

(181) from Council Member Harrison  
5/20/02

## **PROPOSAL FOR REGULATION OF INTERMITTENT STREAMS UNDER THE RCD PROVISIONS OF THE DEVELOPMENT ORDINANCE**

### **This Is Necessary As A Part Of Our Overall Stormwater Management Approach**

The "Final Report from the Chapel Hill Stormwater Utility Development and Implementation Study Committee" contains, as Appendix A, a detailed Southern Orange County Stormwater Management Program Analysis."

On the first page, it addresses development near intermittent streams or tributaries... in anticipation of future Cape Fear Basin rules."

Chapel Hill is shown as not addressing intermittent streams in the RCD Ordinance, and the recommendation is made that these water bodies "should be identified and regulated with minimum buffer widths."

Because of the Riparian Buffer regulations for the Neuse and Tar-Pamlico river basins, hundreds of local governments across the eastern half of NC are regulating development next to intermittent streams. It is past time for Chapel Hill to add this to its set of stormwater management tools.

### **Our Coverage Is Lacking Compared to Adjacent Jurisdictions**

**Carrboro:** According to the above-mentioned Program Analysis, Carrboro's development ordinance, at 15-268 (b), requires buffers around intermittent streams in two tiers: for a stream with a watershed greater than 50 acres, - 50 feet of buffer, or 5 times average width of stream; for a streams with a watershed of less than 50 acres - 15 feet from centerline. Carrboro Planning Staff has identified and mapped streams as perennial and intermittent. (Roy Williford, personal communication).

**Durham County and City:** New development next to intermittent streams in the almost 290 square miles of Durham County and City jurisdiction immediately adjacent to the Town, has been regulated for three years by the Stream Buffer provisions of the Resource Protection Ordinance. The City and County Watershed Protection ordinances also require buffers for intermittent streams.

For the Watershed District which matches that required by state law and regulation for Chapel Hill - the state-mandated "Protected Area" - the Durham jurisdictions require 50-foot buffers from the streambank, with a 100-foot buffer required from the streambank in the "High-Density Option", developments with greater than 24 percent impervious surface.

For identification of these water bodies under all Durham City and County ordinances, the Durham Resource Protection Ordinance section on stream buffers states:

“An intermittent stream is defined as a watercourse that collects surface runoff and a) is shown as a dashed blue line on the most recent United States Geologic Survey (USGS) 7 1/2 minute quadrangle topographic maps or is shown as an intermittent stream on the most recent US Department of Agriculture Soil Survey of Durham County, North Carolina; and b) drains an area 25 acres or greater .... Where a USGS topographic map and the Soil Survey map show a difference in stream type for a particular reach of stream, the map that shows the greater level of stream protection shall apply.”

The mapping criteria are based on those supplied by the NC Division of Water Quality (NCDWQ) for enforcement of the Neuse River Basin Buffer Rules. They are also applied in the Tar-Pamlico River Basin. This writer was a member of the NCDWQ Task Force which developed those criteria.

### **A Proposed Scope of Regulation Is Offered by our Neighboring Jurisdictions**

Chapel Hill should adopt, at a minimum, regulations equivalent to the Carrboro or Durham rules. The criteria for watersheds of less than 50 acres used by Carrboro should also be considered.

I believe that the mapping criteria used by NCDWQ and by the Durham jurisdictions should be used to determine extent of regulation. NCDWQ personnel will be able to advise the Town that these have held up legally.

The Intermittent Buffer provisions should contain 2 of the 3 segments currently proposed: Stream Side and Managed Use. Respective distances of coverage could be 30 feet plus 20 feet.

Because regulation of intermittent streams based on Soil Surveys would substantially increase the amount of land coverage of the RCD, Council should consider whether the new provisions regarding streets and bridges, pavement width, curb and gutter, and sidewalks, should be applied to the RCD. New developments with a primary goal of “walkability,” with gridded streets and sidewalk, could be significantly hampered in meeting this important community goal if these provisions were inflexibly applied to intermittent streams.

### **There Are Possible Concerns of Implementation**

The identification of intermittent streams here is based on available maps. Our staff's identification of perennial streams is based on 2 or 3 criteria being met. Based on my professional experience, I would say that any more than one of these criteria would be met in intermittent streams in many locations. The NCDWQ has developed detailed

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criteria for settling mapping disputes, over whether a stream actually is present, is intermittent or is perennial. From my experience, application of these criteria is far more time-consuming than those applied by the Town. I would support primary use of the mapping criteria.

This would give a three-tiered structure of stream regulation – intermittent streams, perennial streams with smaller watershed, and perennial streams with larger watersheds. Segments would be regulated within each type. This adds somewhat more complication to a system which is already complicated. I believe the water pollution control benefits of additional protection to these streams can outweigh any burdens from additional complications.

Ed Harrison, Town Councilmember, 5/20/02