

# Arlington National Cemetery Millennium Project Final Environmental Assessment



**Lead Agency:**  
Arlington National Cemetery  
**Cooperating Agency:**  
U.S. National Park Service

June 2013



US Army Corps  
of Engineers®  
Norfolk District

**APPENDIX F:**  
**Comments on Draft Millennium EA**  
**Public Comment Period**  
**6 December 2012 to 21 January 2013**

**Comments and Responses**  
**ANC Millennium Project Draft EA**  
**February 2013**

Entity	Summary of Comment(s)	Response
Terry Armao, Concerned Citizen	Cutting down 890 trees in Arlington Cemetery is yet another absurd plan devised by the Army Corp of Engineers. Planting new trees to replace old growth trees is hardly an acceptable bargain. As a resident of Arlington, I am horrified and I object to this ridiculous proposal. The cemetery is getting a lot of land when the Navy Annex comes down.	The planning process reduced impacts to trees from 1100+ trees removed in early plans to ~890 in current plan. The only forested area with old-growth characteristics, the NPS-Administered Arlington Woods which is adjacent to the main project area, are not significantly impacted. Other minimization and mitigation efforts include invasive species control for four years post construction, and replanting of 600 trees and 500 shrubs of only native species . Please see section 5.6 for an expanded analysis of the tree impacts. The ANC Master Plan, currently in planning stages, addresses other opportunities for Cemetery expansion.
Bernard H. Berne, Concerned Citizen	The "No Action" alternative should be the preferred alternative. In conjunction with a finding that the "No Action" alternative is best, the Department of the Army should immediately identify other spaces, such as the Pentagon parking lot or other National Cemeteries that the Department of Defense can utilize for the interment of those people who presently fulfill the criteria for burial in Arlington National Cemetery. The Department of the Army needs to recognize that many of those people would consider it to be more honorable to be interred in such other spaces than to be interred in a space in which the Department of the Army has needlessly destroyed a historically and environmentally significant woodland. Although far less desirable than the "No Action" alternative, Alternatives C or F, or a combination of the two, are superior to the presently preferred alternative (Alternative E).	The ANC Master Plan, currently in planning stages, addresses other opportunities for Cemetery expansion. Alternatives C and F were eliminated from further elimination because they would not meet minimum operational intent and would not meet regulatory requirements. See 3.9 for additional information on alternative evaluation.
Nora Palmatier, Concerned Citizen	I believe our National Cemeteries should expand their thinking on ways veterans wish to be interred. My father was a proud Navy veteran of WWII who made it quite clear that he wanted his remains cremated and spread around the roots of the large trees he admired. My brother-in-law, awarded the Purple Heart for his bravery during the Vietnam War, is vehement he doesn't want to be sealed in a cement tomb but likewise wants his ashes scattered among the trees. These are not isolated feelings – our church has a special memorial garden area where remains mingle with the roses. I'm saddened that so many old growth trees will be destroyed at the Arlington National Cemetery when	The planning process reduced impacts to trees from 1100+ trees removed in early plans to ~890 in current plan. The only forested area with old-growth characteristics, the NPS-Administered Arlington Woods which is adjacent to the main project area, are not significantly impacted. Other minimization and mitigation efforts include invasive species control for four years post construction, and replanting of 600 trees and 500 shrubs of only native species . Please see section 5.6 for an expanded analysis

	<p>there are certainly many veterans who want a natural place of beauty for their remains. Creating paths through the trees with identified areas which remain sacred for ashes is a much better use of the land.</p> <p>We Americans' views on what final resting places should look like are undergoing a great change with more and more people seeking natural places of beauty rather than traditional mausoleums; it is possible to maintain trees and maintain the right of veterans to be honored for their services through creative use of the land.</p>	of the tree impacts.
Jayson Poland, Concerned Citizen	<p>I have recently been made aware of plans to remove almost 900 trees from Arlington National Cemetery, in order to make way for more burial space. I understand the need to increase the number of plots to accommodate those that have given their lives in defense of our country. I also understand the need to preserve the few remaining trees that we have in this area of Arlington County. Please consider Alternate plans that would not require the removal of so many trees.</p>	<p>The planning process reduced impacts to trees from 1100+ trees removed in early plans to ~890 in current plan. The only forested area with old-growth characteristics, the NPS-Administered Arlington Woods which is adjacent to the main project area, are not significantly impacted. Other minimization and mitigation efforts include invasive species control for four years post construction, and replanting of 600 trees and 500 shrubs of only native species . Please see section 5.6 for an expanded analysis of the tree impacts.</p>
Penrose – Concerned Citizen	<p>Arlington National Cemetery's Millennium Project would make space suitable for burial in a northwest corner of the cemetery. Some trees that date back to just after the Civil War might be cut down.</p> <p>A proposed Arlington National Cemetery expansion may eat into the only remaining stand of old-growth forest in Arlington County, alarming county officials.</p> <p>The county's historic preservation staff wrote to the Army Corps of Engineers after seeing plans for the project to voice its concerns about the woods.</p> <p>At a Historical Affairs and Landmark Review Board meeting on Wednesday, Historic Preservation Planner Rebekah Ballo noted that the board still has time to voice an opinion on the subject at future meetings, though they did not vote on action items that night.</p> <p>"Essentially, what's at stake is the last old-growth forest in the county," Ballo told committee members.</p> <p>In the study, the Army acknowledges that its preferred plan would involve clearing 890 trees, some of which date back to just after the Civil War. However, officials pledge to leave a patch of 220-year-old trees intact.</p> <p>The trees are west of Arlington House, a historic structure on the edge of the existing burial ground. The environmental report traces the woods back to historic writings, drawings and photographs from around the time Gen. Robert E. Lee lived there. The groves on the firing line include 90-year-old white oak and chestnut oak and 130-year old northern red oaks. The report also said there are two native plants, Lonicera sempervirens and Prunus virginiana, in the project area that can't be found anywhere else near the George Washington Memorial Parkway.</p>	<p>The planning process reduced impacts to trees from 1100+ trees removed in early plans to ~890 in current plan. The only forested area with old-growth characteristics, the NPS-Administered Arlington Woods which is adjacent to the main project area, are not significantly impacted. Other minimization and mitigation efforts include invasive species control for four years post construction, and replanting of 600 trees and 500 shrubs of only native species . Please see section 5.6 for an expanded analysis of the tree impacts.</p>

	<p>The report says that preserving trees is a priority for the project, and planners hope to minimize the damage by planting 600 new trees.</p>	
<p>Caroline Haynes – Concerned Citizen</p>	<p>Please consider the following comments about the Environmental Assessment (EA) on the proposed Millennium expansion at Arlington National Cemetery adjacent to the Arlington House Woods. In general, the EA is cursory at best. It lacks detailed information to adequately evaluate the project and it fails to acknowledge the potential for significant environmental and historic damage that is likely to be inflicted on this unique site.</p> <p>The proposal calls for portions of an undisturbed stream bed to be destroyed, the topography of a steep stream valley to be completely remade to support the construction of the loop road, over 1,700 trees in stands of woods estimated to be 130-150 years old to be demolished, and portions of a documented old growth forest- one of the last in our region- to be damaged and in part destroyed. How can these impacts not be considered "significant" and why was an Environmental Assessment and not an Environmental Impact Study conducted?</p> <p>The lack of supporting documents, such as detailed maps and biotic inventories of the flora and fauna, further put into question the review process. The EA claims that the old growth section of the forest will not be impacted and yet the maps included appear to dispute that. Without more detailed information, it is impossible to know what will be impacted during the construction of this project. At the very least, removing the buffer of the 130-150 year old woods will indeed impact the survivability of the old growth section. Disturbing the soil in this area will dramatically increase the ability of non-native invasive plant species to invade this otherwise undisturbed section.</p> <p>It does not appear that even existing documents detailing the unique nature of this site were consulted in the preparation of the EA. One of those documents is the December 30, 2006 Geological Features Inventory of Arlington County, a study conducted by Tony Fleming. In that report, Arlington House Woods is singled out as one of the highest value ecological resources in Arlington and in our region. The EA also fails to note that the site is listed on the Virginia Native Plant Society Registry as a result of its unique ecological and historical significance. Arlington House Woods has been referenced in numerous historical documents as being integral to the Lee Mansion. It is no coincidence that Arlington House Woods exists today as an extremely rare example of old growth forest: It has been intentionally preserved over the ages for its intrinsic beauty and its ecological and historical significance.</p> <p>The EA fails to provide adequate information to evaluate the alternative plans, especially with respect to the construction of the loop road and the destruction of the upper stream valley. A detailed rationale for failing to choose a more environmentally sensitive option is missing from the report. Likewise there is no mention of the seeps that may be impacted by this project (see</p>	<p>The planning process reduced impacts to trees from 1100+ trees removed in early plans to ~890 in current plan. The only forested area with old-growth characteristics, the NPS-Administered Arlington Woods which is adjacent to the main project area, are not significantly impacted. Other minimization and mitigation efforts include invasive species control for four years post construction, and replanting of 600 trees and 500 shrubs of only native species. Please see section 5.6 for an expanded analysis of the tree impacts.</p> <p>The stream bed is not undisturbed – it is a highly disturbed area and has actively eroding banks.</p> <p>The significance of the impacts are defined by the “threshold of significance” defined for each resource area. For Vegetation, and trees in particular, impacts to forested areas with “old-growth characteristics” was the defined threshold. Only the NPS lands adjacent to the site (which are not being significantly impacted) meet that threshold, therefore no significant impacts to the trees are anticipated.</p> <p>Additional supporting inventories have been included – see Appendix G. These inventories include existing documents as well as new vegetation, wildlife, and stream surveys.</p> <p>Maps have revised and expanded.</p> <p>Due to the stream restoration and a largely unimpacted 50-100 foot buffer around the stream, the Arlington Woods (defined as the only old-growth area) will continue to have a buffer. It will not be as wide as the current buffer of trees.</p> <p>Seeps and sinks are discussed in Sections 4.3 and 5.3.2.6.</p> <p>Through continued refinement to the</p>



	<p>Fleming, 2006). Referring to this project as a "stream restoration" stretches credulity.</p> <p>So, one has to ask: how is it that the public can be assured that this project will be held to the same procedures and permitting requirements that a non-governmental entity would be required to follow in a similar project?</p> <p>Given the cursory nature of the EA and the timing of when the EA was released (right before the holidays), it only seems appropriate that this project receive a more thorough public review before it proceeds further. Therefore, I ask that there be a full Environmental Impact Statement conducted and that the public has adequate time to review the long-term implications of this project.</p> <p>Certainly there is tremendous pressure to extend the capacity of Arlington National Cemetery. However, the trade-off envisioned in this project of extending the operations of the cemetery for an additional seven years, while in the process, destroying an irreplaceable ecological and historical gem appears extremely short sighted and a desecration of the very ground we hold sacred. Every effort should be made to expand the operations in such a way that does not threaten and undermine the very character of Arlington National Cemetery that we value so highly.</p>	<p>selected plan, Alternative E is the environmentally preferred option with the least tree impacts and the least stream impacts.</p> <p>The Draft EA was presented for a 45-day comment period, which is longer than the customary 30-day comment period. The public will also be given 30 days to review the Revised EA.</p>
Larry Finch, Concerned Citizen	<p>Every effort should be made to find other areas for expansion of Arlington National Cemetery in the next few years. If expansion into the wooded area is unavoidable, I urge that the Corps consult with Arlington County naturalists to develop a plan that would minimize the environmental impacts of the project.</p>	<p>The ANC Master Plan, currently in planning stages, addresses other opportunities for Cemetery expansion. Alternatives C and F were eliminated from further elimination because they would not meet minimum operational intent and would not meet regulatory requirements. See 3.9 for additional information on alternative evaluation.</p>
Steve Campbell, Concerned Citizen	<p>Old growth forests are practically nonexistent in northern Virginia. Such resources are not irreplaceable, but would however require centuries to replace. Further, the complexities and interplay of the spectrum of living organisms (microscopic to mammal) and geologic characteristics that are found at the proposed site are likely irreplaceable. The site is clearly part of a valuable wildlife area. Just the process of significantly reducing the overall size will severely compromise the overall quality of the remaining forest. Please consider another appropriate site in the area, or at least further minimize the acreage of old growth forest to be removed (for example by re-routing the new road that is to pass nearby the existing stream).</p>	<p>The planning process reduced impacts to trees from 1100+ trees removed in early plans to ~890 in current plan. The only forested area with old-growth characteristics, the NPS-Administered Arlington Woods which is adjacent to the main project area, are not significantly impacted. Other minimization and mitigation efforts include invasive species control for four years post construction, and replanting of 600 trees and 500 shrubs of only native species. Please see section 5.6 for an expanded analysis of the tree impacts.</p>
Shannon Cunniff, Concerned Citizen	<p>The expansion of the Cemetery into this woodland will result in the loss of an irreplaceable ecological and historical resource – and one of the last remaining old-growth forests in our region – while providing only another 7-12 more years for new burial grounds. The EA inadequately evaluates and therefore downplays</p>	<p>The planning process reduced impacts to trees from 1100+ trees removed in early plans to ~890 in current plan. The only forested area with old-growth characteristics, the NPS-</p>

	the proposed project's environmental impacts.	Administered Arlington Woods which is adjacent to the main project area, are not significantly impacted. Other minimization and mitigation efforts include invasive species control for four years post construction, and replanting of 600 trees and 500 shrubs of only native species . Please see section 5.6 for an expanded analysis of the tree impacts.
David Scott Howe, Concerned Citizen	<p>The EA consistently downplays and inadequately evaluates the environmental impact of the proposed Millennium Project. The project will completely alter the topography of a natural steep-sloped stream valley and destroy a stream and the last remaining areas of old-growth forest in our County, and one of the last in our region. There is a noticeable lack of analysis and data in adequately describing the vegetation, wildlife and other natural resources that will be permanently lost by this project.</p> <p>Arlington House Woods is significant in being one of only two public natural areas in the county (Barcroft Park is the other) to completely span a Coastal Plain slope from the bedrock at the bottom, through the Potomac Group on the slope, to the terrace gravel at the top. The relationship of both natural communities and spring hydrology to geologic setting is illustrated exceptionally clearly here.</p> <p>The EA fail to note springs and seeps that are reported to exist within the project area (see Fleming, 2006). Characterizing the soils in the project area as previously disturbed (EA, p. 68), may not be accurate. In addition, large portions of the work site will be on highly erodible soils on steep slopes, raising serious concerns about the ability to control the impact on any remaining natural areas, as well as the long-term viability of the proposed project.</p> <p>The EA fails to mention that this site has been listed as a Registry Site by the Virginia Native Plant Society as a result of its unique ecological and historical significance:</p>	<p>The planning process reduced impacts to trees from 1100+ trees removed in early plans to ~890 in current plan. The only forested area with old-growth characteristics, the NPS-Administered Arlington Woods which is adjacent to the main project area, are not significantly impacted. Other minimization and mitigation efforts include invasive species control for four years post construction, and replanting of 600 trees and 500 shrubs of only native species . Please see section 5.6 for an expanded analysis of the tree impacts.</p> <p>The significance of the impacts are defined by the "threshold of significance" defined for each resource area. For Vegetation, and trees in particular, impacts to forested areas with "old-growth characteristics" was the defined threshold. Only the NPS lands adjacent to the site (which are not being significantly impacted) meet that threshold, therefore no significant impacts to the trees are anticipated.</p> <p>Seeps and sinks are discussed in Sections 4.3 and 5.3.2.6.</p> <p>Additional supporting inventories have been included – see Appendix G. These inventories include existing documents as well as new vegetation, wildlife, and stream surveys.</p>
Shireen Parsons, Concerned Citizen	My father, who died of injuries sustained during WWII, and my mother, who died in 2010 at the age of 94, rest together at Arlington National Cemetery, where beautiful, centuries-old trees lend a sense of peace and continuity to the final resting place of so many men and women who gave their lives for their country, and provide solace to those whose loved ones are interred there.	The planning process reduced impacts to trees from 1100+ trees removed in early plans to ~890 in current plan. The only forested area with old-growth characteristics, the NPS-Administered Arlington Woods which is adjacent to the main project area, are not significantly impacted. Other

	How dare the Corps propose to destroy those magnificent trees? Those trees belong to Americans, living and dead, who visit the cemetery to grieve and pay respect to those who sacrificed so much for their country. Let the trees be!!	minimization and mitigation efforts include invasive species control for four years post construction, and replanting of 600 trees and 500 shrubs of only native species . Please see section 5.6 for an expanded analysis of the tree impacts.
Mary Kvitashvili, Concerned Citizen	The EA consistently downplays and inadequately evaluates the environmental impact of the proposed Millennium Project. ....same as Howe comment above.	See response to Howe.
Unidentified Citizen	Surely there is a way to save 890 trees!	The planning process reduced impacts to trees from 1100+ trees removed in early plans to ~890 in current plan. The only forested area with old-growth characteristics, the NPS-Administered Arlington Woods which is adjacent to the main project area, are not significantly impacted. Other minimization and mitigation efforts include invasive species control for four years post construction, and replanting of 600 trees and 500 shrubs of only native species . Please see section 5.6 for an expanded analysis of the tree impacts.
VA DEQ	Implement pollution prevention principles in any construction projects at ANC.	Concur
VDGIF	Provided guidance during construction, as long as ESC measures are in place they are ok. Bald eagles within 2 miles of project site but DGIF doesn't anticipate that the project will result in adverse affects. Provided bald eagle guidelines.	Concur
VADCR	Natural Heritage Resources; DCR does not anticipate that the project will adversely affect natural heritage resources approx 2 miles away. DCR finds that the proposed action doesn't affect any documented state-listed plants or insects.	Concur
VA Dept Health	If work on public water supply lines is conducted, USACE will require construction permit from VDH-ODW	Noted
VA DHR	DHR has been in consultation with USACE regarding this project and requests continued direct consultation.	Concur
VA Dept of Forestry	Based on a review of EA, Dept of Forestry finds the project will not have a significant adverse impact on forest resources for numerous reasons. Please see original pdf comments for these reasons.	Noted.
Sierra Club – Rick Keller	The Sierra Club welcomes the opportunity to comment on the Environmental Assessment (EA) of the Arlington National Cemetery (ANC) Millennium Project. ANC's beautiful landscaping, including groves of trees dating back to the Civil War and, in some cases, well before that war, is one of the reasons the cemetery is such a popular interment site for our nation's heroes. The Sierra Club is concerned that the analysis and conclusions of the EA in some cases fail to appreciate the danger the proposed development poses to these restful, stately old-age groves that help to give ANC its noble and historic character. The veterans buried in ANC appreciated the fact that they would be laid to rest in a	The planning process reduced impacts to trees from 1100+ trees removed in early plans to ~890 in current plan. The only forested area with old-growth characteristics, the NPS-Administered Arlington Woods which is adjacent to the main project area, are not significantly impacted. Other minimization and mitigation efforts include invasive species control for four years post construction, and



	<p>place of uncommon beauty and tranquility, qualities that would be damaged by removal of old-growth forest.</p> <p>In the judgment of the Sierra Club, the EA consistently downplays and inadequately evaluates the environmental impact of the proposed project. The project will completely alter the topography of a natural, steep-sloped stream valley and destroy a stream and one of the last remaining areas of old-growth forest in the National Capital region. Large portions of the work site would consist of erodible soils on steep slopes, raising serious concerns about the ability to control the impact of the project on remaining natural areas, such as the National Park Service forest adjacent to the project area.</p> <p>There is a noticeable paucity of analysis and data describing the vegetation, wildlife and other natural resources that will be permanently lost through the proposed project. While the EA notes that 1724 large trees would be lost as a result of the project, the report lacks a natural resources inventory and fails to incorporate the knowledge in existing texts that describe this area in detail. As a result, it is difficult to determine the actual impact of the project to particularly high-value trees, to ecologically significant stands of trees, and to areas of undisturbed soil, which are likely to contain additional valuable species. The EA fails to mention that this site has been listed as a Registry Site by the Virginia Native Plant Society as a result of its unique ecological and historical significance. We urge the Corps of Engineers to conduct a more thorough analysis and evaluation of the geology, hydrology, vegetation and wildlife of the project site before any decisions affecting this ecologically significant site are finalized.</p> <p>The Sierra Club is sympathetic to the pressures to expand the longevity of ANC, but we believe that the costs of losing this valuable ecological area outweigh the limited number of years estimated of continued operations at the cemetery that could result. We urge the Corps of Engineers to explore options to expand ANC in areas with less ecological and scenic value.</p> <p>Local Sierra Club members are available to meet with Corps of Engineers staff to discuss ways to minimize the damage to these woodlands. Please contact me, if such a meeting would be of value.</p>	<p>replanting of 600 trees and 500 shrubs of only native species . Please see section 5.6 for an expanded analysis of the tree impacts.</p> <p>The stream bed is not undisturbed – it is a highly disturbed area and has actively eroding banks.</p> <p>The significance of the impacts are defined by the “threshold of significance” defined for each resource area. For Vegetation, and trees in particular, impacts to forested areas with “old-growth characteristics” was the defined threshold. Only the NPS lands adjacent to the site (which are not being significantly impacted) meet that threshold, therefore no significant impacts to the trees are anticipated.</p> <p>Additional supporting inventories have been included – see Appendix G. These inventories include existing documents as well as new vegetation, wildlife, and stream surveys.</p> <p>The Millennium Project site is NOT on the Virginia Native Plant Registry. The adjacent NPS-administered Arlington Woods are on the Registry. In fact, the VNPS Registry notes that 12 acres adjacent to its site have already been lost to development. These 12 acres were the lands transferred from NPS to ANC for the Millennium Project. And, as described in the EA, the Millennium Project will consist of mostly “green space” that is environmentally preferable to the urban development in surrounding areas.</p>
Michael Leventhal and Rebecca Ballo, Arlington County CPHD, Historic Preservation	<p>However, the selection of Alternative E creates serious adverse impacts to the environmental and cultural resources in the project area, while only creating a relatively small number of additional burial sites. The total number of burial sites for Alternative E is 36,020 while the total for Alternative C is 35,620; this is a difference of 400 burial sites, or 1.11% fewer burials. This statistically small difference in the number of burial spaces results in the near complete loss of the historical landscape in the stream valley and on the east side of the streambank. The report notes that Alternative F, the more environmentally and cultural resource friendly option, was considered, but did not meet the project goals. However, the report does not note the number of burial spaces</p>	<p>Alternatives C and F were eliminated from further elimination because they would not meet minimum operational intent and would not meet regulatory requirements. See 3.9 for additional information on alternative evaluation.</p>

	<p>gained in Alternative F, nor does it describe in detail the issues with this design versus the Preferred Alternative E. Given that Alternative F limits most of the development to the west side of the stream, and seems to avoid much of the land and forest disturbance inherent in Alternative E, we are seeking a further refinement of Alternative F.</p>	
<p>Arlington County Office of Sustainability and Environmental Mgmt</p>	<p>The comments do not focus on all of the potential environmental impacts of the alternatives, but focus specifically on the impacts to the wooded stream valley – the central environmental feature of the proposed area of work.</p> <p>Alternative C provides 400 fewer burial sites than Alternative E, a difference of -1.1%. Using the EA figure that Alternative E would add 7 to 12 years of burial capacity, and assuming the more conservative 7 year projection resulting in 5,146 burial sites per year, Alternative C’s 400 fewer burial sites would reduce this projection to 6.92 years, or 29 days fewer capacity.</p> <p>At the same time, Alternative C is described as allowing for “...greater preservation of the southern slope with its stands of trees, and respects the existing stream.”</p> <p>In addition, the stream restoration activities proposed with Alternative E could be incorporated into Alternative C in a targeted and sensitive manner to achieve these important improvements to the existing stream while protecting adjacent sensitive forest areas.</p> <p>We recognize there are other details and complexities associated with Alternatives C and E. However, the impacts to the stream valley from Alternative E will be permanent, whereas the very minor impacts to burial capacity would appear to be able to be offset as part of the Cemetery’s other expansion efforts in less sensitive areas. The statement in the EA that “stakeholders were concerned about the placement of the committal shelter and columbarium” seems to be made to conclude that this alternative would not be feasible. However, this factor should be weighed in the context of all of the other impacts and benefits of each alternative.</p> <p>We are hopeful that the Cemetery can take another look at Alternative C and come up with a new preferred alternative that achieves the best of Alternatives C and E in terms of burial capacity, stream valley protection, and stream restoration.</p>	<p>Alternatives C and F were eliminated from further elimination because they would not meet minimum operational intent and would not meet regulatory requirements. See 3.9 for additional information on alternative evaluation. Design refinements have been incorporated into Alternative E, including lessening the width of the loop road and adjusting the road in several spots to avoid high quality trees.</p>
<p>Arlington County</p>	<p>Arlington County recently had the opportunity to provide comments on the ANC’s Draft Cemetery Design Guide. A number of stipulations in that Guide would seem to apply to the Millennium Project, and could provide further grounds for work on a redesign of the current proposed Alternative. <i>Additional details in formal comments later in this Appendix.</i></p>	<p>Several comments were discussed at a meeting between Arlington County, Millennium Project Team Members from Norfolk USACE and ANC, and other Section 106 consulting parties regarding the desire for greater coordination between the developing Master Plan Cemetery Design Guide (CDG) and the Millennium Project,</p>

		<p>which is preceding the final master plan and its guidelines. The group was informed that the CDG was not yet begun when the concept designs of the Millennium Project were developed. Since that point each is informing the other as they are being developed or further developed concurrently. Although there are some discrepancies, there are also many consistencies.</p>
Arlington County Parks and Natural Resources Div.	<p>IMPACTS OF THE CURRENT PLAN</p> <ul style="list-style-type: none"> <li>• Removal of a portion of the large stand of old-growth hardwood forest in Arlington County, some of which classifies as unlogged forest, which may date to before the American Revolution.</li> <li>• Significant filling and cutting of the slope, impacting the existing forest, and creating erosion and runoff problems, only partially mitigated by stream bank restoration.</li> <li>• Increasing of the edge habitat of the remaining old growth forest, allowing for easier introduction of invasive species.</li> </ul> <p>ISSUES WITH THE ENVIRONMENTAL ASSESSMENT</p> <ul style="list-style-type: none"> <li>• <b>Page 27:</b> There is a claim there are no known unique ecosystems listed within or adjacent to the project area, when, for this area, this type of forest is unique. The Virginia Native Plant Society has listed the Arlington House woodlands as one of their Registry Sites due to its historical and botanical significance as an Old-age Terrace Gravel Forest. This cannot really be replaced or mitigated.</li> <li>• <b>Page 52:</b> The claim “Neither of these wetland areas is within the construction footprint of the Millennium Project” is incorrect, as it does exist within the limits of disturbance of the Project. It is unclear how the Easternmost wetland (Wetland B) will be unaffected by the Project, even if the only intent for that area is stream restoration. The stream restoration suggested appears to be fairly intensive and will involve heavy equipment, increasing the chances for damage to the wetland.</li> <li>• <b>Page 53:</b> The EA does not contain a full vegetation inventory (ferns, forbs, sedges, etc.), and only a partial tree inventory (outlining 596 trees of the total 1724 trees). National Park Service (NPS) does point out that 2 species are found in Arlington Woods that are not found anywhere else along the George Washington Memorial Parkway: <i>Lonicera sempervirens</i> and <i>Prunus virginiana</i>. The latter has not been found at any other site in Arlington. A 1996 plant inventory of Arlington House by Cris Fleming also notes some unusual species, including <i>Prunus angustifolia</i> and <i>Prunus pennsylvanica</i> which have not been found anywhere else in Arlington County. A full vegetative inventory is recommended.</li> <li>• <b>Page 53:</b> There is concern that 130-150 year old forests</li> </ul>	<p>There will be no trees impacted that are greater than approximately 145 years old. No trees dating to the American Revolution will be impacted.</p> <p>The project is being coordinated with VDCR, VDEQ and USACE Regulatory Staff. All appropriate regulatory criteria will be met. All NPS-Administered old-growth forest will continue to have a forested buffer as a result of the 50-100 foot stream RPA buffer.</p> <p>The planning process reduced impacts to trees from 1100+ trees removed in early plans to ~890 in current plan. The only forested area with old-growth characteristics, the NPS-Administered Arlington Woods which is adjacent to the main project area, are not significantly impacted. Other minimization and mitigation efforts include invasive species control for four years post construction, and replanting of 600 trees and 500 shrubs of only native species. Please see section 5.6 for an expanded analysis of the tree impacts.</p> <p>The stream bed is not undisturbed – it is a highly disturbed area and has actively eroding banks.</p> <p>The significance of the impacts are defined by the “threshold of significance” defined for each resource area. For Vegetation, and trees in particular, impacts to forested areas with “old-growth characteristics” was the defined threshold. Only the NPS lands adjacent to the site (which are not being significantly impacted) meet that threshold, therefore no significant</p>

	<p>are viewed as "expendable" within the document. These age groups are considered to be "historical" natural forests within Arlington's highly urbanized environment. The 235-year-old Mixed Hardwood forest may indeed be older than 235 years old. The only supporting evidence of forest age used were tree rings of fallen trees, which tells you how old that particular tree is, not the entire forest. It can be safely assumed this forest has been unlogged throughout history.</p> <ul style="list-style-type: none"> <li>• <b>Page 54:</b> "Wildlife Resources Including Rare, Threatened and Endangered Species" consists of just over two paragraphs and is rather vague in their characterization of the site. The main source seems to be a document from 2010 by the Animal Welfare League of Arlington, which deals primarily with domesticated animals rather than wildlife. Further biotic inventories by qualified wildlife experts would be wise to do so we know what really is present there.</li> <li>• <b>Page 58:</b> "None of the old growth area (235 years old) is within the Millennium APE." This is in direct contradiction with Figure 5 in Appendix B, where the project outlines go into the 235 year old hardwood forest. Similar to the issue on page 52, even if the only disturbance planned is a stream restoration, this will still significantly impact the area. This claim is repeated on page 78.</li> <li>• <b>Pages 68-69:</b> The statement "The soils in the proposed project area are previously disturbed soils" may not be accurate (see Fleming, 2006, also showing over 60% will be on highly erosive soils on steep slopes as well as the possible location of 2 seeps/springs not shown in the plan). It is estimated that 100,000 cubic yards of soil will be removed or redistributed within the project area. This represents a significant impact to the environment.</li> <li>• <b>Page 77:</b> "Groundwater would return to normal levels upon completion of disturbance in these areas" is an unlikely assertion, as the amount of grading involved in this project, including the need to compact and stabilize the soil would prevent groundwater conveyance to be restored.</li> <li>• <b>Page 78:</b> Replacement of 1,724 largely native, old growth, mature trees with "600 new trees and 500 new shrubs" would not result in appropriate mitigation.</li> <li>• <b>Page 80:</b> The comment "disturbed areas would readily regenerate upon completion of the project...." is incorrect. It will take 130-150 years to replace some of the impacted area. Some species would not return at all if not planted or reintroduced. The disturbance would not be limited to trees, as even the most common species of salamander which is likely to be present, the Eastern Red-backed Salamander <i>Plethodon cinereus</i>, may take 50 or more years to recover, if they recover at all.</li> </ul> <p>SUGGESTED CHANGES TO THE ENVIRONMENTAL ASSESSMENT</p> <ul style="list-style-type: none"> <li>• Provide a full biotic inventory (both vegetative and</li> </ul>	<p>impacts to the trees are anticipated.</p> <p>Page 27: The VNPS Registered site is adjacent to the project site and will be only minimally impacted as a result of lessened buffer area. Although this project site may be considered a locally unique habitat, the areas of impact are not of high quality due to high levels of disturbance and high invasive species cover. Section 2.7.8 was amended to address this comment.</p> <p>Page 52: The maps and discussion of wetland impacts have been revised, please see section 4.5 and 5.5. As the wetlands are partially on NPS property, there will be high levels of protection incorporated to ensure no significant impacts to these areas.</p> <p><b>Page 53:</b> Additional supporting inventories have been included – see Appendix G. These inventories include existing documents as well as new vegetation, wildlife, and stream surveys.</p> <p>Page 54: see page 53 response</p> <p>Page 58: This has been clarified in EA revisions. New maps are provided. Even where a small outline of the project graphic overlaps into the 235 year boundary, minimal impact is anticipated. There will be one tree removed from NPS property, which has been coordinated with NPS, as a result of the stream restoration. All construction access will be from the ANC side, and a 50-100 foot buffer of existing trees will remain. The sensitive nature of the habitat is noted and will be treated accordingly.</p> <p>Page 68-69: The existing soil conditions as well as the seeps and springs have been identified and addressed. Significance thresholds have been defined, and the impacts to soil are not considered significant.</p> <p>Page 77: Noted. This discussion has been revised to reflect only local groundwater impacts.</p>
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	<p>faunal), including an analysis of current invasive species pressures.</p> <ul style="list-style-type: none"> <li>• Correct statements that are not consistent with the supporting documents or with current ecological restoration and conservation practices.</li> </ul> <p>SUGGESTED MITIGATION</p> <ul style="list-style-type: none"> <li>• Reconsider Alternative C as a viable option with fewer environmental impacts, in light of how many additional burial spaces (400) would be gained or that could be relocated to less environmentally sensitive plots elsewhere.</li> <li>• Remove or reduce the “loop road,” reducing impact on the forest.</li> <li>• Implement targeted stream restoration where severe channel erosion warrants intervention, but minimize disturbance to adjacent high value forest areas.</li> <li>• Provide invasive species management in impacted forested areas, improving the health of the forest, preventing invasion into the oldest stands of forest, which is likely to intensify due to construction disturbance.</li> <li>• Prioritize contiguous, non-fragmented forest over individual tree stands in the burial space. If swaps can be made between “islands” of trees and contiguous forest, which would provide a stronger buffer for the old growth, that would be preferable and provide better ecological value, and recover some additional burial plots.</li> <li>• Plant only native, local ecotype trees, shrubs, and plants as part of the landscaping and reforestation, to prevent further degradation of the local ecosystem and habitat.</li> <li>• Provide protocol to be used for flora and fauna if capture, rescue, or relocation becomes necessary.</li> </ul>	<p>Page 78: This is only noted as one mitigative measure among several. It has been clarified that the process sought to first avoid, then minimize, then mitigate, the impacts.</p> <p>Page 80: Text has been adjusted.</p> <p>Suggested Changes: These have been addressed in above responses.</p> <p>Suggested Mitigation: Alternatives C and F were eliminated from further elimination because they would not meet minimum operational intent and would not meet regulatory requirements. See 3.9 for additional information on alternative evaluation. Design refinements have been incorporated into Alternative E, including lessening the width of the loop road and adjusting the road in several spots to avoid high quality trees.</p> <p>Most of the stream area is currently highly eroded therefore restoration is warranted. The high value forested area adjacent to the project site is acknowledged and appropriate restoration construction techniques have been identified.</p> <p>A four year post construction invasive species management plan has been proposed. Invasive species management is very resource intensive, so geographic and time boundaries to that plan are appropriate.</p> <p>Noted that contiguous forest is preferable, and the design team will continue to look for opportunities to maximize the contiguous forested area.</p> <p>Only local native species will be planted.</p> <p>Protocol for flora and fauna relocation would be coordinated with appropriate agencies.</p>
		Tree analysis
Arlington Co.	pective of the Urban Forestry Commission, the EA consistently	See responses above. A full tree

Urban Forestry	<p>l inadequately evaluates the environmental impact of the proposed project will completely alter the topography of a natural steep-sloped It will destroy a stream and a significant portion of one of the last is of old-growth forest in our County and the region. There is a c of data and analysis of the vegetation, wildlife and other natural will be permanently lost. The report provides only vague ncerning the vegetative and wildlife impacts of the project, and ural resources inventory listed in the reference section.</p> <p>oes not appear that available resources describing this area in detail l. One example is the study conducted by Tony Fleming, Geological tory of Arlington County, December, 30, 2006. The Arlington is singled out as being a significant geological site in this report 6, p.9):</p> <p>Arlington House Woods is significant in being one of only two public natural areas in the county (Barcroft Park is the other) to completely span a Coastal Plain slope from the bedrock at the bottom, through the Potomac Group on the slope, to the terrace gravel at the top. The relationship of both natural communities and spring hydrology to geologic setting is illustrated exceptionally clearly here.</p> <p>r need for detailed maps showing springs and seeps that have been st within the project area (see Fleming, 2006). Characterizing the ject area as “previously disturbed” (EA, p. 68) may not be accurate. rge portions of the work site will consist of highly erodible soils on aising serious concerns about the ability to control the impact on natural areas, as well as the long-term viability of the proposed</p> <p>o mention that this site has been listed as a Registry Site by the e Plant Society as a result of its unique ecological and historical</p> <p>This 12-acre National Park Service woodlands site, surrounded by Arlington National Cemetery retains its original historic purpose of providing a park setting for Arlington House, home to George Washington’s grandson and later Robert E. Lee. Development pressure has removed an adjacent 12 acres, and it is hoped that the registry designation will call attention to this remaining forest. These Washington metropolitan woodlands have never been logged or tilled and contain many very large, old-age trees, some dating to the American Revolution. Most of the area is on a variegated gravel, sand, silt and clay soil and a deep ravine with a perennial spring runs through the forest center. It is one of northern Virginia’s surviving examples of Old-age Terrace Gravel Forest. The ravine forest canopy consists mainly of oaks, hickories, tulip tree and beech with an understory of fringetree, witch-hazel, pinxter azalea, black haw and maple-leaved viburnum, and a carpet of spring wildflowers.</p> <p>that 1,724 trees over 6” diameter will be impacted, but no tree ovided, so it is not possible to determine the actual impact of the ticularly high value trees and ecologically significant stands of</p>	<p>inventory and vegetation survey (and references) are provided in the Revised EA.</p>
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	<p>also no analysis of other vegetation, which probably includes species with high ecological value, especially in the areas of soil.</p> <p>Our concerns about the proposed loop road and the impact it would have on the previously undisturbed portion of the stream valley. Likewise, we note that the project would further fragment the remaining woods, further reducing its wildlife value. We urge the development of a design that minimizes fragmentation, and keeps the woods intact as possible.</p> <p>Aware of the pressures to increase the longevity of the cemetery, the project is very high: An irreplaceable ecological and historical resource -- the last remaining old-growth forests in our region -- would be damaged and parts of it destroyed to provide an additional 7-12 years of life at Arlington National Cemetery.</p> <p>A thorough analysis of the geology, hydrology, vegetation and the project area be conducted and properly evaluated before any further action is made. Likewise, we urge that the public have an adequate opportunity to review and comment on this project before it moves forward.</p>	
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Arlington Historic Affairs and Landmark Review Board	<p>Our review of this project raised the additional concerns noted below.</p> <ul style="list-style-type: none"> <li>Alternative F was not adequately explored as an option. The Draft EA provides no burial numbers for this option, and no other substantive information explains why Alternative F, which has the least impact to the identified environmental, historic, and cultural resources, was discounted and apparently not given serious consideration.</li> <li>The preferred alternative's increase in the number of burial sites by only 1.1% over the number provided by Alternative C would not appear to justify the far greater adverse impact on environmental, historic, and cultural resources.</li> <li>The path shown in Alternative F does seem to provide adequate access for maintenance and for disabled visitors along a greatly minimized loop road. The design of this path should be explored further. A burial spot next to a well-preserved, 150-year old, Civil War era forest, as in Alternative F, would seem preferable and more honoring of the veterans to be buried there than the burial sites of Alternative E, which are located next to a section of paved road.</li> <li>The streambed and the regenerated forests and the old-growth forests are important historical resources within the ANC site and should be preserved. The forests have been an integral part of this site for at least a century and a half; much of the forest is significantly older, as is the stream. These living historic resources, once removed, cannot be adequately replaced.</li> </ul>	<p>See responses above.</p> <p>Burial numbers have been included for F.</p> <p>Alternatives C and F were eliminated from further elimination because they would not meet minimum operational intent and would not meet regulatory requirements. See 3.9 for additional information on alternative evaluation. Design refinements have been incorporated into Alternative E, including lessening the width of the loop road and adjusting the road in several spots to avoid high quality trees.</p>
Arlington County Environment and Energy Conservation Commission	<p>The Arlington County Environment and Energy Conservation Commission has reviewed the draft Environmental Assessment (EA) of the ANC Millennium Project and has a number of serious concerns about the lack of information on old growth woodland and stream habitats, lack of analysis regarding habitat value and failure to analyze in detail the impacts of the</p>	<p>See responses above.</p>

	<p>proposed project. Therefore we do not support some of the conclusions reached by the Corps in the EA. We concur with the findings of our colleagues, the Arlington County Urban Forestry Commission, and we will not repeat their more detailed comments in this letter.</p> <p>We understand the pressures on the ANC to provide new burial sites. The proposed destruction of the largest remaining old-growth woodland in northern Virginia would buy ANC only another 7 - 12 more years of new burial sites. Old-growth forests are in essence irreplaceable.</p> <p>Among the EA's numerous failures are that it:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> lacks data on the vegetation, wildlife and other natural resources that will be permanently lost or indirectly impacted;</li> <li><input type="checkbox"/> inadequately evaluates and, therefore, downplays the proposed project's environmental impacts;</li> <li>and,</li> <li><input type="checkbox"/> contains only vague generalities concerning the project's impacts to the County's other natural resources.</li> </ul> <p>These failures make it difficult to determine the impact of the project on particularly large, native, rare trees; ecologically significant stands of trees; and freshwater resources. An adequate EA would address means to minimize the proposed loop road's impact on a previously undisturbed portion of the stream valley and its effects of further fragmenting the remaining woods and reducing wildlife habitat value. To comply with the Council on Environmental Quality's NEPA guidance, the Corps needs to design the project in a manner that first avoids and then minimizes impacts to the greatest extent possible, and then mitigates remaining impacts. To begin this process, the Corps must conduct a far more thorough analysis of the geology, hydrology, vegetation and wildlife in the project area. Before the Corps proceeds with this project any further, we request the Corps complete a revised draft EA and submit it to the Arlington County Environment and Energy Conservation Commission and the general public with sufficient time for a thorough review and preparation of comment.</p>	
ARLINGTON COUNTY PARK AND RECREATION COMMISSION	<p>While we appreciate the pressure to expand the longevity of Arlington National Cemetery, the EA consistently downplays the potential impact on an irreplaceable resource -- one of the last remaining old growth forests in our region. We believe that the identified "preferred alternative" in the EA fails to address the significant ecological, historical and cultural damage that would result from this project. This extremely rare and valuable location requires a significantly higher level of diligence to ensure that it is protected for future generations. The</p>	See responses above.

	<p>commission is also concerned about the lack of detailed information and maps which makes it virtually impossible to adequately judge the true impact of this project.</p>	
<p>VA Native Plant Society – Nancy Vehrs, President</p>	<p>Dear Ms. Conner:</p> <p>It is with great dismay that I read the Environmental Assessment on the Arlington National Cemetery Millennium Project. Ms. Mary Ann Lawler, the conservation chair of the Virginia Native Plant Society, called this project to my attention. The impact of the project on Arlington House Woods and the natural character of the historic site will be devastating. We can only imagine that neither Robert E. Lee nor General Washington's grandson would have approved. The Virginia Native Plant Society designated Arlington House Woods as one of only 19 areas in Virginia on its registry. The primary requirement for eligibility is that a site have regional or state significance because of its native plants. Below is a brief description of this special site.</p> <p>Arlington House Woodlands, Arlington, Potowmack Chapter</p> <p>This 12-acre National Park Service woodlands site, surrounded by Arlington National Cemetery retains its original historic purpose of providing a park setting for Arlington House, home to George Washington's grandson and later Robert E. Lee. Development pressure has removed an adjacent 12 acres, and it is hoped that the registry designation will call attention to this remaining forest. These Washington metropolitan woodlands have never been logged or tilled and contain many very large, old-age trees, some dating to the American Revolution. Most of the area is on a variegated gravel, sand, silt and clay soil and a deep ravine with a perennial spring runs through the forest center. It is one of northern Virginia's surviving examples of Old-age Terrace Gravel Forest. The ravine forest canopy consists mainly of oaks, hickories, tulip tree and beech with an understory of fringetree, witch-hazel, pinxter azalea, black haw and maple-leaved viburnum, and a carpet of spring wildflowers.</p> <p>Over 1700 trees will be lost. Removing the buffer of 150-year-old trees will affect the old growth forest.</p> <p>Disturbing the soil and building a loop road will bring in invasive plants to a pristine area. So few of these old growth forest remnants remain, and, once they are gone, they are lost forever.</p> <p>We believe that the environmental assessment is inadequate; that more analysis of the impacts on the flora is necessary; and that the project should not continue without a more comprehensive public process.</p>	<p>The Millennium Project site is NOT on the Virginia Native Plant Registry. The adjacent NPS-administered Arlington Woods are on the Registry. In fact, the VNPS Registry notes that 12 acres adjacent to its site have already been lost to development. These 12 acres were the lands transferred from NPS to ANC for the Millennium Project. And, as described in the EA, the Millennium Project will consist of mostly "green space" that is environmentally preferable to the urban development in surrounding areas.</p> <p>The planning process reduced impacts to trees from 1100+ trees removed in early plans to ~890 in current plan. The only forested area with old-growth characteristics, the NPS-Administered Arlington Woods which is adjacent to the main project area, are not significantly impacted. Other minimization and mitigation efforts include invasive species control for four years post construction, and replanting of 600 trees and 500 shrubs of only native species. Please see section 5.6 for an expanded analysis of the tree impacts.</p> <p>The stream bed is not undisturbed – it is a highly disturbed area and has actively eroding banks.</p> <p>The significance of the impacts are defined by the "threshold of significance" defined for each resource area. For Vegetation, and trees in particular, impacts to forested areas with "old-growth characteristics" was the defined threshold. Only the NPS lands adjacent to the site (which are not being significantly impacted) meet that threshold, therefore no significant impacts to the trees are anticipated.</p> <p>Additional supporting inventories have been included – see Appendix G. These inventories include existing documents as well as new vegetation,</p>

		wildlife, and stream surveys.
VA Native Plant Society – Mary Ann Lawler, State Conservation Chair	Dear Ms. Conner: It is with great dismay that I read the Environmental Assessment on the Arlington National Cemetery Millennium Project...same as Vehrs above	See response above to Vehrs
EPA	The EA does not evaluate other locations for the proposed project. NEPA promotes consideration of a range of alternatives. If other options were considered or are reasonable, these alternatives should be presented as part of the environmental analysis.	The Revised EA will discuss how the land for the Millennium Project was transferred to ANC from NPS and Joint Base Meyer-Henderson Hall via legislation over ten years ago for the purpose of expansion. It will also discuss that the Navy Annex is the only other available are for a large expansion project, and those plans are already under way (all being considered as part of the ANC Master Plan).
	Many of the maps and plans provided are unreadable and many lack a frame of reference to understand orientation, etc.	This has been corrected. Most maps have been revised – a few examples are attached. Please note that these maps are not yet final and may continue to be revised before the revised EA is released.
	The description of resources in the EA are too vague to allow for proper evaluation	Resource inventories have been expanded. Many references were provided by Arlington County (vegetation and geologic inventories). A bird survey was found from a prior NPS EA. In addition, we have completed a full tree inventory as well as an inventory of small vegetation and one of wildlife. These will all be referenced and included in the EA.
	We were not provided with Appendix 1 of Appendix C, which is referenced in the document.	The missing documents associated with Appendix 1 of Appendix C are now included in Appendix C.
	The EA should state how the project complies with Section 502 of the Executive Order 13508 and Section 438 of the Energy Independence and Security Act.	This discussion will be expanded in the EA. Section 502 of EO 13508 implementation measures that are being utilized (and will be further discussed in the EA) on the project include: Tree planting and urban forestry (U-1) Soil amendments and turf management (U-1) Restore Predevelopment hydrology through stream restoration (U-2)  Section 438 of the Energy Independence and Security Act implementation measures include: Reforestation/revegetation using native plants in all natural areas and

		<p>mostly native plants (with only a few exceptions) in the formal areas</p> <p>Protection and enhancement of riparian buffers and floodplains</p> <p>Trees</p>
	<p>Additional information should be provided on the revegetation efforts. While 600 new trees and 500 new shrubs are going to be planted, it is unclear how this will replace the functions and values of the trees removed from the site</p>	<p>All new plantings will be native/non-invasive species. A four-year invasive management plan will also be implemented. Although these trees will not totally replace the function and value of the trees that are lost, they will serve to:</p> <p>Provide landscape consistency with the rest of ANC</p> <p>Improve air quality by filtering many airborne pollutants and can help reduce the amount of respiratory illness</p> <p>Providing wildlife area.</p> <p>Increase evapotranspiration process</p>
	<p>All areas should be revegetated with native species where possible. In addition the project should comply with EO 13112 regarding invasive species.</p>	<p>All new plantings in natural areas will be native. In the formal areas, most plantings will be native and all will be non-invasive. A four-year invasive management plan will also be implemented. The project will be in compliance with EO 13112.</p>
	<p>Page 49 states that wetland delineation was performed and identified two perennial streams and one intermittent stream. It is very difficult to identify these resources on the maps provided and the associated habitat. In addition, it is not clear which stream(s) are being restored or if these areas are considered jurisdictional by the USACE. The wetland delineation report should be provided.</p>	<p>Maps have been improved and will be included in the revised EA. The wetland delineation report will be included and is provided in this response.</p>
	<p>The text indicates that some areas are deeply incised and have actively eroding banks. It is not clear from the information provided how much of the area is impaired and what the remaining stream reaches look like. Some of the photographs provided do not show much evidence of impairment.</p>	<p>Unfortunately photographs often do not accurately portray the severity of the stream degradation. However, with the exception of a 200 linear foot section of stream located just upstream of Ord and Weitzel Drive (represented by Photos 3 and 4), an area proposed for spot improvements only, the entire reach of stream through the Millennium project is in need of restoration. The existing stream at this point is approximately 20 feet wide and 6 feet deep (the man pictured is approximately 5 foot 8 inches tall) and the stream banks are vertical. The drainage area to the stream at this point is approximately 8 acres. Per Maryland Piedmont Regional Curves, adjusted for</p>

		watershed impervious area, a stream with a contributing drainage area of this size should have a bankfull width of approximately 6.5 feet and a depth of 0.7 feet. During site inspections, representatives from USCOE regulatory, VDEQ, and Arlington County all concurred that the streams flowing through the Millennium project site were in need of restoration.
	Before undertaking restoration, a comprehensive assessment of impacted streams, which includes existing physical, chemical and biological conditions, should be conducted.	In response to your comments, a baseline study of the existing stream's physical, chemical, and biological conditions was prepared.
	In addition, a post-restoration long-term monitoring plan should be submitted for review.	At the pre-application meeting held on November 7, 2012, VDEQ and USCOE requested 2-Years of post-construction monitoring. It was also requested that the post-construction monitoring include photo monitoring of the in-stream structures (with a survey of the structures only if a problem becomes evident) and stem counts of wood vegetation. A specific monitoring plan that includes these items shall be included in the Clean Water Act permit.
	A mitigation plan per the 2008 Compensatory Mitigation Rule should be developed to document compliance with the stream and buffer restoration goals.	The 2008 Compensatory Mitigation Rule is not applicable to this project because both USCOE and VDEQ have concurred that the permanent impacts from the proposed project alternative are below the threshold that triggers a Compensatory Mitigation requirement.
	Page 53 states that a small portion of the stream restoration is located on NPS- administered property and NPS considers that portion of stream a wetland per their implementing regulations. How does this relate to the proposed project?	It is a case of differing Agency descriptions for the same resource. In Section 4.3, the Cowardin classification of this stream is described as riverine, upper perennial, streambed, cobble-gravel/sand (R3 SB 3/4). NPS simply asked that it be noted that they consider such an area a wetlands under their regulations. Since NPS is a cooperating agency, the statement was added. However, for purposes of the Clean Water Act and Virginia Water Protection Program (VWPP) it is considered a jurisdictional stream, and not a wetlands.
	Page 72 states that the project can be permitted using a SPGP or NW #27. It will have to be demonstrated that the project meets	The project proponent has met with the USCOE Regulatory Permit writer



	the necessary criteria for that to occur.	assigned to the project and the VDEQ VWPP staff on site and in VDEQ's office for a formal Pre-Application meeting. Both agencies have verbally concurred that the necessary criteria are met to approve the proposed project with a combination of an SPGP and NWP #27.
	More detail on the peak and volume storage is needed to determine the outlet flow rates and duration entering into the receiving stream.	The proposed detention system will be approximately 19,000 cubic feet in volume, and will capture and attenuate the 1, 2, 10, and 100-year storm events to a good forested condition using the "Energy Balance" method (explained below). The resulting peak flow rates for the design storms will be 0.5 cfs, 1.1 cfs, 3.3 cfs, and 9.7 cfs respectively. The receiving channel is sized to convey up to the 100-year storm event within its bankfull limits.
	It is unclear if the study drainage area includes the existing NPS parking lot.	The NPS parking lot drains to the main Millennium project stream restoration, and thus is included in the study drainage area.
	Section 3.3.2 should be revised to indicate that the underground storage devices do not contribute to base flows. They contribute to higher than base flows for an extended period of time contributing to more bank scour downstream.	You are correct; the receiving channel for the National Park Service parking lot is an ephemeral nonjurisdictional erosion gulley with no base flow. The proposed detention system is designed to capture and attenuate the 1, 2, 10, and 100-year storm event discharges using the "Energy Balance" method for a good forested condition. It will slowly release the captured storm events over an extended period at peak flow rates similar to what would be expected in a forested watershed in good condition. Unlike traditional storm water management which simply controls the pre-development peak discharge to the pre-development rate, and does not account for the increase in runoff volume associated with the increase in impervious surfaces (which results in the condition described in the comment), the proposed detention system will reduce the discharges to a forested condition using the "Energy Balance" method. The storage detention system provides a drawdown time (from peak discharge to when flow has effectively stopped) of approximately 12.3, 12.5, 12.9, and 14.2 hours for the 1, 2, 10, and 100-year storm events,

		respectively. The Energy Balance method has been adapted for use in Virginia and is specifically intended to provide protection of receiving channels.
	Section 3.3.4 should reflect that the severe damage is caused by both the lack of stormwater controls and outlet protection.	We agree the degradation associated with the National Park Service outfall channel is the result of uncontrolled runoff from the asphalt parking lot.
	Section 3.4.1 should discuss how the attenuated peak flows discharging from the underground storage device are incorporated in to the RSC design to avoid failures.	The proposed detention system is designed to capture and attenuate the 1, 2, 10, and 100-year storm event discharges using the “Energy Balance” method for a good forested condition. The proposed channel has been sized to safely convey up to the attenuated 100-year storm event from the underground storage device within its bankfull limits. The rocks sizes being utilized in the design have been selected to withstand the flow velocities and shear stress of the channel given the proposed channel dimensions.
	More information should be provided for the removal of the pavement around the existing trees. Issues that need to be addressed are existing soil compaction and minimizing damaging the root system of the trees.	Such information is typically, and will be, provided in the construction documents. To avoid tree root damage, no changes to the soil compaction will be attempted. The existing asphalt will be mechanically stripped and the sub base will be removed with an air spade to prevent damage to the tree roots. Topsoil will be spread, by hand, over the pavement removal area, and the area will be mulched. Traffic control devices will be placed at the edge of the pavement to prevent vehicles from driving on the restored areas.
	Section 4.1 should include the hydrologic soil group.	See Section 4.1
	It is unclear from the information presented what may happen upstream and downstream of weir structures if they were to be impacted by velocity of storm flow or other circumstances.	To minimize the risk of progressive failure, each structure will be keyed in with footer rocks. If a structure were to fail, it would be isolated and not cause a system wide failure. In addition, the structure rocks are sized to withstand the storm flow velocities.
	It is unclear who is in charge of maintenance of the stream restoration. For example, silt may clog the pore space of the sand which could significantly reduce in-situ infiltration rates. Also, iron bacteria may inundate the RSC structure due to sand and sandstone fill material.	The RSC channel is on NPS land and thus NPS is responsible. Given the character of the watershed and the design of the detention system and channel restoration, maintenance should not be an issue. There is very

		<p>limited sediment or solids input into the system (with the exception of winter sands and acorns from the oak trees in the parking lot) from the watershed. Approximately 47% of the contributing drainage area is asphalt parking lot, and the remaining portion is primarily maintained lawn. As such, the runoff is very clean. A hydrodynamic separator, sized to treat up to the 100-year storm event, will be installed at the inflow to the detention system. The hydrodynamic separator will remove acorns, any trash, and sediment from the runoff before it goes into the detention pipes. The channel restoration itself has been designed to assume no infiltration. Therefore, if the system clogs it will not affect the design capacity.</p>
	<p>Vegetation may be impacted by construction of the RSC and invasive species may be an issue. This should be addressed.</p>	<p>At the request of the National Park Service, construction and construction access will be primarily limited to the eroded gulley to minimize impacts to existing vegetation during the construction of the National Park Service channel restoration. All areas impacted will be revegetated with a diverse mix of riparian vegetation native to the Arlington region.</p>
	<p>From the information provided, it is unclear if this design will provide water quality improvements. Goals and objectives should be clearly stated. Associated monitoring should be linked to the objectives.</p>	<p>Water quality will be improved as a result of the Millennium Project stream restoration. The Millennium Project is currently incised (preventing storm flows from accessing the floodplain) and has raw, actively, eroding banks. In its existing condition, the stream is transporting and providing pollutants (i.e. total nitrogen, total phosphorus, and total suspended solids) to downstream receiving waters. A significant source of these pollutant loads is the existing streambank and bed erosion. Thus, by restoring the stream and effectively eliminating the streambank and bed erosion there will be improvements to the water quality.</p> <p>No water quality monitoring is proposed as it is not required by the regulatory agencies.</p>
	<p>The document should include an evaluation of how the natural channel design will accommodate changes in hydrology (i.e</p>	<p>The proposed stream channel for the Millennium project was sized to</p>

	increase floodplain capacity and higher frequency of bank fill) resulting from changes in the landscape from natural forest to park setting.	convey the flow from the 1.5-year storm event using the proposed (i.e. ultimate build out) site conditions. Flows larger than the 1.5-year storm event will overtop the stream banks and spread out across the floodplain. A hydraulic model of the proposed stream conditions for the 100-year storm event was developed to confirm that the overbank velocities are not erosive. Therefore, the proposed stream will be able to accommodate the flows associated with the cemetery expansion.
	Section 3.5 should state regulatory requirement for the mitigation.	Based upon discussions with USCOE and VDEQ regulatory personnel at the November 7, 2012 pre-application meeting, there are no Section 401/404 requirements for mitigation as the project impacts are below the mitigation threshold. Proposed impacts to the Resource Protection Area (RPA) will be mitigated through buffer restoration in currently degraded RPA areas on the Millennium site.
	Coordination letters from the appropriate state and federal agencies should be provided to ensure the species of concern will not be impacted.	Coordination is complete and VDGIF and USFWS documents will be included in the Revised EA.
	This section (cumulative impacts) should discuss other projects in the area, not only those involving ANC.	Cumulative Impacts section will discuss other projects in Arlington County and general development trends in the DC Metro area.
National Trust for Historic Preservation	The Arlington House Woods contributes to the historic significance of Arlington House and of Arlington National Cemetery.	Because the letter from NTHP was addressed directly to Mr. Hallinan, a response was sent from ANC directly to NTHP.  To respond to the historic significance, the Section 106 process is ongoing and an MOA will be completed before a FONSI is signed.
	Draft Plans for the Millennium Project should be amended to expand the area for burials and to protect Arlington House Woods.	The NPS-administered property known as "Arlington Woods" would have no native trees removed, and would only be minimally impacted due to restoration activities occurring on that property.



# *COMMONWEALTH of VIRGINIA*

## *DEPARTMENT OF ENVIRONMENTAL QUALITY*

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January 10, 2013

Ms. Susan L. Conner  
Chief, Environmental Analysis Section  
U.S. Army Corps of Engineers, Norfolk District  
803 Front Street  
Norfolk, Virginia 23510

RE: Arlington National Cemetery Millennium Project: Federal Consistency  
Determination (DEQ-12-203F) and Environmental Assessment (DEQ-12-225F)

Dear Ms. Conner:

The Commonwealth of Virginia has completed its review of the above-referenced Federal Consistency Determination and Environmental Assessment. The Department of Environmental Quality (DEQ) is responsible for coordinating Virginia's review of (a) federal consistency determinations filed pursuant to the Coastal Zone Management Act of 1972, and (b) federal environmental documents filed pursuant to the National Environmental Policy Act of 1969 (NEPA) as amended, and responding to appropriate federal officials on behalf of the Commonwealth.

The DEQ received a federal consistency determination (FCD) for this project on November 8, 2012, and an environmental assessment (EA) on December 14, 2012 from the Corps of Engineers (hereinafter "the Corps"). In connection with the latter, the Corps provided a common due date for comments on both documents. We address both documents in this letter and enclosures.

The following agencies joined in reviewing this project proposal::

Department of Environmental Quality  
Department of Game and Inland Fisheries  
Department of Conservation and Recreation  
Department of Health  
Department of Historic Resources  
Department of Forestry.

In addition, the following agencies, regional planning district commission, and locality were invited to comment:

Department of Agriculture and Consumer Services  
Virginia Marine Resources Commission  
Northern Virginia Regional Commission  
Arlington County.

## **PROJECT DESCRIPTION**

The Army Corps of Engineers, in association with Arlington National Cemetery and the National Park Service, proposes to expand the Cemetery by 27 acres, consisting of Section 29 of the existing Cemetery and picnic grounds of Joint Base Fort Myer-Henderson Hall. The site includes Arlington Woods, which is associated with the Custis-Lee Mansion and Arlington House. It also includes a stone wall dating from the 1870s, which marks the boundary of current and historical areas of the Cemetery. A small stream crosses the site. Arlington Woods and the stream would be protected; the wall would be de-constructed and moved along McNair Road, as part of the Perimeter Columbarium Wall. The purpose of the project is to address anticipated burial space needs, in light of the projected date of 2025, by which the Cemetery will reach its capacity. The project will provide a number of new interment sites, two assembly areas including a shelter, water fountains, and infrastructure for electrical, electronic, and plumbing needs. (FCD, page 1, "Proposed Federal Agency Activity" and "Background" headings.)

The EA presents Alternatives A through F. Alternative A was a starting place for planning in 2009, providing 42,150 total new burial sites; Alternative C is the most environmentally sensitive, providing 36,020 total new burial sites. The total number ranges as high as 42,150 total new spaces (Alternative A) and as low as 35,620 (Alternative C). Alternative E, the preferred alternative, provides 36,020 total new spaces. The alternatives otherwise vary in regard to placement, number of interment sites, types of interment sites, and layout of facilities, sites, and infrastructure. In addition, there are "sub-alternatives" pertaining to stormwater management for the National Park Service parking lot: impervious area reduction, underground stormwater storage, bio-filtration, and slope management. (EA, pages 30-41.)

## **FEDERAL CONSISTENCY UNDER THE COASTAL ZONE MANAGEMENT ACT**

Pursuant to the Coastal Zone Management Act of 1972 (CZMA), as amended and the federal consistency regulations implementing the CZMA (see 15 CFR §930.30 through §930.46), federal actions that can have reasonably foreseeable effects on Virginia's coastal uses or resources must be conducted in a manner which is consistent, to the maximum extent practicable, with the Virginia Coastal Zone Management Program (VCP). The VCP is comprised of a network of programs administered by several agencies. In order to be consistent with the VCP, the federal agency must



obtain all the applicable permits and approvals listed under the Enforceable Policies of the VCP prior to commencing the project.

The Corps states that the proposed headstones removal project will be consistent, to the maximum extent practicable, with the enforceable policies of the Virginia Coastal Zone Management Program (FCD, page 7).

### **Public Participation**

In accordance with 15 CFR §930.2, a public notice of this proposed action was published on the DEQ website from November 15, 2012 to December 14, 2012. No public comments were received in response to the notice.

### **Federal Consistency Concurrence**

Based on our review of the federal consistency determination and the comments submitted by agencies administering the applicable enforceable policies of the VCP, DEQ concurs that the proposed action is consistent with the VCP, provided that any applicable permits and approvals are obtained as described below. However, other state approvals which may apply to project implementation are not included in this consistency concurrence. Therefore, the Corps must ensure that the project is implemented in accordance with all applicable federal, state, and local laws and regulations.

### **Analysis of Enforceable Policies**

The analysis which follows responds to the discussion in the federal consistency determination of the enforceable policies of the VCP that apply, or may apply, to the proposed action. The following enforceable policies do not appear to have any application to this project, based on the FCD (which discusses these topics on page 3, items D, F, and G, respectively) and our review. Accordingly, they are not discussed here:

- Dunes Management
- Point Source Pollution Control
- Shoreline Sanitation.

**1. Fisheries Management.** According to the FCD, there are no commercial or recreational fisheries in the project site; therefore, no impacts are anticipated (page 2, "Enforceable Policies" heading, item A).

**1(a) Agency Jurisdiction.** The Department of Game and Inland Fisheries (DGIF), pursuant to Virginia Code Title 29.1 §§ 29.1-100 through 29.1-577 and the Virginia Marine Resources Commission, pursuant to Virginia Code §28.2-200 to §28.2-713 administer the fisheries management enforceable policy of the VCP. The program stresses the conservation and enhancement of finfish and shellfish resources and the

promotion of commercial and recreational fisheries to maximize food production and recreational opportunities.

**1(b) Anadromous Fish Use Area: Recommendations.** DGIF records indicate that the Potomac River has been designated an Anadromous fish Use Area. Accordingly, DGIF recommends the following precautions in the event the Cemetery expansion requires in-stream work in Potomac River tributaries in the project area:

- Adhere to a time-of-year restriction from February 15 through June 30 of each year;
- Conduct any in-stream activities during low-flow or no-flow conditions;
- Use non-erodible cofferdams or turbidity curtains to isolate construction areas;
- Block no more than 50% of the streamflow at any given time;
- Stockpile excavated material in a manner that prevents its re-entry into the stream;
- Restore original streambed contours;
- Re-vegetate barren areas with native vegetation;
- Implement strict erosion and sediment control measures. Adhere strictly to these during ground disturbance.

See also “Additional Environmental Considerations,” item 3(c), below.

**1(c) Conclusion.** Assuming that the Corps adheres to erosion and sediment controls, DGIF finds the cemetery expansion project consistent with the fisheries management enforceable policy of the VCP. VMRC did not object to the statement by the Corps that the project would not affect recreational or commercial fisheries.

**2. Subaqueous Lands Management.** According to the FCD, no subaqueous lands will be affected by this project (page 2, “Enforceable Policies” heading, item B).

**2(a) Agency Jurisdiction.** The Virginia Marine Resources Commission (VMRC), pursuant to Virginia Code Title 28.2, Chapter 12, is responsible for issuing permits for encroachments in, on, or over state-owned submerged lands throughout the Commonwealth. Accordingly, authorization may be required from the Commission for projects involving encroachments channelward of ordinary high water along natural rivers and streams above the fall line, or below mean low water below the fall line. The Commission generally only requires permits for encroachments in, on, or over non-tidal streams with a contributing drainage area greater than five (5) square miles, or with an average stream flow of at least five (5) cubic feet per second.

The VMRC serves as the clearinghouse for the Joint Permit Application used by:

- The VMRC for encroachments on or over state-owned subaqueous beds as well as tidal wetlands;
- The U.S. Army Corps of Engineers for issuing permits pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act;
- DEQ for issuance of a Virginia Water Protection Permit; and
- Local wetlands boards for impacts to wetlands.

**2(b) Comments.** The Virginia Marine Resources Commission did not respond to DEQ's request for comments.

**2(c) Conclusion.** The Virginia Marine Resources Commission did not disagree with the statement in the FCD that there would be no subaqueous land impacts from the proposed project; therefore, the Subaqueous Land Management enforceable policy would not apply (see item 2, above).

**3. Wetlands Management.** According to the FCD, there are approximately 8,400 square feet of non-tidal wetlands in the project area, but none of these wetlands are located in an area where land disturbance will take place (page 2, "Enforceable Policies" heading, item 3).

**3(a) Agency Jurisdiction.** The State Water Control Board (SWCB) promulgates Virginia's water regulations. These cover a variety of permits, including the Virginia Pollutant Discharge Elimination System Permit, Virginia Pollution Abatement Permit, Surface and Groundwater Withdrawal Permit, and the Virginia Water Protection Permit (VWPP). The VWPP is a state permit which governs wetlands, surface water, and surface water withdrawals/impoundments. It also serves as § 401 certification of the federal Clean Water Act § 404 permits for dredge and fill activities in waters of the U.S. The VWPP Program is under the Office of Wetlands and Stream Protection (OWSP), within the DEQ Division of Water Quality Programs.

**3(b) Virginia Water Protection Permit.** According to DEQ's Northern Regional Office (DEQ-NRO), it is unclear whether the stream restoration project mentioned in the FCD (page 2, "Proposed Federal Activity" heading, end of second paragraph) is related to the recently reviewed Headstone Removal Project (reviewed under DEQ-12-176F). This restoration, along with any surface water impacts attributable to the Millennium Expansion Project, may require a Virginia Water Protection Permit if the activities are not otherwise excluded. Stream restoration activities included in the proposed expansion may qualify for authorization under a Nationwide Permit issued by the Corps, in which case a DEQ permit might not be required. See "Regulatory and Coordination Needs," item 6, below.

**3(c) Recommendation.** DEQ-NRO recommends that the Corps avoid impacts to surface waters, or minimize these impacts to the maximum extent practicable, in implementing the Millennium Expansion Project.

**3(d) Conclusion.** DEQ-NRO did not disagree with the statement in the FCD that wetlands would not be affected by the project, and the Wetlands Management enforceable policy would not apply (see item 3, above).

**4. Non-point Source Pollution Control.** According to the FCD, erosion and sediment control (ESC) and stormwater management (SWM) best management practices will be incorporated into the project design (page 3, item E).

**4(a) Agency Jurisdiction.** The Department of Conservation and Recreation (DCR), through its Division of Stormwater Management (DSM), administers the Virginia Erosion and Sediment Control Law and Regulations (VESCL&R) and Virginia Stormwater Management Law and Regulations (VSWML&R).

**4(b) Erosion and Sediment Control; Stormwater Management.** The project proponents and their authorized agents conducting regulated land-disturbing activities on private and public lands in the state must comply with the Virginia Erosion and Sediment Control Law and Regulations (VESCL&R), Virginia Stormwater Management Law and Regulations including coverage under the general permit for stormwater discharge from construction activities, and other applicable federal non-point source pollution mandates (e.g., section 313 of the federal Clean Water Act and Federal Consistency under the Coastal Zone Management Act). Clearing and grading activities, installation of staging areas, parking lots, roads, buildings, utilities, borrow areas, soil stockpiles, and related activities that result in the disturbance of greater than or equal to 2,500 square feet of land area would be regulated by VESCL&R. Accordingly, the Corps must prepare and implement an erosion and sediment control (ESC) plan to ensure compliance with state law and regulations. The Corps is ultimately responsible for achieving project compliance through oversight of on-site contractors, regular field inspection, prompt action against non-compliant sites, and other mechanisms consistent with agency policy. [Reference: Virginia Erosion and Sediment Control Law, Virginia Code section 10.1-567.].

**4(c) General Permit for Discharges of Stormwater from Construction Activities.** The operator or owner of construction activities involving land-disturbing activities equal to or greater than 2,500 square feet in areas which are analogous to areas designated as subject to the *Chesapeake Bay Preservation Area Designation and Management Regulations* adopted pursuant to the Chesapeake Bay Preservation Act (see also item 5, next) are required to register for coverage under the General Permit for Discharges of Stormwater from Construction Activities and develop a project-specific stormwater pollution prevention plan (SWPPP). The SWPPP must be prepared prior to submission of the registration statement for coverage under the general permit, and it must address water quality and quantity in accordance with the *Virginia Stormwater Management Program (VSMP) Permit Regulations*. General information and registration forms for the General Permit are available on DCR's website at [http://www.dcr.virginia.gov/soil\\_and\\_water/index.shtml](http://www.dcr.virginia.gov/soil_and_water/index.shtml). [Reference: Virginia Stormwater Management Law, Virginia Code sections 10.1-603.1 *et seq.*; *VSMP Permit Regulations*, 4 VAC 50 *et seq.*]

**4(d) Conclusion.** The Department of Conservation and Recreation did not disagree with the stated commitments by the Corps to follow erosion and sediment control and stormwater requirements (FCD, page 3, item E).

**5. Coastal Lands Management.** According to the FCD, the Corps will comply with state requirements applicable to locally designated Resource Protection Areas (RPAs)

to the maximum extent practicable. To this end, the Corps commits itself to six actions and/or precautions aimed at meeting RPA requirements (FCD, pages 4-5).

**5(a) Agency Jurisdiction.** The Department of Conservation and Recreation's Division of Stormwater Management/Local Implementation (LI) (formerly the Division of Chesapeake Bay Local Assistance) administers the Chesapeake Bay Preservation Act (Virginia Code sections 10.1-2100 *et seq.*) and the *Chesapeake Bay Preservation Area Designation and Management Regulations* (9 VAC 10-20-10 *et seq.*).

**5(b) Chesapeake Bay Preservation Area Requirements.** In Arlington County, the areas protected by the Chesapeake Bay Preservation Act, as locally implemented, require conformance with performance criteria. These areas include Resource Protection Areas (RPAs) and Resource Management Areas (RMAs) as designated by the local government. RPAs include tidal wetlands, certain non-tidal wetlands and tidal shores, and a minimum 100-foot vegetated buffer area located adjacent to and landward of these features and along both sides of any water body with perennial flow. RMAs, which require less stringent performance criteria, include floodplains, highly erodible soils, highly permeable soils, steep slopes in excess of 15 percent, and other lands including but not limited to an area 300 feet in width contiguous to and landward of the inland limit of the RPA.

**5(c) Performance Criteria.** While Chesapeake Bay Preservation Areas (CBPAs) are not locally designated on federal lands, this does not relieve federal agencies of their responsibility to be consistent with the provisions of the *Regulations*, as one of the enforceable programs of the Virginia Coastal Zone Management Program (VCP). Federal actions on installations located within Tidewater Virginia are required to be consistent with the performance criteria of the *Regulations* on lands analogous to locally designated CBPAs. Projects that include land-disturbing activity must adhere to the general performance criteria, especially with respect to minimizing land disturbance (including access and staging areas), retaining indigenous vegetation, and minimizing impervious cover. For land disturbance greater than or equal to 2,500 square feet, the project must comply with the requirements of the Virginia Erosion and Sediment Control Handbook (3rd Edition, 1992). Additionally, stormwater management criteria consistent with water quality protection provisions of the *Virginia Stormwater Management Regulations*, 4 VAC 50-60-10, shall be satisfied.

**5(d) Chesapeake Ecosystem Unified Plan; Chesapeake 2000 Agreement.** The 1998 *Federal Agencies' Chesapeake Ecosystem Unified Plan* (Plan) calls for the signatories of that Plan to cooperate with local and state governments in carrying out actions to comply with stormwater management regulations. The Plan further encourages low-impact development practices that minimize the loss of natural areas and reduce impervious surfaces on federal facilities, as well as other best management practices to address stormwater management, and sediment and erosion control. In addition, the *Chesapeake 2000* agreement committed the government agencies to sound land use and stormwater quality controls. The signatories additionally committed the agencies to lead by example with respect to controlling nutrient, sediment, and

chemical contaminant runoff from government properties. In December 2001, the Executive Council of the Chesapeake Bay Program issued *Directive No. 01-1: Managing Storm Water on State, Federal and District-owned Lands and Facilities*, which includes specific commitments for agencies to lead by example with respect to stormwater control.

**5(e) Exemption Criteria.** Figure A-6 of the FCD shows the location of Streams 1,3,5,6 and 11. When compared to the Concept E Site Plan superimposed on that same area, it is apparent that the proposed roadway will involve at least two roadway crossings of Stream 1. The *Regulations*, at 9 VAC 10-20-150 B 1, exempt the construction and maintenance of public roads in accordance with (i) regulations promulgated pursuant to the Erosion and Sediment Control Law (Virginia Code sections 10.1-603.1 *et seq.*); (ii) an erosion and sediment control plan and a stormwater management plan approved by the Virginia Department of Conservation and Recreation; or (iii) local water quality protection criteria at least as stringent as the above state requirements. The exemption of public roads is further conditioned on the following:

- Optimization of the road alignment and design, consistent with other applicable requirements, to prevent or otherwise minimize (i) encroachment in the Resource Protection Area and (ii) adverse effects on water quality.

As indicated on page 5 of the FCD, the Corps anticipates, in the near future, that it will submit an RPA Plan, RPA Exception Request, and an associated Water Quality Impact Assessment (WQIA) providing more specific information regarding the proposed project. DCR staff will need to review all the above-referenced documents in order to determine if the proposed activity would be consistent with the Chesapeake Bay Preservation Act and the *Regulations*.

**5(f) Conclusion.** The Department of Conservation and Recreation did not disagree with the stated commitments by the Corps relative to coastal lands management (FCD, pages 4-5, item I).

**6. Air Pollution Control.** According to the FCD, the expansion project will conform to the State Implementation Plan (SIP) for attainment and maintenance of the national ambient air quality standards (NAAQS). Construction activities will cause some short-term, direct, minor adverse effects on air quality, and use of trucks and heavy equipment will generate minor amounts of criteria pollution (FCD, page 4, item I).

**6(a) Agency Jurisdiction.** DEQ's Division of Air Program Coordination, on behalf of the State Air Pollution Control Board, is responsible to develop regulations pursuant to Virginia's Air Pollution Control Law (Virginia Code sections 10.1-1300 *et seq.*). DEQ is charged to carry out mandates of the state law and related regulations as well as Virginia's obligations under the federal Clean Air Act as amended in 1990. The objective is to protect and enhance public health and quality of life through control and mitigation of air pollution. The division ensures the safety and quality of air in Virginia by monitoring and analyzing air quality data, regulating sources of air pollution, and



working with local, state and federal agencies to plan and implement strategies to protect Virginia's air quality. The appropriate regional office is directly responsible for the issue of necessary permits to construct and operate all stationary sources in the region as well as to monitor emissions from these sources for compliance. As a part of this mandate, the environmental documents of new projects to be undertaken in the State are also reviewed. In the case of certain projects, additional evaluation and demonstration must be made under the general conformity provisions of state and federal law.

**6(b) Agency Findings.** According to DEQ's Division of Air Programs Coordination (DEQ-DAPC), the project is in an ozone non-attainment and emission control area for oxides of nitrogen (NO<sub>x</sub>) and volatile organic compounds (VOCs).

**6(c) Recommendation.** All precautions should be taken to restrict emissions of VOCs and NO<sub>x</sub>, according to DEQ-DAPC. For guidance and information, see "Regulatory and Coordination Needs," item 2, below.

**6(d) Requirements.**

**(i) Fugitive Dust**

During any construction, fugitive dust must be kept to a minimum by using control methods outlined in 9 VAC 5-50-60 *et seq.* of the *Regulations for the Control and Abatement of Air Pollution*. These precautions include, but are not limited to, the following:

- Use, where possible, of water or chemicals for dust control;
- Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials;
- Covering of open equipment for conveying materials; and
- Prompt removal of spilled or tracked dirt or other materials from paved streets and removal of dried sediments resulting from soil erosion.

**(ii) Open Burning**

If project activities include the open burning of refuse, or use of special incineration devices for the disposal of demolition material, this activity must meet the requirements of 9 VAC 5-130-10 through 9 VAC 5-130-60 and 9 VAC 5-130-100 of the *Regulations* for open burning, and it may require a permit. The *Regulations* provide for, but do not require, the local adoption of a model ordinance concerning open burning. Arlington County officials should be contacted to determine what local requirements, if any, exist.

**6(e) Conclusion.** DEQ's Division of Air Programs Coordination and its Northern Regional Office did not disagree with the Corps's commitment to conform to the State Implementation Plan (SIP) for attainment and maintenance of the National Ambient Air Quality Standards (FCD, pages 3-4, item H).

## **ADDITIONAL ENVIRONMENTAL CONSIDERATIONS**

### **1. Solid and Hazardous Waste Management.**

**1(a) Agency Jurisdiction.** Solid and hazardous wastes in Virginia are regulated by the Virginia Department of Environmental Quality, the Virginia Waste Management Board (VWMB) and the U.S. Environmental Protection Agency. These entities administer programs created by the federal Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or the Superfund Act), and the Virginia Waste Management Act. DEQ administers regulations established by the VWMB and reviews permit applications for completeness and conformance with facility standards and financial assurance requirements. All Virginia localities are required, under the *Solid Waste Management Planning Regulations*, to identify the strategies they will follow on the management of their solid wastes to include items such as facility siting, long-term (20-year) use, and alternative programs such as materials recycling and composting.

**1(b) Agency Findings.** The DEQ Division of Land Protection and Revitalization (DLPR) (formerly called the Waste Division) conducted a cursory review of its database files for zip code 22211 or within 500 feet of the project area, and found the following information, by category:

#### **1(b)(i) Categories in which No Sites were Found.**

- Solid waste sites
- Voluntary remediation program (VRP) sites
- Formerly used defense sites (FUDS).

**1(b)(ii) Petroleum Release Sites.** Multiple petroleum contamination (PC) events were identified on Cemetery property and nearby Fort Myer. The proximity of the PC sites to the project work was not determined, but should be reviewed by the project engineer(s) for potential impacts on the project.

- 1) ID# 19921775 – Arlington National Cemetery, Building 103. Event Date: 3/5/2007. Status: Closed.
- 2) ID# 19940580 – Arlington National Cemetery, Building 107. Event Date: 3/5/2007. Status: Closed.
- 3) ID# 1990437 – Arlington National Cemetery, Building 102. Event Date: 3/20/2006. Status: Closed.
- 4) ID# 19940579 – Arlington National Cemetery, Building 113. Event Date: 3/20/2006. Status: Closed.
- 5) ID# 20073119 – Arlington National Cemetery, Columbarium Site. Event Date: 6/1/2007. Status: Closed.

- 6) ID# 19930065 – Fort Myer, Building 305, Tank 24, Washington Boulevard and Arlington Boulevard, Arlington, VA 22211. Event Date: 2/27/2007. Status: Closed.
- 7) ID# 19920578 – Fort Myer, Building 323, Tank 30, Washington Boulevard and Arlington Boulevard, Arlington, VA 22211. Event Date: 2/27/2007. Status: Closed.
- 8) ID# 19930673 – Fort Myer, Building 305, Tank 24, Washington Boulevard and Arlington Boulevard, Arlington, VA 22211. Event Date: 2/27/2007. Status: Closed.

Please note that the DEQ's PC case files with the PC Case Nos., within a defined radius of the proposed project(s), can be identified and these petroleum releases should be evaluated by the project engineer or manager to establish the exact location of the release and the nature and extent of the petroleum release and the potential to impact the proposed project. The facility representative should contact the DEQ's Northern Virginia Regional Office (Tanks Program) for further information and the administrative records of the PC cases which are in close proximity to any proposed projects. See "Regulatory and Coordination Needs," item 5(a), below.

***1(b)(iii) CERCLA/FFR (Comprehensive Environmental Response, Compensation, and Liability/Federal Facilities Restoration) Site.***

- VA8210020626 - Fort Myer, 204 Lee Avenue, Fort Myer, VA 22211. Status: Not NPL.

***1(c) Requirements.*** Any soil that is suspected of contamination or wastes that are generated during construction-related activities must be tested and disposed of in accordance with applicable federal, state, and local laws and regulations (see "Regulatory and Coordination Needs," item 1(b), below). Questions regarding the proper management of solid and/or hazardous waste should be directed to DEQ's Northern Regional Office (see "Regulatory and Coordination Needs," item 1(a), below).

Also, if an older structure will be demolished as part of this project, the structure should be checked for asbestos-containing materials (ACM) and lead-based paint (LBP). If such materials are found, in addition to the federal waste-related regulations mentioned above, State regulations 9 VAC 20-81-620 for ACM and 9 VAC 20-60-261 for LBP must be followed. See "Regulatory and Coordination Needs," items 5(a) and 5(b), below.

***1(d) Recommendations.*** DEQ encourages the Corps to implement pollution prevention principles in any construction projects. These principles include reduction of wastes at the source, re-use of materials, and recycling of all solid wastes generated. Hazardous waste generation should be minimized, and hazardous wastes handled in accordance with regulatory requirements.

## **2. Natural Heritage Resources.**

### ***2(a) Agency Jurisdiction.***

#### ***(i) Department of Conservation and Recreation***

The mission of the Virginia Department of Conservation and Recreation is to conserve Virginia's natural and recreational resources. DCR supports a variety of environmental programs organized within seven divisions including the Division of Natural Heritage. The Natural Heritage Program's (DCR-DNH) mission is conserving Virginia's biodiversity through inventory, protection, and stewardship. The Virginia Natural Area Preserves Act, Virginia Code sections 10.1-209 through 10.1-217, codifies DCR's powers and duties related to statewide biological inventory: maintaining a statewide database for conservation planning and project review, land protection for the conservation of biodiversity, and the protection and ecological management of natural heritage resources ((see item 2(b)(i), below).

#### ***(ii) Department of Agriculture and Consumer Services***

The Endangered Plant and Insect Species Act, Virginia Code Chapter 39, sections 3.1-102 through 3.1-1030, as amended, authorizes the Virginia Department of Agriculture and Consumer Services (VDACS) to conserve, protect and manage endangered species of plants and insects. VDACS Virginia Endangered Plant and Insect Species Program personnel cooperate with the U.S. Fish and Wildlife Service, DCR-DNH and other agencies and organizations on the recovery, protection or conservation of listed threatened or endangered species and designated plant and insect species that are rare throughout their worldwide ranges. In those instances where recovery plans, developed by the U.S. Fish and Wildlife Service, are available, adherence to the order and tasks outlines in the plans are followed to the extent possible.

***2(b) Findings.*** (i) VDACS did not respond to DEQ's request for comments on this project. Questions on plant and insect species may be directed to VDACS (Keith Tignor, telephone (804) 786-3515). DCR comments follow.

#### ***(ii) Natural Heritage Resources.***

DCR-DNH has searched its Biotics Data System for occurrences of natural heritage resources in the project area. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

DCR's Biotics Data System documents the presence of natural heritage resources in the project vicinity, within 2 miles of the project area. However, due to the scope of the project and the distance to the resources, DCR does not anticipate that the project will adversely affect these resources.

***(iii) Threatened and Endangered Plant and Insect Species.***

VDACS has regulatory authority to conserve rare and endangered plant and insect species through the Virginia Endangered Plant and Insect Species Act (item 2(a)(ii), above). Under a Memorandum of Agreement established between VDACS and DCR, DCR has the authority to report for VDACS on state-listed plant and insect species. DCR finds that the proposed actions will not affect any documented state-listed plants or insects.

***(iv) State Natural Area Preserves.***

DCR indicates that there are no State Natural Area Preserves in the project vicinity.

***2(c) Additional Information.*** New and updated information is continually added to DCR's Biotics Data System. Please contact DCR for an update on this natural heritage information if a significant amount of time passes before it is utilized. See "Regulatory and Coordination Needs," item 3(a), below.

**3. Wildlife Resources.**

***3(a) Agency Jurisdiction.*** The Department of Game and Inland Fisheries (DGIF), as the Commonwealth's wildlife and freshwater fish management agency, exercises enforcement and regulatory jurisdiction over wildlife and freshwater fish, including state or federally listed endangered or threatened species, but excluding listed insects (*Virginia Code* Title 29.1). The DGIF is a consulting agency under the U.S. Fish and Wildlife Coordination Act (16 U.S.C. sections 661 *et seq.*), and provides environmental analysis of projects or permit applications coordinated through DEQ and several other state and federal agencies. DGIF determines likely impacts upon fish and wildlife resources and habitat, and recommends appropriate measures to avoid, reduce, or compensate for those impacts.

***3(b) Findings.*** According to DGIF, bald eagles, listed by the state as a threatened species, have been documented from the project area, and within 2 miles of the project. However, based on the scope and location of the proposed expansion, DGIF does not anticipate that it will result in adverse effects upon bald eagles.

***3(c) Recommendations.*** To minimize overall impacts upon wildlife and natural resources, DGIF offers the following guidance for the project proponents:

- Avoid impacts to undisturbed forest, wetlands, and streams, or minimize those impacts as much as possible.
- Maintain undisturbed, naturally vegetated buffers of at least 100 feet in width around all on-site wetlands and on both sides of all perennial and intermittent streams.
- Maintain wooded lots to the fullest extent possible.

- In removing trees or clearing ground, the proponents should adhere to a time-of-year restriction protective of resident and migratory songbird nesting from March 15 through August 15 of each year.

3(d) **Additional Information.** The Department of Game and Inland Fisheries maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. The DGIF database may be accessed from <http://vafwis.org/fwis/> or contact Gladys Cason (telephone (804) 367-0909 or e-mail [Gladys.Cason@dgif.virginia.gov](mailto:Gladys.Cason@dgif.virginia.gov)).

#### 4. Drinking Water.

4(a) **Agency Jurisdiction.** The Virginia Department of Health (VDH), Office of Drinking Water (ODW), reviews projects for the potential to impact public drinking water sources (groundwater wells and surface water intakes).

4(b) **Findings.** According to VDH-ODW, there are no public groundwater supply wells within a one-mile radius of the expansion. There are no surface water intakes within a five-mile radius of the project. Accordingly, the project appears to give rise to no impacts upon drinking water sources.

4(c) **Requirements.** If work on a public water supply lines is conducted, the Corps may need to obtain a construction permit from VDH-ODW. See "Regulatory and Coordination Needs, item 7, below.

#### 5. Historic Structures and Archaeological Resources.

5(a) **Agency Jurisdiction.** The Department of Historic Resources (DHR) conducts reviews of projects to determine their effect on historic structures or cultural resources under its jurisdiction. DHR, as the designated State's Historic Preservation Office, ensures that federal actions comply with *Section 106 of the National Historic Preservation Act of 1966* (NHPA), as amended, and its implementing regulation at 36 CFR Part 800. The NHPA requires federal agencies to consider the effects of federal projects on properties that are listed or eligible for listing on the National Register of Historic Places. Section 106 also applies if there are any federal involvements, such as licenses, permits, approvals, or funding.

5(b) **Comments.** DHR has been in consultation with the Corps of Engineers regarding this project, and requests that the Corps continue direct consultation, pursuant to laws and regulations which require federal agencies to consider the effects of their undertakings on historic properties. See "Regulatory and Coordination Needs," item 3, below.

## **6. Forest Resources.**

**6(a) Agency Jurisdiction.** The mission of the Department of Forestry (DOF) is to protect and develop healthy, sustainable forest resources for Virginians. DOF was established in 1914 to prevent and suppress forest fires and reforest bare lands. Since the Department's inception, it has grown and evolved to encompass other protection and management duties including: protecting Virginia's forests from wildfire, protecting Virginia's waters, managing and conserving Virginia's forests, managing state-owned lands and nurseries, and managing regulated incentive programs for forest landowners.

**6(b) Comments and Findings.** Based on a review of the Environmental Assessment, the Department of Forestry finds that the project area, located on a 27-acre site within the existing northwest boundary of Arlington National Cemetery and other federal property will not have a significant adverse impact on the forest resources of the Commonwealth for the following reasons:

1. The site is approximately one-half forested and one-half open field with scattered mature trees.
2. The EA shows that the project site is an urban, partially forested site located away from the main body of the existing urban forest so forest fragmentation is minimized. The eastern half of the site on the Cemetery property is heavily forested with dense mature tree growth, and this would be retained.
3. The oldest trees on the site, the 220-year-old forest at the northeastern tip of the site, would be avoided entirely.
4. The stated design intent is to minimize the amount of proposed cut and fill and to preserve as many mature trees as possible surrounding the stream bed that runs through the site. Existing stream channels and associated riparian buffers, which are currently severely degraded in some areas, would be restored and integrated into the overall project as a natural landscape amenity thereby improving the ecosystem service functions of the forest and stream channel. The buffer areas would be maintained with 100-foot setbacks to comply with Chesapeake Bay Preservation Act criteria.
5. Based upon preliminary grading studies, approximately 890 trees would be removed for construction, with 248 from open areas of the site and 642 from within forested areas. However, the project will also involve planting approximately 600 new trees and 500 new shrubs to partially mitigate this loss.
6. Tree protection areas in the vicinity of proposed excavation and proposed stock-pile areas are planned to preserve those locations and prevent injury to trees.
7. Preservation of existing trees is a stated priority for the project and tree preservation plans and best practices are detailed in the EA, including a large tree save area.

## **7. Regional and Local Review.**

**7(a) Agency Jurisdiction.** In accordance with CFR 930, Subpart A, § 930.6(b) of the *Federal Consistency Regulations*, DEQ, on behalf of the state, is responsible for

securing necessary review and comment from other state agencies, the public, regional government agencies, and local government agencies, in determining the Commonwealth's concurrence or objection to a federal consistency certification.

**7(b) Regional Jurisdiction.** In accordance with the Code of Virginia, Section 15.2-4207, planning district commissions encourage and facilitate local government cooperation and state-local cooperation in addressing, on a regional basis, problems of greater than local significance. The cooperation resulting from this is intended to facilitate the recognition and analysis of regional opportunities and take account of regional influences in planning and implementing public policies and services. Planning district commissions promote the orderly and efficient development of the physical, social and economic elements of the districts by planning, and encouraging and assisting localities to plan, for the future.

**7(c) Agency Findings.**

The Northern Virginia Regional Commission did not respond to our request for comments. Arlington County indicated that its comments will be provided directly to the Corps (e-mail, Ballo to Ellis, 12/20/12).

**8. Pollution Prevention.** DEQ advocates that principles of pollution prevention be used in all construction projects as well as in maintenance activities. Effective siting, planning, and on-site Best Management Practices (BMPs) will help to ensure that environmental impacts are minimized. However, pollution prevention techniques also include decisions related to construction materials, design, and operational procedures that will facilitate the reduction of wastes at the source.

**8(a) Recommendations.** We have several pollution prevention recommendations that may be helpful in constructing or maintaining this property:

- Consider environmental attributes when purchasing materials. For example, the extent of recycled material content, toxicity level, and amount of packaging should be considered and can be specified in purchasing contracts.
- Specifications regarding raw materials and construction practices can be included in contract documents and requests for proposals.
- Choose sustainable materials and practices for infrastructure and building construction and design. These could include asphalt and concrete containing recycled materials, and integrated pest management in landscaping, among other things.
- Integrate pollution prevention techniques into property construction and maintenance.

DEQ's Office of Pollution Prevention provides information and technical assistance relating to pollution prevention techniques. For more information, contact DEQ's Office of Pollution Prevention, Sharon Baxter at (804) 698-4344.



**9. Pesticides and Herbicides.** Should maintenance of the cemetery require the use of pesticides or herbicides, these chemicals should be selected and applied in accordance with the principles of integrated pest management. The least toxic pesticides that are effective in controlling the target species should be used.

Contact the Department of Agriculture and Consumer Services at (804) 786-3501 for more information.

## **REGULATORY AND COORDINATION NEEDS**

### **1. Air Pollution Control Enforceable Policy.**

**1(a) Coordination.** For questions relating to air pollution control rules, the project manager may contact DEQ's Northern Regional Office (Terry Darton, telephone (703) 583-3845).

**1(b) Authorities.** Applicable rules include, but are not limited to, the following provisions of the *Regulations for the Control and Abatement of Air Pollution*:

- 9 VAC 5-50-60 *et seq.*, governing fugitive dust and fugitive emissions; and
- 9 VAC 5-130-10 through 9 VAC 5-130-60 and 9 VAC 5-130-100, governing open burning.

### **2. Non-point Source Pollution Control Enforceable Policy (Erosion and Sediment Control; Stormwater Management).**

**2(a) Coordination.** Coordination with the Department of Conservation and Recreation relative to non-point source pollution control may begin with Roberta Rhur, telephone (804) 371-2594). Questions may also be addressed to DCR's Warrenton Regional Office (telephone (540) 347-6420).

**2(a) Erosion and Sediment Control, and Stormwater Management.** The proposed project must comply with *Virginia's Erosion and Sediment Control Law* (Virginia Code 10.1-567) and *Regulations* (4 VAC 50-30-30 *et seq.*) and *Stormwater Management Law* (Virginia Code 10.1-603.5) and *Regulations* (4 VAC 3-20-210 *et seq.*) as locally administered. Activities that disturb 2,500 square feet would be regulated by *VESCL&R* and *VSWML&R*.

**2(b) Virginia Stormwater Management Program General Permit for Stormwater Discharges from Construction Activities.** For projects involving land-disturbing activities of equal to or greater than 2,500 square feet (in areas analogous to Chesapeake Bay Preservation Areas), the responsible federal agency is required to apply for registration coverage under the Virginia Stormwater Management Program General Permit for Discharges of Stormwater from Construction Activities (4 VAC-50 *et*

seq.). Specific questions regarding the Stormwater Management Program requirements should be directed to Holly Sepety, DCR, at (804) 225-2613.

### **3. Historic Structures and Archaeological Resources.**

**3(a) Coordination.** The Department of Historic Resources recommends that the Corps continue direct consultation with that Department (Roger Kirchen, telephone (804) 482-6091 or e-mail [roger.kirchen@dhr.virginia.gov](mailto:roger.kirchen@dhr.virginia.gov)).

**3(b) Authorities.** The coordination requirement stems from section 106 of the National Historic Preservation Act, as amended, and the implementing regulations at Title 36, *Code of Federal Regulations*, Part 800 ("36 CFR Part 800).

### **4. Wildlife Resources; Natural Heritage Resources.**

**4(a) Coordination.** For additional questions on wildlife locations and the agency database, the Corps may contact the Department of Game and Inland Fisheries (DGIF) (Gladys Cason, telephone (804) 367-4909).

In the event a significant amount of time passes before the natural heritage resources information above is used, the Corps is encouraged to contact the Department of Conservation and Recreation (DCR) for updated information (Rene' Hypes, telephone (804) 371-2708).

**4(b) Authorities.** DGIF is responsible for protection of state-listed threatened and endangered species, pursuant to Virginia Code Title 29.1, sections 29.2-563 through 29.1-570. DCR is responsible for management of natural heritage resources and information, pursuant to Virginia Code sections 10.1-209 *et seq.*

### **5. Solid and Hazardous Waste Management.**

**5(a) Coordination.** For further information and the administrative records of the petroleum contamination cases in close proximity to any proposed projects, the Corps may contact DEQ's Northern Regional Office's Tanks Program (Cynthia Sale, telephone (703) 583-3830).

Questions relating to asbestos-containing materials and lead-based paint may be addressed to DEQ's Northern Regional Office (Kathryn Persyzk, telephone (703) 583-3856).

General questions on waste management may be directed to DEQ's Division of Land Protection and Revitalization (Steve Coe, telephone (804) 698-4029).

**5(b) Authorities.** Some of the applicable laws and regulations relating to management of wastes are listed here.

Virginia:

- Virginia Waste Management Act, Virginia Code sections 10.1-1400 *et seq.*
- *Virginia Hazardous Waste Management Regulations*, 9 VAC 20-60  
Lead-based paint regulations, 9 VAC 20-60-261
- *Virginia Solid Waste Management Regulations*, 9 VAC 20-81  
Asbestos-containing materials regulations, 9 VAC 20-81-620
- *Virginia Regulations for the Transportation of Hazardous Materials*, 9 VAC 20-110.

Federal:

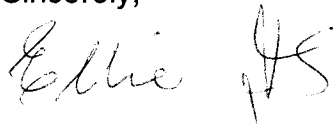
- Resource Conservation and Recovery Act, 42 U.S. Code, sections 6901 *et seq.*
- Applicable regulations contained in Title 40, *Code of Federal Regulations*
- U.S. Department of Transportation Rules for Transportation of Hazardous Materials, Title 49, *Code of Federal Regulations*, Part 107.

**6. Wetlands and Water Resources.** In the event surface water impacts are anticipated, the Corps should contact DEQ's Northern Regional Office (Bryant Thomas, Water Permits Manager, telephone (703) 583-3843) to determine whether a Virginia Water Protection Permit will be required. In that event, a Joint Federal-State Permit Application (JPA) form should be requested from the Virginia Marine Resources Commission (telephone (757) 247-2200).

**7. Public Water Supply Lines.** If work on public water supply lines is to be conducted as part of this project, the Corps should contact the Virginia Department of Health's Office of Drinking Water (begin with Edward Albrecht, telephone (804) 864-7495) to apply for a construction permit.

Thank you for the opportunity to review this project. If you have questions, please feel free to contact me (telephone (804) 698-4325 or e-mail [ellie.iron@deq.virginia.gov](mailto:ellie.iron@deq.virginia.gov)) or Charles Ellis of this Office (telephone (804) 698-4195) or e-mail [Charles.ellis@deq.virginia.gov](mailto:Charles.ellis@deq.virginia.gov)).

Sincerely,



Ellie L. Irons, Program Manager  
Environmental Impact Review

enclosures

ec: Amy M. Ewing, DGIF  
Roberta Rhur, DCR  
Keith R. Tignor, VDACS  
G. Stephen Coe, DEQ-DLPR  
Kotur S. Narasimhan, DEQ-DAPC  
Barry Matthews, VDH-ODW  
Daniel Burstein, DEQ-NRO  
Tony Watkinson, VMRC  
Gregory C. Evans, DOF  
Marc E. Holma, DHR

Cc Aimee Vosper, NVRC  
Rebeccah Ballo, Arlington County

## **ENVIRONMENTAL REVIEW COMMENTS APPLICABLE TO AIR QUALITY**

**DATE: November 16, 2012**

**From:** Narasimhan, Kotur (DEQ)  
**Sent:** Friday, December 21, 2012 7:49 AM  
**To:** Ellis, Charles (DEQ)  
**Subject:** RE: Arlington Cemetery Millennium Project (expansion), EA, DEQ 12-225F

I have no further comment to make. Thanks.

Kotur

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**From:** Ellis, Charles (DEQ)  
**Sent:** Thursday, December 20, 2012 10:47 AM  
**To:** Ewing, Amy (DGIF); Tignor, Keith (VDACS); Rhur, Robbie (DCR); Matthews, Barry (VDH); Narasimhan, Kotur (DEQ); Coe, Stephen (DEQ); Cheatham, John (DEQ); Kirchen, Roger (DHR); Evans, Gregory (DOF); Aimee Vosper; Rebecca Ballo  
**Cc:** Irons, Ellie (DEQ)  
**Subject:** Arlington Cemetery Millennium Project (expansion), EA, DEQ 12-225F

Everybody – As we suspected in starting the review of the federal consistency determination for this Corps/NPS/Cemetery project (our log number DEQ 12-103F), the Corps has published an EA for it. Our review request form, with a little explanation, is attached. The Corps has put the EA itself on a web site, as follows:

<http://www.nao.usace.army.mil/Portals/31/docs/Arlington/FullANCMILLEADEC7.pdf>

The Corps has also extended the Federal Consistency Determination comment deadline to coincide with the deadline for this EA.

Please review the EA and send us any additional comments on the project by January 7. We will make a combined response to the Corps. Thank you.

Charlie Ellis  
DEQ-OEIR  
12/20/12



**MEMORANDUM**

**TO:** Charles Ellis, Environmental Program Planner

**FROM:** Steve Coe, Division of Land Protection & Revitalization Review Coordinator

**DATE:** January 7, 2013

**COPIES:** Sanjay Thirunagari, Division of Land Protection & Revitalization Review Manager; EIR file

**SUBJECT:** Environmental Impact Statement: Project #12-225F. Arlington National Cemetery Millennium Project expansion, Arlington, VA 22211. DOD/Army Corps of Engineers

The Division of Land Protection & Revitalization (DLPR) has completed its review of the Environmental Review Request for the Arlington National Cemetery (ANC) Millennium Expansion Project, Arlington, VA 22211.

The project scope: development of the Millennium Site to increase burial space at the ANC. The project would provide at least 32,000 new first interment burial spaces, including casket burial sections, in-ground sites for ashes of cremated service members and both columbarium niche courts and niche walls. The Site would include two assembly areas for service participants, including Committal Service Shelters.

Solid and hazardous waste issues were generally addressed in the submittal, with an emphasis on petroleum and chemical storage operations. DLPR staff has reviewed the submittal, conducted a cursory search of its waste databases, and has the following comments concerning possible waste issues associated with this proposed program:

DEQ's Virginia Geographical Information Systems (VEGIS) database can be accessed at the following web address: <http://www.deq.virginia.gov/ConnectWithDEQ/VEGIS.aspx>. Through VEGIS's search options, you can identify by address or zip code the Solid Waste sites, VRP sites, and Petroleum Release sites in the area of the proposed project. Within the 22211 zip code or within 500 feet of the project site(s):

Solid waste sites – none

VRP sites – none

Petroleum release sites – Multiple petroleum contamination (PC) events were identified on the ANC property and nearby Fort Myer. The proximity of the PC sites to the project work was not determined, but should be reviewed by the project engineer(s) for possible impacts on the project.

- 1) ID# 19921775 – Arlington National Cemetery, Building 103. Event Date: 3/5/2007. Status: Closed.
- 2) ID# 19940580 – Arlington National Cemetery, Building 107. Event Date: 3/5/2007. Status: Closed.
- 3) ID# 1990437 – Arlington National Cemetery, Building 102. Event Date: 3/20/2006. Status: Closed.
- 4) ID# 19940579 – Arlington National Cemetery, Building 113. Event Date: 3/20/2006. Status: Closed.
- 5) ID# 20073119 – Arlington National Cemetery, Columbarium Site. Event Date: 6/1/2007. Status: Closed.
- 6) ID# 19930065 – Fort Myer, Building 305, Tank 24, Washington Boulevard and Arlington Boulevard, Arlington, VA 22211. Event Date: 2/27/2007. Status: Closed.
- 7) ID# 19920578 – Fort Myer, Building 323, Tank 30, Washington Boulevard and Arlington Boulevard, Arlington, VA 22211. Event Date: 2/27/2007. Status: Closed.
- 8) ID# 19930673 – Fort Myer, Building 305, Tank 24, Washington Boulevard and Arlington Boulevard, Arlington, VA 22211. Event Date: 2/27/2007. Status: Closed.

Please note that the DEQ's PC case files with the PC Case Nos., within a defined radius of the proposed project(s), can be identified and these petroleum releases should be evaluated by the project engineer or manager to establish the exact location of the release and the nature and extent of the petroleum release and the potential to impact the proposed project. The facility representative should contact the DEQ's Northern Virginia Regional Office (Tanks Program) for further information and the administrative records of the PC cases which are in close proximity to any proposed projects.

FUD sites – none

CERCLA/FFR sites – one

VA8210020626 – Fort Myer, 204 Lee Avenue, Fort Myer, VA 22211. Status: Not NPL.

RCRA/HW sites – 3 identified in zip code 22211. The report author or project engineer should access this information on the DEQ website at <http://www.deq.virginia.gov/Programs/LandProtectionRevitalization/ReportsPublications/OriginalReports.aspx>, and clicking on the Hazardous Waste Facilities link. Search by zip code 22211.

- 1) VA8210020626 – Department of the Army HQ, Joint Base Myer-Henderson Hall, Lee Avenue, Fort Myer, VA 22211. Contact: James Stratton at 703-696-2013.
- 2) VAR000000786 – DOD Federal Office Bldg #2, Columbia Pike & Old Ridge, Arlington, VA 22211. Contact: Stephen P. Best at 703-692-4114.
- 3) VA6210020032 – U.S. Arlington National Cemetery, Arlington, VA 22211. Contact: Joseph Bunton at 703-697-4915.

With any demolition or construction project, it is anticipated that there will be a waste stream that must be managed properly. Waste management guidance is provided in the General Comments section below.

## GENERAL COMMENTS

Any soil that is suspected of contamination or wastes that are generated must be tested and disposed of in accordance with applicable Federal, State, and local laws and regulations. Some of the applicable state



laws and regulations are: Virginia Waste Management Act, Code of Virginia Section 10.1-1400 et seq.; Virginia Hazardous Waste Management Regulations (VHWMR) (9VAC 20-60); Virginia Solid Waste Management Regulations (VSWMR) (9VAC 20-81); and Virginia Regulations for the Transportation of Hazardous Materials (9VAC 20-110). Some of the applicable Federal laws and regulations are: the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Section 6901 et seq., the applicable regulations contained in Title 40 of the Code of Federal Regulations; and the U.S. Department of Transportation Rules for Transportation of Hazardous materials, 49 CFR Parts 107.

Also, if an older structure will be demolished as part of this project, the structure should be checked for asbestos-containing materials (ACM) and lead-based paint (LBP). If they are found, in addition to the federal waste-related regulations mentioned above, State regulations 9VAC 20-81-620 for ACM and 9VAC 20-60-261 for LBP must be followed. Questions may be directed to Kathryn Persyzk at DEQ's Northern Virginia office at 703-583-3856.

Finally, DEQ encourages all construction projects and facilities to implement pollution prevention principles, including the reduction, reuse, and recycling of all solid wastes generated. All hazardous wastes should be minimized.

If you have any questions or need further information, please contact Steve Coe at (804) 698-4029.

**From:** Cheatham, John (DEQ)  
**Sent:** Wednesday, January 02, 2013 11:11 AM  
**To:** Ellis, Charles (DEQ)  
**Subject:** 12-225F: Arlington Cemetery Millennium Project

Charlie,  
NRO comments regarding the Arlington Nation Cemetery Millennium Expansion Project are as follows:

- **Land Protection Division** - If any solid or hazardous waste is generated/encountered during construction, the facility would follow applicable federal, state, and county regulations for their disposal.

- **Virginia Water Protection Permit (VWPP) Program** -

The EA indicates this project will impact surface waters. DEQ VWP staff recommends that the project avoid and minimize impacts to the surface waters to the maximum extent practicable. The stream restoration activities may qualify for a authorization under Nationwide Permits issued by the U.S. Army Corps of Engineers. A DEQ permit may not be required for project activities that are covered under the Nationwide Permits. Upon receipt of a Joint Permit Application for the proposed surface waters impacts, DEQ VWP Permit staff will review the proposed project in accordance with the VWP permit program regulations and guidance.

Thanks,

**Dell Cheatham**

Hazardous Waste Inspector  
Virginia Department of Environmental Quality - Northern Regional Office  
13901 Crown Court, Woodbridge, VA 22193 - Phone: 703-583-3805

**From:** Albrecht, Edward (VDH)  
**Sent:** Friday, January 04, 2013 3:17 PM  
**To:** Ellis, Charles (DEQ)  
**Cc:** Matthews, Barry (VDH)  
**Subject:** DEQ Project #: 12-225F USACE Arlington Cemetery Millennium Project Expansion

DEQ Project #: 12-225F  
Location: Arlington County

VDH – Office of Drinking Water has reviewed the above project. ODW comments on the proximity to public drinking water sources and potential impacts considering the scope of the project.

There are no ground water wells within Zone 1 (within a 1 mile radius) of the project site.

There are no surface water intakes within Zone 1 (within a 5 mile radius) of the project site.

A construction permit from the Virginia Department of Health – Office of Drinking Water may be needed if work on public water supply lines is conducted.

There are no apparent impacts.

**Edward Albrecht**

Virginia Department of Health,  
Office of Drinking Water  
109 Governor Street, Sixth Floor  
Richmond, VA 23219  
(P) 804-864-7495  
[Edward.Albrecht@vdh.virginia.gov](mailto:Edward.Albrecht@vdh.virginia.gov)

Carl E. Garrison III  
State Forester



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF FORESTRY

900 Natural Resources Drive, Suite 800

Charlottesville VA 22903

434.977.6555 ~ Fax: 434.296.2369

[www.dof.virginia.gov](http://www.dof.virginia.gov)

January 4, 2013

Mr. Charles H. Ellis, III  
Department of Environmental Quality  
Office of Environmental Impact Review  
629 East Main Street, Sixth Floor  
Richmond, Virginia 23219  
[Charles.Ellis@deq.virginia.gov](mailto:Charles.Ellis@deq.virginia.gov)

Dear Mr. Ellis,

Per your request to the Virginia Department of Forestry for input on the Federal Environmental Assessment for the Arlington Cemetery Millennium Project, Federal project number 12-225F, sponsored by the Army Corps of Engineers, Norfolk District, below is our response.

Based on a review of the Environmental Assessment, the Department of Forestry finds that the project area, located on a 27-acre site within the existing northwest boundary of Arlington National Cemetery (ANC) and other federal property will not have a significant adverse impact on the forest resources of the Commonwealth for the following reasons:

1. The site is approximately one-half forested and one-half open field with scattered mature trees.
2. The EA shows that the project site is an urban, partially forested site located away from the main body of the existing urban forest so forest fragmentation is minimized. The eastern half of the site on the ANC property is heavily forested with dense mature tree growth and this would be retained.
3. The oldest trees on the site, the 220-year-old forest at the northeastern tip of the site, would be avoided entirely.
4. The stated design intent is to minimize the amount of proposed cut and fill and to preserve as many mature trees as possible surrounding the stream bed that runs through the site. Existing stream channels and associated riparian buffers, which are currently severely degraded in some areas, would be restored and integrated into the overall project as a natural landscape amenity thereby improving the ecosystem service functions of the forest and stream channel. The buffer areas would be maintained with 100' setbacks to comply with Chesapeake Bay Preservation Act criteria.
5. Based upon preliminary grading studies, approximately 890 trees would be removed for construction, with 248 from open areas of the site and 642 from within forested areas.

**Mission: We Protect and Develop Healthy, Sustainable Forest Resources for Virginians.**

However, the project will also plant approximately 600 new trees and 500 new shrubs to partially mitigate this loss.

6. Tree protection areas in the vicinity of proposed excavation and proposed stock pile areas are planned to preserve those locations and prevent injury to trees.
7. Preservation of existing trees is a stated priority for the project and tree preservation plans and best practices are detailed in the EA, including a large tree save area.

Sincerely,

Gregory C. Evans  
Voluntary Mitigation Program Manager  
Forestland Conservation Division  
Virginia Department of Forestry  
900 Natural Resources Drive, Suite 800  
Charlottesville, VA 22903  
434-220-9020

**From:** Ewing, Amy (DGIF)  
**Sent:** Tuesday, December 11, 2012 4:24 PM  
**To:** Ellis, Charles (DEQ)  
**Cc:** Cason, Gladys (DGIF); nhreview (DCR)  
**Subject:** ESSLog# 21824\_12-203F\_ANC\_Millennium project

We have reviewed the subject project that proposes to expand Arlington National Cemetery to provide additional burial space.

According to our records, the Potomac River has been designated an Anadromous Fish Use Area. Therefore, we recommend that any instream work in onsite tributaries to the river adhere to a time of year restriction from February 15 through June 30 of any year. We recommend conducting any in-stream activities during low or no-flow conditions, using non-erodible cofferdams or turbidity curtains to isolate the construction area, blocking no more than 50% of the streamflow at any given time, stockpiling excavated material in a manner that prevents reentry into the stream, restoring original streambed and streambank contours, revegetating barren areas with native vegetation, and implementing strict erosion and sediment control measures.

State Threatened bald eagles also have been documented from the project area. However, based on the scope and location of the proposed work, we do not anticipate it to result in adverse impacts upon this species.

This project is located within 2 miles of a documented occurrence of a state or federal threatened or endangered plant or insect species and/or other Natural Heritage coordination species. Therefore, we recommend coordination with VDCR-DNH regarding the protection of these resources.

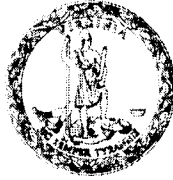
To minimize overall impacts to wildlife and our natural resources, we offer the following comments about development activities: We recommend that the applicant avoid and minimize impacts to undisturbed forest, wetlands, and streams to the fullest extent practicable. We recommend maintaining undisturbed naturally vegetated buffers of at least 100 feet in width around all on-site wetlands and on both sides of all perennial and intermittent streams. We recommend maintaining wooded lots to the fullest extent possible.

We recommend that all tree removal and ground clearing adhere to a time of year restriction protective of resident and migratory songbird nesting from March 15 through August 15 of any year.

We recommend adherence to erosion and sediment controls during ground disturbance. Assuming adherence to such erosion and sediment controls, we find this project consistent with the Fisheries Management Section of the CZMA.

Thanks, Amy

**Amy Ewing | Environmental Services Biologist | VDGIF - Richmond HQ | 4010 West Broad St.  
Richmond, VA 23230 | 804-367-2211 | [www.dgif.virginia.gov](http://www.dgif.virginia.gov)**



**COMMONWEALTH of VIRGINIA**  
**DEPARTMENT OF CONSERVATION AND RECREATION**

203 Governor Street  
Richmond, Virginia 23219-2010  
(804) 786-1712

**MEMORANDUM**

**DATE:** January 8, 2013  
**TO:** Charlie Ellis, DEQ  
**FROM:** Roberta Rhur, Environmental Impact Review Coordinator  
**SUBJECT:** DEQ 12-225F, Arlington Cemetery Millennium Project

**Division of Natural Heritage**

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

Biotics documents the presence of natural heritage resources in the project area. However, due to the scope of the activity and the distance to the resources, we do not anticipate that this project will adversely impact these natural heritage resources.

There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

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

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

The Virginia Department of Game and Inland Fisheries (VDGIF) maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from <http://vafwis.org/fwis/> or contact Gladys Cason (804-367-0909 or [Gladys.Cason@dgif.virginia.gov](mailto:Gladys.Cason@dgif.virginia.gov)). This project is located within 2 miles of a documented occurrence of a state listed animal. Therefore, DCR recommends coordination with VDGIF, Virginia's regulatory authority for the management and protection of this species to ensure compliance with the Virginia Endangered Species Act (VA ST §§ 29.1-563 – 570).

## Division of Stormwater Management

### Chesapeake Bay Local Assistance:

In Arlington County, the areas protected by the *Chesapeake Bay Preservation Act*, as locally implemented, require conformance with performance criteria. These areas include Resource Protection Areas (RPAs) and Resource Management Areas (RMAs) as designated by the local government. RPAs include tidal wetlands, certain non-tidal wetlands and tidal shores, and a minimum 100-foot vegetated buffer area located adjacent to and landward of these features and along both sides of any water body with perennial flow. RMAs, which require less stringent performance criteria, include floodplains, highly erodible soils, highly permeable soils, steep slopes in excess of 15 percent and other lands including but not limited to an area 300 feet in width contiguous to and landward of the inland limit of the RPA.

Pursuant to the *Coastal Zone Management Act of 1972*, as amended, federal activities affecting Virginia's coastal resources or coastal uses must be consistent with Virginia's Coastal Zone Management Program (CZM Program) (see § 307(c)(1) of the Coastal Zone Management Act and 15 CFR Part 930, sub-part C of the *Federal Consistency Regulations*).

While Chesapeake Bay Preservation Areas (CBPA) are not locally designated on federal lands, this does not relieve federal agencies of their responsibility to be consistent with the provisions of the Regulations, § 9 VAC 10-20-10 et seq., as one of the enforceable programs of the CZM Program. Federal actions on installations located within Tidewater Virginia are required to be consistent with the performance criteria of the Regulations on lands analogous to locally designated CBPAs. Projects that include land disturbing activity must adhere to the general performance criteria, especially with respect to minimizing land disturbance (including access and staging areas), retaining indigenous vegetation and minimizing impervious cover. For land disturbance over 2,500 square feet, the project must comply with the requirements of the *Virginia Erosion and Sediment Control Handbook*, Third Edition, 1992. Additionally, stormwater management criteria consistent with water quality protection provisions of the *Virginia Stormwater Management Regulations*, § 4 VAC 50-60-10, shall be satisfied.

The 1998 *Federal Agencies' Chesapeake Ecosystem Unified Plan* (Plan) calls for the signatories of that Plan to cooperate with local and state governments in carrying out actions to comply with stormwater management regulations. The Plan further encourages low impact development practices that minimize the loss of natural areas and reduce impervious surfaces on federal facilities, as well as other best management practices to address stormwater management, and sediment and erosion control. In addition, the *Chesapeake 2000* agreement committed the government agencies to sound land use and stormwater quality controls. The signatories additionally committed the agencies to lead by example with respect to controlling nutrient, sediment and chemical contaminant runoff from government properties. In December 2001, the Executive Council of the Chesapeake Bay Program issued *Directive No. 01-1: Managing Storm Water on State, Federal and District-owned Lands and Facilities*, which includes specific commitments for agencies to lead by example with respect to stormwater control.

Figure A-6 of the CD shows the location of Streams 1,3,5,6 and 11. When compared to the Concept E Site Plan superimposed on that same area, it is apparent that the proposed roadway will involve at least two roadway crossings of Stream 1. § 9 VAC 10-20-150 B 1 of the Regulations exempts the construction and maintenance of public roads in accordance with (i) regulations promulgated pursuant to the Erosion and Sediment Control Law (§ 10.1-603.1 et seq. of the Code of Virginia), (ii) an erosion and sediment control plan and a stormwater management plan approved by the Virginia Department of Conservation and Recreation, or (iii) local water quality protection criteria at least as stringent as the above state requirements. The exemption of public roads is further conditioned on the following:



- a. Optimization of the road alignment and design, consistent with other applicable requirements, to prevent or otherwise minimize (i) encroachment in the Resource Protection Area and (ii) adverse effects on water quality.

As referenced on page 5 of the CD, the applicant anticipates submittal in the near future to DEQ of an RPA Plan, RPA Exception Request and an associated Water Quality Impact Assessment (WQIA) providing more specific information regarding the proposed project. DCR staff will need to review all the above-referenced documents in order to determine if the proposed activity would be consistent with the *Chesapeake Bay Preservation Act* and the Regulations.

**Stormwater Management:**

The applicant and their authorized agents conducting regulated land disturbing activities on private and public lands in the state must comply with the Virginia Erosion and Sediment Control Law and Regulations (VESCL&R), Virginia Stormwater Management Law and Regulations including coverage under the general permit for stormwater discharge from construction activities, and other applicable federal nonpoint source pollution mandates (e.g. Clean Water Act-Section 313, Federal Consistency under the Coastal Zone Management Act). Clearing and grading activities, installation of staging areas, parking lots, roads, buildings, utilities, borrow areas, soil stockpiles, and related land-disturbance activities that result in the land-disturbance of equal to or greater than 2,500 square feet would be regulated by VESCL&R. Accordingly, the applicant must prepare and implement erosion and sediment control (ESC) plan to ensure compliance with state law and regulations. The applicant is ultimately responsible for achieving project compliance through oversight of on site contractors, regular field inspection, prompt action against non-compliant sites, and other mechanisms consistent with agency policy. [Reference: VESCL §10.1-567;].

The operator or owner of construction activities involving land disturbing activities equal to or greater than 2,500 square feet in areas designated as subject to the Chesapeake Bay Preservation Area Designation and Management Regulations adopted pursuant to the Chesapeake Bay Preservation Act are required to register for coverage under the General Permit for Discharges of Stormwater from Construction Activities and develop a project specific stormwater pollution prevention plan (SWPPP). The SWPPP must be prepared prior to submission of the registration statement for coverage under the general permit and the SWPPP must address water quality and quantity in accordance with the Virginia Stormwater Management Program (VSMP) Permit Regulations. General information and registration forms for the General Permit are available on DCR's website at

[http://www.dcr.virginia.gov/soil\\_and\\_water/index.shtml](http://www.dcr.virginia.gov/soil_and_water/index.shtml)

[Reference: Virginia Stormwater Management Law Act §10.1-603.1 et seq.; VSMP Permit Regulations §4VAC-50 et seq.]

The remaining DCR divisions have no comments regarding the scope of this project. Thank you for the opportunity to comment.

Cc: Amy Ewing, VDGIF

**From:** Kirchen, Roger (DHR)  
**Sent:** Friday, January 04, 2013 10:04 AM  
**To:** Ellis, Charles (DEQ)  
**Subject:** Millennium Project at Arlington National Cemetery EA (DEQ #12-225F; DHR File No. 2008-1022)

**DHR has been in consultation with the Army Corps of Engineers regarding this project. We request that the Army Corp continue to consult directly with DHR, as necessary, pursuant to Section 106 of the National Historic Preservation Act (as amended) and its implementing regulations codified at 36 CFR Part 800 which require Federal agencies to consider the effects of their undertakings on historic properties.**

**Roger**

---

*Roger W. Kirchen, Archaeologist  
Office of Review and Compliance  
Division of Resource Services and Review  
Department of Historic Resources  
2801 Kensington Avenue  
Richmond, VA 23221  
phone: 804-482-6091 (NEW!)  
fax: 804-367-2391  
[roger.kirchen@dhr.virginia.gov](mailto:roger.kirchen@dhr.virginia.gov)*

Caroline H. Haynes  
713 N. Edison Street  
Arlington, VA 22203

January 17, 2013

Ms. Susan L. Conner  
U.S. Army Corps of Engineers - Norfolk District  
803 Front Street  
Norfolk, VA 23510  
susan.l.conner@usace.army.mil

RE: Comments on Proposed Millennium expansion at Arlington National Cemetery

Dear Ms. Conner:

Please consider the following comments about the Environmental Assessment (EA) on the proposed Millennium expansion at Arlington National Cemetery adjacent to the Arlington House Woods. In general, the EA is cursory at best. It lacks detailed information to adequately evaluate the project and it fails to acknowledge the potential for significant environmental and historic damage that is likely to be inflicted on this unique site.

The proposal calls for portions of an undisturbed stream bed to be destroyed, the topography of a steep stream valley to be completely remade to support the construction of the loop road, over 1,700 trees in stands of woods estimated to be 130-150 years old to be demolished, and portions of a documented old growth forest – one of the last in our region – to be damaged and in part destroyed. How can these impacts *not* be considered “significant” and why was an Environmental Assessment and not an Environmental Impact Study conducted?

The lack of supporting documents, such as detailed maps and biotic inventories of the flora and fauna, further put into question the review process. The EA claims that the old growth section of the forest will not be impacted and yet the maps included appear to dispute that. Without more detailed information, it is impossible to know what will be impacted during the construction of this project. At the very least, removing the buffer of the 130-150 year old woods will indeed impact the survivability of the old growth section. Disturbing the soil in this area will dramatically increase the ability of non-native invasive plant species to invade this otherwise undisturbed section.

It does not appear that even existing documents detailing the unique nature of this site were consulted in the preparation of the EA. One of those documents is the December 30, 2006 Geological Features Inventory of Arlington County, a study

conducted by Tony Fleming. In that report, Arlington House Woods is singled out as one of the highest value ecological resources in Arlington and in our region. The EA also fails to note that the site is listed on the Virginia Native Plant Society Registry as a result of its unique ecological and historical significance. Arlington House Woods has been referenced in numerous historical documents as being integral to the Lee Mansion. It is no coincidence that Arlington House Woods exists today as an extremely rare example of old growth forest: It has been intentionally preserved over the ages for its intrinsic beauty and its ecological and historical significance.

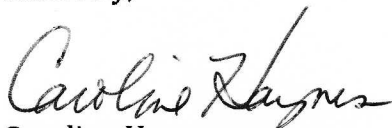
The EA fails to provide adequate information to evaluate the alternative plans, especially with respect to the construction of the loop road and the destruction of the upper stream valley. A detailed rationale for failing to choose a more environmentally sensitive option is missing from the report. Likewise there is no mention of the seeps that may be impacted by this project (see Fleming, 2006). Referring to this project as a "stream restoration" stretches credulity.

So, one has to ask: how is it that the public can be assured that this project will be held to the same procedures and permitting requirements that a non-governmental entity would be required to follow in a similar project?

Given the cursory nature of the EA and the timing of when the EA was released (right before the holidays), it only seems appropriate that this project receive a more thorough public review before it proceeds further. Therefore, I ask that there be a full Environmental Impact Statement conducted and that the public has adequate time to review the long-term implications of this project.

Certainly there is tremendous pressure to extend the capacity of Arlington National Cemetery. However, the trade-off envisioned in this project of extending the operations of the cemetery for an additional seven years, while in the process, destroying an irreplaceable ecological and historical gem appears extremely short sighted and a desecration of the very ground we hold sacred. Every effort should be made to expand the operations in such a way that does not threaten and undermine the very character of Arlington National Cemetery that we value so highly.

Sincerely,

A handwritten signature in cursive script, appearing to read "Caroline Haynes".

Caroline Haynes

cc: Arlington County Board  
Senator Mark Warner  
Senator Timothy Kaine  
Congressman Jim Moran



HISTORICAL AFFAIRS AND LANDMARK REVIEW BOARD

Courthouse Plaza One 2100 Clarendon Boulevard, Suite 700 Arlington, VA 22201

TEL 703.228.3830 FAX 703.228.3834 [www.arlingtonva.us](http://www.arlingtonva.us)

January 18, 2013

Ms. Susan L. Conner

Acting Chief, Planning and Policy Branch U.S. Army Corps of Engineers, Norfolk District  
803 Front Street  
Norfolk, VA 23510

Re: Arlington National Cemetery Millennium Project Draft Environmental  
Assessment

Dear Ms. Conner,

The Arlington County Historical Affairs and Landmark Review Board (HALRB) serves, pursuant to the Virginia Code, as the appointed Architectural Review Board for Arlington County. Our role is to encourage the County, its citizens, and other parties to preserve and protect buildings, structures and properties that serve as important visible reminders of the historic, cultural, architectural, and archaeological heritage of Arlington County, thus promoting an enhanced quality of life within the County. The HALRB also advocates for desirable and appropriate uses and forms of development that will lead to the continuance, conservation and improvement of the County's historic, cultural, and architectural resources and institutions. The historical and cultural significance of the Arlington National Cemetery (ANC) and the Arlington House property to Arlington County, as well as to the nation, cannot be overstated. Arlington National Cemetery, with Arlington House prominently located at one of its highest elevations, is Arlington's most visible, and most visited, historic property. We have followed the developments of the Millennium Project for some years and appreciate the opportunity, in response to our review of the draft Environmental Assessment (EA) to state our position regarding the changes proposed to what many consider a national shrine.

The HALRB received an initial briefing on the Millennium Project on December 19, 2012, and discussed, in detail, this information and that provided in a subsequent presentation relating to the draft EA at our January 16, 2013, meeting. The HALRB fully supports the important mission of the ANC to provide a hallowed resting ground for our nation's war heroes and veterans. However, we find potential adverse impacts of the Millennium Project to the historic, cultural, and environmental resources of the ANC and Arlington County troubling. The proposed removal of a very large number of trees, including old growth forest, the proposed destruction of the historic landscape, the proposed removal and 'restoration' of the streambed, and the associated impacts to the environment of this project would appear to warrant a more thorough evaluation through an Environmental Impact Statement (EIS), now that an Environmental Assessment has provided an initial review. Clearly the changes to the historic and cultural environment proposed by all of the suggested alternatives in the Millennium Project Draft EA are beyond what is intended to come within the purview of a Finding of No Significant Impact (FONSI). It is our opinion that a FONSI is clearly inappropriate for this anticipated level of significant impacts and would not be supported by NEPA or the Army's procedures for implementing NEPA (ER 200-2-2 (4 Mar 1988)).



Our review of this project raised the additional concerns noted below.

- Alternative F was not adequately explored as an option. The Draft EA provides no burial numbers for this option, and no other substantive information explains why Alternative F, which has the least impact to the identified environmental, historic, and cultural resources, was discounted and apparently not given serious consideration.
- The preferred alternative's increase in the number of burial sites by only 1.1% over the number provided by Alternative C would not appear to justify the far greater adverse impact on environmental, historic, and cultural resources.
- The path shown in Alternative F does seem to provide adequate access for maintenance and for disabled visitors along a greatly minimized loop road. The design of this path should be explored further. A burial spot next to a well-preserved, 150-year old, Civil War era forest, as in Alternative F, would seem preferable and more honoring of the veterans to be buried there than the burial sites of Alternative E, which are located next to a section of paved road.
- The streambed and the regenerated forests and the old-growth forests are important historical resources within the ANC site and should be preserved. The forests have been an integral part of this site for at least a century and a half; much of the forest is significantly older, as is the stream. These living historic resources, once removed, cannot be adequately replaced.

The HALRB recognizes Arlington National Cemetery's need to provide additional burial locations for those who have served our country. If one of the proposed alternatives must be chosen, Alternatives F and C, while not ideal, would provide the greatest protection for the historical and cultural environment of the ANC and Arlington House. If, however, the preferred alternative identified in the Draft EA is ultimately selected, we would strongly urge modifications to this plan that will minimize all physical, visual, and environmental impacts, particularly to the old growth forest area.

We are extremely proud that Arlington County is the location of the incredible historic and cultural resources that are Arlington House and Arlington National Cemetery. These shrines to our collective history and to our war dead and the unique natural setting where they are located have become a place of significance, not only to Arlington County, but to this country and to the world. This stream valley and forest witnessed the founding of our capital city and survived the war that nearly tore our union apart. The landscape is the sentinel, the silent witness to the brightest and darkest moments of our national history. It dishonors not only our veterans, past, present, and future, but also our Nation, to destroy any portion of this last old growth forest and historic landscape. This very important visible reminder of the historic and cultural heritage of Arlington County and of our country warrants your substantial efforts to ensure its preservation for future generations.

Sincerely,



Joan K. Lawrence

Chair, Historical Affairs and Landmark Review Board

cc: Barbara Donellan, County Manager, Arlington County  
Arlington County Board Members  
Senator Mark Warner  
Senator Tim Kaine

Congressman James Moran  
Rob Nieweg, National Trust for Historic Preservation  
Katheryn Condon, Executive Director, Army National Cemeteries Program, ANC



OFFICE OF THE COUNTY MANAGER

2100 Clarendon Boulevard, Suite 302, Arlington, VA 22201  
TEL 703-228-3120 FAX 703-228-3218 TTY 703-228-4611 [www.arlingtonva.us](http://www.arlingtonva.us)

January 17, 2013

Ms. Susan L. Conner  
Acting Chief, Planning and Policy Branch  
U.S. Army Corps of Engineers, Norfolk District  
803 Front Street  
Norfolk, VA 23510

Dear Ms. Conner:

Thank you for the opportunity to provide comments to the draft Environmental Assessment (EA) for the Millennium Project at Arlington National Cemetery. We look forward to working with you on this and other projects of mutual interest.

The enclosures outline, from the County's perspective, the potential impacts of the proposed project on environmental, historical and cultural resources. Additionally, it is my understanding that you will be receiving comments under separate cover from some of the County's citizen advisory groups, such as the Urban Forestry Commission, Historical Affairs and Landmark Review Board, Environment and Energy Conservation Commission, Natural Resources Joint Advisory Group, and the Parks and Recreation Commission.

While we commend the work done by the Corps of Engineers to develop and examine a range of alternatives, the County cannot support the Preferred Alternative because we do not agree that it minimizes environmental and cultural resources impacts to a degree that is desirable or acceptable. Further, we remain concerned about the quality and sufficiency of the environmental, historical and cultural information used as a basis for the finding of no significant impact.

We firmly believe it is possible to develop an alternative that fully meets the goals for Arlington National Cemetery expansion while also addressing the concerns outlined by Arlington County and other relevant stakeholders and we stand ready to assist in that effort.

Thank you again for the opportunity to comment and we look forward to continuing to work with you to achieve the best outcome possible.

Sincerely,

A handwritten signature in blue ink, reading "Barbara M. Donnellan".

Barbara M. Donnellan  
County Manager

Enclosure



**From:** [Brian Stout](#)  
**To:** [Conner, Susan L. NAO](#)  
**Subject:** Arlington County Comments - Millennium Project EA  
**Date:** Friday, January 18, 2013 9:59:43 PM  
**Attachments:** [Arlington County Comments Cover Letter - Millennium Project EA.pdf](#)  
[Millennium Project Draft EA Comments - Consolidated.docx](#)

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Susan,

Happy New Year. Attached are Arlington County's comments on the Millennium Project Draft EA. Thanks again for your work on this project and for your willingness to work closely with Arlington County and the other project partners and stakeholders.

Best,

Brian

Brian Stout

Federal Liaison

Arlington County

2100 Clarendon Boulevard

Suite 302

Arlington, VA 22201

p: (703) 228-0577

f: (703) 228-3295

bstout@arlingtonva.us <<mailto:bstout@arlingtonva.us>>



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

January 22, 2013

Mrs. Susan Conner  
U.S. Army Corps of Engineers, Norfolk District  
803 Front Street  
Norfolk, VA 23510

Re: Environmental Assessment for the Arlington National Cemetery Millennium Project,  
December 2012

Dear Mrs. Conner:

In accordance with the National Environmental Policy Act (NEPA) of 1969, Section 309 of the Clean Air Act and the Council on Environmental Quality regulations implementing NEPA (40 CFR 1500-1508), the U.S. Environmental Protection Agency (EPA) has reviewed the Environmental Assessment (EA) for the Arlington National Cemetery (ANC) Millennium Project.

This EA is an evaluation of anticipated impacts associated with the expansion of ANC, designed to provide future internment space in the northwest portion of ANC. The project includes construction of casket burial sections, supporting facilities, landscaping, access roads, and stormwater management improvements at the existing ANC. The preferred Alternative is Alternative E. The National Park Service (NPS) parking lot stormwater management concerns will be addressed by an underground stormwater storage facility which will release into a Regenerative Stormwater Conveyance (RSC) on the slope. According to the EA, the existing stream channels, which are currently severely degraded in some areas would be restored and integrated into the overall project as a natural landscape amenity. Approximately 890 trees will be removed. Currently, the site is characterized by steep slopes, wooded hilltops, and ravines.

While the EA describes what will be constructed related to the cemetery, it lacks sufficient detail to document existing environmental conditions or evaluate potential impacts. In addition, the goals, monitoring and adaptive management plans for the restoration areas and RSC are not thoroughly presented.

Thank you for providing EPA with the opportunity to review this project. Our detailed comments are attached to this letter. If you have questions regarding these comments, please

feel free to call our office. The staff contact for this project is Ms. Barbara Okorn; she can be reached at 215-814-3330.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Bar Rudnick', with a long horizontal flourish extending to the right.

Barbara Rudnick  
NEPA Team Leader  
Office of Environmental Programs

Enclosure

## Technical Comments

### *General Comments*

- The EA does not evaluate other locations for the proposed project. NEPA promotes consideration of a range of alternatives. If other options were considered or are reasonable, these alternatives should be presented as part of the environmental analysis.
- Many the maps and plans provided are unreadable and many lack a frame of reference to understand orientation, etc.
- The descriptions of resources in the EA are too vague to allow for proper evaluation (see below).
- We were not provided with Appendix 1 of Appendix C, which is referenced in the document.
- The EA should state how the project complies with Section 502 of the Executive Order 13508 and Section 438 of the Energy Independence and Security Act.

### *Vegetation*

- Additional information should be provided on the revegetation efforts. While 600 new trees and 500 new shrubs are going to be planted, it is unclear how this will replace the functions and values of the trees removed from the site.
- All areas should be revegetated with native species where possible. In addition the project should comply with EO 13112 regarding invasive species.

### *Aquatic Resources*

- Page 49 states that wetland delineation was performed and identified two perennial streams and one intermittent stream. It is very difficult to identify these resources on the maps provided and the associated habitat. In addition, it is not clear which stream (s) are being restored or if these areas are considered jurisdictional by the USCOE. The wetland delineation report should be provided.
- The text indicates that some areas are deeply incised and have actively eroding banks. It is not clear from the information provided how much of the area is impaired and what the remaining stream reaches look like. Some of the photographs provided do not show much evidence of impairment.
- Before undertaking restoration, a comprehensive assessment of impacted streams, which includes existing physical, chemical and biological conditions, should be conducted.
- In addition, a post-restoration long-term monitoring plan should be submitted for review.
- A mitigation plan per the 2008 Compensatory Mitigation Rule should be developed to document compliance with the stream and buffer restoration goals.
- Page 53 states that a small portion of the stream restoration is located on NPS-administered property and NPS considers that portion of stream a wetland per their implementing regulations. How does this relate to the proposed project?
- Page 72 states that the project can be permitted using a State Programmatic General Permit or Nationwide Permit #27. It will have to be demonstrated that the project meets the necessary criteria for that to occur.

### *Storm Water Management and Natural Stream Design*

- More detail on the peak and volume storage is needed to determine the outlet flow rates and duration entering into the receiving stream.
- It is unclear if the study drainage area includes the existing NPS parking lot.
- Section 3.3.2 should be revised to indicate that the underground storage devices do not contribute to base flows. They contribute to higher than base flows for an extended period of time contributing to more bank scour downstream.
- Section 3.3.4 should reflect that the severe damage is caused by both the lack of stormwater controls and outlet protection.
- Section 3.4.1 should discuss how the attenuated peak flows discharging from the underground storage device are incorporated in to the RSC design to avoid failures.
- More information should be provided for the removal of the pavement around the existing trees. Issues that need to be addressed are existing soil compaction and minimizing damaging the root system of the trees.
- Section 4. 1 should include the hydrologic soil group.
- It is unclear from the information presented what may happen upstream and downstream of weir structures if they were to be impacted by velocity of storm flow or other circumstances.
- It is unclear who is in charge of maintenance of the stream restoration. For example, silt may clog the pore space of the sand which could significantly reduce in-situ infiltration rates. Also, iron bacteria may inundate the RSC structure due to sand and sandstone fill material
- Vegetation may be impacted by construction of the RSC and invasive species may be an issue. This should be addressed
- From the information provided, it is unclear if this design will provide water quality improvements. Goals and objectives should be clearly stated. Associated monitoring should be linked to the objectives.
- The document should include an evaluation of how the natural channel design will accommodate changes in hydrology (i.e. increase floodplain capacity and higher frequency of bank full) resulting from changes in the landscape from natural forest to park setting.

### *Mitigation*

- Section 3.5 should state regulatory requirement for the mitigation.

### *Threatened and Endangered Species*

- Coordination letters from the appropriate state and federal agencies should be provided to ensure that species of concern will not be impacted.

### *Cumulative Impacts*

- This section should discuss other projects in the area, not only those involving ANC.

**From:** [Nora Palmatier](#)  
**To:** [Conner, Susan L. NAO](#)  
**Subject:** Arlington National Cemetery Comments  
**Date:** Wednesday, January 16, 2013 6:23:17 PM

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I believe our National Cemeteries should expand their thinking on ways veterans wish to be interred. My father was a proud Navy veteran of WWII who made it quite clear that he wanted his remains cremated and spread around the roots of the large trees he admired. My brother-in-law, awarded the Purple Heart for his bravery during the Vietnam War, is vehement he doesn't want to be sealed in a cement tomb but likewise wants his ashes scattered among the trees. These are not isolated feelings – our church has a special memorial garden area where remains mingle with the roses.

I'm saddened that so many old growth trees will be destroyed at the Arlington National Cemetery when there are certainly many veterans who want a natural place of beauty for their remains. Creating paths through the trees with identified areas which remain sacred for ashes is a much better use of the land. We Americans' views on what final resting places should look like are undergoing a great change with more and more people seeking natural places of beauty rather than traditional mausoleums; it is possible to maintain trees and maintain the right of veterans to be honored for their services through creative use of the land.

Thank you for your consideration.

Nora Palmatier

703-351-1273

[norapalm@verizon.net](mailto:norapalm@verizon.net)

P Before printing this e-mail - Think if it is necessary. Think Green!

2533 N. Utah St.  
Arlington, VA 22207  
January 17, 2013

Ms. Susan L. Conner  
U.S. Army Corps of Engineers - Norfolk District  
803 Front Street  
Norfolk, VA 23510

Re: Arlington National Cemetery (ANC) Millennium Project

Dear Ms. Conner:

I am a resident of Arlington County with a strong interest in preservation of the county's remaining natural resources. After discussing the Environmental Assessment (EA) of the ANC Millennium Project with county naturalists, I have serious concerns about its environmental impacts.

Arlington is a densely developed urban county with limited surviving natural areas, and only a tiny portion of those areas consists of old-growth forest. As currently planned, the Millennium Project would have devastating environmental impacts. In addition to loss of old-growth forest, it would result in drastically altering the topography of a steep-sloped stream valley and fragmentation of forest areas to be retained, leading to significant reductions in their wildlife habitat value.

Although the EA provides only limited information concerning the vegetation, wildlife and other natural resources that would be lost, it is clear that those losses would be substantial. It is significant that the Virginia Native Plant Society has listed the area as a Registry Site due to its ecological and historical significance.

Every effort should be made to find other areas for expansion of Arlington National Cemetery in the next few years. If expansion into the wooded area is unavoidable, I urge that the Corps consult with Arlington County naturalists to develop a plan that would minimize the environmental impacts of the project.

Thank you for considering these suggestions.

Sincerely,



Larry Finch

cc: Arlington County Board  
Arlington County Manager  
Congressman Jim Moran  
Senator Mark Warner  
Senator Timothy Kaine  
Advisory Committee on Arlington National Cemetery  
Patrick Hallinan, Arlington National Cemetery Superintendent



**From:** [Nancy Vehrs](#)  
**To:** [Conner, Susan L. NAO](#)  
**Cc:** [mary\\_naylor@kaine.senate.gov](mailto:mary_naylor@kaine.senate.gov)  
**Subject:** Arlington National Cemetery Millennium Project Environmental Assessment  
**Date:** Friday, January 18, 2013 11:50:44 PM

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Ms. Susan L. Conner  
U.S. Army Corps of Engineers - Norfolk District  
803 Front Street  
Norfolk, VA 23510  
Dear Ms. Conner:

It is with great dismay that I read the Environmental Assessment on the Arlington National Cemetery Millennium Project. Ms. Mary Ann Lawler, the conservation chair of the Virginia Native Plant Society, called this project to my attention. The impact of the project on Arlington House Woods and the natural character of the historic site will be devastating. We can only imagine that neither Robert E. Lee nor General Washington's grandson would have approved.

The Virginia Native Plant Society designated Arlington House Woods as one of only 19 areas in Virginia on its registry. The primary requirement for eligibility is that a site have regional or state significance because of its native plants. Below is a brief description of this special site.

Arlington House Woodlands, Arlington, Potowmack Chapter

This 12-acre National Park Service woodlands site, surrounded by Arlington National Cemetery retains its original historic purpose of providing a park setting for Arlington House, home to George Washington's grandson and later Robert E. Lee. Development pressure has removed an adjacent 12 acres, and it is hoped that the registry designation will call attention to this remaining forest. These Washington metropolitan woodlands have never been logged or tilled and contain many very large, old-age trees, some dating to the American Revolution. Most of the area is on a variegated gravel, sand, silt and clay soil and a deep ravine with a perennial spring runs through the forest center. It is one of northern Virginia's surviving examples of Old-age Terrace Gravel Forest. The ravine forest canopy consists mainly of oaks, hickories, tulip tree and beech with an understory of fringetree, witch-hazel, pinxter azalea, black haw and maple-leaved viburnum, and a carpet of spring wildflowers.

Over 1700 trees will be lost. Removing the buffer of 150-year-old trees will affect the old growth forest. Disturbing the soil and building a loop road will bring in invasive plants to a pristine area. So few of these old growth forest remnants remain, and, once they are gone, they are lost forever.

We believe that the environmental assessment is inadequate; that more analysis of the impacts on the flora is necessary; and that the project should not continue without a more comprehensive public process.

Sincerely,  
//ss//

Nancy Vehrs  
President, Virginia Native Plant Society  
8318 Highland Street  
Manassas, VA 20110-3671  
Cc:  
Senator Mark Warner (by electronic form)

Senator Tim Kaine:  
[mary\\_naylor@kaine.senate.gov](mailto:mary_naylor@kaine.senate.gov) <[mailto:mary\\_naylor@kaine.senate.gov](mailto:mary_naylor@kaine.senate.gov)>

Rep. Rob Wittman  
Va 1st District (by electronic form)

**From:** [Mary Ann Lawler](#)  
**To:** [Conner, Susan L. NAO](#)  
**Cc:** [mary\\_naylor@kaine.senate.gov](mailto:mary_naylor@kaine.senate.gov); [tim.aiken@mail.house.gov](mailto:tim.aiken@mail.house.gov)  
**Subject:** Arlington National Cemetery Millennium Project Environmental Assessment  
**Date:** Friday, January 18, 2013 4:06:26 PM

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Ms. Susan L. Conner

U.S. Army Corps of Engineers - Norfolk District

803 Front Street

Norfolk, VA 23510

Dear Ms. Conner:

It is with great dismay that I read the Environmental Assessment on the Arlington National Cemetery Millennium Project. The impact of the project on Arlington House Woods and the natural character of the historic site will be devastating. Neither Robert E. Lee nor General Washington's grandson would have approved.

The Virginia Native Plant Society designated Arlington House Woods as one of only 19 areas in Virginia on its registry. The primary requirement for eligibility is that a site have regional or state significance because of its native plants.

Arlington House Woodlands, Arlington, Potowmack Chapter

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Over 1700 trees will be lost. Removing the buffer of 150 year old trees will affect the old growth forest. Disturbing the soil and building a loop road will bring in invasive plants to a pristine area.

We believe that the environmental assessment is inadequate; that more analysis of the impacts on the flora is necessary; and that the project should not continue without a more comprehensive public process.

Sincerely,

Mary Ann Lawler

State Conservation Chair

Virginia Native Plant Society

1019 South 27th St.

Arlington, VA 22202

Cc:

Congressman Jim Moran:

tim.aiken@mail.house.gov <<mailto:tim.aiken@mail.house.gov>>

Senator Tim Kaine:

mary\_naylor@kaine.senate.gov <[mailto:mary\\_naylor@kaine.senate.gov](mailto:mary_naylor@kaine.senate.gov)>

**From:** [Bernard H. Berne](#)  
**To:** [Conner, Susan L. NAO](#)  
**Subject:** Comments on Arlington National Cemetery: Millennium Project: Environmental Assessment, December 2012.  
**Date:** Monday, January 21, 2013 1:11:05 AM

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Subject: Comments on Arlington National Cemetery: Millennium Project: Environmental Assessment, December 2012.

The primary purpose of this message is to support the "No Action" Alternative that the Environmental Assessment (EA) describes. The EA fails to adequately evaluate this alternative, which should be the "Preferred Alternative".

If the Department of the Army prefers another alternative, the EA must conclude that a full Environmental Impact Statement (EIS) is required. It does not seem possible for the Department of the Army to reasonably issue a Finding of No Significant Impact (FONSI) as the outcome of the EA for the Millennium Project, despite the fact that the EA presently proposes a FONSI on page 97.

If the Department of the Army does not select the "No Action" alternative, the Millennium Project will cause irreparable damage to an old-growth forest that is critical to the integrity of Arlington House, the Robert E. Lee Memorial. The project area contains the oldest and largest tract of climax eastern hardwood forest in Arlington County. This forest is the same type that once covered the Arlington estate, and has regenerated from trees that were present historically. A forestry study has determined that a representative tree is 258 years old. Thus, many of those trees that appear to be less than 150 years old (including those that the EA's Alternative E would destroy) are actually much older. The project area was also determined to contain significant archeological and cultural landscape resources. (See References 1 and 2 at the end of these comments for further information regarding this paragraph).

A large proportion of the younger trees, many of whose visible trunks are at least 130 years old, are actually surviving parts of much older trees. It is therefore impossible to remove a significant number of these trees without severely impairing the historical context of Arlington House, which is listed on the National Register of Historical Places.

The full or partial destruction of a surviving woodland in an urbanized area such as Arlington County is completely unacceptable. Trees produce oxygen, consume carbon dioxide and remove pollutants from the atmosphere. The human species cannot survive when governmental agencies, such as the Department of the Army, destroy trees for purposes of their own, such as the interment of their deceased employees and relatives of these employees.

Interment in former woodlands disgrace and dishonor the dead. The destruction of any part of the woodland would soil the reputation of Arlington National Cemetery and the memory of people that have honorably served their country. Even worse, many of those that the Cemetery would inter in the woodlands will not know that their graves and crypts occupy a historic woodland that the Department of the Army had destroyed. Their unwitting interment in such a location would constitute nothing less than a governmental fraud.

It is therefore imperative that the Millennium Project avoid any damage to this unique woodland. The damage to the Cemetery's reputation from the destruction of the woodland can be far greater than the minimal benefit that the Cemetery's expansion may confer to the Department of the Army.

Further, the Department of the Army has many reasonable alternatives to the destruction of the woodlands. As an example, the Cemetery can inter the military's deceased in the space that the nearby Pentagon parking lots now occupy.

Replacement of part or all of the Pentagon parking lots with interment space would benefit the environment, as it would induce many of the Pentagon's employees and visitors to use public transportation, rather than to continue to drive automobiles. These automobiles are congesting the area's highways and roads, polluting the atmosphere and increasing the nation's dependence on fossil fuels from foreign nations, some of which are not allies of the United States.

If the Pentagon so desires, it can replace the parking spaces that it donates to Arlington National Cemetery with multilevel parking garages. Therefore, the loss of part or all of the parking lots would not unduly burden the Pentagon. Instead, the Pentagon would increase public respect for the Nation's military heroes and for the military itself by donating the parking lots's lands to the Cemetery.

Alternatively, the Department of Defense can recognize that, sooner or later, Arlington National Cemetery will run out of space to expand. The Department of Defense should therefore immediately begin the process of selecting and designating another National Cemetery for its most important and most honorable burials.

There are many underutilized National Cemeteries throughout the United States that are suitable for this designation. If the Department of Defense starts the selection and designation process at this time, the Department will be able to use the newly designated Cemetery for interments before the Department depletes the interment space that is presently available in Arlington National Cemetery.

#### Legality of Millennium Project:

The Millennium Project appears to be illegal. If the Department of the Army selects any other alternative other than "No Action", a federal court may restrain the Department from proceeding any further with its plans.

On September 23, 1996, Section 2821 (110 Stat. 37564-37565) of Public Law 104-201 (National Defense Authorization Act for Fiscal Year 1997) authorized the United States Secretary of the Interior to transfer to the United States Secretary of the Army all of the land in Section 29 of Arlington National Cemetery controlled by the Secretary of Interior that was within an "Arlington National Cemetery Interment Zone" and some of the land in the Section that was within a "Robert E. Lee Memorial Preservation Zone" (see: <http://www.gpo.gov/fdsys/pkg/PLAW-104publ201/pdf/PLAW-104publ201.pdf> ).

Section 2821, paragraph (a)(2)(A), stated:

(2)(A) The Secretary of the Interior may not make the transfer referred to in paragraph (1)(B) until 60 days after the date on which the Secretary submits to the Committee on Armed Services of the Senate and the Committee on National Security of the House of Representatives—

- (i) a summary of the document entitled "Cultural Landscape and Archaeological Study, Section 29, Arlington House, The Robert E. Lee Memorial";
- (ii) a summary of any environmental analysis required with respect to the transfer under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.);
- (iii) an accounting of the effect of the transfer that satisfies the requirements of section 106 of the National Historic Preservation Act (16 U.S.C. 470f); and

(iv) the proposal of the Secretary and the Secretary of the Army setting forth the lands to be transferred and the general manner in which the Secretary of the Army will develop such lands after transfer.

(B) The Secretary of the Interior shall submit the information required under subparagraph (A) not later than October 31, 1997.

However, the Secretary of the Interior failed to submit to the Committee on Armed Services of the Senate and the Committee on National Security of the House of Representatives the required summary of the environmental analysis for the land transfer by October 31, 1997. The Secretary of the Interior did not make this environmental assessment available to the public until July 12, 1999 (see Reference 2).

The Congress of the United States was therefore unable to review the environmental analysis in a timely manner. The 104th Congress, which had enacted Public Law 104-201, was no longer in session when the Secretary of the Interior made the required environmental assessment available in July 1999. As a result of the Secretary's failure, the 104th Congress did not have the opportunity to review the environmental assessment and to amend or repeal Section 2821 if that Congress so desired.

It therefore appears that a federal court may reasonably determine that the transfer of the land from the Department of the Interior to the Department of the Army was illegal and must be reversed.

Public Law 104-201, Section 2821, paragraph (a)(3), stated:

(3) The transfer of lands under paragraph (1) shall be carried out in accordance with the Interagency Agreement Between the Department of the Interior, the National Park Service, and the Department of the Army, dated February 22, 1995.

On March 5, 1998, the National Park Service (NPS) (which is a component of the Department of the Interior) informed the National Capital Planning Commission that the NPS wanted to transfer only four acres to Arlington National Cemetery, rather than 12 acres that the 1995 interagency agreement that paragraph (a)(3) cited had described (see Reference 3.)

Thus, NPS did not want to transfer Arlington National Cemetery most of the NPS land on which the Millennium Project will take place, even before the NPS made public its July 12, 1999, environmental assessment for the land transfer. NPS or the Secretary of the Interior may have considered that Public Law 104-201 had required the transfer most or all of the 12 acres that the interagency agreement . However, it appears that NPS was not aware of the fact that the Secretary of the Interior had failed to submit the required environmental assessment to the 104th Congress by October 31, 1997, as specified in Public Law 104-201.

Other Alternatives described in the Millennium Project EA:

The EA states that the preferred alternative is Alternative E. However, this Alternative would destroy more trees and have greater adverse environmental impacts than would Alternatives C or F, or a combination of the two. While Alternatives C and/or F may provide less interment space than would Alternate E, they are preferable to Alternative because of their smaller environmental impact.

As noted in my discussion of the "No Action" alternative, the Department of Defense have other suitable areas for interments. Because these other areas exist, there can be no valid justification for selecting Alternative E as the Preferred Alternative.

## Summary:

The "No Action" alternative should be the preferred alternative. In conjunction with a finding that the "No Action" alternative is best, the Department of the Army should immediately identify other spaces, such as the Pentagon parking lot or other National Cemeteries, that the Department of Defense can utilize for the interment of those people who presently fulfill the criteria for burial in Arlington National Cemetery. The Department of the Army needs to recognize that many of those people would consider it to be more honorable to be interred in such other spaces than to be interred in a space in which the Department of the Army has needlessly destroyed a historically and environmentally significant woodland.

Although far less desirable than the "No Action" alternative, Alternatives C or F, or a combination of the two, are superior to the presently preferred alternative (Alternative E).

## References Cited:

- 1) Hanna, Jennifer. Arlington House: The Robert E. Lee Memorial: Cultural Landscape Report: History. Volume 1. Cultural History Program, National Capital Region, National Park Service, United States Department of the Interior, Washington, D.C., October 2001, at [http://www.nps.gov/history/history/online\\_books/arho/clr.pdf](http://www.nps.gov/history/history/online_books/arho/clr.pdf)
- 2) Calhoun, Audrey. Notice: Environmental Assessment of Proposed Land Transfer, Arlington House — The Robert E. Lee Memorial, George Washington Memorial Parkway to Department of the Army, Arlington National Cemetery. Federal Register, Volume 64, No. 132, pp. 37564-37565. National Park Service, United States Department of the Interior. Published by the United States Government Printing Office, Washington, D.C., July 12, 1999, at <http://www.gpo.gov/fdsys/pkg/FR-1999-07-12/pdf/99-17523.pdf>
- 3) Wee, Eric L. Good News for Tree Lovers, Not for Arlington Cemetery: Park Service Wants to Give 4 Acres, Not 12. The Washington Post, Metro Section, page B7, March 6, 1998, at <http://www.arlingtoncemetery.net/trees.htm> arlingtoncemetery.net).

Bernard H. Berne  
4316 N. Carlin Springs Road, #26  
Arlington, VA 22203-2035  
bhberne@yahoo.com  
Phone: 703-243-0179

**From:** [Diane Probus](#)  
**To:** [Conner, Susan L. NAO](#)  
**Subject:** Comments on Draft EA for Arlington National Cemetery Millennium Project - Arlington County Park and Recreation Commission  
**Date:** Tuesday, January 29, 2013 11:41:31 AM  
**Attachments:** [Proposed Expansion of Arlington National Cemetery 1.25.13.pdf](#)

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Dear Ms. Conner,

As staff liaison to Arlington County's Park and Recreation Commission, I was asked to forward the attached comments from the commission on the draft Environmental Assessment for the Arlington National Cemetery (ANC) Millennium Project. The commission appreciates having the opportunity to provide their input on this important project.

Thank you,

Diane G. Probus, Associate Planner

Department of Parks and Recreation

2100 Clarendon Blvd., Suite 414

Arlington, VA 22201

703-228-0787



January 29, 2013

Ms. Susan L. Conner  
U.S. Army Corps of Engineers - Norfolk District  
803 Front Street  
Norfolk, VA 23510

Re: Comments on Arlington National Cemetery (ANC) Millennium Project

Dear Ms. Conner:

The Arlington County Environment and Energy Conservation Commission has reviewed the draft Environmental Assessment (EA) of the ANC Millennium Project and has a number of serious concerns about the lack of information on old growth woodland and stream habitats, lack of analysis regarding habitat value and failure to analyze in detail the impacts of the proposed project. Therefore we do not support some of the conclusions reached by the Corps in the EA. We concur with the findings of our colleagues, the Arlington County Urban Forestry Commission, and we will not repeat their more detailed comments in this letter.

We understand the pressures on the ANC to provide new burial sites. The proposed destruction of the largest remaining old-growth woodland in northern Virginia would buy ANC only another 7 - 12 more years of new burial sites. Old-growth forests are in essence irreplaceable.

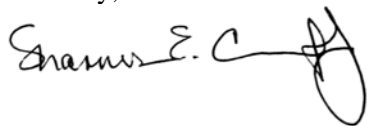
Among the EA's numerous failures are that it:

- lacks data on the vegetation, wildlife and other natural resources that will be permanently lost or indirectly impacted;
- inadequately evaluates and, therefore, downplays the proposed project's environmental impacts; and,
- contains only vague generalities concerning the project's impacts to the County's other natural resources.

These failures make it difficult to determine the impact of the project on particularly large, native, rare trees; ecologically significant stands of trees; and freshwater resources.

An adequate EA would address means to minimize the proposed loop road's impact on a previously undisturbed portion of the stream valley and its effects of further fragmenting the remaining woods and reducing wildlife habitat value. To comply with the Council on Environmental Quality's NEPA guidance, the Corps needs to design the project in a manner that first avoids and then minimizes impacts to the greatest extent possible, and then mitigates remaining impacts. To begin this process, the Corps must conduct a far more thorough analysis of the geology, hydrology, vegetation and wildlife in the project area. Before the Corps proceeds with this project any further, we request the Corps complete a revised draft EA and submit it to the Arlington County Environment and Energy Conservation Commission and the general public with sufficient time for a thorough review and preparation of comment.

Sincerely,

A handwritten signature in black ink, appearing to read "Shannon E. Cunniff", with a stylized flourish at the end.

Shannon Cunniff  
Chair

**From:** [taarmao@aol.com](mailto:taarmao@aol.com)  
**To:** [Conner, Susan L. NAO](#)  
**Subject:** Arlington Cemetery  
**Date:** Thursday, December 20, 2012 1:10:16 PM

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12/20/2012

Cutting down 890 trees in Arlington Cemetery is yet another absurd plan devised by the Army Corp of Engineers. Planting new trees to replace old growth trees is hardly an acceptable bargain. We are still dealing with a shameful legacy left with from hundreds of environmental disasters designed by the Army Corp of Engineers. Let's not add to that list.

As a resident of Arlington, I am horrified and I object to this ridiculous proposal. The cemetery is getting a lot of land when the Navy Annex comes down. When that area becomes full then it will be time to close the cemetery and find another location for burials.

This plan shows me that the management of the cemetery is making bad decisions and someone should look at that. Leave the trees in the cemetery alone, they are the only living history left from the civil war era.

Terri Armao  
Arlington, VA 22204

**From:** [Robert C. \(Rick\) Keller](#)  
**To:** [Conner, Susan L. NAO](#)  
**Subject:** Millennium Project comments  
**Date:** Saturday, January 19, 2013 2:23:29 PM  
**Attachments:** [Sierra Club Millennium Project comments.docx](#)

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Attached are comments from the Sierra Club on the Arlington Cemetary Millennium Project. We appreciate the opportunity to voice our concerns.

Robert C (Rick) Keller  
Sierra Club, Virginia Chapter  
Mt. Vernon Group, Chair  
(703)-532-3245

**TO:** Susan L. Conner, Acting Chief, Planning and Policy Branch U.S. Army Corps of Engineers, Norfolk District

**FROM:** Michael Leventhal, Arlington County CPHD, Historic Preservation.  
Rebecca Ballo, Arlington County CPHD, Historic Preservation

**DATE:** January 17, 2013

**SUBJECT:** Draft Environmental Assessment: Arlington National Cemetery Millennium Project

The Arlington County Historic Preservation Program has received for our review and comment the Draft EA for the Millennium Project. We are appreciative of the opportunity to review this document and provide comments.

### **Alternatives to the Proposed Action**

The range of alternatives considered as part of the undertaking is commendable. The Army Corps and Arlington National Cemetery seem to have worked through a number of alternatives to reach the preferred alternative (Alternative E). We understand that Alternatives C and D were identified early on as satisfactory, and were then further developed to create Alternatives E and F. However, the selection of Alternative E creates serious adverse impacts to the environmental and cultural resources in the project area, while only creating a relatively small number of addition burial sites. The total number of burial sites for Alternative E is 36,020 while the total for Alternative C is 35,620; this is a difference of 400 burial sites, or 1.11% fewer burials. This statistically small difference in the number of burial spaces results in the near complete loss of the historical landscape in the stream valley and on the east side of the streambank. The report notes that Alternative F, the more environmentally and cultural resource friendly option, was considered, but did not meet the project goals. However, the report does not note the number of burial spaces gained in Alternative F, nor does it describe in detail the issues with this design versus the Preferred Alternative E. Given that Alternative F limits most of the development to the west side of the stream, and seems to avoid much of the land and forest disturbance inherent in Alternative E, we are seeking a further refinement of Alternative F.

We believe that there may be more opportunities to recapture those 400 burial sites in a new design. One such area could be along the Perimeter Columbarium. Another option could be to remove some stand-alone trees or other landscaped areas, in favor of preserving more contiguous forests in the stream valley. Other options may present themselves in further detailed discussions of the project design and parameters.

### **Cultural Resources**

Arlington County is concerned that the determination of Adverse Impacts has not included a critical examination of the cultural landscape of the ANC, Arlington House property, and Fort Myer NHL in a manner that is comprehensive and inclusive. Section 4.8 on Cultural Resources should note that for the purposes of NEPA, the evaluation of cultural resources is broader than that used for Section 106 Review. As such, the report should examine potential damages to ecological, cultural and historic resources that may not be National Register eligible, but that are adversely affected by the project.

The Cultural Resources discussion in the EA does note the importance of the historic landscape of the forest and stream valley; however, the attached Section 106 assessment does not share the same conclusion. We have noted our objections to the 106 Determination and are working towards a solution to those concerns through ongoing Consulting Parties coordination. In general, the impacts to the cultural resources in this area are downplayed in the Cumulative Impacts Analysis. Until the Section 106 work is completed, and more information requested from Army Corps has been provided, we think that the assertions of minimal impact and solutions for mitigation are premature.

We do not know of an adequate mitigation for the loss of this resource. Once removed, the public will have lost access to a unique historical and cultural landscape. In considering the adverse impacts, the EA and 106 determinations should seek to broadly assess the importance of the landscape, from all sides and vantage points, as we have noted in previous memoranda.

### **Coordination with ANC Master Plan & Design Guidelines**

Arlington County recently had the opportunity to provide comments on the ANC's *Draft Cemetery Design Guide*. A number of stipulations in that Guide would seem to apply to the Millennium Project, and could provide further grounds for work on a redesign of the current proposed Alternative. For example, the *Design Guide* notes that the Millennium Project will be developed under the "Informal Theme". Areas where this thematic approach could be improved as part of a new Alternative Design, or a further refinement of Alternative F are as follows:

- *(p. 41) Existing trees and vegetation should be preserved and nurtured in order to maintain the mature, protected feel of this part of the cemetery.*
- *Site Planning Standards (p.50) 1. Preserve natural site features such as topography, hydrology, vegetation and tree cover. 3. Preserve the natural site by molding development to fill around existing land forms and features. This development approach minimizes extensive earthwork, preserves existing drainage patterns and preserves existing vegetation. 4. Plan for facilities to be clustered to preserve land, reduce construction cost and maintain as much permeable surface area as possible.*
- *Natural Site Conditions, Topography (p.51) 1. Maintain natural ground slopes and elevations. 5. Avoid development on steep slopes. 6. Avoid development in natural drainage ways and flood plains. Hydrology. B. Limit development in floodplains to open spaces and ceremonial uses. Vegetation (p. 52) The cemetery will be designed to protect and preserve existing native vegetation.*
- *The long perimeter columbarium wall is more suited to the formal theme discussed in the Design Guidelines. The Design Guidelines also note the liabilities of this design, stating that the "columbarium area can feel forbidding to some" and that the "niche walls lack architectural articulation." (pg. 43). The Design Guidelines go further and state that "if new niche walls are built, they should be offset (or court-like) to create a more human scale. One long straight wall is not recommended" (pg. 44).*

In conclusion, we thank you for the opportunity to review the EA and provide comments. We will be available to discuss or provide further clarifications on any of our comments. Please feel free to contact historic preservation staff directly at 703-228-3812.

### Postscript

As a post-script, based on our meeting yesterday (1/15/13) at the ANC Welcome Center, Arlington County believes that our concerns about the cultural and historic elements and landscape in the Millennium project area were indeed heard, not just listened to, by the Army Corp staff, the ANC staff and the project consultants. The Arlington County Urban Foresters and Historic Preservation Planners look forward to having a further discussion on the overall Millennium project design and investigating the opportunities to get the best results that satisfy all parties with minimal compromise to the overall mission and project objectives. With the proposed design only now reaching the 65% level, there is still adequate time to review openly other alternatives along the edges.

**Comments to Draft Environmental Assessment**  
**Arlington National Cemetery Millennium Project**  
*January 17, 2013*

The following comments provided are made with an understanding of the national and emotional importance of Arlington Cemetery and the need to provide burial space to honor America's veterans. At the same time, the comments are made in the context of how proposed impacts to stream valleys from any development activity are evaluated by Arlington County in today's regulatory climate, which includes Virginia's Chesapeake Bay Preservation Act and Regulations and Arlington's local Chesapeake Bay Preservation Ordinance.

The comments do not focus on all of the potential environmental impacts of the alternatives, but focus specifically on the impacts to the wooded stream valley – the central environmental feature of the proposed area of work.

Alternative C provides 400 fewer burial sites than Alternative E, a difference of -1.1%. Using the EA figure that Alternative E would add 7 to 12 years of burial capacity, and assuming the more conservative 7 year projection resulting in 5,146 burial sites per year, Alternative C's 400 fewer burial sites would reduce this projection to 6.92 years, or 29 days fewer capacity.

At the same time, Alternative C is described as allowing for "...greater preservation of the southern slope with its stands of trees, and respects the existing stream."

In addition, the stream restoration activities proposed with Alternative E could be incorporated into Alternative C in a targeted and sensitive manner to achieve these important improvements to the existing stream while protecting adjacent sensitive forest areas.

We recognize there are other details and complexities associated with Alternatives C and E. However, the impacts to the stream valley from Alternative E will be permanent, whereas the very minor impacts to burial capacity would appear to be able to be offset as part of the Cemetery's other expansion efforts in less sensitive areas. The statement in the EA that "stakeholders were concerned about the placement of the committal shelter and columbarium" seems to be made to conclude that this alternative would not be feasible. However, this factor should be weighed in the context of all of the other impacts and benefits of each alternative.

We are hopeful that the Cemetery can take another look at Alternative C and come up with a new preferred alternative that achieves the best of Alternatives C and E in terms of burial capacity, stream valley protection, and stream restoration.

Thank you for the opportunity to comment.

**Comments to Draft Environmental Assessment**  
**Arlington National Cemetery Millennium Project**  
*January 17, 2013*

IMPACTS OF THE CURRENT PLAN

- Removal of a portion of the large stand of old-growth hardwood forest in Arlington County, some of which classifies as unlogged forest, which may date to before the American Revolution.
- Significant filling and cutting of the slope, impacting the existing forest, and creating erosion and runoff problems, only partially mitigated by stream bank restoration.
- Increasing of the edge habitat of the remaining old growth forest, allowing for easier introduction of invasive species.

*ISSUES WITH THE ENVIRONMENTAL ASSESSMENT*

- **Page 27:** There is a claim there are no known unique ecosystems listed within or adjacent to the project area, when, for this area, this type of forest is unique. The Virginia Native Plant Society has listed the Arlington House woodlands as one of their Registry Sites due to its historical and botanical significance as an Old-age Terrace Gravel Forest. This cannot really be replaced or mitigated.
- **Page 52:** The claim “Neither of these wetland areas is within the construction footprint of the Millennium Project” is incorrect, as it does exist within the limits of disturbance of the Project. It is unclear how the Easternmost wetland (Wetland B) will be unaffected by the Project, even if the only intent for that area is stream restoration. The stream restoration suggested appears to be fairly intensive and will involve heavy equipment, increasing the chances for damage to the wetland.
- **Page 53:** The EA does not contain a full vegetation inventory (ferns, forbs, sedges, etc.), and only a partial tree inventory (outlining 596 trees of the total 1724 trees). National Park Service (NPS) does point out that 2 species are found in Arlington Woods that are not found anywhere else along the George Washington Memorial Parkway: *Lonicera sempervirens* and *Prunus virginiana*. The latter has not been found at any other site in Arlington. A 1996 plant inventory of Arlington House by Cris Fleming also notes some unusual species, including *Prunus angustifolia* and *Prunus pennsylvanica* which have not been found anywhere else in Arlington County. A full vegetative inventory is recommended.
- **Page 53:** There is concern that 130-150 year old forests are viewed as "expendable" within the document. These age groups are considered to be "historical" natural forests within Arlington's highly urbanized environment. The 235-year-old Mixed Hardwood forest may indeed be older than 235 years old. The only supporting evidence of forest age used were tree rings of fallen



trees, which tells you how old that particular tree is, not the entire forest. It can be safely assumed this forest has been unlogged throughout history.

- **Page 54:** “Wildlife Resources Including Rare, Threatened and Endangered Species” consists of just over two paragraphs and is rather vague in their characterization of the site. The main source seems to be a document from 2010 by the Animal Welfare League of Arlington, which deals primarily with domesticated animals rather than wildlife. Further biotic inventories by qualified wildlife experts would be wise to do so we know what really is present there.
- **Page 58:** “None of the old growth area (235 years old) is within the Millennium APE.” This is in direct contradiction with Figure 5 in Appendix B, where the project outlines go into the 235 year old hardwood forest. Similar to the issue on page 52, even if the only disturbance planned is a stream restoration, this will still significantly impact the area. This claim is repeated on page 78.
- **Pages 68-69:** The statement “The soils in the proposed project area are previously disturbed soils” may not be accurate (see Fleming, 2006, also showing over 60% will be on highly erosive soils on steep slopes as well as the possible location of 2 seeps/springs not shown in the plan). It is estimated that 100,000 cubic yards of soil will be removed or redistributed within the project area. This represents a significant impact to the environment.
- **Page 77:** “Groundwater would return to normal levels upon completion of disturbance in these areas” is an unlikely assertion, as the amount of grading involved in this project, including the need to compact and stabilize the soil would prevent groundwater conveyance to be restored.
- **Page 78:** Replacement of 1,724 largely native, old growth, mature trees with “600 new trees and 500 new shrubs” would not result in appropriate mitigation.
- **Page 80:** The comment “disturbed areas would readily regenerate upon completion of the project....” is incorrect. It will take 130-150 years to replace some of the impacted area. Some species would not return at all if not planted or reintroduced. The disturbance would not be limited to trees, as even the most common species of salamander which is likely to be present, the Eastern Red-backed Salamander *Plethodon cinereus*, may take 50 or more years to recover, if they recover at all.

#### *SUGGESTED CHANGES TO THE ENVIRONMENTAL ASSESSMENT*

- Provide a full biotic inventory (both vegetative and faunal), including an analysis of current invasive species pressures.
- Correct statements that are not consistent with the supporting documents or with current ecological restoration and conservation practices.

#### *SUGGESTED MITIGATION*

- Reconsider Alternative C as a viable option with fewer environmental impacts, in light of how many additional burial spaces (400) would be gained or that could be relocated to less environmentally sensitive plots elsewhere.
- Remove or reduce the “loop road,” reducing impact on the forest.
- Implement targeted stream restoration where severe channel erosion warrants intervention, but minimize disturbance to adjacent high value forest areas.

- Provide invasive species management in impacted forested areas, improving the health of the forest, preventing invasion into the oldest stands of forest, which is likely to intensify due to construction disturbance.
- Prioritize contiguous, non-fragmented forest over individual tree stands in the burial space. If swaps can be made between “islands” of trees and contiguous forest, which would provide a stronger buffer for the old growth, that would be preferable and provide better ecological value, and recover some additional burial plots.
- Plant only native, local ecotype trees, shrubs, and plants as part of the landscaping and reforestation, to prevent further degradation of the local ecosystem and habitat.
- Provide protocol to be used for flora and fauna if capture, rescue, or relocation becomes necessary.

**From:** [Kvitashvili Mary A NGA-MSD USA CTR](#)  
**To:** [Conner, Susan L. NAO](#)  
**Subject:** Re: Comments on Arlington National Cemetery (ANC) Millennium Project  
**Date:** Thursday, January 10, 2013 12:11:15 AM

---

Ms. Susan L. Conner  
U.S. Army Corps of Engineers - Norfolk District  
803 Front Street  
Norfolk, VA 23510

Re: Comments on Arlington National Cemetery (ANC) Millennium Project

Dear Ms. Conner:

While understanding the pressure to expand the longevity of the cemetery, the tradeoff of destroying an irreplaceable ecological and historical resource and one of the last remaining old-growth forests in Northern Virginia is simply not worth it. Furthermore, I believe that the Millennium Plan is a dishonor to our war dead. I do not think these brave men and women would want to see an historical treasure forever destroyed for grave sites. Instead, it is time to tighten the restrictions for who should be buried in Arlington Cemetery and also time to look for a new site which would not displace a forest where we can honor our Nations bravest heroes.

The EA consistently downplays and inadequately evaluates the environmental impact of the proposed Millennium Project. The project will completely alter the topography of a natural steep-sloped stream valley and destroy a stream and the last remaining areas of old-growth forest in our County, and one of the last in our region. There is a noticeable lack of analysis and data in adequately describing the vegetation, wildlife and other natural resources that will be permanently lost by this project.

Arlington House Woods is significant in being one of only two public natural areas in the county (Barcroft Park is the other) to completely span a Coastal Plain slope from the bedrock at the bottom, through the Potomac Group on the slope, to the terrace gravel at the top. The relationship of both natural communities and spring hydrology to geologic setting is illustrated exceptionally clearly here.

The EA fail to note springs and seeps that are reported to exist within the project area (see Fleming, 2006). Characterizing the soils in the project area as previously disturbed (EA, p. 68), may not be accurate. In addition, large portions of the work site will be on highly erodible soils on steep slopes, raising serious concerns about the ability to control the impact on any remaining natural areas, as well as the long-term viability of the proposed project.

The EA fails to mention that this site has been listed as a Registry Site by the Virginia Native Plant Society as a result of its unique ecological and historical significance:

This 12-acre National Park Service woodlands site, surrounded by Arlington National Cemetery retains its original historic purpose of providing a park setting for Arlington House, home to George Washington's grandson and later Robert E. Lee. Development pressure has removed an adjacent 12 acres, and it is hoped that the registry designation will call attention to this remaining forest. These Washington metropolitan woodlands have never been logged or tilled and contain many very large, old-age trees, some dating to the American Revolution. Most of the area is on a variegated gravel, sand, silt and clay soil and a deep ravine with a perennial spring runs through the forest center. It is one of northern Virginia's surviving examples of Old-age Terrace Gravel Forest. The ravine forest canopy consists mainly of oaks, hickories, tulip tree and beech with an understory of fringetree, witch-hazel, pinxter azalea, black haw and maple-leaved viburnum, and a carpet of spring wildflowers.

Do not proceed with the Millennium Project as it is poorly assessed and the loss of the forest is forever.

Sincerely,

Mary Kvitashvili  
Bagram, Afghanistan  
Arlington Resident of 55 Years  
419 S. Adams St., Penrose Neighborrhodd

**From:** [taarmao@aol.com](mailto:taarmao@aol.com)  
**To:** [Conner, Susan L. NAO](#)  
**Subject:** Arlington Cemetery  
**Date:** Thursday, December 20, 2012 1:10:16 PM

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12/20/2012

Cutting down 890 trees in Arlington Cemetery is yet another absurd plan devised by the Army Corp of Engineers. Planting new trees to replace old growth trees is hardly an acceptable bargain. We are still dealing with a shameful legacy left with from hundreds of environmental disasters designed by the Army Corp of Engineers. Let's not add to that list.

As a resident of Arlington, I am horrified and I object to this ridiculous proposal. The cemetery is getting a lot of land when the Navy Annex comes down. When that area becomes full then it will be time to close the cemetery and find another location for burials.

This plan shows me that the management of the cemetery is making bad decisions and someone should look at that. Leave the trees in the cemetery alone, they are the only living history left from the civil war era.

Terri Armao  
Arlington, VA 22204

From: Cam Go  
To: [taarmag@aol.com](mailto:taarmag@aol.com); Conner, Susan L - NAQ  
Subject: RE: [penrose] Cemetery to cut old growth trees  
Date: Wednesday, January 02, 2013 11:36:17 AM

Surely, there is a way to save 890 trees!

To: [penrose@yahoo.com](mailto:penrose@yahoo.com)  
From: [taarmag@aol.com](mailto:taarmag@aol.com)  
Date: Wed, 2 Jan 2013 16:32:10 +0000  
Subject: [penrose] Cemetery to cut old growth trees

Email this woman and voice your opposition to this project.

If you have any questions or wish to provide comments, please contact Mrs. Susan Conner of the U.S. Army Corps of Engineers, Norfolk District, at [susan.l.conner@usace.army.mil](mailto:susan.l.conner@usace.army.mil) <<http://www.arlingtoncemetery.mil/News/NewsItem.aspx?ID=09e517ba-d67e-4e3f-a518-2d1a87aad26e>> or 757-201-7390.

This EA will be available for review and comment for 45 days from the date of posting (Dec. 7, 2012 – Jan. 21, 2013).

Environmental Assessment for Arlington's expansion project available for review  
12/17/2012 12:00:00 AM

An Environmental Assessment <<http://www.arlingtoncemetery.mil/News/NewsItem.aspx?ID=09e517ba-d67e-4e3f-a518-2d1a87aad26e>> (EA) has been prepared to assess the potential impacts of the expansion of Arlington National Cemetery (ANC), known as the Millennium Project. The Millennium Site will be developed to increase burial space at ANC. Building and site element construction shall be suitable for the environment and complementary to the architectural theme and historical considerations of ANC.

The EA is available for review at: <http://www.nao.usace.army.mil/Portals/31/docs/Arlington/FullANCMILLEADECT.pdf> <<http://www.arlingtoncemetery.mil/News/NewsItem.aspx?ID=09e517ba-d67e-4e3f-a518-2d1a87aad26e>> .

this is a link to the Mercury and the original story. <http://arlingtonmercury.org/>

Cemetery Plan Would Remove Old Growth Trees <<http://arlingtonmercury.org/articles/cemetery-plan/>>

by Cid Standifer <[http://arlingtonmercury.org/topics/cid\\_standifer](http://arlingtonmercury.org/topics/cid_standifer)>  
December 20, 2012

\*

Content <<http://arlingtonmercury.org/articles/cemetery-plan/>>

Millennium-Project <<http://arlingtonmercury.org/downloads/1072/download/bitbit-600x269-0afca74335c9f578d3c601c3fe873161578df43e/Millennium-Project.jpg>>

Image: Army Corp of Engineers

Arlington National Cemetery's Millennium Project would make space suitable for burial in a northwest corner of the cemetery. Some trees that date back to just after the Civil War might be cut down.

A proposed Arlington National Cemetery expansion may eat into the only remaining stand of old-growth forest in Arlington County, alarming county officials.

The county's historic preservation staff wrote to the Army Corps of Engineers after seeing plans for the project to voice its concerns about the woods.

At a Historical Affairs and Landmark Review Board meeting on Wednesday, Historic Preservation Planner Rebecca Ballo noted that the board still has time to voice an opinion on the subject at future meetings, though they did not vote on action items that night.

"Essentially, what's at stake is the last old-growth forest in the county," Ballo told committee members.

The Army Corps of Engineers released its Environmental Assessment <<http://www.arlingtoncemetery.mil/News/NewsItem.aspx?ID=09e517ba-d67e-4e3f-a518-2d1a87aad26e>> for the "Millennium Project" this month. The project -- which has been in the works since the 1990s, but is gearing up again after years of controversy and turmoil at the cemetery -- would provide more burial plots for the fast-filling cemetery.

In the study, the Army acknowledges that its preferred plan would involve clearing 890 trees, some of which date back to just after the Civil War. However, officials pledge to leave a patch of 220-year-old trees in tact.

The trees are west of Arlington House, a historic structure on the edge of the existing burial ground. The environmental report traces the woods back to historic writings, drawings and photographs from around the time Gen. Robert E. Lee lived there.

The groves on the firing line include 90-year-old white oak and chestnut oak and 130-year old northern red oaks. The report also said there are two native plants, *Lonicera sempervirens* and *Prunus virginiana*, in the project area that can't be found anywhere else near the George Washington Memorial Parkway.

The report says that preserving trees is a priority for the project, and planners hope to minimize the damage by planting 600 new trees.

Reply via web post <[http://groups.yahoo.com/group/penrose/post%3b\\_yfc-X3oDMTJvOWImMjVzBF9TAzk3MzU5NzE0BGdyEikAzMzNTk4MwRncnBzcEikAzE3MDUwNjM5ODUEc2VjA3Z0bARzhGsdmdocABzdGltZOMmMzU3MTQ0MzM1](http://groups.yahoo.com/group/penrose/post%3b_yfc-X3oDMTJvOWImMjVzBF9TAzk3MzU5NzE0BGdyEikAzMzNTk4MwRncnBzcEikAzE3MDUwNjM5ODUEc2VjA3Z0bARzhGsdmdocABzdGltZOMmMzU3MTQ0MzM1)>  
ad=reply&messageNum=5449> Reply to sender <<mailto:taarmag@aol.com>?subject=Re%3A%20Cemetery%20to%20cut%20old%20growth%20trees> Reply to group <<mailto:penrose@yahoo.com>?subject=Re%3A%20Cemetery%20to%20cut%20old%20growth%20trees> Start a New Topic

<[http://groups.yahoo.com/group/penrose/post%3b\\_yfc-X3oDMTJvOWImMjVzBF9TAzk3MzU5NzE0BGdyEikAzMzNTk4MwRncnBzcEikAzE3MDUwNjM5ODUEc2VjA3Z0bARzhGsdmdocABzdGltZOMmMzU3MTQ0MzM1](http://groups.yahoo.com/group/penrose/post%3b_yfc-X3oDMTJvOWImMjVzBF9TAzk3MzU5NzE0BGdyEikAzMzNTk4MwRncnBzcEikAzE3MDUwNjM5ODUEc2VjA3Z0bARzhGsdmdocABzdGltZOMmMzU3MTQ0MzM1)> Messages in this topic

<[http://groups.yahoo.com/group/penrose/message/5449%3b\\_yfc-X3oDMTMzcXl3dm40BF9TAzk3MzU5NzE0BGdyEikAzMzNTk4MwRncnBzcEikAzE3MDUwNjM5ODUEc2VjA3Z0bARzhGsdmdocABzdGltZOMmMzU3MTQ0MzM1](http://groups.yahoo.com/group/penrose/message/5449%3b_yfc-X3oDMTMzcXl3dm40BF9TAzk3MzU5NzE0BGdyEikAzMzNTk4MwRncnBzcEikAzE3MDUwNjM5ODUEc2VjA3Z0bARzhGsdmdocABzdGltZOMmMzU3MTQ0MzM1)> (1)  
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Visit Your Group <[http://groups.yahoo.com/group/penrose%3b\\_yfc-X3oDMTJvOWImMjVzBF9TAzk3MzU5NzE0BGdyEikAzMzNTk4MwRncnBzcEikAzE3MDUwNjM5ODUEc2VjA3Z0bARzhGsdmdocABzdGltZOMmMzU3MTQ0MzM1](http://groups.yahoo.com/group/penrose%3b_yfc-X3oDMTJvOWImMjVzBF9TAzk3MzU5NzE0BGdyEikAzMzNTk4MwRncnBzcEikAzE3MDUwNjM5ODUEc2VjA3Z0bARzhGsdmdocABzdGltZOMmMzU3MTQ0MzM1)>  
Thank you for participating in the Penrose Neighborhood Association.

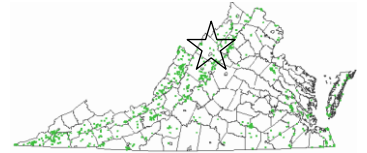
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Switch to: Text-Only <<mailto:penrose-traditional@yahoo.com>?subject=Change\_Delivery\_Format:\_Traditional> , Daily Digest <<mailto:penrose-digest@yahoo.com>?subject=Email\_Delivery\_Digest1> • Unsubscribe <<mailto:penrose-unsubscribe@yahoo.com>?subject=Unsubscribe> • Terms of Use <<http://docs.yahoo.com/info/terms/>> • Send us Feedback <<mailto:ygroupsnotifications@yahoo.com>?subject=Feedback\_on\_the\_redesigned\_individual\_mail\_v1>

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# MOUNT VERNON GROUP

ALEXANDRIA, ARLINGTON COUNTY, FAIRFAX COUNTY, FALLS CHURCH, AND PRINCE WILLIAM COUNTY  
VIRGINIA



January 15, 2013

Ms. Susan L. Conner  
U.S. Army Corps of Engineers - Norfolk District  
803 Front Street  
Norfolk, VA 23510

Re: Arlington National Cemetery (ANC) Millennium Project

Dear Ms. Conner:

The Sierra Club welcomes the opportunity to comment on the Environmental Assessment (EA) of the Arlington National Cemetery (ANC) Millennium Project. ANC's beautiful landscaping, including groves of trees dating back to the Civil War and, in some cases, well before that war, is one of the reasons the cemetery is such a popular interment site for our nation's heroes. The Sierra Club is concerned that the analysis and conclusions of the EA in some cases fail to appreciate the danger the proposed development poses to these restful, stately old-age groves that help to give ANC its noble and historic character. The veterans buried in ANC appreciated the fact that they would be laid to rest in a place of uncommon beauty and tranquility, qualities that would be damaged by removal of old-growth forest.

In the judgment of the Sierra Club, the EA consistently downplays and inadequately evaluates the environmental impact of the proposed project. The project will completely alter the topography of a natural, steep-sloped stream valley and destroy a stream and one of the last remaining areas of old-growth forest in the National Capital region. Large portions of the work site would consist of erodible soils on steep slopes, raising serious concerns about the ability to control the impact of the project on remaining natural areas, such as the National Park Service forest adjacent to the project area.

There is a noticeable paucity of analysis and data describing the vegetation, wildlife and other natural resources that will be permanently lost through the proposed project. While the EA notes that 1724 large trees would be lost as a result of the project, the report lacks a natural resources inventory and fails to incorporate the knowledge in existing texts that describe this area in detail. As a result, it is difficult to determine the actual impact of the project to particularly high-value trees, to ecologically significant stands of trees, and to areas of undisturbed soil, which are likely to contain additional valuable species. The EA fails to mention that this site has been listed as a Registry Site by the Virginia Native Plant Society as a result of its unique ecological and historical significance. We urge the Corps of Engineers to conduct a more thorough analysis and evaluation of the geology, hydrology, vegetation and wildlife of the project site before any decisions affecting this ecologically significant site are finalized.

The Sierra Club is sympathetic to the pressures to expand the longevity of ANC, but we believe that the costs of losing this valuable ecological area outweigh the limited number of years estimated of continued operations at the cemetery that could result. We urge the Corps of Engineers to explore options to expand ANC in areas with less ecological and scenic value.

Local Sierra Club members are available to meet with Corps of Engineers staff to discuss ways to minimize the damage to these woodlands. Please contact me, if such a meeting would be of value.

Sincerely,

A handwritten signature in cursive script, reading "Rick Keller". The signature is written in dark ink on a light-colored background.

Robert (Rick) Keller, Chair  
Sierra Club – Mount Vernon Group



17 January 2013

Ms. Susan Connor  
US Army Corps of Engineers- Norfolk District  
803 Front Street  
Norfolk, VA 23510

Subject: ANC Millenium Project

Dear Ms. Connor,

I am writing out of concern for the planned loss of a significant part of old growth forest at Arlington Cemetery.

I understand the national significance of Arlington Cemetery. In fact I live close enough to see the grave stones from my living room window in the winter.

Old growth forests are practically nonexistent in northern Virginia. Such resources are not irreplaceable, but would however require centuries to replace. Further, the complexities and interplay of the spectrum of living organisms (microscopic to mammal) and geologic characteristics that are found at the proposed site are likely irreplaceable.

This site is clearly part of a valuable wildlife area. Just the process of significantly reducing the overall size will severely compromise the overall quality of the remaining forest.

Please consider another appropriate site in the area, or at least further minimize the acreage of old growth forest to be removed (for example by re-routing the new road that is to pass nearby the existing stream).

Thank you for your time and attention to this letter.

Sincerely,



Steve Campbell  
1410-B 12<sup>th</sup> North Street  
Arlington, VA 22209

cc: Senator Mark Warner  
Representative Jim Moran

3616 N Upland St.  
Arlington, VA, 22207

January 20, 2013

Ms. Susan L. Conner  
U.S. Army Corps of Engineers - Norfolk District  
803 Front Street  
Norfolk, VA 23510

Re: Comments on Arlington National Cemetery (ANC) Millennium Project

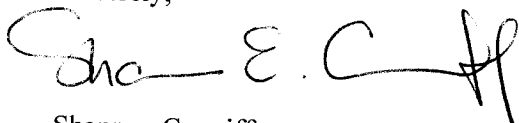
Dear Ms. Conner:

I reviewed the Environmental Assessment (EA) of the ANC Millennium Project and have a number of serious concerns about the analysis and, hence, some of the conclusions reached in the EA. Early in my career I prepared EAs and Environmental Impact Statements as a Project Ecologist for the Corps of Engineers and later, with Environmental Protection Agency headquarters, oversaw the Corps' National Environmental Policy Act (NEPA) compliance. I am currently Chair the Arlington County Environmental and Energy Conservation Commission, but do not write this letter on the Commission's behalf as we did not become aware of the EA early enough to raise it for discussion in a public forum. I concur with the findings of the Arlington County Urban Forestry Commission regarding this proposed project.

The expansion of the Cemetery into this woodland will result in the loss of an irreplaceable ecological and historical resource -- and one of the last remaining old-growth forests in our region -- while providing only another 7 - 12 more years for new burial grounds. The EA inadequately evaluates and therefore downplays the proposed project's environmental impacts. By altering the topography of a natural steep-sloped stream valley, the proposed project will destroy a stream and a significant portion of old-growth forest in Arlington County. The EA lacks data on the vegetation, wildlife and other natural resources that will be permanently lost or indirectly impacted and contains only vague generalities concerning the project's impacts to the County's other natural resources. The lack of an inventory of the trees to be affected by the proposed project, makes it difficult to determine the actual impact of the project on particularly high value trees and ecologically significant stands of trees.

The Corps needs to find ways to minimize the proposed loop road's impact on a previously undisturbed portion of the stream valley and its effects of further fragmenting the remaining woods, reducing its wildlife habitat value. To comply with the Council on Environmental Quality's NEPA guidance, the Corps needs to design the project in a manner that first avoids and then minimizes impacts to the greatest extent possible, and then mitigates remaining impacts. To begin this process, the Corps must conduct a far more thorough analysis of the geology, hydrology, vegetation and wildlife in the project area. I recommend the Corps complete a revised draft EA and provide it to the Arlington County Environment and Energy Conservation Commission and the general public with adequate time for review and comment before the Corps proceeds with this project any further.

Sincerely,

A handwritten signature in black ink, appearing to read "Shannon Cunniff". The signature is stylized with a large initial "S" and a long, sweeping underline.

Shannon Cunniff



ARLINGTON COUNTY URBAN FORESTRY COMMISSION  
2700 S. Taylor St., Arlington, VA 22206

January 17, 2013

Ms. Susan L. Conner  
U.S. Army Corps of Engineers - Norfolk District  
803 Front Street  
Norfolk, VA 23510

Re: Comments on Arlington National Cemetery (ANC) Millennium Project

Dear Ms. Conner:

The Urban Forestry Commission of Arlington County appreciates having the opportunity to comment on the Environmental Assessment (EA) of the ANC Millennium Project. The commission has a number of serious concerns about the analysis and, hence, some of the conclusions reached in the EA.

From the perspective of the Urban Forestry Commission, the EA consistently downplays and inadequately evaluates the environmental impact of the proposed project. The project will completely alter the topography of a natural steep-sloped stream valley. It will destroy a stream and a significant portion of one of the last remaining areas of old-growth forest in our County and the region. There is a noticeable lack of data and analysis of the vegetation, wildlife and other natural resources that will be permanently lost. The report provides only vague generalities concerning the vegetative and wildlife impacts of the project, and there is no natural resources inventory listed in the reference section.

Moreover, it does not appear that available resources describing this area in detail were consulted. One example is the study conducted by Tony Fleming, Geological Features Inventory of Arlington County, December, 30, 2006. The Arlington House Woods is singled out as being a significant geological site in this report (Fleming, 2006, p.9):

*Arlington House Woods is significant in being one of only two public natural areas in the county (Barcroft Park is the other) to completely span a Coastal Plain slope from the bedrock at the bottom, through the Potomac Group on the slope, to the terrace gravel at the top. The relationship of both natural communities and spring hydrology to geologic setting is illustrated exceptionally clearly here.*

There is a clear need for detailed maps showing springs and seeps that have been reported to exist within the project area (see Fleming, 2006). Characterizing the soils in the project area as "previously disturbed" (EA, p. 68) may not be accurate. In addition, large portions of the work site will consist of highly erodible soils on steep slopes, raising serious concerns about the ability to control the impact on any remaining natural areas, as well as the long-term viability of the proposed project.

The EA fails to mention that this site has been listed as a Registry Site by the Virginia Native Plant Society as a result of its unique ecological and historical significance:

*This 12-acre National Park Service woodlands site, surrounded by Arlington National Cemetery retains its original historic purpose of providing a park setting for Arlington House, home to*

*George Washington's grandson and later Robert E. Lee. Development pressure has removed an adjacent 12 acres, and it is hoped that the registry designation will call attention to this remaining forest. These Washington metropolitan woodlands have never been logged or tilled and contain many very large, old-age trees, some dating to the American Revolution. Most of the area is on a variegated gravel, sand, silt and clay soil and a deep ravine with a perennial spring runs through the forest center. It is one of northern Virginia's surviving examples of Old-age Terrace Gravel Forest. The ravine forest canopy consists mainly of oaks, hickories, tulip tree and beech with an understory of fringetree, witch-hazel, pinxter azalea, black haw and maple-leaved viburnum, and a carpet of spring wildflowers.*

The EA notes that 1,724 trees over 6" diameter will be impacted, but no tree inventory is provided, so it is not possible to determine the actual impact of the project for particularly high value trees and ecologically significant stands of trees. There is also no analysis of other vegetation, which probably includes additional species with high ecological value, especially in the areas of undisturbed soil.

We have serious concerns about the proposed loop road and the impact it would have on a previously undisturbed portion of the stream valley. Likewise, we note that the plans further fragment the remaining woods, further reducing its wildlife habitat value. We urge the development of a design that minimizes fragmentation, keeping as much of the woods intact as possible.

While we are cognizant of the pressures to increase the longevity of the cemetery, the price seems very high: An irreplaceable ecological and historical resource -- and one of the last remaining old-growth forests in our region -- would be significantly damaged and parts of it destroyed to provide an additional 7-12 years of operations at Arlington National Cemetery.

We urge that a thorough analysis of the geology, hydrology, vegetation and wildlife in the project area be conducted and properly evaluated before any further decisions are made. Likewise, we urge that the public have an adequate opportunity to review and comment on this project before it moves forward.

Sincerely,

A handwritten signature in cursive script that reads "Dean F. Amel". The ink is dark and the signature is fluid, with a long, sweeping tail on the final letter.

Dean Amel, Chair

cc: Arlington County Board  
Senator Mark Warner  
Senator Tim Kaine  
Congressman Jim Moran

**From:** [David Scott Howe](#)  
**To:** [Conner, Susan L. NAO](#)  
**Date:** Thursday, January 10, 2013 7:14:10 AM

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Ms. Susan L. Conner  
U.S. Army Corps of Engineers - Norfolk District  
803 Front Street  
Norfolk, VA 23510  
Re: Comments on Arlington National Cemetery (ANC) Millennium Project  
Dear Ms. Conner:

While understanding the pressure to expand the longevity of the cemetery, the tradeoff of destroying an irreplaceable ecological and historical resource and one of the last remaining old-growth forests in Northern Virginia is simply not worth it. Furthermore, I believe that the Millennium Plan is a dishonor to our war dead. I do not think these brave men and women would want to see an historical treasure forever destroyed for grave sites. Instead, it is time to tighten the restrictions for who should be buried in Arlington Cemetery and also time to look for a new site which would not displace a forest where we can honor our Nations bravest heroes.

The EA consistently downplays and inadequately evaluates the environmental impact of the proposed Millennium Project. The project will completely alter the topography of a natural steep-sloped stream valley and destroy a stream and the last remaining areas of old-growth forest in our County, and one of the last in our region. There is a noticeable lack of analysis and data in adequately describing the vegetation, wildlife and other natural resources that will be permanently lost by this project.

Arlington House Woods is significant in being one of only two public natural areas in the county (Barcroft Park is the other) to completely span a Coastal Plain slope from the bedrock at the bottom, through the Potomac Group on the slope, to the terrace gravel at the top. The relationship of both natural communities and spring hydrology to geologic setting is illustrated exceptionally clearly here. The EA fail to note springs and seeps that are reported to exist within the project area (see Fleming, 2006). Characterizing the soils in the project area as previously disturbed (EA, p. 68), may not be accurate. In addition, large portions of the work site will be on highly erodible soils on steep slopes, raising serious concerns about the ability to control the impact on any remaining natural areas, as well as the long-term viability of the proposed project.

The EA fails to mention that this site has been listed as a Registry Site by the Virginia Native Plant Society as a result of its unique ecological and historical significance:

This 12-acre National Park Service woodlands site, surrounded by Arlington National Cemetery retains its original historic purpose of providing a park setting for Arlington House, home to George Washington's grandson and later Robert E. Lee. Development pressure has removed an adjacent 12 acres, and it is hoped that the registry designation will call attention to this remaining forest. These Washington metropolitan woodlands have never been logged or tilled and contain many very large, old-age trees, some dating to the American Revolution. Most of the area is on a variegated gravel, sand, silt and clay soil and a deep ravine with a perennial spring runs through the forest center. It is one of northern Virginia's surviving examples of Old-age Terrace Gravel Forest. The ravine forest canopy consists mainly of oaks, hickories, tulip tree and beech with an understory of fringetree, witch-hazel, pinxter azalea, black haw and maple-leaved viburnum, and a carpet of spring wildflowers.

Do not proceed with the Millennium Project as it is poorly assessed and the loss of the forest is forever.

Sincerely,  
David Scott Howe

**From:** [Jayson Poland](#)  
**To:** [Conner, Susan L. NAO](#)  
**Subject:** Proposed Tree Loss at Arlington National Cemetery  
**Date:** Wednesday, December 26, 2012 9:50:07 PM

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Ms. Conner,

I have recently been made aware of plans to remove almost 900 trees from Arlington National Cemetery, in order to make way for more burial space. I understand the need to increase the number of plots to accommodate those that have given their lives in defense of our country. I also understand the need to preserve the few remaining trees that we have in this area of Arlington County. Please consider alternate plans that would not require the removal of so many trees.

Thank you.

Jayson Poland

Concerned Arlington Resident

**From:** [Shireen Parsons](#)  
**To:** [Conner, Susan L. NAO](#)  
**Subject:** proposed cutting of trees at Arlington National Cemetery  
**Date:** Friday, February 08, 2013 11:35:10 PM

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Dear Ms. Conner:

My father, who died of injuries sustained during WWII, and my mother, who died in 2010 at the age of 94, rest together at Arlington National Cemetery, where beautiful, centuries-old trees lend a sense of peace and continuity to the final resting place of so many men and women who gave their lives for their country, and provide solace to those whose loved ones are interred there.

How dare the Corps propose to destroy those magnificent trees? Those trees belong to Americans, living and dead, who visit the cemetery to grieve and pay respect to those who sacrificed so much for their country.

Let the trees be!!

Sincerely and adamantly,

Shireen Parsons  
1365 Kennedy St. NW #508  
Washington DC 20011  
540-449-9144 (cell)  
202-450-3764 (home/office)

"When a social movement adopts the compromises of legislators, it has forgotten its role, which is to push and challenge the politicians, not to fall in meekly behind them." - Howard Zinn



**ARLINGTON COUNTY  
PARK AND RECREATION COMMISSION**

2100 Clarendon Boulevard, Suite 414  
Arlington, Virginia 22201



Ms. Susan L. Conner  
U.S. Army Corps of Engineers - Norfolk District  
803 Front Street  
Norfolk, VA 23510  
[susan.l.conner@usace.army.mil](mailto:susan.l.conner@usace.army.mil)

RE: Comments on Proposed Millennium expansion at Arlington National Cemetery

Dear Ms. Conner:

Please consider the following comments from the Park and Recreation Commission with respect to the draft Environmental Assessment (EA) on the proposed Millennium expansion at Arlington Cemetery. We recognize that the official deadline for comments was January 21, 2013 but considering the timing of when the EA was released (just before the holidays), coordinating timing with our commission meetings was problematic.

While we appreciate the pressure to expand the longevity of Arlington National Cemetery, the EA consistently downplays the potential impact on an irreplaceable resource -- one of the last remaining old growth forests in our region. We believe that the identified "preferred alternative" in the EA fails to address the significant ecological, historical and cultural damage that would result from this project. This extremely rare and valuable location requires a significantly higher level of diligence to ensure that it is protected for future generations. The commission is also concerned about the lack of detailed information and maps which makes it virtually impossible to adequately judge the true impact of this project.

We support the thoughtful and thorough comments submitted by the Arlington County Manager on January 17, 2013 that address these issues in more detail. We urge that the design of this project be revised to address these significant concerns.

Sincerely,

A handwritten signature in black ink, appearing to read "Neal F. Lynn".

Commissioner and Past Chair



cc: Arlington County Board  
Barbara Donnellan, Arlington County Manager  
Senator Mark Warner  
Senator Tim Kaine  
Congressman Jim Moran



**National Trust for  
Historic Preservation**  
*Save the past. Enrich the future.*

February 1, 2013

Mr. Patrick K. Hallinan  
Superintendent  
Arlington National Cemetery  
Arlington, VA 22211-5003

**Re: Historic Arlington House Woods at Arlington National Cemetery**

Dear Superintendent Hallinan:

Arlington National Cemetery is one of the most important historic places in the United States. As such, Arlington National Cemetery merits our very best efforts to preserve it for future generations as a sacred place to honor our nation's military heroes and to reflect upon our shared American heritage.

I am writing on behalf of the National Trust for Historic Preservation to express our serious concerns regarding the Army Corps of Engineers' December 2012 proposal to greatly alter and irreparably harm surviving parts of Arlington House Woods for the Millennium Project. The National Trust joins the Arlington County local government and other stakeholders to respectfully request that Arlington National Cemetery should develop an alternative approach which would expand the area for burials without destroying Arlington House Woods -- a unique and irreplaceable cultural landscape and an essential element of historic Arlington National Cemetery.

**1. The Arlington House Woods contributes to the historic significance of Arlington House and of Arlington National Cemetery.**

It is well understood that Arlington House Woods contributes to the historic significance of Arlington House, a designated National Historic Landmark. The forested cultural landscape also contributes to the historic significance of Arlington National Cemetery. (Arlington National Cemetery should be listed, but has not yet been nominated for listing, on the National Register of Historic Places.)

According to the National Park Service, Arlington House Woods was an essential element of the original design for Arlington House. "[T]he creation of a temple-form residence backed by a forest and fronted by what would be a pastoral park landscape conformed perfectly to the design aesthetics generated in Britain during the end of the eighteenth century." [Arlington House Cultural Landscape Report, 2001, pages 37-38 (emphasis added).] In fact, the value of the forest around Arlington House was recognized early in the house's existence:

The dark trees provided a beautiful, imposing backdrop to the pale-colored classical architecture of Arlington House -- a characteristic of the estate commented on throughout its history. During the Marquis de Lafayette's return trip to America in 1824, he spent an evening at Arlington. As they stood together on the portico, looking out over the grand prospect towards Washington, Lafayette cautioned Mary Custis, "Cherish these forest trees around your mansion. Recollect, my dear, how much easier it is to cut a tree down than to make one grow." [Arlington House Cultural Landscape Report, 2001, page 60.]

Contemporary observers today continue to value Arlington House Woods for its strong association with our nation's heritage. "This stream valley and forest witnessed the founding of our capital city and survived the war that nearly tore our union apart. The landscape is the sentinel, the silent witness to the brightest and darkest moments of our history." [Arlington County Historical Affairs and Landmark Review Board to Army Corps of Engineers, January 18, 2013.] Arlington County's Urban Forestry Commission describes Arlington House Woods as an "irreplaceable ecological and historical resource – and one of the last remaining old-growth forests in our region[.]" [Arlington County Urban Forestry Commission to Army Corps of Engineers, January 17, 2013.]

In 2001, Congressman Bobby Scott and Congresswoman Eddie Bernice Johnson objected to an earlier proposal to re-develop Arlington House Woods, which they believed should be preserved "as an historic backdrop to Arlington House." With regard to the historic significance of Arlington House Woods, Congressman Scott and Congresswoman Johnson wrote:

At risk are more than a dozen 150 year old and 200 year old trees that bore witness to slaves who sought refuge and privacy from their masters and archeological sites that attest to the day to day operation of a plantation supported by slave labor. The loss of these trees and the historic sites would significantly hamper the ability of the National Park Service to help the public understand the Arlington House site and the role it played in slavery and the Civil War. It would also be viewed as a desecration to many within the black community. ... Preserving Section 29 ... would preserve the last living link, close to the nation's Capital, between the Anti-Bellum south and today's African American Community. [Congressional Black Caucus to Rep. Bob Stump, House Committee on Armed Services, Oct. 4, 2001 (emphasis added).]

Indeed, according to the National Park Service, the careful conservation of Arlington House Woods is critical to the visiting public's full understanding of the historic origins of Arlington Estate and Arlington National Cemetery:

It is hard to imagine today what the entire 1100-acre plantation originally looked like because of the graves of Arlington National Cemetery that surround the house and the remaining 16 acres of the estate. Arlington National Cemetery almost overwhelms Arlington House. ... For it is only through [preservation of Arlington House Woods] that we will be able to continue to tell the story of creation and use of Arlington House, so integrally linked to the formation and design of our national cemetery. [NPS Arlington House Cultural Landscape Report, 2001, page v.]

The National Trust for Historic Preservation concurs with the conclusion of Arlington County's historic preservation commission that: "The streambed and the regenerated forests and the old-growth forests are important historic resources within the ANC site and should be preserved. ... These living historic resources, once removed, cannot be adequately replaced." [Arlington County Historical Affairs and Landmark Review Board to Army Corps of Engineers, January 18, 2013 (emphasis in the original).]

**2. Draft Plans for the Millennium Project should be amended to expand the area for burials and to protect Arlington House Woods.**

Unfortunately, Alternative E, the preferred alternative identified by the Army Corps of Engineers for the Millennium Project, would irreparably harm historic Arlington House Woods with the removal of a portion of the “largest stand of old-growth hardwood forest in Arlington County, some of which classifies as unlogged forest, which may date to before the American Revolution [as well as] significant filling and cutting of the slope, impacting the existing forest, and creating erosion and runoff problems only partially mitigated by stream bank restoration.” [Arlington County Parks and Natural Resources Division to Army Corps of Engineers, January 17, 2013.] According to the Sierra Club, Alternative E would “completely alter the topography of a natural, steep-sloped stream valley and destroy a stream and one of the last remaining areas of old-growth forest in the National Capital region.” [Sierra Club to Army Corps of Engineers, January 15, 2013 (emphasis added).] Importantly, according to Arlington County’s Historic Preservation Office, the Army Corps of Engineers’ preferred alternative would result in the “near complete loss of the historical landscape in the stream valley and on the east side of the stream bank.” [Arlington County Historic Preservation Office to Army Corps of Engineers, January 17, 2013 (emphasis added).]

Given the historic importance of Arlington House Woods and the serious harm threatened by Alternative E, the National Trust strongly supports Arlington County’s request that Arlington National Cemetery should develop a new alternative plan which would expand the area for burials without destroying Arlington House Woods. As County Manager Donnellan wrote:

We firmly believe it is possible to develop an alternative that fully meets the goals for Arlington National Cemetery expansion while also addressing the concerns outlined by Arlington County and other relevant stakeholders and we stand ready to assist in that effort. [Barbara M. Donnellan, Arlington County Manager, to Susan L. Conner, Army Corps of Engineers, January 17, 2013 (emphasis added).]

Thank you in advance for considering the views of the National Trust for Historic Preservation.

Sincerely,

A handwritten signature in black ink that reads "John B. Hildreth". The signature is written in a cursive, flowing style with a large initial "J" and "H".

John Hildreth  
Regional Vice President  
National Trust for Historic Preservation

cc: U.S. Senator Mark Warner  
U.S. Senator Timothy Kaine  
Advisory Committee on Arlington National Cemetery  
Kathryn A. Condon, Army National Cemeteries Program  
Susan L. Conner, U.S. Army Corps of Engineers, Norfolk District

