



Fort Ward Park and Museum Area Management Plan

SECTION II
7. IMPLEMENTATION



The City of Alexandria, Virginia

October 2014

FINAL DRAFT

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7. Implementation

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Action	Indicators (1) (Reason)	Inventory (2)	Standards (3)	Management Options (4)	Monitoring of Indicator (6)	Evaluation of Actions (7)	Priority	Probable Cost	Proposed Timeframe	Responsible Party
Goal 1 - Management and Funding <i>The City of Alexandria will support a broad array of users and uses by collaboratively managing the park and equitably investing in the Fort Ward Park and Museum Area as compared with other regional city parks and facilities.</i>										
Objective 1.1: Continue the collaborative management process between city agencies as established in the Memorandum of Understanding (MOU) <i>Strategy 1.1.1: Use the MOU process to assess and monitor progress and identify problems and solutions</i>	<ul style="list-style-type: none"> Current MOU delineates two-zone system with different entities performing daily operations and maintenance tasks in each zone Improvement of overall park condition between areas maintained by OHA contractor and by Park's Operations staff Maintain and adhere to clear protocols for addressing cultural and natural resource conflicts 	<ul style="list-style-type: none"> Review physical boundaries and task lists for each party and determine which entity is responsible for each activity (T&ES, Stormwater, OS-Buildings, OHA, Park, etc.) Clarify roles and responsibilities of park, grounds, OHA and RPCA-park (programming) Establish park management protocols for turf and meadow management; tree and shrub planting, maintenance and removal; pedestrian path repair and development; installation and location of interpretive exhibits; additions and modifications to vehicular circulation and parking areas; hardscape construction that involves ground disturbance such as footers for playground equipment, fort structures Address landscape, trash, snow, site monitoring issues and responsibilities 	<ul style="list-style-type: none"> Update MOU annually and establish clear lines of responsibility between entities responsible for care of the park Modify agreement to include rife trenches within OHA and "no mow" areas Modify agreement to include stormwater management study and responsibilities of T&ES Modify agreement to account for the role of the support group 	<ul style="list-style-type: none"> Continue current agreement Modify agreement to include rife trenches within OHA and "no mow" areas Modify agreement to include stormwater management study and responsibilities of T&ES Modify agreement to account for the role of the support group 	<ul style="list-style-type: none"> Quarterly - Review MOU to review effectiveness in addressing existing and new issues Annual - Review MOU effectiveness of the division of responsibilities between OHA Contractor and Park's Operation staff Host an annual public meeting to provide an update on the park status and MOU Provide an annual Report to Council 	<ul style="list-style-type: none"> Quarterly - Review MOU to review effectiveness in addressing existing and new issues Annual - Review MOU effectiveness of the division of responsibilities between OHA Contractor and Park's Operation staff Host an annual public meeting to provide an update on the park status and MOU Provide an annual Report to Council 	<ul style="list-style-type: none"> Priority: High FWAG Members: <i>Burne, Adams, Mar - a, Ziegler</i> Priority: High City 	<ul style="list-style-type: none"> Staff time from four departments; meeting quarterly and revisiting MOU annually 	<ul style="list-style-type: none"> Timeframe Every year, ongoing 	<ul style="list-style-type: none"> Responsible Party City Staff: RPCA, OHA, T&ES, DCS Staff Time - Updated MOU
Action: Review and update MOU annually										
Objective 1.2: Make Fort Ward Park a priority in the City of Alexandria funding (operational and capital) as part of the City budget consistent with the responsible stewardship of a significant historic site and regional park serving the entire city and beyond <i>Strategy 1.2.1: Plan for and communicate the needs and priorities for park management funding (operational and capital) as part of the City budget consistent with the responsible stewardship of a significant historic site and regional park serving the entire city and beyond</i>	<ul style="list-style-type: none"> Support of the park and museum is commensurate with value of resource to city and to region; not clear that Fort Ward Park is recognized as a citywide and regionally important resource 	<ul style="list-style-type: none"> Communicate significance and condition of park to city leaders, business leaders, preservation and conservation organizations and other civic groups Review examples of "Friends" or other support groups to advocate and to raise supplemental funds Broaden advocacy during City development, environmental, and cultural history (recreation site) 	<ul style="list-style-type: none"> Prepare annual report on the "state of the park" at Fort Ward Park reflecting the monitoring practices recommended as part of this management plan Support group to gradually take on responsibilities for continuing threats and vulnerabilities, recommended proactive approaches to addressing vulnerabilities 	<ul style="list-style-type: none"> City staff to prepare report using matrix as basis for updating park priorities and management tasks Support group to gradually take on responsibilities for annual reports within three years Example: Annual reports of Civil War Conservancy (http://www.civilwarconservancy.org/assess/annual-reports/) Annual Report (2013.pdf) 	<ul style="list-style-type: none"> Annually - Review effectiveness of Friends Group - measure activities accomplished; funding achieved; volunteer hours logged; challenges remaining 	<ul style="list-style-type: none"> Annually - Review effectiveness of Friends Group - measure activities accomplished; funding achieved; volunteer hours logged; challenges remaining 	<ul style="list-style-type: none"> Priority: Low FWAG Members: <i>Stanton, Magnuson</i> Priority: Med City 	<ul style="list-style-type: none"> 3-7 Years 	<ul style="list-style-type: none"> Support Organization or FWAG and RPCA Report to be based upon adopted inventory and standards using this matrix 	<ul style="list-style-type: none"> Responsible Party
Action: Communicate significance and importance of Fort Ward Park to a wider audience	<ul style="list-style-type: none"> Need to identify common funding needs (operational and capital) among city parks, museums and public art to leverage at a citywide scale 	<ul style="list-style-type: none"> Evaluate existing operational and capital funding and identify new sources of funding; bond issues, public art, etc. Link preservation of Civil War and African American heritage to citywide preservation goals and objectives; NEH Museum Assessment Program, federal health and wellness goals, etc. The funding of loop road improvements, development of trail network, improvements to park connections (North Van Dorn Street), amphitheater renovation and programming, incorporation of public art into interpretive projects and tree planting and woodland management to citywide needs 	<ul style="list-style-type: none"> The park improvements to meet citywide needs such as tree development, recreation canopy goals, etc. City Recreation Needs Assessment (85% need walking trails near home) Fort Ward Park role in "City as an Arboretum" and City's tree cover goal of 40% Citywide sustainability goals (park maintenance and operations) NEH Museum Assessment Program (system of city museums/historic sites) Federal health and wellness goals (funding for proposed trail system) 	<ul style="list-style-type: none"> Link preservation of Civil War and African American heritage to citywide preservation goals and objectives; NEH Museum Assessment Program, federal health and wellness goals, etc. Evaluate existing operational and capital funding and identify new sources of funding; bond issues; public art; etc. Evaluate existing operational and capital funding and identify new sources of funding; bond issues; public art; etc. 	<ul style="list-style-type: none"> Annually - Review funding achievements; park funding through public and private efforts for maintenance and operations programming 	<ul style="list-style-type: none"> Annually - Review funding achievements; park funding through public and private efforts for maintenance and operations programming 	<ul style="list-style-type: none"> Priority: High FWAG Members: <i>Forbes, Terrell, Stanton, Magnuson, Ziegler</i> Priority: High City 	<ul style="list-style-type: none"> 1-3 Years 	<ul style="list-style-type: none"> Parks and Recreation Commission, various Friends Groups, etc. and FWAG members, RPCA, OHA 	<ul style="list-style-type: none"> Responsible Party
Action: Link financial needs of the park to other City initiatives; broaden, ask for funding and support										

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<p>Objective 1.3: Support and finance enhancements to park facilities to meet the needs of the broadest array of park users and neighbors</p>											
<p>Action: Sponsor educational and research panels and symposia</p>	<ul style="list-style-type: none"> Expand recognition of the significance of the Civil War and African American heritage found at Fort Ward and region. 	<ul style="list-style-type: none"> Develop list of panel and symposia topics and research agenda Host informal panel discussions Host annual or every two year symposia on cultural complexities found at Fort Ward and region 	<ul style="list-style-type: none"> Hold annual symposia on Fort Ward Park and its ties to the region, with more frequent informal year-round panel discussions to make significance of resources more visible to academic and museum professionals as well as the general public 	<ul style="list-style-type: none"> Start with smaller symposia and panel discussions with local historians and experts Build on first symposia to expand range of speakers and audiences Examples: Fredericksburg Civil War Roundtable: http://civilwarroundtable.fredricksburg.com Timucuan Science and History Symposium (NFS park symposia and roundtable) http://www.nps.gov/timucuan/science/symposium.htm 	<ul style="list-style-type: none"> Assess interest via attendance, survey attendees and topics and evaluate if outreach is succeeding 	<ul style="list-style-type: none"> Assess interest, survey attendees for interest and programming ideas Annually re-evaluate operational costs to RPCA 	<ul style="list-style-type: none"> FWAG Members - Washington - a; Terrell - a PRIORITY: Low City 	<ul style="list-style-type: none"> FWAG Members - Washington - a; Terrell - a PRIORITY: Low City 	<ul style="list-style-type: none"> 5+ Years 	<ul style="list-style-type: none"> OHA, Friends Group; FWAG members 	
<p>Action: Expand community-oriented offerings at the amphitheater</p>	<ul style="list-style-type: none"> Strong interest expressed at planning sessions in the park for movie nights, performances by community performing arts groups and expanded community-oriented programming 	<ul style="list-style-type: none"> Address parking demand for events or activities by forming shared use agreements with adjacent schools (public and private) FWAG members did not support the use of temporary restroom facilities to support activities at the amphitheater Scale of event to capacity of park; focus on local community-scaled event 	<ul style="list-style-type: none"> Limit event size by parking capacity and condition of adjacent restrooms Scale events to be consistent with adjoining land uses (residential neighborhood and institutional uses) 	<ul style="list-style-type: none"> Program the amphitheater in conjunction with local community groups as sponsors and performers, create a 'movie night' in the park; community performances by groups receiving arts grants from the city Update or establish MOU for shared parking arrangements with adjacent elementary school and Minnie Howard Mason District Park - Spotlight by Spotlight (small scale program funding by program http://www.fairfaxcounty.gov/parks/performances/spotlight-by-spotlight.htm) Comcast/City of Alexandria outdoor movie nights (Alexandria at foot of Prince Street) 	<ul style="list-style-type: none"> Assess attendance, survey attendees for interest and programming ideas Annually re-evaluate operational costs to RPCA 	<ul style="list-style-type: none"> FWAG Members - Washington - a; Terrell - a PRIORITY: Low City 	<ul style="list-style-type: none"> FWAG Members - Washington - a; Terrell - a PRIORITY: Low City 	<ul style="list-style-type: none"> 5+ Years 	<ul style="list-style-type: none"> Friends Group; RPCA Operations for operation and clean up 		
<p>Action: Locate public art in collaboration with the City's Office of Arts' Public Art Master Plan</p>	<ul style="list-style-type: none"> Strong interest expressed for incorporating public art into Fort Ward Park including interpretation Opportunity to enhance park and engage park visitors 	<ul style="list-style-type: none"> Recommendations to those incorporated in the Public Arts Master Plan and the City's Office of the Arts: In 2012, the Alexandria City Council adopted a policy to grow the city's public art into an inspired and engaging program that reflects the city's unique history, people, cultural identity, and future aspirations. To support this growth, the City has commissioned the development of a Public Art Master Plan. The Public Art Master Plan, currently underway, will set priorities for the location and landing of projects which may include the citywide park sites. 	<ul style="list-style-type: none"> Identify specific projects where public art should be considered as part of design and/or interpretative program 	<ul style="list-style-type: none"> Incorporate public art in new capital and interpretive projects Examples: Stegenwald Lake Wildlife Trail, Washougal, WA http://columbianriverimages.com/Regions/Places/gibbons_creek_wildlife_art.html 	<ul style="list-style-type: none"> Annually evaluate art maintenance needs 	<ul style="list-style-type: none"> FWAG Members - Washington - a; Terrell - a; Annear PRIORITY: Med City 	<ul style="list-style-type: none"> FWAG Members - Washington - a; Terrell - a; Annear PRIORITY: Med City 	<ul style="list-style-type: none"> 5+ Years 	<ul style="list-style-type: none"> RPCA Operations - maintenance of public art may differ from standard parks maintenance 		
<p>Strategy 1.3.2: Enhance park's accessibility and meet ADA standards</p>											
<p>Action: Relocate the current playground facility to the western side of the park, making access and equipment accessible</p>	<ul style="list-style-type: none"> Improved parking, access to playground and site material are needed to meet 2010 accessibility standards See Park & Open Space Facilities Prioritization Analysis Current site of playground is subject to erosion, stormwater runoff and is not easily accessed from parking and path network 	<ul style="list-style-type: none"> Identify alternative location for the playground near amphitheater and restrooms 	<ul style="list-style-type: none"> Accessible playground facility and access 	<ul style="list-style-type: none"> Long-term relocation of playground to western side of park Cost of playground, ADA compliant access at current site - identify alternative location for the playground near amphitheater and restrooms Ensure site has adequate shade Ensure playground surfacing, equipment, access, and parking meet ADA standards 	<ul style="list-style-type: none"> Annually assess compliance with ADA standards 	<ul style="list-style-type: none"> FWAG Members - Washington; Brune; Terrell; Moir; Annear PRIORITY: Low FWAG Members - Moir; PRIORITY: High City 	<ul style="list-style-type: none"> All new and accessible access paths, equipment, equipment, parking Existing site: \$246,000-455,000 New site, western portion of park: \$116,000-190,000 	<ul style="list-style-type: none"> 10+ Years for new facility 	<ul style="list-style-type: none"> RPCA, OHA 		

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<p>Action: Provide accessible picnic tables</p> <p>• Current picnic tables and picnic shelter are not accessible • Provide access to picnic facilities for all members of the community</p>	<p>• Ensure that each of the picnic tables are accessible • Identify picnic area(s) that must be upgraded to be made accessible; • Identify picnic shelter accessible that must be upgraded to ensure accessibility (drinking fountains, interpretive and orientation signs, etc.)</p>	<p>• As equipment is replaced, ensure that fully accessible equipment is available at every picnic area and the type of equipment is accessible and that an accessible route from the parking area or pedestrian system is provided for access to accessible equipment</p>	<p>• Provide continuous accessible walking path that provides access to the bulk of picnic areas that exceed ADA standards for slope (cross slope and other) - based upon terrain exceptions clause (See Table 2 in Executive Summary of final rule) • Repair surface with ADA compliant and pedestrian attractive materials • Replace existing speed bumps with traffic calming technique that is ADA compliant • Complete installation of ADA compliant and pedestrian attractive materials • Replace existing speed bumps with traffic calming technique that is ADA compliant • Sign areas that are not accessible</p>	<p>• Upgrade parking to make appropriate spaces (per report) accessible by reconfiguring pavement grade, striping and location • Upgrade existing access paths where physically and financially feasible; provide alternative experiences where not possible • Provide appropriate surface for ADA parking located within gravel parking lots</p>	<p>• Upgrade existing access paths where physically and financially feasible; provide alternative experiences where not possible • Provide appropriate surface for ADA parking located within gravel parking lots</p>	<p>• Annually inspect facilities for compliance with current ADA standards and regulations</p>	<p>• Annually inspect facilities for compliance with current ADA standards and regulations</p>	<p>PRIORITY: Low • FWAG • Members: • City</p>	<p>Annual allowance of \$7,500</p>	<p>1-5 Years</p>	<p>RPCA</p>
<p>Action: Make existing paved loop pedestrian path system accessible where possible and sign areas where not possible</p>	<p>• See Park & Open Space Facilities • Path system is not fully accessible • Sign system is not fully ADA accessible • Some picnic tables are not ADA accessible • Problems with warning, or require other repairs to properly meet the surrounding grade and diminish the potential for trip hazards</p>	<p>• Identify elements that must be renovated to meet ADA standards • Identify speed bumps that need repair • Identify areas where cross slope or running slope exceeds ADA ORAR standards; where pavement surface is cracked or in disrepair and does not meet ADA standards for surfacing; where impediments such as speed bumps do not meet ADA standards • Pea gravel being replaced with Flex Pavé within Northwest Basin; • Inventory and identify remaining non-ADA accessible pathways in fort area • Inventory and identify components that need replacement or upgrade to meet ADA standards</p>	<p>• Repair pedestrian walking loop with ADA compliant materials • Replace existing speed bumps with traffic calming technique (speed cushions with 36" between cushions) that is ADA compliant • Complete installation of ADA compliant and pedestrian attractive materials • Replace existing speed bumps with traffic calming technique (speed cushions with 36" between cushions) that is ADA compliant • Complete installation of ADA alternatives or replacements to existing stairs and bridges in the park • Sign areas that are not accessible</p>	<p>• Upgrade parking to make appropriate spaces (per report) accessible by reconfiguring pavement grade, striping and location • Upgrade existing access paths where physically and financially feasible; provide alternative experiences where not possible • Provide appropriate surface for ADA parking located within gravel parking lots</p>	<p>• Upgrade or provide alternative access paths to site features, where possible • Incorporate proposed 'soft path' alignment</p>	<p>• Annually inspect facilities for compliance with ADA standards and regulations</p>	<p>• Annually inspect facilities for compliance with ADA standards and regulations</p>	<p>PRIORITY: High • FWAG • Members: • Fortson; • Stanton; • Meigs; • Ziegler; • City</p>	<p>Speed bumps, repairing, slope assessment for accessible parking along loop path Speed bumps: \$7,100 - 8,600 Repaving with new materials: \$50,000- 228,000 4 reconfigured existing parking spaces along loop path: \$14,000 - 25,600</p>	<p>1-3 Years (speed bumps, pavement surface in conjunction with repaving) 1-3 Years - signage for steep slopes 10 Years + Regrade portions of path for compliance</p>	<p>RPCA, T&ES</p>
<p>Action: Provide accessible parking and pathways for all park and museum features</p>	<p>• Shortage of accessible parking for park visitors near specific activity areas • Ensure access path to park features meet ADA standards (2010 or 2009 Outdoor Recreation Access Route (ORAR) standards</p>	<p>• Refer to Kimley Horn report 2012 for identification of areas requiring improvements to parking for ADA accessibility • Evaluate existing access paths to park features for ADA compliance • Reconfigure adjacent parking to make parking spaces accessible for amphitheater use per report findings prepared for the City of Alexandria in 2012 by Kimley Horn that states that the guidelines with the exception of the accessible parking spaces*</p>	<p>• Develop accessible parking spaces for each picnic area, playground, amphitheater and other park features • Ensure each park feature has ADA compliant access</p>	<p>• Upgrade parking to make appropriate spaces (per report) accessible by reconfiguring pavement grade, striping and location • Upgrade existing access paths where physically and financially feasible; provide alternative experiences where not possible • Provide appropriate surface for ADA parking located within gravel parking lots</p>	<p>• Upgrade or provide alternative access paths to site features, where possible • Incorporate proposed 'soft path' alignment</p>	<p>• Annually inspect facilities for compliance with ADA standards and regulations</p>	<p>• Annually inspect facilities for compliance with ADA standards and regulations</p>	<p>PRIORITY: Low • FWAG • Members: • City</p>	<p>\$42,000-76,800 for 12 spaces per K-H 2012 study</p>	<p>1-3 Years Make existing parking spaces per Kimley Horn report recommendations in conjunction with repaving (KH report states need for 10, diagram shows 12) 3-7 Years Upgrade connector paths</p>	<p>RPCA and T&ES</p>
<p>Action: Make interim improvements to amphitheater to improve accessibility</p>	<p>• Kimley-Horn report evaluated the amphitheater area for compliance with the 2010 Standards for Accessible Design and believes that the amphitheater meets the guidelines with the exception of the accessible parking spaces*</p>	<p>• Reconfigure adjacent parking to make parking spaces accessible for amphitheater use per report findings prepared for the City of Alexandria in 2012 by Kimley Horn that states that the guidelines with the exception of the accessible parking spaces*</p>	<p>• Ensure accessible parking is available at the amphitheater (Section 35.15 (6)(1) ensures that there is greater dispersion of wheelchair seats throughout companion seats throughout stadiums, arenas, and grandstands than would otherwise be required by sections 221 and 802 of the 2004 ADAAG.)</p>	<p>• Provide accessible parking for amphitheater</p>	<p>• Provide accessible parking</p>	<p>• Annually inspect facilities for compliance with ADA standards and regulations</p>	<p>• Annually inspect facilities for compliance with ADA standards and regulations</p>	<p>PRIORITY: High • FWAG • Members: • City</p>	<p>1-3 Years Make existing parking spaces per Kimley Horn report recommendations in conjunction with repaving connector paths</p>	<p>RPCA and T&ES</p>	

Notes on FWAG Priorities Submissions:

1. Management and Funding—the former is dependent on the latter. Thus—Funding must be obtained to maintain status quo (which is not sufficient or increase it to make improvements. See #4 below. Fundamental City financial requirements (police, fire, roads, judicial system, etc.) will, by their nature, likely reduce funding in the future for all parks, including Ft. Ward

Funding for Management of Ft. Ward should not depend only on City funding. There should be outside organizations formed or contacted to raise necessary funds to manage the Park PROPERLY, not minimally. Soliciting support from a local or national celebrity, artist, or someone like Jim Moran, Frank Wolfe, etc.) to publicize the need for major funding for the Park. Many nationally known artists and others are from the Alexandria and efforts can be made to elicit their support. Large corporations and foundations should also be contacted. How about new or existing hotels –restaurants (whose guests would enjoy the park)?

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<p>Washington - a. comment priority/ incorporates all three actions under strategy</p> <p>Torrell - a. comment priority/ incorporates all three actions under strategy</p> <p>Moir - a. add comment and ensure that quarterly meetings at the working level are held on a regular basis</p> <p>Anneer - a. ensure that quarterly meetings at the working level are held on a regular basis. Updated MOU accompanied by a status report and minutes of the quarterly meetings to be sent forward to the City Council each November. Receipt of same to be docketed item which is set for public hearing by the Council.</p> <p>Ziegler - a. ensure that quarterly meetings at the working level are held on a regular basis</p>		<p>An experienced fundraiser—volunteer, there must be plenty in Alexandria—would be needed, and arrangements for the City to accept donated funds. The Friends of Ft. Ward or a fundraiser could work actively with DOI American Battlefield Protection Plan which has a grant and partnering outreach section (202-619-7474); VA Department of Historic Restoration, etc. City staff has been quite successful in identifying and obtaining grant funds, so they can provide suggestions. The community members should use contacts and efforts, and not put the burden on City staff (which has many other properties to attend to). Possibly Oakland Baptist Church has ideas, or Descendants Society have contacts at or knowledge of other African American foundations or donors.</p>									

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<p>Goal 2 - Park Character: Preserve, Protect, Repair and Maintain Resources. The City of Alexandria, working with its boards and commissions, volunteers and park neighbors, will work to protect and maintain the nationally significant historic and cultural resources and locally significant natural resources round within Fort Ward Park.</p> <p>Objective 2.1: Protect vulnerable park areas from adverse ground disturbing activities</p> <p>Strategy 2.1.1: Determine level of permitted ground disturbance</p>											
<p>Action: Mark and protect unrecognized Civil War archaeology</p>	<ul style="list-style-type: none"> Produce additional knowledge and understanding of Fort Ward: Civil War Garrison area (barracks), ancillary fort buildings, outer works, covered way, rifle trench, artifact scatters 	<ul style="list-style-type: none"> Perform site metal detector survey in conjunction with a ground-based laser survey of the extant earthworks Accurately record the current level of preservation and use this data for future monitoring and assessment Continue to add to existing site inventory of historic resource investigation 	<ul style="list-style-type: none"> Use appropriate methods when conducting ground disturbing activities around the museum, parking areas and restrooms The potential exists for significant buried archaeological resources associated with the Civil War Garrison 	<ul style="list-style-type: none"> Consider the potential for significant buried archaeological resources associated with the Civil War Garrison when conducting any ground disturbing activities around the museum, parking areas and restrooms The park, east of the fort, has not been surveyed using field methods that would identify Civil War resources. Develop a long-term testing strategy that incorporates a metal detector survey Consider a ground based laser survey of the extant earthworks. This survey would result in accurate recreation of the current level of preservation in the future to monitor and assess the preservation of these features. 	<p>Ground Disturbance:</p> <ul style="list-style-type: none"> Investigate the Civil War Garrison (barracks) area in anticipation of potential parking lot reconfiguration and museum expansion using a site metal detector survey as first step Investigate outer works, covered way, rifle trench and artifact scatters using a site metal detector survey as a first step Perform a laser survey of the extant earthworks to use as baseline in future evaluations 	<ul style="list-style-type: none"> Annually update mapping and documentation on park resources; aggregating work completed through the year in one accessible document 	<p>PRIORITY: High</p> <ul style="list-style-type: none"> FWAG Members: <i>Forbes; Washington - a; Terrell - a; Ziegler</i> PRIORITY: High City 	<p>\$68,500-98,000 for ground survey of earthworks and to tie data to GIS database; metal detector site survey; barracks archaeological investigation</p>	<p>1-5 Years - laser survey of earthworks - tie into GIS database</p> <p>1-5 Years - metal detector survey of potential resources</p> <p>3-7 Years - Civil War Garrison area (barracks)</p>	<p>OHA, RPCA</p>	
	<ul style="list-style-type: none"> Recognition of "The Fort" community for a larger audience; acknowledgement that the site has been home to different users over time, with varying stories to tell and resources to protect 	<ul style="list-style-type: none"> Identify appropriately designed enclosure to put around perimeter of Old Grave Yard and the Jackson Cemetery; mark graves at the Clark Burial Grounds Incorporate larger story of place within specific periods of history and use patterns of site buildings and landscape features to assist in storytelling Identify locations of "The Fort" community and establish protection strategies for maintaining above and below-ground evidence of "The Fort" community 	<ul style="list-style-type: none"> Continue to add to existing site inventory of historic resource investigation; make protection and interpretation of "The Fort" community resources a park priority 	<ul style="list-style-type: none"> Identify resource protection and interpretation of "The Fort" community as a priority of park management Incorporate larger story of place within specific periods of history and use patterns of site buildings and landscape features to assist in storytelling Identify the locations of "The Fort" community and establish protection strategies for maintaining above and below-ground evidence of "The Fort" community Place appropriately designed enclosure around the perimeter of Old Grave Yard and the Jackson Cemetery; mark the graves at the Clark Burial Grounds 	<p>Ground Disturbances</p> <ul style="list-style-type: none"> Identify and design appropriate enclosure for cemeteries and burial grounds Archaeological investigation of School House/Church/Residence site 	<ul style="list-style-type: none"> Annually update mapping and documentation on park resources; aggregating work completed through the year in one accessible document 	<p>PRIORITY: High</p> <ul style="list-style-type: none"> FWAG Members: <i>Forbes; Washington - a; Terrell - a; Morr; Arnsper, Ziegler - a</i> PRIORITY: High City 	<p>\$25,000-40,000 for School House archaeological investigations</p>	<p>1-3 Years - Design and place appropriate enclosure at Jackson Cemetery and Old Grave Yard, mark graves at the Clark Burial Grounds</p> <p>1-3 Years - School House/Church/Residence archaeological investigation</p> <p>5 Years - Larger interpretive story development</p>	<p>OHA for archaeological investigation</p> <p>RPCA and T&ES for enclosure design (do in conjunction with stormwater improvements)</p> <p>OHA for larger interpretive story as part of interpretive Plan development</p>	
<p>Action: Mark and protect "The Fort" community and burial sites</p>											

Action	Indicators (1) (Reason)	Inventory (2)	Standards (3)	Management Options (4)	Best Practices Options (5)	Monitoring of Indicator (6)	Evaluation of Actions (7)	Priority	Probable Cost	Proposed Timeframe	Responsible Party
<p>Action: Map areas in conjunction with OHA to identify where ground disturbance may occur unsupervised; where ground disturbance may occur with supervision; and where ground disturbance is NOT allowed</p>	<ul style="list-style-type: none"> Need to have a clear understanding by all parties as to areas that may be more actively managed by RPCA, Operations and OHA Contractor for aeration activities, tree and shrub planting, stump removal, invasive plant removal, etc. Cultural resources throughout the park are found at varying levels of ground surface/subsurface, unrelated to resource type or time period. Maintenance work, tree planting, stormwater management, etc. within the park since 2009 has been limited due to archaeological sensitivity Identify depth to resources/required cover or level of disturbances for cultural resources within the park Assess and evaluate after OHA completes report of their investigations in this area. Use the soil profile information from OHA to develop a long range plan, where appropriate, remove fill down to buried historic landscapes. 	<ul style="list-style-type: none"> Expand aeration mapping for additional ground (deeper) ground disturbing activities Establish protocols with OHA and RPCA related to notification procedures prior to activity, no monitoring required; repair of work to minimize or eliminate erosion potential and include protocols in the MOU Once initial cultural practices have been implemented (such as aeration) with high levels of oversight by OHA and RPCA, successfully, supervision may be limited due to archaeological sensitivity Identify depth to resources/required cover or level of disturbances for cultural resources within the park Assess and evaluate after OHA completes report of their investigations in this area. Use the soil profile information from OHA to develop a long range plan, where appropriate, remove fill down to buried historic landscapes. 	<ul style="list-style-type: none"> Map park indicating level of sensitivity to ground disturbance (initial mapping completed Winter 2014) for aeration activities - 4" max disturbance by depth and area Protocols needed for turf and meadow management, shrub bed renovation, tree planting, stump removal, trail construction, installation of interpretive exhibits, additions, modifications to parking areas, new landscape construction with toolings (play equipment, benches, picnic tables, etc.) 	<ul style="list-style-type: none"> Develop a plan: know where ground disturbance will not occur; where OHA must be on site when ground disturbance activities occur; and where no ground disturbance is allowed Update map annually in conjunction with MOU renewal and ensure distribution to OHA and RPCA staff and operators Notify Office of Historic Alexandria (OHA) prior to any ground disturbing activities taking place 	<ul style="list-style-type: none"> Keep GIS database current with discoveries of resources requiring protection from ground disturbing activities Establish and renew protocols with OHA and RPCA related to notification procedures prior to activity; level of monitoring required, if any; and restoration required to minimize or eliminate erosion potential Include protocols in MOU 	<ul style="list-style-type: none"> Annually update map indicating level of sensitivity to ground disturbance Profile research and other ongoing park investigations Annually update protocols in MOU Annually, in conjunction with MOU renewal, ensure that RPCA Operations receives disturbed ground maps to update resource management related zones; aeration, tree planting, stump grinding, etc. 	<p>PRIORITY: High</p> <ul style="list-style-type: none"> FWAG Members: <i>Brune; Washington - a; Terrell - a; Moir; Stanton;</i> Magnuson; Ziegler - a <p>PRIORITY: High</p> <ul style="list-style-type: none"> City 		Ongoing	OHA and RPCA	
<p>Objective 2.2: Heal areas of erosion and compacted soils within the park</p> <p>Strategy 2.2.1: Stabilize surface areas</p>											
<p>Action: Address animal tunneling in earthworks</p>	<ul style="list-style-type: none"> Animal tunnels observed in earthworks 	<ul style="list-style-type: none"> Identify animal and means to address removal or control 	<ul style="list-style-type: none"> Annually survey the earthworks for signs of animal tunneling and address any evidence of new tunneling 	<ul style="list-style-type: none"> Identify animal and means to address removal or control Repair the damage caused by tunneling by filling the tunnels to the extent possible with an archaeologically sterile soil to avoid compromising the information potential of the earthwork Cover tunnel entrance with a degradable erosion control fabric and seed or cover with fiber and straw mulch Remove tunneling animal from the area 	<ul style="list-style-type: none"> Remove the tunneling animal and repair the damage 	<ul style="list-style-type: none"> Annually survey the earthworks for signs of animal tunneling and address any evidence of new tunneling 	<p>PRIORITY: Low</p> <ul style="list-style-type: none"> FWAG Members: <i>Washington - c; Terrell - c</i> <p>PRIORITY: Med</p> <ul style="list-style-type: none"> City 		Ongoing	OHA	
<p>Action: Restore shovel pit testing sites to original grade</p>	<ul style="list-style-type: none"> Continual sinking of past shovel pits - need to fill and monitor 	<ul style="list-style-type: none"> Identify holes to be filled 	<ul style="list-style-type: none"> All shovel pit holes filled and stabilized, survey annually 	<ul style="list-style-type: none"> Monitor shovel pits to repair sinking Identify holes to fill Require OHA and contractor to carefully remove land cover prior to shovel test When testing complete, backfill, tamp pit and replace land cover cap 	<ul style="list-style-type: none"> Repair shovel pits upon completion of testing, use backfill, tamp and replace cover cap for full landscape restoration 	<ul style="list-style-type: none"> Annually inspect and repair shovel pits until clear that pit has stabilized (5 year period) 	<p>PRIORITY: Low</p> <ul style="list-style-type: none"> FWAG Members: <i>Washington - c; Terrell - c</i> <p>PRIORITY: High</p> <ul style="list-style-type: none"> City 		Ongoing	OHA	

FINAL DRAFT

Action	Indicators (1) (Reason)	Inventory (2)	Standards (3)	Management Options (4)	Best Practices Options (5)	Monitoring of Indicator (6)	Evaluation of Actions (7)	Priority	Probable Cost	Proposed Timeframe	Responsible Party
Action: Redirect stormwater and sheet flow away from sensitive cultural and recreational resources through small berms, spreaders and other techniques	<ul style="list-style-type: none"> Large areas of turf are eroded with cobble rock exposed Erosion appears along the edges of paths (caused by heavy use/width) and/or stormwater runoff - low spots, lack of berms or other protective measures Sheet runoff has eroded much at playground and surface areas at group picnic areas, burial sites and cemeteries 	<ul style="list-style-type: none"> Identify areas adversely affected by stormwater (see URS Drainage Master Plan, Appendix 1) Identify the underlying causes of stormwater runoff - low spots, lack of berms or other protective measures Redirect water sheet flow, dogged drains, etc. 	<ul style="list-style-type: none"> Land shaped to subtly redirect sheet flow away from sensitive cultural resources such as burial grounds and cemeteries and recreation resources Infiltration methods capture sheet flow and are integrated with park design and character instead of cbsed systems with piping Soil and land cover added to eroded areas after stormwater source is redirected away from Spreader cleaned after leaf fall in autumn and in late spring to remove winter debris 	<ul style="list-style-type: none"> Develop a stormwater management plan that promotes landform based solutions, avoids cutting in areas of sensitive archaeological resources, and promotes groundwater infiltration (Coordinate with Drainage Master Plan, URS 2014) 	<ul style="list-style-type: none"> Prevent Stormwater Runoff Erosion: <ul style="list-style-type: none"> Implement Stormwater Management Plan that promotes landform based solutions, avoids cutting in areas of sensitive archaeological resources and promotes groundwater infiltration (URS Drainage Master Plan, 2014) Clean out drains Where erosion is present, reshape landforms and add soil and land cover such as turf or leaf litter 	<ul style="list-style-type: none"> Annually inspect outfalls (RPCA) and conduits (T&ES) to ensure clear Annually inspect park for signs of increasing erosion - if found, add to database and address 	<ul style="list-style-type: none"> Priority: High FWAG Members: <i>Brune; Washington - c; Terrell - c; Mair; Annear; Stanton; Magnuson; Zeigler</i> Priority: High City 	Costs by T&ES	1-3 Years - Pilot projects 1 and 2; Reshape landform with berm to redirect sheet flow away from Old Oakland Baptist Cemetery and add filtration box to existing storm line under gravel parking lot near West Bladock Rd. 3-5 Years - Pilot project 3 - reform stream valley 5 Years + - remaining 13 recommendations in URS study	T&ES, OHA, RPCA	
Action: Reinforce eroded edges of paved surfaces	<ul style="list-style-type: none"> Significant pavement edge erosion Trip hazard and damage to resources 	<ul style="list-style-type: none"> Identify areas of paved path system where slope and siltng lead to edge damage and erosion 	<ul style="list-style-type: none"> Stabilize pavement edge 	<ul style="list-style-type: none"> Short-term: Add river cobble stone to temporarily fill eroded areas immediately adjacent to pavement Long-term: redirect storm water away from pavement edge and install reinforced shoulders (50% aggregate/ 50% soil mix) Clean storm drains after leaf fall in autumn and in late spring to remove winter debris 	<ul style="list-style-type: none"> Prevent Stormwater Runoff Erosion <ul style="list-style-type: none"> Temporarily fill eroded edges of pavement with river cobble stones; long-term install reinforced shoulders Implement Stormwater Management Plan that promotes landform based solutions, avoids cutting in areas of sensitive archaeological resources and promotes groundwater infiltration (URS Study 2014) 	<ul style="list-style-type: none"> Annually inspect outfalls (RPCA) and conduits (T&ES) to ensure clear Annually inspect path and road edge for signs of increasing erosion - if found, temporarily place river cobbles 	<ul style="list-style-type: none"> Priority: Low FWAG Members: <i>Washington - c; Terrell - c</i> Priority: High City 	\$38,500-40,500 entire length of path, both sides (likely reinforcement not needed in entirety)	1-10 Years - temporarily reinforce shoulder with application of river cobble Year 10+ - replace shoulder with reinforced shoulder material	T&ES, RPCA	
Action: Repair surface erosion damage	<ul style="list-style-type: none"> Burial sites and cemetery areas are adversely affected by stormwater runoff Grave and burial sites are eroding from the overland flow of concentrated stormwater drainage Old Grave Yard is located on actively eroding site slope, uneven ground Adams Burial silt - threat of damage due to soil erosion, uneven ground Jackson Cemetery - eroded topsoil Clark Burial - threat of damage due to soil erosion Outer battery and covered way Drainage system near playground 	<ul style="list-style-type: none"> Identify areas in park that are subject to surface erosion (draw from URS study 2014) 	<ul style="list-style-type: none"> Stabilize surface and fill holes 	<ul style="list-style-type: none"> Prevent further erosion by maintaining comprehensive coverage of either turf or leaf litter/mulch over all site areas Require OHA and contractors to backfill and repair locations of excavations at end of fieldwork, protect these areas from erosion until vegetation is established Implement Stormwater Management Plan that promotes landform based solutions, avoids cutting in areas of sensitive archaeological resources and promotes groundwater infiltration (URS study 2014) 	<ul style="list-style-type: none"> Heal Stormwater Runoff Erosion: <ul style="list-style-type: none"> Add soil to fill holes, smooth out eroded areas and to reshape ground plane to redirect surface flow from becoming channelized and causing erosion (playground, earthworks, burial sites) Aerate and reseed turf cover per OHA ground disturbance report for recommendations in Appendix 1 	<ul style="list-style-type: none"> Annually inspect park for signs of erosion 	<ul style="list-style-type: none"> Priority: Low FWAG Members: <i>Washington - c; Terrell - c</i> Priority: High City 		1-3 Years	RPCA, OHA	
Action: Protect earthworks from undesignated foot traffic	<ul style="list-style-type: none"> Top surface of rifle trench is highly compacted from over use as access path into park Fort earthworks used as pathways 	<ul style="list-style-type: none"> Identify alternative access route to enter from north side of the park as replacement informal access path on rifle trench parapet 	<ul style="list-style-type: none"> Preserve earthworks 	<ul style="list-style-type: none"> Remove informal trail from rifle trench parapet and block informal access points to earthworks Identify alternative access point to park from North Van Don Street; integrate with other planned trail improvements (i.e. soft trail) Deter visitors from walking on earthworks with signs; if not effective use visually obtrusive barrier system Place sign indicating that rifle trench is under restoration and is not a foot path Cover rifle trench with leaf litter 	<ul style="list-style-type: none"> Heal Erosion Damage From Foot Traffic: <ul style="list-style-type: none"> Remove informal trail from rifle trench parapet by blocking access Identify alternative access point to park from North Van Don Street Deter visitors from walking on earthworks with sign indicating that rifle trench area is under restoration and is not a foot path; if not effective use visually obtrusive barrier Place sign indicating that rifle trench is under restoration and is not a foot path Cover rifle trench with leaf litter 	<ul style="list-style-type: none"> Annually monitor earthworks for erosion damage and soil compaction of trench embankment 	<ul style="list-style-type: none"> Priority: Med FWAG Members: <i>Washington - c; Terrell - c; Annear</i> Priority: High City 		3-5 Years	OHA	

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<p>Action: Protect burial sites from unintentional recreational use</p>	<ul style="list-style-type: none"> Burial sites and cemeteries are being used for recreational activities (intentionally or not) 	<ul style="list-style-type: none"> Identify sites to be protected and public notice posted or enclosures erected 	<ul style="list-style-type: none"> Install signs indicating that the immediate site is a burial site or cemetery If necessary, install an enclosure system using plant materials or fencing that is sympathetic to its historic surroundings at the perimeter of the Old Grave Yard, Clark Burial Grounds and two graves near former maintenance yard 	<ul style="list-style-type: none"> Signs and enclosures 	<p>Foot Erosion Damage from Foot Traffic:</p> <ul style="list-style-type: none"> Immediate site is a burial site or cemetery If necessary, install enclosure system using plant materials or fencing that is sympathetic to its historic surroundings at the perimeter of the Old Grave Yard, Clark Burial Grounds and Jackson Cemetery 	<ul style="list-style-type: none"> Monitor site for erosion damage and inappropriate use 		<ul style="list-style-type: none"> PRIORITY: Med FWAG Members: Washington - b; Terrell - b; Terrell - c PRIORITY: High City 		<ul style="list-style-type: none"> 1-3 Years install signs 5+ Years - install enclosure system 	OHA
<p>Strategy 2.2.2: improve compacted soils</p>	<ul style="list-style-type: none"> Group picnic areas have exposed roots, no or poor turf growth, compacted soils from heavy use and drainage runoff 	<ul style="list-style-type: none"> Inventory and rank the five existing group picnic areas in terms of damage and need for renovation during the next five years Priority sites should be identified and repaired so they are not damaged from a growing season's use At no time, no more than five active group picnic sites will be in use 	<ul style="list-style-type: none"> Ensure that picnic areas have a healthy turf or leaf litter on ground plane; if unable to do this, the site should be considered for removal or resurfaced with mulch material 	<ul style="list-style-type: none"> Annually remove all or a portion of a group picnic area from use for renovation during the next five years Combine picnic table pads into singular, soft surface in heavily used areas Rotate picnic sites for ground restoration; identify sixth site to serve as alternate so there are five fully functional sites at all times (potentially split Picnic Area 5 into two distinct areas) 	<p>Improve Compacted Soils:</p> <ul style="list-style-type: none"> Inventory and rank the five existing group picnic areas in terms of damage and need for renovation during the next five years Identify a sixth site (potentially split Picnic Area 5 into two separate picnic areas for purposes of rotation) to serve as a rotation site should an area be so damaged that it must be fully removed from a growing season's use Annually remove a portion of or entire group picnic area from use for renovation during a growing season Combine picnic table pads into singular, soft surface in heavily used areas 	<ul style="list-style-type: none"> Annually monitor group picnic areas for erosion damage and compacted soils 			1-7 Years	RPCA	
<p>Action: Renovate picnic areas by rotation or partial closure of group area</p>								<ul style="list-style-type: none"> PRIORITY: Low FWAG Members: PRIORITY: High City 			
<p>Strategy 2.2.3: Relocate or remove uses that conflict with resources</p>	<ul style="list-style-type: none"> Road access to former maintenance yard crosses over two known graves (one a dog's grave), marked in flag with river cobbles Work with OHA when removing gravel 	<ul style="list-style-type: none"> Identify any ground disturbing concerns with OHA prior to remove investigations prior to removing fence, gate and access drive 	<ul style="list-style-type: none"> Restoration of landform and historic character of site 	<ul style="list-style-type: none"> Remove fencing, gate and access drive to former maintenance yard in coordination with OHA Investigate archaeological resources Remove gravel paving from former access road and top dress and reseed if ground disturbance is acceptable to OHA If ground disturbance is not acceptable, reshape landscape in area of road to direct storm water away from cemetery and provide enough soil surface on top of former access drive to support turf growth Remove perimeter fencing and gate from former maintenance yard 	<ul style="list-style-type: none"> Remove or fence and gate following completion of archaeology investigations within fenced area 	<ul style="list-style-type: none"> Remove or fence and gate following completion of archaeology investigations within fenced area 		<ul style="list-style-type: none"> PRIORITY: High FWAG Members: Brune; Cobes - a; Stanton; Mason; Zeller; PRIORITY: High City 	\$38,500 - 60,400 for physical elements removal; PRIOR to archaeological investigation required - \$60,000-120,000 within fenced area	1-3 Years	OHA, RPCA
<p>Action: Remove former maintenance yard access drive, fencing and gate</p>											

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<p>Action: Remove former maintenance structures from eastern edge of park</p>	<ul style="list-style-type: none"> Sheds and fences are incompatible with the objective of creating a contemplative setting for the fort burial sites 	<ul style="list-style-type: none"> Identify relocation options for sheds 	<ul style="list-style-type: none"> Restoration of landform and historic character of site 	<ul style="list-style-type: none"> Remove two structures located in former maintenance yard and relocate, if practical, in a less sensitive area of park (adjacent to athletic fields for example) Relocate structures to eastern edge of park Relocated elsewhere in park if possible If relocation is not possible, adhere to Environmental Action 2030 goals for reducing, reusing and recycling solid waste when considering future plans and benefits of the structures Repair site with sterile soil (in archaeological terms), add topsoil, smooth and seed with turf 	<ul style="list-style-type: none"> Remove structures from site 	<ul style="list-style-type: none"> Remove structures from site 	<ul style="list-style-type: none"> Remove structures from site 	<p>PRIORITY: Low</p> <ul style="list-style-type: none"> FWAG Members: <i>Forbes</i> <p>PRIORITY: Low</p> <ul style="list-style-type: none"> City 		5-10+ Years	OHA
	<p>Action: Reshape or remove fill at site of former maintenance yard</p>	<ul style="list-style-type: none"> Maintenance yard may have fill or gravel layered overtime for vehicle support, debris from material storage such as mulch, etc. (unknown depth - likely gravel, mulch, topsoil piles within fill coverage) 	<ul style="list-style-type: none"> Identify quantity of fill to be removed if site returned to original grade Identify concerns related to ground disturbance (OHA) 	<ul style="list-style-type: none"> Restoration of landform and historic character of site 	<ul style="list-style-type: none"> Remove some or all of the unknown amount of fill (gravel, mulch, topsoil) and reshape landscape in coordination with OHA Work with OHA to determine degree of ground disturbance allowed; potential identification of additional burials, features and deposits associated with "The Fort" community Identify quantity of fill to be removed if sites to be returned to its original grade If restoration is not feasible, shape land to reflect general form and character of surrounding historic turf Repopulate with sterile soil (in archaeological terms), add topsoil, smooth and seed with turf 	<ul style="list-style-type: none"> Restore the site to its historic grade by removal of fill—if restoration is not feasible, shape land to reflect general landform and character of surrounding historic landscape Repair site with sterile soil (in archaeological terms), add topsoil, smooth and seed with turf 	<ul style="list-style-type: none"> Restoration of landform 	<ul style="list-style-type: none"> Restore the site to its historic grade by removal of fill—if restoration is not feasible, shape land to reflect general landform and character of surrounding historic landscape Repair site with sterile soil (in archaeological terms), add topsoil, smooth and seed with turf 	<p>PRIORITY: Low</p> <ul style="list-style-type: none"> FWAG Members: <i>Forbes</i> <p>PRIORITY: High</p> <ul style="list-style-type: none"> City 	<ul style="list-style-type: none"> Wrap costs into drainage work and berm construction to reshape landform following archaeology investigations 	5-10+ Years (unless tied to T&ES work on stormwater)
<p>Objective 2.3: Enhance park's vegetative character and open space</p>											
<p>Strategy 2.3.1: Maintain mix of open and wooded landscapes</p>											
<p>Action: Establish boundaries for turf and meadow management</p>	<ul style="list-style-type: none"> Continuation as to role of meadows in parkland Areas are currently being mowed for turf with poor potential for turf growth 	<ul style="list-style-type: none"> Identify turf areas that can serve as flexible recreation areas; are accessible from the pedestrian system and parking areas, and do not conflict with cultural resource preservation or interpretive activities (see Plate 20) Identify separately turf areas that are not intended for recreation use but form a protective land cover on historic resources Identify meadow areas and align with the shape of the land and its drainage patterns; incorporate 'no mow' areas into overall park aesthetic Evaluate turf and meadow areas for stormwater management effectiveness, habitat and cost savings (turf transfer to meadow cover - less frequent mowing, turf return to woodlands - no mowing) Refer to site's Drainage Master Plan (URS) 	<ul style="list-style-type: none"> Reduced amount of turf area to be mowed Reduced competition from turf grasses for healthy tree and shrub growth in wooded areas 	<ul style="list-style-type: none"> Establish turf and meadow areas that reflect topography, historic resources and recreational needs 	<p>Enhance Park's Natural Character:</p> <ul style="list-style-type: none"> Define Management Zones for turf - irrigated, non-irrigated and meadow areas to serve as flexible recreation areas that are accessible from the pedestrian system and parking areas and do not conflict with cultural resource preservation or interpretive activities Identify turf areas to form a protective land cover on historic resources (not active recreation site) Identify meadow areas and align them with the shape of the land and its drainage patterns; incorporate "no mow" areas into the overall park aesthetic Clearly identify meadow plantings as intentional and productive for wildlife (butterflies, birds, voles, insects) Locate wide mowed paths within meadows for walkers and visitor education 	<ul style="list-style-type: none"> Annually evaluate park vegetation by comparing Plate 20 to current conditions 	<ul style="list-style-type: none"> Annually evaluate park vegetation by comparing Plate 20 to current conditions 	<p>PRIORITY: Low</p> <ul style="list-style-type: none"> FWAG Members: <i>Washington - c;</i> <p>PRIORITY: High</p> <ul style="list-style-type: none"> City 	Operational	1-3 Years	RPCA

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<p>Action: Establish boundaries for areas managed as native woodlands</p>	<ul style="list-style-type: none"> Woodland areas are degraded by physical remnants of prior uses such as picnic table concrete pads that remain following removal of the picnic area designation; footers and anchors remain in place from prior use for trash receptacle Wooded landscapes buffer adjacent neighborhoods to the north and east of the park, stretches of the buffer are infested with vines Woodlands near storm pond have significant damage - broken limbs, downed trees and separate lawn areas within the park 	<ul style="list-style-type: none"> Inventory and map physical remnants to be removed from wooded areas Inventory existing composition of designated woodlands and identify species to be removed (invasive, etc.) Identify woodland areas to retain and enhance - buffer areas Identify disturbed areas to be restored to woodlands and identify appropriate land cover Identify desired future condition of woodlands (25-year timeframe) - perform gap analysis between inventory and desired future condition 	<ul style="list-style-type: none"> Healthy, well defined woodlands with remnant debris from former park site furnishings removed 	<ul style="list-style-type: none"> Manage natural areas (woodlands, buffer areas along perimeter and between uses) for vegetation compositions suited to local soils, solar orientation and moisture conditions; plant desirable species and either allow to undergo secondary succession, or manage at a particular seral stage, such as meadows mown to limit woody growth Remove concrete pads and anchors from former trash cans Longer term management options for woodlands for (ID) possibly tied to wildlife habitat Examples: City of Portland Natural Areas Restoration Plan http://www.portlandoregon.gov/parks/article/323540 	<p>Enhance Park's Natural Character:</p> <ul style="list-style-type: none"> Identify the Management Zone landcover type for woodlands (Plate 20) Inventory the existing composition of designated woodland areas; manage for desired vegetation community and species to be removed (invasive species for example) Shape woodland areas irregularly to better fit with natural site conditions; create woodland edges without concrete or light turns to ease movement Sign woodlands to indicate intentional management as woodlands Identify and remove remnants from former recreation uses (picnic table slabs, waste can anchors, etc.) 	<ul style="list-style-type: none"> Annually evaluate and update Plate 20 to reflect current conditions 	<p>PRIORITY: Low</p> <p>Members: Washington - c; Terrell - c</p> <p>PRIORITY: High</p> <p>City</p>	Operational	1-3 Years	RPCA	
<p>Action: Develop a data set on wildlife (birds, animals, etc.)</p>	<ul style="list-style-type: none"> Although park used informally for wildlife observation, no survey data exists, and the value of habitats available to wildlife is not currently known. 	<ul style="list-style-type: none"> Survey and document use of park by birds and wildlife Inventory and assess habitat types; link to potential wildlife populations 	<ul style="list-style-type: none"> Establish annual bird and wildlife surveys 	<ul style="list-style-type: none"> Work with a Bio-Blitz approach Invite Northern Virginia Audubon Society to use park as counting location Survey wildlife resources (birds, animals, etc.) Identify desirable habitat enhancement actions to promote wildlife diversity Identify groups and organizations that may want to support implementation of the plan 	<p>Research Opportunities:</p> <ul style="list-style-type: none"> Survey and document use of the park by birds and wildlife Inventory and assess habitat types; link to potential wildlife populations Establish annual bird and wildlife surveys Work with Bio-Blitz approach Invite Northern Virginia Audubon Society to use the park as a counting location Identify desirable habitat enhancements to promote wildlife diversity Work with local universities: GMU, UMW, NOVA, etc. to develop data set on wildlife 	<ul style="list-style-type: none"> Annually monitor wildlife in park 	<p>PRIORITY: Low</p> <p>Members: FWAG</p> <p>PRIORITY: Low</p> <p>City</p>		10+ Years	Volunteers	
<p>Strategy 2.3.2: Develop and adopt planning approach for Fort Ward Park's natural and cultural landscapes</p>	<ul style="list-style-type: none"> Fort Ward Park served as designated City Arboretum and Nursery, the current and past plant palette reflects such history City of Alexandria is considering signage and concrete markers to define and conceptualize the Arboretum at Fort Ward Park (City Urban Forestry Master Plan references) 	<ul style="list-style-type: none"> Gain information from past plant surveys (mid-1980s and 2001) Determine role to play within City's Arboretum approach - retain role as singular site for arboretum or as a featured piece of a citywide approach Establish vision for future vegetation composition in park (recommended species; historic species - Civil War fort - "The Fort" community, Glenn Dale azalea plantings, etc.) 	<ul style="list-style-type: none"> Clear understanding of role within Arboretum concept 	<ul style="list-style-type: none"> Feature historically appropriate plantings - "The Fort" community, Civil War era, azalea showcase - Glenn Dale sprouts from the Bowie Arboretum Feature native vegetation Manage as interpretive and educational resource 	<p>Enhance Park's Natural Character:</p> <ul style="list-style-type: none"> Use past plant surveys (mid 1980s and 2001) as a basis for determining what had previously been planted in the park Determine the role of Fort Ward Park within proposed the citywide arboretum Establish a vision for future vegetation composition in the park (consider native species, historic species - Civil War fort, "The Fort" community, Glenn Dale azalea plantings, etc.) Be aware of and consider maintenance requirements for plant materials - fertilizer, irrigation, etc. Don't plant any species that are considered to be non-native invasives in Virginia 	<ul style="list-style-type: none"> Update species list every five years 	<p>PRIORITY: Low</p> <p>Members: FWAG</p> <p>Washington - c; Terrell - c</p> <p>PRIORITY: Med</p> <p>City</p>		3-5 Years	RPCA	
<p>Action: Determine role to play in 'City Arboretum' proposal</p>											

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Goal 3 - Landscape Cultural Practices Adopt appropriate and coordinated landscape management practices.											
Objective 3.1: The ongoing City of Alexandria maintenance practices with those specific to the park											
Strategy 3.1.1: Coordinate Management Plan recommendations with other City of Alexandria park maintenance efforts											
<p>City of Alexandria has monthly maintenance tasks identified - list to serve as starting point for all activities at Fort Ward and for coordination on OHA and RPCA activities</p> <p>City of Alexandria is adopting its park maintenance operations to be consistent with Levels of Service as described in APPA Operational Guidelines for Educational Facilities, Grounds, second edition</p>	<p>City of Alexandria has monthly maintenance tasks identified - list to serve as starting point for all activities at Fort Ward and for coordination on OHA and RPCA activities</p> <p>City of Alexandria is adopting its park maintenance operations to be consistent with Levels of Service as described in APPA Operational Guidelines for Educational Facilities, Grounds, second edition</p>	<ul style="list-style-type: none"> Identify additional tasks to be performed at Fort Ward 	<ul style="list-style-type: none"> Integration of City RPCA Operations Calendar for Maintenance Practices with activities specific to Fort Ward Park Cultural Practices 	<ul style="list-style-type: none"> Coordination between entities 	<p>Coordinate with City Calendar for Maintenance Practices:</p> <ul style="list-style-type: none"> The City's Park Operations' monthly task calendar and APPA levels of Service is a starting point for landscape and park maintenance activities Supplement with Best Practices described in the Fort Ward Management Plan 	<ul style="list-style-type: none"> Annually coordinate between all parties, private contractors and City staff 	<p>PRIORITY: Low</p> <ul style="list-style-type: none"> FWAG Members PRIORITY: High City 	Operational	annually	RPCA, OHA	
Objective 3.2: Contribute towards the City of Alexandria's Tree Canopy Goal of 40%											
Strategy 3.2.1: Restore and expand existing woodlands											
<p>Tree count is down by one-quarter (or approx. 600 trees surveyed in park at one point; 100-200 have been lost recently) due to natural aging and several severe storms</p> <p>No new trees have planted since 2010 due to ground disturbance concerns</p> <p>Areas that were planted as part of past City Arboretum efforts are unsuited to site characteristics and have difficulty in thriving</p> <p>Action: Plant new trees</p>	<p>Identify areas where tree planting can occur without supervision from OHA; where planting can occur with simultaneous supervision from OHA and where no planting can take place due to ground disturbance of cultural resources and burial sites</p> <p>Identify target goal for canopy coverage and/or tree count for park</p> <p>Identify priority zones for plantings</p>	<ul style="list-style-type: none"> Trees are being planted in the park 	<ul style="list-style-type: none"> Divide the park into planting zones, taking into consideration the level of ground disturbance allowed, etc.) Plant minimum of 24 trees annually Divide park into planting zones, taking into consideration level of ground disturbance allowed Select tree species from park planting list (to be developed) 	<ul style="list-style-type: none"> Divide the park into planting zones, taking into consideration the level of ground disturbance allowed Identify priority zones for plantings (see Plate 22) Select tree species from the planting list (to be developed) Plant a minimum of 24 nursery-sized trees annually per the City's standards on an annual basis; select species from list specific to Fort Ward Park Plant native seedlings in tubes (volunteer opportunity, locally and regionally) in established woodlands 	<ul style="list-style-type: none"> Water and care for tree planting through establishment period After five years, annual tree planting plan based upon spot replacement and overall tree canopy coverage 	<p>PRIORITY: High</p> <ul style="list-style-type: none"> FWAG Members: Forbes; Washington - a; Terrell - a; Almeida - a; Ziegler PRIORITY: Medium City 	\$10,350-13,250	1-3 Years, ongoing	RPCA		
Strategy 3.2.2: Assess tree cover and health											
<p>Considerable dieback of tree limbs in park</p> <p>Cherry trees near amphitheater need pruning</p> <p>Action : Prune diseased and dead tree limbs</p>	<p>Coordinate inventory with City Arborist for periodic assessments for pruning and tree removal needs and scheduling for such activities</p>	<ul style="list-style-type: none"> Walk the park to determine pruning and removal needs Remove wood that is not to be recycled through use of wood processing services Use community service group or volunteers to assist with light pruning (laborist service work day or trained Alexandria/Arlington Tree Stewards) 	<ul style="list-style-type: none"> Annually walk park and conduct a tree assessment and tree risk exam; assess needs for limb pruning and tree hazard tree removal, paving, particular attention to high activity areas and playground Consider training Tree Stewards to inventory tree maintenance requirements and to develop a prioritized list of maintenance needs 	<ul style="list-style-type: none"> Annually walk the park and conduct a tree assessment and tree risk exam; assess needs for limb pruning and tree hazard tree removal, paving, particular attention to high activity areas and playground Consider training Tree Stewards to inventory tree maintenance requirements and to develop a prioritized list of maintenance needs 	<ul style="list-style-type: none"> Annually walk the park and conduct a tree assessment and tree risk exam; assess needs for limb pruning and tree hazard tree removal, paving, particular attention to high activity areas and playground Consider training Tree Stewards to inventory tree maintenance requirements and to develop a prioritized list of maintenance needs 	<p>PRIORITY: High</p> <ul style="list-style-type: none"> FWAG Members: Brune; Washington - e; Terrell - a; Almeida - a PRIORITY: High City 	Assume budgeting for specific number of trees: \$5,000-10,000	1-3 Years, ongoing	RPCA		

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Action	Indicators (1) (Reason)	Inventory (2)	Standards (3)	Management Options (4)	Best Practices Options (5)	Monitoring of Indicator (6)	Evaluation of Actions (7)	Priority	Probable Cost	Proposed Timeframe	Responsible Party
Action: Remove fallen and hazard trees	<ul style="list-style-type: none"> Tree fall is evident within park use areas 	<ul style="list-style-type: none"> Set priorities for identified hazard trees around high activity areas Walk park and conduct a tree assessment and tree risk exam: identify trees to be removed, paying particular attention to high activity areas such as picnic grounds, paths and playground Determine if tree is located in area acceptable for ground disturbance before grinding stump; flush cut stump if disturbance not allowed (see ground disturbance map and consult with OHA) 	<ul style="list-style-type: none"> Hazard trees are addressed immediately and appropriately 	<ul style="list-style-type: none"> Remove hazard and fallen trees In designated woodland areas mulch crowns and use mulch on pathways within wooded areas; leave snags for wildlife; lay trunk on ground In turf and meadow areas, mulch tree crowns and remove larger branches and trunks Seasonally remove dead trees when located away from use areas 	<ul style="list-style-type: none"> Tree Health: <ul style="list-style-type: none"> Standardize assessment (biannual) of pruning and tree removal needs Immediately close the area until the hazard tree and its debris are completely removed from the area when located in an actively used area (trails, interpretive areas, picnic grounds, playground) Seasonally remove dead trees when located away from use areas; mulch the crown and leave mid- to small-sized trees in place until trunk placed on the ground; leave the trunk to a height of 10'-12' as a "snag" for wildlife use, if stable Determine if the tree is located in an area acceptable for ground disturbance before grinding the stump; flush cut the stump if disturbance is not allowed (see ground disturbance map or consult OHA) 	<ul style="list-style-type: none"> Annually walk the park and conduct a tree assessment and tree risk exam; assess needs for limb pruning, hazards and tree removal, paying particular attention to high activity areas such as adjacent to picnic areas, paths and playground 		<p>PRIORITY: High</p> <ul style="list-style-type: none"> FWAG Members: <i>Forbes; Washington - a; Terrell - a; Ainnear - a; Stanton; Magnuson; Ziegler</i> City 	<p>Assume budgeting for specific number of trees, \$3,000-7,750</p>	<p>1-3 Years, ongoing</p>	<p>RPCA</p>
Strategy 3.2.3: Perform tree maintenance	<ul style="list-style-type: none"> Woody species are currently growing in the parapet and ditch - earthworks: on the front wall leading to the southwest bastion, on the rear wall between the east and north bastions Trees and large shrubs have the potential to damage the earthworks if they drop branches or are blown over 	<ul style="list-style-type: none"> Inventory trees growing on the earthworks; record their species, height and diameter at breast height, as well as their position on the earthworks Identify, if any, areas on the earthworks where sapling and tree growth is acceptable and areas where all woody growth is to be removed Assess the windthrow potential of each tree by recording its root system type (shallow rooted, tap root) and increased chance of windthrow due to position on the earthwork, age, and structural integrity. 	<ul style="list-style-type: none"> Reducing damage to earthworks from windfall and tree throw 	<ul style="list-style-type: none"> Identify and map areas where sapling and tree growth is acceptable to remain (except hazardous trees) on earthworks and where trees should be removed Adhere to NPS preservation standards for care of historic earthwork sites Establish an annual evaluation by a certified arborist to determine any hazardous potential of all trees growing on or within falling distance of the earthworks 	<ul style="list-style-type: none"> Tree Maintenance <ul style="list-style-type: none"> Inventory and record species height, diameter at breast height, root system type (shallow rooted, tap root, etc. as may effect windthrow potential), age, structural integrity and specific location of trees growing on or adjacent to the earthworks Identify and map areas where sapling and tree growth is acceptable to remain (except hazardous trees) on earthworks and where trees should be removed 	<ul style="list-style-type: none"> Every three years update inventory annually and evaluate/monitor trees growing on earthworks for windthrow potential, structural integrity and hazard tree 		<p>PRIORITY: Low</p> <ul style="list-style-type: none"> FWAG Members: PRIORITY: Low City 		<p>5 + Years, ongoing</p>	<p>OHA, RPCA</p>
Action: Assess tree growth on earthworks											

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Action: Identify appropriate treatment of leaf litter	<ul style="list-style-type: none"> Downed limbs and trees are found throughout park, on lawn areas and in woodlands Leaf litter has been collected in much of the park, and has accumulated in some areas too deeply to easily decompose Leaf litter provides good nutrients to soil 	<ul style="list-style-type: none"> Identify areas where leaves and minor tree debris are to remain in place; where leaves are to be removed until final clearance when they are to be mulch-mowed; and areas where tree cover is light that leaves may be mulch-mowed and left in place throughout leaf removal season 	<ul style="list-style-type: none"> Dispose of leaves on site for use as organic fertilizer and soil enhancer 	<ul style="list-style-type: none"> Consider methods for using leaf litter to protect the Fort Ward parapet and ditch system. May require chipping and wetting to establish a mat that will adhere to the sloped landforms. Mulch-mow in place leaves in areas as shown; remove grassed areas with heavy tree cover Lawn areas with heavy tree cover - remove bulk of leaf fall with blower; final removal use mulching mower and leave on site Lawn areas with light tree cover - use mulching mower and leave on site Earthworks and fort area - remove bulk of leaf fall with blower; final removal use mulching mower and leave on site; trenches clean out bulk of leaf fall, leaf no more than 2" deep of loosely packed leaves at season end Woodlands - leave leaves in place unless in earthworks trench or where total depth will exceed 6" of loosely packed leaves at season end 	<ul style="list-style-type: none"> Mulch Leaf Litter On-Site: <ul style="list-style-type: none"> Mulch-mow in place leaves in areas as shown on map; remove leaves early in season in grassed areas with heavy tree cover 	<ul style="list-style-type: none"> Annually update the leaf litter treatment shown on Plate 23 	<ul style="list-style-type: none"> FWAG Members: <ul style="list-style-type: none"> Washington - a Tennell - a, Almbear City 	<ul style="list-style-type: none"> Operational 	<ul style="list-style-type: none"> 1-3 Years, ongoing 	<ul style="list-style-type: none"> RPCA, OHA 	
Action: Remove standing stumps in the park	<ul style="list-style-type: none"> Many trees that were removed in the recent past were not cut to the ground (stumps extend several feet above grade) and did not have their stumps ground due to concerns regarding ground disturbance Stump removal may disturb cultural resource, assess and remove stumps OHA completes report of 2012 investigations 	<ul style="list-style-type: none"> Identify areas where: stumps may be ground with oversight by OHA; where stumps may be ground without oversight by OHA (no significant archaeological deposits identified/expected); where stumps must be flush cut (and possibly treated to prevent resprouting); and where the ground must be left undisturbed. 	<ul style="list-style-type: none"> Stumps removed from turf areas 	<ul style="list-style-type: none"> Grind stump under supervision of OHA if required Flush cut stump if located in area of no ground disturbance 	<ul style="list-style-type: none"> Tree Maintenance: <ul style="list-style-type: none"> Ensure that no stumps are left standing in the park, unless specifically identified as such for wildlife habitat and located in a designated woodland area Flush cut stumps where the ground is not to be disturbed Prevent stumps from coming in contact with OHA to prevent if on-site supervision is required or if it is located in area designated by OHA as acceptable for ground disturbance Match equipment to constraints on access 	<ul style="list-style-type: none"> Annually update Plate 22 Ground Disturbing Activities 	<ul style="list-style-type: none"> FWAG Members: <ul style="list-style-type: none"> Washington - a Tennell - a, Almbear City 	<ul style="list-style-type: none"> Operational 	<ul style="list-style-type: none"> 3-5 Years 	<ul style="list-style-type: none"> RPCA 	

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Objective 3.3: Restore shrub layer											
Strategy 3.3.1: Restore shrub layer in high visitor use areas and at woodland edges											
Action: Plant new shrubs	<ul style="list-style-type: none"> • Park is beloved for its historic azalea and camellia shrub plantings which have declined over the years, in quantity and number of beds • Determine what plants have thrived in park to date, is plant decline due to lack of cultural care such as high need for fertilizer, irrigation, etc. or for natural reasons such as age, storm damage • Deer browse likely adversely impacting understory 	<ul style="list-style-type: none"> • Identify areas that need additional shrub plantings 	<ul style="list-style-type: none"> • Enhanced understory/shrub layer of plant materials throughout park 	<ul style="list-style-type: none"> • Replace and replenish shrub plantings throughout the park • Organize a community service group or volunteers to assist with park maintenance - cleaning flower beds, planting trees, light pruning by arborists or trained Alexandria/Arlington Tree Stewards, litter pick up, assistance with interpretive and educational materials, update or 2002 tree inventory, etc. 	<ul style="list-style-type: none"> • Shrub Planting: <ul style="list-style-type: none"> • Identify areas that need additional shrub plantings; initiate new plantings that require irrigation to areas that are currently irrigated • Plant native shrubs as understory in woodland areas (non irrigated areas) • Expand and replenish existing shrub beds in existing irrigated areas • Add shrubs to the earthworks area to redirect foot traffic and to protect earthworks from eroding • Add shrub plantings to interpretive areas • Supplemental watering may be required to establish plantings; seasonal weeding of shrub beds; mulch beds as needed (annually) to maintain a 2"-3" cover. 	<ul style="list-style-type: none"> • Survey shrub growth every three years to identify needs for additional planting 	<ul style="list-style-type: none"> • Survey shrub growth every three years to identify needs for additional planting 	<ul style="list-style-type: none"> • FWAG • Members: • City 		10 + Years	RPCA
Action: Maintain existing shrubs	<ul style="list-style-type: none"> • Existing shrubs need to be pruned and thinned • Pruning needs to be done at proper time of year and in accordance with desired form - loose and open for most shrubs in the park; trimmed as hedges for shrubs near the museum and within the earthworks and fort area 	<ul style="list-style-type: none"> • Inventory shrubs and identify plants that should be pruned or removed 	<ul style="list-style-type: none"> • Maintain healthy shrub population in park 	<ul style="list-style-type: none"> • Prune shrubs (no shearing except for hedges near the earthworks and within the park) annually to keep them vital and healthy • Remove dead shrubs twice a year 	<ul style="list-style-type: none"> • Shrub Maintenance <ul style="list-style-type: none"> • Annually prune shrubs during the appropriate season (ie azaleas to be pruned in late spring after flowering but before buds set for the following year's bloom) • Do not shear shrubs, with the exception of hedges associated specifically with the earthworks • Involve Alexandria/Arlington Tree Stewards as volunteers • Remove shrubs under guidance from OHA and ground disturbance mapping 	<ul style="list-style-type: none"> • Annually assess pruning needs 	<ul style="list-style-type: none"> • Survey shrub growth every three years to identify needs for additional planting 	<ul style="list-style-type: none"> • FWAG • Members: • City 		10 + Years	RPCA
Action: Maintain shrub beds	<ul style="list-style-type: none"> • Shrub beds are weed infested • Shrub beds are being overgrown by woody growth, vines and ground level weeds 	<ul style="list-style-type: none"> • Identify shrub beds to be retained and enhanced • Assess current mulch status and level of weed infestation 	<ul style="list-style-type: none"> • Maintenance of attractive and healthy shrub beds 	<ul style="list-style-type: none"> • Top dress and mulch shrub beds • Organize a community service group or volunteers to assist with cleaning flower beds and mulching 	<ul style="list-style-type: none"> • Shrub Maintenance <ul style="list-style-type: none"> • Annually refresh or replace mulch (leaf litter or shredded hardwood) to 2"-3" deep in formal shrub beds • Re-establish existing irrigated shrub bed edges • Top dress and clean shrub beds seasonally of weeds and debris 3 times per year (spring, summer, fall) • Cultivate and add compost in the spring to established shrub beds • Remove invasive plant materials, vines and weeds • Test soil annually; apply fertilizer as determined by soil testing • Work with community service group or volunteers (trained by RPCA staff) to maintain beds 	<ul style="list-style-type: none"> • Review bed health and location every three years 	<ul style="list-style-type: none"> • Survey shrub growth every three years to identify needs for additional planting 	<ul style="list-style-type: none"> • FWAG • Members: • City 		10 + Years	RPCA

Action	Indicators (1) (Reason)	Inventory (2)	Standards (3)	Management Options (4)	Best Practices Options (5)	Monitoring of Indicator (6)	Evaluation of Actions (7)	Priority	Probable Cost	Proposed Timeframe	Responsible Party
Objective 3.4: Remove inappropriate vegetative growth Strategy 3.4.1: Remove invasive groundcovers and undesired shrubs and saplings from earthworks and burial grounds	<ul style="list-style-type: none"> The earthworks are protected by a mixture of land cover types, including turf, trees and leaf litter, vines and scrubby growth. The mixed groundcover vegetation offers a range of protection against erosion, some species are not well suited to soil stabilization due to a lack of a fibrous root system. Scrubby growth limits the visual accessibility of the earthworks, reducing their interpretive value. There has been mixed success with using vines like vitica to control erosion of the earthen walls 	<ul style="list-style-type: none"> Inventory and map earthworks to show soil type and conditions, light levels, current groundcover and ground that may be disturbed without OHA oversight, areas that may be disturbed with on-site supervision by OHA and areas that cannot be disturbed Identify techniques to remove undesirable groundcover without disturbing the soil of the earthwork 	<ul style="list-style-type: none"> Earthworks are free of inappropriate vegetation 	<ul style="list-style-type: none"> Establish a sustainable land cover to protect against erosion (leaf litter or turf) Use a taller, native warm-season grass for the fort parapet to reduce mowing and discourage visitors from climbing on the earthwork, at Jackson Cemetery/earthwork site create a band of grass on perimeter of cemetery with mown turf within Remove all non-native invasive plant species from the earthworks 	<ul style="list-style-type: none"> Removal of Undesired Vegetation <ul style="list-style-type: none"> Inventory and map earthworks to show soil type and conditions; light levels; current groundcover Use techniques to remove undesirable growth that do not damage the earthworks Determine and map most appropriate coverage types: turf, meadow, noninvasive groundcover or leaf litter Replace undesired vegetation with Virginia Wild Rye or native turf Advocate to NPS: preservation standards for care of historic earthworks Ensure that earthworks are covered with turf or tree and leaf litter as much; transform one wing/bastion annually and then monitor to retain desired coverage 	<ul style="list-style-type: none"> Assess sites annually for undesired growth 	<ul style="list-style-type: none"> Assess sites annually for undesired growth 	<ul style="list-style-type: none"> PRIORITY: High FWAG Members: Washington - c; Terrell - c; Mbir; Annear - c PRIORITY: Med City 	<ul style="list-style-type: none"> Annually allocate for portion of site: \$2,500 - 7,500 	Ongoing	OHA
Action: Remove inappropriate vegetation from earthworks	<ul style="list-style-type: none"> Jackson Cemetery - English Ivy and other non-native invasive species encroaching on the stairway leading into the fort near the cemetery 	<ul style="list-style-type: none"> Identify areas in the Jackson Cemetery to remove groundcover and invasive vegetation (given depth of burials, no possibility of disturbance to burials by aeration) 	<ul style="list-style-type: none"> Burial grounds and cemeteries are free of inappropriate vegetation 	<ul style="list-style-type: none"> Establish a sustainable land cover to protect against erosion - turf or meadow (if meadow, consider using it as a perimeter marker to dissuade park visitors from using the area as play space and mow internal space) or leaf litter 	<ul style="list-style-type: none"> Removal of Undesired Vegetation <ul style="list-style-type: none"> Remove invasive plant materials such as English Ivy from Jackson Cemetery and nearby earthworks Given the depth of the burials, there is no possibility of disturbance to burials by aeration at the Jackson Cemetery Replant with turf or meadow grasses as a sustainable land cover (consider use of meadow as perimeter marker to dissuade park visitors from using a cemetery as a play area) Mow the meadow perimeter annually, mow turf as necessary, aerate annually to encourage healthy turf growth 	<ul style="list-style-type: none"> Assess sites annually for undesired growth 	<ul style="list-style-type: none"> Assess sites annually for undesired growth 	<ul style="list-style-type: none"> PRIORITY: High FWAG Members: Brune; Washington - c; Terrell - c; Mbir; Annear - c PRIORITY: Med City 	<ul style="list-style-type: none"> Annually allocate for portion of site: \$2,500 - 7,500 	Ongoing	OHA
Action: Remove inappropriate vegetation from burial grounds and cemeteries											

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<p>Strategy 3.4.2: Minimize non-native invasive plants</p> <p>• Invasive plant species are in existing shrub beds and no mow areas: vine growth on trees; coverage on cultural resources such as earthworks</p> <p>• Invasive non-natives in woodlands and in particular along buffer planting on North Van Dom Street</p> <p>Action: Remove non-native invasive plants</p>		<p>• Conduct a survey of the park to identify existing non-native invasive species present; extent of the problem; and establish priorities for removal</p>	<p>• Reduction in non-native invasive plants in park</p>	<p>• Return park's natural ecosystem (wildlife, insects, etc. beneficiaries) and plantings to good health</p> <p>• Conduct initial park survey and update every three years to identify existing non-native invasive species present, the extent of the problem, and to establish priorities for removal</p>	<p>Invasive Plant Growth Removal</p> <p>• Conduct an initial park survey and update every three years to identify existing non-native invasive species and the extent of the problem</p> <p>• Establish priorities for removal</p> <p>• Avoid removal where ground disturbance is prohibited; OHA in other areas</p> <p>• Use hand removal and environmentally-sensitive herbicides; dispose of debris properly</p> <p>• Employ preventive measures to avoid introduction of new non-native invasive species - monitor areas subject to ground disturbance (seed banks), inspect new plants prior to installation, clean maintenance equipment prior to use in the park</p>	<p>• Assess non-native invasive species growth every three years</p>	<p>PRIORITY: Low</p> <p>• FWAG</p> <p>Members: <i>Mbr</i></p> <p>PRIORITY: Low</p> <p>• City</p>		5+ Years	RPCA, OHA	
<p>Objective 3.5: Establish attractive and sturdy turf</p> <p>Strategy 3.5.1: Actively manage turf growth</p> <p>• Compacted soil results in poor turf growth and cobble wash within turfs; where ground top is compacted for thick turf cover</p> <p>• Areas of poor turf growth on earthworks - problems can be attributed to compaction from visitor access, maintenance practices (for example rear wall where mowing has caused damage), animal burrowing, damage from fallen trees or branches, lack of moisture, soil fertility, or low pH</p> <p>• Turf is sparse in areas and washed away by erosion and soil compaction in others</p> <p>Action: Overseed and top dress turf</p>	<p>• Identify areas where 4" aeration can occur and where no aeration is required - new topsoil, organic material and reseeded</p>	<p>• Healthy turf growth and good infiltration of surface water</p>	<p>• Healthy turf growth and good infiltration of surface water</p>	<p>• Aerate turf</p> <p>• Redirect visitors from walking and climbing on the earthworks</p> <p>• Overseeding</p> <p>• Address cultural requirement needs such as soil lith using mulch, aeration, and watering</p>	<p>Healthy Turf Growth:</p> <p>• Refer to Plate 21 for areas where OHA direct action is required</p> <p>• Update aeration program based on OHA investigations and ground disturbance mapping</p> <p>• Assess turf for improvement in surface water infiltration and turf health annually</p> <p>Healthy Turf Growth</p> <p>• Apply pre-emergent herbicide, followed by overseeding and top dressing with compost</p> <p>• Identify areas where overseeding is appropriate and no additional preparation work is required (humus or other organic matter, new topsoil, etc.)</p> <p>• Identify areas where rehabilitation is needed - humus, organic matter, topsoil</p> <p>• De-thatch annually</p> <p>• Supplement with fertilizer in fall if the need is demonstrated by soil tests</p> <p>• Overseed and top dressing annually (if needed) following aeration if over 40% of existing turf is sparse</p> <p>• Test soil annually in five areas of the park: near West Braddock Road; near the picnic shelter; near the playground and in the fort area</p>	<p>• Update aeration program based on OHA investigations and ground disturbance mapping</p> <p>• Assess turf for improvement in surface water infiltration and turf health annually</p>	<p>PRIORITY: Low</p> <p>FWAG</p> <p>Members: <i>Mbr</i></p> <p>• PRIORITY: High</p> <p>Merguson</p> <p>• City</p>	Operational	1-3 Years and ongoing	RPCA, OHA	
<p>• Turf is sparse in areas and washed away by erosion and soil compaction in others</p> <p>Action: Overseed and top dress turf</p>	<p>• Identify areas where rehabilitation is required - new topsoil, organic material and reseeded</p>	<p>• Healthy turf growth and good infiltration of surface water</p>	<p>• Healthy turf growth and good infiltration of surface water</p>	<p>• Overseeding</p> <p>• Address cultural requirement needs such as soil lith using mulch, aeration, and watering</p>	<p>Healthy Turf Growth</p> <p>• Apply pre-emergent herbicide, followed by overseeding and top dressing with compost</p> <p>• Identify areas where overseeding is appropriate and no additional preparation work is required (humus or other organic matter, new topsoil, etc.)</p> <p>• Identify areas where rehabilitation is needed - humus, organic matter, topsoil</p> <p>• De-thatch annually</p> <p>• Supplement with fertilizer in fall if the need is demonstrated by soil tests</p> <p>• Overseed and top dressing annually (if needed) following aeration if over 40% of existing turf is sparse</p> <p>• Test soil annually in five areas of the park: near West Braddock Road; near the picnic shelter; near the playground and in the fort area</p>	<p>• Assess turf for improvement in surface water infiltration and turf health annually</p>	<p>PRIORITY: Low</p> <p>• FWAG</p> <p>Members: <i>Mbr</i></p> <p>• PRIORITY: High</p> <p>• City</p>	Operational	1-3 Years and ongoing	RPCA, OHA	

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Action: Define mowing height	<ul style="list-style-type: none"> Mowing height and mowing frequency varies between two zones (OHA and RCPA supervision) 	<ul style="list-style-type: none"> Establish turf cultural practices that are adhered to by all entities caring for turf within the park 	<ul style="list-style-type: none"> Healthy turf with no discernable difference between RCPA maintained area and private contractor maintained area 	<ul style="list-style-type: none"> Establish consistent mow cycle and mowing height in conjunction with two entities Modify mowing practices on rear wall between fort's gate and East Bastion to avoid damaging wall 	<p>Healthy Turf Growth:</p> <ul style="list-style-type: none"> Establish a consistent mow cycle and mowing height Modify mowing practices to ensure that no damage is made to earthworks (inadvertent gauging and soil compaction) Use a rotary style finishing mower equipped with a mulch kit Initial spring mow to 2.75" turf height Mow turf to maintain 3" height during summer season Mow turf in late summer to 3", 4" Adjust turf height to 2.5" in height in fall 	<ul style="list-style-type: none"> Assess height seasonally 	<p>PRIORITY: Low</p> <ul style="list-style-type: none"> FWAG Members: City 	Operational	1-3 Years and ongoing	RCPA, OHA	
Strategy 3.5.2: Actively manage meadow growth	<ul style="list-style-type: none"> Unmowed meadows have significant invasive plant species and woody plant growth in designated meadows (prior to mow in fall 2013) 	<ul style="list-style-type: none"> Update meadow locations (five meadows initially identified by City, updated 2013) 	<ul style="list-style-type: none"> Attractive and healthy meadow established 	<ul style="list-style-type: none"> Determine mow schedule that maintains a grass and forb community of native species and prevents colonization by woody material, but also avoids disturbing nesting habitat for wildlife 	<p>Healthy Meadow Growth:</p> <ul style="list-style-type: none"> Mow meadow once a year between December and March to avoid the nesting period and annually to remove standing material, encourage germination, and encourage vigorous plant growth; set the mower deck as low to the ground as possible without gouging the soil surface, removing everything with the mow Alternatively, bush hog the meadow every three to five years to remove woody growth between April and July; apply more frequently if woody growth is heavy 	<ul style="list-style-type: none"> Assess woody and non-native invasive species growth 	<p>PRIORITY: Low</p> <ul style="list-style-type: none"> FWAG Members: City 		1-3 Years and ongoing	RCPA	
Action: Remove invasives and woody plant materials from meadows	<ul style="list-style-type: none"> Weed whacker (tree trunk damage) Heavy vehicular equipment traffic (mowing, trash removal, park monitoring) compacts soil Soil erosion is occurring on path edges from equipment and drainage 	<ul style="list-style-type: none"> Identify equipment prone to causing soil compaction or tree damage Identify areas that vehicular traffic should not enter Identify travel corridors if access is needed off paved surfaces 	<ul style="list-style-type: none"> Damage to park from equipment is nonexistent 	<ul style="list-style-type: none"> Place leaf or mulch beds at base of trees to avoid turf immediately adjacent to tree trunk (damage from weed whacker) Diagram 'safe' routes for equipment travel and storage within park and limit equipment to those locations only (update to those locations as needed) Train employees in proper equipment operation: weed whacker and potential damage to tree trunks; heavy vehicular equipment (ranger cars, trash vehicles) Train operators annually (or seasonally) in equipment receive training) or equipment operation to avoid further soil compaction, earthwork damage or tree damage Ensure that heavy equipment is never used in association with the Fort Ward earthworks 	<p>Equipment Operation and Use</p> <ul style="list-style-type: none"> Identify equipment prone to causing soil compaction or tree damage Identify areas that vehicular traffic should not enter Identify travel corridors if access is needed off of paved surfaces Train operators annually on equipment 'safe' routes and use 	<ul style="list-style-type: none"> Assess damage caused by equipment operation 	<p>PRIORITY: High</p> <ul style="list-style-type: none"> FWAG Members: Fobes; Washington - b; Terrell - b; Alnear - b; Stanton; Magnuson; Ziegler City 		1-3 Years and ongoing	OHA, RCPA	
Action: Train all personnel on the use of equipment to minimize damage to resources											

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<p>Action: Provide training and certification for maintenance personnel at park</p>	<ul style="list-style-type: none"> Operators need to be made aware of importance and fragility of cultural resources found in park (particularly seasonal workers) 	<ul style="list-style-type: none"> Identify equipment issues (weed whacker, vehicle routes, damage to earthworks) 	<ul style="list-style-type: none"> Equipment operators at Fort Ward Park are educated as to the fragility of the park's cultural and natural resources 	<ul style="list-style-type: none"> Develop training programs to make park personnel familiar with significance and fragility of resources at park 	<p>Certifications:</p> <ul style="list-style-type: none"> Train key personnel at the park for special duties unique to Fort Ward and its stewardship of cultural resources Train key personnel at the park on landscape cultural practices as they relate to a historically rich and resource-fragile park, where ground disturbing activities are of great concern Train employees on identification of Fort Ward Park's biological resources, tree and shrub care, turf management, proper pruning techniques and invasive species removal techniques 	<ul style="list-style-type: none"> Assess effectiveness of operator training annually 	<p>PRIORITY: Med</p> <ul style="list-style-type: none"> FWAG Members: <i>Brune; Washington - b; Terrell - b; Annear - b</i> <p>PRIORITY: Low</p> <ul style="list-style-type: none"> City 		1-3 Years and ongoing	OHA, RPCA	

Notes on FWAG Priorities Submissions:

- Washington - a: Multiple actions identified*
- Washington - b: Reference two actions under Strategy 3.5.1*
- Washington - c: Reference two actions under Strategy 3.3.1.*
- Walpole: These involve routine tasks for any Park and can be determined by those doing the work. If fallen trees should be removed, let the tree people decide. While I see no need to plant new trees, I leave that in the hands of arborists.*
- Terrell - a: Multiple actions identified*
- Terrell - b: Reference two actions under Strategy 3.5.1*
- Terrell - c: Reference two actions under Strategy 3.3.1.*
- Annear - a: Multiple actions identified*
- Annear - b: Reference two actions under Strategy 3.5.1*
- Annear - c: Reference two actions under Strategy 3.3.1*

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<p>Goal 4 - Educate and Engage Visitors - Share the Stories of Fort Ward Park Increase and broaden the audience in support of the park's preservation and enhancement by providing a high quality interpretive and educational experience.</p> <p><i>Objective 4.1: Develop a detailed interpretive plan for Fort Ward Park that celebrates the park's multi-faceted history</i></p> <p><i>Strategy 4.1.1: Expand or reform the Fort Ward History Work Group and Fort Ward Advisory Group to provide advice on the interpretive planning, design and implementation</i></p>											
<p>Action: OHA to formally invite key stakeholders from the Fort Ward and Seminary African American Descendants Society, Civil War historians, naturalists, educators, and community representatives to participate in a new advisory committee working on the development of an interpretive plan</p> <p>Action: Working with the advisory committee on interpretation, select topics, stories, text, and images that best represent the recommended themes for Fort Ward Park (including both citywide or region wide themes and site specific themes)</p> <p>Action: Match the recommended stories, sites and places with the best communication and educational practices including a range of web-based and mobile technology, as well as exhibit design</p> <p>Action: Where historical imagery is not available, utilize drawings and illustrations to evoke the imagery sought to capture the meaning of the interpretation</p>	<ul style="list-style-type: none"> Stakeholder groups have expressed strong interest in the telling of the stories (both facts and meanings), and educating visitors about the national and regional significance of Fort Ward Park 	<ul style="list-style-type: none"> Invitation to be member of new group to be offered by OHA staff 	<ul style="list-style-type: none"> Create a newly formed (derivative of existing group and Friends Group) advisory committee 				<p>PRIORITY: High</p> <ul style="list-style-type: none"> FWAG Members: <i>Forbes; Annear; Stanton; Magnuson; Ziegler</i> <p>PRIORITY: High</p> <ul style="list-style-type: none"> City 	<p>\$35,000-150,000, scope dependent</p>	<p>1-3 Years</p>	OHA	
<ul style="list-style-type: none"> There are extensive resources available that have to be reviewed and narrowed down to those that best tell the desired stories <p>Action: Match the recommended stories, sites and places with the best communication and educational practices including a range of web-based and mobile technology, as well as exhibit design</p> <p>Action: Where historical imagery is not available, utilize drawings and illustrations to evoke the imagery sought to capture the meaning of the interpretation</p>	<ul style="list-style-type: none"> There are a range of new technologies that can help the story 						<p>PRIORITY - Low</p> <ul style="list-style-type: none"> FWAG Members: 		<p>TBD during Interpretive Planning Process</p>	OHA	
<ul style="list-style-type: none"> Extensive photographic records exist, but may not cover all the facts and meanings <p>Action: Match the recommended stories, sites and places with the best communication and educational practices including a range of web-based and mobile technology, as well as exhibit design</p> <p>Action: Where historical imagery is not available, utilize drawings and illustrations to evoke the imagery sought to capture the meaning of the interpretation</p>	<ul style="list-style-type: none"> There are a range of new technologies that can help the story 						<p>PRIORITY - Low</p> <ul style="list-style-type: none"> FWAG Members: 		<p>TBD during Interpretive Planning Process</p>	OHA	
<p>Strategy 4.1.2: Make use of landscape features to tell the stories</p>											
<p>Action: Match the recommended stories with the sites and places where the stories are best told and develop conceptual site plans for any related physical improvements needed to help interpret the story</p> <p>Action: Design and install an interpretive trail as part of the overall trail network as a means of organizing the outdoor interpretive experience</p> <p>Action: Use the "We're Still Here" theme as part of the trail system as a means of organizing the stories associated with the "The Fort" community and linking those stories to the larger citywide themes associated with African American Heritage</p> <p>Action: Connect and reorganize the pathways through the fort so they become part of the trail network as a means of interpreting the fort's unique movement through and around the earthworks in a careful and respectful manner</p>	<ul style="list-style-type: none"> While placement of existing interpretive panels are appropriate, the story can be expanded by paying attention to the setting and view from the panel as well as visitor comfort; adjust existing location of panels if need to better tell the story All of the FWAG reports indicated the need for a trail - recreational, nature-based interpretation, historical and cultural interpretation The theme evolved from the FWAG chapters on African American Heritage 						<p>PRIORITY - Low</p> <ul style="list-style-type: none"> FWAG Members: <i>Washington - c; Terrell - c</i> <p>PRIORITY - High</p> <ul style="list-style-type: none"> FWAG Members: <i>Washington - c; Terrell - c; Moir; Annear - a</i> <p>PRIORITY - Med</p> <ul style="list-style-type: none"> FWAG Members: <i>Washington - c; Terrell - c; Moir</i> <p>PRIORITY - Med</p> <ul style="list-style-type: none"> FWAG Members: <i>Washington - c; Terrell - c; Moir</i> 	<p>TBD during Interpretive Planning Process</p> <p>3-5 Years</p> <p>TBD during Interpretive Planning Process</p>	<p>OHA</p> <p>OHA</p> <p>OHA</p> <p>OHA</p>		

Action	Indicators (1) (Reason)	Inventory (2)	Standards (3)	Management Options (4)	Best Practices Options (5)	Monitoring of Indicator (6)	Evaluation of Actions (7)	Priority	Probable Cost	Proposed Timeframe	Responsible Party
<p>Action: Install outdoor exhibits and enhance historic landscape (including plantings, gardens, house sites, etc.) to interpret "The Fort" community</p> <p>Action: Design and install landscape elements and a Memorial Stone that allow for the cemeteries and grave site to be experienced as places of contemplation</p> <p>Action: Design and install interpretive exhibits or landscape elements that help to tell stories of family and community and connect to broader themes of race and the struggle for social, economic and political survival</p>	<ul style="list-style-type: none"> There are few visible remnants of "The Fort" community, some landscape elements can be restored or rehabilitated using historic photographs and oral histories Benches, shade, and simple markings are preferred based upon input from FWAG 							<p>PRIORITY - Low</p> <ul style="list-style-type: none"> FWAG Members: Washington - c; Terrell - c 		TBD during Interpretive Planning Process	OHA
<p>Action: Install interpretive exhibits or landscape elements that help to tell stories of family and community and connect to broader themes of race and the struggle for social, economic and political survival</p>	<ul style="list-style-type: none"> The idea of connecting stories to broader themes was discussed at FWAG meeting on interpretation 							<p>PRIORITY - Med</p> <ul style="list-style-type: none"> FWAG Members: Washington - c; Terrell - c; Alnbar - a 		TBD during Interpretive Planning Process	OHA
<p>Action: Design and install interpretive exhibits or landscape elements that help to tell stories of family and community and connect to broader themes of race and the struggle for social, economic and political survival</p>	<ul style="list-style-type: none"> The idea of connecting stories to broader themes was discussed at FWAG meeting on interpretation 							<p>PRIORITY - Low</p> <ul style="list-style-type: none"> FWAG Members: Washington - c; Terrell - c 		TBD during Interpretive Planning Process	OHA
<p>Objective 4.2: Increase awareness of the site's local, regional and national significance by linking to themes related to the Defenses of Washington with the establishment and building of an African American community</p>											
<p>Strategy 4.2.1: Greet and orient the visitor</p>											
<p>Action: Install a comprehensive exterior orientation exhibit at the primary entrance to introduce themes and stories, provide context and orient visitors to the park</p>	<ul style="list-style-type: none"> The need for an outdoor orientation area was identified at the listening sessions in the park 							<p>PRIORITY - Low</p> <ul style="list-style-type: none"> FWAG Members: Washington - a; Terrell - a; 		TBD during Interpretive Planning Process	OHA
<p>Action: Install a small, 1-panel orientation kiosk at each minor entrance to the park</p>	<ul style="list-style-type: none"> This is an opportunity to provide information to visitors and neighbors that are primarily coming for recreation 							<p>PRIORITY - High</p> <ul style="list-style-type: none"> FWAG Members: Forbes; Washington - a; Terrell - a; Stanton; Magnuson 		3-5 Years	OHA
<p>Action: Provide web-based and mobile technology applications and content to allow visitors to dig deeper and broader into the themes introduced at Fort Ward Park; use social media (Facebook, Twitter, Instagram and Tumblr) to celebrate all aspects of the park—see National Archives and Library of Congress for examples</p>	<ul style="list-style-type: none"> Use of QR codes allow mobile phone users to easily connect to web sites 							<p>PRIORITY - Low</p> <ul style="list-style-type: none"> FWAG Members: Washington - a; Terrell - a 		TBD during Interpretive Planning Process	OHA
<p>Strategy 4.2.2: Link interpretation at Fort Ward to broader citywide and regionwide theme</p>											
<p>Action: Identify Fort Ward on region-wide maps, brochures, publications and other places to explore Alexandria's history from the Civil War to the Civil Rights eras</p>	<ul style="list-style-type: none"> Little information is currently available on the historical significance and interpretation of Fort Ward 							<p>PRIORITY - High</p> <ul style="list-style-type: none"> FWAG Members: Baure; Washington - a; Terrell - a; Ziegler 		3-5 Years	OHA
<p>Action: Feature Fort Ward Park in enhanced citywide Civil War and African American interpretive trails</p>	<ul style="list-style-type: none"> Fort Ward is identified as a stop on existing trail guides, but more interpretive information could be provided within the guides 							<p>PRIORITY - Low</p> <ul style="list-style-type: none"> FWAG Members: Washington - a; Terrell - a 		TBD during Interpretive Planning Process	OHA
<p>Action: Develop interpretive and educational resources that help visitors compare and contrast "The Fort" community with other African-American communities in Alexandria and beyond; clarify themes and storylines and identify how each individual site and its stories relate to the citywide themes</p>	<ul style="list-style-type: none"> The idea of connecting stories to broader themes was discussed at FWAG meeting on interpretation 							<p>PRIORITY - Low</p> <ul style="list-style-type: none"> FWAG Members: Washington - a; Terrell - a 		TBD during Interpretive Planning Process	OHA

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<p>Action: Promote and encourage visitors to come to Fort Ward Park. "The Fort" wordmark and logo of the community is representative of African American communities of freedmen established in the wake of the Civil War and their experiences</p>	<ul style="list-style-type: none"> While there is extensive information available interpreting the Civil War fort, there is much less available explaining the significance of "The Fort" community 							<p>PRIORITY - Low</p> <ul style="list-style-type: none"> FWAG Members: Washington - a; Terrell - a 		TBD during Interpretive Planning Process	OHA
<p>Strategy 4.2.3: Strengthen regional linkages to interpretation at Fort Ward</p>											
<p>Action: Work with partners to encourage the National Park Service to interpret and promote the circle forts to promote regional interpretation of the Defenses of Washington</p>	<ul style="list-style-type: none"> Fort Ward is one of the best sites available to interpret the Defenses of Washington. 							<p>PRIORITY - High</p> <ul style="list-style-type: none"> FWAG Members: Washington - a; Terrell - a; Alnhear, Stanton, Sigerson 		3-5 Years	OHA
<p>Action: Continue to provide leadership to Civil War Defenses of Washington sites south and west of the Potomac</p>	<ul style="list-style-type: none"> Fort Ward is one of the best sites available to interpret the Defenses of Washington. 							<p>PRIORITY - Low</p> <ul style="list-style-type: none"> FWAG Members: Washington - a; Terrell - a 		TBD during Interpretive Planning Process	OHA
<p>Action: Forge a relationship with the National Museum of African American History and Culture and the African American Civil War Museum</p>	<ul style="list-style-type: none"> Similarly, "The Fort" community story is one that has broader national implications and, when interpretation is implemented, this could become a national resource for interpreting African American Heritage 							<p>PRIORITY - Low</p> <ul style="list-style-type: none"> FWAG Members: Washington - a; Terrell - a 		TBD during Interpretive Planning Process	OHA
<p>Action: Coordinate with NMAAHC and other storylines to use Alexandria and Fort Ward Park as authentic locations illustrating the themes and storylines</p>	<ul style="list-style-type: none"> Linking themes to broader national themes will help reinforce the story to visitors as they go to other places 							<p>PRIORITY - Low</p> <ul style="list-style-type: none"> FWAG Members: Washington - a; Terrell - a 		TBD during Interpretive Planning Process	OHA
<p>Objective 4.3: Reorganize and/or expand the museum to engage more visitors and broaden the stories told</p>											
<p>Strategy 4.3.1: Develop the tools and resources needed to expand museum interpretive opportunities with self-guided experiences</p>											
<p>Action: Update the museum's strategic plan to reflect the goals, objectives, strategies and actions of the Fort Ward Park and Museum Area Management Plan - resulting in an updated program of uses for the museum</p>	<ul style="list-style-type: none"> Needs identified include addressing visitor experience and orientation; bringing Civil War themes outside and "The Fort" community themes inside; stewardship of collections; an assessment of the feasibility of expanding the Fort Ward Museum; ADA accessibility; educational facilities 							<p>PRIORITY - Low</p> <ul style="list-style-type: none"> FWAG Members: Washington - b; Terrell - b 		TBD during Interpretive Planning Process	OHA
<p>Action: Develop a feasibility study and a new museum master plan (and design of an addition, if feasible) that leads to a more visitor friendly museum; provides views of the park; landscape; incorporates exhibits that are properly monitored; incorporates space for the management and storage of collections; and makes the museum and its educational facilities accessible to individuals with disabilities</p>	<ul style="list-style-type: none"> Feasibility issues include impact on adjacent archaeological resources; parking, space requirements to accommodate desired program and the costs and benefits of the museum expansion related to other citywide goals for the system of museums 							<p>PRIORITY - Low</p> <ul style="list-style-type: none"> FWAG Members: Washington - b; Terrell - b 		TBD during Interpretive Planning Process	OHA
<p>Action: Undertake preliminary design of the expanded museum and prepare illustrative materials and cost estimates</p>	<ul style="list-style-type: none"> If feasible, illustrations and budgets will be needed to raise funds 							<p>PRIORITY - Low</p> <ul style="list-style-type: none"> FWAG Members: Washington - b; Terrell - b 		TBD during Interpretive Planning Process	OHA

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Strategy 4.3.2: Create a Capital campaign to raise funds for a museum expansion											
Action: Using the results of the feasibility study and master plan, develop a fundraising program to implement the master plan (as part of the overall citywide system of museums)	<ul style="list-style-type: none"> Outside funds will likely be needed 							PRIORITY - Low • FWAG Members: Washington - b; Terrell - b		TBD during Interpretive Planning Process	OHA
Action: Retain a professional consultant to guide the development of a capital campaign (as part of the overall citywide system of museums)	<ul style="list-style-type: none"> Capital campaigns require skills that existing staff, whose primary mission is focused on the day to day operations of the museum, are unlikely to have 							PRIORITY - Low • FWAG Members: Washington - b; Terrell - b		TBD during Interpretive Planning Process	OHA
Strategy 4.3.3: Use the existing museum building for new exhibits											
Action: Continue to feature exhibits on topics that support interpretation of Fort Ward using the museum's extensive collection	<ul style="list-style-type: none"> Changing and refreshing exhibits is needed to broaden audiences 							PRIORITY - Med • FWAG Members: Washington - b; Terrell - b; Ziegler		TBD during Interpretive Planning Process	OHA
Action: Introduce exhibits on the African American experience before, during and after the Civil War to provide context for outdoor exhibits of the Fort community	<ul style="list-style-type: none"> The audience coming to the museum is different than those coming to the park including "The Fort" community exhibits the museum will link them directly to the Civil War fort and beyond 							PRIORITY - Med • FWAG Members: Brune; Washington - b; Terrell - b		TBD during Interpretive Planning Process	OHA
Strategy 4.3.4: Create as many opportunities for personal connections as possible and visitors will enjoy the experience and find relevancy											
Action: Make use of talk back boards, interactives (leave something behind, problem solve, active learning)	<ul style="list-style-type: none"> Younger audiences respond better and retain more through interactive learning 							PRIORITY - Low • FWAG Members: Washington - b; Terrell - b		TBD during Interpretive Planning Process	OHA
Action: Use stories of the area that are at "The Fort" with Fort Ward to connect people community to connect people with their past through personal connections	<ul style="list-style-type: none"> Genealogy and stories of families/ancestors provide a way to make those connections 					<ul style="list-style-type: none"> Opportunity for schools to use park as an opportunity to link students with heritage 		PRIORITY - Low • FWAG Members: Washington - b; Terrell - b		TBD during Interpretive Planning Process	OHA
Strategy 4.3.5: Reach people who do not normally go to museums by taking the museum to places where this audience normally goes											
Action: Include interpretive information in picnic area map and signboards	<ul style="list-style-type: none"> Park users are a primary and captive audience 							PRIORITY - Low • FWAG Members: Washington - b; Terrell - b		TBD during Interpretive Planning Process	OHA
Action: Update the historic information on the picnic area map to include areas associated with burial sites	<ul style="list-style-type: none"> Park users may not be aware of the significance of nearby resources to picnic areas 							PRIORITY - High • FWAG Members: Brune; Forbes; Washington - b; Terrell - b	3-5 Years		OHA
Action: Look at New Media grants from NEH										TBD during Interpretive Planning Process	OHA
Notes on FWAG Priorities Submissions:											
Washington - a, identified all of Objective 4.2 as a single priority											
Washington - b, identified all of Objective 4.3 as a single priority											
Washington - c, identified all of Strategy 4.1.2 as a single priority											
Waipale - comments independent of The central focus of Ft. Ward (as in most historic Parks) is a quality MUSEUM AND VISITORS CENTER. The existing "museum" is managed by extremely knowledgeable, capable and dedicated staff.											
BUT THERE IS NO VISITORS CENTER AND MUSEUM. There is a tiny little building with space only for the most cursory displays of artifacts and a crowded counter with a few items for sale.											
The MOST FUNDAMENTAL need of Ft. Ward renovations and management is building a new Visitor Center and Museum.											
Without a REAL Visitor Center, Ft. Ward will be encountered by visitors on a piecemeal basis, with some trails, areas to run, and a few signs. This is a shame since the Park has so much to tell and to educate visitors.											
The Military aspects and the African American experiences can be shown on a 10-15 minute video in a small theatre area—just like in other Visitor Centers. Hundreds of artifacts in storage could be displayed, as well as artifacts from the African American Community. The huge library (now housed in an inaccessible room upstairs) can be brought forth and used by visitors, researchers, and scholars. Many of the volumes are fairly rare.											
This essential aspect of Ft. Ward will be expensive (!?! \$500K, \$32M, ...) and not likely able to be funded by the City. But without this, the Park will limp along as it has done. Thus, as noted above, outside funding is necessary.											
However, with such a Visitor Center, word of mouth and advertising will get around and tourists will make Alexandria their destination—certainly including the tremendous number of Civil War enthusiasts throughout the country. The City should be most proud of this wonderful resource, and cooperate with ideas of fundraising efforts that may be productive.											
Terrell - a, identified all of Objective 4.2 as a single priority											
Terrell - b, identified all of Objective 4.3 as a single priority											
Terrell - c, identified all of Strategy 4.1.2 as a single priority											
Annear - a, identified two actions as single priority											

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Action	Indicators (1) (Reason)	Inventory (2)	Standards (3)	Management Options (4)	Best Practices Options (5)	Monitoring of Indicator (6)	Evaluation of Actions (7)	Priority	Probable Cost	Proposed Timeframe	Responsible Party
<p>Goal 5 - Enhance Park Facilities Satisfy the growing need for passive recreational enjoyment of a shady, natural oasis from an increasingly complex urban environment.</p> <p>Objective 5.1: Clarify and enhance park circulation and parking</p> <p>Strategy 5.1: Improve pedestrian circulation and safety</p>											
<p>Action: Make pedestrian use the priority use for paved loop path and mark mileage distances on or near pavement</p>	<ul style="list-style-type: none"> Existing circular asphalt loop path is a shared between vehicular and pedestrian users; the path is heavily used by walkers, some surface area is in poor condition, and edges are heavily eroded Loop path provides no interpretation of the park's natural and little for cultural resources in the park Signs at entry to loop path indicate that pedestrian user is to yield to vehicular user Pedestrian use of existing loop trail is heavy, particularly at certain times of the day 	<ul style="list-style-type: none"> Identify sections of the loop path that need to be repaired or replaced, and identify sections of the loop path that need to be treated for erosion damage 	<ul style="list-style-type: none"> Enhanced pedestrian experience 	<ul style="list-style-type: none"> Repair surface of the shared pedestrian/vehicle loop drive with materials that are pedestrian friendly in color and texture, consider the use of permeable material and avoid the use of asphalt to reduce its appearance as 'road' Consider sensitive pedestrian use of the loop path Realign as part of next repaving project (2015) Identify secondary pedestrian path to provide alternative to heavily used loop path Identify natural and cultural resources ripe for interpretation and storytelling that could be linked by a secondary pedestrian path, perhaps making use of natural path surface (Identification of School House Road/other walking paths or road traces provides a potential to link together to create 'Were Still Here Trail' with interpretive signs, recognition of former site features, etc.) 	<ul style="list-style-type: none"> Make pedestrian circulation the priority on the internal park paved loop path; use a surface treatment alternative to the current vehicular pavement styled asphalt material Change the sign to give pedestrian use priority over vehicular use; the current sign tells pedestrian to yield to vehicular traffic) Mark distances for pedestrian walks 	<ul style="list-style-type: none"> Inspect pavement annually and identify areas to be repaired or replaced 	<ul style="list-style-type: none"> Signs, including mile markers: \$67,000-6,860 	<p>PRIORITY: High</p> <ul style="list-style-type: none"> FWAG Members: <i>Birne; Washington; Walpole - b; Terrell; Arriear; Starnon; Ziegler</i> PRIORITY: High City 	1-3 Years	RPCA, T&ES	
<p>Action: Introduce a sharp curve at the junction of the paved loop path</p>	<ul style="list-style-type: none"> Paved path should only be used by vehicles for access to picnic areas and be designed to look more like a driveway/pedestrian path than a road 	<ul style="list-style-type: none"> Measure speed and volume of current traffic and update annually 	<ul style="list-style-type: none"> Enhanced safety for pedestrian use and clarity for vehicular operator 	<ul style="list-style-type: none"> Realign as part of next repaving project (2015) 	<ul style="list-style-type: none"> Adjust the pavement alignment to clearly indicate that the priority is for pedestrian use; vehicular access is only as route to recreation facilities and should be more 'drive-way-like' in appearance Realign pavement at next repaving (2015) 	<ul style="list-style-type: none"> Assess effectiveness of reconfiguration 	<ul style="list-style-type: none"> FWAG Members: <i>City</i> 	<p>PRIORITY: Low</p> <p>PRIORITY: Med</p>	7+ Years	RPCA	
<p>Action: Develop a pedestrian network of soft paths</p>	<ul style="list-style-type: none"> Goat paths' wind through the perimeter of the park No formal path(s) to recreation features (playground, picnic facilities and shelter) Perimeter route already used informally by walkers in park 	<ul style="list-style-type: none"> Identify potential route and connections to formalize perimeter path Identify areas where trails are not suitable due to slope, soil, or the presence of significant resources 	<ul style="list-style-type: none"> Formalized secondary path network connecting park features at the perimeter of the park to the paved loop trail 	<ul style="list-style-type: none"> Identify secondary pedestrian path to provide alternative to heavily used loop path Identify natural and cultural resources ripe for interpretation and storytelling that could be linked by a secondary pedestrian path, perhaps making use of natural path surface (Identification of School House Road/other walking paths or road traces provides a potential to link together to create 'Were Still Here Trail' with interpretive signs, recognition of former site features, etc.) 	<ul style="list-style-type: none"> Identify a secondary pedestrian path alignment along the park's perimeter Connect a 'soft path' to park entrances and features Ensure that path meets ADA standards, when possible 	<ul style="list-style-type: none"> Assess integrity of path surfacing and path edges for safety concerns every six months 	<ul style="list-style-type: none"> Entire course (different surfaces); segment from \$47,1400- 695,000; paved loop to picnic shelter; grass path; mulch path in woodlands. 3-5 Years: paved segment to relocated playground 5+ Years: remaining paved segments 	<p>PRIORITY: Med</p> <ul style="list-style-type: none"> FWAG Members: <i>Washington; Terrell; Moir</i> PRIORITY: High City 	<p>PRIORITY: Low</p> <p>PRIORITY: Med</p>	1-3 Years; paved segment from \$47,1400- 695,000; paved loop to picnic shelter; grass path; mulch path in woodlands. 3-5 Years: paved segment to relocated playground 5+ Years: remaining paved segments	RPCA, OHA
<p>Action: Connect existing park path to the West Braddock Road sidewalk</p>	<ul style="list-style-type: none"> Public sidewalks along perimeter roads do not connect with internal park pedestrian system 	<ul style="list-style-type: none"> Determine amount of missing sidewalk 	<ul style="list-style-type: none"> Pedestrian connectivity between sidewalk on West Braddock Road and the park's internal pedestrian network 	<ul style="list-style-type: none"> Connect street sidewalk to internal park path system 	<ul style="list-style-type: none"> Install a sidewalk segment to connect the park with West Braddock Road - public sidewalks along the park's perimeter do not connect with the internal park pedestrian system 	<ul style="list-style-type: none"> Annually survey sidewalk surface and condition 	<ul style="list-style-type: none"> FWAG Members: <i>City</i> 	<p>PRIORITY: Low</p> <p>PRIORITY: Low</p>	7+ Years	RPCA	

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<p>Action: Clearly mark and develop two park access points from North Van Dorn Street</p>	<ul style="list-style-type: none"> Many foot paths enter the park along the North Van Dorn frontage, leading to erosion, vegetation trampling and soil compaction Some foot paths connecting park to North Van Dorn Street blocked due to tree fall and poison ivy; lead to new 'goat paths' being created to circumvent obstacle Parapet of rifle trench being used as alternative trail access from North Van Dorn Street - wide, flat, no poison ivy - connects to the sidewalk via a concrete drainage structure on the inside between the woods and the sidewalk on N. Van Dorn 	<ul style="list-style-type: none"> Identify access points and connecting paths from North Van Dorn to park to improve and formalize Identify 'goat paths' to close; existing access points to close; paths to block (access on parapet above rifle trench) 	<ul style="list-style-type: none"> Establish and maintain two formal entrances to the park on its North Van Dorn border, protecting cultural and natural resources from further inadvertent damage by park users 	<ul style="list-style-type: none"> Identify two park entry points from North Van Dorn Street and redirect informal trail access to those points Organize volunteer trail crew for monitoring, maintenance, and trail construction 	<p>Circulation</p> <ul style="list-style-type: none"> Install two entry points to connect the park with North Van Dorn Street - public sidewalks along the park's perimeter do not connect with the internal park pedestrian system Develop two formal access points to the park from North Van Dorn Street; one near the bus stop east of the rifle trench and the second near the picnic shelter Close 'goat herd' paths Block access to the rifle trench by installing a stile/stair over it at the North Van Dorn Street side of the park 	<ul style="list-style-type: none"> Monitor the area monthly for tree fall, trail blockage, informal paths on earthworks or other cultural resources Monitor and remove poison ivy within 10' of each side of the path 	<p>PRIORITY: Med</p> <p>Members: FWAG, Washington, Terrell</p> <p>PRIORITY: High</p> <p>City</p>	<p>North Van Dorn: eastern entry: \$32,000 - 55,750</p> <p>Northern Van Dorn: western entry: \$12,000 - 21,000</p>	3-5 Years	RPCA	
<p>Action: Re-connect athletic fields with the rest of the park</p>	<ul style="list-style-type: none"> New fencing blocks former gate connection between athletic fields and large portion of the park 	<ul style="list-style-type: none"> Evaluate former gate location and identify potential other connections between athletic fields and larger park Conflict between park closing at dusk and lighted fields open until 10pm 	<ul style="list-style-type: none"> Create pedestrian connectivity between two sections of the park 	<ul style="list-style-type: none"> Provide gate between athletic fields and northwestern portion of the park Develop protocols to address access/gate closure when athletic fields remain open later than the rest of the park (fields are lighted and open until 10 PM; the rest of the park closes at dusk) 	<p>Circulation</p> <ul style="list-style-type: none"> Provide a gate between athletic fields and the northwestern portion of the park Develop protocols to address access/gate closure when athletic fields remain open later than the rest of the park (fields are lighted and open until 10 PM; the rest of the park closes at dusk) 	<ul style="list-style-type: none"> Monitor operational issues with different hours 	<p>PRIORITY: Low</p> <p>Members: FWAG</p> <p>PRIORITY: Low</p> <p>City</p>		5+ Years	RPCA	
<p>Strategy 5.1.2: Improve bus access and parking (four and school groups)</p>	<ul style="list-style-type: none"> Existing large expanse of gravel lot is inefficient Lot could be better used for multiple purposes (accessible parking spaces, bus drop off, parking and future interpretation of the barracks) Gravel surfacing does not provide good limitation of ADA access 	<ul style="list-style-type: none"> Inventory parking lot size and identify needed turning radius for bus use 	<ul style="list-style-type: none"> Provision of bus drop-offs and turnarounds that don't conflict with parking and pedestrian use of park 	<ul style="list-style-type: none"> Re-configure parking lot behind museum Relocate bus drop off to pull-out lane if barracks reconstruction comes to fruition Barracks foundation can be marked as part of the parking lot layout Alternatively, evaluate the potential of developing a turnarounds on the east side of the lot along West Braddock Road (will require coordination with TE&S) 	<p>Circulation</p> <ul style="list-style-type: none"> Evaluate the potential to redesign the gravel parking area behind the museum to better accommodate drop-offs and turnarounds and temporarily 'test' parking concept behind museum with barriers and cones to mark circulation patterns Turn the museum or former location of the barracks with surface materials as part of the new layout design for the parking lot and bus turnaround (similar to that proposed for the Ashby House in front parking lot) Consider using permeable materials for paving (existing gravel is heavily compacted) and ADA access 	<ul style="list-style-type: none"> Monitor 'test' to see if conflicts between users are reduced 	<p>PRIORITY: Low</p> <p>Members: FWAG</p> <p>PRIORITY: High</p> <p>City - for 'test' scenario with construction priority dependent upon outcome of test</p>	1-3 Years for 'test' scenario	RPCA, OHA, T&ES		
<p>Action: Redesign the existing parking area to better accommodate a bus drop-off</p>											

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Strategy 5.1.3: Reconfigure existing parking											
Action: Expand the length and reduce the width of gravel parking lot	<ul style="list-style-type: none"> Existing gravel lot off Braddock Road is wider than needed Space available on parking lots eastern end to extend to relocate 8-10 spaces from museum lot 	<ul style="list-style-type: none"> Inventory parking lot size and identify program needed/number of spaces required 	<ul style="list-style-type: none"> Reduction of parking lot footprint with increased parking capacity 	<ul style="list-style-type: none"> Include interpretation of Ashby House as part of parking lot redesign Reduce footprint of existing parking lot adjacent to West Braddock Road while increasing its capacity 	<ul style="list-style-type: none"> Circulation <ul style="list-style-type: none"> Evaluate the possibility to relocate parking spaces removed in the redesign of the museum lot (8-10 spaces to be removed in reconfiguration to accommodate bus turn-around) Include interpretation of the Ashby House as part of the parking lot redesign; potentially mark the Ashby House as part of the new layout and surfacing materials of the parking area (similar to the barracks interpretation at the museum parking area) Consider using permeable materials for paving (existing gravel is asphalt) Consider compacted and ADA access 	<ul style="list-style-type: none"> Monitor for pavement issues (potholes or loose pavers, depending on the material) 		<ul style="list-style-type: none"> PRIORITY: Low Members: <i>FWAG, Stanton, Magnuson</i> PRIORITY: Med City 		1-3 Years if done in conjunction with stormwater filter installation under parking lot	RPCA, OHA, T&ES
	Action: Continue to monitor and to limit noise from park activities	<ul style="list-style-type: none"> Large areas of the park are undeveloped and quiet given their location in an urban area Park visitors value their ability to hear birds and other wildlife within the park Some sanctioned activities programs at the park will be loud - noise levels at historic and combative (for example, fort reenactment exercises) sites Amplified noise is no longer allowed without a Special Permit issued by the City of Alexandria 	<ul style="list-style-type: none"> Identify areas where noise activities are inappropriate and where noise activities are likely to occur (for example, those connected with the fort programming) 	<ul style="list-style-type: none"> Artificial amplification of noise within the park is not allowed without a permit 	<ul style="list-style-type: none"> Separate active recreation areas from areas suited to quiet contemplation or wildlife observation Signal quiet areas in park with signs, interpretive materials, park orientation signs, use plant materials to reinforce Limit amplified noise to permit only use 	<ul style="list-style-type: none"> Protect Park's Soundscape: <ul style="list-style-type: none"> Continue to enforce noise restrictions such as the prohibition of amplified noise without a permit Identify areas where noisy activities associated with reenactments, gatherings, etc. are inappropriate and where noise-making activities are appropriate such as associated with fort programming Identify areas where noise should be kept to a minimum (e.g., areas for drumming or for wildlife) use signs, interpretive materials and plants to educate visitors Recognize that some sanctioned activities in the park will be loud 	<ul style="list-style-type: none"> Monitor noise limits in the park 	<ul style="list-style-type: none"> PRIORITY: Med Members: <i>Brune, Welpole - a, Ziegler</i> PRIORITY: Med City 		Ongoing	RPCA
Objective 5.2 Minimize conflicts between adjacent uses both within and around the park											
Strategy 5.2.1: Communicate park regulations											
Action: Better communicate park regulations	<ul style="list-style-type: none"> Regulatory signs are not integrated with interpretation or resource protection goals Message not reaching audiences due to negative tone 	<ul style="list-style-type: none"> Identify locations and messages of all existing regulatory signs Inventory existing signs - their content and location 	<ul style="list-style-type: none"> Park signs are clean with a positive and clear message, conveyed creatively and accessibly 	<ul style="list-style-type: none"> Display positive messaging and park rules Phrase regulations in positive manner, explain why regulation in place 	<ul style="list-style-type: none"> Communicate Park's Regulations <ul style="list-style-type: none"> Inventory existing regulatory signs - their content and location—in park Coordinate visitor information, orientation and interpretive messages to minimize visual clutter and confusion Reinforce resource protection importance through interpretive programming and exhibits Use web-and mobile-based communication technologies to communicate information regarding resource sensitivity, significance and location Enhance sign visibility 	<ul style="list-style-type: none"> Monitor number and size of signs in the park every three years 	<ul style="list-style-type: none"> PRIORITY: Low Members: <i>FWAG</i> PRIORITY: Med City 		5-7 Years	RPCA, OHA	
	<ul style="list-style-type: none"> Recent enforcement of regulations has improved park operations 	<ul style="list-style-type: none"> Identify and educate park personnel and park users on regulations 	<ul style="list-style-type: none"> Maintain safe and secure environment 	<ul style="list-style-type: none"> Enforce existing regulations 	<ul style="list-style-type: none"> Enforcement of Park Regulations: <ul style="list-style-type: none"> Consistent and proactive enforcement of regulations Consider reinstating ranger staffing on high-use days or time periods 	<ul style="list-style-type: none"> Monitor the effectiveness of regulation enforcement 	<ul style="list-style-type: none"> PRIORITY: Low Members: <i>Stanton, Magnuson</i> PRIORITY: High City 		Ongoing	Alexandria Police Department (APPD)	

FINAL DRAFT

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<p>Strategy 5.2.2: Remove the off-leash dog exercise area location and facility</p> <p>Action: Remove the off-leash dog exercise area from the park</p>	<ul style="list-style-type: none"> Off-leash dog exercise areas (unfenced) proximity to formal picnic area and rifle trench conflicts with adjacent park uses and its proximity to busy four-lane road (North Van Dorn Street) dampens use of facility by dog owners Off-leash dog use of park has extended across loop road to area adjacent to earthworks surrounding fort 	<ul style="list-style-type: none"> Identify current usage (number of uses/pattern of use) of and concerns with existing dog exercise area Inventory park to identify potential alternative location Evaluate local context - what is the distance to other dog exercise areas in the city Review and modify City of Alexandria Dog Park Master Plan to remove facility from Fort Ward Park 	<ul style="list-style-type: none"> Consistency with Citywide Plan for Dog Parks and Dog Exercise Areas 	<ul style="list-style-type: none"> Eliminate off-leash area Place signs welcoming dogs on-leash to park 	<ul style="list-style-type: none"> Hold Public Hearing and advertise intent to close dog exercise area at park Remove sign indicating off-leash dog exercise area in park Place signs welcoming leashed dogs to park 	<ul style="list-style-type: none"> Monitor off-leash dog use of the park 	<ul style="list-style-type: none"> PRIORITY: High Members: <i>Fobbes; Walpole; Moir; Annear; Ziegler</i> PRIORITY: High City 	<ul style="list-style-type: none"> \$3,125 - 6,325 	<ul style="list-style-type: none"> 1-3 Years 	<ul style="list-style-type: none"> RPCA 	
<p>Strategy 5.2.3: Relocate and enhance park facilities (long-term) to better serve the public and to protect the park's resources</p> <p>Action: Relocate group picnic area #3, avoiding any culturally sensitive sites or resources</p>	<ul style="list-style-type: none"> Identify alternative location for the picnic area currently located on outer battery and covered way 	<ul style="list-style-type: none"> Identify alternative location for the picnic area currently located on outer battery and covered way 	<ul style="list-style-type: none"> Protection and stabilization of cultural resources 	<ul style="list-style-type: none"> Relocated picnic area (temporarily or long-term) 	<ul style="list-style-type: none"> Identify an alternative location for the group picnic area where cultural resources will not be adversely affected Relocate the existing group picnic area (may be a need for temporary relocation) need for permanent relocation is dependent upon archaeological research results and if picnic area and interpretation of potential findings can be successfully combined If long-term, find an alternative site within park for permanent relocation that does not intrude on other culturally sensitive sites (for example the Shorts property) 	<ul style="list-style-type: none"> Monitor impact on cultural resources 	<ul style="list-style-type: none"> PRIORITY: Low Members: <i>FWAG</i> PRIORITY: Low City 	<ul style="list-style-type: none"> 10+ Years 	<ul style="list-style-type: none"> RPCA, OHA 		
<p>Action: Adopt design standards for all park furnishings and signs</p>	<ul style="list-style-type: none"> Variety of site furnishings and signs - in style and condition 	<ul style="list-style-type: none"> Inventory condition and style of existing site furnishings Inventory signs, messages and styles 	<ul style="list-style-type: none"> Accessible facility for park visitors Park identity enhanced through common vocabulary of site furnishings 	<ul style="list-style-type: none"> Adopt standard furnishing standards Adopt sign standards - message, style, type-style, etc. 	<ul style="list-style-type: none"> Develop strategy for site furnishings replacement, extend and complement current City replacement policy—grills, picnic tables, benches, signs, etc. Cycle furnishing upgrades Adopt standards for site furnishings and signs for future installation (quality, style, ADA compliant, etc.) 	<ul style="list-style-type: none"> Assess site furnishings every five years 	<ul style="list-style-type: none"> PRIORITY: Low Members: <i>FWAG</i> PRIORITY: Med City 	<ul style="list-style-type: none"> 5-7 Years 	<ul style="list-style-type: none"> RPCA 		
<p>Strategy 5.2.4: Evaluate the effort required to upgrade and improve the amphitheater for more active use</p> <p>Action: Evaluate upgrade or removal of the existing amphitheater</p>	<ul style="list-style-type: none"> Amphitheater is usable, but will need investment to address ADA issues (parking) and to remain viable and functional in years to come 	<ul style="list-style-type: none"> Inventory and evaluate physical condition and life-cycle operations cost of operating the facility; addressing electrical needs, access issues, condition of materials - seats, lighting, sound system, etc. 	<ul style="list-style-type: none"> Feasibility study to upgrade existing amphitheater; ensure renovated amphitheater is fully accessible 	<ul style="list-style-type: none"> Assess feasibility of improving and upgrading amphitheater and its supportive infrastructure; parking, restrooms, access, facilities, etc. Develop and execute a feasibility study Evaluate additional supporting infrastructure needs should the amphitheater be upgraded (parking, loading, restrooms, etc.) Estimate the impact on the site if the study concludes that the amphitheater should be removed Evaluate the impact on the performing arts spaces in city, etc. if amphitheater is changed or removed 	<ul style="list-style-type: none"> Monitor compliance with current ADA standards (current evaluation states all but parking is compliant) 	<ul style="list-style-type: none"> PRIORITY: Low Members: <i>FWAG</i> PRIORITY: Low City 	<ul style="list-style-type: none"> 10+ Years 	<ul style="list-style-type: none"> RPCA, OHA, T&ES, GS 			

FINAL DRAFT

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<p>Strategy 5.2.6: Replace, upgrade or remove failing facilities</p> <p>Action: Repair and evaluate the upgrading of the existing restroom located on the western side of the park</p>	<ul style="list-style-type: none"> Current restrooms in need of upgrade, roof is in need of repair Need to determine long-term needs for restroom facilities to serve activities on western side of park 	<ul style="list-style-type: none"> Assess what needed to upgrade restrooms to ensure ADA standards are met and restroom size matches needs in western area of the park Kimley-Horn 2012 report states that restroom meets ADA standards, the curb space removed and the parking space upgraded to meet ADA standards 	<ul style="list-style-type: none"> Functional and accessible restrooms on western side of park 	<ul style="list-style-type: none"> Feasibility study to upgrade restrooms 	<p>Long-term Facility Upgrades:</p> <ul style="list-style-type: none"> Repair roof regardless of future of restroom facility Develop and execute a feasibility study on restroom improvement Develop a cost-benefit analysis of improving or replacing restrooms to meet ADA standards, performance standards, electrical needs and furnishings upgrade Evaluate additional supporting infrastructure needs should restrooms be upgraded (water, sewer, electrical capacity, etc.) 	<p>Annually assess condition of facility</p>	<p>PRIORITY: Med</p> <ul style="list-style-type: none"> FWAG Members: Brune; Walpole - c; Annear - a <p>PRIORITY: High</p> <ul style="list-style-type: none"> City 	<p>1-3 Years for immediate roof repairs</p> <p>1-3 Years remove curb stop blocking access on path</p> <p>5+ Years for facility upgrade</p>	RPCA		

Notes on FWAG Priorities Submissions:

- Walpole - a: 'Have Police come down quickly and directly where there is excessive noise at events'
- Walpole b: 'Keep cars out of pedestrian walking-running areas.'
- Walpole c: 'Install a unisex - handicapped restroom near arena and promote more activities. If a Corporation or private organization wants to use this as a venue for company awards, speeches, classes etc., consider charging for its use.'
- Annear - a: 'Repair roof and other minor problems of current restrooms at west side of park.'

This table identifies the rationale, inventory needs, applicable standards, management options and applicable best practices for implementing each of the recommended actions in the management plan. Definitions apply to each of the columns (italicized text indicates how the model with its natural resource orientation was adapted for cultural and recreational resources). (Adapted from Limits of Acceptable Change (LAC) Model, U.S. Forest Service in 1985 (Starkley, Cole, Lucas, Petersen, Frisest: The Limits of Acceptable Change (LAC) System for Wilderness Planning, General Technical Report INT-176, January 1985. Adapted for use by Rasar State Park Management Plan, Washington State Parks - July 12, 1997)).

- (1) quantifiable, recorded event or physical property used to gauge a resources condition (or indicating the rationale for the proposed action)
- (2) description of how an indicator will be inventoried and how numeric measurements will be made (or how objective measurements of performance will be made)
- (3) numeric objective or objectives for each indicator (or measurable objective)
- (4) broad set of management approaches that may be applied to a resource in order to achieve or maintain standards
- (5) selected Management Options
- (6) schedule of when and how often indicators will be inventoried and measured
- (7) overall evaluation of the effectiveness of applied management actions in achieving standards and/or the appropriateness of chosen standards

**FORT WARD PARK AND MUSEUM AREA MANAGEMENT PLAN
ESTIMATE OF COSTING, prepared July 2014**

Final Draft 7/21/14	THIS IS A VERY CONCEPTUAL COST ESTIMATE AND SHOULD BE REVISED AS SOON AS PLANS BECOME AVAILABLE.				
Goal 1 Priorities					
Operation Costing		Staff Hours - Low	Staff Hours - High	Task/Notes	
Review and update MOU annually					
Review quarterly/Update annually					
RPCA				Time to coordinate data received from OHA; update mapping for operations in advance of annual renewal: aeration, leaf litter, mowing, MOU boundaries, tree planting	
Alexandria Archaeology				Annual hourly estimate for OHA map work; GIS updates; field compilation	
GS					
T&ES					
Link financial needs of park to other City initiatives - broaden ask					
Operational/Staff Hours		Hours - Low	Hours - High	Task/Notes	
RPCA - Identify potential funding pockets					
Construction Costing					
	TAKEOFF QUANTITY	TAKEOFF UNIT	UNIT PRICE*	LOW RANGE EXTENSION PRICE	HIGH RANGE EXTENSION PRICE
Make current playground facility accessible - Subtotal:				\$246,317.28	\$454,605.15
New accessible path between parking and equipment				\$ 160,710.59	\$ 319,109.59
<i>Clearing and Grubbing</i>					
Remove vegetation	0	AC	\$ 30,000.00	\$ -	\$ 30,000.00
<i>Earthwork and Grading/Shape grade to redirect drainage away from playground, similar to cemetery</i>					
Fill required	3,025	CY	\$ 20.00	\$ 60,500.00	\$ 35.00
Rough grading	1	LS	\$ 10,000.00	\$ 10,000.00	\$ 15,000.00
<i>Erosion Controls</i>					
Super silt fence	960	LF	\$ 7.88	\$ 7,564.80	\$ 8.00
Tree protection	781	LF	\$ 3.38	\$ 2,639.78	\$ 4.00
Temporary seed and mulch	4,678	SY	\$ 0.33	\$ 1,543.74	\$ 0.50
<i>Trail</i>					
8' Flexi-pave Trail	604	SY	\$ 108.00	\$ 65,232.00	\$ 225.00
8' Asphalt Trail (ALTERNATE TO FLEXI PAVE)	604	SY	\$ 34.05	\$ 20,566.20	\$ 42.56
Detectable warning strip at parking lot edge	16	SF	\$ 15.00	\$ 240.00	\$ 20.00
<i>Landscaping</i>					
Respread topsoil	519	CY	\$ 5.03	\$ 2,610.57	\$ 7.65
Fine grade/seed/mulch/fertilize	4,678	SY	\$ 1.15	\$ 5,379.70	\$ 2.50
<i>Drainage</i>					
Culvert under trail	1	LS	\$ 5,000.00	\$ 5,000.00	\$ 7,500.00
ACCESSIBLE PLAYGROUND PARKING: Provide accessible parking spaces adjacent to new playground access path to existing playground (work within existing paved area)				\$ 2,333.22	\$ 2,785.56
<i>Clearing and Demolition</i>					
Demo Ex Asphalt	28	SY	\$ 7.24	\$ 202.72	\$ 9.00
Saw cut existing asphalt	33	LF	\$ 5.99	\$ 197.67	\$ 7.48
<i>Earthwork and Clearing</i>					
Rough grade repavement area	28	SY	\$ 0.70	\$ 19.60	\$ 0.70
Cut to fill	3	CY	\$ 3.00	\$ 9.00	\$ 5.00
Import to fill	3	CY	\$ 20.00	\$ 60.00	\$ 35.00
<i>Erosion Controls</i>					
Super silt fence	33	LF	\$ 7.88	\$ 260.04	\$ 8.00
Temp. seed and mulch	55	SY	\$ 0.33	\$ 18.15	\$ 0.50
<i>Pavement</i>					
Fine grade	28	SY	\$ 0.75	\$ 21.00	\$ 1.00
8" 21-A base	28	SY	\$ 13.34	\$ 373.52	\$ 16.10
3" asphalt base (115#)	28	SY	\$ 14.66	\$ 410.48	\$ 18.39
1.5" final asphalt paving	28	SY	\$ 8.19	\$ 229.32	\$ 9.49
<i>Striping, Signage and Lighting</i>					
Parking stall paint	1	EA	\$ 30.00	\$ 30.00	\$ 40.00
Handicap space paint	1	EA	\$ 226.60	\$ 226.60	\$ 271.93
Handicap sign	1	EA	\$ 275.12	\$ 275.12	\$ 340.25
ACCESSIBLE PLAYGROUND SURFACING: Upgrade playground surfacing for accessibility				\$ 22,313.97	\$ 33,881.30
<i>Earthwork and Grading</i>					
Strip mulch to haul off-site	42	CY	\$ 20.00	\$ 840.00	\$ 35.00
Rough grade playground	504	SY	\$ 0.70	\$ 352.80	\$ 0.70
<i>Erosion Controls</i>					
Super silt fence	166	LF	\$ 7.88	\$ 1,308.08	\$ 8.00
Tree protection	164	LF	\$ 3.38	\$ 554.32	\$ 4.00
Structure protection	1	LS	\$ 1,500.00	\$ 1,500.00	\$ 5,000.00
Temp. Seed & Mulch	253	SY	\$ 0.33	\$ 83.49	\$ 0.50
<i>Replace playground surface</i>					
Fine grade	504	SY	\$ 0.75	\$ 378.00	\$ 1.00
10" 21-A Base	504	SY	\$ 16.68	\$ 8,406.72	\$ 20.13
2" Asphalt paving	504	SY	\$ 10.93	\$ 5,508.72	\$ 18.98
Rubberized surface	504	SY	\$ 6.71	\$ 3,381.84	\$ 9.39
accessibility				\$ 60,959.50	\$ 98,828.70
<i>Demolition existing equipment</i>					
Remove existing playground equipment	1	LS	\$ 4,500.00	\$ 4,500.00	\$ 6,500.00
<i>Replacement playground equipment and fencing</i>					
4" Chainlink fence	280	LF	\$ 15.43	\$ 4,320.40	\$ 19.28
4" Chainlink gate	1	EA	\$ 350.00	\$ 350.00	\$ 750.00
Bench	2	EA	\$ 1,000.00	\$ 2,000.00	\$ 1,500.00
Trash can	1	EA	\$ 500.00	\$ 500.00	\$ 750.00
Playground equipment allowance - ages 3-6	1	LS	\$ 15,000.00	\$ 15,000.00	\$ 25,000.00
Playground equipment allowance - ages 6-9	1	LS	\$ 15,000.00	\$ 15,000.00	\$ 25,000.00
Playground equipment allowance - ages 9-12	1	LS	\$ 15,000.00	\$ 15,000.00	\$ 25,000.00
<i>Landscaping</i>					
Fine grade/seed/mulch/fertilize	253	SY	\$ 1.15	\$ 290.95	\$ 2.50
Deciduous trees	5	EA	\$ 299.63	\$ 1,498.15	\$ 359.56
<i>Miscellaneous</i>					
Pedestrian traffic control	1	LS	\$ 2,500.00	\$ 2,500.00	\$ 5,000.00

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Relocate Playground to western side of park					\$ 115,918.28		\$189,587.56
ACCESSIBLE PATH: Develop accessible paved path between parking lot (accessible parking space) and western playground site					\$ 34,732.28		\$ 62,760.80
<i>Clearing and Grubbing</i>							
Remove vegetation	0	AC	\$	30,000.00	\$	-	\$ 30,000.00
<i>Earthwork and Grading</i>							
Rough grade	1,554	SY	\$	0.70	\$	1,087.80	\$ 0.70
Cut and fill	1	LS	\$	5,000.00	\$	5,000.00	\$ 7,500.00
<i>Erosion Controls</i>							
Super silt fence	200	LF	\$	7.88	\$	1,576.00	\$ 8.00
Tree protection	200	LF	\$	3.38	\$	676.00	\$ 4.00
Temporary seed and mulch	1,376	SY	\$	0.33	\$	454.08	\$ 0.50
<i>Trail</i>							
8' Flexi-pave Trail	177	SY	\$	108.00	\$	19,116.00	\$ 225.00
8' Asphalt Trail (ALTERNATE TO FLEXI PAVE)	177	SY	\$	34.05	\$	6,026.85	\$ 42.56
Detectable warning strip at parking lot edge	16	SF	\$	15.00	\$	240.00	\$ 20.00
<i>Landscaping</i>							
Fine grade/seed/mulch/fertilize	1,376	SY	\$	1.15	\$	1,582.40	\$ 2.50
<i>Drainage</i>							
Culvert under trail	1		\$	5,000.00	\$	5,000.00	\$ 7,500.00
NEW ACCESSIBLE PLAYGROUND: Construct new playground on western side of park					\$ 78,852.78		\$ 124,041.20
<i>Clearing and Grubbing</i>							
Remove vegetation	0	AC	\$	30,000.00	\$	-	\$ 30,000.00
<i>Earthwork and Grading</i>							
Cut to export	127	CY	\$	20.00	\$	2,540.00	\$ 35.00
Rough grade playground	500	SY	\$	0.70	\$	350.00	\$ 0.70
<i>Erosion Controls</i>							
Super silt fence	150	LF	\$	7.88	\$	1,182.00	\$ 8.00
Tree protection	150	LF	\$	3.38	\$	507.00	\$ 4.00
Structure protection	1	EA	\$	200.23	\$	200.23	\$ 250.00
Temp. Seed & Mulch	250	SY	\$	0.33	\$	82.50	\$ 0.50
<i>Playground surface</i>							
Fine grade	500	SY	\$	0.75	\$	375.00	\$ 1.00
10" 21-A Base	500	SY	\$	16.68	\$	8,340.00	\$ 20.13
2" Asphalt paving	500	SY	\$	10.93	\$	5,465.00	\$ 18.98
Rubberized surface	500	SY	\$	6.71	\$	3,355.00	\$ 9.39
<i>Playground equipment and fencing</i>							
4" Chainlink fence	280	LF	\$	15.43	\$	4,320.40	\$ 19.28
4" Chainlink gate	1	EA	\$	350.00	\$	350.00	\$ 750.00
Bench	2	EA	\$	1,000.00	\$	2,000.00	\$ 1,500.00
Trash can	1	EA	\$	500.00	\$	500.00	\$ 750.00
Playground equipment allowance - ages 3-6	1	LS	\$	15,000.00	\$	15,000.00	\$ 25,000.00
Playground equipment allowance - ages 6-9	1	LS	\$	15,000.00	\$	15,000.00	\$ 25,000.00
Playground equipment allowance - ages 9-12	1	LS	\$	15,000.00	\$	15,000.00	\$ 25,000.00
<i>Landscaping</i>							
Fine grade/seed/mulch/fertilize	250	SY	\$	1.15	\$	287.50	\$ 2.50
Deciduous trees	5	EA	\$	299.63	\$	1,498.15	\$ 359.56
<i>Miscellaneous</i>							
Pedestrian traffic control	1	LS	\$	2,500.00	\$	2,500.00	\$ 5,000.00
ACCESSIBLE PARKING: Provide accessible parking spaces adjacent to western playground site					\$ 2,333.22		\$ 2,785.56
<i>Clearing and Demolition</i>							
Demo Ex Asphalt	28	SY	\$	7.24	\$	202.72	\$ 9.00
Saw cut existing asphalt	33	LF	\$	5.99	\$	197.67	\$ 7.48
<i>Earthwork and Clearing</i>							
Rough grade repavement area	28	SY	\$	0.70	\$	19.60	\$ 0.70
Cut to fill	3	CY	\$	3.00	\$	9.00	\$ 5.00
Import to fill	3	CY	\$	20.00	\$	60.00	\$ 35.00
<i>Erosion Controls</i>							
Super silt fence	33	LF	\$	7.88	\$	260.04	\$ 8.00
Temp. seed and mulch	55	SY	\$	0.33	\$	18.15	\$ 0.50
<i>Pavement</i>							
Fine grade	28	SY	\$	0.75	\$	21.00	\$ 1.00
8" 21-A base	28	SY	\$	13.34	\$	373.52	\$ 16.10
3" asphalt base (115#)	28	SY	\$	14.66	\$	410.48	\$ 16.39
1.5" final asphalt paving	28	SY	\$	8.19	\$	229.32	\$ 9.49
<i>Striping, Signage and Lighting</i>							
Parking stall paint	1	EA	\$	30.00	\$	30.00	\$ 40.00
Handicap space paint	1	EA	\$	226.60	\$	226.60	\$ 271.93
Handicap sign	1	EA	\$	275.12	\$	275.12	\$ 340.25
Make existing paved loop pedestrian path system accessible where possible and sign areas where not possible, repave, reinforce shoulders and provide accessible parking					\$ 71,501.19		\$ 262,394.61
Replacement of 'speed bumps'					\$ 7,172.21		\$ 8,605.27
<i>Clearing and Demolition</i>							
Demo Ex Asphalt	54	SY	\$	7.24	\$	390.96	\$ 9.00
Saw Cut Ex Asphalt	266	LF	\$	5.99	\$	1,593.34	\$ 7.48
Demo Ex Speed Bumps	490	SF	\$	0.80	\$	392.00	\$ 1.00
<i>Earthwork and Grading</i>							
Rough grade pavement	54	SY	\$	0.70	\$	37.80	\$ 0.70
<i>Erosion Controls</i>							
Super silt fence	100	LF	\$	7.88	\$	788.00	\$ 8.00
Temp. seed and mulch	31	SY	\$	0.33	\$	10.23	\$ 0.50
<i>Pavement</i>							
Fine grade	54	SY	\$	0.75	\$	40.50	\$ 1.00
8" 21-A base	54	SY	\$	13.34	\$	720.36	\$ 16.10
3" asphalt base (115#)	54	SY	\$	14.66	\$	791.64	\$ 16.39
1.5" asphalt paving - speed table	42	SY	\$	8.19	\$	343.98	\$ 9.49
<i>Signage</i>							
Steep slope notification - large sign	3	EA	\$	412.68	\$	1,238.04	\$ 515.85
Steep slope notification - small sign	3	EA	\$	275.12	\$	825.36	\$ 343.90
Resurface pedestrian path					\$ 50,350.50		\$ 228,205.50
<i>Demolition</i>							
Mill existing pavement	5010	SY	\$	0.55	\$	2,755.50	\$ 0.55
<i>Pavement</i>							

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Resurface with 1.5" asphalt lift	5010	SY	\$ 8.19	\$ 41,031.90	\$ 9.49	\$ 47,544.90
Resurface with 1.5" integral color or alt paving lift						
Alternative pedestrian attractive pavement treatment (paint/color) resin pave	5010	SY	\$ 9.50	\$ 47,595.00	\$ 45.00	\$ 225,450.00
Provide accessible parking spaces along pedestrian loop path				\$ 13,978.48		\$ 25,583.84
Clearing and Demolition						
Demo Ex Asphalt	112	SY	\$ 7.24	\$ 810.88	\$ 9.00	\$ 1,008.00
Saw cut existing asphalt	132	LF	\$ 5.99	\$ 790.68	\$ 7.48	\$ 987.36
Earthwork and Clearing						
Rough grading estimate (no data available to estimate)	1	LS	\$ 5,000.00	\$ 5,000.00	\$ 15,000.00	\$ 15,000.00
Erosion Controls						
Super silt fence	132	LF	\$ 7.88	\$ 1,040.16	\$ 8.00	\$ 1,056.00
Temp. seed and mulch	220	SY	\$ 0.33	\$ 72.60	\$ 0.50	\$ 110.00
Pavement						
Fine grade	112	SY	\$ 0.75	\$ 84.00	\$ 1.00	\$ 112.00
8" 21-A base	112	SY	\$ 13.34	\$ 1,494.08	\$ 16.10	\$ 1,803.20
3" asphalt base (115#)	112	SY	\$ 14.66	\$ 1,641.92	\$ 16.39	\$ 1,835.68
1.5" final asphalt paving	112	SY	\$ 8.19	\$ 917.28	\$ 9.49	\$ 1,062.88
Striping, Signage and Lighting						
Parking stall paint	4	EA	\$ 30.00	\$ 120.00	\$ 40.00	\$ 160.00
Handicap space paint	4	EA	\$ 226.60	\$ 906.40	\$ 271.93	\$ 1,087.72
Handicap sign	4	EA	\$ 275.12	\$ 1,100.48	\$ 340.25	\$ 1,361.00
END OF ESTIMATE						
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Priority Identification:						
• See Table: five+ stating action as priority						

**FORT WARD PARK AND MUSEUM AREA MANAGEMENT PLAN
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Goal 2 Priorities							
		LOW RANGE				HIGH RANGE	
Operation Costing	TAKEOFF QUANTITY	TAKEOFF UNIT	UNIT PRICE	EXTENSION PRICE	UNIT PRICE	EXTENSION PRICE	
Mark and protect unrecognized Civil War archaeology				\$ 68,500.00		\$ 98,000.00	
Survey earthworks and tie data into GIS database	1	LS	\$ 3,500.00	\$ 3,500.00	\$ 8,000.00	\$ 8,000.00	
Perform metal detector survey	1	LS	\$ 10,000.00	\$ 10,000.00	\$ 15,000.00	\$ 15,000.00	
Archaeological investigation of barracks area behind Museum	1	LS	\$ 55,000.00	\$ 55,000.00	\$ 75,000.00	\$ 75,000.00	
Mark and protect "The Fort" community and burial sites				\$ 25,000.00		\$ 40,000.00	
Archaeological investigation of 'School house' site (schoolhouse/church/residence)	1	LS	\$ 25,000.00	\$ 25,000.00	\$ 40,000.00	\$ 40,000.00	
Map areas in conjunction with OHA where ground disturbance may occur unsupervised; where ground disturbance may occur with supervision; and where no ground disturbance is allowed							
Initial mapping complete in draft 01.13.14; Review and Update annually if not more frequently when new data is available	See GOAL 1: Review and update MOU annually for costs						
Archaeological Investigation of maintenance yard				\$ 60,000.00		\$120,000.00	
Maintenance Yard Archaeological Investigation	1	LS	\$ 60,000.00	\$ 60,000.00	\$ 120,000.00	\$ 120,000.00	
Commemorative/Contemplative Monument				funding by others		funding by others	
Commemorative Marker							
Construction Costing	TAKEOFF QUANTITY	TAKEOFF UNIT	UNIT PRICE	EXTENSION PRICE	UNIT PRICE	EXTENSION PRICE	
Redirect stormwater and sheet flow away from sensitive cultural and recreation resources through small berms, spreaders and other techniques							
See T&ES estimates in URS 2014 Drainage Master Plan							
Trail Edge Reinforcement				\$ 38,523.16		\$ 40,423.55	
<i>Shoulder Treatment</i>							
River rock - 18" wide (assume needed on half length)	3221	LF	\$ 2.96	\$ 9,534.16	\$ 3.55	\$ 11,434.55	
Gravel reinforced shoulder (use on half of length, where no river rock used)	3221	LF	\$ 9.00	\$ 28,989.00	\$ 9.00	\$ 28,989.00	
Remove former maintenance yard access drive, fencing and gate				\$ 38,552.98		\$ 60,384.90	
Clean up of maintenance yard access							
<i>Clearing and Demolition</i>							
Demo fence and gates	1084	LF	\$ 2.50	\$ 2,710.00	\$ 3.75	\$ 4,065.00	
Demo surface of driveway within fence	1118	SY	\$ 7.24	\$ 8,094.32	\$ 9.00	\$ 10,062.00	
Demo surface of driveway outside of fence	474	SY	\$ 7.24	\$ 3,431.76	\$ 9.00	\$ 4,266.00	
<i>Earthwork and Grading</i>							
Rough grade former driveway surface	1667	SY	\$ 0.70	\$ 1,166.90	\$ 0.70	\$ 1,166.90	
Add topsoil in former driveway area	845	CY	\$ 20.00	\$ 16,900.00	\$ 35.00	\$ 29,575.00	
Fine grade	2500	SY	\$ 0.75	\$ 1,875.00	\$ 1.00	\$ 2,500.00	
Fill holes from fence and gate removal	1	LS	\$ 1,500.00	\$ 1,500.00	\$ 2,500.00	\$ 2,500.00	
<i>Landscaping</i>							
Fine grade/seed/mulch/fertilize	2500	SY	\$ 1.15	\$ 2,875.00	\$ 2.50	\$ 6,250.00	
END OF ESTIMATE							

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Goal 3 Priorities						
Operation Costing		Staff Hours - Low	Staff Hours - High	Task/Notes		
Prune diseased and dead tree limbs						
RPCA						
Train all personnel on use of equipment to minimize damage to resources						
RPCA						
Provide training and certification for maintenance personnel at park						
RPCA						
Construction Costing	TAKEOFF QUANTITY	TAKEOFF UNIT	UNIT PRICE	LOW RANGE EXTENSION PRICE	UNIT PRICE	HIGH RANGE EXTENSION PRICE
Plant new trees annually				\$ 10,365.32		\$ 13,188.46
<i>Woodland Plantings</i>						
Seedlings/Reforestation	0.25	AC	\$ 10,000.00	\$ 2,500.00	\$ 15,000.00	\$ 3,750.00
<i>Lawn Plantings</i>						
Deciduous trees - nursery scaled	12	EA	\$ 299.63	\$ 3,595.56	\$ 359.56	\$ 4,314.72
Flowering trees - nursery scaled	10	EA	\$ 374.54	\$ 3,745.40	\$ 449.45	\$ 4,494.50
Evergreen trees - nursery scaled	2	EA	\$ 262.18	\$ 524.36	\$ 314.62	\$ 629.24
Remove fallen and hazard trees				\$ 3,000.00		\$ 7,750.00
<i>Remove Trees</i>						
Standing tree	Assumptions/year 2	EA	\$ 350.00	\$ 700.00	\$ 1,500.00	\$ 3,000.00
Fallen tree (where leaving tree debris is not viable)	5	EA	\$ 250.00	\$ 1,250.00	\$ 500.00	\$ 2,500.00
Saw into 8' lengths and leave on ground in place; remove brush debris	3	EA	\$ 350.00	\$ 1,050.00	\$ 750.00	\$ 2,250.00
Remove inappropriate vegetation from earthworks - prorated rate for annual dollar amount				\$ 2,500.00		\$ 7,500.00
<i>Clearing and Demolition</i>						
Clearing	1.84	AC	\$ 30,000.00	\$ 55,200.00	\$ 30,000.00	\$ 55,200.00
Phase per year allocation	1	LS	\$ 2,500.00	\$ 2,500.00	\$ 7,500.00	\$ 7,500.00
Remove inappropriate vegetation from burial grounds and cemeteries - annual expenditure prorated				\$ 2,500.00		\$ 7,500.00
<i>Clearing and Demolition</i>						
Clearing	0.37	AC	\$ 30,000.00	\$ 11,100.00	\$ 30,000.00	\$ 11,100.00
Phase per year allocation	1	LS	\$ 2,500.00	\$ 2,500.00	\$ 7,500.00	\$ 7,500.00
END OF ESTIMATE						

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Goal 4 Priorities

Operation Costing	TAKEOFF QUANTITY	TAKEOFF UNIT	UNIT PRICE	LOW RANGE		HIGH RANGE	
				EXTENSION PRICE	UNIT PRICE	EXTENSION PRICE	UNIT PRICE
Identify Fort Ward on region-wide maps, brochures, web-sites, and other city publications as a place to experience Alexandria's history from the Civil War to the Civil Rights eras				\$ 5,000.00		\$ 50,000.00	
	1	LS	\$ 5,000.00	\$ 5,000.00	\$ 50,000.00	\$ 5,000.00	\$ 50,000.00
Work with partners to encourage the National Park Service to interpret and promote the Circle Forts to promote regional interpretation of the Defenses of Washington							
	1	LS					
Update the historic information on the picnic area map to include areas associated with burial sites				\$ 1,000.00		\$ 5,000.00	
	1	LS	\$ 1,000.00	\$ 1,000.00	\$ 5,000.00	\$ 1,000.00	\$ 5,000.00
Develop Interpretive Plan/Identify and invite key stakeholders from the Descendants Group, Civil War historians, naturalists, educators and community representatives to participate in a new advisory committee on interpretation				\$ 35,000.00		\$150,000.00	
	1	LS	\$ 35,000.00	\$ 35,000.00	\$ 150,000.00	\$ 35,000.00	\$ 150,000.00
Construction Costing	TAKEOFF QUANTITY	TAKEOFF UNIT	UNIT PRICE	LOW RANGE		HIGH RANGE	
				EXTENSION PRICE	UNIT PRICE	EXTENSION PRICE	UNIT PRICE
Design and install an interpretive trail as a part of the overall trail network as a means of organizing the outdoor interpretive experience				\$ 3,750.00		\$ 5,000.00	
Interpretive Signs for interpretive trail	5	EA	\$ 750.00	\$ 3,750.00	\$ 1,000.00	\$ 5,000.00	\$ 5,000.00
Install a small, 1 panel orientation kiosk at each minor entrance to the park				\$ 3,838.52		\$ 4,923.15	
<i>Signage</i>							
Destination Identification - entry	1	EA	\$ 550.24	\$ 550.24	\$ 687.80	\$ 687.80	\$ 687.80
Large sign (three primary entrances)	3	EA	\$ 412.68	\$ 1,238.04	\$ 515.85	\$ 1,547.55	\$ 1,547.55
Small sign (St. Stephen's side)	2	EA	\$ 275.12	\$ 550.24	\$ 343.90	\$ 687.80	\$ 687.80
Information Kiosk	1	EA	\$ 1,500.00	\$ 1,500.00	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00

END OF ESTIMATE

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Goal 5 Priorities			
Operation Costing	Staff Hours - Low	Staff Hours - High	Task/Notes
Continue to monitor and to limit noise from park activities			
RPCA staff time/operations	104	208	Annually - 2 - 4 hrs/wk; likely not needed from Nov through March

Feasibility Study Costing	TAKEOFF QUANTITY	TAKEOFF UNIT	UNIT PRICE	EXTENSION PRICE	UNIT PRICE	EXTENSION PRICE
Evaluate upgrade of existing restrooms near amphitheater						
<i>Immediate stabilization</i>						
Reroof existing structure	1	LS		\$ -		\$ -
<i>Feasibility Study for replacement and/or ADA accessibility adaption</i>						
Engineering study	1	LS		\$ -		\$ -

Construction Costing	TAKEOFF QUANTITY	TAKEOFF UNIT	UNIT PRICE	LOW RANGE		HIGH RANGE	
				EXTENSION PRICE	UNIT PRICE	EXTENSION PRICE	UNIT PRICE
Make pedestrian use the priority use for paved loop road				\$ 6,687.80		\$ 6,859.75	
<i>Identify pedestrian as priority user with signs</i>				\$ 6,687.80		\$ 6,859.75	
<i>Signage for paved loop path</i>							
Large sign	1	EA	\$ 412.68	\$ 412.68	\$ 515.85	\$ 515.85	
Small sign	1	EA	\$ 275.12	\$ 275.12	\$ 343.90	\$ 343.90	
Mile Markers	1	LS	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	
Soft Path network; all widths 8': can be done in segments, figure is for total length				\$ 441,088.25		\$ 640,838.24	
Mulch Surface (based on unit compilation below)	2555	LF	\$ 82.28	\$ 210,228.98	\$ 100.07	\$ 255,676.93	
Asphalt Surface (based on unit compilation below)	1160	LF	\$ 132.15	\$ 153,288.90	\$ 174.45	\$ 202,362.29	
Turf/Mown Grass Surface	932	LF	\$ 8.07	\$ 7,521.24	\$ 21.20	\$ 19,758.40	
FlexiPave or Permeable Pavement (based on unit compilation below)	1160	LF	\$ 134.95	\$ 156,536.90	\$ 236.79	\$ 274,676.69	
Stonedust Surface (based on unit compilation below)	501	LF	\$ 133.34	\$ 66,801.14	\$ 181.09	\$ 90,726.22	
Discrete, High Priority Segments for Soft Trail connections				\$ 42,509.25		\$ 74,588.85	
<i>ADA access to playground - see Goal 1 for figures</i>							
ADA access to picnic shelter (flex pave 8 feet wide)	315	LF	\$ 134.95	\$ 42,509.25	\$ 236.79	\$ 74,588.85	
<i>Signage for soft path network</i>				\$ 6,687.80		\$ 6,859.75	
Large sign	1	EA	\$ 412.68	\$ 412.68	\$ 515.85	\$ 515.85	
Small sign	1	EA	\$ 275.12	\$ 275.12	\$ 343.90	\$ 343.90	
Trail markers (particularly necessary for grass and mulch segments)	1	LS	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00	
Path Connectors to North Van Dorn Street				\$ 31,705.97		\$ 55,640.92	
<i>Eastern Entry off N. Van Dorn</i>				\$ 19,700.23		\$ 34,672.61	
ADA access to park (flex pave 8 feet wide)	120	LF	\$ 134.95	\$ 16,194.00	\$ 236.79	\$ 28,414.80	
<i>Miscellaneous</i>							
Pedestrian traffic control	1	LS	\$ 2,500.00	\$ 2,500.00	\$ 5,000.00	\$ 5,000.00	
Standard bollards	3	EA	\$ 335.41	\$ 1,006.23	\$ 419.27	\$ 1,257.81	
<i>Western Entry off N. Van Dorn</i>				\$ 12,005.74		\$ 20,968.31	
ADA access to park (flex pave 8 feet wide)	60	LF	\$ 134.95	\$ 8,097.00	\$ 236.79	\$ 14,207.40	
<i>Miscellaneous</i>							
Pedestrian traffic control	1	LS	\$ 2,500.00	\$ 2,500.00	\$ 5,000.00	\$ 5,000.00	
Removable bollards	3	EA	\$ 469.58	\$ 1,408.74	\$ 586.97	\$ 1,760.91	
Remove off-leash dog exercise area from park				\$ 3,123.64		\$ 6,324.20	
<i>Signage</i>							
Remove signs at exercise area	1	LS	\$ 100.00	\$ 100.00	\$ 500.00	\$ 500.00	
<i>Landscaping</i>							
Spread topsoil and compost	228	CY	\$ 5.03	\$ 1,146.84	\$ 7.65	\$ 1,744.20	
Fine grade/seed/mulch/fertiliz	1632	SY	\$ 1.15	\$ 1,876.80	\$ 2.50	\$ 4,080.00	

CALCULATIONS to determine lf (at 8') cost for four trail surfaces							
Mulch Surface Unit Module - 1 LF at 8 feet wide = 8 SF				\$ 82.28		\$ 100.07	
<i>Clearing and Demolition</i>							
Clearing	0.005	AC	\$ 7,350.28	\$ 36.75	\$ 9,187.85	\$ 45.94	
<i>Earthwork and Grading</i>							
Cut to export	0.14	CY	\$ 20.00	\$ 2.80	\$ 35.00	\$ 4.90	
Rough grading soft trail surface	1	SY	\$ 0.50	\$ 0.50	\$ 0.50	\$ 0.50	

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<i>Erosion Controls</i>							
Super silt fence	2	LF	\$ 7.88	\$ 15.76	\$ 8.00	\$ 16.00	
Tree protection	2	LF	\$ 3.38	\$ 6.76	\$ 4.00	\$ 8.00	
Temp. seed and mulch	1	SY	\$ 0.33	\$ 0.33	\$ 0.50	\$ 0.50	
<i>Trails</i>							
8' mulch trail	1	SY	\$ 19.38	\$ 19.38	\$ 24.23	\$ 24.23	
Asphalt Surface Unit Module - 1 LF at 8 feet wide = 8 sf (use 1 sy as comp to 8 sf)				\$ 132.15		\$ 174.45	
<i>Clearing and Demolition</i>							
Clearing	0.005	AC	\$ 7,350.28	\$ 36.75	\$ 9,187.85	\$ 45.94	
<i>Earthwork and Grading</i>							
Strip topsoil to stock for resp	0.14	CY	\$ 3.00	\$ 0.42	\$ 5.00	\$ 0.70	
Cut to export	0.14	CY	\$ 20.00	\$ 2.80	\$ 35.00	\$ 4.90	
Remove individual trees	0.05	EA	\$ 350.00	\$ 17.50	\$ 650.00	\$ 32.50	
Rough grading soft trail surfa	1	SY	\$ 0.50	\$ 0.50	\$ 0.50	\$ 0.50	
<i>Erosion Controls</i>							
Super silt fence	2	LF	\$ 7.88	\$ 15.76	\$ 8.00	\$ 16.00	
Tree protection	2	LF	\$ 3.38	\$ 6.76	\$ 4.00	\$ 8.00	
Temp. seed and mulch	1	SY	\$ 0.33	\$ 0.33	\$ 0.50	\$ 0.50	
<i>Stormwater</i>							
Ditch - seeded	2	LF	\$ 7.71	\$ 15.42	\$ 9.64	\$ 19.28	
<i>Trails</i>							
8' asphalt trail	1	SY	\$ 34.05	\$ 34.05	\$ 42.56	\$ 42.56	
<i>Landscaping</i>							
Respread topsoil	0.14	CY	\$ 5.03	\$ 0.70	\$ 7.65	\$ 1.07	
Fine grade/seed/mulch/fertiliz	1	SY	\$ 1.15	\$ 1.15	\$ 2.50	\$ 2.50	
Turf Surface Unit Module - 1 LF at 8 feet wide = 8 sf (use 1 sy as comp to 8 sf)				\$ 8.07		\$ 21.20	
<i>Earthwork and Grading</i>							
Rough grading soft trail surfa	1	SY	\$ 1.50	\$ 1.50	\$ 3.00	\$ 3.00	
<i>Trails</i>							
8' turf/mown grass trail	1	SY	\$ 5.00	\$ 5.00	\$ 15.00	\$ 15.00	
<i>Landscaping</i>							
Respread topsoil	0.14	CY	\$ 3.00	\$ 0.42	\$ 5.00	\$ 0.70	
Fine grade/seed/mulch/fertiliz	1	SY	\$ 1.15	\$ 1.15	\$ 2.50	\$ 2.50	
FlexiPave/Permeable Surface Unit Module - 1 LF at 8 feet wide = 8sf (use 1 sy as comp to 8 sf)				\$ 134.95		\$ 236.79	
<i>Clearing and Demolition</i>							
Clearing	0.005	AC	\$ 7,350.28	\$ 36.75	\$ 9,187.85	\$ 45.94	
<i>Earthwork and Grading</i>							
Strip topsoil to stock for resp	0.14	CY	\$ 3.00	\$ 0.42	\$ 5.00	\$ 0.70	
Strip topsoil to haul off	0.14	CY	\$ 20.00	\$ 2.80	\$ 35.00	\$ 4.90	
Cut to export	0.14	CY	\$ 20.00	\$ 2.80	\$ 35.00	\$ 4.90	
Remove individual trees	0.05	EA	\$ 350.00	\$ 17.50	\$ 650.00	\$ 32.50	
Rough grading soft trail surfa	1	SY	\$ 0.50	\$ 0.50	\$ 0.50	\$ 0.50	
<i>Erosion Controls</i>							
Super silt fence	2	LF	\$ 7.88	\$ 15.76	\$ 8.00	\$ 16.00	
Tree protection	2	LF	\$ 3.38	\$ 6.76	\$ 4.00	\$ 8.00	
Temp. seed and mulch	1	SY	\$ 0.33	\$ 0.33	\$ 0.50	\$ 0.50	
<i>Stormwater</i>							
Ditch - seeded	2	LF	\$ 7.71	\$ 15.42	\$ 9.64	\$ 19.28	
<i>Trails</i>							
8' FlexiPave/Permeable surface trail	1	SY	\$ 34.05	\$ 34.05	\$ 100.00	\$ 100.00	
<i>Landscaping</i>							
Respread topsoil	0.14	CY	\$ 5.03	\$ 0.70	\$ 7.65	\$ 1.07	
Fine grade/seed/mulch/fertiliz	1	SY	\$ 1.15	\$ 1.15	\$ 2.50	\$ 2.50	
Stonedust Surface Unit Module - 1 LF at 8 feet wide = 8 sf (use 1 sy as comp to 8 sf)				\$ 133.34		\$ 181.09	
<i>Clearing and Demolition</i>							
Clearing	0.005	AC	\$ 7,350.28	\$ 36.75	\$ 9,187.85	\$ 45.94	
<i>Earthwork and Grading</i>							
Strip topsoil to stock for resp	0.14	CY	\$ 3.00	\$ 0.42	\$ 5.00	\$ 0.70	
Strip topsoil to haul off	0.14	CY	\$ 20.00	\$ 2.80	\$ 35.00	\$ 4.90	
Cut to export	0.14	CY	\$ 20.00	\$ 2.80	\$ 35.00	\$ 4.90	
Remove individual trees	0.05	EA	\$ 350.00	\$ 17.50	\$ 650.00	\$ 32.50	
Rough grading soft trail surfa	1	SY	\$ 0.50	\$ 0.50	\$ 0.50	\$ 0.50	
<i>Erosion Controls</i>							
Super silt fence	2	LF	\$ 7.88	\$ 15.76	\$ 8.00	\$ 16.00	
Tree protection	2	LF	\$ 3.38	\$ 6.76	\$ 4.00	\$ 8.00	
Temp. seed and mulch	1	SY	\$ 0.33	\$ 0.33	\$ 0.50	\$ 0.50	
<i>Stormwater</i>							
Ditch - seeded	2	LF	\$ 7.71	\$ 15.42	\$ 9.64	\$ 19.28	

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<i>Trails</i>							
8' Stonedust	1	SY	\$ 23.44	\$ 23.44	\$ 29.30	\$ 29.30	
Filter fabric	1	SY	\$ 3.00	\$ 3.00	\$ 5.00	\$ 5.00	
Steel Edging	2	LF	\$ 3.00	\$ 6.00	\$ 5.00	\$ 10.00	
<i>Landscaping</i>							
Respread topsoil	0.14	CY	\$ 5.03	\$ 0.70	\$ 7.65	\$ 1.07	
Fine grade/seed/mulch/fertiliz	1	SY	\$ 1.15	\$ 1.15	\$ 2.50	\$ 2.50	

END OF ESTIMATE

* Unit pricing for Construction Costing, unless noted, drawn from work prepared by PENNONI Associates, Inc. /SDS, INC for the City of Alexandria's Citywide Parks Improvement Plan 2014 DRAFT, Conceptual Cost Estimate December 26, 2013 to be consistent with unit costing between documents. Operation Costing derived from other sources.

Priority Identification:

- See Table: three + stating action as priority