

### **391-3-16-.01 Criteria for Water Supply Watersheds.**

#### (1) Background.

- (a) These Criteria establish pursuant to O.C.G.A. § 12-2-8 a basis to be used by local governments to allow development of a water supply watershed without containing the water source to a point where it cannot be treated to meet drinking water standards. The criteria accomplish this by establishing buffer zones around streams and by specifying allowable impervious surface densities within watersheds. The criteria also include protection of water supply reservoirs by buffer zones and management practices to be established by reservoir owners and approved by the Department of Natural Resources.
- (b) Large drainage basins are less vulnerable to contamination by land use development than small basins. Therefore, more stringent watershed protection criteria are established for water supply watersheds less than 100 square miles in size. Since existing water supply sources as well as future sources must be protected, the criteria apply to both existing and future water supply watersheds. Watersheds are not identical; consequently alternate criteria may be adopted by local governments to protect water supply watersheds.
- (c) The purpose of these criteria is to establish the protection of drinking water watersheds. This protection is necessary for the enhancement of public health, safety and welfare as well as to assure that surface sources of drinking water are of high quality in order to be treated to meet all State and Federal drinking water standards.

#### (2) Definitions.

- (a) Buffer means a natural or enhanced vegetated area with no or limited minor land disturbances, such as trails and picnic areas. Specific buffer uses may be defined by local governments consistent with these criteria.
- (b) Corridor means all land within the buffer areas and other setback areas specified in Paragraphs (6) and (7) of these criteria.
- (c) Impervious Surface means a man-made structure or surface which prevents the infiltration of storm water into the ground below the structure or surface. Examples are buildings, roads, driveways, parking lots, decks, swimming pools, or patios.
- (d) Perennial Stream means a stream that has normal stream flow consisting of base flow (discharge that enters the stream channel mainly from groundwater) or both base flow and direct runoff during any period of the year.
- (e) Reservoir Boundary means the edge of a water supply reservoir defined by its normal pool level.
- (f) Utility means public or private water or sewer piping systems, water or sewer pumping stations, electric power lines, fuel pipelines, telephone lines, roads, driveways, bridges, river/lake access facilities, storm water systems and railroads or other utilities identified by a local government.
- (g) Water Supply Reservoir means a governmentally owned impoundment of water for the primary purpose of providing water to one or more governmentally owned public drinking water systems. This excludes the multipurpose reservoirs owned by the U.S. Army Corps of Engineers.
- (h) Water Supply Watersheds means the area of land upstream of a governmental owned public drinking water intake.

(i) Water Supply Watershed Protection Plan is a land use plan prepared and adopted by local governments for the protection of the quality of drinking water obtained from the watershed.

(3) Coverage. These criteria shall apply to all governments located within water supply watersheds. Exceptions to coverage may be allowed for watersheds providing secondary or emergency sources of water only. These criteria do not apply to watersheds not used for public drinking water supply. Standards established in the Metropolitan Rivers Protection Act and the Erosion and Sedimentation Act are not superseded by these criteria.

(4) Local Government Adoption. Local Governments shall identify existing and future water supply watersheds and shall adopt water supply watersheds protection plans as part of their planning process. These criteria shall be used as the basis for local water supply watershed protection plans. Local governments may refine and enhance the criteria in their water supply watersheds protection plans. All existing or proposed withdrawals for public water supply must be approved by the Department of Natural Resources.

(5) Exemptions.

(a) Local governments may exempt land uses existing prior to promulgation of water supply watershed protection plans from the provisions of water supply watershed protection plans.

(b) Local governments may exempt mining activities permitted by the Department of Natural Resources under the Surface Mining Act from the provisions of water supply watersheds protection plans.

(c) Local governments may exempt utilities from the stream corridor buffer and setback area provisions of water supply watersheds protection plans in accordance with the following conditions if the utilities to be located in the buffer or setback areas cannot feasibly be located outside these areas:

1. The utilities shall be located as far from the stream bank as reasonably possible.
2. The installation and maintenance of the utilities shall be such to protect the integrity of the buffer and setback areas as best as reasonably possible.
3. The utilities shall not impair the quality of the drinking water stream.

(d) Local governments may exempt specific forestry and agricultural activities from the stream corridor buffer and setback area provisions of water supply watershed protection plans in accordance with the following conditions:

1. The activity shall be consistent with best management practices established by the Georgia forestry Commission or the Georgia Department of Agriculture.
2. The activity shall not impair the quality of the drinking water stream.

(6) Minimum Criteria for Large Water Supply Watersheds.

(a) A large water supply watershed has 100 square miles or more of land within the drainage basin upstream of a governmentally owned public drinking water supply intake.

(b) The stream corridors of a large water supply watershed tributary to the water supply intake shall have no specified minimum criteria for protection, except the stream corridors of the perennial tributaries of a water supply reservoir in a large water supply watershed are protected as described in (c) below.

(c) The corridors of all perennial streams in a large water supply watershed tributary to a water supply reservoir within a seven (7) mile radius of the reservoir boundary are protected by the following criteria:

1. A buffer shall be maintained for a distance of 100 feet on both sides of the stream as measured from the stream banks.
2. No impervious surface shall be constructed within a 150 foot setback area on both sides of the stream as measured from the stream banks.
3. Septic tanks and septic tank drainfields are prohibited in the setback area of 2. above.
  - (d) The remainder of a large water supply watershed tributary to the water supply intake shall have no specified minimum criteria for protection, except that new facilities, located within seven (7) miles of a water supply intake or water supply reservoir, which handle hazardous materials of the types and amounts determined by the Department of Natural Resources, shall perform their operations on impermeable surfaces having spill and leak collection systems as prescribed by the Department of Natural Resources.
  - (e) The water supply reservoirs in large water supply watersheds will be managed as described in (8).
- (7) Minimum Criteria for Small Water Supply Watersheds.
  - (a) A small water supply watershed has less than 100 square miles of land within the drainage basin upstream of a governmentally owned public drinking water supply intake.
  - (b) Stream Corridor Criteria for Small Water Supply Watersheds.
    1. The perennial stream corridors of a small water supply watershed within a seven (7) mile radius upstream of a governmentally owned public drinking water supply intake or water supply reservoir are protected by the following criteria:
      - (i) A buffer shall be maintained for a distance of 100 feet on both sides of the stream as measured from the stream banks.
      - (ii) No impervious surface shall be constructed within a 150 foot setback area on both sides of the stream as measured from the stream banks.
      - (iii) Septic tanks and septic tank drainfields are prohibited in the setback area of (ii) above.
    2. The perennial stream corridors within a small water supply watershed and outside a seven (7) mile radius upstream of a governmentally owned public drinking water supply intake or water supply reservoir are protected by the following criteria:
      - (i) A buffer shall be maintained for a distance of 50 feet on both sides of the stream as measured from the stream banks.
      - (ii) No impervious surface shall be constructed within a 75 foot setback area on both sides of the stream as measured from the stream banks.
      - (iii) Septic tanks and septic tank drainfields are prohibited in the setback areas of (ii) above.
  - (c) The following criteria apply at all locations in a small water supply watershed.
    1. New sanitary landfills are allowed only if they have synthetic liners and leachate collection systems.
    2. New hazardous waste treatment or disposal facilities are prohibited.
    3. The impervious surface area, including all public and private structures, utilities, or facilities, of the entire water supply watershed shall be limited to twenty-five (25) per cent, or existing use, whichever is greater.
    4. New facilities which handle hazardous materials of the types and amounts determined by the Department of Natural Resources, shall perform their operations on impermeable surface having spill and leak collection systems as prescribed by the Department of Natural Resources.

(d) The water supply reservoirs in small water supply watersheds are to be managed as described in (8).

(8) Water Supply Reservoirs Management Plans.

(a) The owner of a water supply reservoir shall develop a reservoir management plan for approval of the Department of Natural Resources. If the Department owns the reservoir, the plan shall be prepared in cooperation with the local governments using the reservoir.

(b) A reservoir management plan shall address the recreational use of the reservoir and the maintenance of a buffer around the reservoir.

1. Prohibitions or restrictions on all or some of the following recreational uses shall be addressed in the reservoir management plan to protect the water quality of the reservoir for the drinking purposes while optimizing its recreational benefits.

(i) Swimming;

(ii) Fishing;

(iv) Boating;

(iv) Docks;

(v) Public Access.

2. A buffer shall maintained for a distance of 150 feet from the reservoir boundary. The allowable buffer vegetation and disturbance shall be specified in the reservoir management plan.

3. Reservoir owners upon consideration of ground slopes and soil types, may adopt buffer of differing sizes than in 2. above upon approval of the Department of Natural Resources.

(9) Additional Criteria.

(a) Within water supply watersheds, local governments may adopt additional criteria to protect drinking water sources.

~~(10)~~(10) Alternate Minimum Criteria for Water Supply Watersheds.

(a) A local government within a water supply watershed may adopt alternative minimum criteria for the stream buffer requirements in paragraphs (6)(c) and (7)(b) of these criteria if the alternative criteria meet the following requirements:

1. The local government is certified by the Director as having a program in place adequate to implement and enforce these alternative minimum criteria, including implementing ordinances. Such certification may be suspended or revoked pursuant to the same procedures provided for Local Issuing Authorities under O.C.G.A. § 12-7-8; and

2. As part of any certification by the Director required above, the local government shall, through its planning department or other appropriate body, require that all approvals for the subdivision or development of parcels within the water supply watershed shall include a determination that the subject parcel or parcels within a development are consistent with the buffers required hereunder and that all plats of survey and approvals provide clear notice of the alternative minimum criteria and requirements adopted by the local government. Further, after the effective date of the ordinance, the creation of lots on which there is not sufficient area for construction is prohibited; and

3. The local government shall adopt an ordinance that incorporates one of the following three (3) options provided below in subparagraphs 3.(i), 3.(ii), or 3.(iii) for all perennial stream corridors within the water supply watershed that are within a seven (7) mile radius upstream of a governmentally owned public drinking water supply intake or water supply reservoir. Beyond such seven (7) mile radius, the ordinance shall also provide for a 50-

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foot buffer for perennial stream corridors within the water supply watershed. These options do not affect the buffer around the water supply reservoir.

(i) "Option 1" For a one-mile radius upstream of a public water supply intake, within such local government jurisdiction that is a certified Local Issuing Authority as defined in O.C.G.A. § 12-7-8, there is a 100-foot critical area with an undisturbed buffer on both sides of the stream; for the balance of the watershed, there is a 50-foot undisturbed buffer on both sides of the stream. Beyond the adopted 50-foot and 100-foot riparian buffers, development is allowed but is limited to an effective impervious cover of ten (10) percent as described below in subparagraph 4.(vi) of these criteria.

(I) For local government ordinances incorporating the options in subparagraph 3.(i) above, all of the following practices are also required within the water supply watersheds: I. development and implementation of a public education program approved by the Division that includes items described below in subparagraph 4.(i) of these criteria; and II. implementation of design guidelines that ensure a diffuse flow requirement with no concentrated flow leaving the property as described below in subparagraph 4.(ii) of these criteria; and

III. declarations of development restrictions on either survey plats and/or deeds that indicate that the parcel is located within a water supply watershed and that there are restrictions on disturbance of the buffer area and specific development practices for said property; and

IV. adoption of a stormwater ordinance as described below in subparagraph 4.(iii) of these criteria; and

V. performance of a septic tank inspection every seven (7) years with mandatory repairs and pumping, if required; and

VI. implementation of a Division approved monitoring program as described below in subparagraph 4.(iv) of these criteria; and

VII. vegetation of riparian buffers as described in subparagraph 4.(v) of these criteria;

(ii) "Option 2" Upstream of a public water supply intake, within such local government jurisdiction that is a certified Local Issuing Authority as defined in O.C.G.A. § 12-7-8, there is a 75-foot undisturbed riparian buffer on both sides of the stream.

(I) For local government ordinances incorporating the options in subparagraph 3.(ii) above, all of the following practices are also required within the water supply watersheds:

I. development and implementation of a public education program approved by the Division that includes items described below in subparagraph 4.(i) of these criteria; and

II. implementation of design guidelines that ensure a diffuse flow requirement with no concentrated flow leaving the property as described below in subparagraph 4.(ii) of these criteria; and

III. declarations of development restrictions on either survey plats and/or deeds that indicate that the parcel is located within a water supply watershed and that there are restrictions on disturbance of the buffer area and specific development practices for said property; and

IV. adoption of a stormwater ordinance as described below in subparagraph 4.(iii) of these criteria; and

V. performance of a septic tank inspection every seven (7) years with mandatory repairs and pumping, if required; and

VI. implementation of a Division approved monitoring program as described below in subparagraph 4.(iv) of these criteria; and

VII. vegetation of riparian buffers as described in subparagraph 4.(v) of these criteria;

(iii) "Option 3" Upstream of a public water supply intake, within such local government jurisdiction that may or may not be a certified Local Issuing Authority as defined in O.C.G.A. § 12-7-8, there is a 100-foot undisturbed riparian buffer on both sides of the stream.

(I) For local government ordinances incorporating the options in subparagraph 3.(iii) above, all of the following practices are also required within the water supply watersheds:

I. development and implementation of a Division approved public education program that includes items described below in subparagraph 4.(i) of these criteria; and

II. implementation of design guidelines that ensure a diffuse flow requirement with no concentrated flow leaving the property as described below in subparagraph 4.(ii) of these criteria; and

III. declarations of development restrictions on either survey plats and/or deeds that indicate that the lot is located within a water supply watershed and that there are restrictions on disturbance of the buffer area and specific development practices for said property; and

IV. adoption of a stormwater ordinance as described below in subparagraph 4.(iii) of these criteria;

(II) For local government ordinances incorporating the options in subparagraph (iii) above, the following practices are recommended but not required within the water supply watersheds:

I. acquiring certification as a Local Issuing Authority; and

II. mandatory notification by the local government every seven years for all owners of septic tanks and septic tank drain fields within 100-feet of any stream within the water supply watershed, as measured from the top of the stream bank, outlining the risk of fines and enforcement for illegal discharge or seepage into waters of the State and the need for routine maintenance and replacement under guidance and direction from the local health department; and

III. implementation of a Division approved monitoring program as described below in subparagraph 4.(iv) of these criteria; and

IV. vegetation of riparian buffers as described in subparagraph 4.(v) of these criteria.

4. If required above, the local government shall:

(i) Adopt and implement a Division approved public education plan that is designed to educate the community and conduct equivalent outreach activities targeting but not limited to citizens, government officials, developers, engineers, architects, landscapers, builders, construction workers, non-profit organizations, and volunteers. The plan shall include but is not limited to information about the use and maintenance of stormwater best management practices, septic system inspection and maintenance, agricultural best management practices, forestry best management practices, native landscaping and water conservation;

(ii) Require that diffuse flow or runoff must be maintained within the riparian buffer by dispersing concentrated flow and re-establishing vegetation. Concentrated runoff from new ditches or constructed conveyances shall be converted to diffuse flow before the runoff enters the riparian buffer. If necessary to impede the formation of erosion gullies,

periodic corrective action to restore diffuse flow shall be required in a maintenance agreement with appropriate entities;

(iii) Adopt a Division approved stormwater management ordinance that applies in the water supply watershed. Any local government certified as a Local Issuing Authority under the Georgia Erosion and Sedimentation Control Act shall implement said adopted stormwater management ordinance that incorporates the post-development best management practices expressly required hereunder and permanent storm water control measures as well as design standards appropriate for the terrain and topography to protect water quality, stream channels and flooding. These standards shall be consistent with criteria established for such control measures in the Georgia Storm Water Management Manual. If such local government is not required above to become a certified Local Issuing Authority, then it shall adopt an ordinance approved by the Division that requires at a minimum that plans for permanent storm water control measures be reviewed and approved by such local government. The local government shall have the resources necessary to review and inspect such measures;

(iv) Implement a Division approved program to monitor streams within the water supply watershed for the following: 1) Georgia bacterial standard, 2) turbidity and 3) nutrients. The samples shall be taken immediately after the first substantial rain of the month (0.5 inches or larger); or if rain has not occurred and is not predicted, the samples shall be taken during the last week of the month. Should the monthly data show three (3) consecutive months of degrading water quality (each month's data set for any or all parameters showing increasing values), a corrective action plan shall be submitted within thirty (30) days to the Division for approval. Upon approval by the Division the corrective action plan shall be implemented and the monthly sampling continued until such time as the Division notifies the local government that corrective action is no longer required;

(v) Require that a 50-foot riparian buffer be vegetated with understory trees and shrubs and canopy trees native to the region or approved by the Division planted no more than ten (10) feet apart and pursuant to guidelines contained in the storm water management ordinance approved by the Division. Vegetation and permanent maintenance of the buffers is the responsibility of the developer, subsequent property owner or homeowners association. This vegetation shall only be required upon a change in use or development of the lot or parcel that includes the riparian buffer subject to these criteria.

(vi) Require an effective impervious cover of no more than ten (10) percent upon the development or redevelopment of a parcel for either lots immediately adjacent to a perennial stream or for the area of land within 150-feet of a perennial stream, whichever is larger. On single, individual lots this requirement shall be triggered for projects with greater than 5,000 square feet of impervious surfaces. An effective impervious cover shall be generally defined in terms of controlling runoff and pollutants so that post-development runoff is only ten (10) percent greater than pre-development conditions. The pre-development (baseline) conditions shall be assumed to be good forested conditions appropriate to site. This requirement and the methodology to achieve it shall be further defined in accordance with guidelines to be developed as part of a local government's storm water management ordinance approved by the Division.

(vii) Notify all owners of septic tanks and septic tank drain fields within the water supply watershed every seven (7) years of the risk of fines and enforcement for illegal discharge

or seepage into waters of the State and the need for routine maintenance and replacement under guidance and direction from the local health department.

5. Septic systems and drain fields shall be located outside of the required riparian buffers and setbacks indicated in the above paragraphs and are recommended to be at least 100-feet away from a perennial stream where practicable. As part of any subdivision or development of parcels within the water supply watershed, the local government shall in cooperation with the Georgia Department of Human Resources, through its planning department or other appropriate bodies, require that:

(i) Considering the size, configuration and household appliances and equipment, septic tanks and septic drainfields shall be sized appropriately by qualified personnel; and

(ii) Septic tank risers shall be installed; and

(iii) Only multi-stage septic tanks with effluent filters shall be installed; and

(iv) All approvals for new building permits for additions or remodeling of existing structures on the subject parcel or parcels within a subdivision or development shall be accompanied by a review of septic tank and septic drainfield sizing, configuration and design with mandatory upgrades if required.

6. Local governments may exempt those structures existing, under construction, or for which a complete application for a land disturbance permit, building permit, or similar government approval has been submitted as of the effective date of the ordinances adopted pursuant to this rule, or on which construction will commence no later than one year following the date of the adoption of the ordinances required pursuant to this rule.

However, any modification or expansion of such existing structure which results in a net increase in the structure footprint or of the impervious surface area within the buffer shall subject the structure to the applicable criteria hereunder. Further, local governments may exempt parcels on which only one (1) single family home is built for residential use by the owner of the parcel, provided that this exemption shall not apply to parcels that are subdivided into lots after the effective date of ordinances adopted pursuant to this rule.

7. After the effective date of the ordinance, the local government shall have one year to implement the stormwater ordinance and two years to design and implement a Division approved public education program and a Division approved monitoring program. The local jurisdiction shall submit a report on the aforementioned activities to the Division and get approval from the Division to proceed with buffer reductions.

8. Local governments may consider granting a variance to the buffers established in the adopted ordinance only when:

(i) There are hardships that prevent compliance with the buffer widths and required practices. Local governments shall provide an opportunity for meaningful public notice of, comment upon, and administrative appeal of all decisions relating to action upon an application for a variance under these provisions. Such terms shall be referenced or included in the storm water management ordinance to be considered by the Division.

Such terms shall include any rights of appeal or further administrative review as otherwise provided for land use decisions in the local government. Hardships shall be evaluated in accordance with the following:

(I) If the applicant complies with the buffer widths and required practices, he or she can secure no reasonable return from, nor make reasonable use of, his or her property. Merely proving that the variance would permit a greater profit from the property shall not be considered adequate justification for a variance. Moreover, the local government shall

consider whether the variance is the minimum possible deviation from the buffer widths that shall make reasonable use of the property possible; and

(II) The hardship results from application of the buffer widths to the property rather than from other factors such as unrelated deed restrictions; and

(III) The hardship is due to the physical nature of the applicant's property, such as its size, shape, or topography; and

(IV) The applicant did not cause the hardship; and

(V) The variance is in harmony with the general purpose and intent of the riparian buffer widths and required practices and preserves the purpose thereof; and

(VI) In granting the variance, the public safety and welfare have been assured, and the quality of downstream water, including but not limited to water used to supply public drinking water, has been maintained or improved; and

(VII) The applicant certifies that the applicant has not and does not intend to apply for a variance from the minimum buffer requirements contained in the Georgia Erosion and Sedimentation Control Act for the same perennial stream or streams for which a variance is sought pursuant to this paragraph.

Authority 1990 Ga. General Assembly Resolution No. 63, O.C.G.A. Secs. 12-2-8, 12-5-20, 12-7-1.

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