

# **Stream Buffer Ordinances**

**April, 2005**

The Etowah Aquatic HCP Stream Buffer Ordinances were developed by a Technical Committee of local government staff from the Etowah watershed. The Steering Committee approved the Technical Committee's recommendations for inclusion in the Etowah Aquatic Habitat Conservation Plan on July 23, 2004, with the understanding that the stream buffer ordinances, once implemented, will help minimize and mitigate take of imperiled aquatic species in the Etowah Watershed, and that these ordinances will be implemented prior to receiving an Incidental Take Permit from US Fish and Wildlife Service.

## **Technical Committee Members**

Several jurisdictions in the Etowah watershed are also part of the Metropolitan North Georgia Water Planning District, and are required to adopt the MNGWPD stream buffer ordinance by April 3, 2005. The Technical Committee for Stream Buffers consisted of Steering Committee representatives from jurisdictions *not* included in the MNGWPD and therefore not required to adopt the MNGWPD ordinance. They developed a stream buffer ordinance for the non-MNGWPD jurisdictions.

The following individuals served on the Technical Committee for Stream Buffers:

Lynn Tully, *Dawson County*  
Norman Pope, *Pickens County*  
Kevin Flanagan, *Lumpkin County*  
Jimmy Moore, *City of Dawsonville*

## **Technical Committee Staff**

Seth Wenger, Institute of Ecology  
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## **Executive Summary**

Stream buffer ordinances that protect riparian zones are considered essential tools for ensuring the survival of many aquatic organisms. While some jurisdictions participating in the Etowah Habitat Conservation Plan already have adequate buffer protections in place, many do not. The model stream buffer ordinance of the Metropolitan North Georgia Water Planning District, which many jurisdictions participating in the Etowah Aquatic HCP must adopt in some form, provides a reasonable basis for local stream buffer regulations. The Etowah Steering Committee agreed that:

- Jurisdictions within the MNGWPD should adopt the MNGWPD model ordinance with minor changes, maintaining any existing rules that are more strict than those of the MNGWPD model ordinance (Appendix 1);
- Jurisdictions outside of the MNGWPD adopt a similar ordinance with a buffer width of at least 50 ft (wider if possible) (Appendix 2);

It is the understanding of the Steering Committee that these regulations will help minimize and mitigate take of imperiled species in the Etowah basin, and that adopting these regulations will be a requirement for holding an Incidental Take Permit pursuant to the Etowah Aquatic HCP.

## Introduction

Naturally vegetated riparian zones are necessary for maintaining healthy aquatic habitat for many organisms, including the imperiled species of the Etowah. A stream buffer ordinance (or riparian buffer ordinance) is a well-accepted policy tool that is widely used for protecting riparian zones from degradation in urbanizing areas. The Etowah Habitat Conservation Plan Steering Committee considers a riparian buffer ordinance an essential policy tool for all jurisdictions participating in the Etowah Aquatic HCP.

## Existing Ordinances

In July 2003, the HCP Stream Buffer Technical Committee reviewed stream buffer ordinances from all jurisdictions participating in the development of the Etowah Aquatic HCP. We obtained copies of stream buffer regulations from Bartow County, Cherokee County, Cobb County, Dawson County, Forsyth County, Fulton County, Lumpkin County, Pickens County, and the Cities of Canton, Cartersville, Dallas, Kennesaw, Marietta, Roswell and Woodstock. Emerson and Dawsonville reported that they follow state standards and did not supply copies of regulations; Waleska reported that it has adopted standards consistent with Cherokee County. Holly Springs did not respond to inquiries. Paulding County staff members were friendly and helpful by telephone, but failed to actually supply copies of regulations.

All jurisdictions appear to have complied with state regulations for stream buffers, including the Erosion and Sedimentation Act, the Mountain and River Corridor Protection Act, the Georgia Planning Act (water supply watershed protection) and the Metropolitan River Protection Act. Most counties and a few cities have exceeded these minimum standards by enacting their own stream buffer regulations. These are summarized in the following table:

Jursidiction	Buffer (+ Setback)	Notes
Bartow	50'	
Cherokee	50'	150' on Etowah
Cobb	50-200'	Varies by drainage area, etc.; requires covenant
Forsyth	35'	20' for intermittent and ephemeral streams
Fulton	75' (+ 15')	
Kennesaw	50'	
Roswell	100' (+50')	50'(+25') on "flowing" streams
Waleska	50'	
Woodstock	50'	100' on Little River

Many of the ordinances that exceed state standards lack one or more significant elements, such as clear definitions, intent and purpose sections, and variance procedures. The most complete regulations are those of Fulton County and the City of Roswell. Cobb County has a unique and interesting provision requiring the donation of a restrictive covenant to the county upon permit approval. In other words, stream buffers in Cobb County are protected by a permanent legal mechanism in addition to the regulatory protections themselves.

The remaining jurisdictions have not exceeded the state minimum standards. These jurisdictions include Dawson County, Lumpkin County, Pickens County, Canton, Cartersville, Dallas, Dawsonville, Emerson, and Marietta.

## **The Model Ordinance of the Metropolitan North Georgia Water Planning District**

The MNGWPD has developed a model ordinance for stream buffer protection. All jurisdictions in the district must adopt this ordinance by April 3, 2005. Key features of the ordinance are summarized below.

- The model ordinance establishes a naturally vegetated buffer width of 50', with an additional setback for impervious surfaces of 25'. This is a minimum, and jurisdictions are specifically authorized to exceed it.
- Existing land uses are exempted. This is broadly worded and therefore covers existing land disturbing activities, such as agriculture.
- Variance requests must be accompanied by detailed information.
- The ordinance distinguishes between land disturbing activities and land developing activities where the latter involves the placement or use of impervious surfaces.
- Streams are well-defined, as follows:
- *“Stream” means any stream, beginning at:*
  - *The location of a spring, seep, or groundwater outflow that sustains streamflow; or*
  - *A point in the stream channel with a drainage area of 25 acres or more; or*
  - *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.*
- The model ordinance clearly prohibits land disturbing activities, septic tanks and drainfields, and all impervious surfaces, including buildings and structures, from the buffer.
- The ordinance includes provisions for penalties and severability, as well as provisions for appeals and judicial review, elements omitted in several of the existing ordinances.

The model ordinance meets the minimum requirements for buffer ordinances recommended in publications of the University of Georgia Institute of Ecology (Wenger 1999, Wenger and Fowler 2000), although wider buffer widths would be preferable. In order to minimize and mitigate take of imperiled aquatic species, jurisdictions within the MNGWPD should adopt the MNGWPD model ordinance with modifications to include any wider buffers or additional stream protections currently in place. For example, Cobb County currently protects 75' buffers on streams draining more than five square miles, 100' buffers on streams draining more than 10 square miles, and 200' buffers on sections of Nickajack Creek. These should remain in force, as should the provisions requiring restrictive covenants on buffer lands.

In addition, three relatively minor changes should be made to the MNGWPD ordinance. The first is to clarify the definition of a stream; the second is to remove a vague exemption for activities in rights of way; and the third is to clarify and strengthen variance procedures. These changes are not essential, but should make the ordinance more

clear and defensible. These changes are highlighted in the “MNGWPD Model Stream Buffer Ordinance with HCP Recommendations Included” (Appendix 1).

### **Recommendations for the Non-MNGWPD Jurisdictions**

Lumpkin County, Dawson County, Pickens County and the City of Dawsonville are not included in the MNGWPD. Steering Committee representatives from these jurisdictions met to discuss the feasibility of adopting similar stream buffer regulations in those jurisdictions as part of the Etowah Aquatic HCP. Attending were Lynn Tully of Dawson County, Kevin Flanagan of Lumpkin County, Norman Pope of Pickens County, and Jimmy Moore of Dawsonville. .

Historically, stream buffer regulations in these jurisdictions have met with some opposition among property rights advocates, so the Steering Committee representatives advocated a moderate approach. Considering that many waterways in these areas are currently protected by 50’ buffers on trout streams, the participants suggested that a uniform 50’ buffer would be acceptable to property owners. The HCP Advisory Committee, made up of scientists from a number of state and federal resource management agencies including the University of Georgia, US Fish and Wildlife Service and Georgia Department of Natural Resources, agreed that a well-enforced 50’ buffer, while not as protective as wider buffers, would likely be adequate to help minimize and mitigate take of imperiled aquatic species when combined with other regulatory measures, such as improved stormwater management and erosion and sedimentation control. Based on these discussions, the University of Georgia’s Land Use Clinic drafted a new ordinance for the jurisdictions not included in the MNGWPD, and this ordinance was approved by the HCP Steering Committee (Appendix 2). The non-MNGWPD Etowah jurisdictions should adopt this ordinance with the understanding that it will help minimize and mitigate take of imperiled aquatic species and must be adopted prior to receiving an Incidental Take Permit pursuant to the Etowah Aquatic Habitat Conservation Plan.

## **Literature Cited**

Wenger, S.J. and L. Fowler. 2000. *Protecting Stream and River Corridors: Creating Effective Local Riparian Buffer Ordinances*. Athens, GA: University of Georgia. 68 pp.

Wenger, S.J. 1999. *A Review of the Scientific Literature on Riparian Buffer Width, Extent and Vegetation*. Athens, GA: University of Georgia. 57 pp.

## **Appendix 1**

### **MNGWPD Model Stream Buffer Ordinance with HCP Recommendations Included**

**Appendix 1. Recommended Changes to the Model Stream Buffer Ordinance of the Metropolitan North Georgia Water Planning District.** Additions are shown in highlighting (shading), and deletions are struck through.

A. Clarification of the definition of 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~~ **less** than 25 acres, the **(local permitting authority)** may require field studies to verify the existence of a stream.

B. Removal of the exemption for activities in rights of way. Utility easements and road crossings are exempted elsewhere, so this broadly-worded section appears unnecessary and problematic.

~~(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.~~

C. Clarification and strengthening of variance procedures.

**5.2. Variance Procedures**

Variances from the above buffer and setback requirements may be granted **only** 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 **any** 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~~ **adequate** mitigation measures **are implemented by the owner** to offset the effects of **such variance** ~~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.~~

Variations 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.
- (5) An approved variance shall allow a reduction in buffer width only to the extent necessary to provide relief from the conditions which prevented land development activities on the parcel.

**Appendix 2 HCP Model Stream Buffer Ordinance for  
Jurisdictions not Included in MNGWPD**

**Appendix 2. Model Stream Buffer Protection Ordinance for Dawson, Lumpkin and Pickens Counties, and the city of Dawsonville.**