



MODEL STREAM BUFFER PROTECTION ORDINANCE

DESCRIPTION:

This model ordinance provides a framework for local governments to develop buffer zones for streams, as well as the requirements that minimize land development within those buffers. It is the purpose of these buffer zone requirements to protect and stabilize stream banks, protect water quality and preserve aquatic and riparian habitat.

Note: Italicized text with this symbol ☹ should be interpreted as comments, instructions, or information to assist the local government in tailoring the ordinance. This text would not appear in a final adopted ordinance.

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SECTION 1. TITLE

This ordinance shall be known as the “(Local Jurisdiction) Stream Buffer Protection Ordinance.”

SECTION 2. FINDINGS AND PURPOSES

2.1. Findings

Whereas, the (name of governing body) of (local jurisdiction) finds that buffers adjacent to streams provide numerous benefits including:

- (1) Protecting, restoring and maintaining the chemical, physical and biological integrity of streams and their water resources
- (2) Removing pollutants delivered in urban stormwater

- (3) Reducing erosion and controlling sedimentation
- (4) Protecting and stabilizing stream banks
- (5) Providing for infiltration of stormwater runoff
- (6) Maintaining base flow of streams
- (7) Contributing organic matter that is a source of food and energy for the aquatic ecosystem
- (8) Providing tree canopy to shade streams and promote desirable aquatic habitat
- (9) Providing riparian wildlife habitat
- (10) Furnishing scenic value and recreational opportunity
- (11) Providing opportunities for the protection and restoration of greenspace

2.2. Purposes

It is the purpose of this Ordinance is to protect the public health, safety, environment and general welfare; to minimize public and private losses due to erosion, siltation and water pollution; and to maintain stream water quality by provisions designed to:

- (1) Create buffer zones along the streams of **(local jurisdiction)** for the protection of water resources; and,
- (2) Minimize land development within such buffers by establishing buffer zone requirements and by requiring authorization for any such activities.

Section 3. Definitions

“Buffer” means, with respect to a stream, a natural or enhanced vegetated area (established by Section 5.1.1 below), lying adjacent to the stream.

“Impervious Cover” means any manmade paved, hardened or structural surface regardless of material. Impervious cover includes but is not limited to rooftops, buildings, streets, roads, decks, swimming pools and any concrete or asphalt.

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

“Land Development Activity” means those actions or activities which comprise, facilitate or result in land development.

“Land Disturbance” means any land or vegetation change, including, but not limited to, clearing, grubbing, stripping, removal of vegetation, dredging, grading, excavating, transporting and filling of land, that do not involve construction, paving or any other installation of impervious cover.

“Land Disturbance Activity” means those actions or activities which comprise, facilitate or result in land disturbance.

“Floodplain” means any land area susceptible to flooding, which would have at least a one percent probability of flooding occurrence in any calendar year based on the basin being fully developed as shown on the current land use plan; i.e., the regulatory flood.

“Parcel” means any plot, lot or acreage shown as a unit on the latest county tax assessment records.

“Permit” means the permit issued by the **(local permitting authority)** required for undertaking any land development activity

“Person” means any individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, city, county or other political subdivision of the State, any interstate body or any other legal entity.

“Protection Area, or Stream Protection Area” means, with respect to a stream, the combined areas of all required buffers and setbacks applicable to such stream.

“**Riparian**” means belonging or related to the bank of a river, stream, lake, pond or impoundment.

“**Setback**” means, with respect to a stream, the area established by Section 5.1.2 extending beyond any buffer applicable to the stream.

“**Stream**” means any stream, beginning at:

1. The location of a spring, seep, or groundwater outflow that sustains streamflow; or
2. A point in the stream channel with a drainage area of 25 acres or more; or
3. Where evidence indicates the presence of a stream in a drainage area of other than 25 acres, the **(local permitting authority)** may require field studies to verify the existence of a stream.

➡ *As a long-term goal, the local jurisdiction can also map its perennial and intermittent streams through field work, prioritizing basins and developing information as time, staffing and budgets permit.*

“**Stream Bank**” means the sloping land that contains the stream channel and the normal flows of the stream.

“**Stream Channel**” means the portion of a watercourse that contains the base flow of the stream.

“**Watershed**” means the land area that drains into a particular stream.

SECTION 4. APPLICABILITY

This ordinance shall apply to all land development activity on property containing a stream protection area as defined in Section 3 of this ordinance. These requirements are in addition to, and do not replace or supersede, any other applicable buffer requirements established under state law and approval or exemption from these requirements do not constitute approval or exemption from buffer requirements established under state law or from other applicable local, state or federal regulations.

4.1. Grandfather Provisions

This ordinance shall not apply to the following activities:

- (1) Work consisting of the repair or maintenance of any lawful use of land that is zoned and approved for such use on or before the effective date of this ordinance.
- (2) Existing development and on-going land disturbance activities including but not limited to existing agriculture, silviculture, landscaping, gardening and lawn maintenance, except that new development or land disturbance activities on such properties will be subject to all applicable buffer requirements.
- (3) Any land development activity that is under construction, fully approved for development, scheduled for permit approval or has been submitted for approval as of the effective date of this ordinance.
- (4) Land development activity that has not been submitted for approval, but that is part of a larger master development plan, such as for an office park or other phased development that has been previously approved within two years of the effective date of this ordinance.

4.2. Exemptions

The following specific activities are exempt from this ordinance. Exemption of these activities does not constitute an exemption for any other activity proposed on a property.

- (1) Activities for the purpose of building one of the following:

- a stream crossing by a driveway, transportation route or utility line;
 - public water supply intake or public wastewater outfall structures;
 - intrusions necessary to provide access to a property;
 - public access facilities that must be on the water including boat ramps, docks, foot trails leading directly to the river, fishing platforms and overlooks;
 - unpaved foot trails and paths;
 - activities to restore and enhance stream bank stability, vegetation, water quality and/or aquatic habitat, so long as native vegetation and bioengineering techniques are used.
- (2) Public sewer line easements paralleling the creek, except that all easements (permanent and construction) and land disturbance should be at least 25 feet from the top of the bank. This includes such impervious cover as is necessary for the operation and maintenance of the utility, including but not limited to manholes, vents and valve structures. This exemption shall not be construed as allowing the construction of roads, bike paths or other transportation routes in such easements, regardless of paving material, except for access for the uses specifically cited in Item 4.2.(1), above.
 - (3) Land development activities within a right-of-way existing at the time this ordinance takes effect or approved under the terms of this ordinance.
 - (4) Within an easement of any utility existing at the time this ordinance takes effect or approved under the terms of this ordinance, land disturbance activities and such impervious cover as is necessary for the operation and maintenance of the utility, including but not limited to manholes, vents and valve structures.
 - (5) Emergency work necessary to preserve life or property. However, when emergency work is performed under this section, the person performing it shall report such work to the (review and permitting authority) on the next business day after commencement of the work. Within 10 days thereafter, the person shall apply for a permit and perform such work within such time period as may be determined by the (review and permitting authority) to be reasonably necessary to correct any impairment such emergency work may have caused to the water conveyance capacity, stability or water quality of the protection area.
 - (6) Forestry and silviculture activities on land that is zoned for forestry, silvicultural or agricultural uses and are not incidental to other land development activity. If such activity results in land disturbance in the buffer that would otherwise be prohibited, then no other land disturbing activity other than normal forest management practices will be allowed on the entire property for three years after the end of the activities that intruded on the buffer.

➡ *Unless specifically provided for in a State law, local governments generally do not have permitting or enforcement authority over State and Federal departments, agencies and authorities. Local governments need to address these issues in the context of their overall permitting and enforcement regulations and provide for reporting observed problems, first to the agency performing the activity, then, if no corrective action results, to Georgia EPD.*

After the effective date of this ordinance, it shall apply to new subdividing and platting activities.

Any land development activity within a buffer established hereunder or any impervious cover within a setback established hereunder is prohibited unless a variance is granted pursuant to Section 5.2 below.

SECTION 5. LAND DEVELOPMENT REQUIREMENTS

5.1. Buffer and Setback Requirements

All land development activity subject to this ordinance shall meet the following requirements:

- (1) An undisturbed natural vegetative buffer shall be maintained for 50 feet, measured horizontally, on both banks (as applicable) of the stream as measured from the top of the stream bank.
☞ The top of the bank is often a clearer landmark than the edge of the water or the end of vegetation, particularly on intermittent streams. The land forming the bank is also considered part of the buffer for purposes of this ordinance.
- (2) An additional setback shall be maintained for 25 feet, measured horizontally, beyond the undisturbed natural vegetative buffer, in which all impervious cover shall be prohibited. Grading, filling and earthmoving shall be minimized within the setback.
☞ Any buffer and setback widths that may be listed are intended as minimums. Local governments are encouraged to adopt wider buffers and setbacks as necessary. A local government has many options in developing wider buffers. One method would be to increase the width as the stream drainage basin increases in size, as Cobb County does. Another method is to offer incentives for voluntary wider buffers. For example, Clayton County allows developers to offset proposed land development with deeper buffers as an alternative to using other stormwater controls.
- (3) No septic tanks or septic tank drain fields shall be permitted within the buffer or the setback.

5.2. VARIANCE PROCEDURES

Variances from the above buffer and setback requirements may be granted in accordance with the following provisions:

- (1) Where a parcel was platted prior to the effective date of this ordinance, and its shape, topography or other existing physical condition prevents land development consistent with this ordinance, and the **(review and permitting authority)** finds and determines that the requirements of this ordinance prohibit the otherwise lawful use of the property by the owner, the **(appeals board)** of **(local jurisdiction)** may grant a variance from the buffer and setback requirements hereunder, provided such variance require mitigation measures to offset the effects of any proposed land development on the parcel.
- (2) Except as provided above, the **(appeals board)** of **(local jurisdiction)** shall grant no variance from any provision of this ordinance without first conducting a public hearing on the application for variance and authorizing the granting of the variance by an affirmative vote of the **(appeals board)**. The **(local jurisdiction)** shall give public notice of each such public hearing in a newspaper of general circulation within **(local jurisdiction)**. The **(local jurisdiction)** shall require that the applicant post a sign giving notice of the proposed variance and the public hearing. The sign shall be of a size and posted in such a location on the property as to be clearly visible from the primary adjacent road right-of-way. Variances will be considered only in the following cases:

- (a) When a property's shape, topography or other physical conditions existing at the time of the adoption of this ordinance prevents land development unless a buffer variance is granted.
 - (b) Unusual circumstances when strict adherence to the minimal buffer requirements in the ordinance would create an extreme hardship.
- Variances will not be considered when, following adoption of this ordinance, actions of any property owner of a given property have created conditions of a hardship on that property.
- (3) At a minimum, a variance request shall include the following information:
 - (a) A site map that includes locations of all streams, wetlands, floodplain boundaries and other natural features, as determined by field survey;
 - (b) A description of the shape, size, topography, slope, soils, vegetation and other physical characteristics of the property;
 - (c) A detailed site plan that shows the locations of all existing and proposed structures and other impervious cover, the limits of all existing and proposed land disturbance, both inside and outside the buffer and setback. The exact area of the buffer to be affected shall be accurately and clearly indicated;
 - (d) Documentation of unusual hardship should the buffer be maintained;
 - (e) At least one alternative plan, which does not include a buffer or setback intrusion, or an explanation of why such a site plan is not possible;
 - (f) A calculation of the total area and length of the proposed intrusion;
 - (g) A stormwater management site plan, if applicable; and,
 - (h) Proposed mitigation, if any, for the intrusion. If no mitigation is proposed, the request must include an explanation of why none is being proposed.
 - (4) The following factors will be considered in determining whether to issue a variance:
 - (a) The shape, size, topography, slope, soils, vegetation and other physical characteristics of the property;
 - (b) The locations of all streams on the property, including along property boundaries;
 - (c) The location and extent of the proposed buffer or setback intrusion; and,
 - (d) Whether alternative designs are possible which require less intrusion or no intrusion;
 - (e) The long-term and construction water-quality impacts of the proposed variance;
 - (f) Whether issuance of the variance is at least as protective of natural resources and the environment.

SECTION 6. COMPATIBILITY WITH OTHER BUFFER REGULATIONS AND REQUIREMENTS

This ordinance is not intended to interfere with, abrogate or annul any other ordinance, rule or regulation, statute or other provision of law. The requirements of this ordinance should be considered minimum requirements, and where any provision of this ordinance imposes restrictions different from those imposed by any other ordinance, rule, regulation or other provision of law, whichever provisions are more restrictive or impose higher protective standards for human health or the environment shall be considered to take precedence.

➡ *Examples of existing legislation and regulations include:*

Metropolitan River Protection Act and Chattahoochee Corridor Plan

Requires a 50-foot undisturbed vegetative buffer and 150-foot impervious surface setback on the Chattahoochee and its impoundments and a 35-foot undisturbed vegetative buffer (all measured from the edge of the water) on perennial tributary streams in a Corridor extending 2000 feet from either bank of the river and its impoundments. The Corridor extends from Buford Dam to the downstream limits of the Atlanta region (Douglas and Fulton Counties). Streams in the basin of the Corridor are required to be protected by buffers, but no required width is specified. (Georgia Code 12-5-440 et seq.)

DNR Part 5 Criteria for Small (under 100 square miles) Water Supply Watersheds

Authorized under Part V of the Georgia Planning Act of 1989, these criteria require 100-foot undisturbed buffers and 150-foot setbacks on all perennial streams within 7 miles upstream of a public water supply reservoir or public water supply intake. Beyond 7 miles, the required buffer is 50 feet and the required setback is 75 feet. Equivalent protection measures can be adopted with approval from Georgia DCA and DNR.

DNR Part 5 Criteria for River Protection

Authorized under the 1991 Mountains and River Corridors Protection Act of 1991, these criteria require a 100-foot buffer along rivers with average annual flows of greater than 400 cfs (excepting the portion of the Chattahoochee referenced above). The buffer is measured from the top of the stream bank.

These examples are partial descriptions of more extensive regulations as of July, 2002. They represent only three of the stricter regulations that already exist.

➡ *While the requirements of this ordinance are intended to apply to all streams in (local jurisdiction), special conditions may exist that require greater protection. Nothing in this ordinance should be construed as preventing the establishment of wider and/or more restrictive buffers and setbacks as required under any other existing or future legislation. In addition, nothing in this ordinance should be construed as preventing the establishment of wider buffers for purposes of protecting greenspace, preserving habitat or other goals that may not be specifically mandated by legislation.*

SECTION 7. ADDITIONAL INFORMATION REQUIREMENTS FOR DEVELOPMENT ON BUFFER ZONE PROPERTIES

Any permit applications for property requiring buffers and setbacks hereunder must include the following:

- (1) A site plan showing:
 - (a) The location of all streams on the property;
 - (b) Limits of required stream buffers and setbacks on the property;
 - (c) Buffer zone topography with contour lines at no greater than five (5)-foot contour intervals;
 - (d) Delineation of forested and open areas in the buffer zone; and,
 - (e) Detailed plans of all proposed land development in the buffer and of all proposed impervious cover within the setback;
- (2) A description of all proposed land development within the buffer and setback; and,
- (3) Any other documentation that the (review and permitting authority) may reasonably deem necessary for review of the application and to insure that the buffer zone ordinance is addressed in the approval process.

All buffer and setback areas must be recorded on the final plat of the property following plan approval.

SECTION 8. RESPONSIBILITY

Neither the issuance of a development permit nor compliance with the conditions thereof, nor with the provisions of this ordinance shall relieve any person from any responsibility otherwise imposed by law for damage to persons or property; nor shall the issuance of any permit hereunder serve to impose any liability upon (local jurisdiction), its officers or employees, for injury or damage to persons or property.

SECTION 9. INSPECTION

The (review and permitting authority) may cause inspections of the work in the buffer or setback to be made periodically during the course thereof and shall make a final inspection following completion of the work. The permittee shall assist the (review and permitting authority) in making such inspections. The (local jurisdiction) shall have the authority to conduct such investigations as it may reasonably deem necessary to carry out its duties as prescribed in this ordinance, and for this purpose to enter at reasonable time upon any property, public or private, for the purpose of investigating and inspecting the sites of any land development activities within the protection area.

No person shall refuse entry or access to any authorized representative or agent who requests entry for 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 official duties.

SECTION 10. VIOLATIONS, ENFORCEMENT AND PENALTIES

Any action or inaction which violates the provisions of this ordinance or the requirements of an approved site plan or permit may be subject to the enforcement actions outlined in this Section. Any such action or inaction which 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.

10.1. Notice of Violation

If the (**review and permitting authority**) determines that an applicant or other responsible person has failed to comply with the terms and conditions of a permit, an approved site plan or the provisions of this ordinance, 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 ordinance without having first secured the appropriate permit therefor, 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:

- (1) The name and address of the owner or the applicant or the responsible person;
- (2) The address or other description of the site upon which the violation is occurring;
- (3) A statement specifying the nature of the violation;
- (4) A description of the remedial measures necessary to bring the action or inaction into compliance with the permit, the approved site plan or this ordinance and the date for the completion of such remedial action;
- (5) A statement of the penalty or penalties that may be assessed against the person to whom the notice of violation is directed; and,
- (6) A statement that the determination of violation may be appealed to the (**review and permitting 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).

10.2. 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 **(review and permitting 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 **(review and permitting authority)** may take any one or more of the following actions or impose any one or more of the following penalties.

- (1) **Stop Work Order** - The **(review and permitting 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 necessary remedial measures to cure such violation or violations.
- (2) **Withhold Certificate of Occupancy** - The **(review and permitting authority)** may 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.
- (3) **Suspension, Revocation or Modification of Permit** - The **(review and permitting 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 **(review and permitting authority)** may deem necessary) to enable the applicant or other responsible person to take the necessary remedial measures to cure such violations.
- (4) **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 **(review and permitting 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 **(review and permitting authority)** has taken one or more of the actions described above, the **(review and permitting authority)** may impose a penalty not to exceed \$1,000 (depending on the severity of the violation) for each day the violation remains unremedied after receipt of the notice of violation.
- (5) **Criminal Penalties** - For intentional and flagrant violations of this ordinance, the **(review and permitting authority)** may issue a citation to the applicant or other responsible person, requiring such person to appear in **(appropriate municipal, magistrate or recorders)** court 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.

SECTION 11. ADMINISTRATIVE APPEAL AND JUDICIAL REVIEW

11.1. Administrative Appeal

Any person aggrieved by a decision or order of (review and permitting authority), may appeal in writing within ___ days after the issuance of such decision or order to the (designated official) of (local jurisdiction) and shall be entitled to a hearing before the (designated appeals body) of (local jurisdiction) within ___ days of receipt of the written appeal.

11.2. Judicial Review

Any person aggrieved by a decision or order of (review and permitting authority), after exhausting all administrative remedies, shall have the right to appeal de novo to the ___ court of (appropriate jurisdiction).

SECTION 12. SEVERABILITY

If any article, section, subsection, paragraph, clause, phrase or provision of this ordinance shall be adjudged invalid or held unconstitutional, such decision shall not affect or invalidate the remaining portions of this ordinance.