



FINDING OF NO SIGNIFICANT IMPACT

Roadway and Drainage Improvements

Greenbelt Park

Prince George's County, Maryland

The National Park Service (NPS), National Capital Parks East (NACE), an administrative unit of the NPS, in cooperation with the Federal Highway Administration (FHWA), is proposing improvements to the Greenbelt Park's roadways, parking areas, and drainage structures. Greenbelt Park is administered by NACE. The actions will rehabilitate the Main Entrance Road (Route 10), Park Central Road (Route 11), Sweetgum Picnic Loop (Route 200) Laurel Picnic Area (Route 201), Holly Picnic Parking (Route 0902) and Dogwood Nature Trail Parking (Route 0903).

The purpose of the proposed project is to improve the safety of motorists, cyclists and pedestrians using Park roads, and improve visitor experience while minimizing impacts to natural resources within the Park.

The existing roadways, parking lots and drainage structures have degraded and are approaching the end of their service lives. The existing pavement of the Park's roads and parking lots has degraded. This degradation is evident from the visible fatigue cracking, rutting, settling, and potholes. A large storm in June 2009 caused Still Creek to come within a foot of overtopping the road. This storm accelerated stream channel degradation, eroded the roadway embankment, and resulted in damage to the twin-culverts at Still Creek.

An environmental assessment (EA) was prepared that analyzed the environmental consequences of the alternatives considered for proposal. The EA was prepared in accordance with National Environmental Policy Act of 1969, as amended (NEPA), its implementing regulations by the Council on Environmental Quality (40 CFR 1500-1508), and Director's Order 12, Conservation Planning, Environmental Impact Analysis and Decision-Making, and accompanying Handbook. Compliance with Section 106 of the National Historic Preservation Act of 1966 and Section 7 of the Endangered Species Act of 1973 has occurred in conjunction with the NEPA process.

SELECTED ALTERNATIVE

Based on the analyses presented in the EA, the NPS has selected Alternative C- Replace Double Culverts at Still Creek with a Single Span Bridge for implementation. Based on the September 14, 2012 Mini Value Analysis Workshop, Alternative C was also identified as the NPS preferred Alternative in the EA. The selected alternative is described on pages 25-27 of the EA.

Under the selected alternative, the existing deteriorated roadways (Main Entrance Road and Park Central Road) and parking lots (Park Headquarters Parking, Sweetgum Picnic Parking, Laurel Picnic Parking, Holly Picnic Parking and Dogwood Nature Trail Parking) will be repaved. Full depth reclamation will be the primary resurfacing method. This process involves pulverizing the existing deteriorated asphalt pavement, and reusing it on-site. Full depth reconstruction of the pavement and underlying aggregate base will occur as defined on the project plans. In

places where the existing pavement is still in fair condition, chip sealing and microsurfacing will occur. This involves the application of a thin pavement layer on top of the existing asphalt. Safety enhancements including new guardrails, pavement striping, and road signs will be installed. Existing parking lots and pull-offs will be used for the staging of equipment and materials. Resurfacing of the parking lots will result in the temporary closure of picnic areas.

The selected alternative also includes the construction of a bridge over Still Creek to replace the existing damaged dual corrugated metal pipe culverts (see schematic drawings, Attachment 1). The bridge will be flanked by five relief culverts. This multiple opening stream crossing will provide a freeboard of 3.70 feet for the 50 year storm event for the bridge. Two additional culverts will be replaced in-kind, one at Station 3+11 on Park Central Road and the other a dual culvert on Park Entrance Road (Station 201+64). The replacement of these culverts will result in temporary road or lane closures and detours.

Ecosystem improvements aided by the design include: floodplain connectivity, flood attenuation, stream restoration, wetland hydrology function, surface water quality and improvements to wildlife habitat and aquatic organism passage. The proposed bridge will incorporate design features that will restore a more naturally functioning Still Creek watershed ecosystem. The five flanking relief culverts will aid in providing storage during a flood as well as conveyance. This will help reduce flow velocities during large storm events and minimize flooding. Floodplains also store water and transfer nutrients for use by riparian wetland vegetation and animals utilizing this aquatic terrestrial zone for feeding and breeding. The floodplain also aids in filtering impurities and contamination from storm water runoff and improving surface water quality. The reestablishment of a natural creek bed after removal of the existing dual metal pipe culverts will not only remove the constriction, but allow aquatic organism passage, restore natural aquatic organism habitat, and achieve a meandering self-sustaining hydrologic flow pattern. The existing scour hole downstream of the bridge crossing will be filled to eliminate the vertical drop in the stream. This will facilitate the passage of aquatic organisms and help to stabilize the creek from further degradation.

As described in the EA, the selected alternative was to include a detour and temporary access road from the south end of the Park. This access was to provide access to the campground during the 8 to 10 week construction period for the bridge. It was proposed that vehicles would be provided temporarily access from Good Luck Road utilizing an existing bike path, which was formerly a roadway used as a park entrance. The path would be required to be temporarily widened to accommodate vehicular traffic. After construction, the temporary road would be returned to a bike path and the temporary paved area would be re-vegetated. Due to the cost of creating this temporary access road and then rehabilitating the bike path and revegetating the surrounding areas after the bridge was complete, this proposal has been dismissed from the selected alternative. The omission of this component of the EA's preferred alternative does not greatly change the impact analysis that was presented in the EA. Overall, adverse impacts to natural and cultural resources will be reduced, while the short-term adverse impacts to visitor use and experience will only be slightly greater during the 8 to 10 week construction period than what was predicted in the EA. It has been determined that the slight change in the EA's preferred alternative will not result in substantive changes in impacts, either individually or cumulatively that would require the EA to be revised and released for a second public review. Any differences in impacts that will occur between those described in the EA and those that will occur as a result of the slightly modified selected alternative will be described within this FONSI.

There are currently no storm water management (SWM) control features in the roadway corridor. Storm water collects on the impervious roadway and travels as sheet flow across the pavement and vegetated shoulders or ditches into the adjacent woodlands and wetlands. Based on the Maryland Department of the Environment (MDE) *Storm Water Management Act of 2007*, storm water management will be required for new impervious surfaces and reconstructed portions of the roadway.

The Still Creek Bridge and its approaches will include wider shoulders and a wider overall roadway surface to meet modern safety standards. The additional impervious surfaces resulting from these improvements will be subject to MDE requirements for new development. This requires capturing and treating from 1 inch to 2.6 inches of rainfall, depending on the final design and site conditions, to improve water quality by removing pollutants. One inch of storm water runoff must also be treated to meet SWM quantity requirements. MDE has approved an FHWA proposal to provide treatment for the additional impervious surfaces at one or more of the parking lots within the same watershed as the bridge, rather than at the bridge construction site. MDE has suggested using a nonstructural practice, such as permeable pavement, to fulfill SWM requirements related to the bridge. FHWA will coordinate with MDE during the design to receive approval for the final SWM design related to new development, which may include permeable pavement. If soil or other site-specific conditions do not allow the use of permeable pavement, a suitable nonstructural or structural practice will be designed in consultation with NPS and MDE.

Portions of the roadway proposed for full depth reconstruction/reclamation will be subject to MDE requirements for redevelopment. To meet storm water management requirements, treatment must be provided for the runoff from 1 inch of rainfall for 50 percent of the redeveloped impervious area. Based on the most recent pavement analysis, approximately 4,000 linear feet of the roadway requires full depth treatment; however, the condition of the pavement continues to deteriorate and an updated assessment will be made prior to development of the final plans and SWM treatment proposal. Vegetated roadside swales will be designed to satisfy the requirements. The swales will range in size based on the slope and other site specific factors. Typical swales have a base width of 2' – 6' wide with 2:1 side slopes. The swales can be constructed adjacent to the reconstructed portions of the roadway, or elsewhere within the project area

OTHER ALTERNATIVES CONSIDERED

In addition to the NPS selected alternative described above, the EA analyzed a no action alternative and one other action alternative. Two additional action alternatives were considered but dismissed from further analysis because they were not considered to be reasonable.

Under Alternative A, the No Action Alternative, no substantial improvements would be performed other than in accordance with routine maintenance operations. Routine road maintenance operations include pavement repairs such as crack sealing and pothole patching. The culverts would be maintained, but not replaced. Emergency repairs and replacements may be necessary, particularly as the embankments and guardrails adjacent to the Still Creek culverts continue to deteriorate. Although regularly scheduled maintenance activities would continue, the deteriorated pavement, culverts and guardrails could become unsafe and unappealing to visitors. The No Action Alternative would not provide the ecological and hydrological improvements associated with the selected alternative.

Alternative B would involve in-kind repairs of existing Park facilities. The existing deteriorated roadways (Main Entrance Road and Park Central Road) and parking lots (Park Headquarters Parking, Sweetgum Picnic Parking, Laurel Picnic Parking, Holly Picnic Parking and Dogwood Nature Trail Parking) would be repaved. Full depth reclamation would be the primary resurfacing method. This process involves pulverizing the existing deteriorated asphalt pavement, and reusing it on-site. Full depth reconstruction of the pavement and underlying aggregate base would occur as defined on the project plans. In places where the existing pavement is still in fair condition, chip sealing and microsurfacing would occur. This involves the application of a thin pavement layer on top of the existing asphalt. Culverts would be replaced in-kind. Safety enhancements including new guardrails, pavement striping, and road signs would be installed. Storm water management would be required for all reconstructed

portions of the roadways or parking lots. Temporary road closures and detours would be required. Alternative B would improve roadway conditions, provide safer vehicular access, and would provide a smooth asphalt surface that would be pleasing to visitors; however, these in-kind repairs would not provide the ecological and hydrological improvements associated with the selected alternative.

An alternative to replace the double culverts at Still Creek with a single span bridge and no flanking relief culverts was considered but dismissed from further analysis. This alternative was originally looked at as an improvement to the repair in-kind alternative. During the hydraulics analysis for a single span bridge it was determined that while aquatic organism passage would improve and stream stabilization would occur, lateral floodplain connectivity would not be achieved. The roadway embankment adjacent to the bridge would still be an impediment to the flow of the creek reaching the floodplain during storm events. The freeboard needed for the 50 year storm event may also not allow for the passage of woody debris which is a concern at the Still Creek crossing. Additionally, there would be safety concerns when large storm events could have the potential to overtop the roadway. A single span bridge without relief culverts changes the cost nominally, but would continue to significantly reduce the functionality of the floodplain. Therefore, this alternative was dismissed from further consideration.

The construction of a multi-span bridge was considered but dismissed from further consideration. Under this alternative, several two and three span bridges were analyzed for the project. This alternative would achieve portions of the purpose and need for the project by improving safety and providing floodplain connectivity; however, it does not achieve minimization of impacts to natural resources such as wetlands, trees, vegetation and wildlife. It was determined that while there are benefits to a multi-span bridge alternative, it would cause an increased area of disturbance (190 linear feet of roadway/embankment removal and clearing) and fill to wetlands resulting in increased mitigation requirements compared to other build alternatives. It was ultimately determined by hydraulics engineers that a multi-span bridge was unnecessary to span the existing 30 foot defined stream channel and that floodplain connectivity could be achieved by other alternatives with fewer overall environmental impacts. These potentially severe environmental impacts, which do not demonstrate minimization efforts by the NPS, combined with the high cost of a multi-span bridge caused this alternative to be dismissed from further consideration in the EA.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The NPS is required to identify the environmentally preferred alternative in its NEPA document for public review and comment. The NPS, in accordance with the Department of the Interior policies contained in the Departmental Manual (516 DM4.10) and the Council on Environmental Quality's (CEQ) *NEPA's Forty Most Asked Questions*, defines the environmentally preferred alternative as the one that "causes the least damage to biological and physical environment". It is also the alternative which best protects, preserves, and enhances historic, cultural and natural resources.

After completing the environmental analysis, NPS and FHWA identified Alternative C, which was also the NPS preferred alternative, as the environmentally preferable alternative. Alternative C will provide the infrastructure improvements needed to satisfy NPS operational needs while promoting environmental preservation and enhancing visitor experience. The double culvert at Still Creek will eliminate the potentially hazardous roadway deterioration and provide improvements to the floodplain and ecological connectivity. Alternative C will improve the hydrologic conditions of the site and enhance the quality of renewable resources by improving the Still Creek watershed.

Alternative A would allow the continued deterioration of Park roads and parking areas. Although regularly scheduled maintenance activities would continue, the deteriorated pavement, culverts and guardrails could become unsafe and unappealing to visitors. Alternative B would improve

roadway conditions, provide safer vehicular access, and would provide a smooth asphalt surface that would be more appealing to visitors; however, neither Alternative A nor Alternative B would provide the ecological and hydrological improvements associated with Alternative C. None of the three Alternatives would adversely impact historical or cultural sites.

MITIGATION MEASURES

The NPS and FHWA place a strong emphasis on avoiding, minimizing, and mitigating potentially adverse environmental impacts. To help ensure the protection of natural and cultural resources and the quality of the visitor experience, the following protective measures will be implemented as part of the selected action alternative.

Mitigation Measures of the Selected Alternative	
Resource Area	Mitigation Measures
Soils	Project plans will comply with the Maryland <i>Storm Water Management Act of 2007</i> and the Maryland Department of the Environment <i>2011 Standards and Specifications for Soil Erosion and Sediment Control</i> .
	Existing paved areas will be used for staging.
	<p>Best Management Practices (BMPs) will be utilized to minimize erosion and sedimentation from ground disturbing activities that expose bare soil. These BMPs will be used only during construction and will be removed once the disturbed area has been permanently stabilized, if applicable. BMPs include instructing the construction contractor to:</p> <ul style="list-style-type: none"> - Install silt fence, sediment logs, and/or erosion matting as appropriate - Do not drive construction equipment across flowing waterways - Do not allow construction vehicles to track sediment outside the project limits - Do not allow any construction equipment to operate or access the down-slope side of the perimeter control measures - Regularly inspect all mechanized equipment - Provide watering for dust control within the construction limits, on active haul roads, and in pits and staging areas - Collect and store all solid waste - Develop a Spill Prevention Control and Countermeasures Plan - Heavy equipment used in wetlands will be placed on mats or other measures must be taken to minimize soil and plant root disturbance.
Visitor Use and Experience	NPS and FHWA will specify context-sensitive designs for the bridge abutments, minimize riprap placement, and implement context-sensitive solutions to improve the character of the Park's developed and natural areas.
Surface Water Quality	Many of the BMPs described in the soil mitigation measures section above will also mitigate potential water quality impacts during construction by controlling erosion/sedimentation and contamination resulting from fuel spills or other pollutants.

Mitigation Measures of the Selected Alternative	
Resource Area	Mitigation Measures
	Permanent storm water management will be required for all reconstructed portions of the roadways and parking lots; any new impervious surfaces or roadway reconstructions that are required for the bridge construction will also be subject to storm water management. Storm water management treatment will include vegetated roadside swales.
Cultural Resources	Should construction unearth previously undiscovered archeological resources, work will be stopped in the area of any discovery and NPS/FHWA will consult with the state historic preservation officer/tribal historic preservation officer and the Advisory Council on Historic Preservation (ACHP), as necessary, according to §36 CFR 800.13, Post Review Discoveries. In the unlikely event that human remains are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act (1990) will be followed as appropriate.
	The design selected for the new bridge over Still Creek will be consistent with the Park's road design character and aesthetics.
Vegetation	Tree cutting will be minimized to the extent possible. Where plantings or seedings are required, native plant material must be obtained, approved and used in accordance with NPS policies and guidance.
	Disturbed soil will be re-vegetated using specific seed mixes that do not include invasive or exotic species. Only NPS approved seed mixtures, trees and plants will be used.
	NPS will monitor the project area after construction to ensure the health of any newly planted trees and eradication of exotic/invasive species.
Floodplains and Hydrology	Heavy equipment used in wetlands will be placed on mats or other measures must be taken to minimize soil and plant root disturbance.

WHY THE SELECTED ALTERNATIVE WILL NOT HAVE A SIGNIFICANT EFFECT ON THE HUMAN ENVIRONMENT

As documented in the EA, the NPS and FHWA have determined that the selected alternative, Alternative C (NPS preferred alternative), can be implemented without significant adverse effects. As defined in 40 CFR §1508.27, significance is determined by examining the following criteria:

Impacts that may have both beneficial and adverse aspects and which on balance may be beneficial, but that may still have significant adverse impacts that require analysis in an Environmental Impact Statement (EIS): Floodplains/hydrology, wetlands, surface water quality, vegetation, wildlife/wildlife habitat, visual resources, visitor use/experience, park operations, and traffic operations will experience both beneficial and adverse impacts as a result of implementing the selected alternative, however, no significant impacts were identified that will require analysis in an EIS.

Floodplains and hydrology: Construction activities associated with the selected alternative will involve ground disturbances resulting in moderate, short-term, and adverse impacts to the floodplains and hydrology of Still Creek. Although the selected alternative will include the

clearing of floodplain areas and the removal of the existing dual culverts, the new bridge structure and the flanking relief culverts on each side will provide a long-term benefit by allowing for more natural hydrology and ecologic function within the floodplain.

Wetlands: The impacts associated with implementation of the selected alternative will result in short-term, negligible, and adverse impacts to wetlands due to construction disturbance and riprap placement. Over the long-term, the construction of the bridge and the flanking relief culverts will benefit the hydrology of the wetlands within and adjacent to Still Creek by providing greater connectivity of the stream and floodplain which will promote regrowth of fringe wetlands in this area.

Surface Water Quality: Construction activities will cause short-term, minor, and adverse impacts to surface water quality. Although there will be ground disturbance, BMPs will be implemented to reduce erosion of the exposed soil and sedimentation of adjacent waters. The selected alternative will cause long-term, beneficial impacts to surface water quality. Stream daylighting will result in a measureable long-term improvement to water quality. Additional improvements to surface quality will result from the design and construction of storm water management features to treat the runoff from new impervious surfaces and reconstructed portions of the roadway.

Vegetation: The selected alternative will result in short-term, minor, and adverse impacts due to temporary construction disturbance. Long-term beneficial impacts to vegetation will occur due to the more-natural restoration of Still Creek and the rehabilitation of disturbed areas using native vegetation and careful monitoring by NPS to ensure the eradication of exotic/invasive species.

Wildlife and Wildlife Habitat: Vegetation removal, ground disturbance, construction noise, stream dewatering, and construction vibration will cause minor, short-term, and adverse impacts to wildlife and wildlife habitat. Ultimately the bridge crossing will be beneficial to aquatic wildlife by allowing for fish and aquatic organism passage that does not currently exist. Stream daylighting and the addition of the flanking relief culverts adjacent to the bridge will also result in an improvement to wildlife habitat. Disturbed areas will be rehabilitated and re-vegetated using native species.

Visual Resources: Short-term impacts to visual resources will be minor and range from adverse (due to disturbance and vegetation clearing in the natural zone) to beneficial as the visual conditions of the developed zone will improve steadily throughout the duration of construction. Long term impacts will be beneficial after rehabilitation of the developed areas and the reestablishment of vegetation and other stream bank and stream bed improvements within the Park's natural zones. In addition, the design selected for the new bridge over Still Creek will be consistent with the Park's road design character and aesthetics.

Visitor Use and Experience: Overall, there will be short-term, minor adverse impacts to visitor use and experience as a result of overall construction and the 8 to 10 week closure of the Park's campground facilities during bridge construction. Construction of the bridge will be planned to take place after campground's period of peak visitor use to minimize impacts. NPS and FHWA will specify context-sensitive designs for the bridge abutments, minimize riprap placement, and implement context sensitive solutions to preserve the character of the Park's developed areas and provide long-term beneficial impacts to visitor use and experience.

Park Operations: Temporary disruptions to park operations will occur during construction. Additional demands will be placed on park staff related to contractor coordination, management of traffic disruptions, and temporary changes in facility usage. The removal of existing pavement and placement of new pavement, drainage structures, and signs will beneficially impact park operations, as roadway conditions will be improved and maintenance needs will decrease.

Traffic Operations: Short-term, moderate, and adverse impacts to traffic operations will occur during construction due to lane closures, detours, and traffic delays. Upon completion of the project, the rehabilitated roadway surface, new signs, and new striping will result in long-term, moderate, beneficial impacts to traffic operations.

Degree of effect on public health or safety: The selected alternative will enhance public health and safety by repairing deteriorating infrastructure. These repairs and improvements are needed to more safely accommodate Park visitors.

Construction activities will pose no threat to visitors, adjacent residents, or staff. During construction, clear road closure signs, barricades, and/or fencing, as appropriate, will be used in order to prevent visitors from inadvertently entering the construction site. The long-term effects will be beneficial by replacing damaged drainage structures and providing upgraded protection against future flood impacts. Additional safety improvements will include new guardrails, signs, and pavement striping.

Unique characteristics of the geographic area such as proximity to historic or cultural resources, wetlands, floodplains, prime farmlands, wild and scenic rivers, ecologically critical areas, or park lands: The project area does not contain any historic or cultural resources, prime farmlands, wild and scenic rivers, ecologically critical areas, or Park lands other than the NPS property that is the subject of the EA.

Impacts associated with the selected alternative will temporarily impact wetlands at the perennial Still Creek stream channel crossing under Park Central Road and at several other culvert replacement and riprap placement locations. Reconstruction of the road and the replacement of the existing dual culverts with a bridge and flanking relief culverts as well as stream channel rehabilitation and revetment will temporarily impact 0.089 acres of riverine wetlands in the Still Creek stream channel and adjacent palustrine wetlands deriving from impacts for construction equipment access. Additionally, 0.073 acres of riverine wetlands will be impacted at the two other culvert replacement locations in the Park and added rip rap at a third culvert location. The total acreage of wetland impacts (both riverine and palustrine) for the project is approximately 0.162 acres. Per the NPS Director's Order # 77-1 Procedure Manual (Section 4.2.1), actions may be "Excepted" from the requirements for a Wetlands Statement of Findings and compensation requirements if they do not exceed 0.25 acres of wetland impacts. According to the manual, the removal of the dual culverts and replacement with a bridge and flanking relief culverts falls under 4.2.1(h) titled "Actions designed to restore degraded (or completely lost) wetland, stream, riparian or other aquatic habitats or ecological processes." This will encompass the riverine wetlands impacted by the construction of a new bridge structure. Section 4.2.1(g) "maintenance, repair or renovation" will cover the minimal wetland impacts at the culvert replacement locations at other parts of the project. The NPS Water Resources Division determined that no Wetland Statement of Findings is required for the selected alternative.

Overall impacts to wetlands will be local, short-term, negligible and adverse from temporary disturbance of the channel and the construction of the bridge structure and flanking relief culverts. A non-structural temporary diversion channel will be utilized at Still Creek to divert the water from Still Creek to allow for the construction of the bridge. Over the long-term, the construction of the bridge and the flanking relief culverts will benefit the hydrology of the wetlands within and adjacent to Still Creek by providing greater connectivity of the stream with the floodplain and promote regrowth of fringe wetlands in this area. The value of stream daylighting should also be recognized as producing a measureable improvement to wetlands. The term daylighting describes projects that deliberately expose some or all of the flow of a previously covered river, creek or storm water drainage. In short, daylighting projects usually remove a stream from an underground pipe and restore the waterway to open air and light.

Stream daylighting can improve riparian buffer habitat and water quality along stream banks and reduce flood impacts by increasing storage capacity over that of a culvert.

Any disturbed wetland areas will be re-vegetated on site with similar native wetland plant species approved by the NPS. Restoration to the stream (riverine wetland) will also be conducted at Still Creek to improve the function of the stream channel that is currently highly eroded and scoured. Stream restoration may include grade control structures such as cut off walls, step pools or cross vanes to prevent erosion and maintain stream bed elevation.

Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps show that a portion of the study area is within the 100-year floodplain, specifically Zone A. Zone A is defined as an area with a one percent chance of annual flooding. The floodway is the channel of the stream (Still Creek) plus any adjacent floodplain area that must be kept free of encroachment so that the one percent annual chance flood can be carried without substantial increases in flood heights. The remainder of the project area is located in FEMA Zone C, which is an area of minimal flood hazard, usually depicted on Flood Insurance Rate Maps as above the 500-year flood level. The floodplain has been constricted from approximately 250 feet upstream and downstream of the structure to approximately 50 feet at the crossing. This hydrologic constriction of the Still Creek stream diminishes the value of the floodplain due to the roadway embankment fill and culvert crossing inhibiting the floodplain from conveying and storing water as it should. The culverts create a restriction on the creek's hydrologic lateral exchange of energy, material and aquatic organism passage onto the floodplain for feeding and reproduction.

The new bridge structure and the flanking relief culverts on each side will provide a benefit by allowing for more natural hydrology and ecologic function within the floodplain. Approximately 850 cubic yards of earth/fill will be removed as the existing dual culverts are replaced with a bridge structure. The bridge structure will allow more unrestricted movement of the stream and dissipate the energy in the channel, thereby minimizing velocity, sediment transport and erosion.

Additionally, fill material will be added to construct shoulders at the bridge approaches. This fill material will consist of aggregate base, asphalt and aggregate topsoil. Approximately 3,500 cubic yards of fill will be added to the study area, in addition to the 60 cubic yards of riprap added at the culverts to reduce scour and erosion. The additional fill material will be noticeable but the fill surrounding the former dual culverts (850 cubic yards) will be removed when replaced with the bridge. The placement of riprap will introduce rock materials into the study area; however the displacement of floodwaters as a result will not be noticeable. A change in the function of the floodplain including the frequency, duration, and extent of flooding, will be noticeably improved. The function of the Still Creek hydrology will be noticeably improved by repairing the stream channel and allowing for more natural stream flow to be conveyed through the bridge opening as well as the relief culverts that will handle excess flow during larger storm events.

Executive Order 11988 (Floodplain Management) requires the NPS, FHWA, and other federal agencies to evaluate the likely impacts of actions in floodplains. The objective of Executive Order 11988 is to avoid, to the extent possible, the long and short term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative. NPS Director's Order #77-2 Floodplain Management and Procedural Manual #77-2 provide NPS policies and procedures for complying with Executive Order 11988. A Floodplain Statement of Findings (SOF) has been completed which documents compliance with these NPS floodplain management procedures. The SOF was approved by the NPS Water Resources Division on February 21, 2013 (see Attachment 2).

The Floodplain SOF concludes that there is no practical alternative for improving Park Central Road at Still Creek other than its existing location. Mitigation and compliance with regulations and policies to prevent impacts to water quality, floodplain values, and loss of property or human life will be strictly adhered to during and after the construction. Permits with other federal and cooperating state and local agencies will be obtained prior to construction activities. No long-term adverse impacts will occur from the selected alternative. Therefore, the NPS finds the selected alternative to be acceptable under Executive Order 11988 for the protection of floodplains.

Degree to which effects on the quality of the human environment are likely to be highly controversial: No highly controversial effects in terms of scientific uncertainties as a result of the selected alternative were identified during the preparation of the EA or by the public during the public comment period.

Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks: No highly uncertain, unique, or unknown risks were identified during either preparation of the EA or through public comment.

Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration: The selected alternative neither establishes a NPS or FHWA precedent for future actions with significant effects nor represents a decision in principle about a future consideration.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts: Implementation of the selected alternative will have no significant cumulative impacts. As described in the EA, past, present, and future actions and projects within the project area that could affect floodplains/hydrology, wetlands, surface water quality, vegetation, wildlife/wildlife habitat, visual resources, visitor use/experience, park operations, and traffic operations include the extensive development of the suburban area adjacent to the Park, proposed expansion of Metrorail, proposed redevelopment of the MD-193 (Greenbelt Road) corridor, and proposed improvements to the Baltimore –Washington Memorial Parkway.

Future actions will have a long-term, minor and adverse impact to floodplains/hydrology by creating the potential for increased, runoff and sediment load to the waters of Still Creek and its surrounding floodplain. The long-term beneficial impact of the selected alternative would result in long-term, noticeable, beneficial cumulative impacts to floodplains/hydrology by removing the constriction of the stream.

The other actions will have a long-term minor adverse cumulative impact to wetlands by creating the potential for increased, runoff and sediment load to the waters of Still Creek and its surrounding wetlands. Potential loss of wetland areas could also occur due to development adjacent to the Park. However, implementation of the selected action alternative would result in a net benefit to the cumulative impact to wetlands within the Park.

The nearby projects will have long-term minor, adverse cumulative impacts to surface water by the additional storm water runoff containing pollutants such as suspended solids, solvents or petroleum constituent pollutants due to construction events and the addition of increased impervious surfaces. Ground disturbance during construction of the selected alternative would have short-term minor impacts to surface water quality. However, the selected action alternative would contribute a beneficial increment to surface water by restoring water quality from daylighting the stream.

Development of surrounding areas for transportation, commercial, and residential purposes will reduce the availability of suitable wildlife habitat nearby and increase the demand for remaining habitat in Greenbelt Park, thereby reducing habitat quality. Noise related to nearby development will further reduce the quality of habitats and impact wildlife within the Park.

Remaining wildlife populations will become more isolated, less diverse, and less healthy. Impacts on wildlife and wildlife habitat from these cumulative actions will result in short-term and long-term minor adverse impacts from disturbance. Aquatic organisms and habitat will receive the most benefit from the selected alternative by restoring a more natural ecosystem. The long-term beneficial impact of the selected alternative, would contribute a beneficial increment to the cumulative long-term minor, adverse impacts on wildlife and wildlife habitat.

Other actions would have no direct impact on vegetation within Greenbelt Park, but could result in less vegetation of the surrounding areas due to potential development. Loss of adjacent vegetation could impact long-term biodiversity and vegetative health within the Park. These long-term impacts would be minor and adverse. The selected action alternative will rehabilitate disturbed areas using native vegetation and will be monitored by NPS to ensure the eradication of invasive species. When combined, the long-term minor adverse impacts from other actions and long-term beneficial impacts of the selected alternative, the cumulative impacts will be a beneficial increment to the long-term, adverse impacts to vegetation.

Visual resources could be affected by the long-term minor, adverse impacts of nearby development including diminished views associated with air quality issues, light pollution, and other development-related impacts. Other future actions could impact visitor use and experience, including impacts to Park access, contributing to reduced air and water quality, and increasing ambient noise. Nearby actions could also contribute to additional Park visitation which will result in increased traffic and visitor use impacts which would impact visitor experience, Park operations, and traffic operations. The selected alternative would contribute a beneficial increment to the long-term minor adverse impacts to visual resources by rehabilitating deteriorated portions of the developed zone and natural landscape resulting in an improved visual condition within the Park.

Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources: There are no districts, sites, highways, structures, or objects listed on the National Register of Historic Places within the project area. The selected alternative will not cause loss or destruction of significant scientific, cultural, or historical resources.

In accordance with Section 106 of the National Historic Preservation Act, the NPS and FHWA determined that the project will have no adverse effects on historic or cultural resources. The Maryland Historical Trust, which serves as the State Historic Preservation Office in the State of Maryland, reviewed the proposed action and, on April 3, 2010, concurred with the determination that there will be *no adverse effect on historic properties* by the project as proposed, including the widening of paved shoulders, replacement of culverts, and pavement overlay (see Attachment 3).

Degree to which the action may adversely affect an endangered or threatened species or its critical habitat: In accordance with Section 7 of the Endangered Species Act of 1973, FHWA utilized the online certification system to solicit comments from the U.S. Fish and Wildlife Service (USFWS) Chesapeake Bay Field Office, and the Maryland Department of Natural Resources (MDNR) regarding potential occurrences of federal and state-listed species within the project area that could be adversely impacted by the proposed alternatives. The USFWS responded on October 5, 2010, with an electronic certification letter stating that there were no documented occurrences of any federally listed species within the project area and that no biological assessment or further Section 7 consultation was required (see Attachment 4). As a result, *no effect* to any federally listed threatened or endangered species or habitat will occur from the selected alternative.

On March 15, 2011 the MDNR Wildlife and Heritage District sent a letter stating that “the Natural

Heritage Database indicates that there is a record for the state-listed endangered Woodland Agrimony (*Agrimonia striata*)” (see Attachment 5). The endangered plant is documented as being located along Greenbelt Road, just west of the Park entrance. MDNR indicated that if the species was still present, to implement protection measures to avoid disturbance to the plant and its habitat. Since the plant is located outside the project’s limits, *no effect* to the Woodland Agrimony will occur from the selected alternative.

Whether the action threatens a violation of federal, state, or local environmental protection law: The selected alternative violates no federal, state, or local environmental protection laws.

PUBLIC INVOLVEMENT

Public Scoping - Information about the proposed project was made available to the public on the NPS’s Planning, Environment, and Public Comment (PEPC) website during the public scoping comment period, from February 28, 2011 through March 28, 2011. Flyers providing details of the proposed project and contact information for comments were sent to a mailing list of stakeholders comprised of federal, state, and local agencies, elected officials, organizations, and advocacy groups. A public notice was run in the Washington Post on February 28, 2011 announcing the public scoping comment period. During the public scoping period, five comments were received. Comments received were generally in support of the proposed project. Some concerns were raised regarding drainage improvements, storm water management, soil erosion, and scheduled timeframe for construction activities.

EA Public Comments - In order to give the public and all interested parties a chance to review the EA, the EA was made available for public review and comment on January 18, 2013 through February 18, 2013. A public notice was run in the Washington Post on January 18, 2013 to satisfy FHWA NEPA requirements. A notice of availability letter was sent out by the NPS to a mailing list of pertinent stakeholders. During the 30-day comment period, a hardcopy version of the EA was available for review at the Park Visitor Center, National Capital Parks East Headquarters and the Greenbelt Public Library from January 18, 2013 through February 18, 2013. An electronic version of the EA was available on the NPS’s PEPC website at <http://parkplanning.nps.gov/GREE>. This site provided access to current plans, environmental impact analyses, and related documents for public review. An electronic version was also posted on the FHWA website at <http://efl.fhwa.dot.gov/planning/nepa.htm>. Copies of the EA were sent to Federal, State and local agencies with project involvement.


The comment period concluded on February 18, 2013 with the NPS receiving two separate pieces of correspondence commenting on the proposed action. Both comments indicated support for the selected alternative and were submitted by members of the Friends of Still Creek, Inc. According to their website, <http://stillcreekwatershed.org/>, the Friends of Still Creek, Inc. “is a non-profit watershed group that is dedicated to caring for and protecting the stream that flows through the heart of Greenbelt National Park”. The comments did not result in any changes to the EA and did not require individual responses. The comments are contained in Attachment 6 of this document.

CONCLUSION

The NPS has selected modified Alternative C for implementation. The selected alternative will not include the use of a temporary access road off Good Hope Road to access the Park's campground facilities. In light of the impacts described in the EA for the project and with guidance from NPS *Management Policies 2006*, natural and cultural resources information, professional judgment, and considering agency and public comments, the impacts that will result from the selected alternative will not impair any park resources and values. The selected alternative does not constitute an action that normally requires preparation of an environmental impact statement (EIS). The selected alternative will not have a significant effect on the human environment. Negative environmental impacts that could occur are negligible to moderate in intensity. There are no significant impacts on floodplains and hydrology, wetlands, surface water quality, vegetation, wildlife and habitat, visual resources, visitor use and experience, park operations and traffic operations. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the selected alternative will not violate any federal, state, or local environmental protection law.

Based on the foregoing an EIS is not required for this action and thus will not be prepared. This is a finding of no significant impact.


Recommended:



Gopaul Noojiball
Superintendent
National Capital Parks- East

11/14/13
Date

Approved:


for _____
Stephen Whitesell
Regional Director
National Capital Region

11/24/13
Date

DETERMINATION OF NON-IMPAIRMENT OF PARK RESOURCES OR VALUES

In addition to reviewing the list of criteria for significant impacts, the NPS has determined that implementing the NPS selected alternative will not constitute an impairment of Greenbelt Park resources or values. This conclusion is based on a thorough analysis of the impacts described in the EA, agency and public comments received, and the professional judgment of the decision-makers in accordance with *NPS Management Policies 2006*. As described in the EA, implementation of the NPS selected alternative will not result in impairment of Greenbelt Park resources or values whose conservation is (1) necessary to fulfill specific purposes identified in the park's establishing legislation, (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or (3) identified in the park's management plan or other relevant NPS planning documents as being of significance.

Before its establishment as a park, the wooded 1,106 acre site was to be developed into a "new town". It was to be one of several planned urban communities within a green belt around Washington, D.C. In 1950, after plans to develop the site were dropped, the land was acquired by the National Park Service along with lands originally intended for the Baltimore/Washington Parkway.

The primary intent of the Park's enabling legislation is "to provide overnight camping facilities to meet the needs of individuals, families and groups visiting the Nation's Capital; to serve as a regional park for residents of the National Capital area by providing a program of day-use recreation, picnicking and interpretation, and to preserve the area's remaining natural resources so that visitors may enjoy recreational experiences in a natural and pleasant environment."

In 1967, a master plan proposing extensive recreational development was developed. Changes in local communities and land-use trends led to a re-evaluation of the master plan and the issuance of a development concept plan in 1984. The plan included the following objectives:

- 1) Manage Greenbelt Park as an outdoor recreation area, which encourages visitor activities compatible with the character of the park as valuable urban greenspace and as a staging area for visitors to the Nation's Capital.
- 2) Provide direction for interpretive programs which will meet the needs of both local and national visitors.
- 3) Coordinate cooperative activities with local and regional citizenry and school groups.
- 4) Promote visitor safety.
- 5) Increase the security and energy efficiency of site operations.
- 6) Improve access to and circulation within the Park.

An impairment determination is made for all resource impact topics analyzed for the selected alternative. An impairment determination is not made for visitor use and experience, park operations or traffic operations because impairment findings relate back to park resources and values and these impact topics are not generally considered to be Park resources or values according to the Organic Act, and cannot be impaired in the same way that an action can impair Park resources and values.

The selected alternative will result in short-term negligible to adverse impacts on some of the Park's natural resources, which include floodplains/hydrology, wetlands, surface water quality, vegetation, wildlife and wildlife habitat, visual resources, visitor use and experience, park operations and traffic operations.

Floodplains/hydrology

The legislation leading to the establishment of Greenbelt Park directs NPS to manage the area in a way that will preserve the remaining natural resources so that visitors may enjoy recreational experiences in a natural and pleasant environment. The new bridge structure and the flanking relief culverts will support the enabling legislation by allowing for more natural hydrology and ecologic function within the floodplain. The hydrology of Still Creek will be

noticeably improved by repairing the stream channel and allowing for more natural stream flow to be conveyed through the bridge opening as well as the relief culverts that will handle excess flow during larger storm events. A change in the function of the floodplain including the frequency, duration, and extent of flooding, will also be improved. This will provide visitors with a more pleasant recreational experience after storm events with fewer facility closures, less damage to Park infrastructure, and better preservation of natural areas. These improvements are key to the natural integrity of the Park and opportunities for enjoyment by visitors.

The proposed improvements to the floodplain are supported by the Park's development plan. The floodplain component of the valuable urban greenspace will be enhanced. The project will support the cooperative relationship between NPS and the Friends of Still Creek, Inc., a local citizenry group concerned with the preservation of the creek.

Therefore, the impacts of the selected alternative will not constitute impairment to floodplains/hydrology.

Wetlands

The impacts associated with implementation of the selected alternative will temporarily impact wetlands. The total acreage of wetland impacts (both riverine and palustrine) for the project is approximately 0.162 acres. Over the long-term, the construction of the bridge and the flanking relief culverts will benefit the hydrology of the wetlands within and adjacent to Still Creek by providing greater connectivity of the stream and floodplain which will promote regrowth of fringe wetlands in this area. Restoration to the stream (riverine wetland) will also be conducted at Still Creek to improve the function of the stream channel that is currently highly eroded and scoured. These long-term benefits to wetlands support the Park's implementing legislation by enhancing the remaining natural resources so that visitors may enjoy recreational experiences in a natural and pleasant environment.

The long-term benefits to wetlands are supported by the Park's development plan. The wetland component of the valuable urban greenspace will be improved. The project has the potential to enhance the Park's interpretive programs by improving the quality of wetland resources. The project will support the cooperative relationship between NPS and the Friends of Still Creek, Inc., a local citizenry group concerned with preservation of the creek.

The project also complies with NPS wetland protection policies contained in DO 77-1. The removal of the dual culverts and replacement with a bridge and flanking relief culverts falls under section 4.2.1(h) titled "Actions designed to restore degraded (or completely lost) wetland, stream, riparian or other aquatic habitats or ecological processes."

While there will be direct impacts to wetlands, they will not be significant and the Park will continue to be able to protect and preserve Park wetlands. Therefore, the impacts of the selected alternative will not constitute an impairment to wetlands.

Surface Water Quality

The disturbance of roadside vegetation and excavation of soils to replace the culverts under the implementation of the selected alternative will expose bare soil and increase the potential for erosion. Eroded soils have the potential to become suspended solids within surface waters, and eventually settle to the bottom of the water course as sediment. Suspended solids and excessive sedimentation can have adverse impacts to surface water quality if not controlled. BMPs will be utilized during construction to prevent erosion and sedimentation, including the placement of silt fence, filter berms, and re-vegetation. Any water removed to dewater the culvert area will be pumped out and filtered prior to being released. The removal of the existing culverts and the streambed transitioning will disrupt the substrate at the bottom of the channels, and the adjacent shoulder soils. Approximately 170 linear feet of stream (surface water)

impacts for revetment and streambed transitioning will occur. This will temporarily increase turbidity of the water, and degrade surface water quality but ultimately improve the health of the stream. Stream daylighting will result in a measureable long-term improvement to surface water quality. Additional improvements to surface quality will result from the design and construction and implementation of enhanced storm water management features to treat the runoff from new impervious surfaces and reconstructed portions of the roadway.

Although the short-term impacts of construction could temporarily affect surface water quality, the construction BMPs and long-term benefits of the selected alternative would support the Park's enabling legislation and development plan by preserving natural resources and providing a pleasant visitor experience. Therefore the impacts of the selected alternative will not constitute impairment to surface water.

Vegetation

Temporary impacts to vegetation, particularly wetland vegetation, will occur at the bridge location due to temporary construction equipment access and a larger construction footprint; this equates to approximately 2.1 acres of total disturbed vegetation. Although trees will be removed for construction activities, the population of these vegetative species will not be significantly compromised and the landscape will be replanted and preserved. All of the vegetation, grasses and trees impacted will be replaced with NPS-approved native species plants, trees and/or native seed mix or sod based on MDE Standards and Specifications for Soil Erosion and Sediment Control.

Long-term beneficial impacts to vegetation will occur due to the natural restoration of Still Creek and the careful rehabilitation of disturbed areas using native vegetation and careful monitoring by NPS to ensure the eradication of exotic/invasive species. In the long-term, stream daylighting will produce a measureable improvement to vegetation by creating a wider and more diverse riparian buffer close to the stream's edge.

Although the short-term impacts of construction could temporarily impact vegetation, the rehabilitation plan and long-term benefits of the selected alternative would support the Park's enabling legislation and development plan by preserving natural resources and providing a pleasant visitor experience. The improved vegetated habitats would also be beneficial to Park interpretive programs. Therefore the impacts of the selected alternative will not constitute impairment to vegetation.

Wildlife and Wildlife Habitat

The selected alternative will temporarily displace species that currently use the impacted areas due to construction activity and noise associated with construction equipment. Construction will occur only during the day, limiting disruptions to wildlife from artificial light at night. Potential dewatering of the culvert areas will negatively impact any aquatic species present in the water or substrate. Wetland and aquatic wildlife and wildlife habitat may be temporarily impacted by the culvert removal, temporary access, and stream diversion during construction activities. The mortality or injury of smaller, less mobile species could occur as a result of construction and small changes to local population numbers might occur; however, impacts to wildlife and wildlife habitat resulting from construction are expected to be minimal due to the ability of adjacent areas within the Park to provide adequate habitat.

Ultimately the bridge crossing will be beneficial to aquatic wildlife by allowing for fish and aquatic organism passage that does not currently exist. Connectivity of the floodplain will also benefit wildlife passage. Repairs to the existing scour hole/erosion will provide better stream connectivity for aquatic organisms after construction, and the proposed revegetation of disturbed areas using native plants will improve the long-term quality of wildlife habitat. Wildlife is expected to be temporarily displaced during construction and will resume utilizing the area in a similar manner after construction is complete.

Although the short-term impacts of construction could temporarily impact wildlife and wildlife habitat, the rehabilitation plan and long-term benefits of the selected alternative would support the Park's enabling legislation and development plan by preserving natural resources and providing a pleasant visitor experience. The improved wildlife habitats would also be beneficial to Park interpretive programs. Therefore the impacts of the selected alternative will not constitute impairment to wildlife and wildlife habitat.

Visual Resources

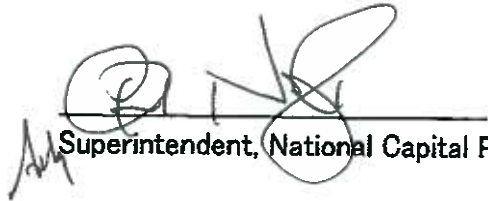
As mandated under the Organic Act, all visual resources and scenic quality within National Parks are to be conserved and managed in an unimpaired condition for the enjoyment of future generations. Visual resources consist of landform (topography and hydrology) and land cover (vegetation, buildings, roads, etc.). Visual Resources within Greenbelt Park fall into two general zones- the natural zone and the developed zone. The natural zone consists of forest and wetlands, including Still Creek. The developed zone includes the park roadway system, pull-offs, parking lots, park headquarters, picnic areas, and the vegetated roadway shoulders.

The design of specific roadway components, including guardrails, abutments, headwalls, storm water management features, and riprap, will be specified in a visually compatible manner in order to avoid unacceptable impacts to the Park's visual resources. Deteriorated portions of the developed zone, including drainage structures, guardrails and roadway surfaces, will be rehabilitated resulting in an improved visual condition. Certain features within the developed zone, including guardrails and drainage structures, will be upgraded to improve functionality and/or safety, but these changes will be specified to avoid adverse visual impacts. Inadequacies of the existing Still Creek culvert functionality will be corrected resulting in improved visual conditions in the developed and natural zones. Temporary impacts to the natural zone, including the clearing of vegetation, will be rehabilitated.

The selected alternative would support the Park's enabling legislation by preserving and improving visual resources, thereby providing a more pleasant visitor experience. The selected alternative would also comply with the Park development concept plan by providing visually-compatible safety, circulation, and access improvements. Therefore the impacts of the selected alternative will not constitute impairment to visual resources.

STATEMENT OF FINDINGS
EXECUTIVE ORDER 11988: Floodplain Management
PRA-GREE 11(1) Greenbelt Park Improvements
Prince Georges County, MD

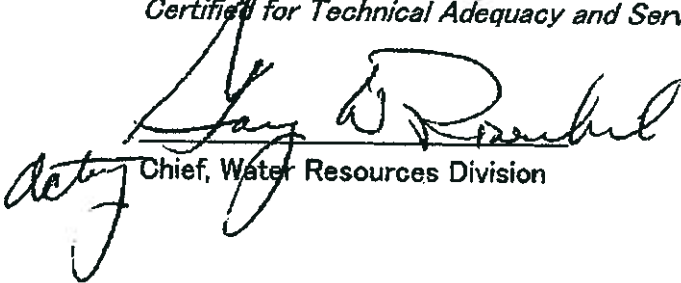
Recommended:



Superintendent, National Capital Parks East

5/28/13
Date

Certified for Technical Adequacy and Servicewide Consistency:



Chief, Water Resources Division

02-21-13
Date

Approved:



Deputy Director, National Capital Region

11/27/13
Date

INTRODUCTION

Executive Order 11988 (Floodplain Management) requires the National Park Service (NPS), the Federal Highway Administration (FHWA) and other federal agencies to evaluate the likely impacts of actions in floodplains. The objective of E.O. 11988 is to avoid, to the extent possible, the long and short term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative. NPS Director's Order #77-2 Floodplain Management and Procedural Manual #77-2 provide NPS policies and procedures for complying with E.O. 11988. This Statement of Findings (SOF) documents compliance with these NPS floodplain management procedures.

Greenbelt Park is one of the units in the National Capital Parks -East. The park covers more than 1,176 acres in Prince George's County, Maryland (Figure 1). The entire park is located within the Atlantic Coastal Plain physiographic province in the western shore uplands region. (NPS) The project area lies within the City of Greenbelt, approximately 9.3 miles northeast of Washington D.C. The principal watercourse associated with Greenbelt Park is Still Creek, a third-order tributary of Anacostia River Northeast Branch. North Branch Still Creek is the largest tributary of the stream but low-order and intermittent tributaries also contribute to it. The terrain of Greenbelt Park is sharply dissected and encompasses a series of narrow to medium-width ridges overlooking ravines associated with Still Creek and the smaller tributaries. Still Creek enters the Anacostia River just southwest of the intersection at Kenilworth Avenue (Maryland 201) and Calvert Road. Elevations in the park are from about 60 feet above sea level to a maximum of 200 feet above sea level on some of the ridge crests. The *National Wetlands Inventory Map for Prince George's County, Maryland* (USFWS, 1981-2002) identifies Still Creek as a palustrine, forested, broad-leaved deciduous, temporarily flooded waterway.

The purpose of this SOF is to represent the rationale for the proposed improvements to Park Central Road in the floodplain area and to document the anticipated effects on these resources. The project area is located in a Class I Action, per DO #77-2. Avoidance of impacts to floodplains is not possible because Still Creek in Greenbelt Park is a perennial waterway currently located in the 100-year floodplain; therefore, any improvements made to the existing road and culverts at Still Creek would be located in the floodplain.

Improvements are proposed for Greenbelt Park with the intent of meeting the following objectives:

- Maintenance of Park Central Road as safe public access;
- Restore floodplain connectivity, preserve the local ecosystem and reduce flooding; and
- Minimization of impacts to natural, cultural, and scenic and aesthetic resources.

PROPOSED ACTION

Under the Alternative C (Preferred Alternative) as described in the *Greenbelt Park Improvements Environmental Assessment*, the existing deteriorated roadway along Park Central Road would be resurfaced. The double culvert at Still Creek would be replaced with a single span bridge and five flanking 24" reinforced concrete pipe culverts adjacent to the bridge to serve as relief during larger

storm events. Portions of the existing pavement would be removed, and new pavement would be placed to restore the asphalt paved roadway. Additional aggregate topsoil will be added to the roadway shoulders as a safety edge to eliminate shoulder drop off. The amount of impervious surface removal would be determined through pavement core samples taken by Eastern Federal Lands Highway Division and stormwater management coordination with the Maryland Department of Environment. Six parking lot areas located along the project area would also be milled and paved to match their existing dimensions. Along Park Central Road, several locations contain culverts that have deteriorated and require replacement.

An erosion and sediment control plan would be prepared that describes the temporary construction and permanent erosion and sediment control best management practices to be implemented. A temporary diversion channel will be utilized to aid in the removal of the double culverts at Still Creek and to construct the new bridge. These measures would prevent debris and sediment from entering the floodplain at and downstream of the Still Creek bridge to the maximum extent practicable. Staging would take place in previously disturbed parking areas in the Park. Construction vehicles would park at the staging location when not in use. Materials such as aggregate and topsoil would also be stockpiled within the existing parking areas.

SITE DESCRIPTION

Federal Emergency Management Agency (FEMA) Flood Insurance Rate maps show that a portion of the project area at Still Creek is within Zone A, of the 100-year-flood floodplain (Figure 2). Zone A is defined as areas inundated by 100-year flooding for which base flood elevations and flood hazard factors have not been determined. Flooding of Still Creek has been observed in the project area by Park staff during strong storms. Park staff indicated that in June 2009, a 25-year storm event caused flooding that brought the water level in Still Creek to come within a foot of overtopping the roadway. The storm caused pipe damage to the culverts; large scour holes were created in the stream bed; stream channel degradation was accelerated and sagging and cracking of the roadway pavement was observed. The remainder of the Park is within Zone C. Zone C is defined as areas of minimal flooding.

JUSTIFICATION FOR USE OF THE FLOODPLAIN

A hydraulic and floodplain analysis was completed for the project. The project proposes improvements to an existing transportation facility, a portion of which is located within the 100-year floodplain. The existing double culvert at Still Creek is located within the 100-year floodplain; therefore use of a site outside of the 100-year floodplain cannot occur. The improvements are needed in order to address the deterioration of the roadway facility, including the pavement, signs, and undersized culverts. Continued deterioration poses a potential safety hazard to park visitors and staff. Replacing the double culverts at Still Creek with the proposed bridge and flanking floodplain relief culverts, will restore connectivity of the floodplain. Flood storage volumes would improve from existing conditions and natural flow patterns would be less restricted. The floodplain is currently constricted from approximately 250 feet upstream and downstream of the structure to 50 feet at the culvert crossing. The constriction caused by the existing undersized culverts has resulted in stream channel

degradation, scour holes at the culvert outlet, and does not allow for unrestricted fish or aquatic organism passage. The multiple opening stream crossing will provide a freeboard of 3.70 feet for the 50 year storm event for the bridge. The new bridge will not increase the flood danger to nearby property, residents or visitors.

IMPACTS TO FLOODPLAIN FUNCTIONS AND VALUES

Implementation of Alternative C, the Preferred Alternative, would result in temporary impacts to the floodplain during removal of and construction of the bridge and relief culverts. After construction is completed, the diversion channel, and any cofferdams would be removed. Construction materials may be stockpiled in parking lots the project area to be ready for use during construction.

Implementation of Alternative C, the Preferred Alternative, would also result in permanent impacts to the floodplain. Since the culverts would be replaced with a bridge, there would be no rise in water surface elevation or backwater. The five flanking floodplain relief culverts will be placed adjacent to the bridge in order to aid in widening the floodplain at the stream crossing during larger storm events. New material would be placed in the project area in the form of fill for the bridge approaches and riprap (large sized rock). The riprap would be used to protect the bridge abutments and culverts from scour from water movement through the channel. The displacement of floodwaters as a result of the riprap placement would not be noticeable. A change in the function of the floodplain such as the frequency, duration, or extent of flooding, would be an improvement from existing conditions. The proposed bridge is not expected to significantly impact the flood zone or floodplain values. The floodplain will be restored to provide connectivity in which the natural functions of the floodplain can again operate. **This project will improve the safety of motorists, cyclists and pedestrians using Park roads improve visitor experience and preserve natural resources within the Park.**

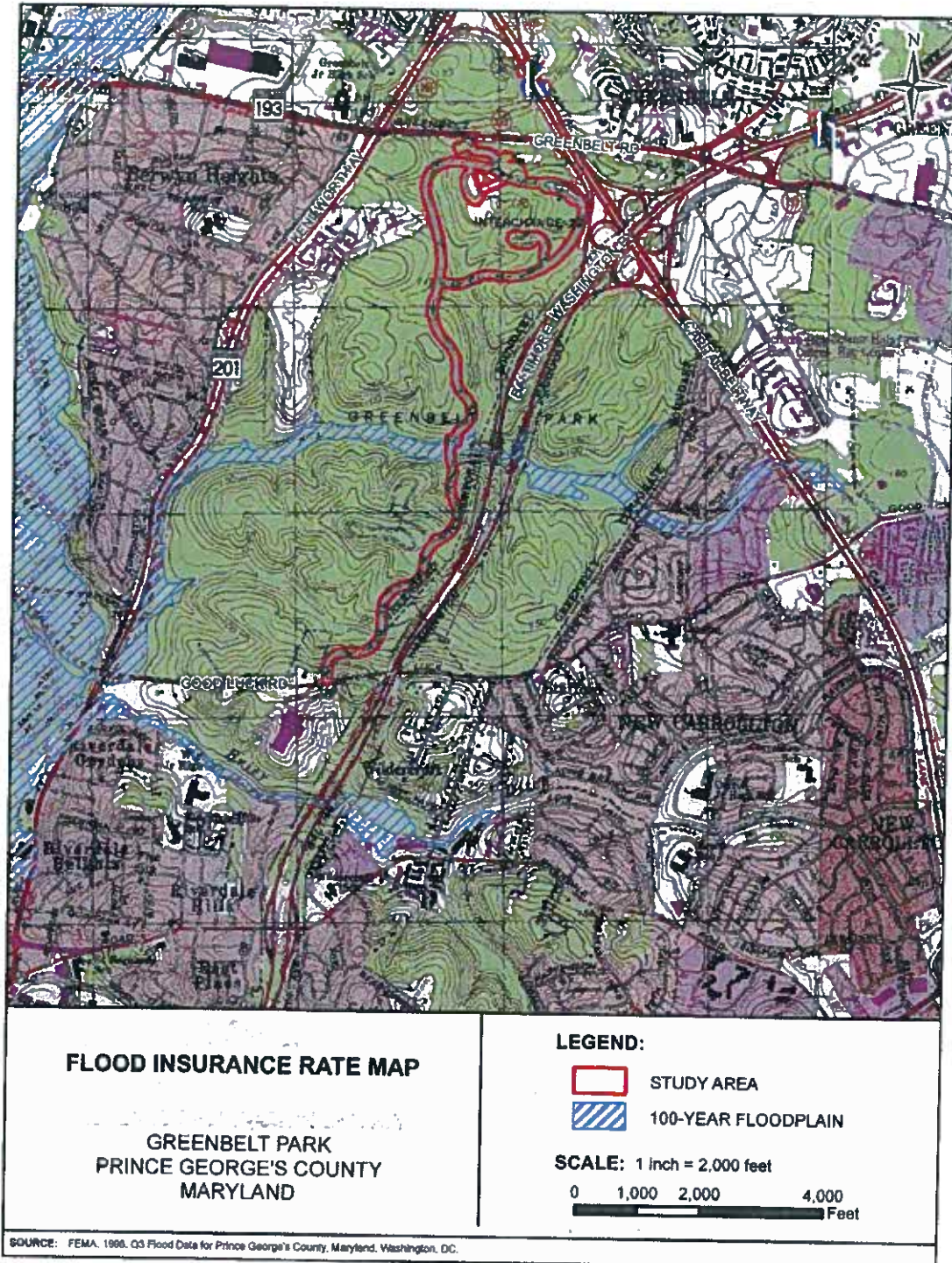
MINIMIZATION OF HARM OR RISKS TO LIFE AND PROPERTY

The proposed new bridge would be located in a flood hazard area subject to inundation by the 1% annual chance flood. Minimization and mitigation include the protection of human health and safety, protection of investment, and protection of floodplain resources and processes. Flooding in the project area is usually caused by traceable storm events, such as nor'easters, tropical storms or hurricanes that allow for adequate warning time. Harm or risks to human health and safety is minimized through warnings and/or Park closures.

The improvements to Greenbelt Park would construct a new investment at Still Creek; the rehabilitation and resurfacing invests in the existing facility. Risk to the investment exists and will continue to exist after the improvements to Greenbelt Park are completed. However, the risk is greatly reduced by constructing a bridge and relief culverts compared to the existing undersized culverts in the base floodplain. The investment should result in a localized lessening of flood severity and decreased damages to the bridge and associated roadway facility. The NPS would repair or reconstruct the facility if and when damage occurs.

Protection of floodplain resources and processes was achieved to the extent possible. The single span bridge will have no pilings in the channel and the flanking culverts will restore connectivity to the

Figure 2. Flood Insurance Rate Map (FEMA)



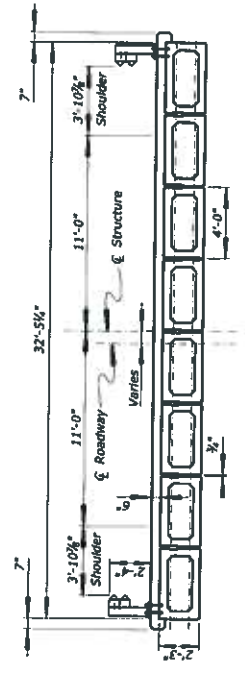
U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 EASTERN FEDERAL LANDS HIGHWAY DIVISION

PRELIMINARY LAYOUT

BRIDGE NAME: STILL CREEK BRIDGE
 ROUTE NAME AND NUMBER: PARK CENTRAL ROAD
 COUNTY: PRINCE GEORGE
 FOREST/PARK/OTHER: GREENBELT PARK

PREPARED BY: J.ORTIZ
 SCALE: NOT TO SCALE
 ESTIMATED STRUCTURE COST: \$ 1,200,000.00
 DATE: OCTOBER 2011

REMARKS: UTILITIES, DRAINS, PRECAST = 7,000 DOL., HPC OVERLAY = 4,000 DOL.



DESIGN DATA
 LIVE LOAD: HL-93
 OVERLOAD: 8
 SUPERSTRUCTURE: AASSTHO BOX BEAMS, TYPE BI-FB
 CONCRETE: F'C
 EPOXY REINFORCEMENT
 RAIL: W-STEEL BEAM, AASSTHO M-180
 TRANSITION
 SIDEWALKS
 DRAINS
 UTILITIES

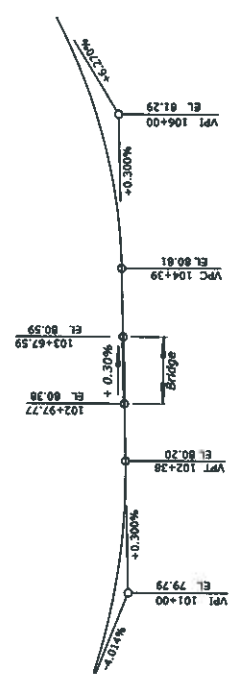
RECEIVED RECEIVED
 HYDRAULICS REPORT NO.
 MATERIALS REPORT NO.

SCOUR REMARKS
 SLOPE PROTECTION TYPE: CLASS: BOTTOM EL.: DEPTH: SLOPE

Q	Vm	WSEL
0.1	389	68.91
0.2	2190	73.29
0.3	3240	74.45
0.4	6250	79.65

REMARKS: Scour recommendations to be provided prior to 70% distribution.

PROFILE GRADE DIAGRAM
 EL. ARE AT GRADE
 AT

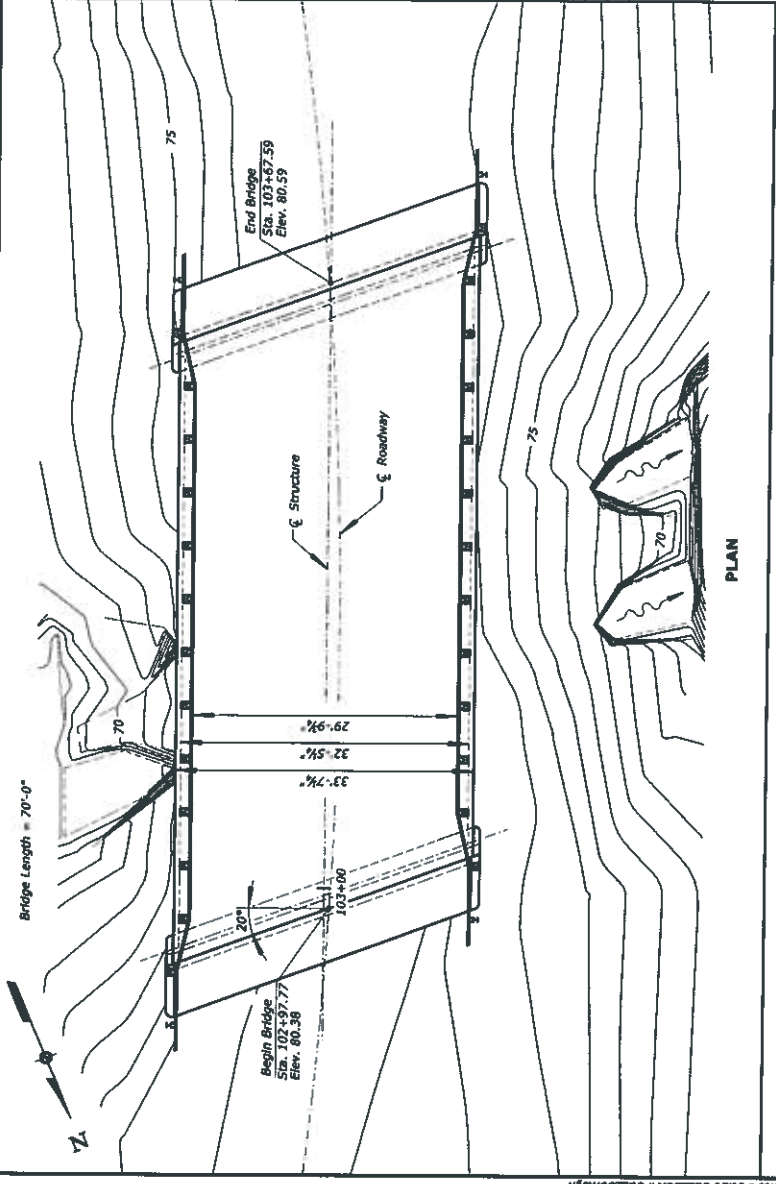


GEOMETRICS

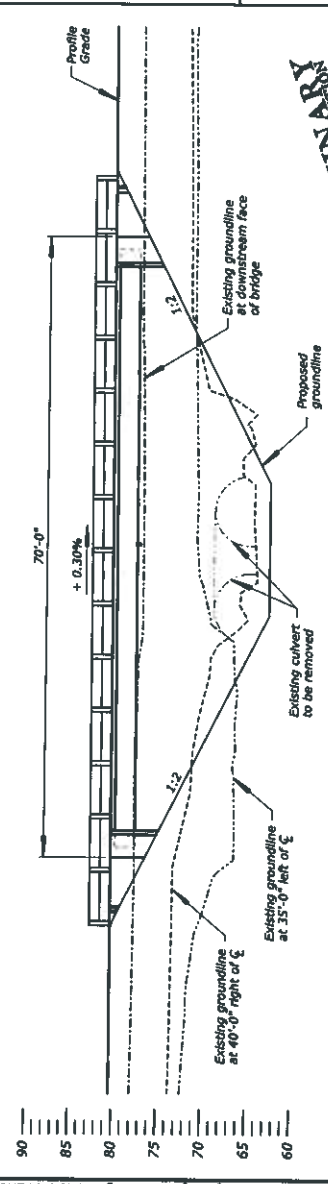
HYDRAULICS

SCOUR

DESIGN DATA



PLAN



ELEVATION

FOR PRELIMINARY REVIEW ONLY
 NOT FOR CONSTRUCTION





U.S. Department
of Transportation
**Federal Highway
Administration**

201201432

Eastern Federal Lands
Highway Division

21400 Ridgetop Circle
Sterling, VA 20166-6511

F
FHWA

ESJ/TJT

MAR 20 2012

In Reply Refer to: HFPP-15

FEDERAL EXPRESS

Ms. Elizabeth Cole
Review and Compliance Administrator
Maryland Historical Trust
100 Community Place
Crownsville, MD 21032

RECEIVED
MAR 23 2012

BY: _____

Subject: **Project PRA-GREE 11(1), Greenbelt Park, Prince George's County, Maryland**
Transmittal of Archaeological Survey Report and Determination of Effect

Dear Ms. Cole:

The Federal Highway Administration (FHWA), in cooperation with the National Park Service (NPS), is preparing an Environmental Assessment (EA) related to the subject project. On March 28, 2011, FHWA submitted a preliminary project review form to your office describing the alternatives under consideration, the Area of Potential Effect (APE), and our proposal to conduct an archaeological survey within the APE.

FHWA, in consultation with Dr. Stephen Potter, NPS Regional Archaeologist, developed a scope of work and obtained the services of an experienced archaeological contractor to thoroughly survey the APE. A draft Phase I archaeological report summarizing the survey results is included with this correspondence for your review. The draft report incorporates comments that were previously submitted by Dr. Potter.

In brief, the survey identified two low density prehistoric finds. NPS has determined that these finds might represent portions of archaeological sites, but until they can be fully documented and evaluated by the agency, there is not enough information to make a decision regarding their status. However, the prehistoric materials were recovered in a disturbed context and the APE does not have the potential to contain intact deposits that could contribute to the significance of larger sites. No further archaeological investigations are recommended for the proposed undertaking.

Based on this information, and in accordance with 36 CFR § 800.5(b), FHWA has determined that the project will have "no adverse effect" on historic properties. Please provide your comments or concurrence with the enclosed report and determination of effect within 30 days of receiving this correspondence.

The Maryland Historical Trust has determined
that this undertaking will have no adverse effect
on historic properties.
Beth Cole 4/3/2012
Date

BE: IAT
also: JAMP 4/3/2012
DL T 2012

If additional information is required in order to complete your review, please feel free to contact Mr. Ryan Kimberley, Environmental Protection Specialist, at (703) 404-6211 or Ryan.Kimberley@dot.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read 'K. Rose', is written over a light blue circular stamp.

Kevin Rose
Environmental Compliance Specialist

Enclosures

cc:

Mr. Fred Cunningham, Park Manager, NPS/NACE/Greenbelt Park, Prince George's County, MD

Mr. Stephen Syphax, Resource Management Division Chief, NPS/NACE, Washington, DC

Ms. Christina Snyder, Project Manager, NPS/DSC, Washington, DC

Mr. Stephen Potter, Regional Archeologist, NPS/NCR, Washington, DC (hardcopy w/enclosure)

ATTACHMENT 4

1

2

3



United States Department of the Interior
U.S. Fish & Wildlife Service
Chesapeake Bay Field Office
177 Admiral Cochrans Drive
Annapolis, MD 21401
410/573 4575



Online Certification Letter

Today's date: October 5, 2010

Project: Greenbelt Park, Prince George's County, MD. NPS/FHWA Project PRA GREE 11(1), Routes 10, 11, 200, and 201. New bridge over Still Creek; rehabilitation of park roads and parking lots.

Dear Applicant for online certification:

Thank you for choosing to use the U.S. Fish and Wildlife Service Chesapeake Bay Field Office online list request certification resource. This letter confirms that you have reviewed the conditions in which this online service can be used. On our website (www.fws.gov/chesapeakebay) are the USGS topographic map areas where **no** federally proposed or listed endangered or threatened species are known to occur in Maryland, Washington D.C. and Delaware.

You have indicated that your project is located on the following USGS topographic map Washington East (Maryland)

Based on this information and in accordance with section 7 of the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*), we certify that except for occasional transient individuals, no federally proposed or listed endangered or threatened species are known to exist within the project area. Therefore, no Biological Assessment or further section 7 consultation with the U.S. Fish and Wildlife Service is required. Should project plans change, or if additional information on the distribution of listed or proposed species becomes available, this determination may be reconsidered.

This response relates only to federally protected threatened or endangered species under our jurisdiction. For additional information on threatened or endangered species in Maryland, you should contact the Maryland Wildlife and Heritage Division at (410) 260-8540. For information in Delaware you should contact the Delaware Natural Heritage and Endangered Species Program, at (302) 653-2880. For information in the District of Columbia, you should contact the National Park Service at (202) 535-1739.

The U.S. Fish and Wildlife Service also works with other Federal agencies and states to minimize loss of wetlands, reduce impacts to fish and migratory birds, including bald eagles, and restore habitat for wildlife. Information on these conservation issues and how development projects can avoid affecting these resources can be found on our website (www.fws.gov/chesapeakebay).

We appreciate the opportunity to provide information relative to fish and wildlife issues, and thank you for your interest in these resources. If you have any questions or need further assistance, please contact Chesapeake Bay Field Office Threatened and Endangered Species

program at (410) 573-4531.

Sincerely,

Leopoldo Miranda
Field Supervisor

ATTACHMENT 5



Martin O'Malley, Governor
Anthony G. Brown, Lt. Governor
John R. Griffin, Secretary
Joseph P. Gill, Deputy Secretary

March 15, 2011

Richelle Ellis
National Park Service
Greenbelt Park
Richelle.Ellis@dot.gov

RE: Environmental Review for Proposed Improvements to Main Entrance Road, Park Central Road, Sweetgum Picnic Loop and Laurel Picnic Area – Greenbelt Park, Prince George's County, Maryland.

Dear Ms. Ellis:

The Wildlife and Heritage Service's Natural Heritage database indicates that there is a record for state-listed endangered Woodland Agrimony (*Agrimonia striata*) documented for the project site. It is documented as being located along Greenbelt Road, just west of the park entrance. If this species still occurs there, we would ask for protection measures to avoid disturbance to the plants and their habitat, from this project as proposed.

Thank you for allowing us the opportunity to review this project. If you should have any further questions regarding this information, please contact me at (410) 260-8573.

Sincerely,

A handwritten signature in black ink that reads "Lori A. Byrne".

Lori A. Byrne
Environmental Review Coordinator
Wildlife and Heritage Service
MD Dept. of Natural Resources

ER # 2011.0241.pg
Cc: K. McCarthy, DNR

ATTACHMENT 6

EA PUBLIC COMMENTS RECEIVED

COMMENTS	COMMENT	NPS RESPONSE
<p>William Duncan, President, Friends of Still Creek, Inc.</p>	<p>As president of Friends of Still Creek, Inc. I am writing to indicate my support for Alternative C which includes replacing the culverts with a bridge over Still Creek.</p> <p>For the past 7 years, Friends of Still Creek has worked closely with the Rangers and others at Greenbelt National Park to preserve and maintain Still Creek which flows through the park. One of the critical issues facing the creek is the presence of fish blockages along the stream. These are areas where erosion around man-made structures, such as the culverts, have effectively prevented the passage of fish and other marine life from movement within the watershed. Replacing the existing culverts with a true bridge that the stream can flow through freely would greatly improve the aquatic life in Still Creek.</p> <p>By "true bridge" I mean to indicate a bridge that spans the stream bed, not a bridge build using a concrete floor that will eventually erode to one again create a blockage. Additionally, I would hope and expect that the construction of the bridge would do everything possible to minimize damage to the stream.</p> <p>Thank you for your concern and protection of Greenbelt National Park and the stream that flows through it.</p>	<p>comment noted</p>
<p>Jean A. Snyder, Board Member, Friends of Still Creek, Inc.</p>	<p>February 11, 2013, I visited Greenbelt Park, and noticed the extensive erosion of Still Creek banks. Water was backed up and spreading out in a pool to the east side of the road and culverts. I endorse the removal of the culverts, and the construction of a bridge that will allow Still Run to flow naturally as outlined in Plan C. I am sure that changes made will be considerate of the environment, and the water and land creatures that inhabit this quiet oasis.</p>	<p>Comment noted</p>