



**MONTGOMERY COUNTY DEPARTMENT OF PARKS**  
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

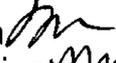
**MCPB- July 9, 2009**

**Agenda # 11**

July 2, 2009

**MEMORANDUM**

**TO:** Montgomery County Planning Board

**VIA:** Mary Bradford, Director of Parks   
Mike Riley, Deputy Director of Parks  
Doug Alexander, Acting Chief, Park Development Division   
Michael Ma, Acting Supervisor, Project Management Section 

**FROM:** Parviz Izadjoo, Project Manager 

**SUBJECT:** Facility Plan- Rock Creek Regional Park Maintenance Yard Renovation

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**STAFF RECOMMENDATION**

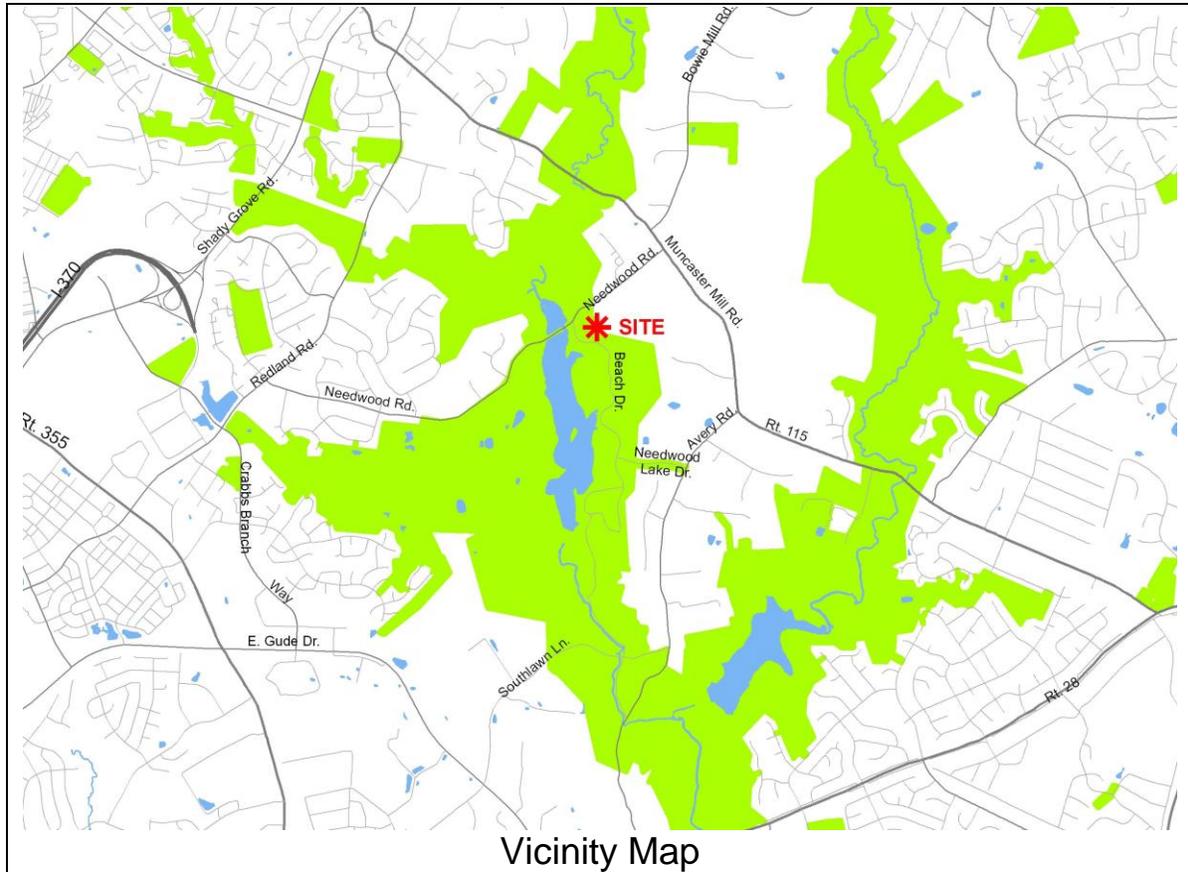
- Approve Facility Plan and cost estimate for renovation of Rock Creek Regional Park Maintenance Yard.
- Approve project for competition in the FY11-16 Capital Improvements Program, at which time the priority and schedule will be determined.

**PROJECT DESCRIPTION**

**Background**

The existing Rock Creek Park Maintenance Yard is located within Rock Creek Regional Park at 15881 Beach Drive in Derwood, MD 20855. It is east of the intersection of Needwood Road and Beach Drive. The purpose of this facility Plan is to establish the scope, cost and schedule to renovate the existing maintenance yard.

1960's and 1970's when the park was first constructed. The consultant has designed the new maintenance yard facility with the objective of achieving a green building level of at least the equivalent of LEED Silver rating without any major additional cost to the project.



### **Parks Maintenance Facilities**

Maintenance of the Parks system is performed from thirteen maintenance facility locations: nine regional yards, four special purpose yards, and one central maintenance yard (the Sligo Creek Golf Course Maintenance Yard is an additional yard in the system). The nine regional yards primarily provide grounds maintenance for the nine regional areas (the Northern Region-Shady Grove yard is collocated with the central maintenance facility at Shady Grove):

1. North-Black Hills (Black Hills Regional Park)
2. North-Little Bennett (Little Bennett Regional Park)
3. North-Rock Creek (Rock Creek Regional Park)
4. North-Shady Grove (Northern Region Maintenance Yard at Shady Grove)
5. North-Olney Manor (Olney Manor Recreational Park)
6. South-Cabin John (Cabin John Regional Park)
7. South-Martin Luther King (Martin Luther King Recreational Park)

8. South-Meadowbrook (Meadowbrook Stream Valley Park)
9. South-Wheaton (Wheaton Regional Park)

On average, the nine regional yards are staffed by 20 positions, including park manager, two assistant managers, and two 4-5 person crews. The function of the regional yards is fourfold:

- Mowing and maintain open space areas
- Ballfields maintenance
- Trash removal
- Custodial or landscaping maintenance (which is performed from particular regional locations)

## **Objectives**

The main objective for this project is to bring the existing outdated, inadequate and deteriorated facility up to industry standard and comparable to our newer facilities such as the Black Hill, Cabin John, and Wheaton maintenance yards.

The major components of the project that are required include:

- Administration Building
- Vehicle Maintenance Shop
- Work Shops for 2 Crews
- Equipment Storage Building
- Material Storage Building
- Staff Parking
- Vehicle Parking
- Fuel Island

Other objectives of the Plan include:

- New potable water source
- Connection to a public sewer system
- Stormwater management in accordance with Montgomery County Standards
- LEED Silver Certification
- Minimizing environmental impact on the existing park site

## **Project Funding**

Facility planning represents thirty percent design completion, and results in a proposed design scheme, cost estimate, and determination of regulatory feasibility. The cost of the facility plan was funded through the Facility Planning: Non-local Parks budget within the Capital Improvements Program.

## **Facility Planning Process**

The goal of the park facility plan is to replace an inadequate and outdated 50 year-old maintenance yard. Gannett Fleming, Inc. was hired as the consultant in December of 2008 to develop the plan. The facility planning process includes the following steps:

- Refinement of the Program of Requirements
- Preparation of site survey and geotechnical investigations
- Analysis of existing site conditions, which included several site visits
- Preparation and approval of Natural Resources Inventory/Forest Stand Delineation
- Notification of the proposed plan to adjacent homeowners and civic associations
- Meetings with the Park and Planning staff team and consultant including, kick-off meeting, discussion of alternative concepts, interim and final review meetings
- Approval of stormwater management (SWM) concept and Preliminary Forest Conservation (FCP) Plans
- Preparation of a cost estimate
- The Planning Board's review and approval of the Facility Plan and budget.

## **PLANNING DOCUMENT RECOMMENDATIONS**

### **Park Master Plan**

In October 2000, the Planning Board approved a Master Plan for Rock Creek Regional Park. The Master Plan recommended funding for expansion of the maintenance yard. The proposed Facility Plan conforms to the Master Plan Recommendations.

### **Proposed Sewer**

The Planning Board also approved a Facility Plan in September 2007 to bring a sewer line to the park. This project is funded for design and construction and is to be completed in 2011. The new maintenance facility will be connected to this new sewer line.

## **PERMITS AND AGENCY APPROVALS**

### **Natural Resource Inventory/Forest Stand Delineation (NRI/FSD)**

The Forest stand delineation assessment was performed on January 22 and 23 2009. The net tract area of the project site including the 100-foot buffer is 13.02 acres. Approximately 6.48 acres of forested land are present within this net tract. There are five separate stands or homogenous units (FS1, FS2, FS3, FS4 and FS5).

M-NCPPC Environmental Planning staff approved the NRI/FSD Plan on March 18, 2009.

### **Preliminary Forest Conservation Plan**

A preliminary Forest Conservation Plan (FCP) was prepared and submitted to Environmental Planning staff. Amendment to the original Forest Conservation Plan for Washington Gas Gate Station at Rock Creek Regional Park was also required by the Environmental Planning Staff. Two memoranda recommending approval of the plans with conditions are attached (Attachments A and B). Two companion items for approval of the FCP are scheduled on the same Board Agenda as the Facility Plan.

### **Storm Water Management**

The Stormwater Management (SWM) concept (Attachment C) for the proposed development was approved by the Department of Permitting Services (MCDPS) on June 12, 2009. The concept utilizes a sand filter system for pretreatment and employs a flow splitter per DPS design criteria. Runoff from the lower parking lot discharges directly to the sand filter. The runoff from the paving at the top of the hill will be carried in a proposed swale designed to accommodate a non-erosive velocity.

## **EXISTING CONDITIONS**

### **Site**

The existing site was analyzed to determine the best way to utilize the existing resources to provide an up-to-date facility to replace what exists today. The direction from the beginning has been to re-develop the existing facility in the same location, and not relocate it to another area of the Park. While this will be more difficult in that the construction will need to be phased, it will have less adverse environmental impact for developing the existing site, as opposed to a forested area of the Park. The adjacent parcel of land is occupied by the recently

constructed Washington Gas Propane Facility. With this adjacent industrial land use, it makes sense to try to keep the maintenance facility in the present location.

The existing maintenance yard facility is accessed by driveway shared with the Washington Gas facility. The entrance road was recently improved by Washington Gas, and determined to be suitable for continued use. The existing maintenance area is at the top the road and is the flattest part of the site and is conducive to re-development. In all site layouts, this area was proposed to be re-used for maintenance activities.

The lower part of the site is a landfill area. This portion of the site has been traditionally used for material storage. The poor nature of the sub-surface soils makes it undesirable as a location for new buildings. The more likely use is continuing to serve as a material storage area.

There is an existing depression on the site, just north of the materials storage areas. It serves as a drainage area for most of the uphill areas. There is a drain pipe at its lower end that conveys run-off under the landfill area and across the access road to the Washington Gas facility.

## Utilities

The existing maintenance facilities are served by a number of utilities, including an existing septic system, a private well for water, a culvert near the material storage bins and overhead telephone and electric lines. Public water and sewer exist in the subdivision west of Needwood Lake.

- **Sanitary Sewer** - There is no public sanitary sewer service to the site. An on-site septic disposal system is located west of the maintenance facilities.
- **Water** - Water to the site comes from an existing well adjacent to the vehicle maintenance facility in a pit, covered by a manhole lid. The Montgomery County Department of Environmental Protection has no well permit on file for this well. It has long been considered non-potable, but is used for sanitary plumbing. A study of the existing well was made by Montgomery County Department of Environmental Protection (DEP). DEP has tested the well for bacteria. The test showed no bacteria. DEP conducted additional tests for contaminants, including metals and inorganic volatile compounds. These test results were also negative
- **Storm Drains** - Stormwater runoff from the existing roads travels through open sections. A culvert has been constructed in the vicinity of the materials storage bins that carries runoff from the uplands of the site beneath the rubble fill and discharges in the wooded area between Beach Drive and the entrance drive.

- **Stormwater Management** - Runoff from the site is uncontrolled with the exception of drainage improvements made by Washington Gas on the shared access drive to the adjacent parcel for their Gate Station improvements. Washington Gas created swales along the entrance road and provided water quality management devices in the swales.
- **Overhead Wiring** - Electric and telephone service is brought to the site by overhead wires.

## **THE PROPOSED FACILITY**

### **Design Alternatives**

Four alternative site plans were developed. In all schemes, it was important to redevelop the previously developed portion of the site and minimize any clearing of existing forest. This included maintaining the newly constructed entrance road. There was also a desire to preserve an existing specimen oak tree which was a part of all schemes.

Each scheme grouped the buildings around the existing cleared areas. Because the program increased the size of the buildings from what exists today, and the limitation of the location of the specimen oak, that portion of the site east of the tree was proposed for various uses. All of the four alternative arrangements had different combinations of the major building elements in the same two locations. One of the four schemes re-used the existing shop building.

### **Preferred Alternative**

Alternative Scheme "B" was selected for refinement. It best meets the needs of the facility users. As a refinement, the basic plan remains except that the fuel islands were moved closer to the Shop Building. The Material Storage bins were rotated 90° and moved closer to the existing road to reduce the extent of paving.

The Administration Building was rotated 90° and changed from one to two levels to fit better with the grading of the site and to maintain a better orientation for energy efficiency. The staff parking was also relocated to the other side of the Administration Building to facilitate grading and runoff into the stormwater management (SWM) facility.

In the course of obtaining preliminary SWM approval, the sand filter portion of stormwater management was later relocated to the area where the material bins are located currently.

The refinement of this scheme left no negative aspects to the layout.



## **Building Design**

The design of the buildings was presented in sketch form to be discussed prior to development to a 30% level. The plans were modified per the comments received. The most important elements of the design of the buildings, was to provide structures that would be aesthetically pleasing, durable, low maintenance, and energy efficient. Cost was a consideration, but not the driving force in the decision-making process.

The preferred scheme sites the Administration Building as the first occupied building on the site to be encountered while entering the Facility. It is also the only building to be potentially used by the public. As such, its treatment is more extensive than the other maintenance activity buildings.



The Administration Building is designed as a masonry-clad, two-story structure, set into the steep slope adjacent to the specimen oak tree. It is brick on the upper level and ground-face CMU on the lower level. The roof is reflective metal that has a raised portion that allows natural light to enter the building and light the Multi-Purpose room and Office areas. It is intended to be “stick-built” construction. It was determined that a pre-engineered structure such as this would not be cost effective.

The Shop, Vehicle Maintenance, and Equipment Storage Buildings are located up-hill from the Administration Building at the existing maintenance area of the site. These buildings will be fenced in and separated from the other buildings on the site. While their appearance is important, it was determined that their construction could be that of pre-engineered metal buildings. This would provide cost-effective construction.



Because of the concern of durability, it was decided to pre-engineer the buildings steel structure and roof, but the first eight foot height of the walls would be masonry. Any walls above that level would be pre-engineered metal panels. The color of the metal and the ground-face masonry walls would match the materials of the Administration Building and tie all of the buildings on site together with a unified appearance. The Material Storage structures are treated in a like manner.

All of the forms of the buildings and the materials selected meet the LEED criteria for silver certification. During detailed design additional green building measures will be explored to reflect the changing technology in this field.

### **LEED Certification**

The design team met with the consultant's LEED certified members to discuss the Silver Certification Requirements. The checklist was reviewed point-by-point to determine that certification for this project was probable. The certification credits were identified for all categories, with a minimum cost impact and conventional approach to building design.

## **COMMUNITY OUTREACH AND STAFF TEAM INVOLVEMENT**

### **Public Notice**

A public notice was mailed to the community in proximity of the existing maintenance yard on June 26, 2009. The notice included a brief description of

the project and the notification of the Planning Board meeting for the facility plan approval.

### **Staff Team Meetings**

The staff Team includes members from Park Development, Park Planning and Stewardship, Environmental Planning, Community Based Planning, Central Maintenance, Horticultural Services, Northern Region and Park Police. A preliminary meeting was held on December 17, 2008 with the environmental planning staff to review the requirements for NRI/FCD and Preliminary FCP. On February 4, 2009, a meeting was held to discuss the Program of Requirements (POR) with relevant divisions' representatives. The final POR was developed based on input received from the existing Rock Creek Maintenance Yard staff and other staff team members.

The kick-off meeting was held with the consultant and staff team participation on December 8, 2008. Additional staff team meetings took place on December 17, 2008, and February 4, 2009. On February 6, 2009, staff met with the consultant to discuss the final POR and the design alternatives. On May 11, 2009, Preliminary FCP was reviewed with the Environmental Planning staff. On June 16, 2009, the project staff team met for the final review and on June 18, 2009, the preliminary FCP was again reviewed and discussed with the Environmental Planning staff.

### **COSTS**

#### **Design and Construction**

The consultant prepared a detailed cost estimate for renovations of Rock Creek Maintenance Yard, which is included in the consultant's Facility Plan Report (Attachment D). The cost for design and construction of the park is \$8,753,870. A summary of the estimated cost follows at the end of this section.

#### **Operating Budget Impact (OBI)**

The OBI impact will be relatively minor for this project since it is a renovation. The OBI will be presented as part of the Project Description Form (PDF) during deliberations on the CIP in Fall 2009.

**Rock Creek Maintenance Yard  
Facility Plan Cost Estimate**

July, 2009

Division #	ITEM	TOTAL COST
1	<b>General Conditions</b>	<b>\$611,981</b>
2	<b>Site Work</b>	<b>\$1,951,171</b>
3	<b>Concrete</b>	<b>\$366,048</b>
4	<b>Masonry</b>	<b>\$263,933</b>
5	<b>Metals</b>	<b>\$54,195</b>
6	<b>Wood &amp; Plastics</b>	<b>\$47,737</b>
7	<b>Thermal and Moisture</b>	<b>\$357,236</b>
8	<b>Doors and Windows</b>	<b>\$350,947</b>
10	<b>Specialties</b>	<b>\$46,157</b>
11	<b>Equipment</b>	<b>\$405,025</b>
12	<b>Furnishings</b>	<b>\$20,114</b>
13	<b>Special Construction</b>	<b>\$597,365</b>
14	<b>Conveying Systems</b>	<b>\$85,000</b>
15	<b>Mechanical</b>	<b>\$810,463</b>
16	<b>Electrical</b>	<b>\$594,404</b>
	<b>TOTAL</b>	<b>\$6,719,687</b>
	<b>Construction Contingency (15%)</b>	<b>\$1,007,953</b>
	<b>Design Fee &amp; Contingency (6% of construction and 15% of design)</b>	<b>\$533,207</b>
	<b>Staff Chargeback for Design (20% of design)</b>	<b>\$106,641</b>
	<b>Construction Management &amp; Inspection (5% of Construction Total)</b>	<b>\$386,382</b>
	<b>TOTAL PROJECT COST</b>	<b>\$8,753,870</b>

## **ATTACHMENTS**

- A -Memorandum- Amendment on Washington Gas Rock Creek Gate Station
- B- Memorandum- Preliminary Forest Conservation Plan
- C- SWM Concept Plan Approval
- D- Facility Plan Report



**MONTGOMERY COUNTY PLANNING DEPARTMENT**  
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

June 25, 2009

Mr. Parviz Izadjoo  
M-NCPPC Parks  
9500 Brunett Avenue  
Silver Spring, MD 20910

Re: Final Forest Conservation Plan: S-2596, Amended  
Plan Name: Washington Gas Rock Creek Gate Station  
Tract Size/Zone: 15.99 Acres/RE-2

Dear Mr. Izadjoo:

Based on the review by Environmental Planning staff of the Maryland National Capital Park and Planning Commission, the Final Forest Conservation Plan referenced above is approved.

1. Mitigation for the proposed forest clearing on this parcel in association with the renovations for the Rock Creek Maintenance Yard will be provided with either forest planting at a 2:1 replacement ratio or a 4:1 forest preservation ratio. The applicant must secure Environmental Planning staff approval of the selected method and location for satisfying the mitigation requirements. The mitigation approval must be obtained prior to or concurrently with the approval of the Final Forest Conservation Plan for the Rock Creek Maintenance Yard renovation (PP-2009-001).
2. Inspections consistent with Section 110 of the Forest Conservation Regulation.

Please note, building permits shall not be released until MNCPPC Forest Conservation Inspector has reviewed and signed off on all tree protection measures.

This letter must be attached to all reproduced copies of the approved final forest conservation plan. Any changes from the approved final forest conservation plan may constitute grounds to rescind or amend any approval actions taken, and to re-evaluate the site for additional or amended plantings. If there are any subsequent additions or modifications planned for this development, a separate amendment must be submitted to M-NCPPC for review and approval prior to those changes occurring. If you have any questions regarding these actions, please feel free to contact Mary Jo Kishter at (301) 495-4701.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Pfeifferle".

Mark Pfeifferle  
Acting Chief  
Environmental Planning Division

Cc: Douglas Rau, Gannett Fleming

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**MONTGOMERY COUNTY PLANNING DEPARTMENT**  
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

June 25, 2009

Mr. Parviz Izadjoo  
M-NCPPC  
9500 Brunett Avenue  
Silver Spring, MD 20910

Re: Preliminary Forest Conservation Plan: PP-2009-001  
Property Name: Rock Creek Maintenance Yard  
Tract size/Zone: 211.71 Acres/RE-2

Dear Mr. Izadjoo:

Environmental Planning staff recommends the Montgomery County Planning Board approve the preliminary forest conservation plan submitted to the Planning Department on June 25, 2009 for the above mentioned park project with the following conditions:

1. Submission and staff approval of a final forest conservation plan consistent with Section 109.B of the Forest Conservation Regulation.
2. The applicant must mitigate for the proposed forest clearing on parcel 374 that was designated as forest preservation area on approved FFCP S-2596. Mitigation for the proposed forest clearing on parcel 374 will be provided with either forest planting at a 2:1 replacement ratio or a 4:1 forest preservation ratio. The applicant must secure Environmental Planning staff approval of the selected method and location for satisfying the mitigation requirements. The mitigation approval must be obtained prior to or concurrently with the approval of the Final Forest Conservation Plan for the Rock Creek Maintenance Yard.

Please note that these conditions are only applicable upon Planning Board approval of the Amendment to the Washington Gas Rock Creek Gate Station FFCP, S-2596 and the Rock Creek Maintenance Yard Facility Plan. If you have any questions regarding these actions, please feel free to contact me at (301) 495-4701.

Sincerely,

A handwritten signature in black ink that reads "Mary Jo Kishter".

Mary Jo Kishter  
Senior Planner

Cc: Douglas Rau, Gannett Fleming

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## DEPARTMENT OF PERMITTING SERVICES

Isiah Leggett  
County Executive

June 12, 2009

Carla Reid  
Director

Mr. Rodolph May, Jr., P.E.  
Gannett Fleming, Inc.  
4701 Mount Hope Drive, Suite A  
Baltimore, MD 21215

Re: Stormwater Management **CONCEPT** Request  
for Rock Creek Maintenance Yard  
SM File #: 235590  
Tract Size/Zone: 5 Ac. / RE-2  
Total Concept Area: 3 Ac.  
Parcels: N372, P485 & P610  
Watershed: Upper Rock Creek

Dear Mr. May:

Based on a review by the Department of Permitting Services Review Staff, the stormwater management concept for the above mentioned site is **acceptable**. The stormwater management concept consists of on-site channel protection measures via discharge into Lake Needwood and on-site water quality control via a surface sandfilter and drywells. On-site recharge was not proposed and is not required since this is considered to be redevelopment and a designated stormwater hotspot.

The following **items** will need to be addressed **during** the detailed sediment control/stormwater management plan stage:

1. Prior to permanent vegetative stabilization, all disturbed areas must be topsoiled per the latest Montgomery County Standards and Specifications for Topsoiling.
2. A detailed review of the stormwater management computations will occur at the time of detailed plan review.
3. An engineered sediment control plan must be submitted for this development.
4. All filtration media for manufactured best management practices, whether for new development or redevelopment, must consist of MDE approved material.
5. Any work within the 100-year floodplain will require a MCDPS Floodplain District Permit.

This list may not be all-inclusive and may change based on available information at the time.

Payment of a stormwater management contribution in accordance with Section 2 of the Stormwater Management Regulation 4-90 is not required.

This letter must appear on the sediment control/stormwater management plan at its initial submittal. The concept approval is based on all stormwater management structures being located outside of the Public Utility Easement, the Public Improvement Easement, and the Public Right of Way

unless specifically approved on the concept plan. Any divergence from the information provided to this office; or additional information received during the development process; or a change in an applicable Executive Regulation may constitute grounds to rescind or amend any approval actions taken, and to reevaluate the site for additional or amended stormwater management requirements. If there are subsequent additions or modifications to the development, a separate concept request shall be required.

If you have any questions regarding these actions, please feel free to contact Mike Geier at 240-777-6342.

Sincerely,



Richard R. Brush, Manager  
Water Resources Section  
Division of Land Development Services

RRB:dm CN235590 Rock Creek Maintenance.mjg.doc

cc: C. Conlon  
M. Pfefferle  
SM File # 235590

QN -onsite; Acres: 3  
QL - onsite; Acres: 3  
Recharge is not provided