



City of Brookhaven, Georgia

BMP E-3

Maintenance & Inspection Procedure

(Applies to all Publicly-Owned and Privately-Owned Facilities)

1.0 Introduction

The control of stormwater runoff from publicly-owned and privately-owned property has been a requirement in DeKalb County and the City of Brookhaven for over 25 years. With the adoption of the *Georgia Stormwater Management Manual (GSMM)* by DeKalb County and later by Brookhaven (2009) stormwater management has placed a greater emphasis on the control of both the quality, as well as the quantity, of storm runoff.

The *Georgia Stormwater Management Manual (GSMM)* is an engineering design manual which advocates hydrologic procedures and methodology for the control of storm runoff quality and quantity. The manual offers design criteria for stormwater management that protects and preserves our natural water resources. Policy guidelines dictate that communities develop a program for better site development to include design and installation of water quality protection measures or Best Management Practices (BMPs) to protect Georgia's limited and valuable water supplies.

The City wants a program to provide regular inspections of publicly-owned and privately-owned facilities to assure that all stormwater systems receive periodic routine inspection and maintenance. This program will insure that these systems function as they were designed, to prevent flooding, erosion, and degradation of existing water resources. This procedure outlines the inspection process, organizes the administrative workload and develops a systematic method for maintenance and repair functions.

2.0 Program Description

The City currently owns and operates one stormwater management BMPs/detention facilities, located at one of the City owned parks. All other City-owned property was permitted at a time when no such requirements were in place.

An inventory of private ponds to be inspected will be developed based on the City's GIS database inventory. The database will be initially based on available information provided by DeKalb County and will be updated.

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Due to limited inventory information it is not possible to estimate the number of BMPs in the city. The City of Brookhaven will inspect 20% of the inventoried existing privately-owned stormwater management facilities every year beginning in 2012 2014. The City will inspect 10 20% of inventoried BMPs in 2010 and in 2011 2014, then 20% of inventoried BMPs in 2012 2015, 20% of inventoried BMPs in 2013 2016, and 20% of inventoried BMPs in 2014 2017, and 20% of inventoried BMPs in 2018.

After inspection, a letter is sent to the affected property owners notifying them of our findings with a time frame for completion of repairs. If repairs are not properly completed within the specified time frame, the City may make the necessary repairs at the owner's expense.

3.0 Procedure

An inventory of private ponds to be inspected will be developed based on the City's GIS database inventory. The database will be initially based on available information provided by Dekalb County and is currently being updated.

An inspection checklist will be used and kept on file along with documentation of corrective action for any problems noted during the inspection. After inspection, each job is placed into a project folder. The folder contains a copy of the final plat showing easements and boundaries and a written inspection report. A computer maintenance management system is planned to replace the paper files.

The existing privately-owned stormwater management facilities will be inspected once every five years by the City of Brookhaven.

Once the inspection is complete and a report has been finalized a letter is sent to the affected property owners notifying them of our findings with a time frame for completion of repairs.

If repairs are not properly completed within the specified time frame, the County may make the necessary repairs at the owner's expense.

The inspection will include a thorough evaluation of the primary features of the BMPs. These inspections will focus on the condition of these features to insure proper operation. An operation and maintenance inspection report will be filled out to include all field notes. For inspections and maintenance, particular attention is given to the following areas:

A. Wet Detention Ponds

- Dam and Emergency Spillway
- Pond Inlet and Outlet
- Trash Racks
- Erosion

- Sediment Storage Capacity
- Water Quality
- Fences, Gates and Signs

B. Water Quality BMPs

- Riparian Buffers
- Vegetated Filter Strips and Level Spreaders
- Open Channel Practices
- Bio-retention Cells
- Constructed Wetlands
- Sand Filters
- Retention Ponds

Example letter to notify homeowners of maintenance required on their Property

Date

Name

Address of owner

RE: Inspection of Detention Facility

Dear Name:

This letter is to notify you of an inspection on DATE of the detention pond located at:

Address of property with detention pond

On that date the deficiencies identified on the following page were found. In accordance with the City of Brookhaven Regulations, it is your responsibility to repair these items and notify us when they are corrected.

It is the city's desire to work with you to resolve this matter. Should you have any questions regarding this letter, or should you require any further information or advice regarding compliance with the directions contained within this letter, please contact me at 678-384-6850.

Respectfully,

Name

Title

The Format for the inspection report used by City is attached below.

Operational and Maintenance Inspection Report for Stormwater Management Ponds

(Adapted from Watershed Management Institute, Inc.)

Inspector Name: _____ Project Location: _____
 Inspection Date: _____
 Stormwater Pond _____
 Normal _____
 Pool _____
 Normally _____
 Dry _____
 Watershed: _____

Inspection Items	Checked Yes / No	Maintenance Needed? Yes / No	Inspection Frequency	Comment
Pond Components				
1. Enbankment & Emergency Spillway				
a. Adequate vegetation & ground cover			A	
b. Embankment erosion			A	
c. Animal burrows			A	
d. Unauthorized plantings			A	
e. Cracking, bulging, or sliding of dam			A	
i. Upstream Face			A	
ii. Downstream Face			A	
iii. At or beyond toe upstream			A	
iv. At or beyond toe downstream			A	
iv. Emergency Spillway			A	
f. Pond, Toe, & Chimney drains clear & functioning			A	
g. Leaks on downstream face			A	
h. Abutment protection or rip-rap failures			A	
i. Visual settlement or horizontal misalignment of top of dam			A	
j. Emergency spillway clear of debris			A	
k. Other (Specify)			A	
2. Riser and principal spillway				
Type: Reinforced Concrete _____			A	
Corrugated pipe _____			A	
Masonry _____			A	
a. Low flow orifice obstructed			A	
b. Low flow trash rack			A	
i. Debris removal necessary			A	

		ii. Corrosion control			A
	c.	Weir trash rack			A
		i. Debris removal necessary			A
		ii. Corrosion control			A
	d.	Excessive sediment accumulation inside riser			A
	e.	Concrete/masonry condition Riser & Barrels			A
		i. Cracks or displacement			A
		ii. Minor spalling (<1")			A
		iii. Major spalling (rebars exposed)			A
		iv. Joint failures			A
		v. Water tightness			A
	f.	Metal pipe condition			A
	g.	Control valve			A
		i. Operational/exercised			A
		ii. Chained & locked			A
	h.	Pond drain valve			A
		i. Operational/exercised			A
		ii. Chained & locked			A
	i.	Outfall channels flowing			A
	j.	Other (Specify)			A
3.		Permanent pool (wet pond)			
	a.	Undesirable vegetation growth			M
	b.	Floating or floatable debris removal required			M
	c.	Visible pollution			M
	d.	High water marks			M
	e.	Shoreline problems			M
	f.	Other (Specify)			M
4.		Sediment forebays			
	a.	Sedimentation noted			M
	b.	Sediment removal when depth < 50% design depth			M
5.		Dry Pond areas			
	a.	Vegetation adequate			M
	b.	Undesirable vegetative growth			M
	c.	Undesirable woody vegetation			M
	d.	Low flow channels clear of obstructions			M
	e.	Standing water or wet spots			M
	f.	Sediment and/or trash accumulation			M
	g.	Other (Specify)			M
6.		Condition of outfalls into pond			
	a.	Rip-rap failures			A,S

	b.	Slope erosion			A,S
	c.	Storm drain pipes			A,S
	d.	Endwalls/headwalls			A,S
	e.	Other (Specify)			A,S
7.	Other				
	a.	Enhancement on ponds or easement area			M
	b.	Complaints from residents (describe on back)			M
	c.	Aesthetics			M
		i. Grass height			M
		ii. Graffiti removal necessary			M
		iii. Other (Specify)			M
	d.	Any public hazards (specify)			M
	e.	Maintenance access			M
8.	Constructed wetland areas				
	a.	Vegetation healthy and growing			A
	b.	Evidence of invasive species			A
	c.	Excessive sedimentation in wetland area			A

Inspection Frequency Key A=Annual, M=Monthly, S=After major storm

Summary

1. Inspectors Remarks

2. Overall Condition of Facility (Check one)

Acceptable
 Unacceptable

3. Dates any maintenance must be completed by:

Inspector's
Signature