

# **City of Sandy Springs, Georgia**

## **Water Quality Assessment Procedure**

### **Existing Flood Control Project Analysis**

## **1.0 Introduction**

Projects that control flooding present a good opportunity to also address water quality of our streams. This procedure puts a method in place to ensure that controls to improve water quality will be considered as a part of any flood control project. It is appropriate to assess these structures for water quality benefits at the design stage and any retrofit stage.

## **2.0 Program Description**

Flood management projects generally fall into one of two structural categories, flood control dams or detention/retention basins.

During the design or retrofit of these structural flood control projects, post-construction structural best management practices, as described in the *Georgia Stormwater Management Manual*, will be evaluated to determine if they can be added to the project to improve water quality.

## **3.0 Procedure**

### **3.1 Flood Control Dams**

The City of Sandy Springs has no responsibility for the maintenance of any Natural Resource Conservation Service (NRCS) Watershed Dams.

### **3.2 Detention/ Retention Basins**

#### **3.2.1 New Detention/Retention Basins**

As of December 2005, the City required that storm water management structures/facilities planned as a part of new development be designed to include water quality benefits. These changes were incorporated into the City's Development Regulations, which require that an engineer assess the post construction site conditions, and incorporate BMPs that include water quality benefits into the design plans.

A list of these BMPs is included within the *Georgia Stormwater Management Manual*. The regulations require that BMPs be used to reduce post construction total suspended solids (TSS) loadings by 80% as measured on an annual average basis. The manual has assigned removal efficiencies to each of the BMPs provided in the manual and has designed a spreadsheet model that allows developers to assess which BMPs may be used to achieve the goal.

The Community Development Division reviews all submitted development plans to determine compliance with the water quality requirements of the Development Regulations.

In summary, all new development in Sandy Springs is required to incorporate water quality BMPs into that development so as to improve the quality of post construction runoff from that development.

### **3.2.2 Existing Detention/Retention Basins Retrofits**

The City will assess one (1) **City-owned** existing flood control project per year; most likely a detention/ retention basin to retrofit. The criteria that will be used to select basins to retrofit will be:

- 1) Type of problem to be solved
- 2) Ability of a retrofit to resolve an existing problem
- 3) Ownership of the BMP
- 4) Constructability
- 5) Accessibility
- 6) Benefit verses cost
- 7) Funding available

The types of existing problems that will be considered will be ranked (Highest to lowest) based on:

- 5 - Impact to life or safety
- 4 - Impact to property
- 3 - Impact on water quality/ biota for pollutant of concern for a water which has a Total Maximum Daily Load (TMDL) implementation plan.
- 2 - Impact on water quality/ biota

For ownership, facilities owned by the City will receive a rank of 5, private BMPs with all easements provided by the owner will receive a rank of 1 and private BMPs with no easements or access will be ranked as 0.

The Form on the last page will be used to score the retrofits. This score will be used to determine a cost / benefit ratio to help select the best project for the least cost.

Based on funding available, the best projects that have been determined to be the maintenance responsibility of the City will be placed on the Capital Improvement Projects list for the City to perform. These retrofit projects will be ranked with other Operation and Maintenance projects as outlined in BMP F-2/F-3 (MS4 Inspection and Maintenance Procedure). Private property owners will be encouraged to construct water quality retrofits on projects identified on private property.

All existing detention/ retention ponds inspected as part of BMP E-2 that are the maintenance responsibility of the city will be evaluated using this procedure.

When the City retrofits an existing facility, the design criteria and methodologies in the *Georgia Stormwater Management Manual* will be used to first solve the existing problem and second to maximize the reduction in post construction TSS.

## Detention/ Retention Pond Retrofit Evaluation Form

Tracking Number: \_\_\_\_\_

Date : \_\_\_\_\_

Location : \_\_\_\_\_

<b>Criteria</b>	<b>Score ( 5 best to 1 least)</b>
Type of Problem	
Ability to solve problem	
Ownership of BMP	
Constructability	
Accessibility	
Total (Score of 25 possible)	

Cost: \_\_\_\_\_

Benefit/ Cost: \_\_\_\_\_