT recognizes that the DC2RVA corridor in Northern Virginia must include a smooth transition to the proposed new Long Bridge. Construction of a new railroad bridge over the GWMP is under consideration as part of the separate Long Bridge project, and any related temporary or permanent impacts would be part of that project and not part of the DC2RVA Project.

In the Draft EIS, to avoid unnecessarily constraining the possible alternatives of the separate Long Bridge project, FRA and DRPT identified and evaluated three possible configurations for the one-mile section of the DC2RVA corridor in Arlington. Subsequently, Alternative 1B: Add Two Tracks on the West was selected as the Preferred Alternative for the DC2RVA Project to align with the two alternatives that were recommended in the Long Bridge Alternatives Report (refer to Final EIS Section 4.3.1 for details). Preferred Alternative 1B will add two tracks on the west side (upstream) of the existing two tracks, beginning south of the GWMP. The proposed tracks will diverge from the existing tracks south of the existing railroad bridge over GWMP.

(Responses are continued on next page)

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| 8  | Page 2-55, Table 2.56        | States in Table 2.56 it will "generally" exist within the ROW....where does it not? It is not clear if the Arlington to Alexandria segment will all be within the ROW as described in Table 2.57 (page 2-56) .  |

## DEPARTMENT OF THE INTERIOR (continued)

The permanent and temporary Limits of Disturbance (LOD) for the Preferred Alternative, which includes construction staging and activities along the DC2RVA corridor, do not encroach onto the railroad bridge over the GWMP. Clarifying text stating this was added in Section 4.3.1 of the Final EIS.

- A7. The intent of the chapter figure schematics in the Draft EIS, including the referenced Draft EIS Figure 2.5-1, was to give a general overview of proposed improvements, with base mapping pulled from an ESRI service. Property lines are shown in the full mapbooks of the Preferred Alternative, which is Appendix L of the Final EIS. DRPT has ensured that the text in Chapter 4 of the Final EIS refers the reader to Appendix L for full details. Refer to DRPT-numbered statement #3 for response to NPS boundaries at Roaches Run and Long Bridge Park.
- A8. Locations where the proposed improvements extend beyond the right-of-way are identified in the detailed mapbook graphics of the Preferred Alternative, which is Appendix L of the Final EIS. Improvements that are located outside of the existing CSXT right-of-way are identified as permanent or temporary limits of disturbance (refer to the opening paragraphs of Chapter 5 of the Final EIS for full definitions). Chapter 4 of the Final EIS provides additional detail on the limits of the Preferred Alternative, including between Arlington to Alexandria. Designs in support of the Draft and Final EIS are at the conceptual level, approximately a 10% level of design, and would be further refined during final design, after funding becomes available and incremental improvements are scheduled.

DEPARTMENT OF THE INTERIOR (continued)

- A9. Due to the length of the DC2RVA corridor (123 miles), some site-specific information was provided in the technical report appendices of the Draft EIS. This was done to enhance readability and maintain the Draft EIS chapter at a reasonable length and level of detail for decisions to be made. The Draft EIS technical reports covered natural resources (Appendix M of the Draft EIS), community resources (Appendix Q of the Draft EIS), cultural resources (Appendix R of the Draft EIS), transportation (Appendix S of the Draft EIS), and noise and vibration (Appendix P of the Draft EIS). The Draft EIS environmental resource mapping has been updated, as needed, for the Final EIS; refer to Appendix M.
- A10. The requested text clarifications are addressed in the errata table for the Draft EIS, which is Appendix A of the Final EIS.
- A11. The requested text clarification is addressed in the errata table for the Draft EIS, which is Appendix A of the Final EIS.
- A12. The requested text clarification is addressed in the errata table for the Draft EIS, which is Appendix A of the Final EIS.
- A13. The requested text clarification is addressed in the errata table for the Draft EIS, which is Appendix A of the Final EIS.
- A14. Comment noted.
- A15. Information regarding federally listed threatened and endangered species that may be impacted by the Project was obtained from USFWS via the Information, Planning, and Conservation (IPaC) system, and included in Draft EIS Section 4.10.3; updated IPaC information was obtained in February 2018 for the Preferred Alternative and is presented in Section 5.10.3 of the Final EIS. The IPaC query will also be rerun prior to construction, and coordination with USFWS and NMFS pursuant to Section 7 of the Endangered Species Act for potential impacts to federally listed species will be conducted, where required.

(Responses are continued on next page)

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| 10 | Table 3.1-2                 | First mention of NPS (page 206 of document) is in a discussion regarding wild and scenic rivers, which there are none. There are many previous mentions of NPS administered units. Those need to be identified.   |
| 11 | Page 3-75, Section 3.10.1.1 | Note that Roaches Run is managed by NPS and not USFWS   |
| 12 | 3.9.2.1 and 3.9.2.2         | Need to state who administers the sensitive resources listed in these sections.   |
| 13 | 3.10.1.1                    | Roaches Run, important to distinguish that this not apart of USFWS refuge system, its an administrative unit of the NPS.  |
| 14 | Page 3-91, Section 3.10.5   | The NPS has recently worked with Dr. Ford on an extensive bat survey which included lands in the George Washington Memorial Parkway. We are awaiting the report and will share that when available.   |
| 15 | Page 3-91 Table 3.10-8      | Recommend verifying that the T&E species do not occur in Area 1, which includes Roaches Run Waterfowl Sanctuary. When was the IPaC search last run?   |
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| 17 | Page 3-120, Section 3.13    | The NPS should also be consulted with for more than just Civil War Battlefields as the project area runs through several parks including the George Washington Memorial Parkway. To that point, in looking at the Appendices, there are several discussions of consultation with VDHR (including a draft June 27, 2017 letter regarding the Mount Vernon Memorial Highway) regarding National Park Service-George Washington Memorial Parkway resources (including potential adverse effects). However, the NPS (GWMP) was not contacted nor an invitation to be a consulting party under Section 106 extended. The GWMP would like to be a consulting party for Section 106. In addition, if the NPS (GWMP) will be approached for any permits for implementation (assuming so since there are identified temporary construction impacts), we would like to be a cooperating agency for this effort. |
| 18 | Page 3-120, Section 3.13.1  | Are there detailed figures showing the APE for archeology as it cuts through GWMP lands? Based on the figures it is difficult to determine (it wasn't clear in the appendices either). There is a documented underwater archeological site within Roaches Run and it is unclear if that will fall within the APE.   |
| 19 | 3.13                        | Second to last paragraph in this section. Which NPS battlefields were consulted with? What about other NPS units? George Washington Memorial Parkway?   |
| 20 | Page 3-121, Figure 3-13-1   | This figure is not detailed enough when discussing Cultural Resources. Please include more detailed figures for the National Park Service Sites such as the George Washington Memorial Parkway.   |
| 21 | Page 3-125, 2nd paragraph   | With the project area and anticipated temporary construction impacts to park land within the George Washington Memorial Parkway, the NPS was not consulted in 2015 regarding the methodology for archeology. Have the areas been assessed for potential archeological resources?  |
| 22 | Page 3-123-130              | Was any research done for archeological resources in Alexandria/Arlington where temporary construction impacts will be outside of the ROW?  |
| 23 | Page 3-133, Table 3.13-4    | In addition to the Mount Vernon Memorial Highway, the listing for the George Washington Memorial Parkway should also be included (as it incorporates the MVMW) as well as the Parkways of the National Capital Region. In addition, the Green Scenic Easement Area that is adjacent to the Potomac Greens neighborhood and the GWMP was deemed eligible during the consultation for the Potomac Yards Metro Station and should be noted.  |

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## DEPARTMENT OF THE INTERIOR (continued)

A16. The species listed in the comment are considered "sensitive" by the state, but are not legally designated as "threatened" or "endangered". Notwithstanding, DRPT will coordinate with resource agencies to avoid or minimize impacts to all species, including sensitive species, during final design and permitting (after funding becomes available and incremental improvements are scheduled).

A17. Both the GWMP and NCRO are consulting parties under Section 106 of the National Historic Preservation Act for this undertaking and as such, have been included in ongoing dialogues regarding historic properties and Project effects, including attendance at meetings and telephone and email dialogues regarding technical studies, resource eligibility, Project effect, and providing feedback on mitigation to adverse effects. Refer to Appendix E of the Final EIS for updated Section 106 and Section 4(f) comments and coordination.

A18. Seventeen technical reports with detailed maps on the APE were submitted to the consulting parties in the summer of 2017 for review and comment. An additional five reports were submitted to consulting parties in May 2018 for review and comment; the five technical reports completed in 2018 (after the publication of the Draft EIS) can be found in Appendix D. All 22 reports are available via the Project website and upon request. DRPT has also made GIS data available to consulting parties showing the limits of the APE and boundaries of recorded resources at their request.

A19. Please refer to DRPT-numbered statement #1 in DOI's main letter, which lists eight offices of the NPS that are consulting parties on this Project (including the GWMP) and have been contacted via email, telephone, letters, and in-person meetings regarding the Project and ongoing studies.

(Responses are continued on next page)



**DEPARTMENT OF THE INTERIOR (continued)**

A20. Detailed maps showing above-ground resources are presented in the technical reports (see Appendix R of the Draft EIS for the original 17 reports submitted for NPS review in 2017 and Appendix D of the Final EIS for the follow-up five reports submitted to the NPS for review in 2018) and in separate information sent to the eight NPS consulting parties. This information was disseminated through the reports, in emails, and in-person meetings; refer to Appendix E of the Final EIS for updated Section 106 and Section 4(f) comments and coordination. Archaeological data was also given to the eight NPS consulting parties.

A21. Yes. An archaeological Phase IA reconnaissance and predictive model was sent to the consulting parties, which includes eight offices of NPS, for their review and comment [note that the GWMP was included as a consulting party in July 2017 and has since received copies of all technical studies and documentation to date]. Additional archaeological studies were performed on areas that have since been added to the limits of disturbance; these areas were the subject of study in the winter and spring of 2017 and 2018. The ensuing technical report was submitted to the eight offices of the NPS for their review in May 2018 and are included in Chapter 5 and Appendix D of the Final EIS. The archaeological methodology used in all reports was approved by the DHR and meets all state standards for archaeological survey. All reports were submitted to the DHR for review and concurrence.

A22. Yes. The archaeological APE includes both permanent and temporary limits of disturbance. Previous studies included the limits of disturbance as determined as of August 2016. More recent archaeological surveys since publication of the Draft EIS include additional areas, which have been refined since the original study; refer to Section 5.13 of the Final EIS. The methodology meets DHR standards and adheres to the Project predictive model, as reviewed and approved in 2015.

*(Responses are continued on next page)*

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## DEPARTMENT OF THE INTERIOR (continued)

A23. The limits of the GWMP as a historic property as presented in the Draft EIS and associated technical reports reflect the limits on file at the DHR at the time the documents were prepared. DRPT has confirmed the boundaries, including the aforementioned aspects, and updated boundaries, as required, are reflected in the analyses of the Preferred Alternative in Section 5.13 of the Final EIS.

**DEPARTMENT OF THE INTERIOR (continued)**

A24. Section 3.14 of the Draft EIS discussed the existing recreational, parkland and trail resources within the study area (500 feet to either side of the existing rail line). Specifically, Section 3.14.1 discussed the federally-owned parklands and referenced the GWMP and Fredericksburg and Spotsylvania National Military Park as owned by NPS. Section 3.14.4 discussed Wildlife Refuges and referenced Roaches Run Waterfowl Sanctuary as owned by NPS. Clarification has also been added stating that Daingerfield Island Park is owned by NPS and is included in the errata table for the Draft EIS which is Appendix A of the Final EIS.

A25. The requested text clarification is addressed in the errata table for the Draft EIS, which is Appendix A of the Final EIS.

A26. The requested text clarification is addressed in the errata table for the Draft EIS, which is Appendix A of the Final EIS.

A27. Comment noted.

A28. The requested text clarification is addressed in the errata table for the Draft EIS, which is Appendix A of the Final EIS

A29. Refer to DRPT-numbered statement #23 for response.

A30. Viewsheds from the Potomac Heritage National Scenic Trail have been clarified as sensitive visual resources, where applicable refer to the errata table for the Draft EIS, which is Appendix A of the Final EIS.

*(Responses are continued on next page)*

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| 24 | 3.14  | I find it odd that that there is no discussion of the National Park Service in the section titled Parklands, Recreational Areas, and Refuges.  |
| 25 | Page 3-158  | Please note that Daingerfield Island and Roaches Run are a part of the George Washington Memorial Parkway and are managed by the NPS.  |
| 26 | Page 3-180, Table 3.14-4  | Roaches Run is a part of the administrative unit of the George Washington Memorial Parkway and is located within the NPS unit's boundaries.  |
| 27 | Page 3-181, Table 3.14-5  | Please note the Mount Vernon Trail is managed by the National Park Service by the George Washington Memorial Parkway. The Potomac Heritage Trail also has its own Superintendent, Don Briggs.  |
| 28 | 03-182  | The label "Potomac Heritage Trail" in the table should read "Potomac Heritage National Scenic Trail corridor."   |
| 29 | Page 3-185, Table 3.14-7  | The Green Scenic Easement Area was deemed eligible for the NRHP as part of the Potomac Yards Metro Station consultation process and falls within your APE. This should be included; Again, Roaches Run, Daingerfield Island and the Mount Vernon Trail are all part of the George Washington Memorial Parkway.   |
| 30 | 3.9.2 Aesthetics and Visual Environment   | Add viewsheds from Potomac Heritage National Scenic Trail segments to the "Sensitive Resources" sidebar under the VAUs.  |
| 31 | General-Environmental Consequences; Appendix M, Natural Resources Technical Report; | There might be some confusion regarding the property boundaries at Roaches Run. In a letter dated July 20, 2017 to Alexcy Romero, Superintendent for the GWMP, the boundaries identified in the figure for Build Alternatives 1A, 1B, 1C does not match NPS' understanding. The arrow on the figure provided in the letter is showing that Long Bridge Park extends to the east side of the rail corridor which is incorrect. As the NPS understands it, NPS property extends much closer to the tracks where in another area the ROW (or another property owner) appears to be wider (closer to Roaches Run). Figure 2-3 in Appendix M is confusing as well with regards to the color shading and what it is representing. Roaches Run belongs to the National Park Service and is managed by the George Washington Memorial Parkway. Is there a clear figure that denotes the ROW as the description for the alternatives say some stay within the ROW while others will "generally" stay within the ROW? From the NPS perspective, if the ROW is not being accurately displayed and the analysis is not matching (APE, etc.) then there is a disconnect in understanding impacts when moving through NPS lands. |
| 32 | Page 3-176  | Add PHNST to "Features" cell for Veterans Memorial Park, Leesylvania State Park, and Cockpit Point, as well as other parks in the rail corridor that could be impacted by development of the high-speed rail.  |
| 33 | Page 4-5, Section 4.1.1.1; Appendix M, page 3-14                                    | Earlier it was stated that Four Mile Run was a navigable water (page 3-10) and the LOD crossed over it, why is it not listed here?   |
| 34 | Page 4.7, Section 4.1.1.3   | Will the additional track require an increase in capacity for stormwater drainage? If so, will new facilities be constructed within the ROW to capture it or would it be moved off site? In the case of Roaches Run and other areas that are along the George Washington Memorial Parkway, will there be an increase of discharge off site into the park or outfall systems on GWMP lands (and Potomac)?   |
| 35 | Page 4-55, Table 4.7-6; page 4-57   | It states that there were no vibration sensitive receptors within 500 feet so no assessment was completed for Alternatives 1A, 1B, and 1C. What exactly does that mean? That there is no vibration to note or the equipment is not installed so data can't be collected?   |
| 36 | Page 4-57   | Are vibrations analyzed for impacts to wildlife?   |
| 37 | Page 4-63, Section 4.9.1.1  | Will the additional tracks require any vegetation removal either permanently or via temporary construction impacts? From two letters dated July 20, 2017 it  |

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| 32 | Page 3-176  | Add PHNST to "Features" cell for Veterans Memorial Park, Leesylvania State Park, and Cockpit Point, as well as other parks in the rail corridor that could be impacted by development of the high-speed rail.   |
| 33 | Page 4-5, Section 4.1.1.1; Appendix M, page 3-14                                    | Earlier it was stated that Four Mile Run was a navigable water (page 3-10) and the LOD crossed over it, why is it not listed here?  |
| 34 | Page 4.7, Section 4.1.1.3   | Will the additional track require an increase in capacity for stormwater drainage? If so, will new facilities be constructed within the ROW to capture it or would it be moved off site? In the case of Roaches Run and other areas that are along the George Washington Memorial Parkway, will there be an increase of discharge off site into the park or outfall systems on GWMP lands (and Potomac)?  |
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**DEPARTMENT OF THE INTERIOR (continued)**

A31. Arlington County owns a long narrow parcel of land that is located to the east of the rail corridor that, per the County's Long Bridge Park Master Plan, is part of Long Bridge Park. The figure that is referenced in the comment includes the portion of Long Bridge Park that is located to the east of the Project, and is consistent with the information presented in the Draft and Final EIS. Alternative 1B has been selected as the Preferred Alternative (refer to Final EIS Section 4.1.3 for details). The Preferred Alternative does not have temporary or permanent right of way impacts to Roaches Run Waterfowl Sanctuary. DRPT will continue to coordinate with the NPS during final design (after funding becomes available and incremental improvements are scheduled) to ensure that boundaries and assessments of lands impacted are accurate.

A32. The requested clarifications to the features cells of the appropriate parks within the tables in Section 3.14 of the Draft EIS are addressed in the errata table for the Draft EIS, which is Appendix A of the Final EIS.

A33. Clarification to indicate that Four Mile Run is a navigable waterway is addressed in the errata table for the Draft EIS, which is Appendix A of the Final EIS. All references to Four Mile Run in the Final EIS indicate that it is a navigable waterway.

A34. The additional track will require only a small increase in stormwater drainage capacity as much of the rail bed is permeable to rainfall; rail ballast is considered a pervious cover since it does not significantly impede or prevent infiltration into the soil. The location of stormwater management facilities for portions of the Project within or adjacent to the GWMP will be determined during final design (after funding becomes available and incremental improvements are scheduled) in coordination with the NPS.

*(Responses are continued on next page)*

DEPARTMENT OF THE INTERIOR (continued)

A35. Alternative 1B has been selected as the Preferred Alternative (refer to Final EIS Section 4.1.3 for details). None of the land uses within 500 feet of Alternative 1B (or dismissed Alternatives 1A or 1C), as evaluated in the Draft and Final EIS using FRA's required methodology, are sensitive to vibration. Therefore, potential vibration associated with the proposed intercity passenger trains was not evaluated for those segments.

A36. DRPT conducted vibration analyses based on the FRA General Vibration Assessment method, which does not include an evaluation of wildlife response to vibration. Many of the Build Alternatives as evaluated in the Draft EIS follow existing rail alignments. As shown in Table 4.7-2 of the Draft EIS, the Sound Exposure Level (SEL) for passenger trains traveling at 90 mph does not meet or exceed the screening threshold of 100 SEL for effects on animal behavior within distances of 50 feet or greater from the track. The SEL for freight train railcars and for locomotive horns range from 108 to 110 SEL within 50 feet of the track. Projected noise impacts were found to be highest along the Fredericksburg and Ashland Bypass alternatives due to the addition of freight train noise in areas that do not currently have trains under existing conditions; however, FRA and DRPT are not recommending any of the bypass alternatives as part of the Preferred Alternative. Animals are expected to respond to the noise impacts by avoiding establishment of nests, dens, or territories within the areas immediately adjacent to the tracks where noise impacts occur; however, wildlife in the Project area would already be acclimated to the existing rail traffic in the vicinity of the existing rail corridor.

Potential impacts of construction noise on wildlife known to be sensitive to noise, including migratory birds and bald eagles, are discussed in Final EIS Sections 5.10.2.1 and 5.10.3.1, respectively.

(Responses are continued on next page)

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| 24 | 3.14  | I find it odd that that there is no discussion of the National Park Service in the section titled Parklands, Recreational Areas, and Refuges.  |
| 25 | Page 3-158  | Please note that Daingerfield Island and Roaches Run are a part of the George Washington Memorial Parkway and are managed by the NPS.  |
| 26 | Page 3-180, Table 3.14-4  | Roaches Run is a part of the administrative unit of the George Washington Memorial Parkway and is located within the NPS unit's boundaries.  |
| 27 | Page 3-181, Table 3.14-5  | Please note the Mount Vernon Trail is managed by the National Park Service by the George Washington Memorial Parkway. The Potomac Heritage Trail also has its own Superintendent, Don Briggs.  |
| 28 | 03-182  | The label "Potomac Heritage Trail" in the table should read "Potomac Heritage National Scenic Trail corridor."   |
| 29 | Page 3-185, Table 3.14-7  | The Green Scenic Easement Area was deemed eligible for the NRHP as part of the Potomac Yards Metro Station consultation process and falls within your APE. This should be included; Again, Roaches Run, Daingerfield Island and the Mount Vernon Trail are all part of the George Washington Memorial Parkway.   |
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## DEPARTMENT OF THE INTERIOR (continued)

A37. Construction of the Project will require vegetation removal in some areas of the existing right-of-way and in temporary easements outside of the existing right-of-way. DRPT will restore vegetation removed during construction in temporary easements outside of the existing right-of-way to the extent practicable.

A sufficient forested buffer will remain such that DRPT anticipates views from the GWMP will remain relatively unchanged. The low visual ratings for VAU's 1-1 and 2-1, as documented in Section 4.9.1 of the Draft EIS and Section 5.9.1 of the Final EIS, takes into account the overall views of the tracks through these sections from the surrounding areas. Given that the area is already urbanized and a single track is being added adjacent to existing tracks, DRPT determined that the low visual impact rating is appropriate.



**DEPARTMENT OF THE INTERIOR (continued)**

*(Response to comment A37 on previous page)*

A38. Davis' sedge and river bulrush are not listed as "threatened" or "endangered" and are therefore not included in the analysis of threatened and endangered species in Final EIS Section 5.10.3. There is potential for the Project to impact these plant species where wetland impacts will occur. DRPT will coordinate with resource agencies to avoid or minimize impacts to all species, including sensitive species, during final design and permitting (after funding becomes available and incremental improvements are scheduled). Avoidance, minimization, and mitigation measures identified for wetlands in Final Section 5.1.6.1 and natural communities in Section 5.10.1.4, including minor alignment shifts, minimizing clearing and grubbing, and revegetation of disturbed areas using native plants in coordination with the resource agencies, will minimize impacts on sensitive plant species.

A39. Comment noted. DRPT will develop specific mitigation measures for impacts to sensitive habitats in coordination with the resource agencies during the permitting process after construction funding has been identified.

A40. Comment noted. Refer to DRPT-numbered statement #14.

A41. Comment noted. Refer to DRPT-numbered statements #17 through #23.

A42. In the Final EIS, a note has been added to any resource table that does not include all six alternative areas, to indicate that only the areas with impacts and/or resources are included, and to specifically state which areas do not have any impacts and/or resources (and are therefore not listed in the tables). In regard to the referenced Draft EIS Table 4.13-1, there are no adverse effects in Alternative Areas 1 and 2, and a lack of adverse effects results in "0"s in the table for these areas.

*(Responses are continued on next page)*

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|    |                              | appears that there would be vegetation clearing needed by Roaches Run (Alternatives 1A, 1B, and 1C) and the George Washington Memorial Parkway, as well as VAU 2-1 (Alternative 2A). Will this be needed throughout the corridor for this section? This could be more than low visual impact when moving through NPS lands especially where the rail line is very close to the parkway. Please clarify.  |
| 38 | Page 4-68, Section 4.10.1    | This project moves through lands managed by the NPS-George Washington Memorial Parkway and from our understanding will impact vegetation. Although it is "already altered by local activities" on the current rail side, the other side is within the boundaries of a National Park. Depending on the cumulative impact of the vegetation as a result of Alternatives 1A, 1B, or 1C, and 2A, there could be more impacts than is being suggested here. For example, there are a couple of state listed plant species at Roaches Run, Davis' sedge ( <i>Carex davisii</i> ) and <i>River bulrush</i> ( <i>Schoenoplectus fluviatilis</i> ). Will these be disturbed?  |
| 39 | Page 4-73, Section 4.10.1.2  | Please note, removal of vegetation on NPS lands will not necessarily just require "seeding" as a restoration approach.   |
| 40 | Page 4-83                    | Please see earlier comments regarding recent study on NPS lands regarding bats.  |
| 41 | Page 4-130 - 4-155; Appendix | Please note earlier comments regarding cultural resources on NPS- GWMP lands. There are resources missing and it is unclear if the extent of the APE for archeology would include resources that have been identified but are not included.  |
| 42 | Page 4-133                   | seems to be missing the visual for Areas 1 & 2, Table 4.13-1 starts with Area 3  |
| 43 | Page 4-157, Table 4.14-1     | In a July 20, 2017 letter to the Superintendent of the GWMP, several areas of temporary impacts were shown at Roaches Run under 1A. Is that accounted for here?  |
| 44 | Page 4-180                   | typo- second bullet, DRPT  |
| 45 | Page 4-199                   | Effects on Bicycle and Pedestrian Connectivity: Project development and design for the project should include facilities for bicyclists and pedestrians to travel safely between rail stations.  |
| 46 | Page 4-212-4-226             | There is no explanation of the construction impacts associated with the removal of vegetation to the cultural landscape (and views) of the George Washington Memorial Parkway and Mount Vernon Memorial Highway. The removal of vegetation (how many trees?, etc.) is an impact. The removal of these areas of screening, how extensive will it be? Where is this information?   |
| 47 | Chapter 5                    | Chapter 5 Comments: Draft 4(f) state that the project would only have de minimis impacts on GWMP. Few things to that need to be reconsidered 1) GWMP is not listed as a historic resource, 2) The draft 4(f) needs to provide better rationale as to why clearing an acre of trees (referred to as vacant forest) would be de minimis. 4(f) states that the area would be restored afterwards; but takes 50 years to restore a 50 year old tree. Also, the draft 4(f) tries to minimize this tree impact by saying that the acre of trees accounts for just 0.1 percent of the total forested area. But the question is, what do these trees do? Are they habitat for Northern Long-Eared Bats? Do they protect the viewshed of the GWMP? 3) There seems to be confusion with regards to the ownership of Roaches Run, it is not a wildlife refuge, as it is shown in the maps. 4) Impacts to the Mount Vernon Trail are not clear (How would connectivity be maintained? What are they accessing? What's the duration?). 5) There is no 'Least Overall Harm' analysis, but does provide recommended preferred alternative for 4 sections. |
| 48 | Page 5-1                     | The same issues commented on earlier are carried over here as it relates to Section 4 (f) and the NPS lands for the George Washington Memorial Parkway (including Roaches Run). Please address.  |

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| 45 | Page 4-199                   | Effects on Bicycle and Pedestrian Connectivity: Project development and design for the project should include facilities for bicyclists and pedestrians to travel safely between rail stations.  | A45 |
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## DEPARTMENT OF THE INTERIOR (continued)

A43. Alternative 1B has been selected as the Preferred Alternative (refer to Final EIS Section 4.1.3 for details). The temporary impacts on the east side of the existing tracks are within the area identified as Long Bridge Park and owned by the City of Arlington. According to parcel ownership information, which was acquired from the County on June 8, 2016 during the development of the Draft EIS and reacquired on July 31, 2017, there are no permanent or temporary impacts to Roaches Run Waterfowl Sanctuary. The impact analysis in Section 5.14 and Chapter 6 of the Final EIS reflect this determination.

A44. Comment noted.

A45. The owner of the railroad right-of-way, CSXT, does not permit private or public parallel bicycle/pedestrian paths within the railroad's right-of-way. The DC2RVA Project, however, does not preclude the development of bicycle and pedestrian facilities between rail stations using private property or public rights-of-way outside of the railroad's right-of-way, separate from this Project. Refer to DRPT-numbered statement #5 for more information about the Project Purpose and Need and multimodal connections with intercity passenger rail.

A46. See response to DRPT-numbered statement #37.

A47. Part 1) Mount Vernon Memorial Highway (portion of GWMP DHR-ID 029-0218) was addressed separately in Draft Section 6.4.3 (associated Final EIS Section 5.4.3) from GWMP as a parkland resource. No permanent right-of-way acquisition would be required from GWMP.

(Responses are continued on next page)

DEPARTMENT OF THE INTERIOR (continued)

Part 2) The Draft EIS refers to a temporary occupancy of a Section 4(f) resource, not a de minimis impact (because de minimis only occurs when impacts are considered a 4(f) use). In accordance with Section 4(f) of the U.S. DOT Act of 1966 (49 U.S.C. 303(c)), as amended by Section 6009 of the Safe, Accountable, Flexible, Efficient, Transportation Equity Act: a Legacy for Users (SAFETEA-LU), impacts to Section 4(f) resources were determined to be either a Section 4(f) use, de minimis use, or a temporary occupancy. Temporary occupancies are exempted from the requirement for Section 4(f) approvals if they meet the conditions listed in 23 CFR 774.13(d). It important to note that the Section 4(f) Evaluation for this Project follows FHWA and FTA procedures; while FRA is not directly subject to these rules, FRA has determined that these procedures are appropriate for use in this Project.

As stated in the Final Section 4(f) Evaluation (Chapter 6 of the Final EIS), the temporary occupancy of GWMP is 1.2 acres in size and is generally a long narrow strip of approximately 10 feet in width. This area is temporarily needed during construction for access, erosion control, and material placement. Impacts to mature trees, if any, can likely be avoided during final design. DRPT will work with NPS to restore any temporary visual and habitat conditions during construction to prior conditions.

Part 3) DRPT understands that Roaches Run is a designated waterfowl sanctuary, and has updated all labeling to indicate such in the Final Section 4(f) Evaluation.

(Responses are continued on next page)

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| 46 | Page 4-212-4-226             | There is no explanation of the construction impacts associated with the removal of vegetation to the cultural landscape (and views) of the George Washington Memorial Parkway and Mount Vernon Memorial Highway. The removal of vegetation (how many trees?, etc.) is an impact. The removal of these areas of screening, how extensive will it be? Where is this information?   |
| 47 | Chapter 5                    | Chapter 5 Comments: Draft 4(f) state that the project would only have de minimis impacts on GWMP. Few things to that need to be reconsidered 1) GWMP is not listed as a historic resource, 2) The draft 4(f) needs to provide better rationale as to why clearing an acre of trees (referred to as vacant forest) would be de minimis. 4(f) states that the area would be restored afterwards; but takes 50 years to restore a 50 year old tree. Also, the draft 4(f) tries to minimize this tree impact by saying that the acre of trees accounts for just 0.1 percent of the total forested area. But the question is, what do these trees do? Are they habitat for Northern Long-Eared Bats? Do they protect the viewshed of the GWMP? 3) There seems to be confusion with regards to the ownership of Roaches Run, it is not a wildlife refuge, as it is shown in the maps. 4) Impacts to the Mount Vernon Trail are not clear (How would connectivity be maintained? What are they accessing? What's the duration?). 5) There is no 'Least Overall Harm' analysis, but does provide recommended preferred alternative for 4 sections. |
| 48 | Page 5-1                     | The same issues commented on earlier are carried over here as it relates to Section 4 (f) and the NPS lands for the George Washington Memorial Parkway (including Roaches Run). Please address.  |

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|    |                              | appears that there would be vegetation clearing needed by Roaches Run (Alternatives 1A, 1B, and 1C) and the George Washington Memorial Parkway, as well as VAU 2-1 (Alternative 2A). Will this be needed throughout the corridor for this section? This could be more than low visual impact when moving through NPS lands especially where the rail line is very close to the parkway. Please clarify.  | A37 |
| 38 | Page 4-68, Section 4.10.1    | This project moves through lands managed by the NPS-George Washington Memorial Parkway and from our understanding will impact vegetation. Although it is "already altered by local activities" on the current rail side, the other side is within the boundaries of a National Park. Depending on the cumulative impact of the vegetation as a result of Alternatives 1A, 1B, or 1C, and 2A, there could be more impacts than is being suggested here. For example, there are a couple of state listed plant species at Roaches Run, Davis' sedge ( <i>Carex davisii</i> ) and <i>River bulrush</i> ( <i>Schoenoplectus fluviatilis</i> ). Will these be disturbed?  | A38 |
| 39 | Page 4-73, Section 4.10.1.2  | Please note, removal of vegetation on NPS lands will not necessarily just require "seeding" as a restoration approach.   | A39 |
| 40 | Page 4-83                    | Please see earlier comments regarding recent study on NPS lands regarding bats.  | A40 |
| 41 | Page 4-130 - 4-155; Appendix | Please note earlier comments regarding cultural resources on NPS- GWMP lands. There are resources missing and it is unclear if the extent of the APE for archeology would include resources that have been identified but are not included.  | A41 |
| 42 | Page 4-133                   | seems to be missing the visual for Areas 1 & 2, Table 4.13-1 starts with Area 3  | A42 |
| 43 | Page 4-157, Table 4.14-1     | In a July 20, 2017 letter to the Superintendent of the GWMP, several areas of temporary impacts were shown at Roaches Run under 1A. Is that accounted for here?  | A43 |
| 44 | Page 4-180                   | typo- second bullet, DRPT  | A44 |
| 45 | Page 4-199                   | Effects on Bicycle and Pedestrian Connectivity: Project development and design for the project should include facilities for bicyclists and pedestrians to travel safely between rail stations.  | A45 |
| 46 | Page 4-212-4-226             | There is no explanation of the construction impacts associated with the removal of vegetation to the cultural landscape (and views) of the George Washington Memorial Parkway and Mount Vernon Memorial Highway. The removal of vegetation (how many trees?, etc.) is an impact. The removal of these areas of screening, how extensive will it be? Where is this information?   | A46 |
| 47 | Chapter 5                    | Chapter 5 Comments: Draft 4(f) state that the project would only have de minimis impacts on GWMP. Few things to that need to be reconsidered 1) GWMP is not listed as a historic resource, 2) The draft 4(f) needs to provide better rationale as to why clearing an acre of trees (referred to as vacant forest) would be de minimis. 4(f) states that the area would be restored afterwards; but takes 50 years to restore a 50 year old tree. Also, the draft 4(f) tries to minimize this tree impact by saying that the acre of trees accounts for just 0.1 percent of the total forested area. But the question is, what do these trees do? Are they habitat for Northern Long-Eared Bats? Do they protect the viewshed of the GWMP? 3) There seems to be confusion with regards to the ownership of Roaches Run, it is not a wildlife refuge, as it is shown in the maps. 4) Impacts to the Mount Vernon Trail are not clear (How would connectivity be maintained? What are they accessing? What's the duration?). 5) There is no 'Least Overall Harm' analysis, but does provide recommended preferred alternative for 4 sections. | A47 |
| 48 | Page 5-1                     | The same issues commented on earlier are carried over here as it relates to Section 4 (f) and the NPS lands for the George Washington Memorial Parkway (including Roaches Run). Please address.  | A48 |

## DEPARTMENT OF THE INTERIOR (continued)

Part 4) As stated in the Final Section 4(f) Evaluation (Chapter 6 of the Final EIS), 20 feet of the Mount Vernon Trail would be temporarily impacted during construction. The 20 feet that would be temporarily impacted is located on the east side of the existing rail right-of-way on GWMP land opposite Crystal City Water Park and near Ronald Reagan National Airport. Construction planning and timing will be developed during final design, after funding is determined and incremental sequencing is developed. DRPT will continue to work with NPS throughout final design, and will maintain trail connectivity and functionality throughout Project construction activities that affect the Mount Vernon Trail.

Part 5) Chapter 6 of the Final EIS includes the full discussion of the Final Section 4(f) analysis, including the required least harm analysis.

A48. Comment note. Refer to DRPT-numbered statements #17 through #23.

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|----|---|---|
| 49 | Page 5-75   | Figure 5.4-1- might want to reiterate that the boundary lines are also existing conditions  |
| 50 | Page 8-6  | first bullet, Mt. Vernon Trail is owned by GWMP, not Arlington County   |
| 51 | Appendix_M-Attachment_G2_Part_A_Wetland_Determination | There is only one data sheet for Alternative Area 1, and does not include a data sheet with data collected in the field. How will the wetland impacts be verified without additional data sheets? Additionally, delineation protocol usually has at least one uplands data sheet included per site. |
| 52 | Appendix_M-Attachment_G2_Part_A_Wetland_Determination | Was a jurisdictional determination requested from USACE?  |
| 53 | Appendix_M-Attachment_G2_Part_A_Wetland_Determination | Wetlands per NPS policy are determined differently than wetlands under the jurisdiction of USACE. National Park Service Procedural Manual #77-1: Wetland Protection lays out the criteria for wetlands under NPS jurisdiction.  |
| 54 | Appendix_M-Attachment_G2_Part_A_Wetland_Determination | What stormwater management measures are proposed for the temporary and permanent construction periods? GWMP has a MS4 permit within the project area.   |

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## DEPARTMENT OF THE INTERIOR (continued)

- A49. Text was added before the referenced figure to clarify the existing conditions boundary lines (see Chapter 6 of the Final EIS for the Final Section 4(f) Evaluation).
- A50. The referenced text was addressed in the errata table for the Draft EIS, which is Appendix A of the Final EIS.
- A51. Only one wetland area has been identified within the limits of disturbance for Area 1 (01-WTL-01-wet). As noted in the Remarks section under Summary of Findings on the first page of the Wetland Determination Data Form, a wetland data point was not taken at this location because of access restrictions. The wetland boundaries were mapped based on best available data including aerial photographs, topographic maps, and VDCR, NHD, and NWI mapping. The location of the wetlands will be verified as needed in coordination with the resource agencies during the Joint Permit Application process during final design, after funding becomes available and incremental improvements are scheduled.
- A52. As noted on page 3-5 of the Draft EIS and page 3-2 of its Appendix M, field reviews by US Army Corps of Engineers (USACE) and Virginia Department of Environmental Quality (DEQ) and spot checks with the field crews at several intervals during the field survey ensured methods were conducted according to agency expectations. A request for a formal jurisdictional determination will be submitted to the USACE during the Joint Permit Application process during final design, after funding becomes available and incremental improvements are scheduled.
- A53. The USACE definition of wetlands has been used for the inventory and analysis in the Draft and Final EIS. NPS Water Resources Division will be consulted regarding wetland impacts during final design, after funding becomes available and incremental improvements are scheduled. Following completion of the final design and before construction, DRPT will complete the activities necessary to comply with NPS Procedural Manual #77-1 and will coordinate with NPS staff as needed.

(Responses are continued on next page)

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|----|---|---|
| 49 | Page 5-75   | Figure 5.4-1- might want to reiterate that the boundary lines are also existing conditions  |
| 50 | Page 8-6  | first bullet, Mt. Vernon Trail is owned by GWMP, not Arlington County   |
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**DEPARTMENT OF THE INTERIOR (continued)**

A54. As noted in Section 4.1.6.2 of the Draft EIS and Section 5.1.6.2 of the Final EIS, permanent stormwater management measures may include upgrading of existing stormwater facilities and installation of new stormwater facilities, including detention basins, to capture and treat run-off. The Preferred Alternative will be designed and constructed in accordance with the Virginia Erosion and Sediment Control Law (§10.1-560 et seq. of the Code of Virginia); the Stormwater Management Act (§10.1-603.1 et seq. of the Code of Virginia) and the terms and conditions of water quality permits required by USACE, Virginia DEQ, and VMRC. DRPT will provide detailed drainage design plans to NPS during final design, after funding becomes available and incremental improvements are scheduled.



**Appendix B: Comments on behalf of the Captain John Smith Chesapeake National Historic Trail**

Contact: Bob Campbell, Acting Superintendent, 410-260-2478, bob\_campbell@nps.gov

- The DC2RVA Draft EIS divides the project into 6 segments as follows:
  - o Arlington
  - o Northern VA (basically from Arlington to Dalgren Junction)
  - o Fredericksburg (basically from Dalgren Junction to Guinea)
  - o Central VA (basically from Guinea to Elmont)
  - o Ashland
  - o Richmond
- Of these segments, the Captain John Smith Chesapeake National Historic Trail (Chesapeake NHT) has particular interest in Arlington, Northern VA, Fredericksburg and Richmond. Bridges in each of these areas are either on the Chesapeake NHT or certainly within its view shed. The major Chesapeake NHT water crossings of the rail line are the Occoquan River, Neabsco Creek, Powells Creek, Aquia Creek, Rappahannock River, Mattaponi River and the James River.
- The DC2RVA Draft EIS does not give proper credit or location to the Chesapeake NHT; it is only identified in the trail chart on page 3-183—where it is mid-identified as the Captain John Smith Historic Trail and only associated with the Richmond segment.
- Provide the proper name and description of the trail: The Captain John Smith Chesapeake National Historic Trail (Chesapeake NHT) is the first water trail designated under the National Trails System Act [16 U.S.C. 1244(a)]. The trail route extends throughout the Chesapeake Bay including its major tributaries. Its purpose is to commemorate the exploratory voyages of Captain Smith on the Chesapeake Bay and its tributaries in 1607-1609; to share knowledge about the American Indian societies and cultures of the seventeenth century; and to interpret the natural history of the Bay (both historic and contemporary).
- The following specific edits/inclusions are suggested:
  - o **Under Section 3.9.2 Aesthetics and Visual Environment**, consider adding the Captain John Smith Chesapeake National Historic Trail viewshed to the "Sensitive Resources" sidebar under the Visual Assessment Units (VAUs) in those areas from which the Chesapeake NHT would be visible—specifically the crossings of the major rivers and streams.
  - o **Under Table 3.14-2** (page 3-173), for Leesylvania State Park and Widewater State Park, add to the Features list the note: "Site on the Chesapeake NHT"
  - o **Under Table 3.14-3** (pages 3-176-179), for Canal Walk Plaza and James River Park, add to the Features list the note: "Site on the Chesapeake NHT"
  - o **Under Table 3.14-5** (page 3-183), correct Resource Name to "Captain John Smith Chesapeake National Historic Trail", include in the Alternative Areas list "Arlington, Fredericksburg and Richmond", under the Features list note "Water trail on the Potomac, Rappahannock and James rivers and other tributaries rivers and streams throughout the study area".
- With respect to possible impacts to evaluate: While we would concur that impacts to the Chesapeake NHT would be minimal in locations where new rail bridges are built with the same architecture and profile of the existing bridges and adjacent to them, we would be concerned about the potential for building on a totally new location such as for the Fredericksburg bypass on the Rappahannock, or if a new bridge location was needed for crossing the James in Richmond. In these instances, a thorough evaluation of the visual impacts on the trail should be conducted and NPS should be provided an opportunity to review and assess.
- Any construction of new crossings of water bodies that have recreational boating use must be designed in such a way that such recreational use is not impaired. For both new construction and repair/rehab of existing structures, construction must be managed to minimize short term impacts to recreational users.

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**DEPARTMENT OF THE INTERIOR (continued)**

**Appendix B to DOI Letter – Comments from Captain John Smith Chesapeake National Historic Trail:**

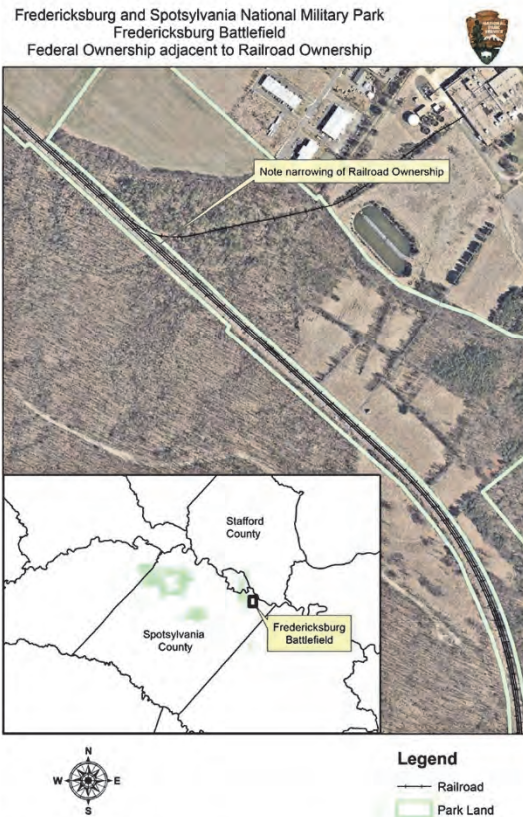
- B1. and B2. The name and description of the referenced trail have been updated, as requested; refer to the errata table for the Draft EIS, which is Appendix A to the Final EIS.
- B3. The referenced trail has been added as a sensitive visual resource, as requested; refer to the errata table for the Draft EIS, which is Appendix A to the Final EIS.
- B4. The requested clarifications have been addressed in the errata table for the Draft EIS, which is Appendix A to the Final EIS.
- B5. Build Alternative 3C, a bypass around Fredericksburg and across the Rappahannock River, is the only Build Alternative analyzed in the Draft EIS with a river bridge at a new crossing location. The visual assessment ranked it as having a high visual impact in Visual Assessment Unit 3-2. However, this alternative is not the Preferred Alternative. Alternative 3B, which includes a new track adjacent to existing track and a bridge adjacent to the existing bridge over the Rappahannock, was selected as the Preferred Alternative (refer to Final EIS Section 4.3.3 for details).
- B6. All of the Preferred Alternative's crossings of water bodies are adjacent to existing crossings. After funding becomes available and incremental improvements are scheduled, the final design of the DC2RVA Project will, at a minimum, match the existing horizontal and vertical openings of the existing crossings. Construction phasing, to occur during final design after funding becomes available, will address impacts to recreational uses.

**Appendix C: Comments on behalf of Fredericksburg & Spotsylvania National Military Park (FRSP) and Richmond National Battlefield Park (RICH)**

Contact-FRSP: Kirsten Talken-Spaulding, Superintendent, 540-693-3200 x1010, kirsten\_talken-spaulding@nps.gov

Contact-RICH: David Ruth, Superintendent, 804-226-5031, dave\_ruth@nps.gov

- Fredericksburg and Spotsylvania National Military Park has different plans and records showing the location of the railroad property boundary through park units than was presented in the DEIS. The discrepancies need to be resolved in order to determine the full effect of the project on the park. Additionally, any construction needs on NPS land will need NPS permission. See Image.



- There is concern that the changes in timetables and increase in train trips may necessitate trains to regularly queue within ROWs through NPS units, which would be an unacceptable intrusion on the scenic vistas within the park and will need to be further analyzed.

**DEPARTMENT OF THE INTERIOR (continued)**

**Appendix C to DOI Letter – Comments from Fredericksburg & Spotsylvania National Military Park and Richmond National Battlefield:**

- C1. The parcel boundaries are based on information DRPT acquired from the County on June 8, 2016 during the development of the Draft EIS, which DRPT has confirmed are consistent with current County data (acquired July 31, 2017). DRPT has confirmed that these County parcel boundaries are consistent with those shown on the NPS website. DRPT will clarify parcel boundaries during final design, after funding becomes available and incremental improvements are scheduled. DRPT will continue to coordinate with the NPS through final design to ensure that the boundaries of the Fredericksburg & Spotsylvania National Military Park are accurate. Additionally, DRPT will coordinate for any construction needs on NPS property.
- C2. As part of the DC2RVA Project, DRPT conducted computer-based railroad operations simulations to determine the Project's impacts on rail traffic in the corridor. To address the Department of Interior's comment, DRPT has reviewed the results of the operations simulations to determine the estimated changes in train delay (what the Department of Interior refers to as queuing) at locations where the DC2RVA corridor is adjacent to the FRSP. Two locations were identified for this analysis: (a) the Hamilton interlocking and proposed Fredericksburg controlled siding (milepost CFP 55.7), which is adjacent to the Fredericksburg Battlefield, and (b) the Guinea interlocking (milepost CFP 47.5), which is adjacent to the "Stonewall" Jackson Shrine. The delay analysis at these locations was conducted for the year 2045 (the 20-year horizon for measuring impacts from the DC2RVA Project) and compared the total delay (time that trains were not moving) between the No Build case (which assesses year 2045 operations at the location without the additional infrastructure or passenger train frequencies proposed by the DC2RVA Project) and the Preferred Alternative Build case (which assesses year 2045 operations at the location including the additional infrastructure and passenger train frequencies proposed by the DC2RVA Project).

*(Responses are continued on next page)*



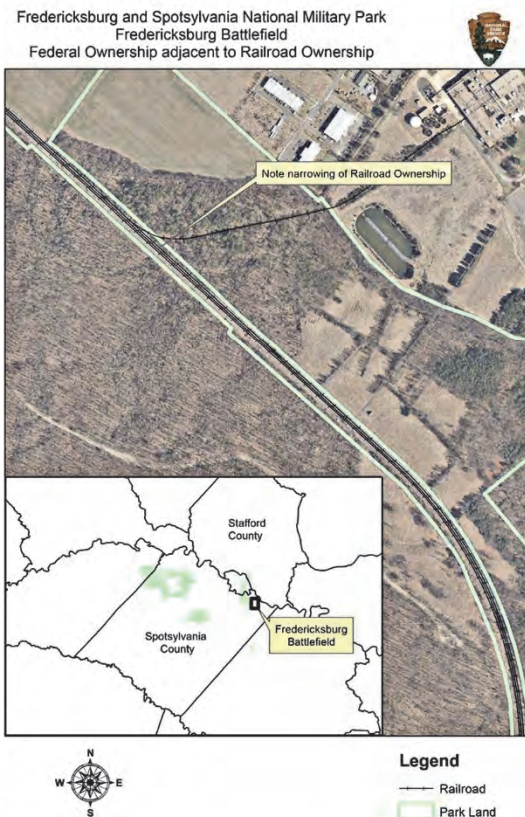
DEPARTMENT OF THE INTERIOR (continued)

**Appendix C: Comments on behalf of Fredericksburg & Spotsylvania National Military Park (FRSP) and Richmond National Battlefield Park (RICH)**

Contact-FRSP: Kirsten Talken-Spaulding, Superintendent, 540-693-3200 x1010, kirsten\_talken-spaulding@nps.gov

Contact-RICH: David Ruth, Superintendent, 804-226-5031, dave\_ruth@nps.gov

- Fredericksburg and Spotsylvania National Military Park has different plans and records showing the location of the railroad property boundary through park units than was presented in the DEIS. The discrepancies need to be resolved in order to determine the full effect of the project on the park. Additionally, any construction needs on NPS land will need NPS permission. See Image.



- There is concern that the changes in timetables and increase in train trips may necessitate trains to regularly queue within ROWs through NPS units, which would be an unacceptable intrusion on the scenic vistas within the park and will need to be further analyzed.

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After conducting an evaluation of train delay at the Hamilton interlocking, DRPT determined that in the year 2045, the railroad corridor would operate more efficiently in this area with a decrease in average daily train delay resulting from train queuing by 8 minutes per day if the DC2RVA Project were to be implemented, when compared to the No Build results. The decrease in queuing would result in no visual impact to the Fredericksburg Battlefield due to train queuing. DRPT acknowledges that the computer-based railroad operations simulation provides only an estimate of the operations at a particular location along the corridor. Actual rail operations and train delays are subject to variability; however, and the potential decrease in train delays near the Hamilton interlocking demonstrate a reduction in potential impacts at this location.

After conducting an evaluation of train delay at the Guinea interlocking, DRPT determined that in the year 2045, the average daily train delay resulting from train queuing would increase by 3 minutes per day if the DC2RVA Project were to be implemented, when compared to the No Build results. This slight increase in queuing would have little overall visual impact to the "Stonewall" Jackson Shrine which is already located adjacent to the existing tracks and is currently exposed to the infrequent visual effects of train queuing. DRPT acknowledges that the computer-based railroad operations simulation provides only an estimate of the operations at a particular location along the corridor. Actual rail operations and train delays are subject to variability; however, and the potential three-minute increase in train delays near the Guinea interlocking is minimal.

*(Responses are continued on next page)*

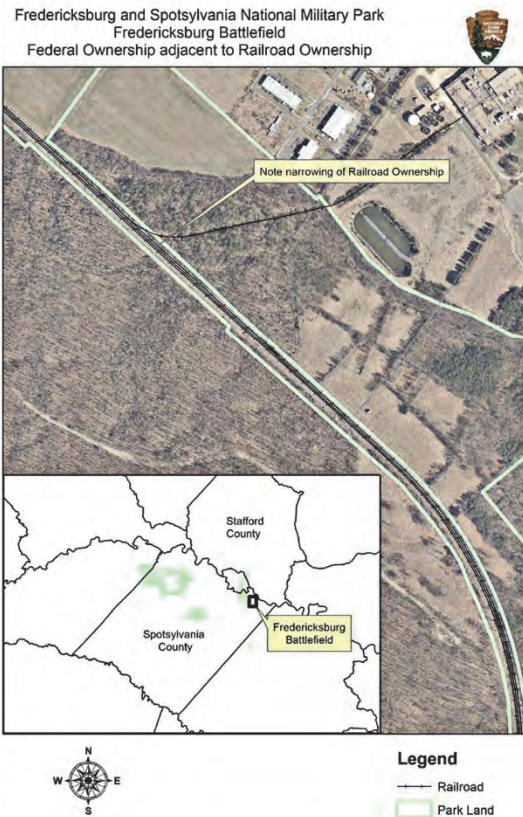


**Appendix C: Comments on behalf of Fredericksburg & Spotsylvania National Military Park (FRSP) and Richmond National Battlefield Park (RICH)**

Contact-FRSP: Kirsten Talken-Spaulding, Superintendent, 540-693-3200 x1010, kirsten\_talken-spaulding@nps.gov

Contact-RICH: David Ruth, Superintendent, 804-226-5031, dave\_ruth@nps.gov

- Fredericksburg and Spotsylvania National Military Park has different plans and records showing the location of the railroad property boundary through park units than was presented in the DEIS. The discrepancies need to be resolved in order to determine the full effect of the project on the park. Additionally, any construction needs on NPS land will need NPS permission. See Image.



- There is concern that the changes in timetables and increase in train trips may necessitate trains to regularly queue within ROWs through NPS units, which would be an unacceptable intrusion on the scenic vistas within the park and will need to be further analyzed.

**DEPARTMENT OF THE INTERIOR (continued)**

The Richmond National Battlefield Park (RICH) Civil War Visitor Center is located at 470 Tredegar Street in Richmond, Virginia, on the site of the former Tredegar Iron Works along the James River. This site is approximately 1.1 miles west of the railroad tracks that are part of the DC2RVA Project area. However, the site is adjacent to railroad tracks that connect with railroad lines in the DC2RVA corridor. Therefore, DRPT analyzed the differences in train delay (or queuing) for eastbound trains on the CSXT Rivanna Subdivision that were approaching and preparing to enter the DC2RVA corridor at Rivanna Junction in Richmond. After conducting an evaluation of train delay for eastbound trains on the Rivanna Subdivision at the Rivanna Junction interlocking, DRPT determined that in the year 2045, the average daily train delay resulting from train queuing would increase by 4.66 minutes per day if the DC2RVA Project were to be implemented, when compared to the No Build results. This slight increase in queuing would have little overall visual impact to the Richmond National Battlefield Park Civil War Visitor Center which is already located adjacent to the existing tracks and is currently exposed to the infrequent visual effects of train queuing. DRPT acknowledges that the computer-based railroad operations simulation provides only an estimate of the operations at a particular location along the corridor. Actual rail operations and train delays are subject to variability; however, the potential increase in train delays by less than five minutes near the Rivanna Junction interlocking is minimal.

**DEPARTMENT OF THE INTERIOR (continued)**

*(No comments on this page)*

- Richmond National Battlefield Park and Maggie Walker National Historic Site appreciate the work you have done to include the park in discussion regarding the Ashland alternatives (Segment 5) which appear to avoid impacting the battlefields and sites, and will continue to consult with your team.

**Appendix D: Comments on behalf of the American Battlefield Protection Program**

Contact: Kristen McMasters, Archeologist and Grant Manager, 202-354-2037,  
kristen\_mcmasters@nps.gov

- ABPP recommends the use of military terrain analysis (KOCOA) to determine the potential location of historic resources along the portions of the APEs that intersect with identified battlefields. In some cases the analysis may indicate that the APE extends further than anticipated. Examples may include areas where strategic outlooks were located during the Civil War (views and vistas), or where troops approached or withdrew from the core battlefield (ie: historic roads, rivers, and crossings). KOCOA provides the context to develop a comprehensive survey methodology for battlefield landscapes. It is also required by VDHR to characterized military landscapes in [http://www.dhr.virginia.gov/pdf\\_files/Guidelines\\_For\\_Conducting\\_Archaeological\\_Survey\\_in\\_VA\\_June2009.pdf](http://www.dhr.virginia.gov/pdf_files/Guidelines_For_Conducting_Archaeological_Survey_in_VA_June2009.pdf) please note page 10 of this 2009 requirement. Our office is looking for all Section 106 compliance projects to meet or exceed this standard.
- ABPP would like to take this opportunity to express support for *Tier II Draft Environmental Impact Statement* Build Alternatives 3A or 3C in Alternative Area 3: Fredericksburg. It appears that these alternatives would have a lesser impact on the battlefield landscapes in this region. If an additional track is necessary, ABPP notes that the bypass alternative illustrated on page 22 (Build Alternative 3C: Two-Track Bypass East) appears to bypass some of the battlefield landscapes located near Fredericksburg, as well as several conservation/preservation easements. It is our hope that the cultural resources consultants who are evaluating impacts will carefully consider if the Two Tracks or Bypass options would reduce impacts to the battlefields in selecting a route alternative and/or developing agreement documents and future mitigation.
- ABPP staff is available to provide technical assistance or materials in identifying the defining features associated with the battlefield landscapes near Richmond. We also recommend working closely with Richmond National Battlefield Park as survey and impacts analysis continues toward the Final EIS. As the capital of the Confederacy during the Civil War, the Richmond area is a significant cultural landscape that contains several identified battlefields with intact defining features, along with other sites and features associated with the war. Our program will contribute whatever we can to ensure these resources are fully considered in developing a survey methodology and selecting a preferred route alternative.
- We would like clarity as to how the potential for increased use and visitation in areas of federal interest, such as CWSAC identified battlefield boundaries, being considered in terms of evaluating impacts. For example, will there be an increased number of trains bisecting North Anna (VA055) on a daily/ hourly basis?

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**DEPARTMENT OF THE INTERIOR (continued)****Appendix D to DOI Letter -- Comments from American Battlefield Protection Program:**

- D1. At a meeting with DRPT on February 13, 2018, the DHR determined that KOCOA analysis (as requested in this comment) is not needed to determine Project Section 106 effects. If factors change upon an analysis of the Project results and effect determinations, additional research may be completed at that time.
- D2. Alternative 3B was selected as the Preferred Alternative, which adds one track to the existing two-track alignment through Fredericksburg (refer to Final EIS Section 4.3.3. for details). DRPT will continue to coordinate with the NPS as consulting parties in the cultural resource process, and has involved the NPS in the development of Section 106 MOA stipulations to mitigate any adverse effects on battle-related historic properties caused by the undertaking (the Section 106 Draft MOA is Appendix K of the Final EIS).
- D3. The Richmond National Battlefield Park and the FRSP are among the eight offices of the NPS who are consulting parties on this Project.
- D4. The North Anna Battlefield Park is located at 11576 Verdon Road in Doswell, Virginia, approximately 1.25 miles west of the DC2RVA corridor. The battlefield is located along the Buckingham Branch Railroad, at a location west of the DC2RVA Project corridor. The DC2RVA Project does not propose any increases to intercity passenger rail traffic or changes to current railroad operating patterns or practices on the segment of the Buckingham Branch Railroad line west of Doswell by the North Anna Battlefield Park.





October 25, 2017

Ms. Emily Stock  
Virginia Department of Rail and Public Transportation  
600 East Main Street  
Suite 2102  
Richmond, Virginia 23219

Dear Ms. Stock:

Thank you for the opportunity to review the Washington, D.C. to Richmond High Speed Rail Project Tier II Draft Environmental Impact Statement (Draft EIS). The Federal Aviation Administration (FAA) is supportive of all modal efforts to reduce congestion and increase efficiency within the transportation systems of our capital region and along the eastern seaboard.

Our staff has reviewed the material provided by your organization from an aviation policy and environmental perspective. The scope of the proposed project does not appear to encompass direct intermodal links of high speed rail to the region's airports, therefore we do not presently assess there to be any FAA required actions or approvals related to this effort.

The FAA is appreciative of information contained within the Draft EIS section describing *Air Travel Congestion*, and notes that some of the descriptions are reflective of our national aviation system overall. While the successful development of high speed rail to Richmond and beyond may offer relief within our regional transportation corridor, we recommend care be exercised within this section so as not to infer this project as a singular solution to aviation congestion at the national level.

We are happy to provide additional information or answer questions which may further assist your efforts. Please contact Chris Brown, Assistant Administrator for Government and Industry Affairs, at (202) 267-3277.

Sincerely,

Michael P. Huerta  
Administrator

cc: John Winkle, Federal Railroad Administration  
Randy Brown, Federal Railroad Administration

## FEDERAL AVIATION ADMINISTRATION

1. The Federal Aviation Administration (FAA) is correct: direct intermodal links to the region's airports are not part of the Project's Purpose and Need.
2. Conditions in the Project corridor currently support the 2002 Tier I EIS Purpose and Need and are the foundation for the DC2RVA Project. These conditions were detailed in Chapter 1 of the Draft EIS and include air travel congestion at regional and national airports. However, the DC2RVA Project is not intended to be the singular solution to national or regional air travel congestion. Rather, the DC2RVA Project would provide a competitive travel alternative in the Washington, D.C. to Richmond corridor by improving the frequency, reliability, and travel time of passenger rail operations in Virginia and beyond.

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