

Title 8

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8.35.010. Purpose.

To provide for the health, safety and welfare of the public and a healthy economic climate within Hall County and the region, it is essential that the quality of public water supplies be assured. The ability of natural systems to attenuate the negative effects of storm water runoff can be threatened by unrestricted urban and suburban development. Land disturbing activities associated with development can increase erosion and sedimentation that threatens the aquatic integrity and storage capacity of reservoirs. In addition, storm water runoff, particularly from impervious surfaces can introduce toxicants, nutrients and sedimentation into drinking water supplies, making water treatment more complicated and expensive and rendering water resources unusable.

Studies have documented that the main causes of degradation are increased flows, sedimentation and erosion, and habitat destruction. This ordinance addresses these concerns through stream buffers (Section 35.060), flood management, and water quality protection requirements (Section 35.090). Key elements of this ordinance include:

A. Stream buffer requirements include a 50 ft. undisturbed set back from all non-exempted bodies of water.

B. Water quality is addressed through treatment of the runoff from a 1.2 inch rain storm event.

C. Flood protection is handled through management of the 2, 10, and 25-year peak runoff rates.

D. Extreme flows are addressed through requirements to route storms of up to a 100-year event without damaging storm water management facilities.

Pursuant to the *Official Code of Georgia Annotated*, Section 12-7-2, it is therefore declared the policy of the this county and the intent of this chapter to strengthen and extend the present erosion and sediment control activities and programs of this county and to provide for the establishment and implementation of a county-wide watershed protection program and comprehensive soil erosion and sediment control program to conserve and protect the land, water, air, and other resources of this county.

Hall County will be amenable to reconsider elements of this ordinance based on future technological advances in watershed protection.

8.35.020. Definitions.

Agriculture: The raising, harvesting, or storing of crops; feeding, breeding, or managing livestock or poultry; producing or storing feed for use in the production of livestock, including, but not limited to, cattle, calves, swine, hogs, goats, sheep, ratites, and rabbits, or for use in the production of poultry, including, but not limited to, chickens, hens, and turkeys; producing plants, trees, fowl, or animals, or the production of agricultural, horticultural, dairy, livestock, poultry, eggs and apiarian products.

Best Management Practices (BMPs): A collection of structural and nonstructural measures and vegetative practices which, when properly designed, installed and maintained, will provide effective erosion and sedimentation control.

County Board of Health: The Hall County Board of Health established by the Georgia Health Code (O.C.G.A. Chapter 31-3-1) or the executive officer and his or her designated representative acting on the board's behalf for the administration and enforcement of septic tank rules.

Clean Water Act (CWA), Section 401: Requires that an applicant for a federal license or permit provide a certification that any discharges from the facility will comply with the act including water quality standard requirements.

Clean Water Act, Section 404: Regulates the disposal of dredged and fill material into "water of the United States" including wetlands. Other activities which destroy wetlands such as drainage, flooding, pumping and burning are not regulated under the

CWA unless they entail discharges of dredged or fill material into waters of the United States.

Crops: Fruits and products of all annual or perennial plants, trees, and shrubs and shall also include plants, trees, shrubs, and other agricultural products that are produced for sale.

Crossings: Crossings include those for roads, driveways, paths and utilities.

Erosion: The process by which land surface is worn away by the action of wind, water or gravity.

Filling: The natural or manmade placement of any soil or solid material either organic or inorganic on a natural ground surface or an excavation.

Forestry: The profession embracing the science, art, and practice of creating, managing, using, and conserving forests and associated resources for human benefit in a sustainable manner to meet desired goals, needs, and values.

Grading: Altering ground surfaces to specified elevations, dimensions and/or slopes; this includes stripping, cutting, filling, stockpiling and shaping or any combination thereof.

Impervious Surface: A manmade structure or surface that prevents the infiltration of storm water into the ground below the structure or surface. Examples are buildings, roads, driveways, parking lots, swimming pools or patios.

Issuing Authority: The Hall County Board of Commissioners.

Land Disturbing Activity: A land change or construction activity for residential, commercial, industrial and institutional land use that can result in soil erosion from water or wind or movement of sediments or pollutants into state waters or onto lands of the state or in accelerated storm water runoff. These activities include but are not limited to clearing, grubbing, grading, excavating, transporting and filling of land.

Land Use: A description of how land is occupied or utilized.

Lot: A portion of a subdivision, or any other parcel of land, intended as a unit for transfer of ownership or for development, or both, and shall not include any part of the right-of-way of a street or road.

Nephelometric Turbidity Units (NTU): A numerical unit of measure based upon photometric analytical techniques for measuring the light scattered by fine particles of a substance in suspension.

Nonpoint Source (NPS) Pollution: Water pollution that is (1) induced by natural processes including precipitation, seepage, percolation and runoff; (2) not necessarily traceable to any discrete or identifiable facility; and (3) better controlled by using BMPs.

Pervious Surface: Any surface that allows storm water to infiltrate the ground below, including, but not limited to: Gravel, porous pavement (such as a lattice paver), mulch, grassed areas, and forested areas.

Reservoir Boundary: The edge of a water supply reservoir defined by its normal pool level.

Riparian Zones or Riparian Environments: The areas that border streams, rivers, lakes and wetlands. Riparian zones can be floodplains, streamside forests or just plain stream banks. They are usually different from surrounding lands because they have unique soil and vegetation characteristics and are strongly influenced by water. Riparian zones are basically the interface between the water and the land and they serve many functions which make them valuable to people.

Sediment: Soils or other superficial materials transported and/or deposited by the action of wind, water or gravity as a product of erosion.

Silt Fencing: A web of mechanically or melt bonded polymer netting, monofilament or fibers entangled to form a strong and dimensionally stable matrix to catch storm runoff and soil particles as shown in the publication *Manual for Erosion and Sediment Control in Georgia* (latest edition).

Silviculture: The art and science of growing forest crops.

Sedimentation: The action or process of forming or depositing sediment.

Stabilization: The prevention of soil erosion by surface runoff or wind through the establishment of a soil cover through the implementation of vegetative or structural measures.

State Water: Any and all waters, public or private, on the surface of the earth which are contained within, flow through or border upon the state or any portion thereof.

Storm Water: Storm water runoff, snowmelt runoff and surface runoff and drainage.

Storm Water Management: The collection, conveyance, storage, treatment and disposal of storm water runoff in a manner to meet the objectives of this ordinance. It shall include a system of vegetative or structural measures, or both, that control the increased volume and rate of storm water runoff and water quality impacts caused by manmade changes to the land.

Storm Water Management Facility: Constructed or natural components of a storm water drainage system, designed to improve storm water quality and/or quantity, including, but not limited to, detention basins, retention basins, sediment basins, constructed wetlands, natural systems, oil/water separators, modular pavement, infiltration devices, and their associated pipes, swales, ditches, and culverts.

Storm Water Manual: A compilation of storm water facility design and engineering criteria as approved by the Hall County Engineer as authorized by the Hall County Board of Commissioners.

Stream: Those areas where surface waters flow sufficiently to produce a defined channel or bed. A defined channel or bed is an area that demonstrates clear evidence of the passage of water and includes, but is not limited to: bedrock channels; gravel beds; sand and silt beds; and defined channel swales. This definition is not meant to include drainage easements, irrigation ditches, canals, storm or surface water runoff devices, drainage ways which flow only during and shortly after storm events, or other entirely artificial water courses unless they are used by anadromous or salmonid fish or used to convey streams naturally occurring prior to construction. Streams may be perennial (flows in a well-defined channel throughout most of the year under normal climatic conditions) or intermittent (flows in a well-defined channel during wet seasons of the year but not for the entire year).

Stream Bank: The uppermost part of the bank, usually marked by a break in slope as defined by Department of Natural Resources (DNR) rules. Stream bank is not necessarily the water's edge.

Structural Erosion and Sediment Control Measures: Measures for the stabilization of erodible or sediment-producing areas by utilizing the mechanical properties of matter for the purpose of either changing the surface of the land, or storing, regulating, or disposing of runoff to prevent excessive sediment loss. Examples of structural erosion and sediment control practices are riprap, sediment basins, dikes, level spreaders, waterways or outlets, diversions, grade stabilization structures, sediment traps, land grading, etc. More information on such measures can be found in the publication *Manual for Erosion and Sediment Control in Georgia*.

Top of Bank: The mark on all lakes and streams that will be found by examining the beds and banks and ascertaining where the presence and action of waters are so common and usual and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland in respect to vegetation.

Undisturbed Buffer: A natural or enhanced vegetated area with no or limited minor land disturbances, which facilitates the protection of water quality and aquatic habitat. The undisturbed buffer must be maintained for the first 50 feet measured from

the banks of streams, lakes, and other bodies of water. On a stream, the 50 feet is measured from the top of bank on *each* side of the stream.

Utility: Public or private water or sewer piping systems, water or sewer pumping stations, electric power lines, fuel pipelines, telephone lines, roads, driveways, bridges, river/lake access facilities, storm water systems and railroads or other utilities identified by a local government.

8.35.030. Watershed Protection Ordinance District Boundaries.

This district is delineated and defined as all of unincorporated Hall County and the incorporated areas in which Hall County is the issuing authority.

8.35.040. Exemptions.

A. Agricultural, silviculture, and farming practices: Agricultural activities involving the planting and harvesting of crops, and the raising of poultry and livestock, are exempted from provisions of this ordinance provided generally accepted farming practices are followed. Silviculture activities are exempt provided they conform to the best management practices established by the Georgia Forestry Commission. In order to qualify for this exemption, the practices must be *bona fide* agricultural or silviculture practices. Non-agricultural related projects being performed on land that is zoned agricultural do not qualify for this exemption.

B. Owners of properties of record as of the effective date of this resolution that are rendered unbuildable by the buffer requirements of this ordinance may seek relief through Hall County Engineering Division. The Hall County Engineer will allow encroachment into the undisturbed buffer provided the documentation shows that the house could not be built otherwise. Once provided with the necessary documentation, the Hall County Engineer will make a determination of the whether or not the lot is buildable within a one week time frame. Encroachment will only be allowed within the zone of 25 to 50 feet from the banks of the water body. In no case shall the property owner be allowed to encroach within 25 feet of the banks of the water body. Property owners displeased with the determination made by the Hall County Engineer may appeal their case to the Hall County Planning Commission. Should the property owner remain dissatisfied with the Board's decision, this second decision may be appealed to the Superior Court of Hall County for affirmation or overturn of previous determinations. The property owner must comply with all other aspects of this ordinance. Land that is subdivided on or after the effective date of this ordinance will not qualify for this exemption.

C. Established land uses existing prior to the effective date of this resolution are exempt from provisions of this ordinance. Any existing structure which is non-conforming with respect to the buffer requirements of this chapter may be re-established

if damaged or destroyed, provided the degree of non-conformity is not increased with the construction of the replacement structure.

8.35.050. Sedimentation and Erosion Control.

Section IV of General Permit (No. GAR100000), Authorization to Discharge Under the National Pollutant Discharge Elimination System (NPDES) Storm Water Discharges Associated with Construction Activity, (July 19, 1999) requires those persons conducting a construction activity of five acres (disturbed area) on sites greater than five acres or part of a common development greater than five acres to prepare and implement an Erosion, Sedimentation and Pollution Control Plan (Plan) and a Comprehensive Monitoring Program (Program). The Plan will describe those best management practices (BMPs) which will be used at the site to control the discharge of sediment and other pollutants. BMPs will be designed to control soil erosion and sedimentation for all rainfall events up to and including a 25-year, 24-hour rainfall event. The Program will describe how the receiving water(s) will be monitored for turbidity. A summary report of monitoring and weekly inspections is required to be submitted to the Georgia Environmental Protection Division each month. Copies of these reports shall be sent to Hall County Engineering Division. The installation of these BMP devices may be subject to Section 404 of the CWA. Persons conducting construction activities are also responsible for meeting water quality and wetland-related requirements found in Sections 404 and 401 of the CWA.

General Permit (No. GAR100000) provides that a discharge of storm water runoff from disturbed areas where best management practices have not been properly designed, installed and maintained shall constitute a separate violation for each day on which such discharge results in the turbidity of receiving water(s) being increased by more than 25 NTU for waters supporting warm water fisheries.

In addition to the specifications outlined in General Permit No. GAR100000, developments within the district will comply with the following items:

A. Sedimentation and Erosion Control

1. Sedimentation and erosion practices will be required on all construction sites. Requirements for sites greater than 5 acres are covered under the General Permit discussed above. These requirements are based on the *Manual for Erosion and Sediment Control in Georgia*.

2. Type C silt fencing is required in the following instances: Land disturbing activities with a fill slope equal to or greater than 10 vertical feet, fill slopes in the vicinity of state waters, and any area deemed critical by the Hall County Engineer. Type A silt fencing is required in all other land disturbing circumstances.

3. All temporary erosion and sedimentation controls, such as silt fence, shall be removed upon site stabilization. All permanent erosion and sedimentation controls shall be cleaned of silt accumulations and stabilized with grass and mulch upon site stabilization.

B. Bi-weekly Erosion Control Inspection/Certification by a Professional (Professional Engineer, Land Surveyor, Certified Professional in Erosion and Sediment Control (CPESC), Landscape Architect, or Architect)

1. Erosion control measures at construction sites must be inspected and certified by a registered engineer, licensed surveyor, a CPESC, landscape architect, or architect every two weeks to ensure that activities are being conducted in accordance with the plan, and if the measures required in the plan are effective in controlling erosion, sedimentation and runoff. These bi-weekly inspections are in no way intended to take the place of regulatory inspections performed by Hall County and other agencies, and Hall County shall continue to perform site inspections. Additionally, the professional shall identify other measures that need to be implemented to address deficiencies observed. The inspection reports are to be kept by the developer and must be made available immediately upon request from Hall County Engineering. Additionally, copies of the inspection reports are to be given to Hall County Engineering at the time a subdivision is accepted into the County maintenance system, or at the time a non-residential site receives a certificate of occupancy.

2. Bi-weekly erosion control inspections performed on subdivisions that have not been accepted into the Hall County maintenance system will be the responsibility of the subdivision owner/developer of the subdivision and will be performed as an entire site inspection.

3. Individual home sites that are part of a subdivision that has been accepted into the Hall County maintenance system will be the responsibility of the owner/developer of the home site.

3. Hall County may revoke the inspection authority of the registered engineer, licensed surveyor, a CPESC, landscape architect, or architect to perform the bi-weekly inspections on permitted Hall County sites if one or more of the following conditions are found: The professional creates a report indicating that a site is in compliance when, in actuality, the site is in violation of the erosion and sedimentation control ordinance; the professional fabricates a report without actually performing a visual inspection of the site; the professional purposefully misrepresents the site by indicating that approved BMPs are in place, when in actuality, they are not.

C. County Erosion Control Inspections/Stop Work Orders

1. Upon notice from Hall County, work on any project that is being done contrary to the provisions of this Chapter or in a dangerous or unsafe manner, shall be

immediately stopped. Such notice shall be in writing and shall be given to the owner of the property, his authorized agent, or the person or persons in charge of the activity on the property, and shall state the conditions under which work may resume. Where an emergency exists, no written notice shall be required. Until the stop order has been rescinded, only work that is necessary to achieve compliance is allowed. No inspection shall be conducted on the property by the building inspection department while a stop-work order is in effect.

2. The county shall have the power to conduct such investigations as it may deem reasonably necessary to carry out its duties as prescribed in this ordinance and for this purpose to enter at reasonable times upon any property, public or private, where a land-disturbing activity is occurring, for the purpose of investigating and inspecting.

3. No person shall refuse entry or access to any authorized representative or agent who requests entry for purposes of inspection of a land-disturbing activity, and who presents appropriate credentials nor shall any person obstruct, hamper or interfere with any such representative while in the process of carrying out his official duties.

D. Developer Erosion and Sedimentation Control Certification

1. Erosion and sedimentation control installation, maintenance, and inspection for all developments shall be under the direct supervision of one or more persons that have successfully completed an approved erosion and sedimentation control course.

2. Approved erosion and sedimentation control courses include: *Worksite Erosion Control Supervisor Certification* as given by the Georgia Department of Transportation, and *Fundamentals of Erosion and Sedimentation Control* as given by the University of Georgia Continuing Education.

3. Courses other than those recognized will have to be evaluated by the Hall County Engineer as suitable for developer certification.

4. Recertification shall be required no less than every two years.

8.35.060. Stream, Lake, and Bodies of Water Buffers and Setbacks.

A. A 50 foot undisturbed buffer shall be maintained on the sides of all streams, lakes (5 acres or larger), and other bodies of water. The undisturbed buffer encompasses all perennial and intermittent streams, lakes (5 acres or larger), or other bodies of water as determined by a design professional, Hall County Engineering, or as shown as perennial and intermittent streams, lakes, or other bodies of water on USGS 7.5-minute quadrangle maps throughout unincorporated Hall County and incorporated areas in which Hall County is the issuing authority. Storm water management facilities shall not be required to maintain a buffer, except that the facility shall be properly stabilized with vegetation.

The undisturbed buffer is reduced to the state-required 25 feet for lakes and ponds smaller than 5 acres. The buffer shall be measured from the normal pool elevation on lakes and ponds with the normal pool elevation of Lake Sidney Lanier being 1071 feet above mean sea level. The buffer shall be measured from the top of banks on other bodies of water.

B. In the undisturbed buffer, land disturbances and impervious surfaces are prohibited except for the following specified uses. Property owners and/or developers are responsible for complying with applicable state and federal regulations as they apply to uses in the buffer:

1. Flood control structures implemented under the direction or permitting of a federal, state, or local government.
2. Bank stabilization.
3. Individual pedestrian paths connecting homeowners to the water body in the form of narrow, pervious footpaths with minimal tree disturbance and which shall preserve existing drainage patterns.
4. Utility crossings, road crossings, driveway crossings, and path crossings are inherently allowed through the undisturbed buffer. The crossing must be as close to perpendicular to the body of water as the conditions will allow. Paths to bodies of water must meet all other local, state, and federal regulations as applicable.
5. Pervious greenway paths up to eight feet in width are allowed in the outer 25 feet of the undisturbed buffer. Pervious greenway paths up to four feet in width are allowed throughout the buffer.
6. Public recreational-type uses are allowed in the buffer. These uses include, but are not limited to: Federal, state, and local government-owned parks, sporting fields, and other similar types of recreational facilities.
7. Minor clearing of understory vegetation less than 1" in diameter is allowed.
8. The construction and maintenance of entities that by their nature must be located on or near the water, including, but not limited to: Docks, marina facilities, boat ramps, rowing venues, canoe liveries. The construction and maintenance of such entities must meet all other local, state, and federal regulations as applicable.
9. The construction of non-agricultural ponds (agricultural ponds are exempt from this ordinance) provided that the construction is in strict adherence to United States Army Corps of Engineers permitting requirements. Additionally, a development permit must be obtained from Hall County prior to construction.

C. Septic tanks, drainage fields, and impervious surfaces (other than those specifically listed) are not allowed within the entire buffer zone.

D. Development permits and building permits must comply with the applicable effective dates regardless of whether or not the permitted activity is part of a subdivision that was permitted prior to the effective date of this ordinance.

E. All plats for any property in unincorporated Hall County and incorporated areas in which Hall County is the issuing authority, including individual home plats, final plats for subdivisions, and commercial plats, will need to depict any state waters and the fifty (50) foot undisturbed buffer zone. Additionally, plats will need the following statement: “A fifty (50) foot undisturbed buffer shall be maintained along the sides of streams, lakes, and other bodies of water. This is an undisturbed buffer zone where existing vegetation must be left intact, and only uses that minimize the disturbance of the natural terrain are allowed inside this 50’ buffer. No impervious surfaces, septic tanks or septic tank drainfields are permitted within this setback. Buffer zones are measured perpendicularly from the top of the bank of the water body, landward.”

F. All subdivisions governed by covenants must reflect the following statement as one of the covenants: “A fifty (50) foot undisturbed buffer shall be maintained along the sides of streams, lakes, and other bodies of water. This is an undisturbed buffer zone where natural vegetation must be left intact, and only uses that minimize the disturbance of the natural terrain are allowed inside this 50’ buffer. No impervious surfaces, septic tanks or septic tank drainfields are permitted within this setback. Buffer zones are measured perpendicularly from the top of the bank of the water body, landward.”

G. During development activities, and all phases of construction, the buffer perimeters shall be marked with a temporary sign at an interval of one per parcel, or every 100 feet, whichever is less. Signs shall remain in place prior to, and during, approved construction activities. The sign shall contain the following statement “Streamside Buffer – Do Not Remove or Alter Existing Native Vegetation.” Other plainly visible marking methods are acceptable in lieu of the signage, including, but not limited to: Tree save fencing, painted markings on trees, or orange silt fence.

H. Replanting of the buffer shall be required where buffer disturbance has occurred. The replanting shall be accomplished using native vegetation or by following current Natural Resources Conservation Service (NRCS) conservation practice standards. The County Engineer or his/her designee shall approve the revegetation plan.

8.35.070. Storm Water Management Report.

A. A Storm Water Management Report shall be submitted during the development review process for every project. Non-commercial development including the construction of single family dwellings, barns, minor subdivisions (the subdivision of land into a total of two conforming lots, more properly defined in Section 17.20.720 of the Official Code of Hall County), and associated residential and agricultural construction are exempt from this provision. A Professional Engineer currently registered in the State of Georgia must prepare the report. The purpose of this report shall be to formulate a plan to manage the quantity and quality of storm water runoff, so that storm water runoff hazards are not created, existing runoff-related problems are not expounded, and that storm water quality is not adversely effected, either upstream or downstream from or within the

boundaries of the property being developed.

B. The Storm Water Management Report shall identify the locations and quantities of storm water runoff entering and exiting the site for both pre-developed and post-developed conditions. Analysis of the off-site properties may require anticipating future development in addition to addressing existing conditions. It shall contain drainage area delineation maps and other exhibits at a satisfactory scale and sufficient in quantity and scope to define the boundaries of the site relative to any applicable water courses, drainage divides, drainage structures and other pertinent features.

C. The Storm Water Management Report shall estimate the storm water quality in terms of total suspended solids for both pre-developed and post-developed conditions.

D. The analysis of downstream conditions in the report shall address each and every point or area along the project site's boundaries at which runoff will exit the property. The analysis shall focus on the portion of the drainage way "immediately" downstream from the project. In determining downstream effects from storm water discharge control structures and the development, hydrologic-hydraulic engineering studies, using the 2, 10, and 25-year design storm, shall extend to the next downstream structure or shall extend downstream to a point where the proposed development represents less than (10%) percent of the total watershed. If the discharge calculations indicate that adjacent properties, between the exit of the proposed development and the "10 percent downstream point" might be adversely impacted by the proposed development, then the engineer will provide a summary of his recommendations.

E. The site plan that is submitted in conjunction with the Storm Water Management Report shall depict all streams, lakes, wetlands, and other bodies of water. Additionally, the plan shall depict relevant the boundaries of the one hundred-year flood plain. The floodplain boundary information must be obtained using Federal Emergency Management Agency (FEMA) guidelines. One hundred-year Base Flood Elevations (BFEs) for areas that are designated as *Approximate Zone A* on Hall County's FEMA maps must be calculated using appropriate FEMA methodologies. Scaling off the FEMA maps to derive flood boundary information is unacceptable.

F. The following criteria shall be evaluated by the Engineer preparing the Storm Water Management Report:

1. Existing land uses downstream,
2. Anticipated future land uses downstream,
3. Magnitude of increase in peak flows due to development,
4. Presence of existing storm water quality and/or quantity problems,
5. Capacity of existing and anticipated drainage systems,
6. Creation of concentrated flows where none had occurred previously,
7. Existing flows generated off-site which pass through the project site,
8. The nature of the receiving watercourse.

9. All designs, calculations, and rationale must follow the principles set forth in the Hall County Storm Water Manual.

8.35.080. Storm Water Management Facility Required.

The following development activities will require the construction of a storm water management facility. Development activities include new developments, subdivision construction, additions to existing developments, and redeveloped sites. Non-commercial development including the construction of single family dwellings, barns, minor subdivisions (the subdivision of land into a total of two conforming lots, more properly defined in Section 17.20.720 of the Official Code of Hall County), and associated residential and agricultural construction are exempt from this provision.

A. Any development activity that results in the increase of peak rate of discharge by more than 1 cubic feet per second in the ten-year storm when compared to the site at the effective date of this ordinance. Sites undergoing numerous small additions will require a storm water management facility when this threshold is met.

B. Any development activity that results in the calculated discharge of 65 pounds per acre per year of suspended solids. The suspended solids discharge rate is to be calculated using the *Hall County Storm Water Quality Performance Review Form*, and no water quality monitoring is required to verify compliance with this suspended solids requirement. Sites undergoing numerous small additions will require a storm water management facility when this threshold is met.

C. Any development activity for which the Storm Water Management Report indicates will result in adverse impacts to storm water quality and/or quantity.

8.35.090. Storm Water Management Facility Design Criteria.

A. All designs, calculations, and rationale must follow the principles set forth in the Hall County Storm Water Manual.

B. Storm water runoff must be managed to control the velocity at the point of discharge so as to minimize accelerated erosion of the site and increased sedimentation of the streams. Soil erosion and sedimentation control measures, structures and devices shall be so planned, designed and constructed as to provide for a range of design flows for flood control. These design flows should be demonstrated for the 2, 10, and 25 year storm events using the procedures as outlined in the United States Department of Agriculture Soil Conservation Service's "Technical Release 55 Urban Hydrology for Small Watersheds" or other acceptable calculation procedures. All BMPs must be designed for a 25-year storm. All storm water management facilities must have outlet devices able to effectively route the 100-year storm. All disturbed land must drain to an approved BMP, and storm water runoff must be managed for the entire drainage area above the detention system or BMP.

C. Storm water management facilities can only be located in perennial streams with strict adherence to United States Army Corps of Engineers permitting requirements. Proper documentation demonstrating compliance with Corps requirements must be provided before Hall County will permit the in-stream storm water management facility. Additionally, a dredging plan depicting how the facility will be cleaned of silt accumulations in the future must be provided prior to permitting.

D. During construction: All land disturbing activities (to include all land uses) must comply with sedimentation and erosion control procedures/program as defined by General Permit (No. GAR100000). These activities must capture runoff from the first 1.2 inches of rainfall to be released over not less than 48 hours. Dry ponds may be used.

E. Permitting process: Must demonstrate compliance with the storm water control plan to the county prior to approval of any building or subdivision permit request.

F. After construction: Runoff from the first 1.2 inches of rainfall must be captured and released evenly over a 48-hour period. Must maintain peak flows for the 2, 10, and 25-year storm at the property boundaries equal to or less than flow under undeveloped conditions and be able to route a 100-year storm through the facility. The site must discharge no more than a calculated 65 pounds of suspended solids per acre per year. The suspended solids discharge rate is to be calculated using the *Hall County Storm Water Quality Performance Review Form*, and no water quality monitoring is required to verify compliance with this suspended solids requirement. Hall County will verify that best management practices deemed necessary by the *Storm Water Quality Performance Review Form* are installed on site. Alternative best management practices, as approved by Hall County and described in the Hall County Storm Water Manual, are allowed and encouraged to meet this target. In all cases the new development review program must be used to document that the 65 pounds per acre per year target will be met.

G. Storm water management facility fencing: Fences and warning signs will be required on all detention ponds, constructed wetlands, retention ponds or similar devices where the sides of the device adjacent to the water are steeper than 3:1 and the depth of the water in the pond is greater than three feet. Fences shall be five (5) feet high chain link or other approved material with a twelve (12) foot wide gate. The gate shall be locked with a Master Number 1 lock that is keyed as per the Hall County Engineer, and two keys will be provided to Hall County Engineering. Fences shall be located on the outside edge of the twenty (20) foot perimeter easement when possible.

H. A silt gauge will be installed on all detention ponds consisting of a durable, weather-resistant post. The post will be embedded a minimum of 2 feet and extend a minimum of 5 feet above the ground. Numbers and adjacent tick marks must be on the post beginning with the number "1" at 1 foot above the ground elevation and thereafter a number and tick mark for each corresponding foot. Numbers and tick marks must be clear, readable, weather resistant, and durable.

I. A concrete survey marker shall be placed in the near vicinity of the storm water management facility. The marker shall be a minimum of five inches by five inches in width and be embedded one foot into the ground. The marker shall have a “PK” nail embedded in the top. The marker must be placed above the high water elevation of the facility and within the drainage easement area. Alternate survey markers are allowed with prior approval from the Hall County Engineer.

J. Outlet structures and piping for residential storm water management facilities must be constructed of concrete to be eligible for acceptance into the Hall County maintenance system.

8.35.100. Storm Water Management Facility Easements.

A. Storm water management facility easements, residential: The developer shall execute a twenty (20) foot drainage easement surrounding the entire perimeter of the facility. The easement boundary will be measured from the 100-year storm water elevation. Additionally, all associated piping, channels, ditches, streams or other areas that are designed for storm water to flow to and from the storm water management facility shall require a twenty (20) foot easement measured ten feet in both directions from the appropriate centerline. A twenty (20) foot easement will connect the facility to the nearest public road. The easement(s) will be in favor of Hall County to allow the county to inspect and maintain the facility as necessary. No obstruction shall be built, constructed or planted that would inhibit proper function of the facility and its associated drainage systems. No fences or planting of shrubbery shall be allowed on the access easement. No portion of the easement will be steeper than 3:1.

B. Storm water management facility easements, non-residential: The property owner shall execute a twenty (20) foot drainage easement surrounding the entire perimeter of the facility in favor of Hall County to allow the county to inspect and observe the facility as necessary. The easement boundary will be measured from the 100-year storm water elevation. The property owner shall additionally grant permission to the County, its authorized agents and employees, to enter upon the property and to inspect the facilities whenever the County deems necessary. The County maintains the right to make emergency repairs to the facility as deemed necessary. No obstruction shall be built, constructed or planted that would inhibit proper function of the facility and its associated drainage systems.

8.35.110. Bonding of Residential Storm Water Management Facilities.

Residential storm water management facilities must be bonded as provided in 16.30.360. Bonds will not be released until all provisions of 8.35.120 are met.

8.35.120. Acceptance of Residential Systems.

A. Storm water management facilities that have been constructed in accordance with the approved plans will be inspected at the time of final platting, and a punch list will be provided at that time. Prior to final plat approval, the following items must be completed:

1. All punch list items must be properly addressed.
2. After construction and before approval of the final plat, the designer shall submit a certified field run topographic map of the detention area and a revised hydrology study using the as-built topographic map. The topographic map of the storm water management facility should include the state plane coordinates and mean sea level elevations of applicable outfalls, silt gauges, and survey markers. The as-built will be submitted in electronic form and hard copy form to Hall County Engineering Division.
3. The designer shall certify that the facility is working as it was designed and that the required detention storage and outflow rates are being provided.
4. The storm water management facility will be bonded as provided in 16.30.360.
5. All accumulations of silt need to be removed so that the grade of the bottom of the pond is at the design grade. The silt gauge should read zero upon completion.

B. Subsequently, the facilities will be inspected prior to release of bonds. At that time, any deficiencies in the facility will be noted in the 45-day letter. The facility will be accepted into the County maintenance system, provided the following items are completed:

1. All deficiencies noted on the 45-day letter must be properly addressed.
2. All accumulations of silt need to be removed so that the grade of the bottom of the pond is at the design grade. The silt gauge should read zero upon completion.
3. The entire storm water management facility needs to be stabilized with permanent vegetation as shown on the approved plans.

8.35.130. Acceptance of Non-residential Systems.

A final inspection of non-residential storm water management systems will occur at the time the developer requests a certificate of occupancy inspection. At that time, any deficiencies in the facility will be noted as a punch-list item. The commercial development will not receive a certificate of occupancy until the following items are completed:

- A. After construction and before acceptance for occupation or otherwise, the

designer shall submit a certified field run topographic map of the detention area and a revised hydrology study using the as-built topographic map. The topographic map of the storm water management facility should include the state plane coordinates and mean sea level elevations of applicable outfalls, silt gauges, and survey markers. The as-built will be submitted in electronic form and hard copy form.

B. The designer shall certify that the facility is working as it was designed and that the required detention storage and outflow rates are being provided.

C. All accumulations of silt need to be removed so that the grade of the bottom of the pond is at the design grade. The silt gauge should read zero upon completion.

D. The entire storm water management facility needs to be stabilized with permanent vegetation as shown on the approved plans.

8.35.140. Inspection, Maintenance, and Repair.

A. Inspection, maintenance, and repair of residential systems: Upon acceptance as provided in 8.35.120 above, Hall County Engineering will periodically inspect residential storm water management facilities to determine that they are functioning properly. The maintenance and repair of the storm water management facility shall be the responsibility of Hall County.

B. Inspection, maintenance, and repair of non-residential systems: Hall County Engineering will inspect non-residential storm water management facilities periodically to determine that they are functioning properly. Deficiencies will be noted to the Owner in writing. It shall be the responsibility of the Owner to repair deficiencies in a timely manner. Failure on the part of the Owner to repair deficient storm water detention pond structures will be a violation of the Hall County Watershed Protection Ordinance and will be punishable according to 8.35.200. Hall County may determine that the condition of the facility poses a threat to the public health, safety, and welfare and warrants immediate action. If the owner of such a facility does not make repairs in a time allowed by Hall County, the County may determine that it is necessary to make an emergency repair as allowed in 8.35.100 (B). The cost of such repairs will be assessed to the property owner through the special tax district.

8.35.150. Special Tax District for Residential Storm Water Management Facilities.

A. Ratification of existing district: The governing authority of Hall County, Georgia, does hereby ratify its action creating a special taxing district for the construction (if applicable), inspection, maintenance, and repair of residential storm water management facilities in unincorporated Hall County, and incorporated areas of Hall County in which Hall County is the issuing authority, as shown by the records in the office of the Hall

County Engineer to which reference is hereby made for a full and complete description of the district hereinbefore created.

B. Responsibility for costs: The cost of construction (if applicable), inspection, maintenance, and repair of residential storm water management facilities in the existing taxing district, and in the areas hereinafter added to the taxing district, shall be borne by the residents, lot owners, and property owners whose lot or property lies in the boundary of a subdivision served by a storm water management facility.

C. The charge assessed to each property owner in the district for inspecting, maintaining, and repairing the facility shall be \$25.00 per year, or as amended by the Hall County Board of Commissioners. In subdivisions where a storm water management facility must be constructed, the cost will be \$25.00 per year plus a one-time fee of each resident's pro-rata share of the construction cost.

D. Addition to the special taxing district for storm water management facility inspection, maintenance, and repair in subdivisions permitted *on or after* the effective date of this resolution: It shall be mandatory that all subdivisions permitted on or after the effective date of this resolution are added to the special tax district for storm water management facility inspection, maintenance, and repair. The Hall County Engineer shall determine the appropriate boundaries for addition to the special taxing district for storm water management facilities that will serve the subdivision lot owners. The boundary shall consist of the subdivision that is served by the storm water management facility and adjoining land owners served by the facility that agree to be included in the special tax district.

E. Petition for addition to the special taxing district for existing storm water management facility inspection, maintenance, and repair in subdivisions permitted *before* the effective date of this resolution: Any lot owner being served by a storm water management facility in Hall County may present a request to be added to the special taxing district to the Hall County Engineer. Upon receipt of the request, the Hall County Engineer shall determine the appropriate boundaries for addition to the special taxing district for storm water management facilities that will serve the lot owner presenting the request and neighboring lot owners. The boundary shall consist of the subdivision that is served by the storm water management facility and adjoining land owners served by the facility that agree to be included in the special tax district. The Hall County Engineer shall then prepare a plat showing this area for addition to the special taxing district for storm water management facilities, and a petition for the addition to the special taxing district for storm water management facilities shall then be circulated among the lot owners in the proposed district. The completed petition must be returned to Hall County Engineering Division, and application fees must be paid at that time. If 51 percent of the lot owners in the proposed district sign the petition in affirmation for the addition to the special taxing district for existing storm water management facilities, the petition shall be presented to the Hall County Board of Commissioners. The Board of Commissioners shall conduct two public hearings for the purpose of determining whether or not to add the proposed

area to the special district for storm water management facilities. The public hearings shall be advertised one time in the official organ of Hall County, Georgia, giving notice of the hearings, at least 15 days before the public hearings. The Hall County Engineer will verify the signatures on the petition prior to advertising the public hearings.

F. Petition for addition to the special taxing district for proposed storm water management facility construction, inspection, maintenance, and repair: Any lot owner that desires being served by a storm water management facility in Hall County may present a request to be added to the special taxing district to the Hall County Engineer. Upon receipt of the request, the Hall County Engineer shall determine the appropriate boundaries for addition to the special taxing district for storm water management facilities that will serve the lot owner presenting the request and neighboring lot owners. The boundary shall consist of the subdivision that is served by the storm water management facility and adjoining land owners served by the facility that agree to be included in the special tax district. The Hall County Engineer shall then prepare a plat showing this area for addition to the special taxing district for proposed storm water management facilities, and a petition for the addition to the special taxing district for storm water management facilities shall then be circulated among the lot owners in the proposed district. The completed petition must be returned to Hall County Engineering Division, and application fees must be paid at that time. If 75 percent of the lot owners in the proposed district sign the petition in affirmation for the addition to the special taxing district for proposed storm water management facilities, the petition shall be presented to the Hall County Board of Commissioners. The Board of Commissioners shall conduct two public hearings for the purpose of determining whether or not to add the proposed area to the special district for storm water management facilities. The public hearings shall be advertised one time in the official organ of Hall County, Georgia, giving notice of the hearings, at least 15 days before the public hearings. The Hall County Engineer will verify the signatures on the petition prior to advertising the public hearings.

G. Payment date, delinquencies: The due date for the payment of drainage district assessment charges herein provided for shall be the same date of each year as tax bills are due to the Hall County Tax Commissioner. Failure to pay shall subject the responsible party to the same liens and penalties provided for failure to pay other real estate taxes and will result in the delinquency of the entire account and not be deemed paid until all real estate taxes are paid in full.

H. Responsibilities of revenue collections department: The billing, accounting, collecting, and receiving of the moneys herein provided for are hereby declared the responsibility of the Finance and Tax Commissioners Departments of Hall County, Georgia.

8.35.160. Special Tax District for Nonresidential Storm Water Management Facilities.

A. Ratification of existing district: The governing authority of Hall County, Georgia, does hereby ratify its action creating a special taxing district for the inspection and emergency repairs of nonresidential storm water management facilities in unincorporated areas of Hall County, and incorporated areas in which Hall County is the soil erosion issuing authority, as shown by the records in the office of the Hall County Engineer to which reference is hereby made for a full and complete description of the district hereinbefore created.

B. Responsibility for costs: The cost of inspection and emergency repairs completed by Hall County of nonresidential storm water management facilities in the existing taxing district, and in the areas hereinafter added to the taxing district, shall be borne by the property owners whose lot or property lies in the boundary of said district served by a storm water management facility.

C. The charge assessed to each property owner in the district for inspecting the facility shall be \$25.00 per year, or as amended by the Hall County Board of Commissioners. Additional cost will be assessed for any necessary emergency repairs performed by Hall County on the facility.

D. Payment date, delinquencies: The due date for the payment of drainage district assessment charges herein provided for shall be the same date of each year as tax bills are due to the Hall County Tax Commissioner. Failure to pay shall subject the responsible party to the same liens and penalties provided for failure to pay other real estate taxes and will result in the delinquency of the entire account and not be deemed paid until all real estate taxes are paid in full.

E. Responsibilities of revenue collections department: The billing, accounting, collecting, and receiving of the moneys herein provided for is hereby declared the responsibility of the Finance and Tax Commissioners Departments of Hall County, Georgia.

8.35.170. Septic Systems.

A. Homes, structures and facilities constructed on or after January 1, 2001 must meet the following applicable requirements as a condition for establishing new water service:

1. Septic tanks and absorption fields shall be constructed in accordance with the design and construction standards of the Rules of Department of Human Resources, *On-site Sewage Management Systems*.

2. Septic tanks and absorption fields on properties platted on or after the effective date of this ordinance shall not be allowed where the area of the lot is less than the current Hall County Health Department or Hall County Zoning minimum lot size requirement, whichever is greater.

3. Septic tanks and absorption fields shall not be located in a buffer as defined in Section 8.35.060 of this ordinance.

4. Septic tanks shall be visually inspected no less frequently than once every five years or according to the frequencies cited in the Hall County Public Health regulations (Table LT-1), whichever frequency is less often. Septic tanks and/or field lines will have to be properly pumped or repaired if deemed necessary by the inspection. A certification that no visible sewage is seeping onto the ground will be required if the septic tank is not pumped or repaired.

B. Homes, structures and facilities constructed before January 1, 2001 must meet the following applicable requirements prior to the establishment of new water service:

1. Provide proof that the septic tank serving the home structure and/or facility has been visually inspected and properly pumped or repaired, if necessary within five years of the request for water service. A certification that no visible sewage is seeping onto the ground will be required if the septic tank has not been pumped or repaired.

2. Implement the septic tank, erosion control, storm water management and buffer requirements, if any, identified by the county and any other agency having jurisdiction over such matters. Failing field lines that have to be reconstructed that are located within the 50 foot undisturbed buffer as measured from the banks of streams, lakes, and other bodies of water will have to be moved if technically feasible.

C. The following circumstances require the approval of an existing sewage system. Hall County Environmental Health Department will perform the inspections:

1. When a lending agency requires a letter of approval for an existing on site sewage management system prior to loan closing.

2. When a mobile home is removed and replaced.

3. When an addition to an existing structure or addition of a building on property with an established residence includes plumbing or an increase of bedrooms.

D. The approval of an existing sewage system, as required by 8.35.170(C) above, includes the following:

1. A visual inspection of the septic tank and drain field site to verify that the system meets the setback requirements according to the state rules for on site sewage systems, and there is no sewage on the surface of the ground. Surface water ponding over drain lines, buildings/pools placed on or too close to the septic tank and drain lines,

septic tank or drain lines too close to new wells or property lines are issued discovered at the time of reinspection.

2. A review of the records indicates the system is properly sized for the number of bedrooms or daily use. If records can not be found, the top of the septic tank may need to be uncovered and size verified.

3. A review of the maintenance records to verify that the septic tank has been pumped of accumulated sludge within the last 5 years.

8.35.180. Residential Lot Density Requirements.

Residential subdivisions, as well as lots created by further division(s) of existing land, that utilize septic systems and are permitted after the effective date of this ordinance shall have an overall density requirement of no greater than 1.2 homes per acre. The purpose of this provision is to encourage the protection of riparian areas and open spaces by the clustering of homes in non-sensitive areas.

8.35.190. Prohibited Activities.

No person shall engage in any land disturbing activity or otherwise alter the hydraulic or vegetative characteristics of a protected area without first having obtained a written permit from Hall County.

8.35.200. Violations.

Each and every county resolution which has been or will be duly passed and enacted by the board of commissioners of the county to protect and preserve the public health, safety and welfare, to provide traffic regulations, to regulate and control litter, or to provide for the implementation and enforcement of any power or duty vested in the county governing authority, shall, in the discretion of the court or courts having jurisdiction over such violations of county resolutions, have a penalty or punishment up to the maximum penalty or punishment provided by O.C.G.A. § 36-1-20(b), as amended.