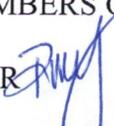


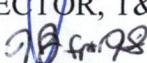
City of Alexandria, Virginia

MEMORANDUM

DATE: DECEMBER 6, 2012

TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL

THROUGH: RASHAD M. YOUNG, CITY MANAGER 

FROM: RICHARD J. BAIER, P.E., LEED AP, DIRECTOR, T&ES 
JAMES SPENGLER, DIRECTOR, RP&CA 

SUBJECT: WINDMILL HILL BULKHEAD REPLACEMENT EVALUATION

This memo is in follow up to Council's request at the November 17, 2012 Public Hearing to have staff provide schedule and budget information regarding the replacement of the bulkhead at Windmill Hill Park. As discussed at that time, the replacement of the bulkhead is currently included in the FY2013 CIP with \$300,000 in FY2016 and \$3.7 million in FY2017. In addition, the project has \$1.3 million in prior year CIP funds. Council asked staff to evaluate an implementation schedule and acceleration of funding to complete the project sooner.

As depicted in the 2003 Windmill Hill Park Concept Plan, the replacement of the bulkhead consists of a combination of structural bulkhead, riprap slope protection and natural shoreline. However, recent community discussions have indicated some preference for a more natural shoreline along the majority of the bank. In addition, recent discussions with the state and federal agencies responsible for permitting this type of project have shown a clear preference for natural shorelines from an environmental standpoint and indicated reluctance to permit structural bulkheads. For these reasons, staff recommends engaging in additional dialogue with the community on the most appropriate options for replacement of the bulkhead.

Implementation Timeline

Several elements contribute to the timeline for implementation of the replacement bulkhead. These include engaging a design professional to provide technical expertise on marine shoreline construction; consultation with permitting agencies regarding viable alternatives; conducting outreach to the community to determine a recommendation for replacement materials (natural, riprap, hard bulkhead, etc.); performing engineering design; obtaining necessary permits from multiple state, federal and District of Columbia agencies for construction along the Potomac River; and construction. If Council intends to accelerate funding of this project, staff can begin the process of selecting a design professional, consulting with permitting agencies and engaging the community and stakeholders regarding alternatives for shoreline design by the fall of 2013. Once a design team is on board, potential options for the bulkhead replacement will be discussed with the permitting agencies, before the end of 2013. Staff anticipates six months of community

outreach to discuss the options and feedback from the permitting agencies. A recommendation could be presented to City Council for approval in the fall of 2013. Following council approval, engineering design and permitting of the project are estimated to take eighteen months to complete for this complex project. Following this estimated schedule, the bulkhead could be advertised for construction in early to mid-2015.

Because this project is not currently included in the staff work plan for either T&ES or RP&CA, accelerating this project would require the addition of staff resources or the deferral of existing projects.

Implementation Costs

Because the type of bulkhead design has not been determined, staff has developed a range of concept level cost estimates. Construction of a structural, hard bulkhead will be more costly than a natural, vegetative shoreline, with variations possible in between. These are planning level estimates, as no design has been completed and neither comprehensive field survey nor geotechnical investigation has been performed.

Design services and permit fees are estimated to range in cost from \$400,000 to \$600,000. Prior year CIP funds are currently available to cover these design costs. Construction costs are estimated to range from \$3.75 million to \$6 million.

Recommendation

If Council desires to accelerate the replacement of the Windmill Hill Park bulkhead, the full capital funding of \$4 million could be moved up to FY2015. This would allow the project to be advertised in FY2016. If, through the community engagement process, a more expensive bulkhead option is selected, additional funding would be required to complete the construction and will be requested during future budget cycles.

Prior year CIP funds are currently available for the engineering and permitting process. Of the \$1.3 million available, staff has designated \$1 million to be held in reserve for the bulkhead project. The remaining \$300,000 is intended to be used for implementation of outstanding elements of the Windmill Hill Park Concept Plan that are not impacted by shoreline reconstruction.

If you have any questions, please contact Jack Browand at 703-746-5504 or Emily Baker at 703-746-4025.

cc: The Honorable Councilmembers-Elect
Mark Jinks, Deputy City Manager
Emily A. Baker, City Engineer, T&ES
Jack Browand, Division Chief, RP&CA
Christopher Bever, Budget/Management Analyst II, OMB