

11-6-06
Written Comments
for records.

WESTFALL (Booth Mountain) Preliminary Plat Request - Phases 1A, 1B, and 1C Comments for the Chatham County Planning Board and Staff

6 November 2006

Allison E. Weakley, Biologist

I have reviewed the request for preliminary plat approval of Phases 1A, 1B, and 1C of the Westfall (formerly Booth Mountain) Planned Unit Development (PUD) posted on the County website (as of 3 November 2006) and have the following concerns:

Major concerns:

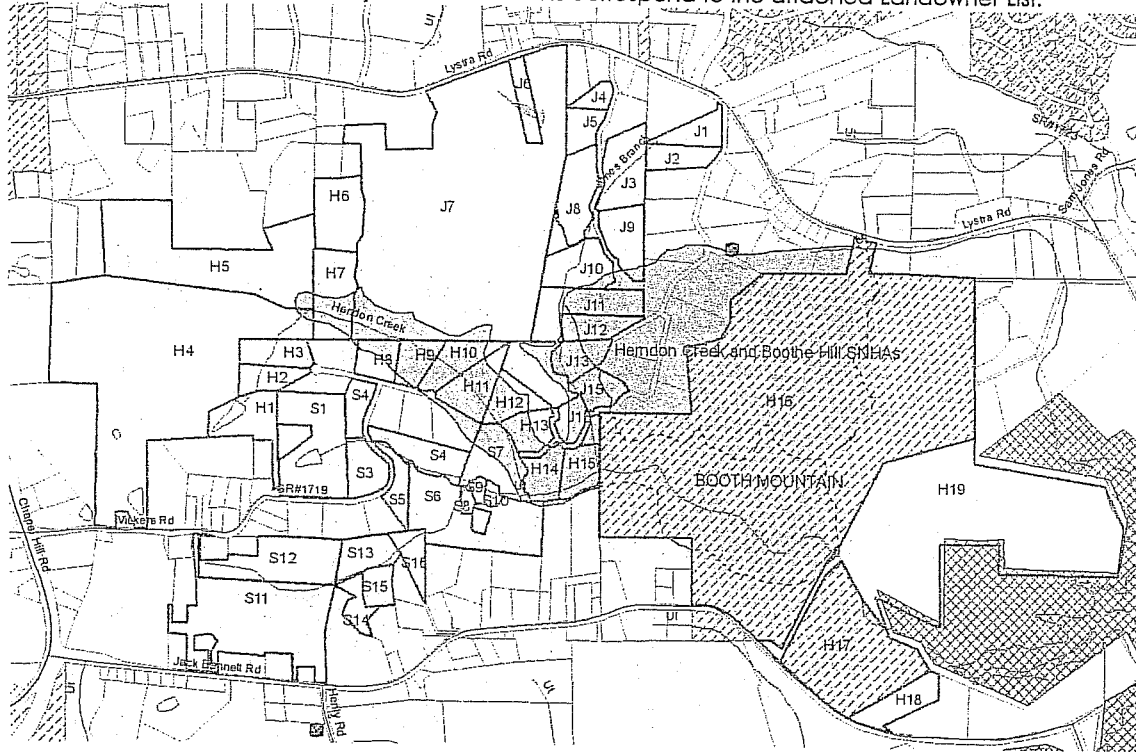
- The stream buffer along Herndon Creek should be 200' each side of the creek, not 200' total, to allow for passage of wildlife and for water quality protection. Stream buffers should be measured from the top of the bank and consider slope in the buffer calculation.
- The rare plant survey completed by S&EC was conducted during a time of year when Sweet pinesap (*Monotropsis odorata*) is the least likely to be found. This inconspicuous species is most often found by its potent odor when flowering in early Spring (February-April). The majority of occurrences of this species in the Natural Heritage Program (NHP) database have been observed only Spring during the flowering time (NCNHP 2006).
- The developer should be encouraged to participate in the Herndon Creek Conservation Project, a voluntary effort initiated in August 2006 between private landowners and the NC Ecosystem Enhancement Program (NC EEP), to preserve stream buffers throughout the Herndon Creek watershed for water quality protection.
- The request by the developer that the roads off Jack Bennett Road become private as opposed to public suggests that the amenity area will also remain private (not open to the public). Opening the amenity area to the public would demonstrate a willingness by the developer to be a good neighbor and give something back to the County and its citizens.
- Street lighting plans have not been discussed as of yet. Given the sensitive nature of this area as wildlife habitat for area-sensitive species (Phases 1A, 1B and 1C all impact the Herndon Creek and Boothe Hill Significant Natural Heritage Areas), street lighting should be prohibited.
- The groundwater monitoring well required by the Division of Water Quality (DWQ) to be installed at the project boundary on Boothe Hill proper is shown in the non-disturb buffer. How will this well be installed without disturbing the 150 foot non-disturb buffer?
- The proposed location of the trail easement to the County school site off Jack Bennett Road does not connect with neighboring developments. The trail should connect all portions of the development to the school site, and should allow for adjoining communities to also use trail to the school.
- Phasing - what can adjacent landowners expect? We hear constant noise from heavy machinery daily - from sun rise to sun set, even on weekends.

Some of these concerns are discussed in more detail below.

Herndon Creek Conservation Project

Herndon Creek is a perennial stream (as shown on USGS topographic maps) with a watershed that begins east of US15-501 and drains to Bush Creek, then to Jordan Lake (see Figure 1).

Figure 1. Map showing the Herndon Creek watershed, including WESTFALL (BOOTH MOUNTAIN) and the Herndon Creek and Boothe Hill Significant Natural Heritage Area (SNHAs). Parcels outlined in red indicate those that contain or border perennial streams in the Herndon Creek watershed, as defined for the Herndon Creek Conservation Project. Parcel labels correspond to the attached Landowner List.



The NC Ecosystem Enhancement Program (NC EEP) included the Herndon Creek watershed in a Targeted Local Watershed that consists of Cub Creek, Herndon Creek, Beartree Creek, and Parkers Creek, all of which together form the northwestern arm of Jordan Lake [see Targeted Local Watersheds Regional Boundaries Map (2001) http://www.nceep.net/images/regional_boundaries_map.jpg].

The Herndon Creek Conservation Project was born out of a need to ensure water quality protection in this Targeted Local Watershed, especially given the amount of development currently taking place within the northwestern arm of Jordan Lake. Herndon Creek is the last major stream in the northwestern arm of Jordan Lake not to have been already impacted by major commercial or residential development.

The NC EEP visited the Herndon Creek watershed with Allison Weakley and Gretchen Smith on August 24, 2006 to discuss the Project. NC EEP was impressed with the high quality condition present in the Herndon Creek watershed, both in terms of undisturbed stream buffers/uplands and water quality. In fact, NC EEP stated they would like to use Herndon Creek as a reference condition for restoration work in the piedmont.

Water quality monitoring data collected in Herndon Creek 2005 for the Haw River Assembly and its confluence with Jones Branch shows excellent water quality. Careful oversight is needed during construction to prevent problems that have occurred at other development sites being implemented by the CE Group; they have a bad track record of letting erosion control devices go with monitoring and maintenance, and have been responsible for considerable sedimentation of surface waters in Chatham in just over the last year.

We request that a permanent conservation easement be dedicated to the NC Ecosystem Enhancement Program, as other private landowners within the watershed have expressed a willingness to do. The conservation easement should include all intermittent and perennial stream buffers in the Booth Mountain (Westfall) development, and at the very least include the stream buffer along Herndon Creek.

We also request that the stream buffer along Herndon Creek be extended to 200 feet each side to accommodate wildlife passage and to protect water quality.

Herndon Creek and Boothe Hill Significant Natural Heritage Areas (SNHAs)

The WESTFALL (Booth Mountain) development impacts significant portions of the Boothe Hill and Herndon Creek Ravine Significant Natural Heritage Areas (SNHAs) (see Figure 1). These SNHAs serve as an important wildlife reservoir and corridor, respectively. To reduce impacts to area-sensitive species such as bobcat and wild turkey, which are known to occur here, it is recommended that an undisturbed, vegetated buffer be maintained along Herndon Creek and its tributaries.

A 200 foot stream buffer should be requested for each side of Herndon Creek to allow wildlife to continue to use the creek as a corridor. This buffer size would also ensure water quality protection.

Rare Species

Condition #7 of the Resolution Approving the Conditional Use Permit for the Booth Mountain (Westfall) development states that no clearing shall take place until an additional plant survey referred to in the S&EC report is performed in the Spring.

The plant survey conducted by S&EC was not conducted in the Spring, as was needed to determine whether or not Sweet pinesap (*Monotropsis odorata*) was present on site or not; the survey was conducted in June, a time in which it is extremely difficult to locate this species.

Sweet pinesap blooms in winter and early Spring (February-April), and is most often found by its characteristic and potent odor (it smells like cloves). Finding this species any other time of year is extremely difficult.

The developer should be required to survey for this species during the time of year when it is most likely to be found, as was outlined in Condition #7. A survey during any other time of year is not compatible with the conditions of the Conditional Use Permit.

Also of note is the potential for presence of the Carolina ladle crayfish and four-toed salamander on site. Surveys for these species should likewise be conducted during appropriate time of year to determine if they are present or not, and if present, methods to mitigate impacts should be proposed.

RECOMMENDATIONS

1. Request all intermittent and perennial streams buffers to exceed the minimum required by our Watershed Protection Ordinance to ensure protection of water quality and wildlife habitat along Herndon Creek. A minimum 300 foot undisturbed vegetated buffer (150' each side) along Herndon Creek should be encouraged. On intermittent streams a minimum of 100 feet should be required. Doing so would greatly help minimize the impact on water quality and wildlife habitat.

2. Encourage the buffering of ephemeral streams (that carry significant amounts of stormwater during rainfall events).
3. Request that a conservation easement be dedicated to the NC Ecosystem Enhancement Program, as other private landowners within the watershed have pledged to do. The conservation easement should include all intermittent and perennial stream buffers, and at the very least include the stream buffer along Herndon Creek.
4. Require surveys for Sweet pinseap and Witch Alder during spring blooming periods. The survey S&EC conducted for Sweet pinesap took place during an inappropriate time of year; surveys for this species should take place in early Spring (February-April), as this species is most often only found by its pungent odor when flowering, not in June.
4. Require surveys be conducted for the Carolina ladle crayfish and four-toed salamander so that impacts to these species can be avoided or mitigated. The Carolina ladle crayfish is known to occur in a tributary of Jordan Lake northeast of this site off Big Woods Road, and suitable habitat for both species exist on site.
5. Request that restrictive covenants be established to help avoid and mitigate impacts by limiting lot clearing, impervious surface, and ensuring buffers along streams and property boundaries.
6. Prohibit street lights to minimize impact on wildlife habitat.
7. Request that the easement to the Board of Education school site be extended to connect with neighborhoods upslope (Boothe Hill, Jones Branch, etc.) to allow trail access to the school site.

Very sincerely,

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