



Soil & Environmental Consultants, PA

8412 Falls of Neuse Road, Suite 104, Raleigh, NC 27615 • Phone: (919) 846-5900 • Fax: (919) 846-9467
sandec.com

September 19, 2014
S&EC Project # 9948

To: Town of Pittsboro, NC
attn: Bryan Gruesbeck, Town Manager
cc: Fred Royal, Town Engineer

From: Bob Zarzecki
Soil & Environmental Consultants, P.A.

Re: **Chatham Park - On-site Determination Methodology**
Town of Pittsboro - Riparian Buffer Protection Ordinance (Section 7.A.4.)

On behalf of the owner, Chatham Park Investors, LLC, please find attached the “*Chatham Park - On-site Determination Methodology, Town of Pittsboro – Riparian Buffer Protection Ordinance (Section 7.A.4.)*”. The methodology incorporates all changes agreed to in our July 29th meeting with you and Mr. Fred Royal.

The methodology is solely to propose an acceptable on-site determination method to be performed by S&EC that the Town would be comfortable to accept per *Section 7.A.4.* of the *Town of Pittsboro - Riparian Buffer Protection Ordinance*. The intention is to reduce the amount of effort and cost imposed on the Town to achieve compliance in a timely manner for the Chatham Park project.

All S&EC staff that will perform the work are qualified to do so, and have been trained by the N.C. Division of Water Resources (DWR) in the application of the most current version of the *DWR Identification Methods for the Origins of Intermittent and Perennial Streams*. Certificates of such training will be provided along with the on-site determination report submitted to the Town. It should be noted, both Mr. Kevin Martin and I were directly involved in the development of this methodology during our time at DWR, the Neuse River Buffer Rule Stakeholder Committee and/or N.C. Environmental Management Commission (EMC).

It’s our belief that the acceptance of this methodology should be an administrative action made by Town staff, given that it is a clearly identified option in the approved ordinance, which states; “*The Town of Pittsboro may accept the results of a site assessment made by another party who meets these criteria.*”

S&EC is prepared to begin the field work on October 1, 2014.

Please contact me at (919) 846-5900 or bzarzecki@sandec.com if you have any questions or require additional information.

To: Mr. Fred Royal, Town Engineer
Town of Pittsboro, NC

From: Mr. Bob Zarzecki
Soil & Environmental Consultants, PA

Re: CHATHAM PARK – Proposed Planned Development District (PDD)
On-site Determination Methodology
Town of Pittsboro – Riparian Buffer Protection Ordinance (Section 7.A.4.)

Date: September 19, 2014

Soil & Environmental Consultants, PA (S&EC) has been retained to help ensure compliance with wetland, stream and riparian buffer regulations for Chatham Park. S&EC has delineated all jurisdictional wetlands, streams and other waters within the proposed development and has verified our findings with the U.S. Army Corps of Engineers (USACE). S&EC is working with the developer to maintain these verifications.

S&EC has met with the Town of Pittsboro to develop a methodology to confirm the applicability of the Town's *Riparian Buffer Protection Ordinance, Adopted February 14, 2011* (hereafter "Buffers") within Chatham Park. S&EC and the Town have conducted a pilot field study of streams within Chatham Park. As a result of these discussions and field studies, S&EC proposes the following methodology.

Riparian Buffer Protection Ordinance, Adopted February 14, 2011 Summary:

The Town's riparian buffer ordinance applies 50-ft protected buffers to all surface waters, defined as intermittent streams, perennial streams, lakes, reservoirs and ponds, excluding wetlands. Only surface waters approximately shown on the most recent version of the USGS 1:24 000 scale quadrangle topographic map or USDA/NRCS Chatham County soil survey map are subject to the buffers. The origin or presence of a surface water can be confirmed by the Town or the Town may accept the results of an on-site determination made by a trained party (e.g., consultant).

Surface Water Identification Methodology:

1. All surface waters approximately shown on either the USGS or Soil Survey maps will be subject to the riparian buffers, unless specifically exempted by the Town.
2. S&EC will identify all drainages, regardless of jurisdictional determinations made by the USACE, that are shown to contain a surface water on the USGS or Soil Survey maps, which either originate on property or were found to be ephemeral or non-existent by the USACE. Each such drainage will be shown on a map and labeled with an identifiable number, and S&EC will perform an on-site determination on each drainage to include the following:

- 2.1. S&EC will evaluate each drainage using the most current version of the N.C. Division of Water Quality (now Division of Water Resources) *Methodology for Identification of Intermittent and Perennial Streams and Their Origins (current version 4.11)*.
- 2.2. S&EC will complete a *N.C. DWQ Stream Identification Form (current version 4.11)* for each drainage.
- 2.3. S&EC will photograph the drainage and or origin and provide a copy of the photograph along with the completed stream form. (Multiple photographs will be provided as necessary.)
- 2.4. S&EC shall provide GPS coordinates (lat/long) for each identified stream origin location. These coordinates shall be provided both on the completed stream forms and in digital format.
3. S&EC will provide the Town an *On-site Determination* report with a map with all evaluated drainages labeled, a table of our findings, and the completed stream forms and photographs. The table will include the drainage identification number, stream form score, stream classification (non-existent, ephemeral, intermittent or perennial), coordinates of identified origins, date of the determination, and any site specific notes.
4. S&EC can provide these determinations for the entire Chatham Park at one time or in phases.

Town Review & Approval:

The Town will review the *On-site Determination* report within six (6) months if it includes the entire Chatham Park assemblage or three (3) months for each report if presented in multiple phases. The Town will notify S&EC during the review(s) of any stream drainages they wish to confirm in the field, if any. At the end of the review period(s), the Town will approve the on-site determinations in writing.

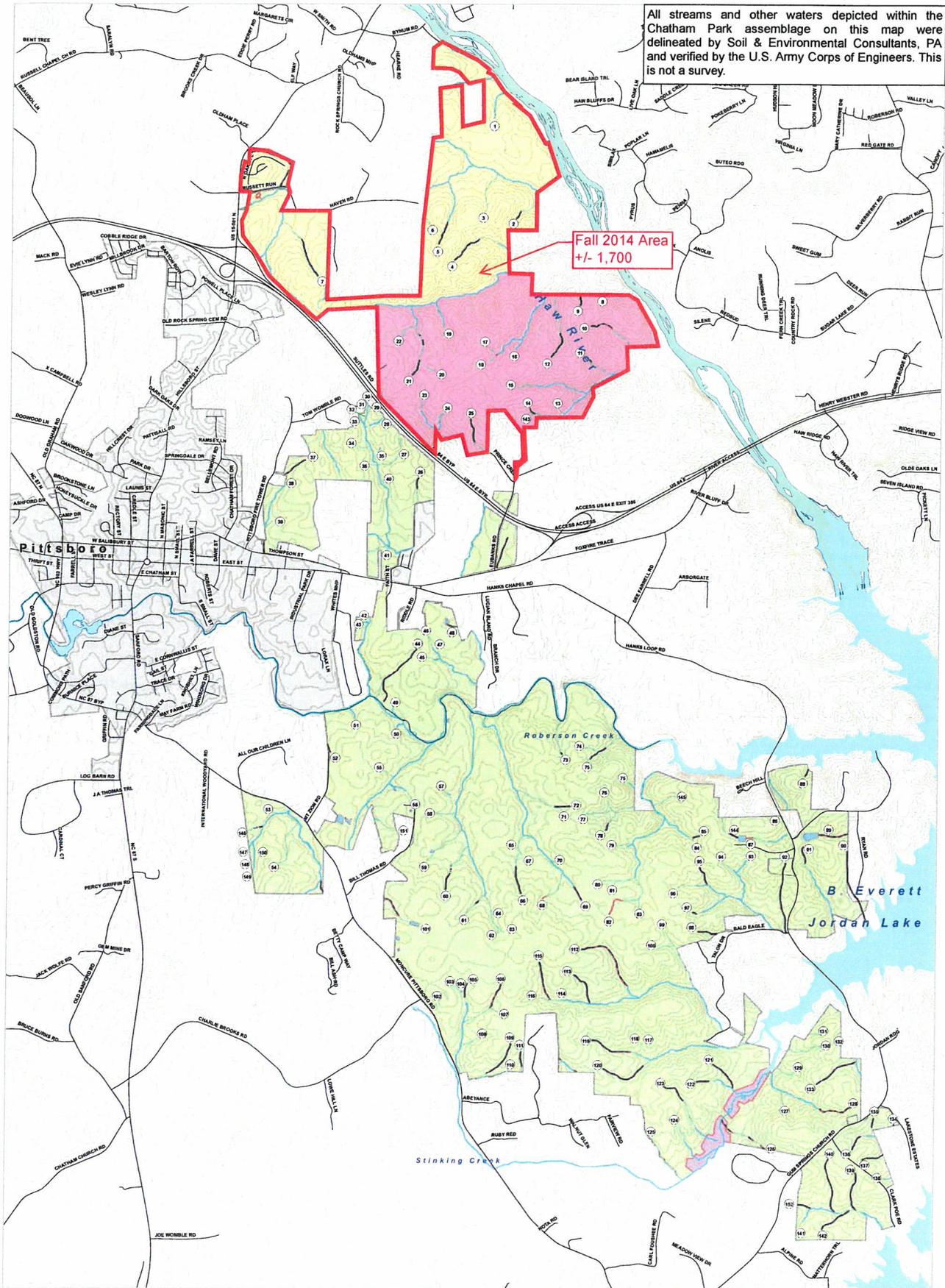
Process Flow Chart:



Note (1): Prior to any site design, the stream origins and top of banks of all jurisdictional or buffered streams will need to be located by a N.C. Professional Land Surveyor.

Note (2): These determinations only apply towards the Town's Riparian Buffer Protection Ordinance. Other buffer requirements exist as conditioned in the approved Chatham Park PDD & Master Plan.

Note (3): Any disputes made by the Town over jurisdictional determinations shall be referred to the U.S. Army Corps of Engineers. Per the PDD/Master Plan, Chatham Park has agreed to buffer all jurisdictional streams regardless of how depicted on the USGS or Soil Survey maps.



All streams and other waters depicted within the Chatham Park assemblage on this map were delineated by Soil & Environmental Consultants, PA and verified by the U.S. Army Corps of Engineers. This is not a survey.

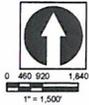
Fall 2014 Area
+/- 1,700

Chatham Park Stream Map, April 2013

- Lake/Pond
- River
- Chatham Park (North)
- Chatham Park (River Oaks)
- Chatham Park (Main)
- Town of Pittsboro
- Stinking Creek Cons. Easement Boundary
- Important, Intermittent Stream
- Important, Perennial Stream
- Pond/Open Water
- Non-Jurisdictional Pond

- Streams on USGS/Soil Maps, Not in Field**
- On Soil Survey Only
 - On USGS Only
 - On Both USGS and Soil Survey

Chatham Park Planned Development District Master Plan



Prepared By:
S&E
 Soil & Environmental Consultants, PA
 11115 Raven Ridge Rd • Raleigh, NC 27614
 919-846-2622 • 919-846-9441
 Web Page: www.sandc.com
 S&E Project No. 9948