

To: All Members of Greenville County Council

From: Upstate Forever

Re: Greenville County Tree Conservation Ordinance Draft
10/12/07

Date: November 2, 2007

Upstate Forever has closely followed the progress of the Tree Policy Advisory Committee in drafting a comprehensive tree conservation ordinance for Greenville County. We appreciate Council's leadership on this important subject and respectfully submit these comments on the most recent draft of the ordinance dated October 12, 2007.

1. Large Trees

The citizens of Greenville County are alarmed at the depletion of tree cover in our area, and in particular about the loss of large, irreplaceable trees. The draft ordinance, Section 2, states that the policy of the County is to "protect and preserve established healthy trees where possible and practical." Yet, as currently written, the ordinance does not require *any* tree to be protected, and in fact does not even require any tree to be identified or surveyed unless the developer intends to seek credits for that tree. We urge Council to provide stronger protection to large trees, which generate huge economic, ecological, and aesthetic benefits.

Section 3 includes definitions for "heritage tree" and "specimen tree." These definitions are vague and must be determined on a case-by-case basis by the County Arborist. Thus, a new definition of specimen/heritage trees based on minimum size for each common tree species should be included in the ordinance.

The last paragraph of Section 5, addressing the review process for tree protection plans, needs clarification. The current draft states: "If the developer/applicant makes the decision to change the design to save the heritage or specimen tree, he/she will receive additional tree credits for each heritage or specimen tree saved...a saved heritage or specimen tree will receive 2.0 times the credits published in Section 13 for the DBH of the tree being saved." The credits for saving a heritage or specimen tree should be the same whether it was included in the original design or added later. Otherwise, developers would have an incentive to weaken their original plans.

Section 5 should be revised to (1) require trees above the defined threshold size be identified and a feasibility study on saving them performed, (2) require these trees to be preserved when feasible, (3) award the same amount of credit for a tree preserved in a developer's original plan as would be allowed in a revised plan, and (4) allow at least 15 business days (as opposed to calendar days) for review of plans by the County Arborist. Surveying of trees can be performed in conjunction with wetlands delineation, which is already required by Federal law, and thus would not add significantly to a developer's expense.

2. Buffers

Based on our experience, the USGS designation of "blue line" is not a reliable indicator of streams; there are blue line streams shown on the USGS maps which are not evident in the field, and there are significant streams that do not appear on the USGS maps. Section 6(c), therefore, should refer to "streams" rather than to "blue line streams," and in Section 3, the definition of "blue line stream" should be deleted and replaced with a definition of "stream" that is consistent with the definition established by the U.S. Army Corps of Engineers in its regulations (33 CFR 328). The developers of most projects in Greenville County already delineate "streams" as defined by the Corps of Engineers; thus, including the same definition in the tree ordinance should not cause any burden or hardship.

In addition, it should be explicitly stated in the ordinance that in cases which fall under both the Tree Conservation Ordinance and the County's Buffer Ordinance (Chapter 18, Section 18-24), the more restrictive requirements would apply. The County may wish to investigate whether the implementation of the tree conservation ordinance would eliminate the need to have a buffer ordinance on the books.

3. County Arborist

Section 14 states that "the County Administrator or his designee shall secure the services of a Certified Arborist..." But the next sentence states: "The person employed in this position shall be a certified arborist, registered forester, or other knowledgeable and qualified tree expert with appropriate educational/professional credentials..." This section should be clarified; certification as an arborist should be the minimum qualification for this position.

4. Protection of Existing Trees

In Section 3, “root protection zone” is defined as “the greater of a) a six foot radius around the tree or b) one foot for every inch of tree diameter...” Yet in Appendix A, the ordinance states “There shall be no grading or paving with any impervious material within five (5) feet of any trees retained...” The latter should be changed to match the definition in Section 3.

Also in Appendix A, the instructions for silt screening may lead to root damage; these should be revised to require silt source reduction, the location of silt fencing farther outside the root protection zone, and the use of other containment methods that do not damage tree roots.

Appendix A states that tree fencing and erosion control barriers “shall not be removed until landscaping is installed.” This should be reworded to read “shall not be removed until site stabilization is complete.”

The sections on encroachment and soil compaction in Appendix A should be deleted, as these impacts should not be allowed in the root protection zone of a tree being claimed for credit under the ordinance. The section on irreparable damage should state that “replacement of the trees *will* be required.”

The information on “Planting Trees Correctly” should be put in a separate Appendix to avoid confusion.

The section on soil preparation emphasizes the movement of excess water off-site, thereby increasing stormwater runoff. This section should be rewritten to encourage the retention and absorption of stormwater on site, which is a much better practice for reducing erosion and stormwater impacts.

5. Previous Comments

Our [previous memo](#) with comments on an earlier version of the ordinance is enclosed. While we appreciate that some of our suggestions are included in the current draft, several important changes were not made. We refer you the following sections from the earlier memo, summarized here:

1. **Application of Ordinance:** Section 4 should refer to the issuance of the grading permit as the key event determining the application of the ordinance.

- 2. Tree Protection Plans:** In Section 5, the definitions of “tree survey,” “survey plat,” and “tree protection plan” should be clarified.
- 3b. Wetlands vs. Jurisdictional Wetlands:** Section 6(e) should refer to “wetlands” rather than “jurisdictional wetlands.”
- 3c. Surveying of Wetlands:** Wetlands, water resources, and buffer areas should be required to be surveyed.
- 3f. Other Suggestions Related to Buffer Requirements:** Section 6(d) should allow the removal of invasive species. Section 6(i) should state: “...prior to any grading or clearing activities...” rather than “...prior to grading or clearing...” Section 6(h) should require the tree species and tree size to be shown on the plan. Section 6(j) [Section 6(g) in earlier draft] should not require the County Arborist to “identify opportunities and incentives to save said trees”; this should be the responsibility of the developer.
- 5b. Management of Tree Bank:** Suggestions 2-7 have not been implemented in Section 8.
- 6a. Commercial, Retail, and Institutional Projects:** It should be stated in Section 9 that trees required under the parking lot landscaping standards ordinance do not count toward meeting the requirements of the tree ordinance.
- 8-9. Public Recreation and Industrial Projects:** Minimum density units per acre should be increased from 10 to 15 in Sections 11 and 12.
- 13a. Other:** Diagrams and/or drawings illustrating the planting, location, and buffer requirements of Sections 9-12 would be helpful.
- 13c. Other:** Some of the defined terms in Section 3 are not used in the text of the ordinance, including “deciduous,” “flood plain,” “historical significance,” “land development project,” “non-conforming use,” and “public utilities.”

6. Impact on Housing Costs

Some opponents have claimed that the passage of a comprehensive tree protection ordinance will significantly increase the cost of housing in Greenville County. However, there is no evidence that housing costs have increased due to the implementation of tree protection ordinances in other communities. Notably, advocates for affordable housing in Greenville County have not expressed any concern about the proposed ordinance.

Builders are unlikely to see negative impacts. Laura Brewer, Certified Arborist with the City of Charlotte, reports that her city has not received any negative comments from developers about their tree ordinance, which went into effect in 2002. According to Ed Macie of the USDA Forest Service in Atlanta, developers are successfully complying with tree protection ordinances throughout metropolitan Atlanta. He adds, “If done correctly, tree protection may actually *save* a builder money and render their product more marketable.” As American Forests and the National Association of Home Builders state in the book Building Greener Neighborhoods, “while it costs money to save trees, it also costs money to chop them down.”

Actually, a strong case can be made that tree protection will make homeownership more affordable in the long run. Energy and maintenance costs take a huge bite out of homeowners’ wallets, and it has been proven in study after study that the presence of trees lowers these costs significantly:

- Shade from trees can reduce utility bills for air conditioning in residential and commercial buildings by 15-50 percent. (Roloff, Glenn. *Twenty-Nine Reasons for Planting Trees*. USDA Forest Service – Northern Region. Treelink: The Community Forestry Resource: http://www.treelink.org/docs/29_reasons.phtml)
- Windbreaks around homes can shield against wind and snow, and heating costs can be reduced by as much as 30 percent. (*Ibid*)
- Trees provide an estimated \$1.86 million in annual energy savings for single family residences in the Portland, Oregon area. (*Regional Ecosystem Analysis for the Willamette / Lower Columbia Region of Northwestern Oregon and Southwestern Washington State*. Washington, D.C.: American Forests, 2001. http://www.americanforests.org/download.php?file=/rea/AF_Por_tland.pdf)

- Properly placed trees in the landscape can realize savings of up to 58 percent on daytime air conditioning and as high as 65 percent for mobile homes. If applied nationwide to buildings not now benefiting from trees, the shade could reduce our national consumption of oil by 500,000 barrels of oil/day. (*Benefits of Trees In Urban Areas*.
<http://www.coloradotrees.org/benefits.htm>)
- Projections suggest that 100 million additional mature trees in US cities (3 trees for every unshaded single family home) could save over \$2 billion in energy costs per year. (*Ibid*)
- In addition to individual energy savings, trees provide great savings to local governments. In the area of stormwater management alone, a USDA study showed that a single 28-foot-tall tree intercepted 58.1 gallons in its crown area during a ½-inch rainfall event. (*The Community Forest*, Mississippi Forestry Commission, Urban and Community Forestry Division.)

Some developers expressed concern about the impact of the side buffer requirement on housing costs. The current draft of the ordinance has eliminated that requirement.

Thank you for your consideration of our comments. We look forward to your enactment of a strong and effective tree conservation ordinance for Greenville County.