

Article 11. - Erosion Control and Stormwater Management

Sec. 1101 - Purpose of article 11.

This Article contains the requirements that relate to the impact of rainfall events on the natural and manmade environment, including the erosion and siltation effects of site grading and land disturbance activities, the control of stormwater flows and the potential damaging effects of flooding.

Sec. 1102 - Responsibility.

As provided by Intergovernmental Agreement between Douglas County and the Douglasville-Douglas County Water and Sewer Authority (referred to throughout this Article as "the Authority"), the County has delegated such powers, duties and jurisdiction to the Authority as follows for the administration and enforcement of this Article:

1102 (a) Soil erosion and sedimentation control.

The Authority shall have all the powers that the County has as an "issuing authority," except the ability to issue a development permit, which shall only be done by the Development Services Department with the approval of the Authority. When proper, the term "issuing authority" includes the Authority as the contractual agent of the County for all soil erosion and sedimentation control regulation and enforcement activities described in this Article.

1102 (b) Stormwater management.

The Authority shall have jurisdiction over all stormwater management activities within the unincorporated areas of the county and shall provide stormwater management services as provided in this Article.

1102 (c) Designation of floodplain administrator.

The Authority's Engineering Department is hereby appointed to administer, implement, and enforce the floodplain management provisions of this Article.

Sec. 1103 - Soil erosion, sedimentation and pollution control regulations.

1103 (a) Purpose and policy.

The purpose of this Section is to provide uniform rules, regulations, and policies regarding soil erosion, sedimentation and pollution control for all properties and land disturbing activities lying within the jurisdictional limits of any municipality or political subdivision of the State of Georgia with which the Authority has entered into an Intergovernmental Agreement for the Authority to provide stormwater management services, including but not limited to regulation and enforcement of soil erosion, sedimentation and pollution control, and to provide penalties for violations of this Section.

1103 (b) Definitions related to erosion and sediment control.

The following words, terms and phrases, when used in this Article, shall have the meanings ascribed to them in this Section, except where the context clearly indicates a different meaning:

Appropriate Governmental Entity: Douglas County, or any other municipality or political subdivision of the State of Georgia, with which the Authority has entered into an Intergovernmental Agreement for the Authority to provide stormwater management services, including but not limited to regulation and enforcement of soil erosion, sedimentation and pollution control.

Authority, The: The Douglasville-Douglas County Water and Sewer Authority and/or its authorized agents or representatives.

Best Management Practices (BMP's): Sound conservation and engineering practices to prevent and minimize erosion and resultant sedimentation, which are consistent with, and no less stringent than, those practices contained in the "Manual for Erosion and Sediment Control in Georgia" published by the Commission as of January 1 of the year in which the land-disturbing activity was permitted.

Board: The Board of Natural Resources.

Buffer: The area of land immediately adjacent to the banks of State Waters in its natural state of vegetation, which facilitates the protection of water quality and aquatic habitat.

Certified Personnel: A person who has successfully completed the appropriate certification course approved by the Commission.

CPESC: A Certified Professional in Erosion and Sediment Control with current certification by Certified Profession in Erosion and Sediment Control, Inc. a corporation registered in North Carolina, which is also referred to as CPESC or CPESC, Inc.

Commission: The Georgia Soil and Water Conservation Commission.

County: Douglas County, Georgia and/or its governing authority or authorized agents or representatives.

Cut: A portion of land surface or area from which earth has been removed or will be removed by excavation; the depth below original ground surface to excavated surface. Also know as "excavation."

Department: The Georgia Department of Natural Resources.

Design Professional: A professional licensed by the State of Georgia in the field of: engineering, architecture, landscape architecture, forestry, geology or land surveying; or a person that is a Certified Professional in Erosion and Sediment Control (CPESC) with a current certification by Certified Professional in Erosion and Sediment Control, Inc.

District: The West Georgia Soil and Water Conservation District.

Division: The Environmental Protection Division of the Department of Natural Resources.

Drainage Structure: A device composed of a virtually nonerodible material such as concrete, steel, plastic or other such material that conveys water from one place to another by intercepting the flow and carrying it to a release point for storm-water management, drainage control or flood control purposes.

Ephemeral State Waters: Streams, ditches and drainage ways that only have flowing water during and immediately after rainfall and do not receive any groundwater flow throughout the year as determined by the "Field Guide for Determining the Presence of State Waters that Require a Buffer" published by the Division and/or the "North Georgia Division of Water Quality Stream Identification Method."

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

Erosion, Sedimentation and Pollution Control Plan: A plan required by the Erosion and Sedimentation Act (O.C.G.A. Chapter 12-7) that includes, as a minimum protections at least as stringent as the State General Permit, best management practices and requirements of this Section.

Fill: A portion of land surface to which soil or other solid material has been added; the depth above the original ground.

Final Stabilization: All soil disturbing activities at the site have been completed, and that for unpaved areas and areas not covered by permanent structures and areas located outside the waste disposal limits of a landfills cell that has been certified by the Division for waste disposal, 100% of the soil surface is uniformly covered in permanent vegetation with a density of 70% or greater, or equivalent permanent stabilization measures (such as use of rip rap, gabions, permanent mulches or textiles) have been used. Permanent vegetation shall consist of planted trees, shrubs, perennial vines; a crop of perennial appropriate for the time of year and region; or a crop of annual vegetation and a seeding of target crop perennials appropriate for the region. Final stabilization applies to each phase of construction.

Finished Grade: The final elevation and contour of the ground after cutting or filling and conforming to the proposed design.

Grading: Altering the shape of ground surfaces to a predetermined condition; this includes stripping, cutting, filling, stockpiling and shaping, or any combination thereof, and shall include the land in its cut or filled condition.

Ground Elevation: The original elevation of the ground surface prior to cutting or filling.

Intermittent State Waters: A stream that has a seasonal dry weather flow or a pond that is charged by groundwater for any period of the year as determined by the "Field Guide for Determining the Presence of State Waters That Require a Buffer" published by the Division and/or the "North Carolina Division of Water Quality Stream Identification Method."

Land-Disturbing Activity: Any activity that may result in soil erosion from water or wind and the movement of sediments into state waters or onto lands within the state, including, but not limited to, clearing, dredging, grading, excavating, transporting and filling of land but not including those practices that are exempt under Section 1103(c) of this Article.

Larger Common Plan of Development or Sale: A contiguous area where multiple separate and distinct construction activities are occurring under one (1) plan of development or sale. For purposes of this term and its usage in this Chapter, "plan" means an announcement; piece of documentation such as a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, or computer design; or physical demarcation such as boundary signs, lot stakes, or surveyor markings, indicating that construction activities may occur on a specific plot.

Local Issuing Authority: The governing authority of Douglas County, or any other municipality or political subdivision of the State of Georgia with which the Authority has entered into an Intergovernmental Agreement, which have each respectively been certified by the Director of the Environmental Protection Division of the Department of Natural Resources as an issuing authority, pursuant to the Erosion and Sedimentation Act of 1975, as amended, or the Division in those instances where an application for a permit is submitted to the Division. As provided by the appropriate governmental entity has as a "Local

Issuing Authority," except the ability to issue the land-disturbing activity permit with the approval of the Authority. When proper, the term "Local Issuing Authority" shall include the Authority as the contractual agent of the appropriate governmental entity for all soil erosion and sedimentation control regulation and enforcement activities described herein.

May: The regulation or requirement is permissive.

Metropolitan River Protection Act: A state law referenced as O.C.G.A. 12-5-440 et seq. which addresses environmental and developmental matters in certain metropolitan river corridors and their drainage basins.

Natural Ground Surface: The ground surface in its original state before any grading, excavation or filling.

Nephelometric Turbidity Units (NTU): Numerical units of measure based upon photometric analytical techniques for measuring the light scattered by finely divided particles of a substance in suspension. This technique is used to estimate the extent of turbidity in water in which colloiddally dispersed particles are present.

NOI: A Notice of Intent form provided by the Division for coverage under the State General Permit.

NOT: A Notice of Termination form provided by the Division to terminate the coverage under the State General Permit.

Operator: The party or parties that have:

- (a) operational control of construction project plans and specifications, including the ability to make modifications to those plans and specifications;
- (b) day-to-day operational control of those activities that are necessary to ensure compliance with a storm-water pollution prevention plan for the site or other permit conditions, such as a person authorized to direct workers at a site to carry out activities required by the storm-water pollution prevention plan or to comply with other permit conditions.

Outfall: The location where stormwater in a discernable, confined and discrete conveyance, leaves a facility or site or, if there is a receiving water on site, becomes a point source discharging into that receiving water.

Perennial State Waters: Streams that flow continuously year round or ponds that hold water year round as determined by the "Field Guide for Determining the Presence of State Waters That Require a Buffer" published by the Division and/or the "North Carolina Division of Water Quality Stream Identification Method."

Permit: The authorization necessary to conduct a land-disturbing activity under the provisions of this Article of the Unified Development Code.

Person: Any individual, firm, company, municipal or private corporation, partnership, co-partnership, joint stock company, trust, association, institution, enterprise, estate, commission, board, public or private institution, utility, cooperative, governmental agency, the State of Georgia, the United States of America, or other legal entity, or their representatives, agents, or assigns. The masculine gender shall include the feminine and the singular shall include the plural where indicated by the context.

Phase or Phased: Sub-parts or segments of construction projects where the sub-part or segment is constructed and stabilized prior to completing construction activities on the entire construction site.

Project: The entire proposed development project regardless of the size of the area of land to be disturbed.

Properly Designed: Designed in accordance with design requirements and specifications contained in the "Manual for Erosion and Sediment Control in Georgia" published by the Commission as of January 1 of the year in which the land-disturbing activity was permitted and amendments to the Manual as approved by the Commission up until the date of the NOI submittal.

Roadway Drainage Structure: A device such as a bridge, culvert or ditch, composed of a virtually nonerodible material such as concrete, steel, plastic or other such material that conveys water under a roadway by intercepting the flow on one side of a traveled way consisting of one or more defined lanes, with or without shoulder areas, and carrying water to a release point on the other side.

Sediment: Solid material, both organic and inorganic, that is in suspension, is being transported or has been moved from its site of origin by air, water, ice or gravity as a product of erosion.

Sedimentation: The process by which eroded material is transported and deposited by the action of water, wind, ice, or gravity.

Shall: The regulation or requirement is mandatory.

Soil and Water Conservation District Approved Plan: An erosion and sedimentation control plan approved in writing by the West Georgia Soil and Water Conservation District.

Stabilization: The process of establishing an enduring soil cover of vegetation by the installation of temporary or permanent structures for the purpose of reducing to a minimum the erosion process and the resultant transport of sediment by wind, water, ice or gravity.

State General Permit: The National Pollution Discharge Elimination System general permit or permits for storm-water runoff from construction activities as is now in effect or as may be amended or reissued in the future pursuant to the State's authority to implement the same through federal delegation under the Federal Water Pollution Control Act, as amended, 33 U.S.C. Section 1251, et seq., and O.C.G.A. 12-5-30(f).

State Waters: Any and all rivers, streams, creeks, branches, lakes, reservoirs, ponds, drainage systems, springs, wells and other bodies of surface or subsurface water, natural or artificial, lying within or forming a part of the boundaries of the State which are not entirely confined and retained completely upon the property of a single individual, partnership or corporation.

Structural Erosion, Sedimentation and Pollution Control Measures: Practices 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 sedimentation control practices are riprap, sediment basins, dikes, level spreaders, waterways or outlets, diversions, grade stabilization structures, sediment traps and land grading. Such measures can be found in the publication Manual for Erosion and Sediment Control in Georgia.

Trout streams: All streams or portions of streams as designated by the Game and Fish Division of the Georgia Department of Natural Resources under the provisions of the Georgia Water Quality Control Act, O.C.G.A. § 12-5-20, et seq., in the rules and regulations for Water Quality Control, Chapter 39-3-6 at www.gaepd.org. Streams designated as primary trout waters are defined as water supporting a self-sustaining population of rainbow, brown or brook trout. Streams designated as secondary trout waters are those in which there is no evidence of natural trout reproduction, but are capable of supporting trout throughout the year. First order trout waters are streams into which no other streams flow except springs.

Vegetative Erosion and Sedimentation Control Measures: Measures for the stabilization of erodible or sediment-producing areas by covering the soil with:

- (1) Permanent seeding, sprigging or planting, producing long-term vegetative cover; or
- (2) Temporary seeding, producing short-term vegetative cover; or
- (3) Sodding, covering areas with a turf of perennial sod-forming grass.

Such measures can be found in the publication Manual for Erosion and Sediment Control in Georgia.

Watercourse: Any natural or artificial watercourse, stream, river, creek, channel, ditch, canal, conduit, culvert, drain, waterway, gully, ravine, or wash in which water flows either continuously or intermittently and which has a definite channel, bed and banks, and including any area adjacent thereto subject to inundation by reason of overflow or floodwater.

Wetlands: Areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. The ecological parameters for designating wetlands include hydric soils, hydrophytic vegetation, and hydrological conditions that involve a temporary or permanent source of water to cause soil saturation.

Wetlands, protected: Those wetlands identified on the National Wetlands Inventory maps prepared by the U.S. Fish and Wildlife Service, or otherwise approved by the U.S. Army Corps of Engineers based on competent studies prepared by a registered and qualified professional engineer.

1103 (c) Exemptions.

- (1) This Section shall apply to any land-disturbing activity undertaken by any person on any land except for the following:
 - a. Surface mining, as same is defined in O.C.G.A. 12-4-72, "The Georgia Surface Mining Act of 1968."
 - b. Granite quarrying and land clearing for such quarrying.
 - c. Such minor land-disturbing activities as home gardens and individual home landscaping, repairs, maintenance work, and other related activities, which result in minor soil erosion.
 - d. The construction of single-family residences, when such construction disturbs less than one acre and is not a part of a larger common development plan or sale with a planned disturbance of equal to or greater than one acre and not otherwise exempted under this section; provided however, that construction of any such residence shall conform to the

minimum requirements as set forth in Sections 1103(f) and (g) and this paragraph. For single-family residence construction covered by the provisions of this paragraph, there shall be a stream buffer between the residence and any state waters classified as trout streams pursuant to Article 2 of Chapter 5 of the Georgia Water Quality Control Act. In any such stream buffer, no land-disturbing activity shall occur between the residence and the point where vegetation has been wrested by normal stream flow or wave action from the banks of the trout waters. For primary trout waters, the stream buffer shall be at least fifty (50) horizontal feet, and no variance to a smaller stream buffer shall be granted. For secondary trout waters, the stream buffer shall be at least fifty (50) horizontal feet, but the EPD Director may grant variances to no less than twenty-five (25) feet. Regardless of whether a trout stream is primary or secondary, for first order trout waters, which are streams into which no other streams flow except for springs, the stream buffer shall be at least twenty-five (25) horizontal feet, and no variance to a smaller buffer shall be granted. The minimum requirements of Sections 1103(f) and (g) shall be enforced by the Authority.

- e. Agricultural operations as defined in O.C.G.A. 1-3-3, "Definitions," to include those practices involving the establishment, cultivation, or harvesting of products of the field or orchard; the preparation and planting of pasture land; farm ponds; dairy operations; livestock and poultry management practices; and the construction of farm buildings.
- f. Forestry land management practices, including harvesting; provided, however, that when such exempt forestry practices cause or result in land disturbing or other activities otherwise prohibited in a stream buffer, as established in Section 1103(c)1.d., no other land disturbing activities, except for normal forest management practices, shall be allowed on the entire property upon which the forestry practices were conducted for a period of three (3) years after completion of such forestry practices.
- g. Any project carried out under the technical supervision of the Natural Resources Conservation Service of the United States Department of Agriculture.
- h. Any project involving less than one (1) acre of disturbed area; provided, however, that this exemption shall not apply to any land-disturbing activity within a larger common plan of development or sale with a planned disturbance of equal to or greater than one (1) acre or within two hundred (200) feet of the bank of any state waters. For purposes of this paragraph, "State Waters" excludes channels and drainage ways which have water in them only during and immediately after rainfall events and intermittent streams which do not have water in them year-round. Any person responsible for a project which involves less than one (1) acre, which involves land-disturbing activity and which is within two hundred (200) feet of any such excluded channel or drainageway, must prevent sediment from moving beyond the boundaries of the property on which such project is located and provided, further, that nothing contained herein shall prevent the regulation of any such project that is not specifically exempted by this Subsection and provided further that this exemption shall have no application to the requirements of Section 1103(h) regarding control of disturbed soil on subdivision lots.
- i. Construction or maintenance projects, or both, undertaken or financed in whole or in part, or both, by the Georgia Department of Transportation, the Georgia Highway Authority or the Georgia Tollway Authority; or any road construction or maintenance project, or both, undertaken by any county or municipality; provided, however, that construction or maintenance projects of Department of Transportation or State Tollway Authority which

disturb one (1) or more contiguous acres of land shall be subject to provisions of O.C.G.A. § 12-7-7.1; except where the Department of Transportation, the Georgia Highway Authority, or the State Road and Tollway Authority is a secondary permittee for a project located within a larger common plan of development or sale under the state general permit, in which case a copy of the notice of intent under the state general permit shall be submitted to the Authority, the Authority shall enforce compliance with the minimum requirements set forth in Sections 1103(f) and (g) as if a permit had been issued, and violations shall be subject to the same penalties as violations by permit holders.

- j. Any land-disturbing activities conducted by any electric membership corporation or municipal electrical system or any public utility under the regulatory jurisdiction of the Public Service Commission, any utility under the regulatory jurisdiction of the Federal Energy Regulatory Commission, any cable television system as defined in O.C.G.A. 36-18-1, or any agency or instrumentality of the United States engaged in the generation, transmission or distribution of power; except where and electric membership corporation or municipal electric system or any public utility under the regulatory jurisdiction of the Public Service Commission, any utility under the regulatory jurisdiction of the Federal Energy Regulatory Commission, any cable television system as defined in O.C.G.A. 36-18-1, or any agency or instrumentality of the United States engaged in the generation, transmission or distribution of power is a secondary permittee for a project located in a larger common plan of development or sale under the state general permit, in which case the Authority will enforce compliance with the minimum requirements set forth in O.C.G.A. 12-7-6 as if a permit had been issued and violations shall be subject to the same penalties as violations by permit holders.
- k. Public water system reservoirs, including the Authority's Bear Creek and Dog River Reservoirs.

1103 (d) Compliance with minimum requirements.

Where Section 1103(c) requires compliance with the minimum requirements set forth in Sections 1103(f) and 1103(g) of this Article, the Authority shall enforce compliance with the minimum requirements as if a permit had been issued and violations shall be subject to the same penalties as violations by permit holders.

1103 (e) General provisions.

Excessive soil erosion and resulting sedimentation can take place during land-disturbing activities if requirements of this Section and the State General Permit are not met. Therefore, plans for those land-disturbing activities that are not excluded by this Section shall contain provisions for application of soil erosion, sedimentation and pollution control measures and practices. The provisions shall be incorporated into the soil erosion, sedimentation and pollution control plans. Soil erosion, sedimentation and pollution control measures and practices shall conform to the minimum requirements of Sections 1103(f), 1103(g) and 1103(m). The application of measures and practices shall apply to all features of the site, including street and utility installations, drainage facilities and other temporary and permanent improvements. Measures shall be installed to prevent or control erosion, sedimentation and pollution during all stages of any land-disturbing activity in accordance with requirements of this Section and the State General Permit.

1103 (f) Minimum requirements; best management practices.

- a. Best management practices as set forth in Sections 1103(f) and 1103(g) shall be required for all land-disturbing activities. Proper design, installation, and maintenance of best management practices shall constitute a complete defense to any action by the Director or to any other allegation of noncompliance with this Section 1103(f)b. or any substantially similar terms contained in a permit for the discharge of stormwater issued pursuant to the Georgia Water Quality Control Act, O.C.G.A. § 12-5-30(f). As used in this Section, the terms "proper design" and "properly designed" mean designed in accordance with the hydraulic design specifications contained in the "Manual for Erosion and Sediment Control in Georgia" specified in O.C.G.A. § 12-7-6(b).
- b. A discharge of stormwater runoff from disturbed areas where best management practices have not been properly designed, installed and maintained shall constitute a separate violation of any land disturbance permit issued by the appropriate governmental entity (upon the approval and release by the Authority) or of any State General Permit, issued by the Division pursuant to the Georgia Water Quality Control Act, O.C.G.A. § 12-5-30 (f), for each day on which such discharge results in the turbidity of receiving waters being increased by more than twenty-five (25) nephelometric turbidity units for waters supporting warm water fisheries or by more than ten (10) nephelometric turbidity units for waters classified as trout streams. The turbidity of the receiving waters shall be measured in accordance with guidelines issued by the Director. This paragraph shall not apply to any land disturbance associated the construction of single-family homes which are not part of a larger common plane of development or sale unless the plan disturbance for such construction is equal to or greater than five (5) acres.
- c. Failure to properly design, install or maintain best management practices shall constitute a violation of any land disturbance permit issued by the appropriate governmental entity (upon the approval and release by the Authority) or any State General Permit issued by the Division pursuant to the Georgia Water Quality Control Act, O.C.G.A. § 12-5-30 (f), for each day on which such failure occurs.
- d. The Director may require, in accordance with regulations adopted by the Board reasonable and prudent monitoring of the turbidity level of receiving waters into which discharges from land-disturbing activities occur.
- e. Douglas County has adopted more stringent buffer requirements as stated in Article 9.

1103 (g) Minimum requirements - specific.

The rules and regulations, ordinances or resolutions adopted pursuant to O.C.G.A. 12-7-1 et. seq. for the purpose of governing land-disturbing activities shall require, as a minimum, protections at least as stringent as the State General Permit, and best management practices, including sound conservation and engineering practices to prevent and minimize erosion and resultant sedimentation, which are consistent with, and no less stringent than, those practices contained in the "Manual for Erosion and Sediment Control in Georgia" published by the Georgia Soil and Water Conservation Commission as of January 1 of the year in which the land-disturbing activity was permitted, as well as the following:

- a. Stripping of vegetation, re-grading and other development activities shall be conducted in a manner so as to minimize erosion.
- b. Cut-fill operations must be kept to a minimum.
- c. Development plans must conform to topography and soil type so as to create the lowest practicable erosion potential.

- d. Whenever feasible, natural vegetation shall be retained, protected and supplemented.
- e. The disturbed area and the duration of exposure to erosive elements shall be kept to a practicable minimum. f. Disturbed soil shall be stabilized as quickly as practicable.
- g. Temporary vegetation or mulching shall be employed to protect exposed critical areas during development.
- h. Permanent vegetation and structural erosion control measures shall be installed as soon as practicable.
- i. To the extent necessary, sediment in run-off water must be trapped by the use of debris basins, sediment basins, silt traps or similar measures until the disturbed area is stabilized. As used in this Section, a disturbed area is stabilized when it is brought to a condition of continuous compliance with the requirements of O.C.G.A. § 12-7-1 et seq.
- j. Adequate provisions must be provided to minimize damage from surface water to the cut face of excavations or the sloping surface of fills.
- k. Cuts and fills may not endanger adjoining property.
- l. Fills may not encroach upon natural watercourses or constructed channels in a manner so as to adversely affect other property owners.
- m. Grading equipment must cross flowing streams by means of bridges or culverts except when such methods are not feasible, provided, in any case, that such crossings are kept to a minimum.
- n. Land-disturbing activity plans for erosion, sedimentation and pollution control shall include provisions for treatment or control of any source of sediments and adequate sedimentation control facilities to retain sediments on-site or preclude sedimentation of adjacent waters.
- o. There is established a 50 foot undisturbed buffer with a building setback of an additional 25 feet along the banks of all perennial and intermittent State waters, as measured horizontally from the point where vegetation has been wrested by normal stream flow or wave action, except:
 - 1. As provided by 1103(g)p.;
 - 2. Where the Director determines to allow a variance that is at least as protective of natural resources and the environment;
 - 3. Where otherwise allowed by the Director pursuant to O.C.G.A. § 12-2-8;
 - 4. Where a drainage structure or a roadway drainage structure must be constructed, provided that adequate erosion control measures are incorporated in the project plans and specification, and are implemented; or
 - 5. Along any ephemeral stream. As used in this Paragraph, the term "ephemeral stream" means a stream:
 - a. That under normal circumstances has water flowing only during and for a short duration after precipitation events;
 - b. That has the channel located above the groundwater table year round;
 - c. For which groundwater is not a sources of water; and
 - d. For which runoff from precipitation is the primary source of water flow.

Unless exempted as provided in this Section, buffers of at least 50 feet with an additional building setback of 25 feet established pursuant to this Section shall remain in force unless a variance is granted by the Director as provided in this Paragraph.

The following requirements shall apply to any such buffer:

1. No land-disturbing activities shall be conducted within a buffer and a buffer shall remain in its natural, undisturbed state of vegetation until all land-disturbing activities on the construction site are completed. Once the final stabilization of the site is achieved, a buffer may be thinned or trimmed of vegetation as long as a protective vegetative cover remains to protect water quality and aquatic habitat and a natural canopy is left in sufficient quantity to keep shade on the stream bed; provided, however, that any person constructing a single-family residence, when such residence is constructed by or under contract with the owner for his or her own occupancy, may thin or trim vegetation in a buffer at any time as long as protective vegetative cover remains to protect water quality and aquatic habitat and a natural canopy is left in sufficient quantity to keep shade on the stream bed; and
2. The buffer established by this Paragraph shall not apply to the following land-disturbing activities, provided that they occur at an angle, as measured from the point of crossing, within 25 degrees of perpendicular to the stream; cause a width of disturbance of not more than 50 feet within the buffer; and adequate erosion control measures are incorporated into the project plans and specifications and are implemented:

Stream crossings for water lines; or

Stream crossings for sewer lines.

- p. There is established a 50-foot buffer as measured horizontally from the point where vegetation has been wrested by normal stream flow or wave action, along the banks of any State waters classified as "trout streams" pursuant to Article 2 of Chapter 5 of Title 5, the Georgia Water Quality Control Act, except where a roadway drainage structure must be constructed; provided, however, that small springs and streams classified as trout streams which discharge an average annual flow of 25 gallons per minute or less shall have a 25-foot buffer or they may be piped, at the discretion of the landowner, pursuant to the terms of a rule providing for a general variance promulgated by the Board, so long as any such pipe stops short of the downstream landowner's property and the landowner complies with the buffer requirement for any adjacent trout streams. The Director may grant a variance from such buffer to allow land disturbing activity, provided that adequate erosion control measures are incorporated in the project plans and specifications and are implemented.

The following requirements shall apply to such buffer:

1. No land-disturbing activities shall be conducted within a buffer and a buffer shall remain in its natural, undisturbed state of vegetation until all land-disturbing activities on the construction site are completed. Once the final stabilization of the site is achieved, a buffer may be thinned or trimmed of vegetation as long as a protective vegetative cover remains to protect water quality and aquatic habitat and a natural canopy is left in sufficient quantity to keep shade on the stream bed; provided,

however, that any person constructing a single-family residence, when such residence is constructed by or under contract with the owner for his or her own occupancy, may thin or trim vegetation in a buffer at any time as long as protective vegetative cover remains to protect water quality and aquatic habitat and a natural canopy is left in sufficient quantity to keep shade on the stream bed.

2. The buffer established by the Paragraph shall not apply to the following land-disturbing activities, provided that they occur at an angle, as measured from the point of crossing, within 25 degrees of perpendicular to the stream; cause a width of disturbance of not more than 50 feet within the buffer; and adequate erosion control measures are incorporated into the project plans and specifications and are implemented:

Stream crossings for water lines; or

Stream crossings for sewer lines.

- q. Douglas County has established more stringent buffer requirements on streams that serve as source water for public water supplies as Stated in Article 9.

1103 (h) Control of disturbed soil on subdivision lots that are less than one acre.

- (1) Silt fencing; required.

- a. No soil disturbance and no construction shall be performed on any subdivision lot of less than one acre, prior to installation of silt fencing.
- b. The silt fencing shall be installed at the perimeter of the lot over at least one-half the perimeter distance. Placement of silt fencing shall be adequate to prevent migration of soil from the lot onto any adjacent street, property, or waterway. Silt fencing shall be installed in accordance with procedures recommended and prescribed by the Department of Natural Resources and the Soil Conservation Service. The required silt fencing shall be maintained throughout the entire period of construction, and shall be removed only after soil on the lot has been stabilized. The required silt fencing shall be installed and maintained so as to withstand any rainfall event of a magnitude of less than a ten-year storm without breakage, undercutting, or other failure.

- (2) Access pad; required.

- a. No soil disturbance and no construction shall be performed on any subdivision lot of less than one acre, prior to installation of an access pad.
- b. The access pad shall consist of gravel or coarse aggregate, located at the point of ingress and egress to the lot to be traveled by vehicles. The access pad shall be of sufficient size to accommodate all necessary vehicular traffic onto and off of the lot and to prevent all tracking of soil and mud onto the street. The access pad shall be of sufficient size to make any structure under construction completely accessible for delivery of building materials or for other purposes without the necessity for any vehicle to traverse through unprotected soil. The access pad shall be of sufficient depth to provide a clean driving surface at all times, including but not limited to times during and immediately after a rainfall event. The required access pad shall be maintained throughout the entire period of construction, and shall be removed only after soil on the lot has been stabilized. Any access pad that shows visible signs of contamination, due to overuse or migration of soil, shall be removed and replaced.

1103 (i) Local authority to exceed minimum requirements.

Nothing contained in O.C.G.A. 12-7-1 et. seq. shall prevent the Authority from adopting rules and regulations, ordinances, design and construction standards, or resolutions that contain requirements that exceed the minimum requirements in Sections 1103(f) and (g).

1103 (j) No presumption of violation.

The fact that land-disturbing activity for which a permit has been issued results in injury to the property of another shall neither constitute proof of nor create a presumption of a violation of the standards provided for in this Section or the terms of the permit.

1103 (k) Application/permit process; generally.

The property owner, developer, and designated planners and engineers shall design and review the general development plans and detailed plans before submittal to Authority. They shall review the appropriate governmental entity's zoning and subdivision ordinances and the Authority's stormwater management regulations, floodplain management regulations, this Section, and any other applicable ordinances or Authority Rules and Regulations or Design and Construction Standards which regulate the development of the subject land. However, the owner and/or operator are the only parties who may obtain a permit.

1103 (l) Application requirements.

- (1) No person shall conduct any land-disturbing activity within the jurisdictional boundaries of the appropriate governmental entity without first obtaining the approval of the appropriate governmental entity, depending upon the location of the subject property, and the Authority, by obtaining a land disturbance activity permit, which shall be issued by the appropriate governmental entity and released by the Authority, and providing a copy of the Notice of Intent submitted to the Division if applicable.
- (2) The application for a permit shall be submitted to the Authority and must include the applicant's erosion, sedimentation and pollution control plan with such supporting data as will affirmatively demonstrate that the land-disturbing activity proposed will be carried out in such a manner that the minimum requirements set forth in this Section shall be met. Said plans shall include, as a minimum, the data specified in Section 1103(m) and shall conform to the provisions of Sections 1103(f) and 1103(g) of this Section. Applications for a permit will not be accepted unless accompanied by two copies of the applicant's erosion, sedimentation and pollution control plans. All applications shall contain a certification stating that the plan preparer or the designee thereof visited the site prior to creation of the plan in accordance with EPD Rule 391-3-7.10.
- (3) A fee as provided in Chapter 4 of these Rules and Regulations, shall be paid to the Authority for each acre or fraction thereof in the project area (See Section 4-14(L)). In addition to the local permitting fees, fees will also be assessed pursuant to paragraph (50 subsection (a) of O.C.G.A. 12-5-23, provided that such fees shall not exceed \$80.00 per acre of land-disturbing activity, and these fees shall be calculated and paid by the primary permittee as defined in the State General Permit for each acre of land-disturbing activity included in the planned development or each phase or development. All applicable fees shall be paid prior to issuance of the land disturbance permit. In a jurisdiction that is certified pursuant to subsection (a) of O.C.G.A. 12-7-8 half of such fees levied shall be submitted to the Division; except that any and all fees due from an entity which is required to give notice pursuant to paragraph (9) or (10) of O.C.G.A. 12-7-17 shall be

submitted in full to the Division, regardless of the existence of a Local Issuing Authority in the jurisdiction.

- (4) Immediately upon receipt of an application and plan for a permit, the Authority shall forward a copy of the application and plan to the District for its review and approval or disapproval concerning the adequacy of the erosion, sedimentation and pollution control plan. The District shall approve or disapprove the plan within thirty-five (35) days of receipt. Failure of the District to act within thirty-five (35) days shall be considered approval of the pending plan. The results of the District review shall be forwarded to the appropriate governmental entity. No permit will be issued unless the plan has been approved by the District, and any variances required by Section 1103(g)o. and p. have been obtained, and all fees have been paid, and bonding, if required under this Article has been obtained. Such review will not be required if the appropriate governmental entity and the District have entered into an agreement which allows the appropriate governmental entity to conduct such review and approval of the plan without referring the application and plan to the District. Upon satisfaction of all requirements for the issuance of the permit, the appropriate governmental entity shall issue the permit and provide it to the Authority, and the Authority shall release the permit to the applicant.
- (5) Erosion and sedimentation performance surety.
 - a. If a permit applicant has had two or more violations of previous development permits, this Section, or the Georgia Erosion and Sedimentation Act of 1975, O.C.G.A. § 12-7-1, et seq., as amended, within three years prior to the date of filing of the application under consideration, the Authority may deny the permit application; or
 - b. The applicant shall post a bond in the form of government security, cash, irrevocable letter of credit or any combination thereof up to, in the amount required by Chapter 4 of these Rules and Regulations prior to the issuance of the permit. If the applicant does not comply with this Article or with the conditions of the permit after issuance, the Authority may call the bond or any part thereof to be forfeited and may use the proceeds to hire a contractor or use the Authority's own forces to stabilize the site of the land disturbing activity and bring it into compliance. Notice and hearing and administrative appeal and judicial review for any bond forfeiture shall be as provided in Section 1103(t) of this Article.

1103 (m) Plan requirements.

- (1) Minimum requirements.

Plans must be prepared to meet the minimum requirements as contained in Sections 1103(f) and (g) of this Article or through the use of more stringent, alternate design criteria which conform to sound conservation and engineering practices. The Manual for Erosion and Sediment Control in Georgia is hereby incorporated by reference into this Section. The plan for the land-disturbing activity shall consider the interrelationship of soil types, geological and hydrological characteristics, topography, watershed, vegetation, proposed permanent structures including roadways, constructed waterways, sediment control and stormwater management facilities, local ordinances, and state laws.

- (2) *Data required for site plan.*

The plan shall include all the information required from the appropriate Erosion, Sedimentation and Pollution Control Plan Review Checklist established by the Commission as

of January 1 of the year in which the land-disturbing activity was permitted as well as information required by the Authority's Design and Construction Standards.

(3) *Maps, drawings, and supportive computations.*

Maps, drawings and supportive computations shall bear the signature and seal of a certified design professional who is a registered professional engineer, architect, landscape architect, and/or land surveyor, as applicable to satisfy the requirements of this Section. Persons involved in land development design, review, permitting, construction, monitoring or inspection of any land disturbing activity shall meet the education and training certification requirements as developed by the Commission and in consultation with the Division and the Stakeholder Advisory Board created pursuant to O.C.G.A. § 12-7-20.

(4) Maintenance.

Maintenance of all soil erosion and sedimentation control practices, whether temporary or permanent, shall be at all times the responsibility of the property owner.

1103 (n) Permits.

- (1) Permits shall be approved or denied as soon as practicable, but in any event not later than forty-five (45) days after receipt by the Authority of a completed application, providing variances and bonding are obtained, where necessary and all applicable fees have been paid prior to permit issuance. The permit shall include conditions under which the activity may be undertaken.
- (2) No permit shall be issued by the appropriate governmental entity and released by the Authority unless the erosion, sedimentation and pollution control plan has been approved by the District and the Authority has affirmatively determined that the plan is in compliance with this Section, any variances required by Section 1103(g)o. and p. are obtained, bonding requirements, if necessary, as per this Article are met, and all ordinances and rules and regulations in effect within the jurisdictional boundaries of Douglas County, including but not limited to all of the Authority's Rules and Regulations and Design and Construction Standards, are met. If the permit is denied, the reason for denial shall be furnished to the applicant.
- (3) If the tract is to be developed in phases, then a separate permit shall be required for each phase.
- (4) The permit may be suspended, revoked, or modified by the Authority, as to all or any portion of the land affected by the plan, upon finding that the holder or his successor in title is not in compliance with the approved erosion, sedimentation and pollution control plan or that the holder or his successor in title is in violation of this Section. A holder of a permit shall notify any successor in title to him as to all or any portion of the land affected by the approved plan of the conditions contained in the permit. Transfer of title to any permitted property, prior to termination of the permit, shall not act to release the original title and permit holder from liability for compliance with the terms of this Section unless and until such time as:
 - a. A new permit has been issued to the successor in title; or
 - b. The permit has been transferred to the successor in title as follows:
 1. The successor in title has submitted a request in writing that the permit be transferred to him or her; and
 2. The successor in title has complied with the bonding requirements of this Article and

3. The Authority has approved the transfer of the permit in writing. Any transfer of a permit under the authority of this Paragraph shall bind the successor permit holder to the same plan, requirements, variances, and permit conditions as the former permit holder. All successors in title to permitted properties shall request in writing a transfer of the permit or shall apply for a new permit within twenty (20) days after recording of the deed transferring title; failure of a successor in title to comply with this requirement, whether or not the permit of the former title holder has been terminated, shall subject the successor in title to any and all penalties prescribed by this Section.
- (5) Every permit or renewal thereof shall be valid for a period of one year, if not sooner renewed, terminated, revoked, or surrendered. Permits shall be eligible for renewal by the Authority within sixty (60) days prior to expiration. The Authority may refuse renewal based on materially changed land conditions or based on any ground that would be the basis for revocation of the active permit.
- (6) Any change or amendment of design and construction plans for the project that may materially impact or negate the permit based on original approval of the plan shall require a permit amendment. All amendments shall be applied for in writing and follow the same procedure for approval as original applications for a permit.
- (7) Any land-disturbing activities by a local issuing authority shall be subject to the same requirements of this Article, and any other ordinances relating to land development, as are applied to private persons and the Division shall enforce such requirements upon the local issuing authority.

1103 (o) Inspection and enforcement.

- (1) The Authority will periodically inspect the sites of land-disturbing activities for which permits have been issued to determine if the activities are being conducted in accordance with the plan and if the measures required in the plan are effective in controlling erosion and sedimentation. The Authority shall regulate both primary, secondary and tertiary permittees as such terms are defined in the State General Permit. Primary permittees shall be responsible for installation and maintenance of best management practices where the primary permittee is conducting land disturbing activities. Secondary permittees shall be responsible for installation and maintenance of best management practices where the secondary permittee is conducting land disturbing activities. Tertiary permittees shall be responsible for installation and maintenance of best management practices where the tertiary permittee is conducting land-disturbing activities. If, through inspection, it is deemed that a person engaged in land-disturbing activities as defined herein has failed to comply with the approved plan, with permit conditions, or with the provisions of this Section, a written notice to comply shall be served upon that person. The notice shall set forth the measures necessary to achieve compliance and shall state the time within which such measures must be completed. If the person engaged in the land-disturbing activity fails to comply within the time specified, he shall be deemed in violation of this Section.
- (2) The Authority shall have the power to conduct such investigations as it may deem reasonably necessary to carry out duties as prescribed in this Section, and for this purpose to enter at reasonable times upon any property, public or private, for the purpose of investigation and inspecting the sites of land-disturbing activities.

- (3) No person shall refuse entry or access to any authorized representative or agent of the Authority, the appropriate governmental entity, the Commission, the District, or the Division who requests entry for the purposes of inspection, 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.
- (4) The District or Commission or both shall semi-annually review the actions of the Authority and the appropriate governmental entity (Douglas County) which have been certified as a Local Issuing Authority pursuant to O.C.G.A. § 12-7-8(a). The District or the Commission or both may provide technical assistance to the appropriate governmental entity and/or the Authority for the purpose of improving the effectiveness of the appropriate governmental entity's and the Authority's erosion, sedimentation and pollution control program. The District or the Commission shall notify the Division and request investigation by the Division if any deficient or ineffective local program is found.
- (5) The Division may periodically review the actions of the appropriate governmental entity which has been certified as a Local Issuing Authority pursuant to O.C.G.A. § 12-7-8(a). Such review may include, but shall not be limited to, review of conformance and enforcement of the appropriate governmental entity's ordinances and/or the Authority's Rules and Regulations and review of conformance with and agreement, if any, between the District and the appropriate governmental entity and/or the Authority. If such review indicates that the appropriate governmental entity certified pursuant to O.C.G.A. § 12-7-8(a) and/or the Authority has not administered or enforced its ordinances and/or the Authority's Rules and Regulations or has not conducted its program in accordance with any agreement entered into pursuant to O.C.G.A. § 12-7-7(e), the Division shall notify the appropriate governmental entity in writing. The governing authority of the appropriate governmental entity so notified shall have ninety (90) days within which to take the necessary action to retain certification as a Local Issuing Authority. If the appropriate governmental entity does not take the necessary corrective action within ninety (90) days after notification by the Division, the Division shall revoke the certification of the appropriate governmental entity as a Local Issuing Authority.
- (6) The Authority must amend this Chapter and local issuing authorities must amend ordinances to the extent appropriate within twelve (12) months of any amendments to the Erosion and Sedimentation Act of 1975 (O.C.G.A. 12-7) or the Model Ordinance published by the Division.

1103 (p) Failure to obtain a permit for land-disturbing activity.

If any person commences any land-disturbing activity requiring a land-disturbing permit as prescribed in this Section without first obtaining said permit, the person shall be subject to termination of any water service provided by the Authority and revocation of his business license, any work permits, or other authorizations for the conduct of any business, including any land-disturbing activity and utility contracting and associated work activities, including but not limited to all site work, soil erosion and sedimentation control work, stormwater management work, and water and sewer construction work, within the jurisdictional boundaries of the appropriate governmental entity and the Authority.

1103 (q) Stop-work orders.

- a. For the first and second violations of the provisions of this Section, the Authority shall issue a written warning to the violator. The violator shall have five (5) days to correct the violation. If the violation is not corrected within five (5) days, the Authority shall issue a stop-work order requiring that land-disturbing activities be stopped until necessary corrective action or

mitigation has occurred; provided, however, that, if the violation presents an imminent threat to public health or waters of the state or if the land-disturbing activities are conducted without obtaining the necessary permit, the Authority shall issue an immediate stop-work order in lieu of a warning.

- b. For a third and each subsequent violation, the Authority shall issue an immediate stop-work order.
- c. All stop-work orders shall be effective immediately upon issuance and shall be in effect until the necessary corrective action or mitigation has occurred.
- d. When a violation in the form of taking action without a permit, failure to maintain a stream buffer, or significant amounts of sediment, as determined by the Authority or by the Director or his/her designee, have been or are being discharged into State Waters and where best management practices have not been properly designed, installed and maintained, a stop work order shall be issued by the Authority or by the Director or his/her designee. All such stop work orders shall be effective immediately upon issuance and shall be in effect until the necessary corrective action or mitigation has occurred. Such stop work orders shall apply to all land disturbing activity on the site with the exception of the installation and maintenance of temporary or permanent erosion and sedimentation controls.

1103 (r) Bond forfeiture.

If, through inspection, it is determined that a person engaged in land-disturbing activities has failed to comply with the approved plan, a written notice to comply shall be served upon that person. The notice shall set forth the measures necessary to achieve compliance with the plan and shall state the time within which such measures must be completed. If the person engaged in the land-disturbing activity fails to comply within the time specified, he shall be deemed in violation of this Section and, in addition to other penalties, shall be deemed to have forfeited his performance bond, if required to post one under the provisions of this Article. The Authority may call the bond or any part thereof to be forfeited and may use the proceeds to hire a contractor or use the Authority's own forces to stabilize the site of the land-disturbing activity and bring it into compliance.

1103 (s) Monetary penalties.

Any person who violates any provisions of this Section, any of the Authority's Rules and Regulations or Design and Construction Standards adopted pursuant hereto, or any permit condition or limitation established pursuant to this Section, or who negligently or intentionally fails or refuses to comply with any order or directive of the Authority or any final or emergency order of the Director issued as provided in this Section or as otherwise provided by state law may be held liable for a monetary penalty not to exceed \$2,500.00 per day. For the purpose of enforcing the provisions of this Section, notwithstanding any provision in any city charter to the contrary, any municipal court shall be authorized to impose penalties not to exceed \$2,500.00 for each violation. Notwithstanding any limitation of law as to penalties which can be assessed for violations of local or county ordinances, any magistrate court or any other court of competent jurisdiction trying cases brought as violations of this Section shall be authorized to impose penalties for such violations not to exceed \$2,500.00 for each violation. Each day during which violation or failure or refusal to comply continues shall be a separate violation.

1103 (t) Administrative appeal; judicial review.

a. Administrative remedies.

Any person receiving a notice of violation may appeal the determination of the Authority, including, but not limited to the issuance of a stop work order, the assessment of an administratively-imposed monetary penalty, the suspension, revocation, modification or grant with condition of a permit by the Authority upon finding that the holder is not in compliance with the approved erosion, sediment and pollution control plan, or that the holder is in violation of permit conditions, or that the holder is violation of any applicable ordinance or any of the Authority's Rules and Regulations or Design and Construction Standards, or the issuance of a notice of bond forfeiture. The notice of appeal must be in writing and must be received within thirty (30) days from the date of the notice of violation. A hearing on the appeal shall take place within fifteen (15) days from the date of receipt of the written notice of appeal by the Executive Director. All appeals shall be heard and decided by the Authority's designated Appeal Panel, which shall include the Executive Director, the Chief Financial Officer of the Authority, and the Deputy Director of Operations, or their designees. The Appeal Panel shall have the power to affirm, modify or reject the original penalty and the right to add or delete remedial actions required for correction of the violation and compliance with the Authority's Rules and Regulations, Design and Construction Standards, and any other applicable local, state or federal requirements. The decision of the Appeal Panel shall be final.

b. Judicial review.

Any person, aggrieved by a decision or order of the Authority, after exhausting his administrative remedies, shall have the right to appeal to the Superior Court of Douglas County by petition for writ of certiorari, which must be filed within thirty (30) days of the final decision of the Appeal Panel.

1103 (u) Education and certification.

Persons involved in land development design, review, permitting, construction monitoring or inspection or any land disturbing activity shall meet the education and training certification requirements, dependent on their level of involvement with the process, as developed by the Commission in consultation with the Division and the Stakeholder Advisory Board created pursuant to O.C.G.A. § 12-7-20.

- a. For each site on which land-disturbing activity occurs, each entity or person acting as either a primary, secondary or tertiary permittee, as defined in the State General Permit, shall have as a minimum one person who is in responsible charge of erosion and sedimentation control activities on behalf of said entity or person and meets the applicable education or training certification requirements developed by the Commission present on site whenever land-disturbing activities are conducted on that site. A project site shall herein be defined as any land-disturbing site or multiple sites within a larger common plan of development or sale permitted by an owner or operator for compliance with the State General Permit.
- b. Persons or entities involved in projects not requiring a State General Permit but otherwise requiring certified personnel on site may contract with certified persons to meet the requirements of this ordinance.
- c. If a State General Permittee who has operational control of land-disturbing activities for a site has met the certification requirements of paragraph (1) of subsection (b) of O.C.G.A. 12-7-19, then any person or entity involved in land-disturbing activity at that site and operating in a

subcontractor capacity for such permittee shall meet those educational requirements specified in paragraph (4) of subsection (b) of O.C.G.A. 12-7-19 and shall not be required to meet any education requirements that exceed those specified in said paragraph.

1103 (v) Effectivity.

This article shall become effective upon approval by the Authority's Board of Directors, which shall be evidenced by a written resolution of the Authority's Board of Directors and which shall set forth the specific date for this Article and any amendments thereto.

1103 (w) Validity.

If any Section, Paragraph, clause, phrase or provision of this Section shall be adjudged invalid, unenforceable or unconstitutional, such decisions shall not affect the remaining portions of this Section.

1103 (x) Liability.

- (1) Neither the approval of a plan under the provisions of this Section nor the compliance with provisions of this Section shall relieve any person from the responsibility for damage to any person or property otherwise imposed by law nor impose any liability upon the Authority, local issuing authority or District for damage to any person or property.
- (2) The fact that a land-disturbing activity for which a permit has been issued results in injury to the property of another shall neither constitute proof of nor create a presumption of a violation of the standards provided for in this Section or the terms of the permit.
- (3) No provision of this Section shall permit any persons to violate the Georgia Erosion and Sedimentation Act of 1975, the Georgia Water Quality Control Act, or any of the Authority's Rules and Regulations or Design and Construction Standards promulgated and approved thereunder, or to pollute any waters of the state as defined thereby.

Sec. 1104 - Stormwater management regulations.

1104 (a) Stormwater management; purpose and policy.

The purpose of the stormwater management regulations set forth in this Section is to protect, maintain, and enhance the public health, safety, environment, and general welfare by establishing minimum requirements and procedures to control the adverse effects of increased post-development stormwater runoff and nonpoint source pollution associated with new development and redevelopment. The goal of proper management of post-development stormwater runoff is to minimize damage to public and private property and infrastructure, to safeguard the public health, safety, environment, and general welfare of the public, and to protect water and aquatic resources. The regulations set forth in this Section seek to meet that goal through the following objectives:

- (1) Establish decision-making processes surrounding land development activities that protect the integrity of the watershed and preserve the health of water resources;
- (2) Require that new development and redevelopment maintain the pre-development hydrologic response in their post-development state as nearly as practicable in order to reduce flooding, stream bank erosion, nonpoint source pollution, and increases in stream temperature and to maintain the integrity of stream channels and aquatic habitats;

- (3) Establish minimum post-development stormwater management standards and design criteria for the regulation and control of stormwater runoff quantity and quality;
- (4) Establish design and application criteria for the construction and use of structural stormwater control facilities that can be used to meet the minimum post-development stormwater management standards;
- (5) Encourage the use of nonstructural stormwater management and stormwater better site design practices, such as the preservation of greenspace and other conservation areas, to the maximum extent practicable;
- (6) Establish provisions for the long-term responsibility for and maintenance of structural stormwater control facilities and nonstructural stormwater management practices to ensure that they continue to function as designed, are maintained, and pose no threat to public safety; and,
- (7) Establish administrative procedures for:
 - a. Submission, review, approval, and disapproval of stormwater management plans;
 - b. Inspection of approved active projects; and
 - c. Long-term follow-up.

1104 (b) Definitions relating to stormwater management.

The following definitions shall apply to Section 8 of these Rules and Regulations:

Applicant, Stormwater: A person submitting a post-development stormwater management application and plan for approval.

Channel: A natural or artificial watercourse with a definite bed and banks that conducts continuously or periodically flowing water.

Conservation Easement: An agreement between a land owner and the Authority or other government agency or land trust that permanently protects open space or greenspace on the owner's land by limiting the amount and type of development that can take place, but continues to leave the remainder of the fee interest in private ownership. See also the Environmental Protection Article of this Development Code for further details.

Detention: The temporary storage of stormwater runoff in a stormwater management facility for the purpose of controlling the peak discharge.

Detention Facility: A detention basin or structure designed for the detention of stormwater runoff and gradual release of stored water at controlled rates.

Developer: Any person who undertakes land development activities and who is authorized to act on behalf of and with the full authority of the property owner in connection with the development of one or more tracts or parcels of land, including but not limited to construction activities associated with the installation of water, wastewater, and/or stormwater management structures, facilities, and measures and implementation and maintenance of soil erosion and sedimentation control practices.

Development: (1) A land development project involving the construction of streets, utilities, buildings, or other improvements required for the habitation or use of property, such as a residential neighborhood,

an apartment complex, a store, or a shopping center; (2) any manmade change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavating, drilling operations, or permanent storage of materials; (3) the act of constructing or carrying out a land development project, including the alteration of land or vegetation in preparation for construction activity.

Drainage Easement: An easement appurtenant or attached to a tract or parcel of land allowing the owner of adjacent tracts or other persons to discharge stormwater runoff onto the tract or parcel of land subject to the drainage easement.

Erosion and Sedimentation Control Plan: A plan that is designed to minimize the accelerated erosion and sediment runoff at a site during land disturbance activities.

Executive Director: The chief executive officer of the Douglasville-Douglas County Water and Sewer Authority or an authorized designee or agent of the Executive Director.

Extended Detention: The detention of stormwater runoff for an extended period, typically 24 hours or greater.

Extreme Flood Protection: Measures taken to prevent adverse impacts from large low-frequency storm events with a return frequency of 100 years or more.

Flooding: A volume of surface water that is too great to be confined within the banks or walls of a conveyance or stream channel and that overflows onto adjacent lands.

Georgia Stormwater Management Manual (GSMM): The latest edition of said manual, as defined on the GSMM website at www.georgiastormwater.com. Updates, errata and revisions will be provided on the website.

Greenspace or Open Space: Permanently protected areas of the site that are preserved in a natural state.

Hotspot: An area where the use of the land has the potential to generate highly contaminated runoff, with concentrations of pollutants in excess of those typically found in stormwater.

Hydrologic Soil Group (HSG): A Natural Resource Conservation Service classification system in which soils are categorized into four runoff potential groups, ranging from group A soils, which have high permeability rates and produce little runoff, to group D soils, which have low permeability rates and produce much more runoff.

Impervious Cover: A surface composed of any material that significantly impedes or prevents the natural infiltration of water into soil. Impervious surfaces include, but are not limited to, rooftops, buildings, streets and roads, and any concrete or asphalt surface.

Industrial Stormwater Permit: A National Pollutant Discharge Elimination System (NPDES) permit issued to an industry or group of industries, which regulates the pollutant levels associated with industrial stormwater discharges or specifies on-site pollution control strategies.

Infiltration: The process of percolating stormwater runoff into the subsoil.

Jurisdictional Wetland: See "Wetland, Jurisdictional."

Land Development: Any land change, including, but not limited to, clearing, digging, grubbing, stripping, removal of vegetation, dredging, grading, excavating, transporting and filling of land, construction, paving, and any other installation of impervious cover.

Land Development Activities: Those actions or activities that comprise, facilitate, or result in land development. See also "Development."

Land Development Project: A discrete land development undertaking.

Linear Development Project: A land development project that is linear in nature, including but not limited to (1) the construction of electric and telecommunication utility lines, natural gas and petroleum pipelines, water and sewer lines, and related facilities, including but not limited to electric substations and pumping stations; (2) construction of tracks, rights-of-way, bridges, communication facilities, and other related facilities of a railroad company; and (3) road and highway projects.

New Development: A land development activity on a previously undeveloped site.

Nonpoint Source Pollution: A form of water pollution that does not originate from a discrete point such as a sewage treatment plant or industrial discharge, but involves the transport of pollution such as sediment, fertilizers, pesticides, heavy metals, oil, grease, bacteria, organic materials, and other contaminants from land to surface water and groundwater via mechanisms such as precipitation, stormwater runoff, and leaching. Nonpoint source pollution is a by-product of land use practices such as agricultural, silvicultural, mining, construction, subsurface disposal, and urban runoff sources.

Nonstructural Stormwater Management Practice or Nonstructural Practice: Any natural or planted vegetation or other nonstructural component of the stormwater management plan that provides for or enhances stormwater quantity and/or quality control or other stormwater management benefits, including but not limited to riparian buffers, open and greenspace areas, overland flow filtration areas, natural depressions, and vegetated channels.

NPDES Permit: A national pollutant discharge elimination system permit issued by the State of Georgia, Department of Natural Resources, Environmental Protection Division or EPA pursuant to the Clean Water Act for the purpose of regulating the discharge of sewage, industrial wastes and other wastes (under the authority of Section 402 of the Clean Water Act), into the navigable waters of the United States.

Off-Site Stormwater Facility: A stormwater management facility located outside the boundaries of the site.

On-Site Stormwater Facility: A stormwater management facility located within the boundaries of the site.

Overbank Flood Protection: Measures taken to prevent an increase in the frequency and magnitude of out-of-bank flooding (i.e., flow events that exceed the capacity of the channel and enter the floodplain) and that are intended to protect downstream properties from flooding for the 2-year through 25-year frequency storm events.

Owner: The legal or beneficial owner of a site, including, but not limited to, a mortgagee or vendee in possession, receiver, executor, trustee, lessee, or other person, firm, or corporation in control of the site.

Permit: See "Development Permit."

Post-development: Refers to the time period, or the conditions that may reasonably be expected or anticipated to exist, after completion of the land development activity on a site, as the context may require.

Pre-development: Refers to the time period, or the conditions that exist, on a site prior to the commencement of a land development project and at the time that plans for the land development of a site are approved by the plan approving authority. Where phased development or plan approval occurs (preliminary grading, roads and utilities, etc.), the existing conditions at the time prior to the first item being approved or permitted shall establish pre-development conditions.

Project: A land development project.

Redevelopment: A land development project on a previously developed site, but excludes ordinary maintenance activities, remodeling of existing buildings, resurfacing of paved areas, and exterior changes or improvements which do not materially increase or concentrate stormwater runoff or cause additional nonpoint source pollution.

Regional Stormwater Management Facility or Regional Facility: Stormwater management facilities designed to control stormwater runoff from multiple properties, where the owners or developers of the individual properties may assist in the financing of the facility, and the requirement for on-site controls is either eliminated or reduced.

Runoff: Stormwater runoff.

Site: The parcel of land being developed, or the portion thereof on which the land development project is located.

Stormwater Better Site Design: Nonstructural site design approaches and techniques that can reduce a site's impact on the watershed and can provide for nonstructural stormwater management. Stormwater better site design includes conserving and protecting natural areas and greenspace, reducing impervious cover, and using natural features for stormwater management.

Stormwater Management: The collection, conveyance, storage, treatment, and disposal of stormwater runoff in a manner intended to prevent increased flood damage, stream bank channel erosion, habitat degradation, and water quality degradation and to enhance and promote the public health, safety, and general welfare.

Stormwater Management Facility: Any infrastructure that controls or conveys stormwater runoff.

Stormwater Management Measure: Any stormwater management facility or nonstructural stormwater practice.

Stormwater Management Plan: A document describing how existing runoff characteristics will be affected by a land development project and containing measures for complying with the provisions of this Section.

Stormwater Management System: The entire set of structural and nonstructural stormwater management facilities and practices that are used to capture, convey, and control the quantity and quality of the stormwater runoff from a site.

Stormwater Retrofit: A stormwater management practice designed for a currently developed site that previously had either no stormwater management practice in place or a practice inadequate to meet the stormwater management requirements of the site.

Stormwater Runoff: The flow of surface water resulting from precipitation.

Structural Stormwater Control: A structural stormwater management facility or device that controls stormwater runoff and changes the characteristics of that runoff, including, but not limited to, the quantity and quality, the period of release, or the velocity of flow of such runoff.

Subdivision: The division of a tract or parcel of land resulting in one or more new lots or building sites for the purpose, whether immediately or in the future, of sale, other transfer of ownership, or land development, and includes divisions of land resulting from or made in connection with the layout or development of a new street or roadway or a change in an existing street or roadway.

Watercourse: A channel in which a flow of water occurs, whether continuously or intermittently.

Waters of the State: All streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies of accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through or border upon the state or any portion thereof. See also "State Waters."

Wetlands. Jurisdictional: An area that meets the definitional requirements for wetlands as determined by the U.S. Army Corps of Engineers.

1104 (c) Stormwater management; applicability.

(1) Regulations applicable to all land development.

This Section shall be applicable to all land development, including, but not limited to, site plan applications, subdivision applications, and grading applications, unless specifically exempted pursuant to Paragraph B., below. This Section shall apply to any new development or redevelopment site that meets one or more of the following criteria:

- a. New development that involves the creation of 5,000 square feet or more of impervious cover, or that involves other land development activities of one (1) acre or more;
- b. Redevelopment that includes the creation, addition or replacement of 5,000 square feet or more of impervious cover, or that involves other land development activity of one (1) acre or more;
- c. Any new development or redevelopment, regardless of size, that is defined by the Authority to be a hotspot land use; or,
- d. Land development activities that are smaller than the minimum applicability criteria set forth in subparagraphs (a) and (b), above, if such activities are part of a larger common plan of development, even though multiple, separate, and distinct land development activities may take place at different times on different schedules.

(2) Exemptions.

The following activities are exempt from this Section:

- a. Individual single-family or duplex residential lots that are not part of a subdivision or phased development project;
 - b. Additions or modifications to existing single-family or duplex residential structures;
 - c. Agricultural or silvicultural land management activities within areas zoned for these activities; and
 - d. Repairs to any stormwater management facility or practice deemed necessary by the Authority, and any other repairs performed by the Authority or its agents.
- (3) Designation of stormwater management administrator.

The Authority's Engineering Department is hereby appointed to administer, implement, and enforce the provisions of this Section.

1104 (d) Compatibility with other regulations.

This Section is not intended to modify or repeal any other ordinance, rule, regulation, resolution, or other provision of law. The requirements of this Section are in addition to the requirements of any other ordinance, rule, regulation, resolution, or other provision of law, and where any provision of this Section imposes restrictions different from those imposed by any other ordinance, rule, regulation, resolution, or other provision of law, whichever provision is more restrictive or imposes higher protective standards for human health or the environment shall control.

1104 (e) Stormwater design manual.

The Authority will utilize the policy, criteria, and information, including technical specifications and standards in the latest edition of the *Georgia Stormwater Management Manual* and the technical criteria, specifications, and standards set forth in the Authority's Design and Construction Standards for the proper implementation of the requirements of this Section. The Authority's Design and Construction Standards may be updated and expanded periodically, based on improvements in science, engineering, monitoring, and local maintenance experience.

1104 (f) Stormwater management permit application requirements.

No person shall perform any land development activities without first meeting the requirements of this Section prior to commencing the proposed activity.

Unless specifically exempted by this Section, any owner or developer proposing a land development activity shall submit to the Authority a permit application on a form provided by the Authority for that purpose.

Unless otherwise exempted by this Section, a permit application shall be accompanied by the following items, in order to be considered:

- (1) Stormwater management concept plan and consultation meeting certification in accordance with Sec. 1104 (g), below, if applicable;
- (2) Stormwater management plan in accordance with Sec. 1104 (h), below;
- (3) Performance bond in accordance with Sec. 1104 (j), below, if applicable; and
- (4) Permit application and plan review fees in accordance with Sec. 1104 (l), below.

1104 (g) Stormwater management concept plan and consultation meeting.

It is recommended that the land owner or developer meet with the Authority for a consultation meeting on a concept plan for the post-development stormwater management system to be utilized in the proposed land development project. This consultation meeting should take place prior to the time of submittal of the preliminary plat of subdivision or other early step in the development process. The purpose of this meeting is to discuss the post-development stormwater management measures necessary for the proposed project, as well as to discuss and assess constraints, opportunities, and potential ideas for stormwater management designs before the formal site design engineering is commenced.

The following information shall be included in the concept plan, which shall be submitted in advance of the meeting:

(1) Existing conditions/proposed site plans:

Existing conditions and proposed site layout sketch plans, which illustrate at a minimum: existing and proposed topography; perennial and intermittent streams; mapping of predominant soils from soil surveys (when available); boundaries of existing predominant vegetation and proposed limits of clearing and grading; and location of existing and proposed roads, buildings, parking areas, and other impervious surfaces.

(2) Natural resources inventory:

A written or graphic inventory of the natural resources at the site and surrounding area as it exists prior to the commencement of the project. This description should include a discussion of soil conditions, forest cover, topography, wetlands, and other native vegetative areas on the site, as well as the location and boundaries of other natural feature protection and conservation areas, such as wetlands, lakes, ponds, floodplains, stream buffers, and other setbacks (including but not limited to setbacks required by Section 2 of these Rules and Regulations, drinking water well setbacks, and septic setbacks). Particular attention should be paid to environmentally sensitive features that provide particular opportunities or constraints for development.

(3) Stormwater management system concept plan:

A written or graphic concept plan of the proposed post-development stormwater management system including: preliminary selection and location of proposed structural stormwater controls; location of proposed structural stormwater controls; location of existing and proposed conveyance systems, such as grass channels, swales, and storm drains; flow paths; location of floodplain/floodway limits; relationship of site to upstream and downstream properties and drainages; and preliminary location of proposed stream channel modifications, such as bridge or culvert crossings.

Local watershed plans, any applicable local greenspace projection plans, and any relevant resource protection plans will be consulted in the discussion of the concept plan.

1104 (h) Stormwater management plan requirements.

- (1) The stormwater management plan shall detail how post-development stormwater runoff will be controlled or managed and how the proposed project will meet the requirements of this

Section, including the performance criteria set forth in Sec. 1104 (n), below, and the performance criteria set forth in the Authority's Design and Construction Standards.

- (2) The stormwater management plan shall be in accordance with the criteria established in this Section and must be submitted with the stamp and signature of a Professional Engineer (PE) licensed in the State of Georgia, who must verify that the design of all stormwater management facilities and practices meet the submittal requirements outlined in the submittal checklist(s) found in the Authority's Design and Construction Standards.
- (3) The stormwater management plan must ensure that the requirements and criteria of this Section, including the Authority's Design and Construction Standards, are being complied with and that opportunities are being taken to minimize adverse post-development stormwater runoff impacts from the development. The stormwater management plan shall consist of maps, narrative, and supporting design calculations (hydrologic and hydraulic) for the proposed stormwater management system. The stormwater management plan shall include all of the information required in the Stormwater Management Site Plan checklist found in the Authority's Design Construction Standards, including:
 - a. Common address and legal description of site;
 - b. Vicinity map;
 - c. Existing conditions hydrologic analysis for stormwater runoff rates, volumes, and velocities, which shall include:

A topographic map of existing site conditions with the drainage basin boundaries indicated; acreage, soil types, and land cover of areas for each subbasin affected by the project; all perennial and intermittent streams and other surface water features; all existing stormwater conveyances and structural control facilities; direction of flow and exits from the site; analysis of runoff provided by off-site areas upstream of the project site; and methodologies, assumptions, site parameters, and supporting design calculations used in analyzing the existing conditions site hydrology. For redevelopment sites, predevelopment conditions shall be modeled using the established guidelines for the portion of the site undergoing land development activities.

- d. Post-development hydrologic analysis for stormwater runoff rates, volumes, and velocities, which shall include:

A topographic map of developed site conditions with the post-development drainage basin boundaries indicated; total area of post-development impervious surfaces and other land cover areas for each subbasin affected by the project; calculations for determining the runoff volumes that need to be addressed for each subbasin for the development project to meet the post-development stormwater management performance criteria in Sec. 1104 (n), below, and the performance criteria set forth in the Authority's Design and Construction Standards; location and boundaries of proposed natural feature protection and conservation areas; documentation and calculations for any applicable site design credits that are being utilized; methodologies, assumptions, site parameters, and supporting design calculations used in analyzing the existing conditions site hydrology. If the land development activity on a redevelopment site constitutes more than 50 percent of the site area for the entire site, then the performance criteria in Section 8-14, below, and the performance criteria set forth in the Authority's Design and Construction Standards must be met for the stormwater runoff from the entire site.

e. Stormwater management system.

The description, scaled drawings, and design calculations for the proposed post-development stormwater management system, which shall include: a map and/or drawing or sketch of the stormwater management facilities, including the location of nonstructural site design features and the placement of existing and proposed structural stormwater controls, including design water surface elevations, storage volumes available from zero to maximum head, location of inlet and outlets, location of bypass and discharge systems, and all orifice/restrictor sizes; a narrative describing how the selected structural stormwater controls will be appropriate and effective; cross-section and profile drawings and design details for each of the structural stormwater controls in the system, including supporting calculations to show that the facility is designed according to the applicable design criteria; a hydrologic and hydraulic analysis of the stormwater management system for all applicable design storms (including stage-storage or outlet rating curves and inflow and outflow hydrographs); documentation and supporting calculations to show that the stormwater management system adequately meets the post-development stormwater management performance criteria in Sec. 1104 (n), below, and the performance criteria set forth in the Authority's Design and Construction Standards; drawings, design calculations, elevations, and hydraulic grade lines for all existing and proposed stormwater conveyance elements, including stormwater drains, pipes, culverts, catch basins, channels, swales, and areas of overland flow; and where applicable, a narrative describing how the stormwater management system corresponds with any watershed protection plans and/or local greenspace protection plan.

f. Post-development downstream analysis.

A downstream peak flow analysis, which includes the assumptions, results, and supporting calculations to show safe passage of post-development design flows downstream. 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 channel or watercourse immediately downstream from the project. This area shall extend downstream from the project to a point in the drainage basin where the project area is 10 percent of the total basin area. In calculating runoff volumes and discharge rates, consideration may need to be given to any planned future upstream land use changes. The analysis shall be in accordance with the Authority's Design and Construction Standards and/or the Georgia Stormwater Management Manual.

g. Construction-phase erosion and sedimentation control plan.

The Construction-Phase Erosion and Sedimentation Control Plan shall be in accordance with the Georgia Erosion and Sedimentation Control Act, this Section, and any applicable NPDES Permit for Construction Activities. The plan shall also include information on the sequence/phasing of construction and temporary stabilization measures and temporary structures that will be converted into permanent stormwater controls and a description of who will be responsible for their maintenance.

h. Landscaping and open space plan.

A detailed landscaping and vegetation plan describing the woody and herbaceous vegetation that will be used within and adjacent to stormwater management facilities and

practices. The landscaping plan must also include: the arrangement of planted areas, natural and greenspace areas, and other landscaped features on the site plan; information necessary to construct the landscaping elements shown on the plan drawings; descriptions and standards for the methods, materials, and vegetation that are to be used in the construction; density of plantings; descriptions of the stabilization and management techniques used to establish vegetation; and a description of who will be responsible for ongoing maintenance of vegetation for the stormwater management facility and what practices will be employed to ensure that adequate vegetative cover is preserved.

i. Operations and maintenance plan.

Detailed description of ongoing operations and maintenance procedures for stormwater management facilities and practices to ensure their continued function as designed and constructed or preserved. These plans will identify the parts or components of a stormwater management facility or practice that need to be regularly or periodically inspected and maintained and the equipment and skills or training necessary. The plan shall include an inspection and maintenance schedule, maintenance tasks, responsible parties for maintenance, funding, access, and safety issues. Provisions for the periodic review and evaluation of the effectiveness of the maintenance program and the need for revisions or additional maintenance procedures shall be included in the plan.

j. Blanket easement for access and inspection.

1. The Authority shall have a blanket easement upon, over, and across the subject property for access, ingress, egress, inspection, and investigation of private stormwater management facilities, structures, and practices covered by this Section or otherwise required by federal, state, or local law, ordinance, or regulation. The Authority shall have the power to conduct such inspections and investigations as it may deem reasonably necessary to regulate and enforce the private maintenance and repair responsibilities for said private stormwater management facilities, structures, and practices. The Authority shall have the right to enter at reasonable times upon the subject private property for purposes of inspection, investigation, and all other activities or actions reasonably related to the enforcement the requirements of this Section.
2. No person shall refuse entry or access to any authorized representative or agent of the Authority or the appropriate governmental entity who requests entry for the purposes of inspection and/or investigation, 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.

k. Evidence of acquisition of applicable local and non-local permits.

The applicant shall certify and provide documentation to the Authority that all other applicable environmental permits have been acquired for the site prior to approval of the stormwater management plan.

1104 (i) Final survey plat notation regarding ownership and maintenance of stormwater management structures.

- (1) Upon completion of construction and as a specific condition of project acceptance, a copy of the proposed final subdivision plat (where applicable), or 5 copies of a plat of survey in legally recordable form (for non-subdivision projects), must be submitted to the Authority for review and approval, indicating all stormwater structures and features. The final survey plat must be approved by the Authority, as evidenced by the placement of the following notation on the final plat, which shall be signed by the Executive Director of the Authority or his designee:

"Approval of this plat and acceptance of the project represented herein shall be deemed to be an acceptance by the Douglasville-Douglas County Water and Sewer Authority (the "Authority") of all dedicated water mains, sanitary sewer mains, and lift stations that serve more than one property owner, as well as all stormwater collection and conveyance structures located in the public right-of-way, including inlets, catch basins, pipes, ditches, and channels. Approval of this plat and acceptance of the project represented herein shall not be deemed an acceptance, either express or implied, of any stormwater facilities, structures, or features located outside the public right-of-way on private property. All stormwater facilities, structures, and features located on private property shall be owned and maintained by the property owner(s), in accordance with the requirements of the Authority's Rules and Regulations. The Authority shall not be responsible or liable for any drainage outside of the right-of-way; for any drainage leading from drop inlets, catch basins, or surface drainage; for flooding or erosion from storm drains; or from flooding from high water of natural creeks or rivers. This statement is included on this final plat as a condition of acceptance and shall be in the nature of a covenant running with the land, serving as notice to all future owners of the existence of the drainage easements and stormwater features as shown on the plat and the private duty to maintain them in perpetuity. As a condition of approval of this plat and acceptance of this project by the Authority, the developer and owner hereby covenant that any future deed conveying all or any portion of the property or lots shown herein shall specifically refer to this plat and incorporate this plat by reference."

- (2) Said final subdivision plat or final plat of survey of the project shall be recorded in the Records of the Clerk of the Superior Court of Douglas County, Georgia and proof of recording provided to the Authority within 10 days of the Authority's acceptance of the project of the appropriate governmental entity's approval of the final subdivision plat, whichever is later. For new development, no water meters shall be sold for the property unless and until proof of the properly recorded plat required by this Section is provided to the Authority. For redevelopment, failure to record the final plat or to timely provide proof of such recording to the Authority shall result in termination of water service to the property. Notwithstanding the specific remedies set forth in this Section, the Authority shall have the right to proceed with such other remedies as may be available under the law to enforce the requirements of this Section.

1104 (j) Stormwater management performance and maintenance bonds.

The Authority shall have the right to require the posting of performance and maintenance bonds to ensure the proper construction and ongoing maintenance of stormwater management facilities by private owners, which bonds may be called or forfeited upon any failure to comply with the requirements of this Section.

1104 (k) Stormwater management application procedure.

- (1) Applications for land development permits shall be filed with the Authority.

- (2) Permit applications shall include the items set forth in Sec. 1104 (f), above. Two copies of the stormwater management plan shall also be included.
- (3) The Authority shall inform the applicant whether the application and stormwater management plan are approved or disapproved.
- (4) If either the permit application or stormwater management plan is disapproved, the Authority shall notify the applicant of such fact in writing. The applicant may then revise any item not meeting the requirements hereof and resubmit the same, in which event subparagraph 3 above and this subparagraph shall apply to such resubmittal.
- (5) Upon a finding by the Authority that the permit application and stormwater management plan meet the requirements of this Section, the appropriate governmental entity may issue and the Authority may release a permit for the land development project, provided all other legal requirements for the issuance of such permit have been met.
- (6) Notwithstanding the issuance of the permit, in conducting the land development project, the applicant or other responsible person shall be subject to the following requirements:
 - a. The applicant shall comply with all applicable requirements of the approved plan and this Section and shall certify that all land clearing, construction, land development, and drainage will be done according to the approved plan;
 - b. The land development project shall be conducted only within the area specified in the approved plan;
 - c. The Authority shall have the right to conduct periodic inspections of the project;
 - d. No changes may be made to an approved plan without review and written approval by the Authority; and
 - e. Upon completion of the project, the applicant or other responsible person shall submit the engineer's report and certificate and as-built plans required by 1104 (o)(3).

1104 (l) Stormwater management application review fees.

The fee for review of any stormwater management application shall be based on the fee structure established by the Authority and shall be paid prior to the issuance of any building permit for the development by the appropriate governmental entity.

1104 (m) Modifications for off-site stormwater management facilities.

- (1) The stormwater management plan for each land development project shall provide for stormwater management measures located on the site of the project, unless provisions are made to manage stormwater by an off-site or regional facility. The off-site or regional facility must be located on property legally dedicated for the purpose, must be designed and adequately sized to provide a level of stormwater quantity and quality control that is equal to or greater than that which would be afforded by on-site practices, and there must be a legally-obligated entity responsible for long-term operation and maintenance of the off-site or regional stormwater facility. In addition, on-site measures shall be implemented, where necessary, to protect upstream and downstream properties and drainage channels from the site to the off-site facility.

- (2) A stormwater management plan must be submitted to the Authority that shows the adequacy of the off-site or regional facility.
- (3) To be eligible for a modification, the applicant must demonstrate to the satisfaction of the Authority that the use of an off-site or regional facility will not result in the following impacts to upstream or downstream areas:
 - a. Increased threat of flood damage to public health, life, and property;
 - b. Deterioration of existing culverts, bridges, dams, and other structures;
 - c. Accelerated stream bank or streambed erosion or siltation;
 - d. Degradation of in-stream biological functions or habitat; or
 - e. Water quality impairment in violation of State water quality standards, and/or violation of any State or Federal regulations.

1104 (n) Post-development stormwater management performance criteria.

The following performance criteria shall be applicable to all stormwater management plans, unless otherwise provided for in this Section:

- (1) Water quality.

All stormwater runoff generated from a site shall be adequately treated before discharge. It will be presumed that a stormwater management system complies with this requirement if:

 - a. It is sized to treat the prescribed water quality treatment volume from the site, as defined in the Georgia Stormwater Management Manual;
 - b. Appropriate structural stormwater controls or nonstructural practices are selected, designed, constructed or preserved, and maintained according to the specific criteria in the Georgia Stormwater Management Manual; and,
 - c. Runoff from hotspot land uses and activities identified by the Authority are adequately treated and addressed through the use of appropriate structural stormwater controls, nonstructural practices, and pollution prevention practices.
- (2) Stream channel protection.

Protection of stream channels from bank and bed erosion and degradation shall be provided by using all of the following three approaches:

 - a. Preservation, restoration, and/or reforestation (with native vegetation) of the applicable stream buffer;
 - b. 24-hour extended detention storage of the 1-year, 24-hour return frequency storm event;
 - c. Erosion prevention measures, such as energy dissipation and velocity control.
- (3) Overbank flooding protection.

Downstream overbank flood and property protection shall be provided by controlling (attenuating) the post-development peak discharge rate to the pre-development rate for the 25-year, 24-hour return frequency storm event. If control of the 1-year, 24-hour storm under

Paragraph B, above, is exempted, then peak discharge rate attenuation of the 2-year through the 25-year return frequency storm event must be provided.

(4) Extreme flooding protection.

Extreme flood and public safety protection shall be provided by controlling and safely conveying the 100-year, 24-hour return frequency storm event such that flooding is not exacerbated.

(5) Structural stormwater controls.

All structural stormwater management facilities shall be selected and designed using the appropriate criteria from the Georgia Stormwater Management Manual. All structural stormwater controls must be designed appropriately to meet their intended function. For other structural stormwater controls not included in the Georgia Stormwater Management Manual, or for which pollutant removal rates have not been provided, the effectiveness and pollutant removal of the structural control must be documented through prior studies, literature reviews, or other means and receive approval from the Authority before being included in the design of a stormwater management system. In addition, if hydrologic or topographic conditions, or land use activities warrant greater control than that provided by the minimum control requirements, the Authority may impose additional requirements deemed necessary to protect upstream and downstream properties and aquatic resources from damage due to increased volume, frequency, and rate of stormwater runoff or increased nonpoint source pollution loads created on the site in question.

Applicants shall consult the Georgia Stormwater Management Manual for guidance on the factors that determine site design feasibility when selecting and locating a structural stormwater control.

(6) Stormwater credits for nonstructural measures.

The use of one or more site design measures by the applicant may allow for a reduction in the water quality treatment volume required under Sec. 1104 (n)(1), above. If approved by the Authority, the applicant may take credit for the use of stormwater better site design practices and reduce the water quality volume requirement. For each potential credit, there is a minimum set of criteria and requirements that identify the conditions or circumstances under which the credit may be applied. The site design practices that qualify for this credit and the criteria and procedures for applying and calculating the credits are included in the Georgia Stormwater Management Manual.

(7) Drainage system guidelines.

Stormwater conveyance facilities, which may include, but are not limited to, culverts, stormwater drainage pipes, catch basins, drop inlets, junctions boxes, headwalls, gutter, swales, channels, ditches, and energy dissipaters shall be provided when necessary for the protection of public right-of-way and private properties adjoining project sites and/or public right-of-ways. Stormwater conveyance facilities that are designed to carry runoff from more than one parcel, existing or proposed, shall meet the following requirements:

- a. Methods to calculate stormwater flows shall be in accordance with the Georgia Stormwater Management Manual and the Authority's Design and Construction Standards;

- b. All culverts, pipe systems, and open channel flow systems shall be sized in accordance with the stormwater management plan using the methods included in the Georgia Stormwater Management Manual and the Authority's Design and Construction Standards; and,
 - c. Design and construction of stormwater conveyance facilities shall be in accordance with the criteria and specifications found in the Georgia Stormwater Management Manual and the Authority's Design and Construction Standards.
- (8) Dam design guidelines.

Any land disturbing activity that involves a site that proposes a dam shall comply with the Georgia Safe Dams Act and Rules for Dam Safety, as applicable.

1104 (o) Construction inspections of post-development stormwater management system.

- (1) Inspections to ensure plan compliance during construction.
 - a. Periodic inspections of the stormwater management system construction shall be conducted by the staff of the Authority or conducted and certified by a professional engineer who has been approved by the Authority. Construction inspections shall utilize the approved stormwater management plan for establishing compliance.
 - b. All inspections shall be documented with written reports that contain the following information:
 - 1. The date and location of the inspection;
 - 2. Whether construction is in compliance with the approved stormwater management plan;
 - 3. Variations from the approved construction specifications; and,
 - 4. Any other variations or violations of the conditions of the approved stormwater management plan.
- (2) If any violations are found, the applicant shall be notified in writing of the nature of the violation and the required corrective actions.
- (3) Final inspection and as-built plans.

Upon completion of a project, and before a certificate of occupancy shall be granted, the applicant is responsible for certifying that the completed project is in accordance with the approved stormwater management plan. All applicants are required to submit actual "as-built" plans for any stormwater management facilities or practices after final construction is completed. The plan must show the final design specifications for all stormwater management facilities and practices and must be certified by a Professional Engineer. A final inspection by the Authority is required before the release of any performance securities can occur.

1104 (p) Long-term maintenance inspection of stormwater facilities and practices.

- (1) Stormwater management facilities and practices included in a stormwater management plan must undergo ongoing inspections to document maintenance and repair needs and ensure compliance with the requirements of the plan and this Section.
- (2) A stormwater management facility or practice shall be inspected on a periodic basis by the responsible person. In the event that the stormwater management facility has not been

maintained and/or becomes a danger to public safety or public health, the Authority shall notify the person responsible for carrying out the maintenance plan by registered or certified mail to the person specified in the inspection and maintenance agreement. The notice shall specify the measures needed to comply with the plan and shall specify the time within which such measures shall be completed. If the responsible person fails or refuses to meet the requirements of the plan and the ongoing inspection and maintenance requirements set forth in this Section, the Authority may correct the violation as provided in Sec. 1104 (s), below.

- (3) Inspection programs by the Authority may be established on any reasonable basis, including, but not limited to: routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include, but are not limited to: reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in stormwater management facilities; and evaluating the condition of stormwater management facilities and practices.

1104 (q) Right-of-entry for inspection.

Pursuant to Sec. 1104 (h)(3)j, above, the Authority shall have the right to enter the property at reasonable times and in a reasonable manner for the purpose of inspection. This includes the right to enter a property when the Authority has a reasonable basis to believe that a violation of this Section is occurring or has occurred and to enter when necessary for abatement of a public nuisance or correction of a violation of this Section.

1104 (r) Records of maintenance activities.

Parties responsible for the operation and maintenance of a stormwater management facility shall provide records of all maintenance and repairs to the Authority upon request.

1104 (s) Failure to maintain stormwater management facilities.

If a responsible person fails or refuses to meet the maintenance requirements of the plan or this Section, the Authority, after 30 days written notice (except, that in the event the violation constitutes an immediate danger to public health or public safety, 24 hours notice shall be sufficient), may correct a violation of the design standards or maintenance requirements by performing the necessary work to place the facility or practice in proper working condition. The Authority may assess the owner(s) of the facility for the cost of repair work which shall be a lien on the property, and may be added to the water bill of the served property and/or all properties draining to the stormwater management structure on a pro-rata basis, and/or placed on the ad valorem tax bill for each such property and collected in the ordinary manner for such taxes.

1104 (t) Stormwater management; violations, enforcement, and penalties.

Any action or inaction which violates the provisions of this Section or the requirements of an approved stormwater management plan or permit may be subject to the enforcement actions outlined in this Section. Any such action or inaction that is continuous with respect to time is deemed to be a public nuisance and may be abated by injunctive or other equitable relief. The imposition of any of the penalties described below shall not prevent such equitable relief.

- (1) Notice of violation.

If the Authority determines that an applicant or other responsible person has failed to comply with the terms and conditions of a permit, an approved stormwater management plan, or the provisions of this Section, the Authority shall issue a written notice of violation to such applicant or other responsible person. Where a person is engaged in activity covered by this Section without having first secured a permit therefore, the notice of violation shall be served on the owner or the responsible person in charge of the activity being conducted on the site.

The notice of violation shall contain:

- a. The name and address of the owner or the applicant or the responsible person;
- b. The address or other description of the site upon which the violation is occurring;
- c. A statement specifying the nature of the violation;
- d. A description of the remedial measures necessary to bring the action or inaction into compliance with the permit, the stormwater management plan, or this Section and the date for the completion of such remedial action;
- e. A statement of the penalty or penalties that may be assessed against the person to whom the notice of violation is directed; and,
- f. A statement that the determination of violation may be appealed to the Authority by filing a written notice of appeal within thirty (30) days after the notice of violation (except, that in the event the violation constitutes an immediate danger to public health or public safety, 24 hours notice shall be sufficient).

(2) Penalties.

In the event the remedial measures described in the notice of violation have not been completed by the date set forth for such completion in the notice of violation, any one or more of the following actions or penalties may be taken or assessed against the person to whom the notice of violation was directed. Before taking any of the following actions or imposing any of the following penalties, the Authority shall first notify the applicant or other responsible person in writing of its intended action, and shall provide a reasonable opportunity, of not less than ten days (except, that in the event the violation constitutes an immediate danger to public health or public safety, 24 hours notice shall be sufficient) to cure such violation. In the event the applicant or other responsible person fails to cure such violation after such notice and cure period, the Authority may take any one or more of the following actions or impose any one or more of the following penalties.

a. Stop work order.

The Authority may issue a stop work order that shall be served on the applicant or other responsible person. The stop work order shall remain in effect until the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violation or violations described therein, provided the stop work order may be withdrawn or modified to enable the applicant or other responsible person to take the necessary remedial measures to cure such violation or violations.

b. Termination of water service and/or request to withhold certificate of occupancy.

The Authority may terminate water service and/or request that the City refuse to issue a certificate of occupancy for the building or other improvements constructed or being

constructed on the site until the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein.

c. Suspension, revocation, or modification of permit.

The Authority may suspend, revoke, or modify the permit authorizing the land development project. A suspended, revoked, or modified permit may be reinstated after the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein, provided such permit may be reinstated [upon such conditions as the Authority may deem necessary] to enable the applicant or other responsible person to take the necessary remedial measures to cure such violations.

d. Civil penalties.

In the event the applicant or other responsible person fails to take the remedial measures set forth in the notice of violation or otherwise fails to cure the violations described therein within ten days, or such greater period as the Authority shall deem appropriate (except, that in the event the violation constitutes an immediate danger to public health or public safety, 24 hours notice shall be sufficient) after the Authority has taken one or more of the actions described above, the Authority may impose a penalty not to exceed \$1,000 (depending upon the severity of the violation) for each day the violation remains unremedied after receipt of the notice of violation.

e. Criminal penalties.

For intentional and flagrant violations of this Section, the Authority may issue a citation to the applicant or other responsible person, requiring such person to appear in the Magistrate Court of Douglas County, or any other court of competent jurisdiction to answer charges for such violation. Upon conviction, such person shall be punished by a fine not to exceed \$1,000 or imprisonment for 60 days or both. Each act of violation and each day upon which any violation shall occur shall constitute a separate offense.

Sec. 1105 - Floodplain management regulations.

Article IX, Section II of the Constitution of the State of Georgia and Section 36-1-20 (a) of the Official Code of Georgia Annotated have delegated the responsibility to local governmental units to adopt regulations designed to promote the public health, safety and general welfare of its citizenry. There, Douglas County, Georgia, does ordain this ordinance and establishes this set of floodplain management and flood hazard reduction policies for the purpose of regulating the use of flood hazard areas. It is determined that the regulation of flood hazard areas and the prevention of flood damage are in the public interest and will minimize threats to public health and safety, as well as to private and public property.

1105 (a) Floodplain management regulations; purpose and policy.

The purpose of the floodplain management regulations set forth in this Section is to protect, maintain, and enhance the public health, safety, environment, and general welfare and to minimize public and private losses due to flood conditions in flood hazard areas, as well as to protect the beneficial uses of

floodplain areas for water quality protection, stream bank and stream corridor protection, wetlands preservation, and ecological and environmental protection by provisions designed to:

- (1) Require that uses vulnerable to floods, including facilities that serve such uses, be protected against flood damage at the time of initial construction;
- (2) Restrict or prohibit uses which are dangerous to health, safety, and property due to flooding or erosion hazards, or which increase flood heights, velocities, or erosion;
- (3) Control filling, grading, dredging, and other development that may increase flood damage or erosion;
- (4) Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands;
- (5) Limit the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; and,
- (6) Protect the stormwater management, water quality, stream bank protection, stream corridor protection, wetland preservation, and ecological functions of natural floodplain areas.

1105 (b) Definitions related to floodplain management.

The following definitions shall apply to Section 9 of these Rules and Regulations:

Addition (to an existing building): Any walled or roofed expansion to the perimeter of a building in which the addition is connected by a common load-bearing wall other than a firewall. Any walled and roofed addition that is connected by a firewall or is separated by an independent perimeter load-bearing wall shall be considered New Construction.

Adjacent to the Floodplain: All land within a development that would flood if the one hundred-year (100-year) flood elevation increase by ten (10) feet.

Appeal: A request for a review of the Authority's Engineering Department's interpretation of any provision of this ordinance.

Area of Shallow Flooding: A designated AO or AH Zone on the applicable local Flood Insurance Rate Map (FIRM) with base flood depths from one to three feet, and/or where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may be evident.

Area of Special Flood Hazard: The land in the floodplain subject to a one percent or greater chance of flooding in any given year. In the absence of official designation by the Federal Emergency Management Agency, Areas of Special Flood Hazard shall be those designated by the local community and referenced in Section 1105(e). This includes all floodplain and flood prone areas at or below the base flood elevation (including A, A1-30, A-99, AE, AO, AH and AR on the FHBM or the FIRM) and all floodplain and flood prone areas at or below the future-conditions flood elevation. All streams with a drainage area of one hundred (100) acres or greater shall have the area of Special Flood Hazard delineated.

Authority: The Douglasville-Douglas County Water and Sewer Authority and/or its authorized agents or representatives.

Base Flood: The flood having a 1% or greater chance of being equaled or exceeded in any given year (i.e., the "100-year flood").

Base Flood Elevation: The highest water surface elevation anticipated at any given point during the base flood.

Basement: That portion of a building having its floor subgrade (below ground level) on at least one side.

Building: See "Structure."

County: Unincorporated Douglas County, Georgia and/or its governing authority or authorized agents or representatives.

Development: Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, clearing, grubbing, grading, paving, any other installation of impervious cover, excavation or drilling operations or storage of equipment or materials.

Elevated Building: A non-basement building built to have the lowest floor of the lowest enclosed area elevated above the ground level by means of fill, solid foundation perimeter walls, pilings, columns, piers, or shear walls adequately anchored so as not to impair the structural integrity of the building during a base flood event.

Existing Construction: Any structure for which the "start of construction" commenced before February 3, 1987 for structures within unincorporated Douglas County.

Existing Manufactured Home Park or Subdivision: A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum the installation of utilities, the construction of streets, and final site grading or the pouring of concrete pads) is completed before January 1, 1980, for structures within unincorporated Douglas County.

Expansion to an Existing Manufactured Home Park or Subdivision: The preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed, including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads.

Fair Market Value: The pre-flood market value as determined by an independent property appraisal by a licensed/certified appraiser or the recorded property value assessed by the Douglas County Tax Assessor.

FEMA: The Federal Emergency Management Agency.

Flood or Flooding: A general and temporary condition of partial or complete inundation of normally dry land areas from:

- (1) The overflow of inland or tidal waters; or
- (2) The unusual and rapid accumulation or runoff of surface waters from any source.

Flood Hazard Boundary Map (FHBM): An official map of a community, issued by the Federal Insurance Administration, where the boundaries of area of special flood hazard have been defined as Zone A.

Flood Insurance Rate Map (FIRM): An official map of a community, issued by the Federal Insurance Administration, delineating the areas of special flood hazard and/or risk premium zones applicable to the community.

Flood Insurance Study (FIS): The official report by the Federal Insurance Administration evaluating flood hazards and containing flood profiles and water surface elevations of the base flood.

Floodplain: Any land area susceptible to flooding.

Floodway or Regulatory Floodway: The channel of a stream or other watercourse and the adjacent areas of the floodplain which is necessary to contain and discharge the base flood flow without cumulatively increasing the base flood elevation more than one foot.

Floodproofing: Any combination of structural and non-structural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

Functionally Dependent Use: A use that cannot perform its intended purpose unless it is located or carried out in close proximity to water.

Future-Conditions Flood: The flood having a one percent (1%) chance of being equaled or exceeded in any given year based on future-conditions hydrology. Also known as the 100 year Future-Conditions Flood.

Future-Conditions Floodplain: Any land area susceptible to flooding by the future-conditions flood.

Future-Conditions Flood Elevation: The flood standard equal to or higher than the Base Flood Elevation. The Future-Conditions Flood Elevation is defined as the highest water surface at any given point during the Future-Conditions Flood.

Future-Conditions Hydrology: The flood discharge associated with projected land-use conditions based on zoning maps and future land use maps without consideration of projected future construction of flood detention structures or projected future hydraulic modifications within a stream or waterway, such as a bridge and culvert construction, fill and excavation.

Highest Adjacent Grade: The highest natural elevation of the ground surface, prior to construction, adjacent to the proposed foundation of a building.

Historic Structure: Any structure that is:

- (1) Listed individually in the National Register of Historic Places (a listing maintained by the U.S. Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
 - (2) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
 - (3) Individually listed on a state inventory of historic places and determined as eligible by states with historic preservation programs which have been approved by the Secretary of the Interior;
- or

- (4) Individually listed on a local inventory of historic places and determined as eligible by communities with historic preservation programs that have been certified either:
 - a. By an approved state program as determined by the Secretary of the Interior, or
 - b. Directly by the Secretary of the Interior in states without approved programs.

Land Development Activities: Those actions or activities that comprise, facilitate or result in developments.

Land Development Project: A discrete land development undertaking.

Lowest Floor: The lowest floor of the lowest enclosed area, including basement. An unfinished or flood resistant enclosure, used solely for parking of vehicles, building access, or storage, in an area other than a basement, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of other provisions of this code.

Manufactured Home: A building, transportable in one or more sections, built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. The term includes any structure commonly referred to as a "mobile home" regardless of the date of the manufacture. The term also includes parked trailers, travel trailers and similar transportable structures placed on a site for 180 consecutive date or longer and intended to be improved property.

May: A regulation or requirement that is permissive.

Mean Sea Level: The average height of the sea for all stages of the tide. It is used as a reference for establishing various elevations within the floodplain. For purposes of this Code, the term is synonymous with National Geodetic Vertical Datum (NGVD) of 1988.

National Geodetic Vertical Datum (NGVD): As corrected in 1929, is a vertical control used as a reference for establishing varying elevations within the floodplain.

New Construction: Means any "structure" for which the "start of construction" commenced after February 3, 1987, for structures within unincorporated Douglas County and includes any subsequent improvements to the structure.

New Manufactured Home Park or Subdivision: A manufactured home park or subdivision means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after January 1, 1980, for structures within unincorporated Douglas County.

North American Vertical Datum (DAVD) of 1988: A vertical control used as a reference for establishing varying elevations within the floodplain.

Ordinance: Refers to this Ordinance, means Article 11 of the Unified Development Code regarding Floodplain Management and any applicable provisions set forth in the Authority's Design and Construction Standards.

Owner: The legal or beneficial owner of a site, including but not limited to a mortgagee or vendee in possession, receiver, executor, trustee, lessee or other person, firm or corporation in control of the site.

Permit: The land development permit issued by the County and released by the Authority to the applicant, which is required for undertaking any land development activity.

Recreational Vehicle: A vehicle that is:

- (1) Built on a single chassis;
- (2) Four hundred (400) square feet or less when measured at the largest horizontal projection;
- (3) Designed to be self-propelled or permanently towable by light duty truck and,
- (4) Designed primarily not for use as a permanent dwelling but as a temporary living quarters for recreational, camping, travel or seasonal use.

Regulatory Floodplain: The future-conditions one hundred-year (100-year) floodplain where available. Where the future-conditions base floodplain has not been determined, the regulatory floodplain means the existing one hundred-year (100-year) base floodplain.

Repetitive Loss: Flood-related damages sustained by a structure on two separate occasions during a ten-year (10-year) period for which the cost of repairs at the time of each such flood event, on the average equals or exceeds twenty-five percent (25%) of the market value of the structure before the damages occurred.

Section: When referring to this Section, includes all provisions set forth in Chapter 9 of the Authority's Rules and Regulations and all applicable provisions of the Authority's Design and Construction Standards adopted in conjunction herewith.

Shall: The regulation or requirement is mandatory.

Site: The parcel of land being developed or the portion thereof on which the land development project is located.

Start of Construction: The date the permit was issued, provided the actual start of construction, repair, reconstruction or improvement was within one hundred eighty (180) days of the permit date. The actual start means the first placement of permanent construction of the structure, such as pouring of slabs or footing, installation of pipes, construction of columns, or any work beyond the stage of excavation, and includes the placement of a manufactured home on a foundation. Permanent construction does not include initial land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footing, piers or foundations or the erection of temporary forms; nor does it include the installation on the property of buildings appurtenant to the permitted structures, such as garages or shed not occupied as dwelling units or part of the main structure. (Note: Accessory structures are not exempt from any requirement of this Section.) For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

Structure: A walled and roofed building that is principally above ground, a manufactured home, or a gas or liquid storage tank.

Subdivision: The division of a tract or parcel of land resulting in one or more new lots or building sites for the purpose, whether immediately or in the future, of sale, other transfer of ownership, or land

development, and includes division of land resulting from or made in connection with the layout of development of a new street or roadway or a change in an existing street or roadway.

Substantial Damage: Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed fifty (50) percent of the market value of the structure before the damage occurred. Damage could be from a single event or cumulative damage for a period not to exceed ten (10) years.

Substantial Improvement: Any combination of repairs, reconstruction, alteration, or improvements to a building, taking place during a ten-year (10-year) period, in which the cumulative cost equals or exceeds fifty (50) percent of the market value of the structure prior to the improvement. The market value of the building means (1) the appraised value of the structure prior to the start of the initial repair or improvement, or (2) in the case of damage, the value of the structure prior to the damage occurring. This term includes structures that have incurred "substantial damage" regardless of the actual amount of repair work performed. For the purposes of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the building. The term does not, however, include those improvements of a building required to comply with existing health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions, which have been pre-identified by the Authority or any County Code Enforcement official, and not solely triggered by an improvement or repair project.

Substantially Improved Existing Manufactured Home Park or Subdivision: is where the repair, reconstruction, rehabilitation, or improvement of the streets, utilities, and pads equals or exceeds 50% of the value of the streets, utilities, and pads before the repair, reconstruction, or improvement commenced.

Variance: A grant of relief from the requirements of this Article, which permits construction in a manner otherwise prohibited by this Article.

Variance Board: The Appeal Panel designated by the Authority, which shall include the Executive Director, the Chief Financial Officer of the Authority and Authority Counsel, or their designees, which shall hear and decide appeals and requests for variances from the requirements of this Article.

Violation: The failure of a structure or other development to be fully compliant with the floodplain management regulations. A structure or other development without a required elevation certificate, other certificates, or other evidence of compliance required in this Section 1105, is presumed to be a violation until such time as that documentation is provided.

1105 (c) Floodplain management regulations; applicability.

This Section shall be applicable to all Areas of Special Flood Hazard within Douglas County, i.e. floodplain and flood prone areas as defined herein at or below the base flood elevation or the regulatory flood elevation (including A, AO, AH, AE, A1-30, or A-99 on the FIRM), and all new or substantial improvement residential units, all subdivisions, non-residential structures, manufactured home, recreational vehicles, and utilities located within these areas. In addition, all streams within a drainage area of 100 acres or more have an area of special flood hazard.

1105 (d) Designation of administrator.

The Authority's Engineering Department is hereby appointed to administer, implement and enforce the provision of this Section.

1105 (e) Basis for area of special flood hazard; flood area maps and studies.

For the purposes of this Section, the following are adopted by reference:

- (1) The Flood Insurance Study (FIS) for Douglas County, Georgia, dated August 18, 2009, as amended, with accompanying maps and other supporting data and any revision thereto. For those land areas acquired through annexation, the current effective FIS and data for unincorporated Douglas County are hereby adopted by reference.
- (2) Other studies which may be relied upon for the establishment of the base flood elevation of delineation of the one hundred-year (100-year) floodplain include:
 - a. Any flood or flood-related study conducted by the United States Corps of Engineers or the United States Geological Survey applicable to Douglas County, Georgia; or
 - b. Any base flood study authored by a registered professional engineer in the State of Georgia that has been approved by the Authority and Douglas County, Georgia, as applicable.
- (3) Other studies that may be relied upon for the establishment of the regulatory flood elevation or delineation of the regulatory floodplain include:
 - a. Any flood or flood-related study conducted by the United States Corps of Engineers or the United States Geological Survey applicable to Douglas County, Georgia; or
 - b. Any future-conditions flood study using FEMA approved methods authored by a registered professional engineer in the State of Georgia that has been approved by the Authority and Douglas County, Georgia, as applicable.
- (4) The repository for public inspection of the flood studies, accompanying maps and other supporting data is located in the Development Control Department of Douglas County.

1105 (f) Compatibility with other regulations.

The regulations set forth in this Section are not intended to modify or repeal any other ordinance, rule, regulation, resolution, statute, easement, covenant, deed restriction, or other provision of law. The requirements of this Section are in addition to the requirements of any other ordinance, rule, regulation, resolution, or other provision of law, and where any provision of this Section imposes restrictions different from those imposed by any other ordinance, rule, regulation, resolution, or other provision of law, whichever provision is more restrictive or imposes higher protective standards for human health or the environment shall control.

1105 (g) Severability.

If the provisions of any section, subsection, paragraph, subdivision or clause of this ordinance shall be adjudged invalid by a court of competent jurisdiction, such judgment shall not affect or invalidate the remainder of any section, subsection, paragraph subdivision or clause of this ordinance.

1105 (h) Warning and disclaimer of liability.

The degree of flood protection required by this Section is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur, and flood

heights may be increased by manmade or natural causes. This Section does not imply that land outside the Areas of Special Flood Hazard or uses permitted within such areas will be free from flooding or flood damages. This Section shall not create any liability on the part of the Authority or any officer or employee thereof for any flood damages that result from reliance on this Section or any administrative decision lawfully made hereunder.

1105 (i) Permit application requirements.

- (1) No owner or developer shall perform any land development activities on a site where an area of special flood hazard is located, without first meeting the requirements of this Section prior to commencing the proposed activity.
- (2) Unless specifically excluded by this Section, any owner or developer desiring a permit for a land development activity shall submit a permit application to the Authority on a form provided by the Authority for that purpose.
- (3) No permit will be approved for any land development activities that do not meet the requirements, restrictions, and criteria of this Section.

1105 (j) Floodplain management plan requirements.

- (1) No application for a development project within any area of special flood hazard established in Section 1105(e) will be approved unless it includes a floodplain management/flood damage prevention plan. This plan shall be in accordance with the criteria established in this Section.
- (2) The floodplain management/flood damage prevention plan must be submitted with the stamp and signature of a Professional Engineer (PE) licensed in the state of Georgia, who will verify that all designs are consistent with the requirements of this Section.
- (3) The approved floodplain management/flood damage prevention plan shall contain certification by the applicant that all land development activities will be done according to the plan or previously approved revisions. Any and all land development permits and/or use and occupancy certificates or permits may be revoked and water service may be terminated by the Authority at any time if the construction and building activities are not in strict accordance with approved plans.
- (4) The floodplain management/flood damage prevention plan shall include, but not be limited to, the following: plans drawn to scale of the site in question and the nature, location, and dimensions of existing or proposed structures, earthen fill placement, storage of materials or equipment, and drainage and stormwater management facilities. Specifically, the following information is required:
 - a. Site plan, including but not limited to:
 1. For all proposed structures in the base floodplain or future-conditions floodplain, spot ground elevations at building corners and twenty-foot (20-foot) or smaller intervals along the foundation footprint, or one foot contour elevations throughout the building site;
 2. Proposed placement of earthen fill, amount and location of excavations, and storage of materials and equipment;
 3. Proposed locations of water supply, sanitary sewer and utilities;

4. Proposed locations of drainage and stormwater management facilities;
 5. Proposed grading plan;
 6. Base flood elevations or future-conditions flood elevations;
 7. Boundaries of the base flood floodplain or future-conditions flood floodplain;
 8. If applicable, the location of the floodway; and,
 9. Certification of the above by a registered professional engineer or surveyor.
- b. Building and foundation design detail, including but not limited to:
1. Elevation in relation to mean sea level (or highest adjacent grade) of the lowest floor, including basement, of all proposed structures;
 2. Elevation in relation to mean sea level to which any non-residential structure will be floodproofed;
 3. Certification that any proposed non-residential floodproofed structure meets the criteria in Section 1105(s)(2);
 4. For enclosures below the base flood elevation, location and total net area of foundation openings as required in Article 11, Section 1105(s)(6) of the Unified Development Code; and,
 5. Design plans certified by a registered professional engineer or architect for all proposed structures.
- c. Description of the extent to which any watercourse will be altered or relocated as a result of the proposed land development project;
- d. All appropriate certifications required under this Section;
- e. Hard copies and digital files of computer models, if any, copies of work maps, comparison of pre- and post-development condition base flood elevations, future-conditions flood elevations, flood protection elevations, areas of special flood hazard and regulatory floodway widths, flood profiles and all other computations and other relevant information; and
- f. Copies of all applicable State and Federal permits necessary for the proposed development.

1105 (k) Construction stage submittal requirements.

- (1) For all new construction and substantial improvements on sites with a floodplain management/flood damage prevention plan, the permit holder shall provide the County Floodplain Administrator a certified as-built Elevation Certificate or Floodproofing Certificate for non-residential construction, including the lowest floor elevation or flood-proofing level, immediately after the lowest floor or flood-proofing is completed. A Final Elevation Certificate shall be provided after completion of construction, including final grading of the site. Any lowest floor certification made relative to mean sea level shall be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by same. When flood-proofing is utilized for non-residential structures, said certification shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same.

- (2) Any work undertaken prior to approval of these certifications shall be at the permit holder's risk. The County Floodplain Administrator shall review the above-referenced certification data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to further work being allowed to proceed. Failure to submit certificates or failure to make the corrections required hereby shall be cause to issue a stop-work order for the project and/or withhold the Certificate of Occupancy.

1105 (l) Duties and responsibilities of the authority.

Duties of the Authority shall include, but shall not be limited to:

- (1) Review of all land development applications and permits to assure that the requirements of this Section have been satisfied and to determine whether proposed building sites will be reasonably safe from flooding;
- (2) Require that copies of all necessary permits from governmental agencies from which approval is required by federal or state law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. § 1334, be provided and maintained on file;
- (3) When Base Flood Elevation data or floodway data have not been provided, then the Authority shall require the applicant to obtain, review, and reasonably utilize any base flood elevation and floodway data available from federal, state, or other sources in order to meet the provisions of this Section;
- (4) Review and record the actual elevation in relation to mean sea level (or highest adjacent grade) of the lowest floor, including basement, of all new or substantially improved structures;
- (5) Record the actual elevation, in relation to mean sea level, to which any new and substantially improved structures have been flood-proofed;
- (6) When flood-proofing is utilized for a non-residential structure, the Authority shall obtain certification of design criteria from a registered professional engineer or architect;
- (7) Notify affected adjacent communities and the Georgia Department of Natural Resources prior to any alteration or relocation of a watercourse and submit evidence of such notification to the Federal Emergency Management Agency (FEMA);
- (8) Where interpretation is needed as to the exact location of boundaries of the Areas of Special Flood Hazard (e.g., where there appears to be a conflict between a mapped boundary and actual field conditions), the Authority shall make the necessary interpretation. Any person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this Section. Where floodplain elevations have been defined, the floodplain shall be determined based on flood elevations rather than the area graphically delineated on the floodplain maps; and,
- (9) All records pertaining to the provisions of this Section shall be maintained in the office of the Authority and shall be open for public inspection.

1105 (m) Definition of floodplain boundaries.

- (1) Studied "A" zones, as identified in the FIS, shall be used to establish base flood elevations whenever available.

- (2) For all streams with a drainage area of one hundred (100) acres or greater, the future-conditions flood elevations shall be provided by the Authority. If future-conditions elevation data is not available from the Authority, then it shall be determined by a professional engineer using methods approved by FEMA and the Authority, the cost of which shall be paid by the applicant.

1105 (n) Definition of floodway boundaries.

The width of a floodway shall be determined from the FIS or FEMA approved flood study. For all streams with a drainage are of one hundred (100) acres or greater, the regulatory floodway shall be provided by the Authority. If floodway data is not available from the Authority, then it shall be determined by a professional engineer using methods approved by FEMA and the Authority, the cost of which shall be paid by the applicant.

1105 (o) General standards for land development.

- (1) No development shall be allowed with the future-conditions floodplain that could result in any of the following:
 - a. Raising the base flood elevation or future-conditions flood elevation equal to more than 0.01 foot;
 - b. Reducing the regulatory flood storage capacity - All compensation for storage capacity shall occur between the average ground water table elevation or future-conditions flood elevation and lie either within the boundaries of ownership of the property being developed, and shall be within the immediate vicinity of the location of the encroachment. Acceptable means of providing required compensation include: lowering of natural ground elevations within the floodplain; or lowering of adjoining land areas to create additional floodplain storage. All cut areas are to be graded to a slope of no less than three percent (3.0 %). In no case shall any required compensation be provided via bottom storage or by excavating below the elevation of the top of the natural (pre-development) stream channel unless such excavation results from the widening or relocation of the stream channel. A step-backwater analysis will be required to determine the volume of flood storage created by raising the regulatory flood elevation;
 - c. Changing the flow characteristics as to the depth and velocity of the waters of the base flood or future-conditions flood as they pass both the upstream and the downstream boundaries of the property. Verification shall be provided via a step-backwater analysis; or
 - d. Creating hazardous or erosion-producing velocities, or resulting in excessive sedimentation. In all cases, effective transitions must be provided such that flow velocities occurring on both upstream and downstream properties are not increased or decreased.
- (2) All proposed public utilities and facilities, such as sewer, gas, electrical, and water system, shall be located and constructed to minimize flood damage.
- (3) Any significant physical changes to the regulatory floodplain or any significant changes or revisions to the flood data adopted herein and shown on the FIRM shall be submitted as a Conditional Letter of Map Revision (CLOMR) or Conditional Letter of Map Amendment (CLOMA), whichever is applicable. The CLOMR submittal shall be subject to approval by the Authority and the County using the Community Consent forms before forwarding the submittal package to FEMA for final approval. The responsibility for forwarding the CLOMR to FEMA and for obtaining the CLOMR approval shall be the responsibility of the applicant. Within six (6) months of the

completion of construction, the applicant shall submit as-built surveys that demonstrate general conformance to the approved designs as submitted in the CLOMR application. A Letter of Map Revision (LOMR) or Letter of Map Amendment (LOMA) must be issued before the Final Plat can be approved or a Certificate of Occupancy can be issued. Significant changes or revisions shall be defined as any change to the FIRM easily observed when plotted at a scale of one (1) inch equals one thousand (1,000) feet. The changes or revisions may be due to, but are not limited to, more current and/or superior topographic information or compensatory cut and fill grading done as a part of the development.

1105 (p) Engineering study requirements for floodplain encroachments.

An engineering study is required, as appropriate to the proposed development activities on the site, whenever a development proposes to disturb the base floodplain or future-conditions floodplain. This study shall be prepared by a currently registered Professional Engineer in the State of Georgia and made a part of the application for a permit. This information shall be submitted to and approved by the Authority prior to the approval of any permit that would authorize the disturbance of land located within the floodplain. Such study shall include:

- (1) Description of the extent to which any watercourse or floodplain will be altered or relocated as a result of the proposed development;
- (2) Step-backwater analysis, using a FEMA approved methodology approved by the Authority. Cross-sections (which may be supplemented by the applicant) and flow information will be obtained whenever available. Computations will be shown duplicating FIS results and will then be rerun with the proposed modifications to determine the new base flood and regulatory flood profiles;
- (3) Floodplain storage calculations based on cross-sections (at least one (1) every one hundred (100) feet) showing existing and proposed floodplain conditions to show that regulatory floodplain storage capacity would not be diminished by the development;
- (4) If changes to the regulatory flood elevation are proposed, profiles of the channel showing the existing and proposed regulatory flood elevations must be provided; and,
- (5) The study shall include a preliminary plat, grading plan, or site plan, as appropriate, which shall clearly define all floodplain encroachments.

1105 (q) Floodway encroachments.

Located within Areas of Special Flood Hazard are areas designated as floodway. A floodway may be an extremely hazardous area due to velocity floodwaters, debris, or erosion potential. In addition, floodways must remain free of encroachment in order to allow for the discharge of the base flood without increased flood heights. Therefore, the following provisions shall apply:

- (1) Encroachments are prohibited, including earthen fill, new construction, substantial improvements, or other development within the regulatory floodway, except when required for the construction of bridges, culverts, roadways, and utilities, provided it is demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the encroachment shall not result in any increase to the pre-project base flood elevations, floodway elevations, or floodway widths during the regulatory or base flood discharge. A registered professional engineer must provide supporting technical data and certification thereof; and,

- (2) If the applicant proposes to revise the floodway boundaries, no permit authorizing the encroachment into or an alteration of the floodway shall be issued by the Authority until an affirmative Conditional Letter of Map Revision (CLOMR) is issued by FEMA and a no-rise certificate is approved by the Authority.

1105 (r) Maintenance requirements.

The property owner shall be responsible for continuing maintenance as may be needed within an altered or relocated portion of a floodplain on his property so that the flood-carrying or flood storage capacity is not diminished. The Authority may direct the property owner (at no cost to the Authority) to restore the flood-carrying or flood storage capacity of the floodplain if the owner has not performed maintenance as required by the approved floodplain management plan on file with the Authority.

1105 (s) General standards for flood hazard reduction.

In all Areas of Special Flood Hazard, the following provisions apply:

- (1) New construction of residential buildings, including manufactured homes, shall not be allowed within the limits of the future-conditions floodplain;
- (2) New construction of non-residential structures shall not be allowed within the future-conditions floodplain unless all requirements of Article 11, Section 1105(j), (k), (o), (p) and (q) are met;
- (3) New construction or substantial improvements of existing structures shall be anchored to prevent flotation, collapse, or lateral movement of the structure;
- (4) New construction or substantial improvement of existing structures shall be constructed with materials and utility equipment resistant to flood damage;
- (5) New construction or substantial improvements of existing structures shall be constructed by methods and practices that minimize flood damage;
- (6) Enclosures.

All substantial improvements of existing structures that include any fully enclosed area located below the lowest floor formed by foundation and other exterior walls shall be designed so as to be an unfinished and flood resistant enclosure. The enclosure shall be designed to equalize hydrostatic flood forces on exterior walls by allowing for the automatic entry and exit of floodwater.

- a. Designs for complying with this requirement must either be certified by a professional engineer or architect or meet the following minimum criteria:
 1. Provide a minimum of two (2) openings having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding;
 2. The bottom of all openings shall be no higher than one (1) foot above grade; and,
 3. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided they permit the automatic flow of floodwater in both directions.
- b. So as not to violate the "Lowest Floor" criteria of this Section, the unfinished or flood resistant enclosure shall only be used for parking of vehicles, limited storage of

maintenance equipment used in connection with the premises, or entry to the elevated area; and,

- c. The interior portion of such enclosed area shall not be partitioned or finished into separate rooms.
- (7) All heating and air conditioning equipment and components (including ductwork), all electrical, ventilation, plumbing, and other service facilities shall be designed and/or located three (3) feet above the base flood elevation or one (1) foot above the future-conditions flood elevation, whichever is higher, so as to prevent water from entering or accumulating within the components during conditions of flooding;
- (8) Manufactured homes shall be anchored to prevent flotation, collapse, and lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This standard shall be in addition to and consistent with applicable State requirements for resisting wind forces;
- (9) New and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system;
- (10) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into floodwaters;
- (11) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding; and,
- (12) Any alteration, repair, reconstruction, or improvement to a structure that is not compliant with the provisions of this Section, shall be undertaken only if the nonconformity is not furthered, extended, or replaced.
- (13) If the proposed development has multiple flood zones or multiple base flood elevations, the higher or more restrictive base flood elevation or future-conditions elevation and development standards shall take precedence.

1105 (t) Building standards for structures and buildings within the floodplain.

- (1) Residential buildings.
 - a. New construction.

New construction of residential buildings, including manufactured homes, shall not be allowed within the limits of the base floodplain or future-condition floodplain.
 - b. Substantial improvements.

Substantial improvement of any structure or manufactured home shall have the lowest floor, including basement, elevated no lower than three (3) feet above the base flood elevation or one (1) foot above the future-conditions flood elevation, whichever is highest. Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to equalize the hydrologic flood forces on exterior walls and to facilitate the unimpeded movements of floodwaters shall be provided in accordance with standards of Section 1105(s)(6) "Enclosures."
- (2) Nonresidential buildings.
 - a. New construction.

New construction of principal buildings shall not be allowed within the limits of the future-conditions floodplain unless all requirements of Article 11, Section 1105(j), (k), (o), (p) and (q) have been met. New construction that has met these requirements may be floodproofed in lieu of elevation. The structure, together with attendant utility and sanitary facilities, must be designed to be watertight to one (1) foot above the base flood elevation, or at least as high as the future-conditions flood elevation, whichever is higher, with walls substantially impermeable to the passage of water and structural components having the capacity of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. A registered professional engineer or architect shall certify that the designs and methods of construction are in accordance with accepted standards of practice for meeting the provisions above and shall provide such certifications to the Authority.

b. Substantial improvements.

Substantial improvement of any principal non-residential structure located in A1-30, AE, or AH zones may be authorized by the Authority to be flood-proofed in lieu of elevation. The structure, together with attendant utility and sanitary facilities, must be designed to be water tight to one (1) foot above the base flood elevation, or at least as high as the future-conditions flood elevation, whichever is highest, with walls substantially impermeable to the passage of water, and structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. A registered Professional Engineer or architect shall certify that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions above, and shall provide such certification to the Authority.

(3) Accessory structures and facilities.

Accessory structures and facilities (i.e., barns, sheds, gazebos, detached garages, parking lots, recreational facilities, and other similar structures and facilities) which are permitted to be located within the limits of the floodplain shall be constructed of flood-resistant materials and designed and constructed to pass all floodwater in a manner consistent with Section 1105 (s) (6) and be anchored to prevent flotation, collapse or lateral movement of the structure.

(4) Standards for recreational vehicles.

All recreational vehicles placed on sites must either:

- a. Be on the site for fewer than 180 consecutive days and be fully licensed and ready for highway use (a recreational vehicle is ready for highway use if it is licensed, on its wheels or jacking system, attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached structures or additional); or
- b. The recreational vehicle must meet all the requirements for "Residential Buildings - Substantial Improvements," including the anchoring and elevation requirements above.

(5) Standards for manufactured homes.

- a. New construction or development that involves the placed of manufactured homes within the limits of the base floodplain or future-conditions floodplain shall not be allowed.
- b. Manufactured homes placed and/or substantially improved within an existing manufactured home park or subdivision shall be floodproofed as follows:

1. The manufactured home shall be elevated such that the lowest floor is elevated no lower than three (3) feet above the base flood elevation or one (1) foot above the future-conditions floodplain, whichever is higher; and
2. The manufactured home must be securely anchored to an adequate foundation system to resist foundation collapse and lateral movement in accordance with Article 11, section 1105(s)(8).
3. The manufactured home chassis must be elevated no less than thirty-six (36) inches in height above grade and supported by reinforced piers.

1105 (u) Building standards for structures and buildings authorized adjacent to the floodplain.

All buildings shall comply with the County's building codes, in addition to the following:

(1) Residential buildings.

No new residential structures may be constructed within the base floodplain or the future-conditions floodplain. For new construction adjacent to the base floodplain or future-conditions floodplain or substantial improvement to any existing residential building or manufactured home within a floodplain, the elevation of the lowest floor, including basement and access to the building, shall be at least three (3) feet above the level of the highest base flood (one hundred-year (100-year)) elevation or one (1) foot above the future-conditions flood elevation, whichever is higher.

(2) Nonresidential buildings.

For new construction or substantial improvement of any principal non-residential building, the elevation of the lowest floor, including the basement and access to the building, shall be at least one (1) foot above the level of the base flood (one hundred-year (100-year)) elevation or at least as high as the future-conditions flood elevation, whichever is highest.

1105 (v) Building standards for streams without established base flood elevations and/or floodway (A-Zones).

For a residential single-lot development not part of a subdivision that has Areas of Special Flood Hazard, where streams exist but no base flood data have been provided (A-Zones), the Authority shall review and reasonably utilize any available scientific or historic flood elevation data, base flood elevation and floodway data or future-conditions flood elevation data available from a Federal, State, local or other source, in order to administer the provisions and standards of this ordinance.

If data are not available from any of these sources, the following provisions shall apply:

- (1) No encroachments, including structures or fill material, shall be located within an area equal to twice the width of the stream or fifty (50) feet from the top of the bank of the stream, whichever is greater.
- (2) In special flood hazard areas without base flood or future-conditions flood elevations data, new construction and substantial improvements of existing structures shall have the lowest floor of the lowest enclosed area (including basement) elevated no less than three (3) feet above the highest adjacent grade at the building site. Openings sufficient to facilitate the unimpeded movements of floodwaters shall be provided in accordance with Article 11, Section 1105(s)(6).

- (3) For new homes constructed upstream of and adjacent to a new or existing roadway crossing of a stream where the roadway forms a sag vertical curve, the lowest floor of the lowest enclosed area (including basement) shall be elevated no less than three (3) feet above the top of the roadway or curb, whichever is higher, measured at the low point of the curve.

1105 (w) Building standards for X Zone areas.

- (1) Located outside of A Zones and AE Zones, X Zones include the following:
 - a. Areas outside the one hundred-year (100-year) floodplain but within the five hundred-year (500-year) floodplain as determined by a detailed study (spotted X Zones).
 - b. Areas outside the five hundred-year (500-year) floodplain as determined by a detailed study.
 - c. Areas that have not yet been studied.
- (2) The Authority reserves the right to require further studies for any development within an X Zone, if there is evidence that a potential flood hazard exists. Such evidence may include but shall not be limited to:
 - a. Eyewitness reports of historic flooding or other reports of historic flooding deemed credible by the Authority.
 - b. Geologic features observed that resemble floodplains (such as flat areas along streams).
 - c. Proximity to man-made or natural constrictions such as road crossings that can cause backwater effects.
 - d. Drainage basin characteristics such as drainage area, slope, percent impervious cover, land use, etc.
- (3) For new homes constructed adjacent to a new or existing roadway crossing of a stream where the roadway forms a sag vertical curve, the lowest floor of the lowest enclosed area (including basement) shall be elevated no less than three (3) feet above the top of the roadway or curb, whichever is higher, measured at the low point of the curve.

1105 (x) Building standards for Areas of Shallow Flooding (AO-Zones).

Areas of Special Flood Hazard may include designated "AO" shallow flood areas. These areas have base flood depths of one to three feet above ground, with no clearly defined channel. In these areas, the following provisions apply:

- (1) All substantial improvements of residential and non-residential structures shall have the lowest floor, including basement, elevated to no lower than one (1) foot above the flood depth number specified on the Flood Insurance Rate Map (FIRM), above the highest adjacent grade. If no flood depth number is specified, the lowest floor, including basement, shall be elevated at least three (3) feet above the highest adjacent grade. Openings sufficient to facilitate the unimpeded movements of floodwaters shall be provided in accordance with standards for "Elevated Buildings."

The applicant's or owner's engineer shall certify to the Authority that the lowest floor elevation level is at least three (3) feet above the highest adjacent grade and the record shall become a permanent part of the permit file.

- (2) Substantial improvement of a non-residential structure may be flood-proofed in lieu of elevation. The structure, together with attendant utility and sanitary facilities, must be designed to be water tight to the specified FIRM flood level plus one (1) foot above the highest adjacent grade, with wall substantially impermeable to the passage of water, and structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. A registered professional engineer or architect shall certify that the design and methods of construction are in accordance with accepted standards of practice; and
- (3) Drainage paths shall be provided to guide floodwater around and away from any proposed structure.

1105 (y) Standards for subdivisions.

- (1) All subdivision proposals shall identify the special flood hazard area and provide base flood and regulatory flood elevation data.
- (2) All residential lots in a subdivision shall have sufficient buildable area outside of the base floodplain or future-condition floodplain such that encroachments into the floodplain for residential structures will not be required.
- (3) All subdivision plans will provide the elevation of proposed structure(s) and pad(s) in accordance with Section 1105(j).
- (4) All subdivision proposals shall be consistent with the need to minimize flood damage.
- (5) All subdivision proposals shall have public utilities and facilities, such as sanitary sewer, gas, electrical, and water systems located and constructed to minimize or eliminate infiltration of flood waters and discharges from the systems into flood waters.
- (6) All subdivision proposals shall have adequate drainage and stormwater management facilities per the requirements of the Authority and Douglas County to reduce exposure to flood hazards.

1105 (z) Standards for utilities.

- (1) All new and replacement water supply and sanitary sewerage systems shall be designed to minimize or eliminate:
 - a. Infiltration of flood waters into the systems; and,
 - b. Discharges from the systems into flood waters.
- (2) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

1105 (aa) Repetitive loss structures/substantial damage.

- (1) Repetitive loss structures

The County Floodplain Administrator may declare any structure as a repetitive loss structure as required to qualify the structure for increased cost of compliance benefits allowed in the National Flood Insurance Program. To be declared a repetitive loss structure, the following conditions must be true:

- a. The structure must have a flood insurance policy that includes increased cost of compliance coverage; and,

- b. The structure must have been flooded at least twice during a ten-year (10-year) period which ends on the date of the second flood with each flood event causing damage for which the repair cost equaled or exceeded twenty-five (25) percent of the market value of the structure; and,
- c. The cost to repair the flood damage, on average, equaled or exceeded twenty-five (25) percent of the fair market value of the structure at the time of each flood eve, and;
- d. The owner, or representative, shall request the declaration in writing and provide supporting documentation to show that the above requirements have been met.

(2) Substantial damage

The County Floodplain Administrator may declare any damaged structure to have "Substantial Damage" as required to qualify the structure for increased cost of compliance benefits allowed in the National Flood Insurance Program. To be declared as having substantial damage, the structure must have qualified damage as follows:

- a. Single event damage of any origin such that the cost of restoring the structure to its pre-damaged condition would equal or exceed fifty (50) percent of the fair market value of the structure at the time it received damage.
- b. Cumulative damage of any origin over a period of time not to exceed 10 year such that the cumulative cost of repairs equals or exceed fifty (50) percent of the current fair market value of the structure.

1105 (bb) Variance procedures.

The following variance and appeals procedures shall apply to an applicant who has been denied a permit for a development or to an owner or developer who has not applied for a permit because it is clear that the proposed development activity would be inconsistent with the provisions of this Article. A request for a variance may be submitted by an applicant who has been denied a permit by the Authority or by an owner or developer who has not been previously applied for a permit stated above.

- (1) Requests for variances from the requirements of this Article shall be submitted to the Authority. All such requests shall be heard and decided in accordance with procedures established by the Authority. At a minimum, such procedures shall include notice to all affected parties and the opportunity to be heard.
- (2) The Variance Board as established by the Authority shall hear and decide requests for appeals or variance from the requirements of this Section.
- (3) The Variance Board shall hear and decide appeals when it is alleged an error in any requirement, decision, or determination is made by the Engineering Department in the enforcement or administration of this Section.
- (4) Any person aggrieved by the decision of the Variance Board may, after exhausting all administrative remedies, appeal such decision to the Superior Court of Douglas County, as provided by state law.
- (5) Variances may be issued for the repair and rehabilitation of Historic Structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as an Historic Structure, and the variance is the minimum to preserve the historic character and design of the structure.

- (6) Variances may be issued for development necessary for the conduct of a functionally dependent use, provided the criteria in this Section are met, no reasonable alternative exists, and the development is protected by methods that minimize flood damage during the base flood and create no additional threats to public safety.
- (7) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
- (8) In reviewing such requests, the Variance Board shall consider all technical evaluations, relevant factors, and all standards specified in this and other sections of this Section.
- (9) Conditions for floodplain variances.
A floodplain variance shall be issued only when there is:
 - a. A finding of good and sufficient cause;
 - b. A determination that failure to grant the variance would result in exceptional hardship; and,
 - c. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisance, or cause fraud on or victimization of the public.
- (10) The provisions of this Section are minimum standards for flood loss reduction, therefore any deviation from the standards must be weighed carefully. Floodplain variances shall only be issued upon determination that the variance is the minimum necessary, considering the flood hazard, to afford relief; and, in the instance of an Historic Structure, a determination that the variance is the minimum necessary so as not to destroy the historic character and design of the building.
- (11) Any applicant to whom a variance is granted shall be given written notice specifying the difference between the base flood elevation and the elevation of the proposed lowest floor and stating that the cost of flood insurance will be commensurate with the increased risk to life and property resulting from the reduced lowest floor elevation.
- (12) The Authority shall maintain the records of all appeal actions and report any floodplain variances to the Federal Emergency Management Agency upon request.
- (13) Any person requesting a variance shall, from the time of the request until the time the request is acted upon, submit such information and documentation as the Authority and the Variance Board shall deem necessary to the consideration of the request.
- (14) Upon consideration of the factors listed above and the purposes of this Section, the Authority and the Variance Board may attach such conditions to the granting of variances as it deems necessary or appropriate, consistent with the purposes of this Section.

1105 (cc) Violations, enforcement, and penalties.

Any action or inaction which violates the provisions of this Section or the requirements of an approved stormwater management plan or permit may be subject to the enforcement actions outlined in this Section. Any such action or inaction that is continuous with respect to time is deemed to be a public nuisance and may be abated by injunctive or other equitable relief. The imposition of any of the penalties described below shall not prevent such equitable relief.

- (1) Notice of Violation.

If the Authority determines that an applicant or other responsible person has failed to comply with the terms and conditions of a permit, an approved stormwater management plan or the provisions of this Section, it shall issue a written notice of violation to such applicant or other responsible person. Where a person is engaged in activity covered by this Section without having first secured a permit therefore, the notice of violation shall be served on the owner or the responsible person in charge of the activity being conducted on the site.

The notice of violation shall contain:

- a. The name and address of the owner or the applicant or the responsible person;
- b. The address or other description of the site upon which the violation is occurring;
- c. A statement specifying the nature of the violation;
- d. A description of the remedial measures necessary to bring the action or inaction into compliance with the permit, the stormwater management plan, or this Section and the date for the completion of such remedial action;
- e. A statement of the penalty or penalties that may be assessed against the person to whom the notice of violation is directed; and,
- f. A statement that the determination of violation may be appealed to the Authority by filing a written notice of appeal within 30 days after the notice of violation (except, that in the event the violation constitutes an immediate danger to public health or public safety, 24 hours notice shall be sufficient).

(2) Penalties.

In the event the remedial measures described in the notice of violation have not been completed by the date set forth for such completion in the notice of violation, any one or more of the following actions or penalties may be taken or assessed against the person to whom the notice of violation was directed. Before taking any of the following actions or imposing any of the following penalties, the Authority shall first notify the applicant or other responsible person in writing of its intended action, and shall provide a reasonable opportunity, of not less than 10 days (except, that in the event the violation constitutes an immediate danger to public health or public safety, 24 hours notice shall be sufficient) to cure such violation. In the event the applicant or other responsible person fails to cure such violation after such notice and cure period, the Authority may take any one or more of the following actions or impose any one or more of the following penalties:

a. Stop-work order.

The Authority may issue a stop-work order, which shall be served on the applicant or other responsible person. The stop-work order shall remain in effect until the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violation or violations described therein, provided the stop-work order may be withdrawn or modified to enable the applicant or other responsible person to take the necessary remedial measures to cure such violation or violations.

b. Termination of water service and/or request to withhold certificate of occupancy.

The Authority may terminate water service and/or request that the County refuse to issue a certificate of occupancy for the building or other improvements constructed or being constructed on the site until the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein.

c. Suspension, revocation, or modification of permit.

The Authority may suspend, revoke, or modify the permit authorizing the land development project. A suspended, revoked, or modified permit may be reinstated after the applicant or other responsible person has taken the remedial measures set forth in the notice of violation or has otherwise cured the violations described therein, provided such permit may be reinstated (upon such conditions as the Authority may deem necessary) to enable the applicant or other responsible person to take the necessary remedial measures to cure such violations.

d. Civil penalties.

In the event the applicant or other responsible person fails to take the remedial measures set forth in the notice of violation or otherwise fails to cure the violations described therein within 10 days, or such greater period as the Authority shall deem appropriate (except, that in the event the violation constitutes an immediate danger to public health or public safety, 24 hours notice shall be sufficient) after the Authority has taken one or more of the actions described above, the Authority may impose a penalty not to exceed \$1,000 (depending upon the severity of the violation) for each day the violation remains unremitted after receipt of the notice of violation.

e. Criminal penalties.

For intentional and flagrant violations of this Section, the Authority may issue a citation to the applicant or other responsible person, requiring such person to appear in the magistrate or other court of competent jurisdiction to answer charges for such violation. Upon conviction, such person shall be punished by a fine not to exceed \$1,000 or imprisonment for 60 days or both. Each act of violation and each day upon which any violation shall occur shall constitute a separate offense.

(3) Administrative appeal; judicial review.

- a. Administrative remedies. Any person receiving a notice of violation may appeal the determination of the Authority, including but not limited to the issuance of a stop work order, the assessment of an administratively-imposed monetary penalty, the suspension, revocation, modification or grant with condition of a permit by the Authority upon finding that the holder is not in compliance with the approved erosion and sediment control plan, or that the holder is in violation of permit conditions, or that the holder is in violation of any applicable ordinance or any of the Authority's Rules and Regulations or Design and Construction Standards, or the issuance of a notice of bond forfeiture. The notice of appeal must be in writing and must be received within thirty (30) days from the date of the notice of violation. A hearing on the appeal shall take place within fifteen (15) days from the date of the receipt of the notice of appeal by the Executive Director. All appeals shall be heard and decided by the Authority's designated Appeal Panel, which shall include the Executive Director, the Chief Financial Officer of the Authority, and Deputy Director of Operations, or

their designees. The Appeal Panel shall have the power to affirm, modify or reject the original penalty, including the right to increase or decrease the amount of any monetary penalty and the right to add to or delete remedial actions required for correction of the violation and the compliance with the Authority's Rules and Regulations, Design and Construction Standards, and any other applicable local, state or federal requirements. The decision of the Appeal Panel shall be final.

- b. Judicial review. Any person aggrieved by a decision or order of the Authority, after exhausting his administrative remedies, shall have the right to appeal to the Superior Court of Douglas County by petition for writ of certiorari, which must be filed within thirty (30) days of the final decision of the Appeal Panel.