

**CITY OF BERKELEY LAKE
STORM WATER DRAINAGE MAINTENANCE POLICIES
DECEMBER 2005
REVISION 0**

1.0 AREA OF RESPONSIBILITY

1.1 CITY OF BERKELEY LAKE

The City is responsible for the maintenance of the drainage system within the City right of way on dedicated streets. This extends to structures directly connected to the drainage system adjacent to the right of way, provided that drainage easements have been donated by the property owner. .

1.2 AREAS WITHIN CITY LIMITS MAINTAINED BY THE COUNTY

The City has negotiated a contract with Gwinnett County titled Roadway Resurfacing and Maintenance Agreement. Problems within the limits of the City should be referred to the City except drainage problems within the right of way for roads accepted by the County for maintenance. The list of "Streets within cities for which Gwinnett County will retain responsibility" is part of the above referenced agreement and includes North and South Berkeley Lake Road as well as Bush Road.

2.0 DRAINAGE EASEMENTS

2.1 DEFINITIONS

2.1.1 DEVELOPMENT REGULATIONS

An easement is defined as a "Recorded authorization for a specified purpose by a property owner for the use of any designated part of the real property by another entity."

A drainage easement is used by upstream property owners to allow the flow of storm water from upstream properties to downstream properties.

2.1.2 FLOOD PLAIN MANAGEMENT ORDINANCE

Section 1.2.5 of the County's Flood Plain Management Ordinance States, "On behalf of the public, a drainage easement is hereby established for the sole purpose of preserving and protecting the free flow of surface waters inside the Regulatory Flood (100-year flood) contour elevations and along water courses." A water course is defined as, "A channel with a defined bed and banks, including lakes, ponds, and marshes."

2.1.3 CASE LAW

It is case law that a property owner cannot alter a drainage path that will have an effect on his neighbor's property (i.e., increase or decrease flood flows or increase flood elevations.) This means that downstream property owners must accept water that flows on their property from their neighbors and that upstream property owners cannot change the flow of water onto their downstream neighbors.

2.2 MAINTENANCE RESPONSIBILITY

2.2.1 EASEMENTS WITH OPEN CHANNEL FLOW

Section 7.4.6 of the County's development regulations states that, "The property owner will be required to keep the easement free of obstruction in such a way as to assure the maximum designed flow at all times." The property owner shall not alter any drainage improvements without the prior written approval from the City."

2.2.2 RECORDED EASEMENTS WITH PIPE

2.2.2.1 Pipe systems in a single family residential drainage easement that attach directly to a pipe system in the right of way, including outlet structures, will be maintained by the City provided the pipe system is either shown on a final subdivision plat or was accepted by the City.

2.2.2.2 Pipe systems in commercial property (not single family residential) are the property owners responsibility even if they attach to a pipe system in the right of way.

2.2.3 STRUCTURAL BEST MANAGEMENT PRACTICES (BMPs)

The City performs inspection and maintenance of BMP's or water quality structural controls. These (BMP's) can be broken up into three categories.

2.2.3.1 Category 1: Owned and maintained by the City

- Inspected annually
- Maintained as needed so that the structure operates as originally constructed
- Common maintenance activities would include repair of outlet control structures and mowing of grass surrounding the structure. Other activities may be necessary as determined by the inspection.
- An inventory of these structures is maintained at the City Hall

2.2.3.2 Category 2: Privately owned and approved by the City without a Maintenance Agreement

- No routine inspections by the City
- No maintenance by the City
- Inspections are completed by the City on a complaint basis only.
- Private owners are required by Gwinnett County's Development Regulations to inspect and maintain structures so that they continue to operate as they were originally designed. Such inspections should be performed annually
- No routine program currently exists to ensure that these privately owned systems are inspected or maintained
- Following inspection, if necessary, the City works to have owners of the structure complete necessary maintenance.
- Resources are not currently available to routinely inspect and maintain these BMP's.

2.2.3.3 Category 3: Privately owned and approved by the City with a Maintenance Agreement

- Inspection and maintenance of these BMPs is completed by commercial property owners or residential Home Owners Associations (which are required to be established under the Development Regulations) and is governed by the requirements of recorded maintenance agreements. The county may from time to time, based on available resources, complete oversight inspections of these BMP's to ensure the terms of the agreement are being met.
- Maintenance activities for specific BMP's, along with suggested inspection schedules, are included as a part of the maintenance agreements. Inspection and recommended maintenance schedules for specific BMP's are also contained within Gwinnett County's Storm Water Design Manual.
- The County approves the original design and inspects each of these BMP's at the time they are installed to ensure they are constructed in accordance with approved plans. Prior to bond expiration, a follow up inspection is completed at 18 months, to ensure the BMP is working and maintained as required. If not, maintenance or repairs are required prior to release of the bond. Where resources are available, the county attempts to inspect all BMP's in this category annually to ensure compliance with the maintenance agreements. Notices are issued as necessary to secure compliance with the agreement.
- The county's priorities with respect to the inspection of this category of structure are as follows:
 - (1) All inspections prior to the approval of the final plat or Certificate of Occupancy. This includes several inspections during the construction of the BMP.
 - (2) Inspections that occur during the 18 month maintenance bond period following the approval of the final plat or Certificate of Occupancy.
 - (3) Routine annual inspections.

2.2.4.1 EMERGENCY AUTHORIZATION

Per section 1.2.5 of the County's Flood Plain Management Ordinance, "Where debris has accumulated in such a manner as would increase the need for flood protection, raise the flood level, or increase the risk of hazardous inundation of adjacent communities or jurisdictions, including County infrastructure, the County is hereby authorized to enter upon such water course and clear or remove such debris or obstructions as are hazardous to the public safety. The cost, thereof, shall be charged to the owner of the property where such debris and/or obstruction was generated." By extension, the City retains similar rights and responsibilities relative to City infrastructure.

2.2.4.2 EMERGENCY RESPONSE STRATEGY

The City has access to Gwinnett County's demand services contract with a private pipeline contractor who is tasked with responding to situations that require immediate, large scale action. The City is to maintain a list of emergency contractors, specializing in earthwork and stormwater drainage construction.

2.2.5 CONSTRUCTION POLICIES

2.2.5.1 In grassed areas affected by construction, the City will reseed with similar type of grass. Where seed is not available, the homeowner will be compensated using a settlement agreement. The City does not guarantee the survival of the grass. The maintenance of the grass is the property owner's responsibility.

2.2.5.2 The City will repair any pavement damaged by City construction.

2.2.5.3 The City will not replace trees or shrubs whose drip line is in the City right of way, or drainage easement that are cut down or do not survive as a result of construction. Trees and shrubs outside these limits that are damaged will be replaced with nursery stock. The City does not guarantee the survival of the plants.

Maintenance of the plant material is the property owner's responsibility.

2.2.5.4 Fences across drainage easements with open swales/ditches in them are not allowed. The City will remove and put back an existing fence in a piped drainage easement or temporary construction easement that is removed for maintenance or construction purposes, but is not required to replace or repair other structures in a drainage easement or in the City right of way. Any structure outside the right of way or drainage easement that is damaged by the City or its agent will be repaired, replaced or the property owner compensated.

3.0 DETENTION FACILITIES

Section 8.2.6 of Gwinnett County's Development Regulations states,

a. The detention storage capacity or function of any detention basin, pond or other impoundment, whether natural or man-made, shall not be removed or diminished without the express approval of the Department (Gwinnett County's Department of Public Utilities).

b. In a residential subdivision, it shall be the responsibility of the mandatory property owners' association (or individual property owner) to maintain the operational characteristics of any facility constructed on their property for storm water detention pursuant to County requirements, to keep the access drive free of obstruction, and to maintain the facility free of obstruction, silt or debris."

The City has adopted these regulations by reference.

4.0 DITCHES INSIDE THE RIGHT OF WAY

Ditches inside the right of way should not be piped unless the ditch and shoulder will not fit in the right of way, other erosion control measures have been tried and have failed, or a pipe system is deemed necessary by Gwinnett County or the City to improve traffic safety.

5.0 DRIVEWAY CULVERTS

- 5.1 The City is not responsible for installing or providing driveway culverts for new construction.
- 5.2 Existing driveway culverts in a City right of way, in single-family residential areas, are the City's responsibility if the City approved the initial installation or if culverts are in place at the time of the enactment of the "Maintenance of Driveway culvert".
- 5.3 Driveway culverts on private single-family residential property are private issues.
- 5.4 Driveway culverts for commercial properties are the responsibility of the property owner, even if the drainages structures are located in City right-of-way.
- 5.5 Section 20-101 (4) of the Code of Ordinances of the City of Berkeley Lake entitled "Maintenance of Driveway Culverts" is incorporated by reference.

6.0 DRIVEWAY CURB CUTS

- 6.1 Driveway curb cuts are the property owner's responsibility. If water is going down a driveway causing another property owner flooding problems, it is the responsibility of the party who created the curb cut to solve the problem. The City will not raise a driveway to prevent storm runoff from flowing down it.
- 6.2 The City may install an asphalt berm across the driveway at the street at the homeowner's request to help stop water from going down a driveway.

7.0 BURY PITS

- 7.1 Bury pits are holes or depressions in the ground that are filled with building and/or organic materials {such as lumber and tree limbs} and then covered with dirt. In time, usually five {5} to ten {10} years, the organic material in the holes starts to decay and the ground above the material subsides causing a depression in the ground surface.
- 7.2 The City is not responsible for bury pits on or off the right of way, except if it directly affects a City maintained road or infrastructure.

8.0 WATER PONDING ON STREET SURFACES

The City will eliminate standing water in the street only if the City deems the water as a potential traffic safety hazard or if the City determines that the benefit derived from extended pavement life exceeds the cost of fixing the problem.

9.0 CITY ASSISTANCE

The City can provide materials to single family residential property owners to solve private drainage problems on their property under the Pipe Program (Section 10.0) and the ROCK Program (11.0).

10.0 PIPE PROGRAM

10.1 DESCRIPTION

The Pipe Program has been set up by City to help residential property owners resolve drainage problems. Under the Pipe Program, the City will provide 1/2 the cost of pipe system improvements up to a maximum contribution of \$1,000.00 per residential property owner. The City contribution is in the form of pipe, brick, frames, grates, covers, and headwalls. The City does not provide mortar, concrete, backfill or landscape material. If the cost of materials do not equal 1/2 of the construction costs, the City is only responsible for the amount of materials needed.

10.2 CONDITIONS

10.2.1 The pipe system must directly connect to a pipe system in the City right of way that City is responsible to maintain.

10.2.2 The City's offer is valid for 30 calendar days. After that period the renewal of the service request will be treated as a new request and must be reinvestigated under current policy and funding.

10.2.3 Live streams are not eligible for the Pipe Program.

10.2.4 Homeowner Associations and non-profit organizations are not eligible for the Pipe Program. The program is intended to help single family residential homeowners with drainage problems on their property.

10.2.5 The program exists to correct drainage problems where a residence is flooded or the residence is threatened by erosion. The primary recommendation should always be ditch improvements and proper grassing by the property owner.

10.2.6 The Pipe Program can be used to extend the pipe in the upstream direction only when,

(a) The pipe extension will not increase the ponding off the property,

(b) The new pipe can be laid at the same slope as the existing pipe or steeper and,

(c) The water can pond in front of the new pipe to the same depth as before.

10.2.7 The Pipe Program can be used to extend the pipe in the downstream direction to within six (6) pipe diameters of the property line, provided the pipe required to maintain the system capacity will fit in the ground. A method to dissipate the energy of the water must be provided.

10.2.8 The property owner must sign an agreement with the City and give the City permission to deliver the materials on his/her property.

103 PROPERTY OWNER RESPONSIBILITIES

10.3.1 It is the property owner's responsibility to have the materials installed by a qualified contractor within 60 days of delivery per Gwinnett County standards or the property owner agrees to pay the City for the cost of the materials including delivery.

10.3.2 The property owner is responsible for soil subsidence on systems installed under the Pipe Program due to poor compaction by the contractor.

11.0 ROCK PROGRAM

11.1 DESCRIPTION

The ROCK program has been set up by the City to assist single family residential property owners resolve drainage problems on their property. Under the ROCK Program, the County will provide up to 15 tons of surge stone delivered to a residential property for the erosion protection of a drainage easement.

11.2 CONDITIONS

11.2.1 Homeowner Associations are eligible to participate in the ROCK Program. A maximum of 75 tons can be given to the organization.

11.2.2 Property owners and homeowner associations may only participate in the program once.

11.2.3 After signing a release form, rock will be delivered on the road right of way as close to the problem site as possible. The City will not deliver rock on private property.

11.2.4 The program exists to correct an erosion problem. The rip rap must be used for correcting erosion problems. The primary recommendation should always be ditch improvements and proper grassing by the property owner.

11.2.5 Property must be located in the City limits.

11.2.6 The City will not be responsible for picking up unused or unwanted rock.

11.2.7 Rock will not be provided to properties with sidewalks, utilities, sprinkler systems, or landscape material in the right of way which prohibit the delivery of rock.

11.3 PROPERTY OWNER'S RESPONSIBILITIES

It is the homeowner's responsibility to place the rock in the area requiring erosion control within 60 days of delivery or the property owner agrees to pay the City the cost of materials including delivery.

12.0 SURFACE WATER IMPROVEMENT GRANTS (SWIG) PROGRAM

12.1 DESCRIPTION

The SWIG program has been set up by the City to assist residential property owners, including Homeowners Associations, to maintain/improve water control structures on their property. Under the SWIG Program, the City will reimburse owners up to ½ the cost of the improvements, up to a maximum limit of \$25,000. Only those improvements which are intended to improve surface water quality within the City limits are eligible for this program. Continuation of the program is subject to available funding .

12.2 CONDITIONS

12.2.1 Homeowner Associations are eligible to participate in the SWIG Program.

12.2.2 Property owners and homeowner associations may only participate in the program once.

12.2.3 The program exists to improve water quality for waters within the City limits.

12.2.4 Property must be located in the City limits.

12.2.5 The proposed water quality improvements must have been designed by a Professional Engineer and meet or exceed current County Regulations.

12.2.6 A formal submittal must be made to the City, which will decide on the merits of the project and resultant benefit to the community.

12.2.7 It is the property owner's responsibility to complete project within 12 months of approval by City.

12.2.8 Reimbursement will be made in two parts. Upon satisfactory documentation of expenditures, the City will disburse funds when the project is 50% complete and upon 100% completion

12.2.9 Detailed information on the SWIG program is available at City Hall.