



MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION  
8787 Georgia Avenue • Silver Spring, Maryland 20910-3760

MCPB Item #12  
November 18, 2004

MEMORANDUM

**TO:** Montgomery County Planning Board  
**VIA:** Jeff Zyontz, Chief, County-wide Planning Division  
**FROM:** Mark Pfefferle, Planning Coordinator  
**DATE:** November 12, 2004  
**SUBJECT:** Forest Conservation Plan for WSSC Project #S-84.46 through Black Hill Regional Park – Continued from October 28, 2004  
**APPLICANT:** Cabin Branch Team  
**LOCATION:** Black Hill Regional Park – West of I-270

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**STAFF RECOMMENDATION:** Environmental Planning staff recommends approval of the final forest conservation plan for WSSC Sewer Outfall Project # S84.46 through Black Hill Regional Park with the following conditions (underlined sections where changed since October 28, 2004):

1. Prior to construction, the applicant to prepare and implement a non-native invasive (NNI) management plan, for a minimum of five years, to cover the area within the limits of disturbance and extending 100 feet on either side of the limits of disturbance for a minimum of five years. The M-NCPPC Natural Resource Management staff shall review and approve the NNI management plan. At a minimum, the plan will include inspections and removal of NNIs, using approved mechanical means and glyphosate based herbicide applications, two times per year during the growing season. Prior to the end of the five-year period, Natural Resource Management staff will inspect the area to determine the effectiveness of the NNI management plan. If at the end of the five years, the M-NCPPC Natural Resource Management staff determines the plan needs to be extended it shall be extended for an additional two years. At the end of this two-year period, the applicant must develop and implement a final treatment plan to remove all remaining NNIs from the area. M-NCPPC Natural Resource Management staff must approve the final treatment plan.
2. Applicant to provide a five-year maintenance period on all planted material.
3. Area of clearing for the wastewater line and construction of the wastewater line is restricted to the limits of disturbance identified in the Forest Conservation Plan. If it becomes necessary to go beyond the limits of disturbance, the applicant must get approval from the Planning Board prior to any clearing activities.
4. Prior to construction, the applicant to identify the size and condition of each tree 4 inches dbh and greater within 40 feet of the limits of disturbance. Each tree to be tagged and a database constructed with tree specific information. If any of the 4-inch and greater trees outside of the limit of disturbance dies, or has significant dieback within 5 years from the

- start of clearing or grading activities, the applicant must replace the tree on a one-inch to one-inch caliper basis.
5. Applicant must use disturbance-minimizing construction techniques, such as crib walls, metal plates, etc, that prevent the laying back of the trench wall.
  6. Applicant to use only track vehicles to access the site.
  7. Applicant to restore site to original grades.
  8. All debris piles and downed trees to be immediately removed from the site.
  9. No material storage allowed anywhere except within the specified limits of disturbance. Trees shall be downed in a manner that minimizes collateral damage.
  10. Planting to occur in phases and as soon after the disturbance as possible.
  11. Site to be prepared for reforestation and excavated deep material must not be the last material used to fill trench after wastewater is in place.
  12. Applicant to prepare the site for planting according to specifications in "Revegetation Requirements for Disturbance of M-NCPPC Parkland" revised edition November 2004.
  13. Applicant to provide deer protection mechanisms for all planted material. Deer protection to be approved by Natural Resource Management staff.
  14. M-NCPPC Parks Arborist to be included in all appropriate phases of the project.

## **BACKGROUND**

The Planning Board first reviewed and discussed the forest conservation plan for a WSSC CIP sewer line through Black Hill Sewer line on October 28, 2004. The applicant for the forest conservation plan are the private land developers of the area bounded by I-270 to the east, West Old Baltimore Road to the south, and Clarksburg Road to the west and north. The Planning Board raised a number of questions which staff was not prepared to answer during the hearing. The applicant decided to defer a decision on the forest conservation plan until November 18, 2004 to allow staff to receive clarification and provide additional information to the Planning Board. Attachment A includes a copy of the October 22, 2004 staff report. Attachment B is a copy of the timeline for the sewer outfall.

## **DISCUSSION**

The following discussion responds to questions and issues raised by the Planning Board during the October 28, 2004 hearing. In particular, the Planning Board asked for the status of the Forest Conservation review period, more detail on the alternatives to using park land, the procedural history of this projects, the status of M-NCPPC MOU with WSSC, the status of the project location given the Council's of the sewer line in the CIP and the advisability of using the Mandatory Referral Process in this situation.

### **Forest Conservation 45-day review period**

Section 22A-11 of the Montgomery County Code identifies application, review and approval procedures for forest conservation plans associated with preliminary plans of subdivisions, site plan, special exceptions, sediment control plans, and mandatory referrals. It is M-NCPPC practice to review and to provide comments on all forest conservation plans within 45 days. When M-NCPPC provides comments to applicants the 45-day clock stops. When the applicant resubmits a forest conservation plan the 45-day time period starts anew. This can continue until

the applicant submits a plan that meets the requirements of the forest conservation law and regulation. Attached is a copy of the Forest Conservation law, Attachment C.

When a forest conservation plan is:

1. Part of a preliminary plan of subdivision or site plan, Environmental Planning staff notifies Development Review staff when the plan is ready to be forwarded to the Planning Board for their consideration as part of a preliminary or site plan.
2. Part of a special exception, the Planning Board reviews the forest conservation plan as part of the special exception. A final forest conservation plan must be approved prior the applicant receiving a sediment control permit, or at the time of preliminary plan of subdivision, or site plan.
3. Part of a mandatory referral, the Planning Board must consider the forest conservation plan when reviewing the mandatory referral application.
4. If the forest conservation plan is for a sediment control permit only, the Planning Director must notify the applicant that the application is complete within 45 days. If the forest conservation plan does not comply with the forest conservation law or the forest conservation regulation, Environmental Planning requests changes to the plan. If Environmental Planning does not notify the applicant that the application is complete and approved, or if changes are necessary within 45 days, Section 22a-11 (d)(2) indicates that the plan should be treated as complete and approved.

The forest conservation plan for the WSSC CIP #84.46 sewer line through Black Hill Regional Park was submitted to M-NCPPC on March 19, 2003. M-NCPPC does not have jurisdiction to review forest conservation plans for WSSC CIP projects. The Maryland Department of Natural Resources reviews all WSSC forest conservation plans. On June 10, 2003, the Maryland Department of Natural Resources granted M-NCPPC the ability to review and approve the forest conservation plan. Since receiving the authority to review the forest conservation plan, M-NCPPC has reviewed and commented on all forest conservation plan submissions within the 45-day timeframe. Attachment B indicates the date forest conservation plans were submitted and M-NCPPC responded to those submissions.

### **Alternatives Analysis**

As part of the forest conservation plan review, Environmental Planning staff reiterated the need for the applicant to prepare an alternative analysis and to determine if other alternatives were feasible. (M-NCPPC staff initially requested the alternative analysis during the June 26, 2002 field walk). Environmental Planning staff identified five alternatives for study in addition to the CIP route. The October 22, 2004 staff report in Attachment A provides more detailed discussion on the alternatives selected and a comparison between the alternatives. To repeat from the October 22 staff report, the 5 alternatives selected for study and the CIP route are as follows:

- Alternative 1. Pump sewage material from the Cabin Branch development and Stage IV across the stream that runs parallel to I-270, underneath I-270 and connect into the

existing wastewater line that runs through the Summerfield Crossing subdivision, or run a parallel wastewater line in this currently unforested stream valley.

- Alternative 2. Pump sewage material from Cabin Branch development and Stage IV across the stream, underneath I-270 to a new line parallel to I-270 but on the east side of the Interstate.
- Alternative 3. Transport sewage material from Cabin Branch development and Stage IV across the stream that runs parallel to I-270 and place the wastewater line between the I-270 right-of-way and east of the stream.
- Alternative 4. Pump sewage material from Cabin Branch development and Stage IV along a route parallel to Lake Ridge Drive and through existing forest clearings, meadows, and canopy breaks as much as possible to connect to the existing wastewater line prior to the Crystal Rock Station.
- Alternative 5. Transport wastewater, via gravity, through the park but at the 520 topographical contour elevation. This elevation is similar to the elevation at the intersection of Lake Ridge Drive and West Old Baltimore Road. Utilize deep wastewater lines as necessary to minimize forest impact and utilize a gravity system. Once at the high point utilize forest clearings, meadows, and canopy breaks to minimize forest loss.

The following table summaries and compares the CIP route and the five alternatives.

<b>Impact</b>	<b>CIP 84.46</b>	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Alternative 4</b>	<b>Alternative 5</b>
Force Main-LF	0	1300	1350	0	2000	0
Pump Station	No	Yes	Yes	No	Yes	No
270 Tunnel	No	2	2	No	No	No
Deep Sewer	No	No	No	Yes 30 feet	No	Yes 70 feet
Stream Crossing	1	3	3	6	0	0
Wetlands (ac)	0.14	0.7	0.13	0.51	0	0
Forest Loss (ac)	3.96	0	2.2	3.2	1.2	4.2
Interior Forest Loss (ac)	9	0	0	0	0	4.1
Parklands Impact (ac)	3.96	0.17	0.23	3.1	3.5	5.1
Gravity Main-LF	4196	4200	2800	3400	2600	4500
Estimated Cost <sup>1</sup> (Millions)	\$1.1	\$3.8	\$3.6	\$1.5	\$3.4	\$2.9
1. Estimated cost does not include additional costs from construction difficulties such as depth of bedrock and blasting.						

All alternatives utilizing a pump station require additional long-term operation and maintenance costs. WSSC estimated the operation and maintenance cost for a 4.4 million gallon per day facility at \$121,000 per year. The alternatives above, which utilize a pump station requires a 9

million gallon per day facility and therefore the annual operation and maintenance costs would be greater than the \$121,000.

The alternatives utilizing a pump station create a situation where a pump station pumps to a gravity system and then to another pump station. WSSC has employed pump stations in series in a few applications such as the Freedom Hill wastewater pump station to a gravity line to Wexford wastewater pump station in Germantown. However, using such a technique, specifically with the proposed stations being in close proximity in this instance, presents potential impacts locally from increased odor mitigation and increased corrosion in the downstream gravity collection system. Also, overflows could occur at the stations in the event of a major power outage due to a significant weather event. When feasible, WSSC provides redundant power sources either by an on-site generator or via dual power feed to its wastewater pumping stations.

The table below identifies the initial costs, and annual operation and maintenance costs, estimated by WSSC and apportions costs by either a residential unit or commercial square footage. The cost estimates provided by WSSC are included in Attachment D. Alternatives with pumping stations have higher initial and annual operation and maintenance costs.

Alternative	Initial Cost	Initial Cost/ Residential unit (/sq. ft commercial space) <sup>1</sup>	Annual Operation and Maintenance Cost <sup>2</sup>	Annual O&M Cost/ Residential unit (/sq. ft commercial space) <sup>1</sup>
CIP	1,081,563	\$453(\$0.40)	\$0 or negligible	\$0(\$0)
Alternative 1	3,823,875	\$1,602(\$1.58)	\$200,000	\$84(\$0.08)
Alternative 2	3,609,038	\$1,512(\$1.49)	\$200,000	\$84(\$0.08)
Alternative 3	1,456,875	\$610(\$0.60)	\$0 or negligible	\$0(\$0)
Alternative 4	3,374,125	\$1,414(\$1.39)	\$200,000	\$84(\$0.08)
Alternative 5	2,892,500	\$1,212(\$1.19)	\$0 or negligible	\$0(\$0)
<p>1. Initial cost is divided by the number of residential units 2,386 or the square footage of commercial space. When the system development charges are applied, the fee will be based on the number of fixtures and not number of residential units, or commercial square footage. The estimates do not assume a blending of costs to both residential and commercial space.</p> <p>2. WSSC estimates the annual O&amp;M cost of \$121,000 for a 4.4 MGD facility. The alternatives with a pump station required a 9 MGD facility and therefore the costs are higher and estimated at \$200,000 per year.</p>				

### Previous Sewer Line Discussions Reviews

The sewer line to serve the Cabin Branch development has been discussed in numerous documents and correspondence, but no document indicates that a route through Black Hill Regional Park was discussed or approved by the Planning Board.

1. The *Clarksburg Master Plan* is silent on a gravity sewer line passing through Black Hill Regional Park. The Master Plan, on page 203, indicates “The employment area along I-270 could be served separately by a gravity sewer line.” The Master Plan does not indicate the location of this gravity sewer line. Attachment E.
2. The *Black Hill Regional Park Master Plan* identifies a regional sewer line through the park as a potential issue. The Master Plan does not indicate the location of the sewer line. Attachment F.
3. In June 2000, M-NCPPC reviewed the master plan staging triggers for Clarksburg Stage 3 developments. The actions resulting from the recommendations lead to the advancement of properties, including the Cabin Branch property, from W-6 and S-6 to W-4 and S-4 and ultimately W-3 and S-3 provided transfer development rights were used in the plan. The staff report does not discuss locating a sewer line through Black Hill Regional Park. Page 5 of this staff report states “For the Cabin Branch Neighborhood there will be capital projects required due to the need for a pump station, force and potential gravity sewers to convey flow to the Little Seneca Trunk Sewer”. Attachment G.
4. On February 13, 2001, the Montgomery County Council passed a resolution to amend the Comprehensive Water Supply and Sewage Systems Plan for properties located in Stage II and III in Clarksburg. Neither the public hearing nor the council members specifically discussed locating a sewer line through Black Hill Regional Park. Attachment H includes a copy of the County Council staff report and Attachment I is a copy of the adopted resolution.
5. The sewer outfall was included as part of the County approved, Capital Improvement Program (CIP), prepared by WSSC, as S-84.46 and originally included as part of the fiscal year 2002 CIP. The CIP identifies a gravity feed sewer line west of the stream in Black Hill Regional Park. The CIP indicates that the project includes “only nominal funding at this time” and that “these very preliminary planning estimates will change depending on pipe size decisions, site-specific conditions and designs constraints”. Attachment J.
6. In November 2003, M-NCPPC issued a permit to the Cabin Branch Team for the construction of a 24-inch, 4,165 linear foot long sewer line through Black Hill Regional Park. Attachment K.

### **Memorandum of Understanding - WSSC and M-NCPPC**

That Memorandum of Understanding governing Black Hills Park became effective in 1996. (Attachment L) This memo of understanding looks for the avoidance of parkland, minimization of park impacts, mitigation, and compensation. Instead of a “right” by WSSC to use parkland it states;

“M-NCPPC expects that parkland alignments will be pursued as an option in all projects. Non-park alternatives will be selected except in either of the following circumstances:

1. The environmental, social, economic and engineering impacts off parkland would be greater than those on parkland, and those impacts on parkland are within acceptable ranges.
2. There is no feasible alternative to construction on parkland after all options, including the no-build option, have been pursued”

The directors in M-NCPPC and the General Manager of WSSC signed this MOU. Before it was signed, it was given to Chairman Hussman to consider bring it as an agenda item to the full Board. With Chairman Hussman’s guidance, it was given to all Planning Board members with the opportunity for any member with a problem or concern to ask that it be formally addressed as an agenda item. As there were no objections raised, it was not put on the agenda and was subsequently signed.

In August of 1997, an attachment “D” (Attachment M of this staff report) was also agreed to that “superceed (sic) all previous letter agreements” between the General Manager of the WSSC and M-NCPPC concerning fees for rights of way and inspection. That fee was established at \$.25 per square foot based upon the total square footage within the “working limits” of the project. It is certainly the view of WSSC that the applicant is their agent for this project.

### **CIP Status**

The sewer line in question is in WSSC’s Capital Improvements Program as a developer funded project. (Even though the developer is providing the initial funding they will be paid by WSSC charges to users. Any surplus of charges will benefit WSSC ratepayers. Any deficit will be the responsibility of the developer). In FY02, the Montgomery County Council approved funding for the planning and design of an outfall sewer along a tributary west of I-270 and south of West Old Baltimore Road. It was not the subject of a facility plan that would have reviewed sewer location alternatives before its inclusion in the CIP. County Council staff does not believe that the review of alternative routes (required by both our MOU with WSSC and in this instance, the Forest Conservation Ordinance) was preempted by Council’s inclusion of this project in the CIP.

### **Mandatory Referral Law**

Section 7-112, Article 28 of the Maryland Code, which addresses mandatory referrals, requires the construction of utilities, whether public or privately owned shall not be located, constructed, or authorized unless the proposed location, character, grade, and extent has been submitted and approved by the Commission. (Attachment N)

In August, WSSC request review of this project as a Mandatory Referral. The information that would have been required for at process was being provided as part of the Forest Conservation Plan. Specific notice is not required for either the Forest Conservation Plan or a Mandatory referral. A natural area of Black Hill Regional Park is most affected by the sewer line. Park staff was involved as soon as the application was made.

Mandatory referral is advisory. It has been staff policy to not bring items before the Planning Board as Mandatory Referral when the issue is controlled by the Board's final decision-making authority. In this case, by virtue of the Forest Conservation Plan, the Board has approval authority.

### **Staff Conclusion**

The capital and operating costs are excessive in the alternatives that avoid parkland compared to the acreage of forest lost. Requiring a pump station of this size will make WSSC dependent upon electric power rather than gravity. Generating and transmitting electric power has environmental costs and reliability issues not calculated in the alternatives analysis. Staff recommends approval of the forest conservation plan with the conditions documented above.

A 1996 Memorandum of Understanding between WSSC and M-NCPPC establishes the procedures and requirements of review and approval for WSSC projects that have potential impacts to parkland managed by M-NCPPC. Under the MOU M-NCPPC may deny permit requests or impose conditions of issuance as deemed necessary to manage and protect park property. Staff concluded that attachment "D" to that MOU controlled the compensation issue in this matter. Staff would add financial penalties to exceeding the land disturbance area identified in the forest conservation plan to the park permit.

### **ATTACHMENTS**

- A. M-NCPPC staff report dated October 22, 2004 for the Forest Conservation Plan Black Hill Regional Park/New Sewer Outfall Project #84.46.
- B. Black Hill Sewer line time line.
- C. Forest Conservation Law – Chapter 22A of the Montgomery County Code.
- D. Sewer Alternative Analysis Submitted to M-NCPPC by WSSC
- E. Clarksburg Master Plan Excerpt
- F. Black Hill Regional Park Master Plan Excerpt June 2000 M-NCPPC staff memorandum on Master Plan Staging Triggers for Development – Stage 3 Clarksburg
- G. February 9, 2001 County Council staff memorandum on County Executive Amendments to the Comprehensive Water Supply and Sewage System Plan: Properties located in and adjacent to Development Stages Two and Three in Clarksburg.
- H. County Council Resolution No. 14-772 Amendment to the Comprehensive Water Supply and Sewage System Plan: Properties located in and adjacent to Development Stages Two and Three in Clarksburg
- I. Washington Suburban Sanitary Commission: Proposed Six-Year Capital Improvements Program Fiscal Years 2003-2008
- J. Permit for Construction and Work on Park Property
- K. 1931 Memorandum of Understanding Between M-NCPPC and WSSC
- L. 1996 Memorandum of Understanding Between M-NCPPC and WSSC
- M. Attachment "D" to the 1996 Memorandum of Understanding
- N. Mandatory Referral law