



FINDING OF NO SIGNIFICANT IMPACT

Reconstruction and Rehabilitation of Rock Creek and Potomac Parkway

Southbound at Waterside Drive, NW

Rock Creek Park

The National Park Service (NPS), in cooperation with the Federal Highway Administration (FHWA), proposes a combination of road safety improvements located where the southbound ramp from Waterside Drive, NW merges onto Rock Creek and Potomac Parkway (the Parkway), in Washington, D.C. Rock Creek Park is an administrative unit of the NPS that includes Rock Creek Park proper (Reservation 339) and Rock Creek and Potomac Parkway (Reservation 360). It is located in the Northwest quadrant of Washington, D.C.

The NPS had previously prepared an environmental assessment (EA) in 2006 that examined safety improvements for the Parkway, including proposed safety improvements at Waterside Drive, NW. Soon after construction began on the Waterside Drive, NW section of the project in July of 2011, the NPS determined that the project design was not following the preferred alternative contained in the 2006 EA. Non-compliant actions included a cofferdam that had been placed within Rock Creek, and the stream bank prepared for the construction of a retaining wall to support an additional merge lane and road improvements. Fourteen large trees had been removed from the area adjacent to the stream bank. The NPS stopped construction at the Waterside Drive, NW section of the overall Parkway project in order to reinitiate the planning and compliance for the Waterside Drive, NW vicinity portion of the repair / rehabilitation of Rock Creek and Potomac Parkway. Construction on the larger improvement project, including Cathedral Avenue, NW, Shoreham Drive, NW, and Beach Drive, NW sections, were consistent with the 2006 EA and continued as scheduled.

In August and September of 2011, severe erosion took place in the section of Rock Creek in the project area as a result of flooding that occurred after Hurricane Irene and Tropical Storm Lee moved through the area in consecutive weeks. The erosion of the stream banks was exacerbated by the cofferdam that was still in Rock Creek from the construction of the retaining wall. This erosion, which was affecting the stability of Rock Creek Park Multi-use Trail, has been temporarily stabilized with gabion baskets pending a more permanent solution.

The purpose of the proposed action is to improve traffic flow and to minimize the number of vehicle accidents along the Parkway in the vicinity of Waterside Drive, and to address the environmental damage that has occurred. Action is needed because the small merge area and poor sight distances at Waterside Drive have resulted in numerous vehicle accidents and backups of cars waiting to merge southbound onto the Parkway. Action is also needed to address the environmental damage caused by site preparation for constructing the retaining wall (i.e., removal of trees and the installation of the cofferdam) and subsequent erosion.

The new EA has been prepared specifically for the reconstruction and rehabilitation of Rock Creek and Potomac Parkway Southbound at Waterside Drive, NW and was done in accordance with National Environmental Policy Act (NEPA) and implementing regulations, Title 40 Code of Federal Regulations (CFR) 1500–1508; NPS Director's Order 12: *Conservation Planning, Environmental Impact Analysis, and Decision Making* and Handbook; and Section 106 of the National Historic Preservation Act of 1966 (NHPA), as Amended, and its implementing regulations, 36 CFR 800.

SELECTED ALTERNATIVE

Based on the analysis presented in the EA, the NPS has selected alternative 4: Add Merge Lane by Widening the Road Toward the Median (the NPS preferred alternative) for implementation. The selected alternative will allow for improvements to traffic flow and will minimize the number of vehicle accidents along the Parkway in the vicinity of Waterside Drive, NW using a combination of roadway improvements, including a new acceleration lane along the Parkway and traffic calming measures. The selected alternative will also permanently stabilize both banks of Rock Creek to address the severe erosion that has occurred and will mitigate for impacts to the riparian areas along the stream bank of Rock Creek near Waterside Drive, NW that resulted from previous construction. The selected alternative is described as follows:

Road Realignment: Under the selected alternative, approximately 350 feet of the southbound Parkway at Waterside Drive, NW will be realigned approximately 12 feet (from the original, pre-2011 alignment) toward the median between the northbound and southbound Parkway and a merge lane of approximately 150 feet (150 feet plus 270 feet of taper) will be added. As a result of the road realignment, up to seven trees – five with diameter at breast height (dbh) between 33.5 and 59.8 inches – will be removed or impacted by construction. The Park will replant these trees with the same species, and in areas as close as possible to the trees' original locations in the Parkway median. A steel-backed timber guardrail, similar to others found along the Parkway, will be constructed along the length of the newly realigned road, between the road and the creek, to serve as a roadside barrier for vehicles.

Two light poles in the median will be relocated and will require trenching of an area approximately 2.5 feet long (30 inches) by 2.5 feet wide and no more than seven feet deep. In addition, new inlets and a pipe for drainage will be installed, requiring the disturbance of an area approximately six feet long by 3.5 feet wide by four feet deep for the inlets, and approximately 90 feet long by three feet wide and three feet deep for the pipe.

Stream Bank Restoration: The geometry, profile, and vegetative cover of the disturbed stream banks on both sides of Rock Creek will be fully restored to natural conditions using bioengineering, specifically vegetated reinforced soil slope (VRSS). VRSS is a soil bioengineering technique that combines the use of woody, living vegetation purposefully embedded into a slope to help stabilize the soil, prevent erosion, and bind together the installed reinforcements. Heavy geotextile material will be used as the primary reinforcement to stabilize the slope. A shorter secondary reinforcement wrap, with a special mixture of soil and organic materials that help to promote the establishment of vegetation and growth, will be used on the face of the overall system.

Approximately 250 feet of the east bank and 100 feet of the west bank will receive this treatment. The width of the VRSS on both banks will be approximately 25 feet each, for a total of 6,250 square feet treated on the east bank and 2,500 square feet treated on the west bank.

Traffic Calming: Traffic calming measures will also be implemented as follows:

- Installation of two warning signs showing merging traffic along the southbound Parkway approaching the merge with Waterside Drive, NW.
- Installation of two "Yield" signs along Waterside Drive, NW ramp approaching the merge onto the southbound Parkway.
- Solid striping will be placed along the southbound Parkway approaching the merge with Waterside Drive, NW.

Riparian Area Revegetation: To mitigate the 0.3 acre of disturbed riparian area impacted from road construction in 2011, it is required that no less than 0.6 acre of riparian area be planted within the boundary of Rock Creek Park. The increased acreage for mitigating the disturbance is based on a 2:1 ratio intended to offset the temporal loss of mature riparian vegetation. To ensure that the mitigation requirements are met, the NPS has prepared a *Revegetation Plan for the Rock Creek Park Riparian Area*,

which currently entails the revegetation of 0.69 acre of riparian areas in the northern floodplain of the Park. Details can be found in the attached Wetlands Statement of Finding.

OTHER ALTERNATIVES CONSIDERED

In addition to the NPS selected alternative described above, the EA analyzed the no action alternative and two additional action alternatives – 1) Alternative 2: Restore to Original Conditions; and 2) Alternative 3: Add Merge Lane by Widening the Road toward the Creek.

Alternative 1: No Action - Under the no action alternative, there would be no road improvements (including road realignment) on southbound Parkway at Waterside Drive, NW. The current condition at the intersection of the southbound Parkway and Waterside Drive, NW would remain, with vehicles merging onto the Parkway from Waterside Drive, NW coming to a full stop at a stop sign before merging from the left. A limited sight distance of 180 feet for merging vehicles would continue to contribute to safety concerns.

In addition to retaining the road configuration, the condition of Rock Creek would remain as it is currently. Temporary remedial work was conducted as a result of two storm events in August and September of 2011, which created erosion damage in and around the surrounding area. The temporary remedial work at the site consisted of installation of temporary gabion baskets. The gabion baskets are wire-enclosed baskets filled with riprap intended to provide slope stabilization. Under the no action alternative, the current gabion baskets would remain in place to prevent erosion; however, the negative visual impact to the bucolic setting of the parkway's cultural landscape would continue. No trees would be removed and the impacts to the creek banks would not be addressed. Jersey barriers that were erected along the shoulder of the creek side southbound lane in late 2011 would remain. The No Action alternative was not chosen because it did not meet the purpose and need for the project, and does not address the damage that was caused as a result of initiating the construction of the previously intended retaining wall.

Alternative 2: Restore to Original Conditions - Rock Creek and Potomac Parkway southbound at Waterside Drive, NW would be restored to its pre-July 2011 alignment, resulting in the reduction of the current road width. The road width of the southbound lanes would be restored to its original 11-foot lanes plus two 1-foot gutters, for a total road width of 24 feet. Restoration of the road alignment would involve altering approximately 350 linear feet of road, including the removal of the widened areas and reinstallation of curbs and inlets. No additional pavement or impervious surfaces would be added; instead, impervious surface would decrease and return to the original, pre-July 2011 conditions. The total amount of area disturbed as part of the removal of the widened areas and reinstallation of curbs and inlets would be approximately 7,400 square feet (0.17 acre). No trees would be removed under Alternative 2; however, trees that were removed during construction activities in 2011 would be replaced with the largest trees possible for the current site.

The gabion baskets that are currently stabilizing sections of Rock Creek would be replaced with a permanently bioengineered slope, specifically VRSS, similar to the selected alternative. Approximately 250 feet of the east bank and 100 feet of the west bank would receive this treatment. The width of the VRSS on both banks would be approximately 25 feet each, for a total of 6,250 square feet disturbed on the east bank and 2,500 square feet disturbed on the west bank.

Mitigation of 0.3 acre of disturbed riparian area (impacted from road construction in 2011) with no less than 0.6 acre of riparian area within the boundary of Rock Creek Park would be the same as under the selected alternative.

Traffic calming measures would be implemented as follows:

- Installation of two signs to read "No Merge" along Waterside Drive, NW near the merge with the southbound Parkway.
- Installation of two signs to read "Stay in Lane" along the southbound Parkway approaching the merge with Waterside Drive, NW.

- Solid striping and rumble strips along the southbound Parkway approaching the merge with Waterside Drive, NW.

This alternative was not selected because it does not improve traffic flow or safety along the Parkway in the vicinity of Waterside Drive, NW.

Alternative 3: Add Merge Lane by Widening the Road Toward the Creek

Approximately 350 linear feet of Rock Creek and Potomac Parkway southbound at Waterside Drive, NW would be realigned approximately five feet toward Rock Creek, and a merge lane of approximately 150 linear feet (150 feet with 270 feet of taper) would be added.

The road realignment toward Rock Creek would necessitate the construction of a retaining wall, approximately 350 feet long, between the road and the creek. The retaining wall would be required to support the newly widened pavement and embankment that would be created as a result of the new acceleration lane. The widened pavement would result in steepened bank slopes toward the creek that would be unstable unless a retaining wall was constructed. Construction of the retaining wall would entail installing drilled shafts into the roadside soil to support the new structure. The retaining wall would be constructed of natural stone veneer with a concrete, steel-reinforced core. In addition to stabilizing the road, the wall would serve as a roadside barrier between the creek and vehicles on the Parkway. Steel-backed timber guardrails would be attached to the ends of the retaining wall to ensure motorist safety.

The eroded sections of the stream bank would be permanently stabilized. The VRSS approach described in the selected alternative would be used to recreate the natural stream bank conditions in the previously impacted bank areas. Approximately 540 linear feet of the east bank and 100 linear feet of the west bank would receive this treatment. The VRSS on the east bank would be placed at the toe of the proposed retaining wall. The width of the VRSS on both banks would be approximately 25 feet each, for a total of 13,500 square feet disturbed on the east bank and 2,500 square feet disturbed on the west bank.

Mitigation of 0.3 acre of disturbed riparian area (impacted from road construction in 2011) with no less than 0.6 acre of riparian area within the boundary of Rock Creek Park would be the same as under the selected alternative.

Traffic calming measures would be implemented as follows:

- Installation of two warning signs showing merging traffic along the southbound Parkway approaching the merge with Waterside Drive, NW.
- Installation of two "Yield" signs along Waterside Drive, NW ramp approaching the merge onto the southbound Parkway.
- Solid striping will be placed along the southbound Parkway approaching the merge with Waterside Drive, NW.

While this alternative does meet the purpose and need for the project, this alternative was not selected because it is more environmentally damaging than the selected alternative.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The NPS is required to identify the environmentally preferable alternative in its NEPA documents for public review and comment. The NPS, in accordance with the Department of the Interior NEPA Regulations (43 CFR Part 46) and CEQ's Forty Questions, defines the environmentally preferable alternative (or alternatives) as the alternative that best promotes the national environmental policy expressed in NEPA (section 101(b)) (516 DM 4.10). The CEQ's Forty Questions (42 CFR 46.30) (Q6a) further clarifies the identification of the environmentally preferable alternative as "the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources."

After completing the environmental analysis, the NPS identified Alternative 2: Restore to Original Conditions, as the environmentally preferable alternative. The restoration of the road to its original conditions would have the least impacts to biological, cultural, and physical resources within the Park. The alternative would require the least amount of construction work, would not increase impervious surfaces in the floodplain, and have the least adverse impacts to vegetation and wildlife. It would not require tree removal or in-stream construction activities. Replacement of the existing gabion basket walls with VRSS would result in long-term, beneficial impacts to hydrology by reducing stream velocities and the associated risk of local and downstream erosion. Additionally, Alternative 2 would result in long-term, beneficial impacts to riparian areas along Rock Creek as a result of revegetation of no less than 0.6 acre to compensate for the 0.3 acre of riparian area that was disturbed during previous roadway construction in 2011. Restoring the road to its original conditions would not result in adverse impacts to historic structures, cultural landscapes, and archeological resources.

NATIONAL PARK SERVICE PREFERRED ALTERNATIVE

To identify the preferred alternative for the EA, each alternative was evaluated based on ability to meet the purpose and need, and on potential impacts to the environment. The project team screened the alternatives using the Choosing by Advantages (CBA) process during a Mini-Value Analysis (MVA) workshop held March 30, 2012. The objectives of the MVA were to develop the preferred alternative, discuss options to address bioengineering, and discuss options to address traffic calming.

The NPS Project Team reviewed the merits of all the alternatives to determine which were most viable. Ultimately, Alternative 4 was chosen to be the NPS preferred alternative.

MITIGATION MEASURES OF THE ACTION ALTERNATIVE

The NPS places 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. The NPS will implement an appropriate level of monitoring throughout the construction process to help ensure that protective measures are being properly implemented and are achieving their intended results.

GENERAL CONSIDERATIONS

- Construction fencing will be installed to clearly delineate the project disturbance limits prior to commencement of work by the contractor.
- All protection measures will be clearly stated in the construction specifications and workers will be instructed to avoid conducting activities beyond the construction zone, as defined by the road or construction zone fencing.
- All removed asphalt and other material will be hauled from the site immediately and be recycled or disposed in accordance with FHWA guidelines.
- New concrete and asphalt will be produced outside Rock Creek Park. No overnight storage of these materials will be permitted within Park boundaries.
- All equipment on the project will be maintained in a clean and well-functioning state to avoid or minimize contamination from automotive fluids, and to ensure that noise controls are properly functioning. All equipment will be checked daily.
- Prior to construction, a hazardous spill plan will be submitted, stating what actions will be taken in case of a spill to minimize any adverse impacts. This plan will also incorporate preventive measures to be implemented, such as the placement of construction staging areas and refueling facilities, storage and handling of hazardous materials, and notification procedures for a spill. A spill kit will be available and workers trained to use it will be available to clean up spills.

WATER RESOURCES

- Stormwater flow will be diverted as necessary to minimize the potential for the introduction of chemicals or sediments into the stream.
- Adverse effects of fuel spills will be minimized through the following:
 - Construction staging areas will be located at Cathedral Avenue, NW in a previously disturbed and paved area away from surface water features.
 - Activities such as refueling will be located well away from surface water features.
- Areas where refueling or construction vehicle and equipment maintenance are to be conducted will be designated and equipped with containment devices such as temporary berms.

SOIL EROSION AND SEDIMENT CONTROL

- An erosion and sediment control plan will be prepared and implemented, consistent with the District of Columbia Soil Erosion and Sediment Control Program and a District of Columbia soil erosion and sediment control permit will be obtained.
- The amount of disturbed earth area and soil exposure to rainfall will be minimized.
- Any soil excavated during construction will be stockpiled and either re-used on site as needed or hauled away and disposed of properly.
- Temporary best management practices (BMPs) will be used to minimize erosion and sedimentation from ground-disturbing activities that expose bare soil. The BMPs may include the use of silt fence, sediment logs, erosion matting, or check dams. These BMPs will be used only during construction and will be removed once the disturbed area has been permanently stabilized. In addition, disturbed soil or soil stockpiles will be covered with plastic sheeting, jute matting, erosion netting, straw, or other suitable cover material.
- Erosion and sediment control BMPs will be inspected on a regular basis and after each measurable rainfall to ensure that they are functioning properly and to maintain BMPs (repair and clean) as necessary to ensure that they continue to function properly.

VEGETATION

- Trees that have been removed during construction before July 2011 will be replaced by dbh (for example, if a 10-inch dbh tree was removed, NPS will plant 10-inch dbh worth or five – two-inch caliper trees).
- The critical root zone of all trees that are not proposed to be removed will be protected, with a minimum requirement of one foot of protection for each inch of dbh.
- Any trees selected for protection by Park staff near construction areas will be marked by silt fence or orange construction fence that will stay in place during the entire construction process. A Park arborist will be consulted if it is determined necessary to encroach into this protected zone.
- FHWA Eastern Federal Lands Highway Division will ensure seeding with an NPS-approved seed mix to begin establishing ground cover. Once the project is complete, the area will be revegetated pursuant to a planting or landscaping plan. The vegetation planted will be appropriate for the vegetation zone where construction is occurring. Any planting plan must be approved by Rock Creek Park Natural Resources staff.
- All fill and aggregate material will be treated or certified free of all nonnative plants before entering the Park.
- Vegetation will be maintained and monitored by contractors obtained by the NPS in areas replanted following road rehabilitation to ensure the successful establishment of native

species and to ensure that any nonnative invasive species that appear in the replanted areas are removed. Maintenance will be expected for two years and monitoring for three years.

- The NPS will revegetate no less than 0.6 acres of riparian area in the northern floodplain of the Park as mitigation for the 0.3 acres of riparian area disturbed during previous construction. Details of this mitigation can be found in the attached Wetlands Statement of Finding.
- The Park will replant the up to seven trees in the Parkway median area that will be removed or damaged. These trees will be replanted with the same species, and in areas as close as possible to the trees' original locations in the Parkway median. This work will be conducted in consultation with the NPS Regional Archeologist and the Park's Horticulturalist.

WILDLIFE

- Wildlife species observed in the construction areas will be provided the opportunity to move out of harm's way.
- Cofferdams will not be in place during fish spawning season (late winter through early summer [February through July]).

CULTURAL RESOURCES

- Impacts to the cultural landscape will be minimized by ensuring that the rehabilitation and reconstruction of Rock Creek and Potomac Parkway, as well as the mitigation revegetation area in the northern floodplain of Rock Creek Park, is conducted in a manner consistent with *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes*.
- Impacts to historic structures will be minimized by ensuring that all proposed road rehabilitation and reconstruction activities are conducted in a manner consistent with *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Structures*.
- Archeological monitoring of the Lyons Mill site will occur during construction to ensure that no disturbance of the foundation remains takes place.
- If archeological resources are discovered during construction, all work in the immediate vicinity of the discovery will be halted until the resources can be identified and documented and an appropriate mitigation strategy can be developed. Consultation with the NPS, the NPS regional archeologist, and/or the D.C. Historic Preservation Officer (DC SHPO) will be coordinated to ensure that the protection of resources is addressed. In the unlikely event that human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act (25 USC 3001) of 1990 will be followed.
- Historic American Landscapes Survey (HALS) documentation was completed in August 2012 for the historic trees that will be impacted during construction.

TRANSPORTATION MANAGEMENT

- Coordination with local agencies will be undertaken to manage the traffic impacts along arterials.
- Advisory messages will be posted to warn drivers of expected delays and advise them of viable alternatives, including greater usage of mass transit.
- Lane closure will be posted on the Park website one week prior to each closure and during the closure.

- Through the duration of this project, the FHWA will provide and maintain proper signs, barricades, and/or other means of warning the general public of dangers inherent in the project.
- The adjacent Rock Creek Park Multi-use Trail will remain open at all times.

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

As documented in the EA, the NPS has determined that the selected alternative, Alternative 4 (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): Water resources, floodplains, wetlands, soils, vegetation, wildlife, cultural resources, visitor use and experience, and transportation and safety 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. Impacts that will occur to the affected resources are summarized below:

Water Resources: An additional 4,600 square feet of new impervious surfaces will be added. However, the new road surface will be added away from the stream bank of Rock Creek, and there will be no encroachment into the creek channel. The new impervious surface will result in long-term negligible to minor adverse impacts from increased runoff. However, because the majority of stormwater runoff will be captured in newly added catch basins, the effects will not be noticeable. In addition, once the VRSS vegetation becomes established, there will be long-term, beneficial impacts to the creek, to the downstream channel, and to overall water quality. There will be short-term, negligible to minor impacts associated with construction that will be minimized by compliance with sediment and erosion control guidance. Long-term beneficial impact will also occur as result of restoring up to 0.69 acres of riparian area upstream.

Floodplains: The 4,600 sq. ft. increase in impervious surfaces and encroachment into the creek channel under the selected alternative will result in long-term, negligible to minor, adverse impacts to Rock Creek floodplain values and functions from increases in impervious surfaces in the floodplain, with long-term benefits from the revegetation project and replacement of the gabion baskets with VRSS.

Wetlands: Implementation of the selected alternative will lead to the stabilization of approximately 250 feet of the east bank and approximately 100 feet of the west bank of Rock Creek, decreasing the sediment load entering waters of the United States and resulting in long-term, beneficial impacts. Additionally, a riparian revegetation along Rock Creek will have long-term, beneficial impacts by improving the riparian area, decreasing erosion potential and limiting the amount of sediment entering waters of the United States, and mitigating for the impacts to approximately 0.3 acre of riparian area from previous construction activities. There will be short-term, negligible to minor, adverse impacts associated with construction activities.

Soils: Adding a merge lane by widening the road toward the median will have short-term, moderate, adverse impacts to soil resources because of construction activities. However, these impacts will be mitigated by using construction BMPs. Long-term, minor to moderate, adverse impacts to soil resources will result from the additional compaction of approximately 4,600 square feet (0.12 acre) of clean imported fill soil; the removal of or impacts to up to seven trees (five with large diameter) from construction; and the installation of light poles, inlets and a pipe. Long-term, beneficial impacts will result from the stabilization of presently eroding soils along the creek bank.

Vegetation: Approximately 10,100 square feet of previously undisturbed areas will be disturbed. Up to seven trees (five with large diameters) will either be removed or impacted by construction. These trees will be replaced with the same species and in locations as close to possible as the original plantings,

resulting in long-term, minor, adverse impacts to vegetation in the project area. VRSS will replace the current gabion baskets for erosion control and riparian areas will be revegetated, resulting in long-term, beneficial impacts to vegetation in the project area through allowing vegetation to reestablish along the stream bank.

Wildlife: Approximately 10,100 square feet of previously undisturbed areas will be disturbed and up to seven trees (including five with large diameter) will be removed or impacted by construction, resulting in short- and long-term, minor, adverse impacts to wildlife in the project area. Short-term, negligible to minor, adverse impacts will also result from the construction of the VRSS, which will replace the current gabion baskets for erosion control. However, beneficial impacts will result over the long term for aquatic wildlife from the VRSS and restoration of riparian areas along the creek.

Historic Structures and Districts: The selected alternative will result in negligible effects to the Rock Creek and Potomac Parkway (RCPP) Historic District due to its impacts to the Parkway median and roadway. It also will result in long-term, beneficial impacts to historic structures within the RCPP Historic District, due to the avoidance of the threat of continued erosion of Rock Creek and the trail network and the related degradation of the bucolic setting. This alternative will have no impacts to any other historic structures. The assessment of effect under Section 106 will be “*no adverse effect*.”

Cultural Landscape: The addition of a merge lane onto the southbound Parkway and the realignment of the road toward the median, in conjunction with the stabilization of the Rock Creek stream banks and the adjacent trail, will have long-term, minor, adverse impacts to cultural landscapes. This is due to the balancing of impacts to the median and its trees with long-term, beneficial impacts to the Rock Creek stream banks at the project site at Waterside Drive, NW and with riparian revegetation along upper Rock Creek. The assessment of effect under Section 106 will be “*no adverse effect*.”

Archeological Resources: Adverse impacts to archeological resources will be negligible to minor. Archeological testing -- part of the Phase 1B archeological study, conducted in August 2012 within an area of the project site that will be impacted by the planned construction of the improved merge lane -- determined that the Lyons Mill’s foundations are still present. These foundations will be recorded as an archaeological site and entered into the NPS Archeological Sites Management Information System (ASMIS) database. The mill has not been formally evaluated for its eligibility for listing on the National Register of Historic Places (NRHP); however, it is a significant resource as the foundations of the mill represent an archeological resource with recognizable integrity and the site is NRHP-eligible. The roadway improvements will require the realignment of the parkway into the median where the southwest corner of the Lyons Mill foundation is present. Roadway construction will result in the addition of fill that will raise the merge lane to an elevation that is about six to seven feet above the top of the mill foundation. Once the sod is removed, there will be no excavation associated with roadway construction in the area of the mill. Construction activity in this area will be monitored so that the mill foundation will remain in place with no loss of historic fabric. The NPS will manage the foundation of the mill as an archeological resource, which will require periodic inspection to ensure that its condition remains stable. The assessment of effect under Section 106 will be “*no adverse effect*.”

Visitor Use and Experience: The implementation of the selected alternative will result in long-term, beneficial impacts to visitor use and experience from the improved merge area at Waterside Drive, NW and the southbound Parkway. Short-term, minor, adverse impacts will result from the one-lane closure and trail detour; however, upon completion of construction, long-term, beneficial impacts will occur from stream bank restoration.

Transportation and Safety: The selected alternative will have no impacts to traffic volumes on the Parkway. The roadway improvements will have a beneficial impact to motorists because a 150-foot acceleration lane will be added for the Waterside Drive, NW onramp and traffic calming measures will be implemented to improve safety at this segment of the southbound Parkway. These improvements will also create better access for emergency services, including the U.S. Park Police, emergency medical services, and fire services.

Degree of effect on human health or safety: The selected alternative will not adversely affect public health or safety. During construction, the FHWA will provide and maintain proper signs, barricades, and/or other means of warning the general public of dangers inherent in the project. The pedestrian traffic on the multi-use trail adjacent to the west bank of the creek could be detoured during stream bank restoration, and signs will be placed indicating any trail detours. There will be short-term, adverse impacts associated with road closures and detours during the construction period.

Overall, public safety will be improved by the addition of an acceleration lane and taper for merging traffic from Waterside Drive, NW. The merging vehicles will have a dedicated merging lane and be able to sufficiently accelerate and potentially avoid accidents with through traffic on the southbound Parkway. As a result of the new acceleration lane and road realignment, the sight distance for merging traffic from Waterside Drive, NW will be increased from 180 feet to 410 feet, a 230-foot increase. The through traffic on the southbound Parkway will be able to see the merging traffic from farther away and will potentially have enough time to switch lanes or stop to avoid merging vehicles. The merging traffic will be better able to see the through traffic from farther away and will have enough time to find a sufficient gap to safely merge. Therefore, traffic accidents will be reduced at this segment of the Parkway southbound. This alternative will result in long-term benefits for motorists using the Parkway.

Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, wetlands, prime farmlands, wild and scenic rivers, or ecologically critical areas: No prime farmlands, wild and scenic rivers, ecologically critical areas, or park lands other than the NPS property located within the project area will be subject to effects resulting from implementation of the selected alternative.

The project area at Waterside Drive, NW encompasses portions of three NRHP-listed historic districts: RCPP Historic District, the Georgetown Historic District, and the Massachusetts Avenue Historic District. The 0.69-acre riparian revegetation area consists of a series of planted beds of vegetation and trees on either bank of Rock Creek from Sherrill Drive, NW to Bingham Drive, NW, approximately five miles north of proposed reconstruction at Waterside Drive, NW. The riparian revegetation area is within the Rock Creek Park (RCP) Historic District (north of the Zoo Tunnel) rather than the RCPP Historic District (south of the Zoo Tunnel).

Rock Creek and Potomac Parkway Historic District – The principal historic district, in which road construction activities will take place under the selected alternative, is the RCPP Historic District, which was listed in the NRHP by the NPS under the multiple property listing “Parkways of the National Capital Region, 1913–1965.” Conceived in 1902 by the Senate Park or McMillan Commission, the Parkway is a major component of the District of Columbia’s comprehensive park system developed following City Beautiful ideals during the early 1900s. Originally built for horse-drawn carriages, horseback riders, pedestrians, and the occasional automobile, Rock Creek and Potomac Parkway was one of the earliest parkways in the nation. In the median south of the Waterside Drive Overpass is the site of the historic Lyons Mill. Adjacent to the site stand three large sycamores that appear to predate the Parkway construction. These sycamores are among the up to seven trees that will be removed or impacted during construction of the selected alternative.

The RCPP historic district is primarily important as a cultural landscape but was initially documented for the NRHP before the recent emphasis on cultural landscapes as a unique class of cultural resource. The Rock Creek and Potomac Parkway is scheduled to be inventoried separately as a cultural landscape in the next several years.

The selected alternative will result in negligible effects to the RCPP Historic District due to its impacts to the median and roadway, as well as long-term, beneficial impacts on historic structures to the RCPP Historic District due to the avoidance of the threat of continued erosion of Rock Creek and the trail network and the related degradation of the bucolic setting.

Georgetown Historic District – Georgetown was founded by an Act of the Maryland Assembly in 1751. It became part of the District of Columbia upon its establishment in 1791, although it remained a separate jurisdictional entity within the District until 1871. The Georgetown Historic District contains

approximately 4,000 primary buildings. However, no contributing elements have been officially determined. The district was first established by the Old Georgetown Act in 1950 and listed in the D.C. Inventory of Historic Sites in 1964. In 1967 the Georgetown Historic District was designated a National Historic Landmark and was listed in the NRHP. The period of significance for the Georgetown Historic District spans from 1751 to 1950. The district is roughly bounded by Reservoir Road, NW and Dumbarton Oaks Park on the north, Rock Creek Park on the east, the Potomac River on the south, and Glover–Archbold Park on the west.

Under the selected alternative, the Georgetown Historic District will experience long-term, beneficial impacts to historic resources due to the replacement of the visually disruptive gabion baskets by the VRSS. The VRSS will enhance the graceful transition from the natural riparian, wooded appearance of the west bank of Rock Creek to the picturesque landscape design of two adjacent cemeteries.

Massachusetts Avenue Historic District – The Massachusetts Avenue Historic District extends roughly on either side of Massachusetts Avenue, NW from Scott Circle to Observatory Hill. It is lined with the grand mansions built in a variety of Revival styles from 1890 to 1930 for wealthy and prominent Washingtonians. Many of these palatial urban residences, now serving as embassies, are individually listed in the NRHP.

Under the selected alternative, the Massachusetts Avenue Historic District will experience negligible, adverse impacts to historic structures. The setting and other character-defining aspects of the Massachusetts Avenue district will not be affected because the primary historic quality of this district is the linear parade of mansions with imposing front elevations facing toward the avenue from both sides, not the intermittent views from the backyards and rear elevations of houses on the southern side.

Rock Creek Park Historic District – The RCP Historic District's National Register boundaries are roughly defined as 16th Street, NW to the east; Oregon Avenue, NW and Broad Branch Road, NW to the west; the Zoo Tunnel to the south; and the District line and Parkside Drive, NW to the north. The historic district contains 1,754.62 acres of land dominated by picturesque landscapes including forested areas, streams, valleys, meadows, and sloping hills.

The contributing elements of the RCP Historic District within the project area (which are all structures associated with Park infrastructure) – an outdoor fireplace, pedestrian bridge, stream gauge, and historic trails/roads – will be avoided or protected during revegetation activities. There will be no impacts to historic structures. The assessment of effect for historic structures and districts under Section 106 will be “no adverse effect.”

Rock Creek Park as a cultural landscape is defined by the boundaries of the entire Park within the District of Columbia. Therefore, all of the area in the RCP Historic District and currently most of the RCPP Historic District are considered cultural landscapes. Both of these historic districts are primarily important as cultural landscapes but were initially documented for the NRHP before the recent emphasis on cultural landscapes as a unique class of cultural resource. The selected alternative will result in long-term, minor, adverse impacts to cultural landscapes from the realignment of the road toward the median, as well as long-term, beneficial impacts from the stabilization of the Rock Creek stream banks and trail and the revegetation of riparian areas. Preparation of HALS documentation of those important trees that will be removed or impacted by construction, implementation of re-landscaping, and completion of further cultural landscape investigations will avoid any adverse effects under Section 106. The assessment of effect for cultural landscapes under Section 106 will be “no adverse effect.”

Field investigations to delineate the extent of wetlands in the project area were conducted in October 2011. The wetland delineation sought to identify all wetlands and stream channels identified in the proposed project area. Field survey efforts identified one perennial stream, Rock Creek. No vegetated wetlands were identified during the investigation. Rock Creek, classified as riverine, upper perennial, unconsolidated bottom, was delineated for approximately 577 linear feet and approximately 75 feet in width, and comprises 0.93 acre (0.38 hectare) of the project area.

The 0.69-acre riparian revegetation area is composed of several sections of land, ranging in size between 0.005 and 0.279 acre, and which are immediately adjacent to the banks of Rock Creek in the northern floodplain area of the Park. Throughout the proposed revegetation area, the banks of Rock Creek are very steep and practically vertical from the edge of the riparian zone to the creek bed. Scouring of the stream banks is present throughout the revegetation area.

The selected alternative will result in long-term, beneficial impacts to the current condition of riparian area in the project area from the stabilization of Rock Creek with VRSS. This will occur by decreasing erosion potential and limiting the amount of sediment entering waters of the United States, and by revegetation of riparian areas along the creek to mitigate for the impacts to approximately 0.3 acre of riparian area from previous construction activities. Because of impacts to sections of the riparian wetland areas that have already occurred and are to be mitigated, and the potential for new impacts associated with the selected alternative, a Statement of Findings (SOF) for wetlands was prepared for this EA to document compliance with NPS wetland protection procedures (Director's Order 77-1: *Wetland Protection*). The SOF for wetlands was finalized by the Water Resources Division – NPS on August 31, 2012 (see attachment 2).

The selected alternative will result in long-term, negligible to minor, adverse impacts to Rock Creek floodplain values and function from increases in impervious surfaces in the floodplain, as well as long-term benefits from VRSS and riparian revegetation. A SOF for floodplains was prepared for this EA to document compliance with NPS floodplain protection procedures (Director's Order 77-2: *Floodplain Management*). The SOF for floodplains was finalized by the Water Resources Division – NPS on August 31, 2012 (see attachment 3).

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 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 water resources, floodplains, wetlands soils, vegetation, wildlife, visitor use and experience, historic structures and districts, cultural landscapes, archeological resources, visitor use and experience, and transportation and safety include Rehabilitation of Peirce Mill; Rehabilitation and Reconstruction of Beach Drive, NW and Rock Creek and Potomac Parkway; Broad Branch Stream Daylighting; Installation of Regenerative Stormwater Conveyances at Milkhouse Run and Bingham Run; National Zoological Park General Services Building Retaining Wall; Klinge Valley Trail; Oregon Avenue, NW Reconstruction and Improvements; Reconstruction of Broad Branch Road, NW; and Rock Creek Park Multi-use Trail Rehabilitation. The cumulative impacts conclusions were reached for the following resources:

Water Resources: The selected alternative will have long-term, negligible to minor, adverse impacts (from the additional impervious surface); long-term, beneficial impacts (from the replacement of the gabion baskets with VRSS and riparian area revegetation at Sherrill Drive, NW); and short-term, negligible to minor, adverse impacts (during construction). When combined with the impacts from the cumulative actions, the selected alternative will have a slight contribution to an overall long-term, beneficial impact to water quality and the stream channel.

Floodplains: The impact of the cumulative actions on the Rock Creek floodplain will be generally long-term and beneficial, although largely local. The selected alternative will have long-term, beneficial impacts (from the revegetation project and replacement of the gabion baskets with VRSS) and long-term, negligible, adverse impacts (from additional impervious surfaces). When combined with the long-term, beneficial impacts from cumulative actions, the selected alternative will have a relatively minimal contribution to a long-term, beneficial impact to floodplain functions and values.

Wetlands: The impacts to wetlands from past, present, and reasonably foreseeable future actions involving wetlands in Rock Creek will be generally beneficial, although largely local. When combined with the impacts from the cumulative actions, the selected alternative will have a minimal contribution to overall long-term, beneficial impacts to wetlands.

Soils: Cumulative actions with the potential to impacts soils, when combined with the impacts from cumulative actions, will result on long-term, beneficial, cumulative impacts. The selected alternative will have a slight contribution to these impacts.

Vegetation: The selected alternative will result in long-term, minor, adverse impacts to vegetation as a result of the removal of up to seven trees in the median, as well as long-term, beneficial impacts to vegetation through the implementation of VRSS to permanently stabilize the creek banks and the revegetation of riparian areas. When combined with the overall beneficial impacts from cumulative actions, the selected alternative will have a slight contribution to an overall long-term, beneficial impact.

Wildlife: Impacts to wildlife from the cumulative actions will be long-term and beneficial. The selected alternative will result in short-term, negligible to minor, adverse impacts to wildlife and wildlife habitat. However, long-term, beneficial impacts are expected from the implementation of VRSS and the revegetation of riparian habitat. When combined with the impacts of cumulative actions, the selected alternative will have a slight contribution to overall long-term, beneficial impacts.

Historic Structures and Districts: Cumulative actions with the potential to impact historic structures and districts include the rehabilitation of Peirce Mill and the rehabilitation and reconstruction of Beach Drive, NW and Rock Creek and Potomac Parkway. Impacts to historic structures and districts from these cumulative actions will be long-term and beneficial. The impacts of the selected alternative will be negligible. Therefore, in combination with impacts from cumulative actions, the selected alternative will have a minimal contribution to overall long-term, beneficial impacts to historic structures.

Cultural Landscapes: Cumulative actions with the potential to impact cultural landscapes include the rehabilitation of Peirce Mill and the rehabilitation and reconstruction of Beach Drive, NW and Rock Creek and Potomac Parkway. Impacts to cultural landscapes from these cumulative actions will be long-term and beneficial. The impacts of the selected alternative will be long-term, negligible, and adverse. In combination with the impacts that have resulted from the cumulative actions, the selected alternative will have a slight, adverse contribution to overall long-term, beneficial impacts.

Archeological Resources: Because there have been no impacts to archeological resources from the larger, on-going Rock Creek and Potomac Parkway and Beach Drive, NW reconstruction and rehabilitation project, there will be no cumulative impacts possible in combination with the selected alternative.

Visitor Use and Experience: Cumulative actions with the potential to impact visitor use and experience will result in long-term, beneficial impacts. When combined with the impacts of the cumulative actions, the selected alternative will have a minor contribution to overall long-term, beneficial impacts to visitor use and experience.

Transportation and Safety: Overall, the cumulative impacts to transportation and safety will result in long-term, beneficial impacts. The selected alternative will result in long-term beneficial impacts to transportation and safety. When combined with the impacts from the cumulative actions, the selected alternative will have a noticeable contribution to overall long-term, beneficial impacts.

Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources: District of Columbia and federal agencies coordinated during the NEPA process to identify issues and/or concerns related to natural and cultural resources in Rock Creek Park. All consultations with the DC SHPO, as mandated in Section 106 of NHPA, occurred in conjunction with the development of the EA. There are several areas of cultural resources that will be impacted by the selected alternative, including the section of the Parkway that will be reconstructed, the section of the creek that will be permanently stabilized, associated areas that will be used for construction staging areas for equipment and supplies, and the riparian revegetation areas along Rock Creek. The Parkway reconstruction and stream bank stabilization lie within the NRHP-listed RCPP Historic District, specifically the area that contains the subsurface remains of the 1800s Lyons Mill, while the riparian revegetation sites lies within the NRHP-listed RCP Historic District.

In June 2012, the NPS completed a Phase 1A archeological study of the project area, specifically focusing on the median in the vicinity of Waterside Drive, NW and the possible location of archeological resources associated with Lyons Mill. The study's findings pointed to the need for further consideration of the effects of the project on possible archeological resources. In August 2012, the NPS conducted a Phase 1B archeological study to identify possible archeological resources within the project area. Archeological testing showed that the mill's foundations are still present on the project site. Measures will be taken during construction to protect the foundation. Since the area will be built up with fill and no excavation will occur directly over the mill foundations, it will be possible to construct the new merge lane across the mill foundation with no direct impacts. As the mill foundation will remain undisturbed, there will be a no adverse effect on archeological resources from the project.

The NPS began consultation with the DC SHPO in October 2011; coordination and consultation is ongoing. This EA includes the summary of the Assessment of Effect under Section 106 of the NHPA in the "Environmental Consequences" section under "Cultural Resources." A copy of the EA/AoE was provided to the DC SHPO in July 2012 to facilitate consultation. The Phase 1B archeology study was provided to the DC SHPO to complete the Section 106 compliance. In a letter dated September 6, 2012, the DC SHPO concurred with the NPS' finding of "no adverse effect" for historic properties and "no adverse effect" for archaeological resources, provided that the following conditions are met for archeological resources:

1. The remains of the mill will be encapsulated to enhance their preservation;
2. The remains of the mill will be avoided during implementation of the undertaking;
3. Archeological monitoring will occur during construction to ensure that archeological resources are avoided; and
4. Trees removed from the median will be replanted as close as possible to their original locations (in coordination with the archeologist and horticulturist).

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 (ESA), on October 3, 2011 a letter was sent on behalf of Rock Creek Park to solicit comments from the United States Fish and Wildlife Service (USFWS) regarding rare, threatened, and endangered species known to be present in the project area that could be adversely impacted by the proposed alternatives. A follow-up letter was sent by the NPS on April 16, 2012 to solicit comments from USFWS regarding the existence of one federally listed endangered species, Hay's Spring amphipod, and one candidate species, Kenk's amphipod, within the project area. According to Park staff, the closest Hay's Spring amphipod population is within the Smithsonian Institution's National Zoo, which is approximately one-and-a-quarter miles northeast of the project site. The majority of Hay's Spring and Kenk's amphipod populations within Rock Creek Park are located approximately two-and-a-half miles to the northeast of the project site. Therefore, there is no evidence of the presence of either the Hay's Spring or Kenk's amphipod within the project location. In

April 2012, the USFWS responded with their concurrence on the NPS's determination that the federal candidate Kenk's amphipod and the federally-listed Hay's Spring amphipod occur in Rock Creek Park and that no other federally listed or candidate species are known to occur there. In addition, the USFWS concurred with the NPS's findings concerning the distances between the springs known to support these species and the project area, and that neither of these species is known to occur in the project area.

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

The NPS initiated public scoping for this EA by issuing a public scoping notice on October 4, 2011. The scoping notice was sent to a mailing list consisting of 126 recipients and was posted to the Park's Planning, Environment, and Public Comment (PEPC) website. The scoping notice described the history of the planning process, including previous reconstruction planning efforts in 2006, which included the consideration of an acceleration lane at Waterside Drive, NW. Subsequently, a public meeting to solicit feedback on the purpose, need, objectives, and preliminary alternatives was held on October 27, 2011 at the Rock Creek Park Nature Center, Washington, D.C. from 6:00 p.m. to 8:00 p.m. A public meeting notice was posted on the Park's website. The notice was also sent on October 24 and October 27, 2011 by the National Capital Region Office of Communication to 150 news organization including all wire services, the Washington Post, the Washington Times, the Examiner, the Northwest Current, local television stations, and local radio stations, among others.

Two people signed in for the meeting. The meeting began with an open house, allowing the public to circulate among Park staff and informational displays that described the project background, project area, current road condition, the purpose and need for the proposed action, and the preliminary alternatives and site constraints. The NPS staff gave a brief presentation to explain the project and the NEPA and Section 106 processes. All attendees were advised to submit their comments to the Park via email, regular mail, PEPC, or on cards made available at the meeting.

The public scoping comment period was open from October 5, 2011, to November 18, 2011. During this time, the NPS provided several methods for the community to provide input on the proposed project. At the public meeting, comment sheets were provided. Additional opportunities for comment on the project included directing comments to the NPS PEPC website at <http://parkplanning.nps.gov/rocr/> or sending written comments to the park superintendent. During the comment period, two pieces of correspondence were received. One comment was received via PEPC while another was mailed to the Park. One commenter requested that no changes be made to the southbound ramp, while the second commenter viewed the Parkway as a national treasure and evacuation route and requested that it be repaired in a timely manner.

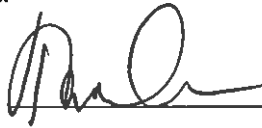
On July 31, the park sent out by email a Notice of Availability for the EA to approximately 242 persons, which publicized the August 1 through 30, 2012 public comment period. A press release was also sent out to the same media outlets as for the public scoping meeting, and the EA was also placed on the NPS PEPC website. During the public comment period, the NPS received 11 pieces of correspondence from the public and two pieces of correspondences from agencies commenting on the proposed action. Public comments and NPS response to comments are shown in attachment 1. While the NPS considered all comments it received, the comments prompted no changes to the selected alternative or the impact analysis. An errata sheet is attached to this FONSI that contains minor clarifications, corrections, and updates to the 2012 Waterside Drive EA, these minor changes do not alter the analysis in the EA or determination of the selected alternative.

CONCLUSION

The NPS has selected alternative 4 for implementation. 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 (see attached Impairment Determination). The selected alternative does not constitute an action that normally requires preparation of an EIS. The selected alternative will not have a significant effect on the human environment. Adverse environmental impacts that could occur to Park natural and cultural resources are negligible to moderate in intensity. There are no significant impacts to soils, vegetation, wildlife, wetlands, cultural resources, visitor use and experience, and transportation and safety. 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 will not be prepared. This is a finding of no significant impact.

Recommended:

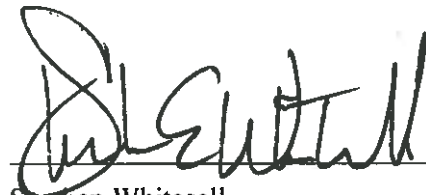


Tara Morrison
Superintendent
Rock Creek Park

September 11, 2012

Date

Approved:



Stephen Whitesell
Regional Director
National Capital Region

9.11.12

Date

NON – IMPAIRMENT DETERMINATION

The NPS has determined that implementation of the selected alternative will not result in impairment of park resources and values of Rock Creek Park and Rock Creek and Potomac Parkway. Pursuant to the NPS Guidance for Non-Impairment Determinations and the NPS NEPA Process (October 31, 2011), a non-impairment determination for the selected alternative is included here as an appendix to the Finding of No Significant Impact.

The prohibition against impairment originates in the NPS Organic Act, which directs that the NPS shall:

“...promote and regulate the use of the...national parks...which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.”

According to *NPS Management Policies 2006*, an action constitutes an impairment when its impact “would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values” (sec. 1.4.5). To determine impairment, the NPS must evaluate “the particular resources and values that would be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts” (sec. 1.4.5).

National Park System units vary based on their enabling legislation, natural and cultural resources present, and park missions. Likewise, the activities appropriate for each unit and for areas in each unit also vary. For example, an action appropriate in one unit could impair resources in another unit. Rock Creek Park is linked to the Potomac River and the monumental core of Washington, D.C. by the Rock Creek and Potomac Parkway. Congress established the parkway in 1913 for “the purpose of preventing pollution and obstruction of Rock Creek and of connecting Potomac Park with the Zoological Park and Rock Creek Park.” The parkway corridor is managed contiguously with Rock Creek Park.

As stated in the *NPS Management Policies 2006* (sec. 1.4.5), an impact on any park resource or value may constitute an impairment, but an impact would be more likely to constitute an impairment to the extent that it affects a resource or value whose conservation is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park; or
- Key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or
- Identified in the park’s general management plan or other relevant NPS planning documents as being of significance.

The resource impact topics carried forward and analyzed for the NPS selected alternative in the EA, and for which an impairment determination is contained in this appendix, are water resources, floodplains, wetlands, soils, vegetation, wildlife, historic structures and districts, cultural landscapes, and archeological resources. The following describes each resource or value for which impairment is assessed and the reasons why impairment will not occur.

Water Resources – The selected alternative will not result in impairment to water resources. One of the purposes of Rock Creek Park is to preserve and perpetuate for this and future generations the ecological resources of the Rock Creek valley within the park in as natural a condition as possible. The purposes of the Rock Creek and Potomac Parkway are to connect Rock Creek Park and the National Zoological Park to Potomac Park with a scenic road and to prevent the pollution and obstruction of Rock Creek. Part of the preservation of natural conditions and preventing pollution of Rock Creek includes the protection of the banks of Rock Creek. The selected alternative will permanently stabilize both banks of Rock Creek that has been severely eroded as a result of storms in the summer of 2011. The selected alternative will, however, result in 4,600 square feet of new impervious surface, but will not encroach on the stream channel. This additional pavement will marginally increase runoff from the road surface.

Appropriate best management practices (BMPs) will be used during construction, including placing of coffer dams in the stream to minimize erosion to the stream banks and using upland sediment and erosion measures to reduce the sediment load entering the stream. Riparian area revegetation will also preserve the natural condition of the park, as native vegetation is replanted. This improvement to the roadway as part of the selected alternative will also preserve the purpose to connect Rock Creek Park and the National Zoological Park to Potomac Park with a scenic road. The addition of steel-backed timber guardrails will be in keeping with the existing palette of hardscape features in the historic district. Because the park will continue to be able to meet the park mission and fulfill the park purpose under the enabling legislation, the selected alternative will not result in impairment.

Floodplains – The selected alternative will not result in impairment to floodplains. Requirements for addressing impacts to floodplains are contained in Executive Order 11988 (Floodplain Management) and in NPS Director's Order 77-2: Floodplain Management. The selected alternative will increase impervious surfaces and encroach into the creek channel, resulting in adverse impacts to Rock Creek floodplain values and functions. However, long-term benefits will result from the riparian area revegetation and replacement of the gabion baskets with VRSS to permanently stabilize both banks of Rock Creek.

Because impacts to sections of the riparian wetland areas have already occurred and will be mitigated, and the potential for new impacts associated with the selected alternative, a Statement of Findings for floodplains was prepared for this EA to document compliance with NPS floodplain protection procedures (Director's Order 77-2). The park will continue to be able to protect natural resources and will use mitigation measures to limit impacts. Because the park will continue to be able to meet the park mission and fulfill the park purpose under the enabling legislation, the selected alternative will not result in impairment.

Wetlands– The selected alternative will not result in impairment to wetlands. Requirements for addressing impacts to wetlands are contained in Executive Order 11990 (Protection of Wetlands) and in NPS Director's Order 77-1: Wetland Protection. One of the purposes of Rock Creek Park is to preserve and perpetuate for this and future generations the ecological resources of the Rock Creek valley within the park in as natural a condition as possible. The purposes of the Rock Creek and Potomac Parkway are to connect Rock Creek Park and the National Zoological Park to Potomac Park with a scenic road, and to prevent the pollution and obstruction of Rock Creek. Part of the preservation of natural conditions and preventing pollution of Rock Creek includes the protection of the wetlands within the park. Implementation of the selected alternative will lead to the stabilization of approximately 150 feet of the east bank and approximately 100 feet of the west bank of Rock Creek, decreasing the sediment load entering waters of the United States. In addition, a riparian revegetation along Rock Creek will have long-term benefits by improving the riparian area along Rock Creek, decreasing erosion potential and limiting the amount of sediment entering waters of the United States, and mitigating for the impacts to approximately 0.3 acre of riparian area from previous construction activities.

A Statement of Findings for floodplains was prepared for this EA to document compliance with NPS floodplain protection procedures (Director's Order 77-1). While there will be direct impacts to wetlands, the impacts will not be significant but beneficial. Because the park will continue to be able to meet the park mission and fulfill the park purpose under the enabling legislation, the selected alternative will not result in impairment.

Soils – The selected alternative will not result in impairment to soils. Part of the purpose of Rock Creek Park is to preserve and perpetuate for this and future generations the ecological resources of the Rock Creek valley within the park in as natural a condition as possible, which includes stabilization of soils that support natural vegetation and wildlife habitat. The selected alternative will permanently stabilize both banks of Rock Creek that have experienced severe erosion from storms in 2011, as well revegetate riparian areas along the creek in response to impacts to riparian areas in the vicinity of Waterside Drive, NW that resulted from previous construction of safety improvements on the parkway. Construction activities associated with the selected alternative will involve ground disturbances such as grading, leveling, and filling, which will result in disturbance of soils. Although the selected alternative will include the clearing of vegetation and exposure of soils, the impacts will be limited to the project areas

and soil productivity and characteristics will not change outside of the limit of disturbance. The use of sediment and erosion control measures will ensure the alternative will not increase sedimentation in Rock Creek – fulfilling one of Rock Creek and Potomac Parkway’s purpose to prevent pollution and obstruction of Rock Creek. Soils throughout the project area are previously disturbed and will not experience significant adverse impacts as a result of implementation of the selected alternative. Since the selected alternative will not inhibit the park’s ability to protect natural resources, but instead promote it, including permanent stabilization of Rock Creek’s banks and revegetated riparian areas to decrease further erosion, the selected alternative will not result in impairment.

Vegetation– The selected alternative will not result in impairment to vegetation. One purpose of Rock Creek Park is to preserve and perpetuate for this and future generations the ecological resources of the Rock Creek valley within the park in as natural a condition as possible. Another is to provide opportunities for the public to experience, understand, and appreciate the park in a manner appropriate to the preservation of its natural and cultural resources. Vegetation is a resource necessary to fulfill the purposes of the park. Widening the road toward the median side will result in the disturbance of approximately 17,500 square feet (0.40 acre), approximately 10,100 square feet (0.23 acre) of which will be on previously undisturbed areas. As a result of the road realignment, up to seven trees will be removed; however, this impact will occur in a relatively small portion of the park. The gabion baskets that are currently stabilizing sections of Rock Creek will be replaced with a permanent, bioengineered slope. Because much of the vegetation along the stream bank in the project area was destroyed during the storm events in 2011 and during prior construction, the construction of a permanently stabilized slope will result in beneficial impacts to vegetation, as native vegetation along the stream bank will reestablish over the long-term. Revegetation of no less than 0.6 acre of riparian areas along Rock Creek will result in long-term benefits for vegetation through reestablishing native plant communities along Rock Creek.

Additionally, mitigation measures will be implemented to prevent the spread of nonnative, invasive plant species. All fill and aggregate material will be treated or certified free of all nonnative, invasive plants before entering the park. Vegetation also will be monitored in areas replanted following road rehabilitation to ensure the successful establishment of native species and ensure that any nonnative, invasive species that appear in the replanted areas are removed. Since the selected alternative will not inhibit the park’s ability to protect natural resources, particularly vegetation, but instead promote it, including permanent stabilization of Rock Creek’s banks and revegetated riparian areas to decrease further erosion, the selected alternative will not result in impairment.

Wildlife – The selected alternative will not result in impairment to wildlife. One purpose of Rock Creek Park is to provide opportunities for the public to experience, understand, and appreciate the park in a manner appropriate to the preservation of its natural and cultural resources. Wildlife is a natural resource necessary to fulfill the purposes of the park. Construction elements associated with the selected alternative will displace species that currently use the areas of the proposed road realignment and bank stabilization, resulting from human activity and noise associated with construction activities. The mortality or injury of smaller, less mobile species could occur as a result of construction. However, impacts to wildlife and wildlife habitat resulting from construction are expected to be minimal due to the relatively small area being affected and the ability of adjacent areas to provide adequate habitat. As a result of the road realignment, up to seven trees (five with large diameter) will be removed or impacted by construction, resulting in short-term and long-term, minor, adverse impacts to wildlife in the area that use habitat provided by these trees. The gabion baskets that are currently stabilizing sections of Rock Creek will be replaced with a permanent, bioengineered slope. Because much of the vegetation along the stream bank in the project area was destroyed during the storm events in 2011 and during prior construction, the construction of a permanently stabilized slope will result in beneficial impacts to wildlife in the project area. Native habitat along the stream bank will reestablish over the long-term, and a more permanent form of erosion control will be in place. Mitigation measures will be implemented to prevent erosion and sediment buildup, and stormwater BMPs will be implemented to minimize potential impacts to aquatic species and their habitats both in and downstream of the project area. Restoration of riparian areas along Rock Creek will result in long-term benefits to wildlife (particularly riparian species) by reestablishing

native habitat in the project area. Because the selected alternative will have, overall beneficial impacts to wildlife and wildlife habitat, no impairment to this resource will occur.

Historic Structures and Districts – There will be no impairment to any historic structures or districts within Rock Creek Park as a result of implementing the selected alternative. Impacts to the parkway road as a contributing feature of the Rock Creek and Potomac Parkway (RCPP) Historic District, as well as the characterization of altering the configuration of Waterside Drive, NW and southbound Rock Creek and Potomac Parkway, will be long-term and negligible. The addition of steel-backed timber guardrails is in keeping with the existing palette of hardscape features in the historic district. The installation of the VRSS will protect all stream banks of Rock Creek and the segment of the trail network along the western shore from further erosion, resulting in long-term benefits. The masonry-faced culvert on the eastern stream bank is upstream from the area where the VRSS will occur and will not be impacted. The selected alternative will have a long-term, negligible impact to the RCPP Historic District.

The Massachusetts Avenue Historic District will experience negligible adverse effects to historic structures. The setting and other character-defining aspects of the Massachusetts Avenue district will not be affected because the primary historic quality of this district is the linear parade of mansions with imposing front elevations facing toward the avenue from both sides, not the intermittent views from the backyards and rear elevations of houses on the southern side. The Georgetown Historic District, which extends to the western stream bank of Rock Creek, along with its component historic properties (the Oak Hill Cemetery and Mount Zion Cemetery), will experience long-term, beneficial impacts to historic resources due to the replacement of the visually disruptive gabion erosion control fix by the VRSS. The VRSS will enhance the graceful transition from the natural riparian, wooded appearance of the west bank of Rock Creek to the picturesque landscape design of the two cemeteries.

In the riparian revegetation area, several sites will be planted with native species appropriate to the natural riparian environment of Rock Creek. The contributing elements of the Rock Creek Park (RCP) Historic District within the project area (which are all structures associated with park infrastructure) – an outdoor fireplace, pedestrian bridge, stream gauge, and historic trails/roads – will be avoided or protected during revegetation activities.

There will be negligible to beneficial effects to all historic properties (the assessment of effect under Section 106 will be “no adverse effect”). Impacts to historic structures will be minimized by ensuring that all proposed road rehabilitation and reconstruction activities are conducted in a manner consistent with *The Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Structures*. Adverse impacts will be negligible and will not inhibit the ability of the Park to fulfill the specific purposes for which it was established; will not threaten the natural or historical resources within the park or its scenic beauty; nor inhibit opportunities for the public to experience, understand, and appreciate the park in a manner appropriate to the preservation of its natural and cultural resources.

Cultural Landscapes – There will be no impairment to the park’s cultural landscapes. Rock Creek Park as a cultural landscape is defined by the boundaries of the entire park within the District of Columbia. Therefore, it includes all of the area in the RCP Historic District and currently most of the RCPP Historic District. Both of these historic districts are primarily important as cultural landscapes but were initially documented for the National Register of Historic Places (NRHP) before the recent emphasis on cultural landscapes as a unique class of cultural resource. The RCPP is scheduled to be inventoried separately as a cultural landscape in the next several years.

The selected alternative will result in long-term, minor, adverse impacts to cultural landscapes from the realignment of the road toward the median, as well as long-term, beneficial impacts from the stabilization of the Rock Creek stream banks and trail and the revegetation of riparian areas. Implementation of re-landscaping, Historic American Landscapes Survey (HALS) documentation of significant trees that will be removed or impacted by construction, and further cultural landscape investigations will avoid any adverse effects under Section 106. Impacts to the cultural landscape will be minimized by ensuring that the rehabilitation and reconstruction of Rock Creek and Potomac Parkway is conducted in a manner consistent with *The Secretary of the Interior’s Standards for the Treatment of Historic Properties with*

Guidelines for the Treatment of Cultural Landscapes. The assessment of effect for cultural landscapes under Section 106 will be “no adverse effect.” Adverse impacts will be minor and will not inhibit the ability of the Park to fulfill the specific purposes for which it was established; will not threaten the natural or historical resources within park or its scenic beauty; and will not inhibit opportunities for the public to experience, understand, and appreciate the park in a manner appropriate to the preservation of its natural and cultural resources.

Archeological Resources – There will be no impairment to the park’s archeological resources.

Archeological testing -- part of the Phase 1B archeological study, conducted in August 2012 within an area of the project site that will be impacted by the planned construction of the improved merge lane -- determined that the Lyons Mill’s foundations are still present. These foundations will be recorded as an archaeological site and entered into the NPS Archeological Sites Management Information System (ASMIS) database. The mill has not been formally evaluated for its eligibility for listing in the NRHP; however, it is a significant resource as the foundations of the mill represent an archeological resource with recognizable integrity and the site is NRHP-eligible. The roadway improvements will require the realignment of the parkway into the median where the southwest corner of the Lyons Mill foundation is present. Roadway construction will result in the addition of fill that will raise the merge lane to an elevation that is about six to seven feet above the top of the mill foundation. Once the sod is removed, there will be no excavation associated with roadway construction in the area of the mill. Construction activity in this area will be monitored so that the mill foundation will remain in place with no loss of historic fabric. The NPS will manage the foundation of the mill as archeological resource, which will require periodic inspection to insure that its condition remains stable. The assessment of effect for archeological resources under Section 106 will be “no adverse effect.”

To ensure the protection of archeological resources and minimize any potential adverse impacts, all on-site work will be conducted pursuant to an NPS-issued construction permit with conditions pertaining to the discovery and handling of archeological resources. If archeological resources are discovered during construction, all work in the immediate vicinity of the discovery will be halted until the resources can be identified and documented and an appropriate mitigation strategy can be developed. Consultation with the DC SHPO, the NPS, and/or the NPS regional archeologist will be coordinated to ensure that the protection of resources is addressed. In the unlikely event that human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act (25 USC 3001) of 1990 will be followed. Because of this approach, any impacts that may occur to archeological resources will not impact the overall integrity of Rock Creek Park’s archeological resources. In addition, these impacts will not inhibit opportunities for the public to experience, understand, and appreciate the Park in a manner appropriate to the preservation of its natural and cultural resources. Therefore, the park will continue to fulfill the purposes for which it was created.

Summary

The NPS has determined that the implementation of the NPS selected alternative will not constitute an impairment of the resources or values of Rock Creek Park and Rock Creek and Potomac Parkway. As described above, adverse impacts anticipated as a result of implementing the selected alternative on a resource or value whose conservation is necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or identified as significant in the Rock Creek and Rock Creek and Potomac Parkway General Management Plan or other relevant NPS planning documents, will not constitute impairment. This conclusion is based on consideration of the park’s purpose and significance, a thorough analysis of the environmental impacts described in the EA, the comments provided by the public and others, and the professional judgment of the decision-maker guided by the direction of the *NPS Management Policies 2006*.

ROCK CREEK PARK

RECONSTRUCTION AND REHABILITATION OF ROCK CREEK AND POTOMAC PARKWAY SOUTHBOUND AT WATERSIDE DRIVE, NW ENVIRONMENTAL ASSESSMENT ERRATA

The following changes have been made to the Reconstruction and Rehabilitation of Rock Creek and Potomac Parkway Southbound at Waterside Drive, NW Environmental Assessment for Rock Creek Park (August 2012) to provide minor clarifications, corrections, and update information provided in the 2012 EA. Additions to the text are identified by underlines and deletions are marked by strikeout.

CHAPTER 1: PURPOSE AND NEED

INTRODUCTION, PAGE 1

The following clarifies that all construction activities in 2011 were permitted by the U.S. Army Corps of Engineers.

The NPS prepared an EA in 2006 that examined safety improvements for the parkway, including proposed safety improvements at Waterside Drive, NW. Soon after construction began on the Waterside Drive, NW section of the project in July of 2011, the NPS determined that the project design was not following the preferred alternative contained in the 2006 EA. A cofferdam had been placed within Rock Creek and the stream bank prepared for the construction of a retaining wall to support an additional merge lane and road improvements. Fourteen large trees had been removed from the area adjacent to the stream bank. However, all constructions activities in 2011 were permitted by the U.S. Army Corps of Engineers. The NPS stopped construction at the Waterside Drive, NW section of the overall parkway project in order to reinitiate the planning and compliance for this specific component of the overall project. Construction on the larger improvement project, including Cathedral Avenue, NW, Shoreham Drive, NW and Beach Drive, NW sections are consistent with the 2006 EA and continued as scheduled.

SCOPING, PAGE 7

PUBLIC SCOPING

The NPS initiated public scoping for this EA by issuing a public scoping notice on October 5 4, 2011. The scoping notice was sent to a mailing list consisting of ~~502~~ 126 recipients and was posted to the park's Planning, Environment, and Public Comment (PEPC) website. The scoping notice described the history of the planning process, including previous reconstruction planning efforts in 2006, which included the consideration of acceleration lanes at Waterside Drive, NW. Subsequently, a public meeting to solicit feedback on the purpose, need, objectives and preliminary alternatives was held on October 27, 2011 at the Rock Creek Park Nature Center, Washington, D.C. from 6:00 p.m. to 8:00 p.m. A public meeting notice was posted on the park's website. Two people signed in.

IMPACT TOPICS DISMISSED FROM FURTHER ANALYSIS, PAGE 14

The following clarifies the justification for dismissal of Air Quality as a topic analyzed in the EA and why there would be negligible impacts.

AIR QUALITY

The 1963 Clean Air Act, as amended (42 USC 7401 et seq.), requires federal land managers to follow policies that protect park air quality. The act also assigns the federal land manager (park superintendent) an affirmative responsibility to protect the park's air quality and related values — including visibility, plants, animals, soil, water quality, cultural and historic resources and objects, and visitors — from adverse air pollution impacts. Section 118 of the Clean Air Act requires that the park meet all federal, state, and local air pollution standards.

The proposed project is in the Metropolitan Washington Air Quality Control Region, an area the U.S. Environmental Protection Agency (EPA) has designated as in attainment for the following National Ambient Air Quality Standards (NAAQS) criteria pollutants: particulate matter less than 10 micrometers (PM10), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), and lead (Pb). The EPA has designated ~~Washington, D.C. The District of Columbia~~, as a ~~severe~~ moderate non-attainment area for the criteria pollutant ozone (O₃). ~~In addition, the EPA intends to designate this area as a~~ and in non-attainment area for particulate matter less than 2.5 micrometers (PM_{2.5}). The EPA has not yet designated severity thresholds for PM_{2.5}. Additionally, the District of Columbia is in maintenance for carbon monoxide (CO). A designation of maintenance means that the area was previously in non-attainment but has come into attainment. The maintenance designation ensures that the region does not slip back into non-attainment.

During the rehabilitation and reconstruction of the parkway, some emissions would result from the operation of construction vehicles. ~~In addition, While commuters and other motorists that currently use the parkway may detour to nearby roads, resulting in no~~ during the construction period, these detours would not result in additional traffic or traffic-related emissions in the area-wide transportation network during the construction phase. Based on projects of similar scale and nature, it is expected that these temporary sources of emissions from construction vehicles and displaced motorists would not change regional air quality and would fall well below ~~the minimum pollutant levels for a severe ozone non-attainment area~~ de minimis threshold for a moderate ozone non-attainment area in the ozone transport region and PM_{2.5} non-attainment area (subject to 40 CFR 93, Determining Conformity of Federal Actions to State or Federal Implementation Plans). To provide a local and recent example, the large-scale demolition and construction of buildings, including utility trenching and construction debris removal at Naval Support Activity (NSA) Bethesda, located in nearby Montgomery County (which is in the same airshed as the District of Columbia), would not exceed the de minimis threshold for construction emissions. Given the comparison to the full general conformity applicability analysis determination completed for NSA Bethesda, construction at Waterside Drive, NW would be temporary in nature (approximately three months long), would require minimal use of heavy equipment, including a back hoe, dump truck, and paving equipment, and would not be expected to exceed de minimis thresholds. Given the minimal construction emissions expected, the action alternatives would and would result in negligible impacts to air quality under the action alternatives during the construction phase.

After rehabilitation and reconstruction is completed (operational phase), an increase in the number of vehicles that use the parkway or drive on the surrounding road network would not be expected as a result of this project, resulting in no new emission sources or increased vehicular emissions. Because emissions would remain below ~~the minimum pollutant levels~~ de minimis threshold for a general conformity analysis during both the construction and operation phases of this project, this resource was not analyzed further.

IMPACT TOPICS DISMISSED FROM FURTHER ANALYSIS, PAGE 15

The following clarifies the justification for dismissal of Environmental Justice as a topic analyzed in the EA and why there would not be disproportionate impacts to certain populations.

ENVIRONMENTAL JUSTICE

EO 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations” directs agencies to address environmental and human health conditions in minority and low-income communities so as to avoid the disproportionate placement of any adverse effects from federal policies and actions on these populations. Local residents may include low-income populations; however, these populations would not be particularly or disproportionately affected by any of the road reconstruction or rehabilitation activities ~~and as a result, this impact topic was not analyzed further.~~ Additionally, all populations were included during the public involvement phases of this EA. The public scoping meeting and public review period for the EA was advertised through various media outlets including all wire services, the Washington Post, the Washington Times, the Examiner, the Northwest Current, local television stations, and local radio stations, among others, which reached all populations. Because certain populations would not be disproportionately affected, this impact topic was not analyzed further.

CHAPTER 2: ALTERNATIVES

ALTERNATIVE 4: ADD MERGE LANE BY WIDENING THE ROAD TOWARD THE MEDIAN (NPS PREFERRED ALTERNATIVE), PAGE 33

The following removes rumble strips as a traffic calming measure under the preferred alternative (alternative 4).

TRAFFIC CALMING

The following traffic calming measures would also be implemented under alternative 4:

- Installation of two warning signs showing merging traffic along the southbound parkway approaching the merge with Waterside Drive, NW.
- Installation of two “Yield” signs along Waterside Drive, NW ramp approaching the merge onto the southbound parkway.
- Solid striping ~~and rumble strips~~ along the southbound parkway approaching the merge with Waterside Drive, NW.

ALTERNATIVE 4: ADD MERGE LANE BY WIDENING THE ROAD TOWARD THE MEDIAN (NPS PREFERRED ALTERNATIVE), PAGE 33

The following clarifies that existing culverts would be extended under the preferred alternative (alternative 4).

ROAD REALIGNMENT

Under alternative 4, approximately 350 feet of Rock Creek and Potomac Parkway southbound at Waterside Drive, NW would be realigned approximately 12 feet (from the original, pre-2011 alignment) toward the median between northbound and southbound parkway and a merge lane of approximately 150 feet (150 feet plus 270 feet of taper) would be added (figure 2-9). As a result of the road realignment, up to seven trees, five with diameter at breast height (dbh) between 33.5 and 59.8 inches, would be removed or impacted by construction. The largest caliper trees for the site would be replanted. A steel-backed timber guardrail, similar to others found along the parkway, would be constructed along the length of the newly realigned road between the road and the creek to serve as a roadside barrier for vehicles.

Road widening (from pre-July 2011 conditions) toward the median side would result in the disturbance of approximately 17,500 square feet (0.40 acre), of which approximately 10,100 square feet (0.23 acre) are

previously undisturbed areas. Approximately 4,600 square feet (0.11 acre) of new impervious surface would be added by the footprint of the asphalt concrete added for road realignment and merge lane.

Two light poles in the median would be relocated and would require trenching of an area approximately 2.5 feet long (30 inches) by 2.5 feet wide and no more than seven feet deep. In addition, existing culverts would be extended to improve its function, new inlets and a pipe for drainage would be installed, requiring the disturbance of an area approximately six feet long by 3.5 feet wide by four feet deep for the inlets, and approximately 90 feet long by three feet wide and three feet deep for the pipe.

Under alternative 4, safety would be improved by the addition of an acceleration lane and taper for merging traffic from Waterside Drive, NW. The merging vehicles would have a dedicated merging lane and would be able to sufficiently accelerate and potentially avoid traffic accidents with through traffic. As a result of the new acceleration lane and road realignment, the sight distance for merging traffic from Waterside Drive, NW would be increased from 180 feet to 410 feet, a 230-foot increase. Through traffic on the southbound parkway would be able to see the merging traffic from farther away and would potentially have enough time to switch lanes or stop to avoid merging vehicles. The merging traffic would see through traffic from farther away better and would have enough time to find a sufficient gap to safely merge.

CHAPTER 4: ENVIRONMENTAL CONSEQUENCES

IMPACTS OF ALTERNATIVE 4: ADD MERGE LANE BY WIDENING THE ROAD TOWARD THE MEDIAN, PAGE 85.

The following considers the impacts to water quality of extending existing culverts under the preferred alternative (alternative 4).

Analysis. Under alternative 4, the road configuration would be moved toward the existing median by approximately 12 feet in places, and construction would take place farther from Rock Creek than in alternatives 2 or 3. New inlets would be installed and existing culverts extended to improve its function. This alternative would result in 4,600 square feet of new impervious surface and would not result in encroachment on the stream channel. This additional pavement would marginally increase runoff from the road surface, resulting in long-term, negligible to minor, adverse impacts to water quality.

Stream stabilization with VRSS would be the same as under alternative 2, with the same long-term, beneficial effects on downstream hydraulics and water quality. Hydraulic modeling shows results similar to alternative 2 with respect to decreased downstream velocities, and therefore decreased likelihood for future scour, erosion, and associated pollution (NPS 2012h). Once vegetation in the VRSS has been established, impacts from the runoff from the additional impervious surface would be attenuated. There would also be similar short-term, negligible to minor, adverse impacts from construction activities. Short- and long-term impacts to the stream channel and water resources would therefore be similar to the impacts described for alternative 2.

This alternative also includes at least 0.6 acre of riparian revegetation along Rock Creek at Sherrill Drive, NW, which would have the same long-term, beneficial impacts as those under alternatives 2 and 3. Additional mitigation measures, as outlined in Chapter 2 will be implemented to ensure that impacts are not significant.

IMPACTS OF ALTERNATIVE 4: ADD MERGE LANE BY WIDENING THE ROAD TOWARD THE MEDIAN, PAGE 107.

The following considers the impacts to aquatic wildlife of extending existing culverts under the preferred alternative (alternative 4).

IMPACTS OF ALTERNATIVE 4: ADD MERGE LANE BY WIDENING THE ROAD TOWARD THE MEDIAN

Analysis. Under alternative 4, approximately 350 feet (107 meters) of Rock Creek and Potomac Parkway southbound at Waterside Drive, NW would be realigned 12 feet (from the original pre-July 2011 alignment) toward the median between northbound and southbound Rock Creek and Potomac Parkway. Widening the road toward the median side would result in the disturbance of approximately 17,500 square feet (0.40 acre), approximately 10,100 square feet (0.23 acre) of which would be on previously undisturbed areas. As a result of the road realignment, up to seven trees (five with large diameter) would be removed or impacted by construction, resulting in short-term and long-term, minor, adverse impacts to wildlife in the area that use habitat provided by the trees. Trenching in the area, required to relocate two light poles, would disturb an area approximately 2.5 feet long by 2.5 feet wide by seven feet deep. Trenching, extension of existing culverts, and other construction-related activities would result in short-term, minor, adverse impacts to wildlife from noise disturbance. To ensure that habitat beyond the areas necessary for construction would not be adversely impacted, mitigation measures would be implemented, including fencing to clearly delineate the project disturbance limits before starting work. Additionally, wildlife species observed in the construction areas would be provided the opportunity to move out of harm's way.

ATTACHMENT 1: NPS RESPONSE TO COMMENTS

Waterside Drive EA Public Review EA Comments

Comment	NPS Response
<p>Figs 1.2 and 2.9 show conditions before 2011 construction, with a substantial number of trees on the NE bank of Rock Creek that have since been removed. The EA repeatedly refers to erosion damage from storms in August and September 2011. I did not see any mention of the obvious fact that this erosion only happened because of extensive tree removal and excavation work and the addition of the coffer dam at exactly that stream bank site. It seems disingenuous to blame nature for what the Park Service's own contractors actually caused.</p>	<p>As stated on page 1 of the EA, 14 trees had been removed as a result of previous construction and the erosion of the stream banks was exacerbated by the cofferdam that was still in Rock Creek from the construction of the retaining wall.</p>
<p>The Park Service and its contractors contradicted the 2006 EA. Therefore the proper course is to replant the vegetation that shouldn't have been removed in the first place. Remediation should mean, fixing what you broke. Cost recovery should be pursued for streambank restoration from the contractor who implemented plans that so blatantly violated the original 2006 EA.</p>	<p>As stated on page 38 of the EA, mitigation measures to be implemented include, "Trees that have already been removed during construction before July 2011 would be replaced by dbh (e.g., if a 10-inch dbh tree was removed, NPS would plant 10" dbh worth or five - 2" caliper trees)."</p>
<p>Alternative 4, in common with Alternative 2, includes replacing trees that were removed during construction activities in 2011 with the largest trees possible for the current site. This approach, even when clarified to mean replacement by dbh, lacks specificity or motivation in ensuring a successful remediation. The creek is a linear resource. Herring migration can only reach upwater sections of Rock Creek if the environment is hospitable in the lower sections. Planting trees miles upstream doesn't do a damn thing to help ensure the fish actually make it that far.</p>	<p>As stated on page 38 of the EA, mitigation measures to be implemented include, "Trees that have already been removed during construction before July 2011 would be replaced by dbh (e.g., if a 10-inch dbh tree was removed, NPS would plant 10" dbh worth or five - 2" caliper trees)." Vegetation will be replaced where they were removed.</p>

Comment	NPS Response
<p>The EA does not address the relevant issues. What trees and other vegetation were actually removed? What replanting will be sufficient, and what mix of trees will restore shade in the shortest possible time while also stabilizing the stream bank? What other measures should be taken during construction (besides avoiding coffer dams between February and July) to ensure a high volume of herring migration – the subject of previous NPS investment that required millions of taxpayer dollars?</p>	<p>As stated on page 1 of the EA, 14 trees had been removed as a result of previous construction.</p> <p>As stated on page 38 of the EA, mitigation measures to be implemented include, “Trees that have already been removed during construction before July 2011 would be replaced by dbh (e.g., if a 10-inch dbh tree was removed, NPS would plant 10" dbh worth or five - 2" caliper trees).”</p> <p>Additionally, all mitigation measures stated in pages 37-40 would be implemented during construction.</p>
<p>The problem with both gabion baskets and VRSS is that neither approach restores the shaded area that provided a rich habitat for herring, herons, and other wildlife before the initiation of construction in 2011. The stream bank restoration alternatives that were rejected from further consideration also focused only on ground vegetation, further demonstrating that the EA did not properly consider this key issue. A vegetated bank is nice, but it is the canopy that is missing.</p>	<p>Only native shrubs and native trees with low ultimate growth height can be planted under VRSS. As stated on page 38 of the EA, mitigation measures to be implemented include, “Trees that have already been removed during construction before July 2011 would be replaced by dbh (e.g., if a 10-inch dbh tree was removed, NPS would plant 10" dbh worth or five - 2" caliper trees).” As the trees mature, the cluster will provide increased shade along the creek.</p>

Comment	NPS Response
<p>The Cathedral Ave NW site identified as "currently being used" was intended to be a very temporary blockage of an important bike thoroughfare. Its continued presence poses significant danger to park users. With the construction process now stretching on for multiple years, the risks of a serious injury or, God forbid, a fatality, continue to mount.</p> <p>The current condition of the trail spur makes it completely unusable to cyclists. Despite passing that area as many as a dozen times each week, either in a car or on a bicycle, I have not seen a cyclist on that stretch of asphalt in many months. As a result, cyclists are constantly exposed to highway-speed vehicle traffic, choosing a chaotic variety of methods to traverse the intersection, without any visual indication whatsoever to alert drivers to the possibility of interacting with cyclists. It is hard for me to imagine how the Park Service or the contractor are willing to expose themselves to the potential liabilities of the current situation.</p>	<p>Comment noted. NPS will look into issue, however, this comment is outside the scope of this EA.</p>

Comment	NPS Response
<p>2) Staging Area and Construction Access:</p> <p>I see at least three possibilities that could be implemented within a matter of weeks:</p> <ul style="list-style-type: none"> a) With the only remaining construction on the overall project limited to the Waterside Drive merge area, the construction offices could be relocated to be closer to that site. The Cathedral Ave area could then finally be restored to a safe condition. b) A full stop sign for all vehicle traffic could be implemented at the crosswalk. Or, for less impact on vehicular traffic, a HAWK beacon may suffice, especially since there are no timing restrictions from synchronizing with other traffic signals. Paving on the bicycle spur would need to be restored, sufficient for all pedestrians and cyclists to use the single crosswalk. c) A protected contra-flow bike line could be installed on the northwest side of the wide north-bound Cathedral Ave exit. Protected by pylons similar to those used for bike facilities downtown, and with appropriate striping (both for crossing Shoreham Dr and for a mixing zone onto the Cathedral Ave), this protected area could function during all rush-hour and non-peak traffic configurations. It could also be eliminated and the road re-striped once the construction offices are finally removed. 	<p>Comment noted. Addressing issues at the construction staging area adjacent to Cathedral Avenue is beyond the scope of this EA.</p>

Comment	NPS Response
<p>The project is appropriately focused on the safety and convenience of drivers using the Parkway and the Waterside Dr. entrance. However, the project and the EA completely ignore significant shortcomings to the use of the project area by bicyclists. The alignment of the Devil's Chair Bridge does not meet modern standards for bicycle use, requiring drastic changes in speed that put cyclists at risk and increase the probability of collisions between cyclists and pedestrians. The condition of the paved surface is terrible, due to some disturbance from tree roots but primarily from a shoddy reconstruction after the stormwater pipes were installed a few years ago. Given the manifest environmental benefits of increased usage by cyclists and mode-share shifts away from cars on the Rock Creek and Potomac Parkway, why are these issues not included in the EA?</p>	<p>Comment noted. However, addressing shortcomings to the use of the project area by bicyclists is not within the scope of the EA, as described in the purpose and need statements in the EA. Additionally, the original purpose and need stated in the 2006 <i>Environmental Assessment for Reconstruction and Rehabilitation of Beach Drive and Rock Creek and Potomac Parkway from P Street to Calvert Street</i> -- which included proposed safety improvements at Waterside Drive, NW -- also only examined safety improvements for the Parkway.</p>
<p>Please consider merging the two SB lanes into one right lane, before Waterside Drive, in order to allow Waterside Drive to flow into the left SB lane unhindered.</p> <p>Similar solutions are used successfully on NPS roads in the DC area.</p> <p>Examples:</p> <ol style="list-style-type: none"> 1. Clara Barton Parkway WB at I-495, making room for I-495 inner-loop traffic (Ex.41) to merge onto Clara Barton Parkway WB. 2. George Washington Parkway at Rt.123/Chain-Bridge Road, making room for SB Rt.123 traffic merging onto SB GW Parkway. <p>This solution would require minimal expense for road marking, and would eliminate expensive and disruptive road construction.</p>	<p>Rock Creek and Potomac Parkway has a reversed flow of traffic during AM and PM rush hours. Changing this will have a substantial adverse impact on commuters. The traffic volume on Rock Creek and Potomac Parkway is three times greater than the volume of traffic that is merging from Waterside Drive, NW. Reducing the Parkway to only one lane would increase congestion with respect to vehicle queuing, increase travel times, and increase motorist delays.</p>

Comment	NPS Response
<p>A much needed addition, at a very low cost, that would drastically improve traffic flow, heading North @ the intersection of Massachusetts Ave & Waterside Drive .</p> <p>Install a 'Left Turn' arrow.....presently, during the morning rush hour, ONLY ONE car has the opportunity (legally) to make the turn.....there are times if the first car is far enough into the intersectiona second car can quickly follow</p>	<p>Comment noted. Addressing issues at the intersection of Massachusetts Avenue, NW and Waterside Drive, NW is beyond the scope of this EA.</p>
<p>As a resident of Waterside Drive I have would like to respond to the report detailing the plans for Reconstruction and Rehabilitation of Rock Creek and Potomac Parkway Southbound at Waterside Drive. I was surprised that the residents of Waterside Drive were not notified about the proposed changes, we found out through the Northwest Current newspaper, published August 8, 2012. Several of my neighbors are away on vacation so because of the lack of direct notice, I feel a 30-day comment period is not reasonable for this project, particularly given that August is a peak month for travel and absences from the City.</p>	<p>As stated on page 7 of the EA, the NPS initiated public scoping for this EA by issuing a public scoping notice on October 4, 2011. The scoping notice was sent to a mailing list consisting of 126 recipients and was posted to the Park's Planning, Environment, and Public Comment (PEPC) website.</p> <p>A public scoping meeting notice was posted on the park's PEPC website and sent to 150 news organizations, including all wire services, the Washington Post, the Washington Times, the Examiner, the Northwest Current, local television stations, and local radio stations, among others, on October 24 and October 27, 2011, from the National Capital Region Office of Communications. Subsequently, a public meeting to solicit feedback on the purpose, need, objectives, and preliminary alternatives was held on October 27, 2011 at the Rock Creek Park Nature Center, Washington, D.C. from 6:00 p.m. To 8:00 p.m.</p> <p>As stated on page 1 of the EA, the EA will be available for a 30-day public review period. On July 31, the park sent out email notification of the Notice of Availability of the EA and a 30-day public review from August 1 through 30, 2012 to approximately 242 persons. A press release was also sent out to the same media outlets as for the public scoping meeting in October 2011.</p>

Comment	NPS Response
<p>I have concerns about the following points in the report:</p> <ul style="list-style-type: none"> • I would like to see existing traffic regulations enforced and believe this would go a long way to ameliorating the safety issues on Waterside. These include: <ul style="list-style-type: none"> • the 35 mph speed limit on the Parkway • the 25 mph speed limit on Waterside Drive. There are times where the traffic is moving so quickly on Waterside Drive that I can not get out of my driveway. • the "Use Right Lane Only At All Times" signs that govern southbound traffic and are routinely violated during rush hour when Waterside is one-way southbound. • Any measures taken to improve safety and traffic flow should minimize environmental damage to the Park, particularly as the NPS cut down so many trees in and around the Project Area for the work done to deter erosion in the Creek (which we understand to be a failure). Cutting down seven or more mature trees from the median and paving 150 more feet will further damage the aesthetics of this area as well as decimating its wildlife habitat. 	<p>Your comment is noted. Enforcement of existing traffic regulations is the responsibility of U.S. Park Police and is outside the scope, purpose, and need of this planning process.</p>
<p>As stated on page 38 of the EA, mitigation measures to be implemented include, "Trees that have already been removed during construction before July 2011 would be replaced by dbh (e.g., if a 10-inch dbh tree was removed, NPS would plant 10" dbh worth or five - 2" caliper trees)." Additionally, as stated on page 33 of the EA, the largest caliper trees for the site would be replanted for the seven trees impacted by construction. Lastly, all mitigation measures stated in pages 37-40 would be implemented during construction to ensure that habitat beyond the areas necessary for construction would not be adversely impacted.</p>	<p>As stated on page 38 of the EA, mitigation measures to be implemented include, "Trees that have already been removed during construction before July 2011 would be replaced by dbh (e.g., if a 10-inch dbh tree was removed, NPS would plant 10" dbh worth or five - 2" caliper trees)." Additionally, as stated on page 33 of the EA, the largest caliper trees for the site would be replanted for the seven trees impacted by construction. Lastly, all mitigation measures stated in pages 37-40 would be implemented during construction to ensure that habitat beyond the areas necessary for construction would not be adversely impacted.</p>
<p>I STRONGLY object to the installation of three sets of rumble strips on the Parkway just north of the merge area would create horrific noise pollution, magnified by the acoustics of the valley. By the NPS's own estimates, more than 14,000 cars per day would pass over these strips.</p>	<p>The NPS has decided to not implement new rumble strips along the Parkway as part of the preferred alternative.</p>

Comment	NPS Response
<p>• We do not believe that the Report provides sufficient information or justification for the rejection of less intrusive and less expensive alternative such as speed cameras on the Parkway and creating a dedicated merge lane from the existing roadway.</p>	<p>Page 40 of the EA details the factors for justification for eliminating alternatives. All the alternatives dismissed were dismissed for one or more of these factors outlined in Director's Order 12:</p> <ul style="list-style-type: none"> • technical or economic infeasibility • inability to meet the project objectives or resolve the project purpose and need • duplication with other less environmentally damaging or less expensive alternatives • conflict with an up-to-date and valid park plan, statement of purpose and significance, or other policy • too great an impact to the environment <p>Page 10 of the EA outlines key issues associated with the parkway a result of a 1997 traffic safety study.</p> <p>"High proportions of vehicle accidents occur on the parkway where onramp traffic attempts to merge with parkway traffic. The addition of some acceleration lanes along the parkway where there is sufficient space would allow entering vehicles to get up to speed before merging."</p>
<p>A dedicated merger from southbound Waterside Drive would greatly aid traffic flow. I suggest that you test using the configuration you have on the southbound lanes of the George Washington Parkway at McLean/Chain Bridge Road; i.e. require the traffic on the parkway to merge into a single lane, the right lane prior to the Waterside ramp -- other than during the morning rush hour. I believe that the traffic is light enough that the lane reduction wouldn't be too onerous (unless there's an accident or construction) - and this alternative would only cost you paint and a couple of signs.</p>	<p>Rock Creek and Potomac Parkway has a reversed flow of traffic during AM and PM rush hours. Changing this will have a substantial adverse impact on commuters. The traffic volume on Rock Creek and Potomac Parkway is three times greater than the volume of traffic that is merging from Waterside Drive, NW. Reducing the Parkway to only one lane would increase congestion with respect to vehicle queuing, increase travel times, and increase motorist delays.</p>

Comment	NPS Response
<p>From Rock Creek Conservancy</p> <p>We understand the need to restore Rock Creek's highly eroded stream bank near where Waterside Drive intersects with Rock Creek and Potomac Parkway. It's most unfortunate that (1) during construction significant numbers of mature trees were removed and (2) the rock basket riprap (gabion baskets) installed to shore up the bank is likely to increase erosion further downstream. We fully support efforts to mitigate for the loss of trees during the bank restoration and the proposed vegetated reinforced soil slope (VRSS) in place of the gabions. As discussed below, we are concerned that the proposed preferred alternative that would (1) increase impervious surface in the park and (2) remove several more mature park trees.</p>	<p>Comment noted.</p>

Comment	NPS Response
<p>From Rock Creek Conservancy Traffic Patterns</p> <p>Although the Conservancy lacks expertise in traffic management or detailed knowledge of history of traffic accidents/problems at the merger of Waterside Drive with southbound traffic on Rock Creek and Potomac Parkway, from personal experience, I am aware of the difficulty of seeing southbound traffic approaching, frequently in excess of the posted speed limit. Some of the proposed traffic calming tools described in the EA are likely to reduce likelihood of traffic accidents. We do not believe, however, that the National Park Service (NPS) adequately documents the current problems with traffic to justify removing 7 or more mature sycamore trees and adding impervious surface to the Rock Creek Watershed.</p>	<p>On page 1 of the EA, it states the purpose of the proposed action is to improve traffic flow and to minimize the number of vehicle accidents along the parkway in the vicinity of Waterside Drive, NW. Page 2 states the need for action is to improve traffic flow and to minimize the number of vehicle accidents where the southbound ramp from Waterside Drive, NW merges with the Parkway.</p> <p>Page 10 of the EA outlines key issues associated with the parkway a result of a 1997 traffic safety study.</p> <p>“High proportions of vehicle accidents occur on the parkway where onramp traffic attempts to merge with parkway traffic. The addition of some acceleration lanes along the parkway where there is sufficient space would allow entering vehicles to get up to speed before merging.”</p> <p>As stated on page 43 of the EA, to identify the preferred alternative for the EA, each alternative was evaluated based on ability to meet the purpose and need and their potential impacts to the environment. The project team screened the alternatives using the Choosing by Advantages process during a Mini-Value Analysis (MVA) held March 30, 2012. The objectives of the MVA were to develop the “Preferred” alternative, discuss options to address Bioengineering and discuss options to address traffic calming.</p> <p>The MVA team reviewed the five original alternatives developed by the NPS. One additional alternative was either developed for consideration or reviewed from previous evaluations during the creativity phase of the MVA workshop. The Project Team then reviewed the merits of all the alternatives to determine which were most viable. Ultimately, three action alternatives were chosen to be evaluated in the CBA completed during the MVA workshop.</p>

Comment	NPS Response
<p>From Rock Creek Conservancy</p> <p>While adding a new acceleration/merge lane may help flow of traffic, it is also likely to create a zone where traffic goes even faster than it does now. We recommend the NPS explore additional traffic calming measures on the Parkway.</p>	<p>Page 40 of the EA details the factors for justification for eliminating alternatives. All the alternatives dismissed were dismissed for one or more of these factors outlined in Director's Order 12:</p> <ul style="list-style-type: none"> • technical or economic infeasibility • inability to meet the project objectives or resolve the project purpose and need • duplication with other less environmentally damaging or less expensive alternatives • conflict with an up-to-date and valid park plan, statement of purpose and significance, or other policy • too great an impact to the environment <p>Page 10 of the EA outlines key issues associated with the Parkway a result of a 1997 traffic safety study.</p> <p>"High proportions of vehicle accidents occur on the parkway where onramp traffic attempts to merge with parkway traffic. The addition of some acceleration lanes along the parkway where there is sufficient space would allow entering vehicles to get up to speed before merging."</p>
<p>From Rock Creek Conservancy</p> <p>The EA does not address increased traffic and speed on Waterside Drive. Faster acceleration/merge lanes at the intersection of Rock Creek and Potomac Parkway and Waterside Drive will almost certainly lead to increased traffic at higher speeds along Waterside Drive. If NPS moves ahead with the preferred alternative, we strongly suggest that you work with property owners on Waterside Drive and the District Department of Transportation to install traffic calming devices, like speed humps, along Waterside Drive.</p>	<p>Addressing traffic and speed on Waterside Drive is beyond the scope of this EA, which examines safety improvements for the Parkway. However, if high speeds on Waterside Drive become an issue, NPS will work with DDOT to address the issue.</p>

Comment	NPS Response
<p>From Rock Creek Conservancy</p> <p>Rock Creek Conservancy has raised the topic of improving pedestrian access to Rock Creek Park with you and other NPS officials on several occasions. When we discuss adding sidewalks or biking/multi-use paths, we are told by NPS staff that no trees can be removed. We find it odd that after removing multiple mature trees for bank stabilization, NPS is now proposing to cut down mature sycamore trees so that cars can go faster.</p>	<p>Comment noted.</p>
<p>From Rock Creek Conservancy</p> <p>Bank Stabilization</p> <p>The Conservancy fully supports the proposed VRSS near the intersection of Waterside Drive and the Parkway. It will provide gradual stream banks with native vegetation that should reduce flow velocity, provide food and habitat for wildlife, and withstand ever-increasing episodic flood events.</p>	<p>Comment noted</p>
<p>From Rock Creek Conservancy</p> <p>As we understand it, the proposed mitigation for cutting down the mature trees is to plant more trees further upstream near Bingham Drive and Pinehurst Branch. While the Conservancy actively supports planting trees in the Park as part of mitigation, the proposal to plant multiple trees to equate to girth of trees is not equivalent. Five 2-inch (DBH) trees do not equal one 10-inch (DBH) tree in terms of anything – wildlife habitat, soil stabilization, carbon uptake, etc.</p>	<p>Replacing the exact amount of DBH removed replaces biomass regardless if the replacement is in one tree or multiple trees. Additionally, the survivability of planting trees greater than 3" dbh in a naturalized area, such as the project area, decreases significantly compared to trees of 3" or less in dbh. NPS is concerned with not only replacing the biomass removed but also ensuring the survivability of plantings.</p>

Comment	NPS Response
<p>From Rock Creek Conservancy</p> <p>Given the severity of bank erosion in the areas near Bingham Drive and Pinehurst Tributary to be revegetated, we suggest that NPS instead install VRSS along the banks of Rock Creek there. In this stretch of creek, runoff from summer thunderstorms is severely eating away at the banks. Many mature oak and sycamore trees in this area have fallen into and across Rock Creek during recent storm water events. You are much more likely to have effective mitigation for cutting down the trees near Waterside Drive by restoring stream banks near Bingham Drive/Pinehurst than by planting tens of small diameter trees. We look forward to discuss options for tree-cutting mitigation and bank stabilization with you and your staff.</p>	<p>Comment noted. However, addressing bank erosion near Bingham Drive, NW and Pinehurst Tributary is not within the scope of this EA, as described in the purpose and need statements in the EA.</p> <p>In 2003, the Park identified six sites in need of stream bank stabilization. These sites were prioritized for mitigation and stabilization. This EA will not include stream bank stabilization through riprap as proposed in the 2003 plans; however, it includes revegetation of multiple areas along the stream banks.</p>

Comment	NPS Response
<p>From Rock Creek Conservancy</p> <p>Conclusion</p> <p>Rock Creek Conservancy supports activities in Rock Creek Park that improve water quality and other natural conditions and facilities for people using the park for enjoyment. We do not object to improving traffic flow and conditions when a demonstrated need exists. In this case, NPS has not made the case for the proposed traffic patterns in light of impacts such construction would have on Rock Creek and other Park resources. We fully support the proposed installation of VRSS in place of the existing gabion riprap baskets presented in Alternatives 2, 3, and 4. We believe NPS could more effectively mitigate for prior loss of mature trees and potential loss of additional trees should you construct the traffic acceleration/merge lanes by installing VRSS upstream than by planting small trees in the identified revegetation zones.</p>	<p>VRSS is proposed to stabilize the banks of the project area at Waterside Drive covered in the EA. The riparian revegetation in the area of Bingham Drive, NW is to compensate for unavoidable wetland impacts -- required by the USACE for Section 404 permits and by the NPS for compliance with Director's Order 77-1: Wetland Protection -- as a result of construction activities in 2011. Therefore, stabilization of areas upstream with VRSS is not appropriate compensation for impacts from 2011 construction.</p>
<p>From Rock Creek Conservancy</p> <p>I would be happy to meet with you or your staff to discuss these comments. The Conservancy looks forward to working with you to make Rock Creek Park an even better place for the residents of the Washington metropolitan area and all others who visit it.</p>	<p>Comment noted.</p>

Comment	NPS Response
<p>Please consider merging the existing two southbound lanes on the Parkway into one, so that Waterside traffic can safely join the traffic flow using the existing roadway. This would save significant amounts of taxpayer money, would be better for the environment, and could be implemented right away with some paint and new signs. Only the morning rush might be a problem, but too many cars go too fast in those hours anyway, so this merge plan would help slow down the morning traffic flow, just as it does on Clara Barton. Win-win-win.</p>	<p>Rock Creek and Potomac Parkway has a reversed flow of traffic during AM and PM rush hours. Changing this will have a substantial adverse impact on the commuters. The traffic volume on Rock Creek and Potomac Parkway is three times greater than the volume of traffic that is merging from Waterside Drive, NW. Reducing the Parkway to only one lane would increase congestion with respect to vehicle queuing, increase travel times, and increase motorist delays.</p>
<p>I am the president of the Waterside 10, an informal association of ten homes along Waterside Drive. Waterside Drive is a residential street that is directly affected by the proposed construction. We did not receive any notice from NPS about the project nor was noise impacts included in the environmental assessment report. We found out about the project through the local newspaper. Given these factors, thirty days is insufficient time for review of the proposed safety improvements.</p>	<p>As stated on page 7 of the EA, the NPS initiated public scoping for this EA by issuing a public scoping notice on October 4, 2011. The scoping notice was sent to a mailing list consisting of 126 recipients and was posted to the Park's Planning, Environment, and Public Comment (PEPC) website.</p> <p>A public scoping meeting notice was posted on the park's PEPC website and sent to 150 news organizations, including all wire services, the Washington Post, the Washington Times, the Examiner, the Northwest Current, local television stations, and local radio stations, among others, on October 24 and October 27, 2011, from the National Capital Region Office of Communications. Subsequently, a public meeting to solicit feedback on the purpose, need, objectives, and preliminary alternatives was held on October 27, 2011 at the Rock Creek Park Nature Center, Washington, D.C. from 6:00 p.m. to 8:00 p.m.</p> <p>On July 31, the Park sent out by email a Notice of Availability for the EA to approximately 242 persons, which publicized the August 1 through 30, 2012 public comment period. A press release was also sent out to the same media outlets as for the October 2011 public scoping meeting, and the EA was also placed on the NPS PEPC website.</p>
<p>Noise impacts are a statutory requirement of any environmental impact study that is sponsored, in part, by the U.S. Department of Transportation as this one was, and are a key metric in evaluating any publicly-financed road construction plan.</p>	<p>Noise impacts from this proposed action at Waterside Drive have been evaluated in the EA and can be found under the analysis for Wildlife and Visitor Use and Experience (pages 103-108 and 122-126, respectively).</p>

Comment	NPS Response
<p>Given the failure to include noise impacts and the fact that we were not provided with formal notice of the comment period, we request, at a minimum, a 90 day extension for public comment and the conduct of a noise impact analysis as an amendment to the environmental assessment before NPS proceeds with any further action on this project.</p>	<p>Noise impacts from this proposed action at Waterside Drive have been evaluated in the EA and can be found under the analysis for Wildlife and Visitor Use and Experience (pages 103-108 and 122-126, respectively).</p> <p>On July 31, the Park sent out by email a Notice of Availability for the EA to approximately 242 persons, which publicized the August 1 through 30, 2012 public comment period. A press release was also sent out to 150 news organizations, including all wire services, the Washington Post, the Washington Times, the Examiner, the Northwest Current, local television stations, and local radio stations, among others.</p>
<p>Separately, the Waterside 10 homeowners and others in the affected neighborhood are providing specific recommendations on the proposed alternatives. We support improving traffic safety and are encouraged that NPS and FHWA are initiating this important project.</p> <p>As residents we are very familiar with the traffic and safety issues on Waterside Drive and the Parkway. We believe that our input will make for a safer, more environmentally sound program.</p>	<p>Thank you for your support of this project. Your comment is noted.</p>
<p>1. I am concerned about adding more impervious surface to the park (4,600 sq ft). We should be moving in the direction of less impervious surface, not more.</p> <p>Impervious surface has adverse water quality and aesthetic impacts, among others. Rock Creek Park is located in a city full of impervious surface, and is supposed to be a haven for those wishing to experience something different: namely, a natural environment, with vegetated soils.</p> <p>Apparently NPS has plans to increase impervious surface elsewhere too (EA at 80). This simply adds to the problem.</p>	<p>As stated on page 85 of the EA, additional pavement would marginally increase runoff from the road surface, resulting in long-term, negligible to minor, adverse impacts to water quality. Stream stabilization with VRSS result in long-term, beneficial effects on downstream hydraulics and water quality. Hydraulic modeling showed decreased downstream velocities, and therefore decreased likelihood for future scour, erosion, and associated pollution. Once vegetation in the VRSS has been established, impacts from the runoff from the additional impervious surface would be attenuated. Additionally, A Statement of Findings (SOF) for floodplains was prepared for this EA to document compliance with NPS floodplain protection procedures.</p>

Comment	NPS Response
<p>2. I see little acknowledgement in the EA of the importance of the bike path that passes through the project area, and the aesthetic and natural experience it should offer. I and many others use this path, and its aesthetics must be protected and enhanced. Given the presence of a highway in this narrow part of the park, there's no margin for allowing additional impacts on the trail.</p>	<p>Comment noted. The bike path, formally known as the Rock Creek Park Multi-use Trail, is acknowledged to be adjacent to the project area in the EA. Addressing issues with this trail is not within the scope of this EA, as described in the purpose and need statements in the EA.</p>
<p>3. I favor the most environmentally preferable alternative (identified in EA as Alternative 2).</p> <p>Thanks for considering my views.</p>	<p>Thank you for your support of this project. Your comment is noted.</p>
<p>Waterside Drive NW is a residential street, and the residents did not receive any notice from the NPS about this proposal despite the fact that we may be considered experts on the affected intersection, as we pass through it hundreds of times a year.</p>	<p>As stated on page 7 of the EA, the NPS initiated public scoping for this EA by issuing a public scoping notice on October 4, 2011. The scoping notice was sent to a mailing list consisting of 126 recipients and was posted to the Park's Planning, Environment, and Public Comment (PEPC) website.</p> <p>A public scoping meeting notice was posted on the park's PEPC website and sent to 150 news organizations, including all wire services, the Washington Post, the Washington Times, the Examiner, the Northwest Current, local television stations, and local radio stations, among others, on October 24 and October 27, 2011, from the National Capital Region Office of Communications. Subsequently, a public meeting to solicit feedback on the purpose, need, objectives, and preliminary alternatives was held on October 27, 2011 at the Rock Creek Park Nature Center, Washington, D.C. from 6:00 p.m. to 8:00 p.m.</p> <p>On July 31, the park sent out by email a Notice of Availability for the EA to approximately 242 persons, which publicized the August 1 through 30, 2012 public comment period. A press release was also sent out to the same media outlets as for the public scoping meeting, and the EA was also placed on the NPS PEPC website.</p>

Comment	NPS Response
<p>Any measures taken to improve safety and traffic flow should minimize environmental damage to the Park, particularly as the NPS cut down so many trees in and around the Project Area for the work done to deter erosion in the Creek (an effort which we understand to be a failure). Cutting down seven or more mature trees from the median and paving 150 more feet will further compromise the aesthetics of this area as well as ruining more of its wildlife habitat, both of which have already been decimated by the erosion control project.</p>	<p>As stated on page 38 of the EA, mitigation measures to be implemented include, "Trees that have already been removed during construction before July 2011 would be replaced by dbh (e.g., if a 10-inch dbh tree was removed, NPS would plant 10" dbh worth or five - 2" caliper trees)." Vegetation will be replaced where they were removed. Additionally, all mitigation measures stated in pages 37-40 would be implemented during construction.</p>
<p>We would like to see existing traffic regulations enforced and believe this would go a long way to ameliorating the safety issues on the Waterside. Primary among these is the 35 mph speed limit on the Parkway.</p>	<p>Thank you for your support of this project. Your comment is noted and will be passed on the U.S. Park Police. Enforcement of existing traffic regulations is the responsibility of U.S. Park Police and is outside the scope, purpose, and need of this planning process</p>
<p>The problem with the existing merge pattern is twofold: 1) drivers are merging left to right, contrary to the usual merge pattern for most highways, and are therefore less skilled at this kind of merge, and 2) the site line is not sufficient to adjust for cars traveling 5 to 10 miles over the speed limit, which they routinely do in this position of the parkway.</p>	<p>As stated on page 17 of the EA, the current conditions involve vehicles merging onto the parkway from Waterside Drive, NW coming to a full stop at a stop sign before merging from the left. A limited sight distance of 180 feet for merging vehicles would continue to contribute to safety concerns.</p>
<p>The NPS report does not detail the nature of the 37 accidents documented from 2009 to 2011, but we believe that almost all of them are rear-end collisions caused by inattentive drivers. These happen on other merge ramps on the Parkway as well, particularly on the P St. southbound ramp, or once again, it is hard to see cars coming around the curve because they're going too fast.</p>	<p>Page 2 of the EA states, "Action is needed at this time to improve traffic flow and to minimize the number of vehicle accidents where the southbound ramp from Waterside Drive, NW merges with the parkway. A small merge area and poor sight distances have resulted in numerous vehicle accidents and backups of cars waiting to merge at the intersection of Waterside Drive, NW and the southbound parkway. As a result, the NPS needs to increase sight distances and lengthen the merge area to improve motor vehicle visibility and traffic safety."</p>

Comment	NPS Response
<p>We do not believe that the Report provides sufficient information or justification for the rejection of less intrusive and less expensive alternatives such as speed cameras on the Parkway or creating a dedicated merge lane from the existing roadway by merging the two southbound lanes into one right lane before the Waterside entry point. This latter alternative could be engineered so that it would not affect morning rush-hour traffic when the flow in the southbound lanes is heaviest.</p> <p>Thank you.</p>	<p>Page 40 of the EA details the factors for justification for eliminating alternatives. All the alternatives dismissed were dismissed for one or more of these factors outlined in Director's Order 12:</p> <ul style="list-style-type: none"> • Technical or economic infeasibility. • Inability to meet the project objectives or resolve the project purpose and need. • Duplication with other less environmentally damaging or less expensive alternatives. • Conflict with an up-to-date and valid park plan, statement of purpose and significance, or other policy. • Too great an impact to the environment. <p>Page 10 of the EA outlines key issues associated with the parkway a result of a 1997 traffic safety study.</p> <p>"High proportions of vehicle accidents occur on the parkway where onramp traffic attempts to merge with parkway traffic. The addition of some acceleration lanes along the parkway where there is sufficient space would allow entering vehicles to get up to speed before merging."</p> <p>Rock Creek and Potomac Parkway has a reversed flow of traffic during AM and PM rush hours. Changing this will have a substantial adverse impact on the commuters. The traffic volume on Rock Creek and Potomac Parkway is three times greater than the volume of traffic that is merging from Waterside Drive, NW. Reducing the Parkway to only one lane would increase congestion with respect to vehicle queuing, increase travel times, and increase motorist delays.</p>
<p>Comments from NCPC - see attached letter</p>	<p>NCPC subsequently notified the NPS that the Waterside Drive project does not require review by their Commission.</p>

Comment	NPS Response
<p>Comments from EPA – see attached letter</p> <p>It should be clear how the work initiated in 2011 differs from the 2006 EA, what the original design for the project was in 2006, and if the 2006 EA or 2011 design is represented by one of the currently proposed alternatives.</p>	<p>Page 1 of the EA outlines the work conducted in 2011 and how that differed from the 2006 EA.</p>

Comment	NPS Response
<p>Air impact analysis was a topic dismissed from further analysis in the EA. The proposed project is located in a non-attainment area for ozone (O3) and PM 2.5, without performing the required general conformity analysis it should not be assumed that negligible impacts would occur.</p>	<p>During the rehabilitation and reconstruction of the parkway, some emissions would result from the operation of construction vehicles. While commuters and other motorists that currently use the parkway may detour to nearby roads during the construction period, these detours would not result in additional traffic or traffic-related emissions in the area-wide transportation network. Based on projects of similar scale and nature, it is expected that these temporary sources of emissions from construction vehicles and displaced motorists would not change regional air quality and would fall well below the de minimis threshold for a moderate ozone non-attainment area in the ozone transport region and PM2.5 non-attainment area (subject to 40 CFR 93, Determining Conformity of Federal Actions to State or Federal Implementation Plans). To provide a local and recent example, the large-scale demolition and construction of buildings, including utility trenching and construction debris removal at Naval Station Activity Bethesda, located in nearby Montgomery County, would not exceed the de minimis threshold for construction emissions. Given the comparison to the full general conformity applicability analysis determination completed for Bethesda, construction at Waterside drive would be temporary in nature (how long), would require minimal use of heavy equipment, including a back hoe, dump truck, and paving equipment, and would not be expected to exceed de minimis thresholds. Given the minimal construction emissions expected, the action alternative would result in negligible impacts to air quality.</p> <p>After rehabilitation and reconstruction is completed (operational phase), an increase in the number of vehicles that use the parkway or drive on the surrounding road network would not be expected as a result of this project, resulting in no new emission sources or increased vehicular emissions. Because emissions would remain below the de minimis threshold for a general conformity analysis during both the construction and operation phases of this project, this resource was not analyzed further.</p>

Comment	NPS Response
<p>Additionally environmental justice (EJ) was dismissed from detailed analysis in the EA, while also stating on page 15 of the EA that local residents may be potential EJ populations. It should not be assumed without conducting an EJ analysis and community outreach that impacts would not occur and that populations would not be disproportionately affected.</p>	<p>A public scoping meeting was held in October 2011 which was advertised through various media outlets that reach all populations. Additionally, the EA was available for a 30-day public review period. On July 31, the park sent out email notification of the Notice of Availability of the EA and a 30-day public review from August 1 through 30, 2012 to approximately 242 persons. A press release was also sent out to 150 news organizations, including all wire services, the Washington Post, the Washington Times, the Examiner, the Northwest Current, local television stations, and local radio stations, among others. Because all populations were included during the public involvement phases of this EA, certain populations would not be disproportionately affected.</p>
<p>It appears that culvert relocation activates are associated with Alternative 4. An evaluation of impacts to streams and wetlands associated with the culvert relocation should be included.</p>	<p>Culverts are not proposed to be relocated but instead extended. This has been clarified in the EA.</p>
<p>It should also be clarified if the July 2011 construction resulted in any unpermitted impacts to waters of the US or if any Clean Water Act Section 404 enforcement actions were taken.</p>	<p>All construction activities in 2011 were permitted by the U.S. Army Corps of Engineers.</p>

ATTACHMENT 2: STATEMENT OF FINDINGS FOR WETLANDS

ATTACHMENT 3: STATEMENT OF FINDINGS FOR FLOODPLAINS