

# APPLYING NEW REGULATORY CRITERIA TO PROTECT RIPARIAN BUFFER ZONES

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**Abstract.** The Riparian Buffer Protection Program is one of the Upper Chattahoochee Riverkeeper's primary initiatives for protecting water quality and streamside (riparian) greenspace along the Chattahoochee River and its tributaries. In recent years, there has been significant degradation to natural stream buffers throughout the river basin due to development, which has begun to focus on land previously viewed as undesirable, such as floodplains and riparian areas. As a result, water quality in these waterways is declining. A recently-revised variance process, which allows encroachment in stream buffers, given certain conditions, is provided by the Georgia Erosion and Sedimentation Act (GESA) and regulated by the Georgia Environmental Protection Division (EPD). Key components of Riverkeeper's Buffer Program include: (1) review of EPD's variance permitting program through analysis of individual applications and the agency's enforcement actions, (2) evaluation of buffer variance criteria for effectiveness and policy reform, (3) educational workshops and materials for the public and the regulated community to better understand stream buffer laws, and (4) support of continuing scientific research on the role of stream buffers in protecting water quality.

## PROGRAM HISTORY AND BACKGROUND

Upper Chattahoochee Riverkeeper is a non-profit environmental advocacy organization dedicated to the protection of the Chattahoochee River, its tributaries and watershed. Since its inception in 1994, Riverkeeper has been integrally involved with stream buffer protection efforts using advocacy, education and, in several cases, litigation. While some funds have been made available to purchase riparian buffers on the main stem of the Chattahoochee River and some tributaries, these amounts are insufficient to provide direct protection in the form of acquisition for *all*

stream buffers in the Chattahoochee watershed. Therefore, a successful regulatory and educational approach is needed to complement acquisition efforts. Despite the many benefits of riparian zones (e.g. pollution filtration, stream bank stabilization, temperature moderation, instream habitat, etc.) and state and local mandates to protect these important areas, riparian areas are regularly degraded and/or destroyed in Georgia.

This situation results in part because buffers (especially adjacent to North Georgia's trout streams) can be a contentious subject, erroneously considered as governmental "takings" by some landowners. Poor enforcement of GESA and previous loopholes in this law, such as the lack of a definition of a buffer and an exemption for developers claiming to engage in silvicultural activities, have failed to provide intended protection to these critical areas. As noted above, GESA does allow Georgia EPD to grant variances to state buffer requirements. However, prior to 2000 there were *no criteria* governing this process and more than 85% of variance requests were typically granted each year.

In 1998, in response to a particularly acrimonious legislative session in which a bill to weaken trout stream protections was barely defeated, several legislators convened an advisory committee of North Georgia representatives, environmentalists (including Riverkeeper), and academics to provide recommendations regarding trout stream buffers. The Committee met throughout 1999, discussing a range of issues including: the appropriate width for a trout stream buffer, responsibility for issuance of buffer variances, piping of headwater streams, enforcement of erosion and sedimentation control ordinances, and other related issues. Despite meeting many times, the group reached a stalemate on the majority of issues and no protective action resulted.

## 2000 AMENDMENTS TO BUFFER LAW

In the fall of 1999, Governor Roy Barnes asked four individuals (including Riverkeeper Director Sally Bethea and former Lt. Governor Pierre Howard) to attempt to resolve the disputes related to the regulation of trout streams. Following many meetings, the negotiators agreed on a suite of items, reflected in House Bill 1426, which passed the legislature and was signed into law in 2000. In summary, HB 1426 made the following changes to GESA which includes progress, to date, on the revisions:

### **Definition of Buffer**

Previously, the law did not define “buffer,” allowing developers to cut trees as long as they were not legally engaging in a “land disturbing activity.” Following language provided by Riverkeeper, the law now defines a buffer as riparian land in its “natural state of vegetation, which facilitates the protection of water quality and aquatic habitat.”

### **Buffer Variance Criteria**

EPD was directed to draft rules for Buffer Variance Procedures and Criteria which govern the granting of stream buffer encroachments (for trout and warm water streams). The Board adopted variance criteria in December 2000 which specifically define when EPD can consider a variance request.

### **Trout Stream Buffer Width**

HB 1426 reduced the required buffer along trout streams from 100 to 50 feet. (The buffer along other state waters, excluding those in water supply watersheds, remains at 25 feet.)

### **Piping of Streams**

The law allows piping of small headwater trout streams (defined as 25 gallons per minute or less) without a variance, in accordance with the general variance rules.

### **Closure of the Silvicultural Loophole**

As mentioned above, GESA exempts silvicultural activities. In the past, some developers have taken advantage of this exemption by claiming that their land clearing activities are harvesting operations, and thereby not regulated by GESA. HB 1426 closed this loophole by providing that if property is cleared under the silvicultural exemption, it cannot be used for non-exempt activities (e.g. development) for three years.

### **Minimum Fines and Stop Work Orders**

The law was strengthened by increasing minimum fines and requiring stop-work orders for chronic violators.

### **University of Georgia Buffer Study**

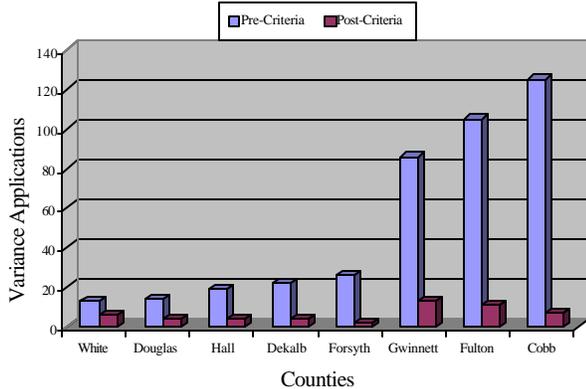
The negotiators and the Governor agreed that a comprehensive stream buffer study was needed to evaluate the impacts of the new regulatory program on the 5,000+ miles of state-designated trout streams in North Georgia. This \$300,000, three-year study, led by Dr. Judy Meyer, at the University of Georgia River Basin Science and Policy Center, may serve as the basis for future and further revisions of state buffer protection programs.

## RIVERKEEPER'S PROGRAM OBJECTIVES

### **Project Goal 1: Evaluate Buffer Variance Applications for the Chattahoochee River basin using new criteria**

From the fall of 2000 through 2002, Riverkeeper evaluated the many changes in the way Georgia's buffer protection regulations were administered and enforced. Because GESA is typically delegated by EPD to local governments for administration, it is essential to ensure that the law is clearly communicated by EPD to local officials, developers and the general public. In general, it was found that communication from EPD was not sufficiently clear and did not provide adequate guidance, especially for local government implementation of GESA.

Riverkeeper developed a standard evaluation of riparian buffer variance applications for the Upper Chattahoochee River basin. First, the buffer variance applications are reviewed by Riverkeeper staff and then evaluated on-site, with the technical assistance, as needed, from consultant engineers and biologists. Riverkeeper compares each request to the established buffer variance criteria and provides written recommendations or comments to EPD as part of the public comment process. The State decision is then logged in a database, created by Riverkeeper, and tracked to ensure that the scientifically-based criteria are followed and any concerns related to the specific sites and/or the variance process is noted. Riverkeeper's evaluation during 2000-02 revealed that fewer variance applications were being submitted and approved than in previous years, and that the approval followed the established criteria (Figure 1).



**Figure 1. Variance applications pre- and post-criteria.**

### **Project Goal 2: Evaluate Impact of 2000 Amendments on Stream Buffers**

The amendments to GESA which were approved in 2000 have generally been beneficial. Listed below are some of the specific results and impacts which Riverkeeper has identified.

#### **Trout Stream Buffer Width, Piping of Streams and Buffer Variance Criteria**

Vocal concerns from developers in north Georgia resulted in new rules (Chapter 391-3-7.05) which allow a general variance for piping of small, headwater trout streams with an average annual flow of 25 gpm or less. The regulations require the applicant to prove, by one of three methods, that the average annual flow in the stream is 25 gpm or less. The total length of stream that may be piped for each tract of land cannot exceed 200 feet. Our research found *no applicants or piping notifications* under the general variance for the Chattahoochee trout stream counties of Habersham or Lumpkin. We found one spring head piped at Albert Reed and Hwy 129 in White County, where three base flow measurements had been performed to confirm a flow of less than 25 gpm. In addition, local officials are to notify EPD on an annual basis of any piping of trout streams. To date, we have found no evidence of such notifications by land owners in Habersham, White and Lumpkin Counties.

#### **Closure of the Silvicultural Loophole-Education and Outreach**

Riverkeeper developed a partnership with the Georgia Forestry Commission to create educational and

outreach materials for local governments, citizens, foresters, timber buyers, loggers, property owners and developers. A brochure was created and distributed to over 2,000 people to help them understand forestry activity and the GESA. In addition, during 2000 and 2001, Riverkeeper's Soil Watch Program and materials, which included information on stream buffer regulations, were delivered to over 350 people, representing the above listed groups.

#### **Minimum Fines and Stop Work Orders**

For enforcement, the use of minimum fines is generally ineffective. However, some local governments issue fines for enforcement without problems. The immediate issuance of stop work orders at sites in violation of GESA is the preferred method of enforcement. Corrective action occurs in an expedient manner to allow construction activities to resume and waterways to be protected.

#### **Trout Stream Buffer Study**

To date, two Progress Reports (December 2001 and June 2002) have been issued by the University of Georgia's River Basin Science and Policy Center. These preliminary reports indicate that the allowance of a general variance to pipe headwater streams and the reduction of the trout stream buffer width from 100' to 50' will have negative impacts on fish populations and aquatic life. For example, as riparian forest cover decreases, stream temperatures increase, and trout stream habitat is reduced. These types of studies are imperative to ensure future policy is adequate and reflects scientifically-based protection criteria. The Final Study Report is due in early 2004.

#### **Project Goal 3: Develop recommendations for improvements to the state's buffer program**

Riverkeeper recommends the following improvements and changes to the buffer program:

- 1) Create and maintain a statewide database of buffer variances granted by EPD.
- 2) Using the database, track the linear feet of streams impacted for use as possible mitigation sites due to buffer encroachment violations for future projects.
- 3) Provide local issuing authorities with educational materials (via a web site) to assist them in understanding and implementing the law, including information on enforcement of buffer violations.

- 4) Provide clear and concise communication to ensure enforcement by EPD and local issuing authorities when clear buffer violations are documented.
- 5) Amend the Georgia Water Quality Control Act to prevent permanent alterations/structures in the vegetated buffer when a claim of no land disturbance is used and the variance process does not apply.
- 6) Ensure that the findings and recommendations of the Trout Stream Buffer Study are reviewed and implemented if appropriate.

### CONCLUSIONS

Overall, we believe that the changes to Georgia's stream buffer protection program which were instituted through the 2000 amendments to GESA have been helpful in protecting riparian green space and water quality in the Chattahoochee River basin. Developers and other land disturbers are beginning to design projects outside of riparian areas since variances are more difficult to obtain post-2000. The buffer variance criteria have resulted in fewer applications being submitted and approved by EPD, thus fewer linear feet of streams have been permanently impacted or destroyed. This reduction of variances, granted by EPD, that would have impacted riparian areas, can be correlated to more green space preserved and less green space permanently impacted by land disturbing activities. No conclusions have been reached regarding whether or not the closure of the forestry loophole has minimized impacts from land disturbing activities. Stop work orders for land disturbing activities which are not complying with GESA remain the most effective measures to secure compliance and reduce impacts to streams.

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