

FIVE AFFIRMATIVE FINDINGS

The proposed amendment to the Westfall project (the “Project”) meets all of the five affirmative findings set forth relating to this request for issuance of an amended conditional use permit. Because the initially approved development was determined to meet the Five Affirmative Findings, the proposed amendment, by extension, will meet the Five Affirmative Findings as well but to an even greater degree, as is set forth herein. An analysis of the Project, and the proposed adjustments to the project along side of the five required affirmative findings reveals that the proposed amended Project meets all of the findings and meets or exceeds all applicable standards. To the extent not inconsistent with this amendment application, the five findings information from the original and prior applications are hereby incorporated by reference.

FINDING #1: The use requested is among those listed as an eligible conditional use in the district in which the subject property is located or to be located.

A. Validation of Use in Zoning Ordinance. All of the property subject to this application is zoned R-1 (originally RA-40). Under the Chatham County Zoning Ordinance, a planned residential development is an allowed conditional use in an R-1 zoning district.

FINDING #2: The requested conditional use permit is either essential or desirable for the public convenience or welfare.

A. Need or desirability.

On the heels of the recent dip in the housing market nationally and locally, we are now beginning to see steady signs of increasing demand. The Briar Chapel project, located nearby, has seen steady growth in sales in the last two years such that it consistently ranks among the top three selling developments in the entire Triangle area. Thus, a need for additional residential lots and housing in the northeast section of Chatham County exists.

In addition, the proposed amended is desirable for the public convenience or welfare. The additional property and reduced lot sizes accommodate the needs of the current restructured residential housing market and, simultaneously, constitutes improved stewardship of the existing natural features of the site. The revised plan creates a significant amount of new open space, while taking advantage of existing and constructed infrastructure, as detailed on the attached plans. Careful attention has been given in this Project to elements that make the Project orderly, efficient and desirable. The roads, water, wastewater, erosion control, storm water management and schedule of development have all been carefully planned precisely in order to make the development orderly, efficient and desirable. The proposed density on this Project is approximately one residential unit for every 1.27 acres of land, a density that is less than what current zoning of the property allows (.92 residential units per acre). The project creates desirable housing options immediately adjacent to the County high school property, within

walking distance along the community trail.

B. Survey of similar uses.

The Project in this case provides a unique blend of residential uses that cannot be found nearby in northeast Chatham County. The Project provides for 129 village lots which range in size from approximately .2 to .5 acres for a high density, lower cost housing alternative. In addition, the Project calls for 47 neighborhood lots which are comprised of lots ranging from approximately .5 to .8 acres for a more moderate residential dwelling price point. Finally, the Project will also include 66 estate lots for larger lots ranging in size from .7 to 2.5 acres. This unique, blended variety of residential uses allows for the important balance between providing ranges of affordability on the one hand and increased tax revenue and other revenue to the County on the other hand. In essence, the higher value lots and residences in this subdivision will be generating tax revenue that makes the more affordable lots and residences in the same project not only possible but beneficial to the community.

C. Public provided improvements.

The County would be required to provide no public improvements as a result of approval of the amended Project.

Finding #3: The requested permit will not impair the integrity or character of the surrounding or adjoining districts and will not be detrimental to the health, safety or welfare of the community.

A. Traffic.

This Project will create no undue burden on the existing public road infrastructure adjacent to the Project. The Applicant commissioned an updated traffic study by Ramey Kemp & Associates, Inc., traffic engineers to examine any additional impacts caused by additional lots. A copy of the conclusions of Ramey Kemp are submitted contemporaneously herewith. The traffic engineers reached the conclusion that the amended Project will impose no undue burden on the existing infrastructure.

B. Visual impact and screening.

The Project will be surrounded by a minimum 50 foot wide natural buffer area (much larger in some areas). Attached hereto is a graphic depiction of the buffer and naturalized areas that will remain at build out.

C. Lighting.

The Project will comply with Section 13 of the Chatham County Zoning Ordinance guidelines regarding exterior lighting.

D. Noise.

This amended residential Project will not create any noise levels that are atypical of residential subdivisions already approved and located in Chatham County. Certainly, the noise levels are not anticipated to exceed the levels allowed by the County noise ordinance.

E. Chemicals, biological and radioactive agents.

The Project will not include chemical, biological or radioactive hazards.

The additional lots will create no additional chemical or biological issues with regard to the previously approved amenity pool area, wastewater treatment and associated reuse spray areas.

F. Signs.

The Project will have three identification signs areas, all of which will comply with the Chatham County sign ordinance provisions (Section 15 of the Zoning Ordinance) and are intended to be inviting and attractive. One of the entrance monuments is already installed (Jack Bennett Rd., Section C.). The Section A entrance monument at Lystra Rd. has been permitted and is under construction. The Section B monument will comply with the signage provisions of the Zoning Ordinance.

Finding #4: The requested permit will be consistent with the objectives of the land conservation and development plan.

A. Land Conservation and Development Plan

The amended Project is consistent with the provisions of the Chatham County Land Conservation and Development Plan. In addition to having previously met said provisions in connection with the original approval, what follows below is a list of ways in which the amended Project meets the stated goals and objectives of the Chatham County Land Conservation and Development Plan:

- (i) The revised Project meets the goal of increasing the proportion of land that is preserved as open space by dedicating approximately 47% percent of the parcel (143.95 acres) to open space/common areas, of which approximately 100.8 acres is undisturbed (32.7% of the total site). *Land Conservation and Development Plan, page 9*. This is a significant increase from the existing approved plan which already dedicated a significant amount of the available acreage to open space. The proposed amended site plan increases the dedicated open space (active and passive) to 47% % from 37%, with a 12.7% increase in the undisturbed area. *Refer to attached maps of previously approved open space and proposed open space*.
- (ii) The Project meets the goal of providing a wide variety of housing options

(categories, densities, locations and prices). *Land Conservation and Development Plan, page 9.* The Project provides a unique blend of three different price points for housing within the Project thereby making it accessible to a wider economic range of purchasers.

- (iii) The Project helps meet the goal of protecting Chatham County surface and underwater resources by preserving the previously agreed-to 100 foot wide buffer zone along each side of Herndon creek that transects the property and by implementing an effective storm water retention and detention plan. *Land Conservation and Development Plan, page 9.* The Project also meets the goal of preserving natural scenic areas by preserving the creek area in its natural condition (with a 100' buffer on each side) and by creating and preserving a minimum 50 foot wide natural buffer area around the entire perimeter of the Project. *Land Conservation and Development Plan, page 10.*
- (iv) The Project directly meets Major Recommendation (#22) of the Plan by being situated directly adjacent public school property. *Land Conservation and Development Plan, pages 5, 15, 56.* The Project also conforms strictly to the stated goal of the plan to “cluster new development near school sites.” *Land Conservation and Development Plan, page 12, 13.* In fact, the Project is directly adjacent to the Jack Bennett Road property currently owned by the Chatham County school system and reserved for a Chatham County public high school. The Project meets the goal of “creating a green way (and open space) network that links neighborhoods and important destinations,” such as schools. *Land Conservation and Development Plan, page 13, 14, 16.* The Project also meets the goal of “promoting community based schools; keeping transportation time/distances to schools small.” *Land Conservation and Development Plan, page 10, 12, 13.*
- (v) The Project fits squarely into the plan goal of encouraging rurally compatible residential development in rural areas because it is in an area that is already zoned under the county zoning ordinance. *Land Conservation and Development Plan, page 21.*
- (vi) The Project folds in well to the stated goal of encouraging crossroads commercial centers to serve rural areas. The Chatham Commons Shopping Center is located one mile from the intersection of Lystra Road and 15-501 and, hence, within just a few miles of the Project. *Land Conservation and Development Plan, page 36.*
- (vii) The Project comports with the Chatham County Land Conservation and Development Plan by increasing reuse of reclaimed water, as set forth as an objective on page 45 of the plan. The Project will treat wastewater generated by the Project and reuse it for spray irrigation purposes. It

further meets the objective of the plan set forth on page 45 stating that “in areas where central sewer service is not available, wastewater should be disposed of by land application (surface or subsurface disposal), using governmentally approved, effectively regulated wastewater management systems.” *Land Conservation and Development Plan, page 45.* The wastewater treatment plant and spray irrigation system will be regulated by the qualified department of the State of North Carolina.

The Land Conservation and Development Plan, although it has never been mapped, conforms in letter and spirit to this Project in this location.

B. Watershed and flood considerations. The Project will comply with the applicable watershed ordinance. No lots will be located in the flood plain.

Finding #5: Adequate utilities, access roads, drainage, sanitation and/or other necessary facilities have been or are being provided.

A. Water source and requirements.

The information regarding the estimated quantity of water to be used, is supplied contemporaneously herewith. The water source will be the Chatham County public water system. The water connections will be provided as follows: Water services will be installed by the developer. The developer will interconnect existing water lines on Jack Bennett Road and Lystra Road.

B. Wastewater management.

The wastewater treatment facility capacity and spray irrigation system are more thoroughly described in the documents filed contemporaneously herewith.

C. Water/Sewer Impact Statement. The revised project includes an overall reduction in reuse spray areas, refer to the attached maps showing the currently permitted areas versus the reduced spray area footprint.

*Please see attached “Wastewater Projection / Potable Water Demand calculations.
Please see attached “Booth Mountain Development Wastewater Treatment and Reclaimed Water Utilization System Permit.”*

Please see also attached letters from Chatham County Public Works and Aqua of North Carolina, Inc.

D. Access roads.

As previously described, access to the Project will be from Lystra Road (one entrance) and from Jack Bennett Road (two entrances). The driveways at Lystra Road and also at Section C on Jack Bennett road have been approved and built. The driveway entrance to Section B has been field reviewed and approved by the North Carolina Department of

Transportation. See attached letter from DoT.

E. Storm water runoff.

The methods of storm water detention and control and the detailed stormwater management plan are set forth in the material supplied herewith. The stormwater plan meets all County requirements.

Conclusion. The five findings are met and we respectfully request that the Planning Department and the Planning Board recommend approval and that the Board of Commissioners grant its approval to the proposed, revised CUP.

**RESOLUTION APPROVING AN APPLICATION FOR A CONDITIONAL USE
PERMIT FOR A REQUEST BY MACGREGOR DEVELOPMENT COMPANY
FOR BOOTH MOUNTAIN COMMUNITY**

WHEREAS, MacGregor Development Company, and other associated parties, have applied to Chatham County for a conditional use permit for a certain tract or parcel of land containing approximately 294 acres located off Lystra Church Road (SR-1721) and Jack Bennett Road (SR-1717) for use as a Planned Unit Development for residential uses approved this date; and

WHEREAS, the Chatham County Board of Commissioners hereby make the five findings as listed below:

1. The use requested is among those listed as an eligible conditional use in the district in which the subject property is located or is to be located.
2. The requested conditional use permit is either essential or desirable for the public convenience or welfare.
3. The requested permit will not impair the integrity or character of the surrounding or adjoining districts, and will not be detrimental to the health, safety or welfare of the community.
4. The requested permit will be consistent with the objectives of the Land Development Plan.
5. Adequate utilities, access roads, storm drainage, recreation, open space, and other necessary facilities have been or are being provided consistent with the County's plans, policies and regulations.

NOW, THEREFORE, BE IT RESOLVED BY THE CHATHAM COUNTY BOARD OF COMMISSIONERS as follows:

That a Conditional Use Permit be, and is hereby approved for the reasons hereinabove stated subject to the additional stipulations and conditions set forth hereinafter; and

BE IT RESOLVED FURTHER that the Chatham County Board of Commissioners hereby approves the application for the conditional use permit in accordance with the plan of Booth Mountain Community dated revised December 30, 2004 attached hereto and incorporated herein by reference with specific conditions as listed below:

1. Buffers and setbacks shall be as set forth on the Perimeter Buffer/Development Setback Exhibit approved herewith.

Deleted: 1. A right turn deceleration lane shall be provided at the developer's expense¶
... on the south side of Lystra Church Road at the entrance of the subdivision¶
... if allowed by the North Carolina Department of Transportation.¶

Deleted: 2. There shall be a "no-build" zone adjoining the lots that border the south side of ... the Herndon Creek ravine (Lot #98-113). The "no-build" area will be such that ... no house is located more than 125 feet from the edge of the road right-of-way ... (specifically excluding Lot #114) (The determination of said "no-build" line for ... Lot #98 shall be depicted on the detailed plan attached). With regard to lots ... adjoining the north side of the ravine, Lot #59, #60, #63, #67 and #68 shall be ... restricted so that no house is constructed more than 150 feet from the edge of the ... road right-of-way. With regard to Lots #61 and #62, no house shall be ... constructed more than 175 feet from the road right-of-way. No such restriction ... shall be imposed on Lot #58.

2. With regard to the "no-build" areas (between the rear lot line and the edge of the building area) on the lots mentioned in these conditions, a restriction will be put in place that will allow homeowners to clear such areas only with hand tools (effectively limited clearing to underbrush and removal of dead vegetation) and disallowing grading.
3. The wastewater treatment plant will be a concrete facility with the blowers being enclosed. The developer will install an aerator in the wastewater treatment plant storage pond. Further, the developer shall use odorphos or other equivalent chemical agent, a chemical addition, at the pump station in order to minimize odors.
4. The roads in the estate section will be private, but will be built to the NCDOT standard for the hilly condition. The private road may be gated, provided access is made available to emergency vehicles.
5. The developer has created an easement for a trail from the village area to the school site as shown on Plat Slide 2008-97. The installation of such trail will be contingent upon agreement by the Chatham County Board of Education.
6. The developer shall erect signs along the mutual boundary with the US Army Corps of Engineers. Said signs shall be placed at sufficient intervals to be visible from a distance of 75 feet. The signs shall provide warning of adjacent Game Lands which allow archery hunting only at this time. On one side the signs shall warn of hunting in the area and on the other side warn of residential development nearby. Said signs shall be of a size and height to be easily seen and of all weather materials such as metal painted traffic control signs. Said signs shall be posted prior to final plat approval. The final plat shall display a note disclosing adjacent Game Lands which allow archery hunting only at this time.
7. All street lighting shall comply with the Chatham County Zoning Ordinance Section 13 to minimize light pollution and light trespass. The development's covenants shall also require residential lighting to meet said provisions.
8. The developer and Aqua shall negotiate with the Chatham County School Administration to determine if an agreement can be reached regarding school site wastewater treatment and storage.

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Deleted: On the site of the amenity area, there shall be a 200-foot non-disturbance area from the bank of Hemdon Creek (see the attached drawing). The only exception to non-disturbance will be the pedestrian access, water line, the sewer line and related appurtenances. There shall be an additional dry basin structure to release the swimming pool backwash into the structure rather than into the wastewater treatment plant.

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Deleted: There shall be no land clearing until the additional plant survey referred to in the S&EC report is performed in the spring. If endangered or threatened species are found on the property, the applicant shall work with the North Carolina Botanical Garden.

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Deleted: with the location of such easement to be determined at preliminary.

Deleted: 9. A preliminary field reconnaissance archaeological survey.

Deleted: 10

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Deleted: the potential conflict of land uses for lots adjacent to US Army.

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Deleted: The name of the development shall be changed so that it does not.

Deleted: 12

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Deleted: Draft Lighting

Deleted: the Lighting Ordinance

Deleted: 13. There shall be a 50 foot external boundary undisturbed buffer.

Deleted: 14. A "no-build" setback, like condition #2 above, of 175 feet.

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Deleted: the feasibility of shared-use of the Booth Mountain Community.

Non-Waiver. Nothing contained herein shall be deemed to waive any discretion on the part of Chatham County as to further development of the applicant's property and this permit shall not give the applicant any vested right to develop its property in any other manner than as set forth herein.

BE IT FURTHER RESOLVED that the Board of Commissioners of the County of Chatham hereby approves the application for a conditional use permit in accordance with the plans and conditions listed above.

This ____ day of _____, 20__.

ATTEST:

Sandra B. Sublett, CMC, Clerk to the Board
Chatham County Board of Commissioners

CHATHAM COUNTY PUBLIC UTILITIES

UTILITIES

- Maintenance and Construction
- Water Treatment Plant
- Wastewater Treatment Plant
- Billing & Collections



Phone: (919) 542-8270
Fax: (919) 542-8282

POST OFFICE BOX 910
PITTSBORO, N.C. 27312-0910

WATER SERVICE AVAILABILITY

Chatham County Water has examined the following property and has made the determinations as checked below:

Parcel ID: Westfall Development

Owner of Record: Westfall Associates LLC

Street Address: Lystra Road + Jack Bennett Road

☒ Property has water service available from an existing County-owned waterline with simple service connection.

The County is already the water provider for the approved Westfall CUP with 180 lots and amenity. The County has the capacity to serve the additional 62 lots proposed (24,800 GPD based upon 400 GPD/per unit) subject to final plan review and approval along with payment of any prevailing capacity, design, and inspection fees to Chatham County. The current average daily demand at the WTP is 2.0 MGD. The WTP capacity coupled with other supply sources is 3.0 MGD.

☐ Based on proposed development plans, the developer would be required to extend an existing County-owned waterline to this property.

☐ County water service is not currently available to this property and the property is too far from an existing County-owned waterline to require extension.

Date: 10/4/12

Signed: Leonard McBryde
Leonard McBryde, PE
Chatham County Public Utilities



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

DIVISION OF HIGHWAYS

EUGENE A. CONTI, JR.
SECRETARY

October 2, 2012

Chatham County

Ramey Kemp and Associates
c/o Mr. Joshua Reinkle, P.E.
5808 Faringdon Place, Suite 100
Raleigh, NC 27609

Subject: Westfall Development on Jack Bennett Road

Dear Mr. Reinkle:

Per our phone Conversation on Tuesday October 2, 2012, NCDOT has received and is in the process of reviewing a driveway permit for the Westfall development on SR 1717 (Jack Bennett Road) in Chatham County. NCDOT has a scheduled spot safety project on SR 1717 at the location of the proposed entrance. We are in the process of working with the developer to combine the required modifications to the roadway for the entrance and the NCDOT spot safety project into one project. A permit has not been issued at this point, although the general location has been agreed upon. A permit will be approved in the near future once an agreement with the developer and NCDOT has been reached. If you have any further questions please contact the District Office in Asheboro at (336) 318-4000.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jeff Loflin".

Jeff Loflin, P.E.
District Engineer

cc:

File



Aqua North Carolina, Inc.
202 MacKenan Court
Cary, NC 27511

Thomas J. Roberts
President and Chief Operating Officer

T: 919.653.5770
F: 919.460.1788
tjroberts@aquaaamerica.com
www.aquanorthcarolina.com

June 26, 2012

Mr. Colin Davidson
Westfall Associates, LLC
140 Towerview Court
Cary, NC 27513

Re: Westfall Development
Chatham County

Dear Colin:

This letter is to confirm that Aqua North Carolina, Inc. ("Aqua"), in Docket No. W-274, Sub 522, was issued a Certificate of Public Convenience and Necessity by the North Carolina Utilities Commission ("NCUC") to be the wastewater provider of Westfall Development.

Upon completing Closing in accordance with the Agreement dated June 15, 2012 for the installation, conveyance, and operation of the wastewater utility system for Westfall, Aqua will provide wastewater utility service to the lots located in the Westfall development in accordance with its tariff, the rules and regulations of the NCUC and the North Carolina Department of Environment and Natural Resources - Division of Water Quality.

If you have any questions, please contact Rudy Shaw at 919-653-6967 or Peggy-Sue Dodge at 919-653-6963.

Sincerely,

AQUA NORTH CAROLINA, INC.

A handwritten signature in black ink, appearing to read "Thomas J. Roberts", is written over the printed name.

Mr. Thomas J. Roberts
President and COO



Michael F. Easley, Governor

William G. Ross Jr., Secretary
North Carolina Department of Environment and Natural Resources

Alan W. Klimek, P.E. Director
Division of Water Quality

March 24, 2006

Mr. Michael J. Meyers
Engineering & Compliance Manager
Heater Utilities, Inc.
202 MacKenan Court
Cary, NC 27511

Subject: Permit No. WQ0028798
Booth Mountain Development
Wastewater Treatment and
Reclaimed Water Utilization System
Chatham County

Dear Mr. Myers:

In accordance with your permit application received May 5, 2005, and subsequent additional information received June 2, 2005, we are forwarding herewith Permit Number WQ0028798, dated March 24, 2006, to Heater Utilities, Inc. for the construction and operation of the subject wastewater treatment and reclaimed water utilization system.

This permit shall be effective from the date of issuance until February 28, 2011, and shall be subject to the conditions and limitations as specified therein. Please pay particular attention to the monitoring requirements in this permit. Failure to establish an adequate system for collecting and maintaining the required operational information will result in future compliance problems.

If any parts, requirements, or limitations contained in this permit are unacceptable, you have the right to request an adjudicatory hearing upon written request within thirty (30) days following receipt of this permit. This request must be in the form of a written petition, conforming to Chapter 150B of the North Carolina General Statutes, and filed with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, NC 27699-6714. Unless such demands are made this permit shall be final and binding.

One set of approved plans and specifications is being forwarded to you. If you need additional information concerning this matter, please contact Nathaniel Thornburg at (919) 715-6160.

Sincerely,

Alan W. Klimek, P.E.

NT/lj

cc: Chatham County Health Department
Raleigh Regional Office, Aquifer Protection Section
~~Mark Ashness, PE - CP Group~~
Lee Fleming, PE
Steven Levitas - Kilpatrick Stockton, LLP
Technical Assistance and Certification Unit
Aquifer Protection Central Files
LAU Files

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North Carolina
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NORTH CAROLINA
ENVIRONMENTAL MANAGEMENT COMMISSION
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
RALEIGH

WASTEWATER TREATMENT AND RECLAIMED WATER UTILIZATION PERMIT

In accordance with the provisions of Article 21 of Chapter 143, General Statutes of North Carolina as amended, and other applicable Laws, Rules, and Regulations

PERMISSION IS HEREBY GRANTED TO

Heater Utilities, Inc.
Chatham County

FOR THE

construction and operation of a 90,000 gallon per day (GPD) dual train extended aeration wastewater treatment consisting of a manually cleaned bar screen; three (3) 10,000 gallon flow equalization basins served by two (2) 75 gallon per minute (GPM) pumps and one (1) 120 cubic feet per minute (CFM) blower; a flow splitter box; four (4) 10,000 gallon anoxic basins; fourteen (14) 10,000 gallon aeration basins served by four (4) 375 CFM blowers; four (4) 7,060 gallon clarifiers served by four (4) variable speed sludge pumps; three (3) 10,000 gallon aerated sludge holding basins served by one (1) variable speed pump and the main plant blowers; two (2) 36 square foot (ft²) tertiary filters served by a 72 CFM blower; one (1) 5,400 gallon clearwell with two (2) 540 GPM backwash pumps; a 5,800 gallon mudwell with two (2) 100 GPM pumps; one (1) 2,800 gallon chlorine contact basin with two (2) variable speed chemical pumps; a 2,800 gallon dechlorination chamber; dual chemical pumps with storage tank for a phosphorous reduction system; an effluent flow measuring device; an ultraviolet (UV) bank with 10 bulbs; a 4,500 gallon dosing chamber with dual 175 GPM pumps; an effluent monitoring device; a turbidimeter; a permanent auxiliary generator; and the

construction and operation of a 66,000 GPD reclaimed water utilization system consisting of a 506,000 gallon clay lined five day upset pond with dual 100 GPM submersible pumps and audible/visual alarms; a 7.7 million gallon (MG) clay lined storage pond with dual 400 GPM vertical turbine pumps serving eleven (11) irrigation zones consisting of approximately 38.9 acres; and all associated piping, valves and appurtenances to serve the Booth Mountain Development with no discharge of wastes to the surface waters, pursuant to the application received May 5, 2005 and subsequent additional information received by the Division, and in conformity with the project plan, specifications, and other supporting data subsequently filed and approved by the Department of Environment and Natural Resources and considered a part of this permit.

See Condition III(3) for the flow capacity limitation specified by this permit.

This permit shall be effective from the date of issuance until February 28, 2011, and shall be subject to the following specified conditions and limitations:

I. PERFORMANCE STANDARDS

1. The *Booth Mountain Wastewater Irrigation Agreement* between Heater Utilities, Inc. and the MacGregor Development Company shall be executed and submitted to the Aquifer Protection Section's Central and Raleigh Regional Offices within sixty (60) days of permit issuance. This agreement shall include the following:
 - a. The agreement shall indicate the responsible party for properly storing and irrigating the entire wastewater flow in accordance with all conditions outlined in a permit issued to Heater Utilities, Inc. If the responsible party is Heater Utilities, Inc., the agreement shall stipulate measures to be taken to ensure Heater Utilities, Inc. has the operational authority to properly manage the wastewater including when, where, and the duration of effluent irrigation events.
 - b. The responsible party for irrigation shall provide a certified wastewater irrigation operator at all times in accordance with 15A NCAC 8G, including site visitation requirements.
 - c. The agreement shall also indicate that aesthetic desires or management of the common green areas for the purposes of use shall not be justifiable reasons for violating conditions of the wastewater permit including the maintenance of adequate effluent storage capacity.
 - d. The agreement shall also indicate the responsible party for conducting all sampling as required by the permit, as well as, the responsible party for record keeping with regards to storage or irrigation of effluent wastewater.
 - e. The agreement shall indicate provisions for addressing enforcement and civil penalties in instances where the MacGregor Development Company is responsible for violations of the permit issued to Heater Utilities, Inc.
 - f. The agreement may not be modified or negated without approval by the Division. In the case of the sale of the Company or any of the common green area utilized for wastewater disposal, disclosure of the agreement must be made and acceptance by the purchaser must occur prior to the MacGregor Development Company being relieved of any identified responsibilities.
2. Prior to construction and operation of Irrigation Zone Y-3, the Permittee shall submit documentation to the Aquifer Protection Section's Central and Raleigh Regional Offices demonstrating that the Permittee owns the approximately 35 acre parcel (Parcel Number 18931) currently owned by Wayne & Terry Witt and Carl & Sandra Banks.
3. Irrigation Zone Y-3 shall be filled and graded such that at least one (1) foot of vertical distance is present between the soil surface and the seasonal high water table. Upon completion of site grading and shaping on Irrigation Zone Y-3, the soil scientist shall contact the Raleigh Regional Office to inquire whether or not it will be necessary for staff to perform a revised site visit. No wastewater shall be introduced into the treatment system until written approval from the Division of Water Quality is received.
4. Upon completion of construction and prior to operation of this permitted facility, a certification must be received from a professional engineer certifying that the permitted facility has been installed in accordance with this permit, the approved plans and specifications, and other supporting materials. If this project is to be completed in phases and partially certified, you shall retain the responsibility to track further construction approved under the same permit, and shall provide a final certificate of completion once the entire project has been completed. Mail the Certification to the Land Application Unit, 1636 Mail Service Center, Raleigh, NC 27699-1636.
5. The Raleigh Regional Office, telephone number (919) 791-4200, shall be notified at least forty-eight (48) hours in advance of operation of the installed facilities so that an in-place inspection can be made. Such notification to the regional supervisor shall be made during the normal office hours from 8:00 a.m. until 5:00 p.m. on Monday through Friday, excluding State Holidays.

6. The issuance of this permit shall not relieve the Permittee of the responsibility for damages to surface water or ground water resulting from the operation of this facility.
7. The residuals generated from these treatment facilities must be disposed in accordance with General Statute 143-215.1 and in a manner approved by the Division.
8. The reclaimed water utilization facilities shall be effectively maintained and operated at all times so that there is no discharge to the surface waters, nor any contamination of ground waters, which will render them unsatisfactory for normal use. In the event that the facilities fail to perform satisfactorily, including the creation of nuisance conditions or failure of the irrigation area to adequately assimilate the wastewater, the Permittee shall take immediate corrective actions including those actions that may be required by the Division of Water Quality, such as the construction of additional or replacement wastewater treatment and disposal facilities.
9. Diversion or bypassing of the untreated wastewater from the treatment facilities is prohibited.
10. The following buffers shall be maintained:
 - a. 100 feet between wetted areas and water supply wells,
 - b. 100 feet between wetted areas and waters classified as SA,
 - c. 25 feet between wetted areas and surface waters not classified as SA,
 - d. 100 feet between wastewater treatment units and wells,
 - e. 50 feet between reclaimed water storage/irrigation ponds and property lines, and
 - f. 50 feet between wastewater treatment units and property lines.
11. Public access to the irrigation sites shall be controlled during active site use. Such controls may include the posting of signs showing the activities being conducted at each site. A sign shall be posted in plain sight in the clubhouse showing these activities.
12. The disposal system shall be connected to a rain or moisture sensor that shall indicate when wastewater application is not appropriate in accordance with Condition II(4) of this permit.
13. The following shall be requirements for the reclaimed water distribution, storage, and utilization facilities:
 - a. All reclaimed water valves, storage facilities, and outlets shall be tagged or labeled to warn the public or employees that the water is not intended for drinking. Where appropriate, such warning shall inform the public or employees to avoid contact with the water.
 - b. All reclaimed water piping, valves, outlets, and other appurtenances shall be color-coded, taped, or otherwise marked to identify the source of the water as being reclaimed water.
 - i. All reclaimed water piping and appurtenances shall be either colored purple (i.e., Pantone 522) and embossed or integrally stamped or marked "CAUTION: RECLAIMED WATER – DO NOT DRINK" or be installed with a purple (i.e., Pantone 522) identification tape or polyethylene vinyl wrap. The warning shall be stamped on opposite sides of the pipe and repeated every three feet or less.
 - ii. Identification tape shall be at least three inches wide and have white or black lettering on purple (i.e., Pantone 522) field stating "CAUTION: RECLAIMED WATER – DO NOT DRINK." Identification tape shall be installed on top of reclaimed water pipelines, fastened at least every 10 feet to each pipe length and run continuously the entire length of the pipe.
 - c. All reclaimed water valves and outlets shall be of a type, or secured in a manner, that permits operation by authorized personnel only.
 - d. Above-ground hose bibs (i.e., spigots or other hand-operated connections) shall not be present. Hose bibs shall be located in locked below-grade vaults that shall be clearly labeled as being of non-potable quality. As an alternative to the use of locked below-grade vaults with standard hose bibs services, hose bibs, which can only be operated by a special tool or

connected to a special hose connection, may be placed in non-lockable underground service boxes clearly labeled as non-potable water.

II. OPERATION AND MAINTENANCE REQUIREMENTS

1. The facilities shall be properly maintained and operated at all times.
2. Upon classification of the wastewater treatment and irrigation facilities by the Water Pollution Control System Operators Certification Commission (WPCSOCC), the Permittee shall designate and employ a certified operator to be in responsible charge (ORC) and one or more certified operator(s) to be back-up ORC(s) of the facilities in accordance with 15A NCAC 8G .0201. The ORC shall visit the facilities in accordance with 15A NCAC 8G .0204 or as specified in this permit and shall comply with all other conditions specified in these rules.
3. A suitable, year-round vegetative cover shall be maintained on the irrigation areas.
4. Irrigation shall not be performed during inclement weather or when the ground is in a condition that will cause runoff.
5. Adequate measures shall be taken to prevent wastewater runoff from the irrigation field.
6. The facilities shall be effectively maintained and operated as a non-discharge system to prevent the discharge of any wastewater resulting from the operation of this facility.
7. The application and instantaneous loading (i.e. dosing rate) rates shall not exceed the following:

Spray Zone	Area (acres)	Dominant Soil Series	Instantaneous Loading Rate* (inches/dose)	Annual Loading Rate (inches/year)
X-1	4.0	Pacolet	0.10	28.5
X-2	10.5	Pacolet	0.10	28.5
X-3	4.9	Appling	0.10	28.5
X-4A	5.4	Vance	0.10	28.5
X-4B	2.2	Wedowee	0.10	28.5
X-5	2.6	Louisburg	0.10	28.5
X-6	1.5	Louisburg	0.10	28.5
Y-1A	0.2	Helena	0.10	7.0
Y-1B	1.2	Helena	0.10	7.0
Y-2	3.7	Helena	0.10	7.0
Y-3	2.7	Creedmoor/White Store	0.10	7.0
Total	38.9			

* The Permittee shall not apply more than one (1) dose to each field per hour, thus limiting the instantaneous loading rate to 0.1 inches/hour.

8. An automatically activated standby power source shall be on site and operational at all times. If a generator is employed as an alternate power supply, it shall be tested weekly by interrupting the primary power source.

9. No type of wastewater other than that from the Booth Mountain Development shall be irrigated onto the irrigation area.
10. Freeboard in the storage and upset ponds shall not be less than two (2) feet at any time.
11. A waste-level gauge, to monitor waste levels in the storage pond, shall be installed within 60 days of construction. This gauge shall have readily visible permanent markings indicating the maximum liquid level at the top of the temporary liquid storage volume, minimum liquid level at the bottom of the temporary liquid storage volume, and top of the dam elevations. Caution must be taken not to damage the integrity of the liner when installing the gauge.
12. A protective vegetative cover shall be established and maintained on all earthen basin embankments (outside toe of embankment to maximum pumping elevation), berms, pipe runs, erosion control areas, and surface water diversions. Trees, shrubs, and other woody vegetation shall not be allowed to grow on the earthen basin dikes or embankments. Earthen basin embankment areas shall be kept mowed or otherwise controlled and accessible.
13. All wastewater shall be routed to the five-day holding pond should the limit for fecal coliform (daily maximum concentration of 25 per 100 ml) or turbidity (instantaneous maximum of 10 NTU) be exceeded, until such time that the problems associated with the treatment capability of the wastewater treatment plant have been corrected. The wastewater in the five-day holding pond shall be pumped back to the treatment plant for re-treatment or treated in the five-day pond prior to discharge to the storage pond.

III. MONITORING AND REPORTING REQUIREMENTS

1. Any monitoring (including groundwater, surface water, soil or plant tissue analyses) deemed necessary by the Division to insure surface and ground water protection will be established and an acceptable sampling reporting schedule shall be followed.
2. Influent flow shall be continuously monitored and daily flow values shall be reported on Form NDMR. Influent flow may be represented by effluent flow from the wastewater treatment system prior to storage.

The Permittee shall install an appropriate flow measurement device consistent with approved engineering and scientific practices to ensure the accuracy and reliability of influent flow measurement. Flow measurement devices selected shall be capable of measuring flows with a maximum deviation of less than 10 percent from true flow, accurately calibrated at a minimum of once per year, and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. The Permittee shall keep records of flow measurement device calibration on file for a period of at least three years. At a minimum, data to be included in this documentation shall be:

- a. Date of flow measurement device calibration
- b. Name of person performing calibration
- c. Percent from true flow

3. As an indicator of proper operation and maintenance, the facility shall produce an effluent in compliance with the following limitations:

Parameter	Monthly Average ^a	Daily (Instantaneous) Maximum ^c
Flow	66,000 GPD	
BOD ₅ (5-day, 20°C)	10 mg/l	15 mg/l
NH ₃ as N	4 mg/l	6 mg/l
TSS	5 mg/l	10 mg/l
Fecal Coliform	14 per 100 ml ^b	25 per 100 ml
Turbidity		10 NTU

The effluent pH shall not be less than 6.0 standard units nor greater than 9.0 standard units.

^a Monthly averages for all but fecal coliform shall be the arithmetic mean of all samples collected during the reporting period.

^b Monthly average for fecal coliform shall be the geometric mean of all samples collected during the reporting period.

^c Daily maximum shall be the maximum value of all samples collected during the reporting period.

The Permittee shall monitor the effluent from the subject facilities at a point prior to irrigation for the following parameters:

Parameter	Sampling Point	Sampling Frequency	Type of Sample
Flow	Influent or Effluent	Continuous	Recording
Turbidity	Effluent	Continuous	Recording
BOD ₅ (5-day, 20°C)	Effluent	*2/Month	Composite
NH ₃ as N	Effluent	*2/Month	Composite
TSS	Effluent	*2/Month	Composite
Fecal Coliform	Effluent	*2/Month	Grab
Settleable Matter	Effluent	Daily	Grab
Residual Chlorine	Effluent	Daily	Grab
NO ₃	Effluent	**Quarterly	Grab
TDS	Effluent	**Quarterly	Grab
TOC	Effluent	**Quarterly	Grab
Chloride	Effluent	**Quarterly	Grab
pH	Effluent	**Quarterly	Grab

* 2/Month sampling frequency only during the months of April through October. During the remainder of the year, these parameters shall be monitored monthly.

** Quarterly sampling shall be conducted during March, June, September and December.

If Groundwater sampling indicates or predicts problems with the compliance with Groundwater Standards, this permit will be modified to include additional and/or more restrictive limitations.

4. The Permittee shall monitor the surface water at the specified locations for the following parameters:

Parameter	Sampling Points *	Sampling Frequency	Type of Sample
Fecal Coliform	Surface Water Station 1	** Quarterly	Grab
pH	Surface Water Station 1	** Quarterly	Grab
Total Nitrogen	Surface Water Station 1	** Quarterly	Grab
Total Phosphorus	Surface Water Station 1	** Quarterly	Grab
Water Level	Surface Water Station 1	** Quarterly	Measurement

* Refer to Figure 1 for sampling location.

** Quarterly sampling shall be conducted during March, June, September and December.

5. The Permittee shall maintain adequate records tracking the amount of wastewater disposed. These records shall include, but are not necessarily limited to the following information:
- Date and time of irrigation,
 - Volume of wastewater irrigated,
 - Zone irrigated,
 - Length of time zone is irrigated,
 - Continuous weekly, monthly, and year-to-date hydraulic (inches/acre) loadings for each zone,
 - Weather conditions, and
 - Maintenance of cover crops.
6. Freeboard in the storage pond shall be recorded weekly.
7. Three (3) copies of all monitoring data [as specified in Conditions III(2), III(3) and III(4)] on Form NDMR-1 and three (3) copies of all operation and disposal records [as specified in Conditions III(5) and III(6)] on Form NDAR-1 shall be submitted monthly on or before the last day of the following month. All information shall be submitted to the following address:

NC Division of Water Quality
Information Processing Unit
1617 Mail Service Center
Raleigh, North Carolina 27699-1617

8. A record shall be maintained of all residuals removed from this facility. This record shall include the name of the hauler, permit authorizing the disposal or a letter from a municipality agreeing to accept the residuals, date the residuals were hauled, and volume of residuals removed.
9. A maintenance log shall be maintained at this facility including but not limited to the following items:
- Daily sampling results of dissolved oxygen in the aeration basin and at the clarifier weir.
 - Visual observations of the plant and plant site.
 - Record of preventative maintenance (changing of filters, adjusting belt tensions, alarm testing, diffuser inspections and cleanings, etc.).
 - Date of calibration of flow measurement device.
 - Date and results of power interruption testing on alternate power supply.

10. An annual representative soils analysis (Standard Soil Fertility Analysis) shall be conducted on each irrigation field and the results maintained on file by the Permittee for a minimum of five years. The Standard Soil Fertility Analysis shall include, but is not necessarily limited to, the following parameters:

Acidity	Manganese	Potassium
Calcium	Percent Humic Matter	Sodium
Copper	pH	Zinc
Magnesium	Base Saturation (by calculation)	Phosphorus
Cation Exchange Capacity	Exchangeable Sodium Percentage	

11. Noncompliance Notification:

The Permittee shall report by telephone to the Raleigh Regional Office, telephone number (919) 571-4700, as soon as possible, but in no case more than 24 hours or on the next working day following the occurrence or first knowledge of the occurrence of any of the following:

- a. Any occurrence at the wastewater treatment facility which results in the treatment of significant amounts of wastes which are abnormal in quantity or characteristic, such as the dumping of the contents of a sludge digester; the known passage of a slug of hazardous substance through the facility; or any other unusual circumstances.
- b. Any process unit failure, due to known or unknown reasons, that render the facility incapable of adequate wastewater treatment such as mechanical or electrical failures of pumps, aerators, compressors, etc.
- c. Any failure of a pumping station, sewer line, or treatment facility resulting in a by-pass directly to receiving waters without treatment of all or any portion of the influent to such station or facility.
- d. Any time that self-monitoring information indicates that the facility has gone out of compliance with its permit limitations.

Occurrences outside normal business hours may also be reported to the Division's Emergency Response personnel at telephone number (800) 662-7956, (800) 858-0368, or (919) 733-3300. Persons reporting such occurrences by telephone shall also file a written report in letter form within five (5) days following first knowledge of the occurrence. This report must outline the actions taken or proposed to be taken to ensure that the problem does not recur.

IV. GROUNDWATER REQUIREMENTS

1. Prior to beginning waste disposal operations, one (1) upgradient monitor well (MW-1) and three (3) downgradient monitor wells (MW-2, MW-3 and MW-4) shall be installed to monitor groundwater quality. The well(s) shall be constructed such that the water level in the well is never above or below the screened (open) portion of the well at any time during the year. The general location and name for each well is marked on Figure 1. Each monitoring well shall be located at the review boundary, constructed in accordance with this permit, and approved by the Raleigh Regional Office.
2. All wells that are constructed for purposes of groundwater monitoring shall be constructed in accordance with 15A NCAC 2C .0108 (Standards of Construction for Wells Other than Water Supply) and any other state and local laws and regulations pertaining to well construction.

3. The Raleigh Regional Office, telephone number (919) 791-4200, shall be notified at least forty-eight (48) hours prior to the construction of any monitoring well so that an inspection can be made of the monitoring well location. Such notification to the regional Aquifer Protection supervisor shall be made during the normal office hours from 8:00 a.m. until 5:00 p.m. on Monday through Friday, excluding state holidays.
4. Within sixty (60) days of completion of all monitoring wells, the permittee shall submit two original copies of a scaled topographic map (scale no greater than 1":100') signed and sealed by a professional engineer or a state licensed land surveyor that indicates all of the following information:
 - a. The location and identity of each monitoring well,
 - b. The location of the waste disposal system,
 - c. The location of all property boundaries,
 - d. The latitude and longitude of the established horizontal control monument,
 - e. The relative elevation of the top of the well casing (which shall be known as the "measuring point"), and
 - f. The depth of water below the measuring point at the time the measuring point is established.

The survey shall be conducted using approved practices outlined in North Carolina General Statutes Chapter 89C and the North Carolina Administrative Code Title 21, Chapter 56. The surveyor shall establish a horizontal control monument on the property of the waste disposal system and determine the latitude and longitude of this horizontal control monument to a horizontal positional accuracy of +/- 10 feet. All other features listed in a. through e. above shall be surveyed relative to this horizontal control monument. The positional accuracy of features listed in a. through e. above shall have a ratio of precision not to exceed an error of closure of 1 foot per 10,000 feet of perimeter of the survey. Any features located by the radial method will be located from a minimum of two points. Horizontal control monument shall be installed in such a manner and made of such materials that the monument will not be destroyed due to activities that may take place on the property. The map shall also be surveyed using the North American Datum of 1983 coordinate system and shall indicate the datum on the map. All bearings or azimuths shall be based on either the true or NAD 83 grid meridian. If a Global Positioning System (GPS) is used to determine the latitude and longitude of the horizontal control monument, a GPS receiver that has the capability to perform differential GPS shall be used and all data collected by the GPS receiver will be differentially corrected.

The maps and any supporting documentation shall be sent to the N.C. Division of Water Quality, Aquifer Protection Section, Land Application Unit, 1636 Mail Service Center, Raleigh, N.C. 27699-1636.

5. Upon completion of all well construction activities, a certification must be received from a professional engineer certifying that the monitoring wells are located and constructed in accordance with the Well Construction Standards (15A NCAC 2C) and this permit. This certification should be submitted with copies of the Well Completion Form (GW-1) for each well. Mail this certification and the associated GW-1 forms to the Aquifer Protection Section, Land Application Unit, 1636 Mail Service Center, Raleigh, N.C. 27699-1636.
6. For the initial sampling of the well as specified elsewhere in the permit, the permittee shall submit a copy of the GW-1 Form (Well Completion Form) with the Compliance Monitoring Form (GW-59) for that well. Compliance Monitoring Forms that do not include copies of the GW-1 form will be returned to the permittee without being processed. Failure to submit these forms as required by this permit may result in the initiation of enforcement activities pursuant to NC General Statutes 143-215.6.

7. Monitor wells MW-1, MW-2, MW-3 and MW-4 shall be sampled initially after construction (and prior to waste disposal operations) and thereafter every March, June, September and December for the following parameters:

Water Level	Chloride	Total Organic Carbon (TOC)
Nitrate (NO ₃ -N)	Fecal Coliforms	Total Ammonia Nitrogen (NH ₃ -N)
pH	Total Dissolved Solids (TDS)	Total Phosphorus

8. The measurement of water levels must be made prior to sampling for the remaining parameters. The depth to water in each well shall be measured from the surveyed point on the top of the casing.
9. The measuring points (top of well casing) of all monitoring wells shall be surveyed to provide the relative elevation of the measuring point for each monitoring well.
10. If TOC concentrations greater than 10 mg/l are detected in any downgradient monitoring well, additional sampling and analysis must be conducted to identify the individual constituents comprising this TOC concentration. If the TOC concentration as measured in the background monitor well exceeds 10 mg/l, this concentration will be taken to represent the naturally occurring TOC concentration. Any exceedances of this naturally occurring TOC concentration in the downgradient wells shall be subject to the additional sampling and analysis as described above.
11. The results of the sampling and analysis must be received on Form GW-59 (Groundwater Quality Monitoring: Compliance Report Form) by the Division of Water Quality, Information Processing Unit, 1617 Mail Service Center, Raleigh, North Carolina 27699-1617 on or before the last working day of the month following the sampling month.
12. Waste shall not be applied or discharged onto or below the land surface when the vertical separation between the waste and the seasonal high water table is less than one (1) foot.
13. The five day upset pond shall have either a liner of natural material at least one (1) foot in thickness and having a hydraulic conductivity of no greater than 1×10^{-6} centimeters per second when compacted, or a synthetic liner of sufficient thickness to exhibit structural integrity and an effective hydraulic conductivity no greater than that of the natural material liner, according to 15A NCAC 2H .0219(f).
14. The Compliance Boundary and Review Boundary for the waste disposal area(s) is specified by regulations in 15A NCAC 2H, Waste Not Discharged to Surface Waters, specifically, .0219(k)(1)(C)(i)(III). The Compliance Boundary and Review Boundary for groundwater shall be established at the property boundary. An exceedance of Groundwater Quality Standards at or beyond the Compliance Boundary is subject to remediation action according to 15A NCAC 2L .0106(d)(2).

V. INSPECTIONS

1. Adequate inspection, maintenance, and cleaning shall be provided by the Permittee to insure proper operation of the subject facilities.
2. The Permittee or his designee shall inspect the wastewater treatment and disposal facilities to prevent malfunctions and deterioration, operator errors and discharges which may cause or lead to the release of wastes to the environment, a threat to human health, or a nuisance. The Permittee shall keep an inspection log or summary including at least the date and time of inspection, observations made, and any maintenance, repairs, or corrective actions taken by the Permittee. This log of inspections shall be maintained by the Permittee for a period of three years from the date of the inspection and shall be made available upon request to the Division or other permitting authority.
3. Any duly authorized officer, employee, or representative of the Division may, upon presentation of credentials, enter and inspect any property, premises or place on or related to the disposal site or facility at any reasonable time for the purpose of determining compliance with this permit; may inspect or copy any records that must be maintained under the terms and conditions of this permit, and may obtain samples of groundwater, surface water, or leachate.

VI. GENERAL CONDITIONS

1. This permit shall become voidable unless the facilities are constructed in accordance with the conditions of this permit, the approved plans and specifications, and other supporting data.
2. This permit is effective only with respect to the nature and volume of wastes described in the application and other supporting data.
3. This permit is not transferable. In the event there is a desire for the facilities to change ownership, or there is a name change of the Permittee, a formal permit request must be submitted to the Division accompanied by an application fee, documentation from the parties involved, and other supporting materials as may be appropriate. The approval of this request will be considered on its merits and may or may not be approved.
4. Failure to abide by the conditions and limitations contained in this permit may subject the Permittee to an enforcement action by the Division in accordance with North Carolina General Statute 143-215.6A to 143-215.6C.
5. The issuance of this permit does not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances which may be imposed by other government agencies (local, state, and federal) which have jurisdiction, including but not limited to applicable river buffer rules in 15A NCAC 2B.0200, erosion and sedimentation control requirements in 15A NCAC Chapter 4 and under the Division's General Permit NCG010000, and any requirements pertaining to wetlands under 15A NCAC 2B .0200 and 2H .0500.
6. The Permittee shall retain a set of approved plans and specifications for the subject facility for the life of the project.
7. The Permittee shall pay the annual administering and compliance fee within thirty days of being billed by the Division. Failure to pay the fee accordingly may cause the Division to initiate action to revoke this permit as specified by 15 NCAC 2H .0205 (c)(4).

8. The Permittee, at least six (6) months prior to the expiration of this permit, shall request its extension. Upon receipt of the request, the Commission will review the adequacy of the facilities described therein, and if warranted, will extend the permit for such period of time and under such conditions and limitations as it may deem appropriate.

Permit issued this the 24th day of March, 2006

NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION



Alan W. Klimek, P.E., Director
Division of Water Quality
By Authority of the Environmental Management Commission

Permit Number WQ0028798

Permit No. WQ0028798
March 24, 2006

ENGINEER'S CERTIFICATION

_____ Partial _____ Final

I, _____, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project,

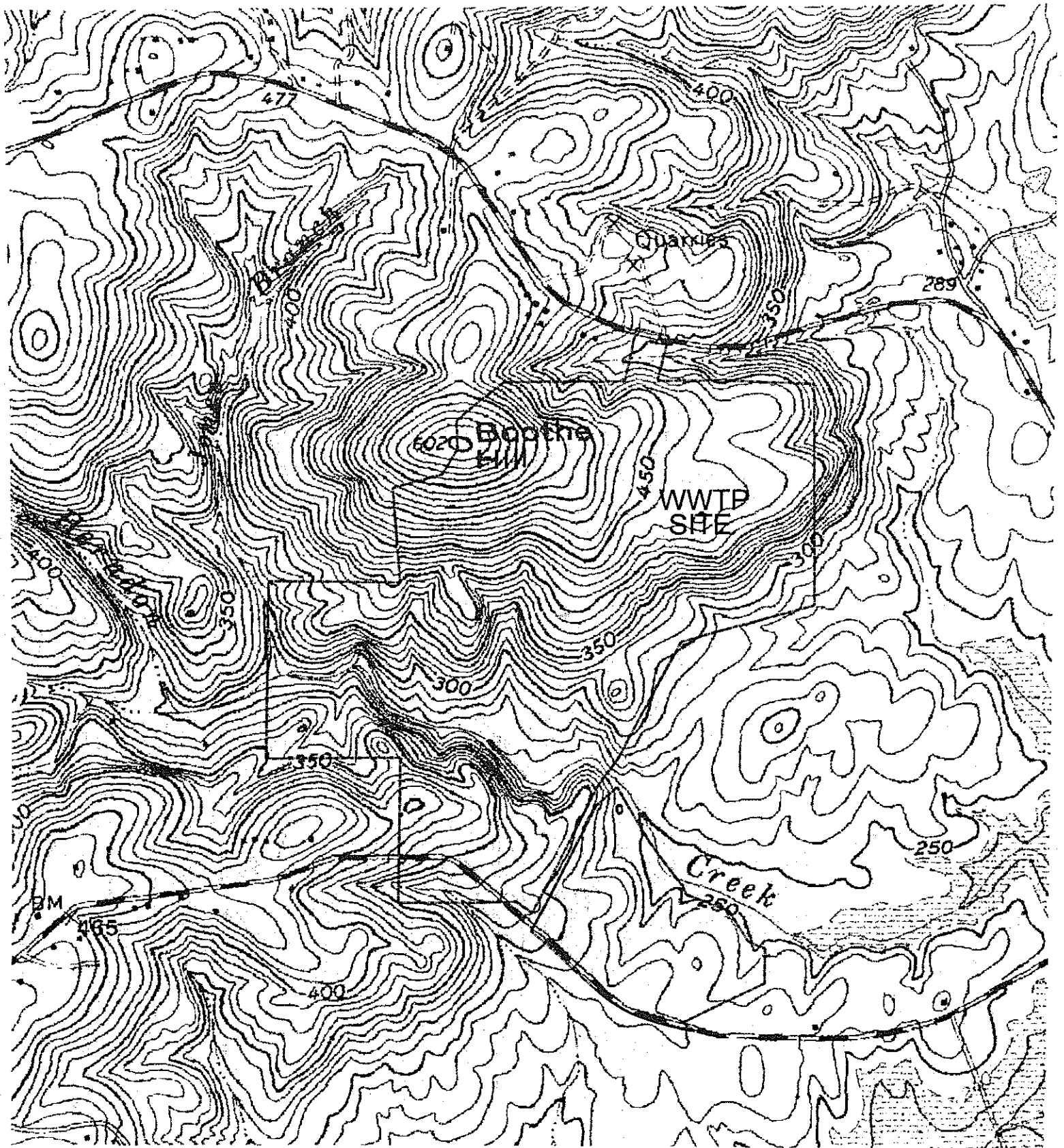
Project Name

Location and County

for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of this permit, the approved plans and specifications, and other supporting materials.

Signature _____ Registration No. _____

Date _____



Heater Utilities, Inc.
Booth Mountain Development

0' 500' 0 1000' 2000'



SCALE: 1" = 1000'

1000 78 798



NORTH

April 19, 2005

FARRINGTON, N. C.

N3545—W7900/7.5

1978

D225E

PHOTOREVISED 1981
DMA 5155 I SE—SERIES V842



**WATER POLLUTION CONTROL SYSTEM OPERATORS
CERTIFICATION COMMISSION**

**CLASSIFICATION
RATING SHEET FOR WATER POLLUTION CONTROL SYSTEMS**

FACILITY INFORMATION:

NAME OF FACILITY: Heater Utilities, Inc.-Booth Mountain Development

MAILING ADDRESS: 202 MacKenan Ct., Cary, NC 27511

COUNTY: Chatham

CONTACT PERSON: Mike Myers

TELEPHONE: 919/467-8712

PERMIT NO.: WQ0028798

Check One: NC

WQ ☒

HEALTH DP

ORC:

TELEPHONE:

RATING INFORMATION: (Before completing this section, please refer to pages 2-4)

PERMITTED FLOW: 66,000 GPD

BNR?

YES

NO

CHECK CLASSIFICATION: WASTEWATER:

1

2 ☒

3

4

COLLECTION:

1

2

3

4

SPRAY IRRIGATION ☒

SUBSURFACE

LAND APPLICATION

PHYSICAL/CHEMICAL

GRADE I

GRADE II

RATED BY: Randy Jones

REGION: RRO

DATE: 5/23/05

REGIONAL OFFICE TELEPHONE NUMBER: 919/571-4700

EXT: 255

Classification of Biological Water Pollution Control Treatment Systems:

Grade I Biological WPCS

- Septic tank/sand filter systems
- Biological lagoon systems
- Constructed wetlands and associated appurtenances

√

Grade II Biological WPCS

- Systems that utilize an activated sludge or fixed growth process with a permitted flow less than or equal to 0.5 million gallons per day (mgd)

Grade III Biological WPCS

- Systems that utilize an activated sludge or fixed growth process with a permitted flow of greater than 0.5 through 2.5 million gallons per day (mgd)
- Grade II systems that are required to achieve biological nutrient reduction *

Grade IV Biological WPCS

- Systems that utilize an activated sludge or fixed growth process with a permitted flow of greater than 2.5 million gallons per day (mgd)
- Grade III systems that are required to achieve biological nutrient reduction *

*** Biological Nutrient Reduction -**

The reduction of total nitrogen or total phosphorus by an activated sludge or fixed growth process as required by the facilities permit.

.....

Classification of Collection Water Pollution Control Systems:

(whichever provides lowest grade)

Same grade as biological water pollution control system. Grade of system:

Based on population served:

1,500 or Less = Grade I

1,501 to 15,000 = Grade II

15,001 to 50,000 = Grade III

50,001 or more = Grade IV

Classification of Spray Irrigation Water Pollution Control Systems:

- ✓ Systems which utilize spray irrigation for the reuse or disposal of wastewater. These systems include: septic tanks, sand filter, oil/water separators, lagoons, storage basins, screening, sedimentation. Systems other than those listed above shall be subject to additional classification.
-

Classification of Land Application of Residuals Systems:

- ___ Systems permitted and dedicated for the land application of residuals that are produced by a water pollution control system or contaminated soils.
-

Classification of Physical/Chemical Water Pollution Control Treatment Systems:

- ___ Grade I Physical/Chemical: Any water pollution control system that utilizes a primarily physical process to treat wastewater. This classification includes groundwater remediation systems **

- ___ Grade II Physical/Chemical: Any water pollution control system that utilizes a primarily chemical process to treat wastewater. This classification includes reverse osmosis, electrodialysis, and ultrafiltration systems. **

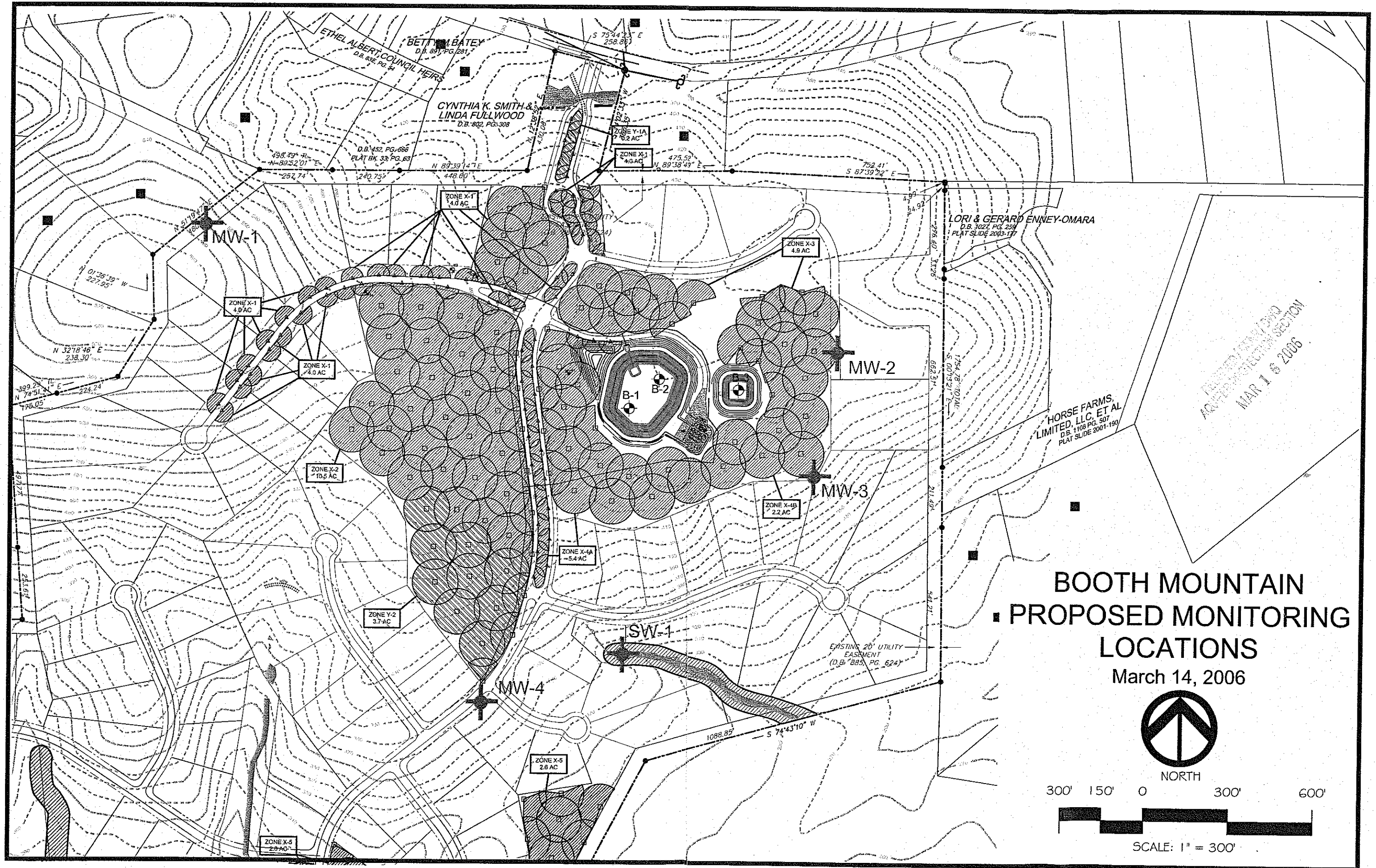
*** Any water pollution control system that utilizes a physical/chemical process to enhance an activated sludge or fixed growth process, shall not be subject to additional classification*

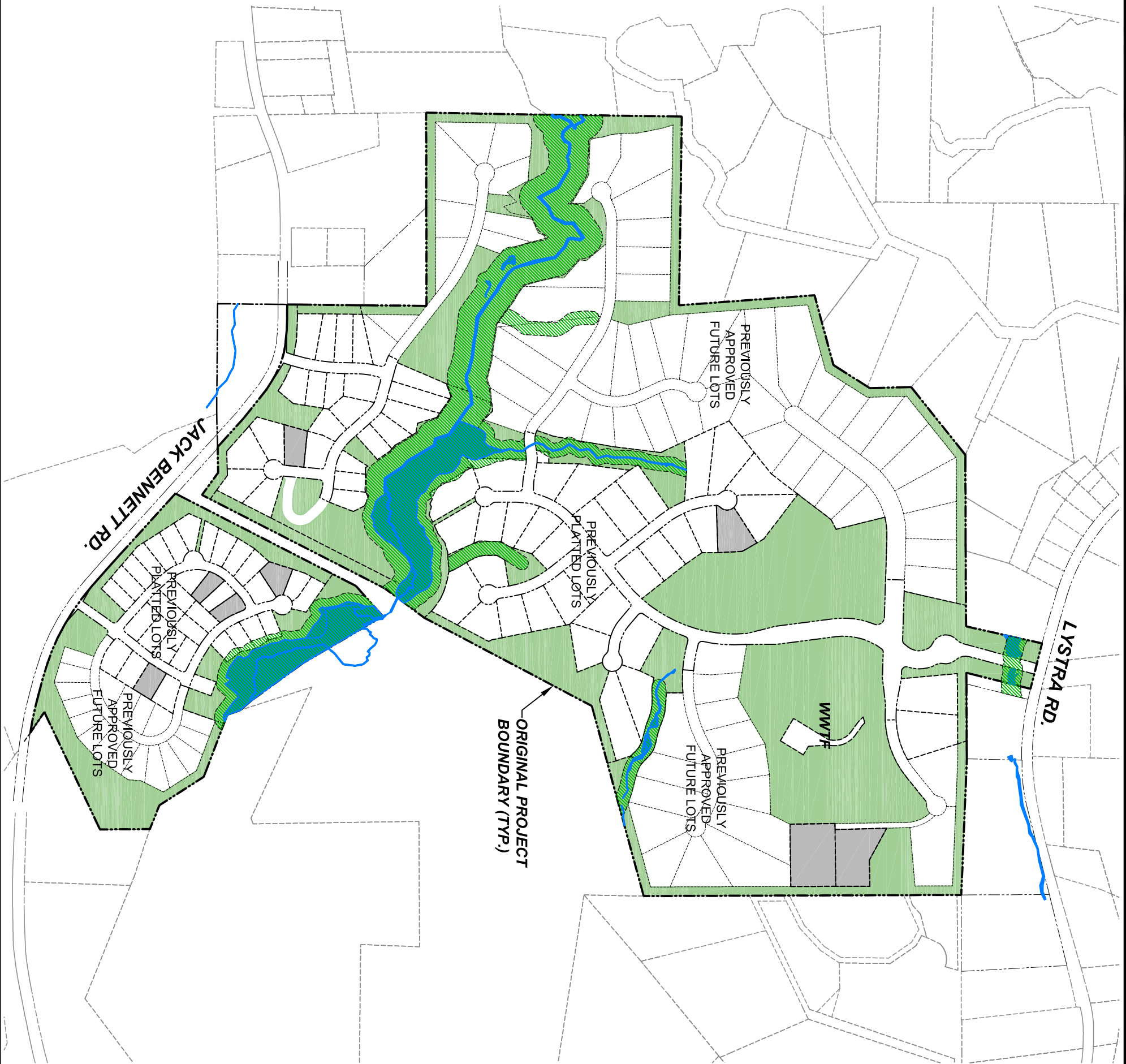
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Classification of Subsurface Water Pollution Control Systems:

- ___ Systems which utilize the soil for subsurface treatment and disposal of wastewater and/or are required to have a certified operator under 15A NCAC 18A.1961. ***

**** Any subsurface system that has as part of its treatment process a water pollution control system that may be classified under Rules .0302 through .0307 of this section shall be subject to additional classification.*





LEGEND

- LOTS OWNED BY OTHERS
- PREVIOUSLY APPROVED OPEN SPACE
- WETLAND & STREAM RIPARIAN BUFFER AREAS
- WETLAND AREA

PREVIOUSLY APPROVED TOTAL OPEN SPACE	108.81 Ac.
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CE GROUP
301 GLENWOOD AVE. SUITE 220
RALEIGH, NC 27603
PHONE: 919-367-8790
www.cegroupinc.com

**WESTFALL
SUBDIVISION**

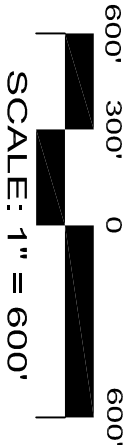
CHATHAM COUNTY,
NORTH CAROLINA

**PREVIOUSLY
APPROVED OPEN
SPACE EXHIBIT**

OCTOBER 2012



NORTH





LEGEND

LOTS OWNED BY OTHERS

PROPOSED OPEN SPACE

WETLAND & STREAM RIPARIAN BUFFER AREAS

WETLAND AREA

PROPOSED OPEN SPACE	143.95 Ac.
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**WESTFALL
SUBDIVISION**

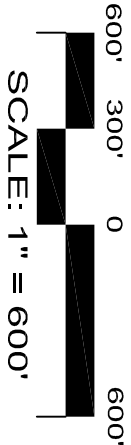
CHATHAM COUNTY,
NORTH CAROLINA

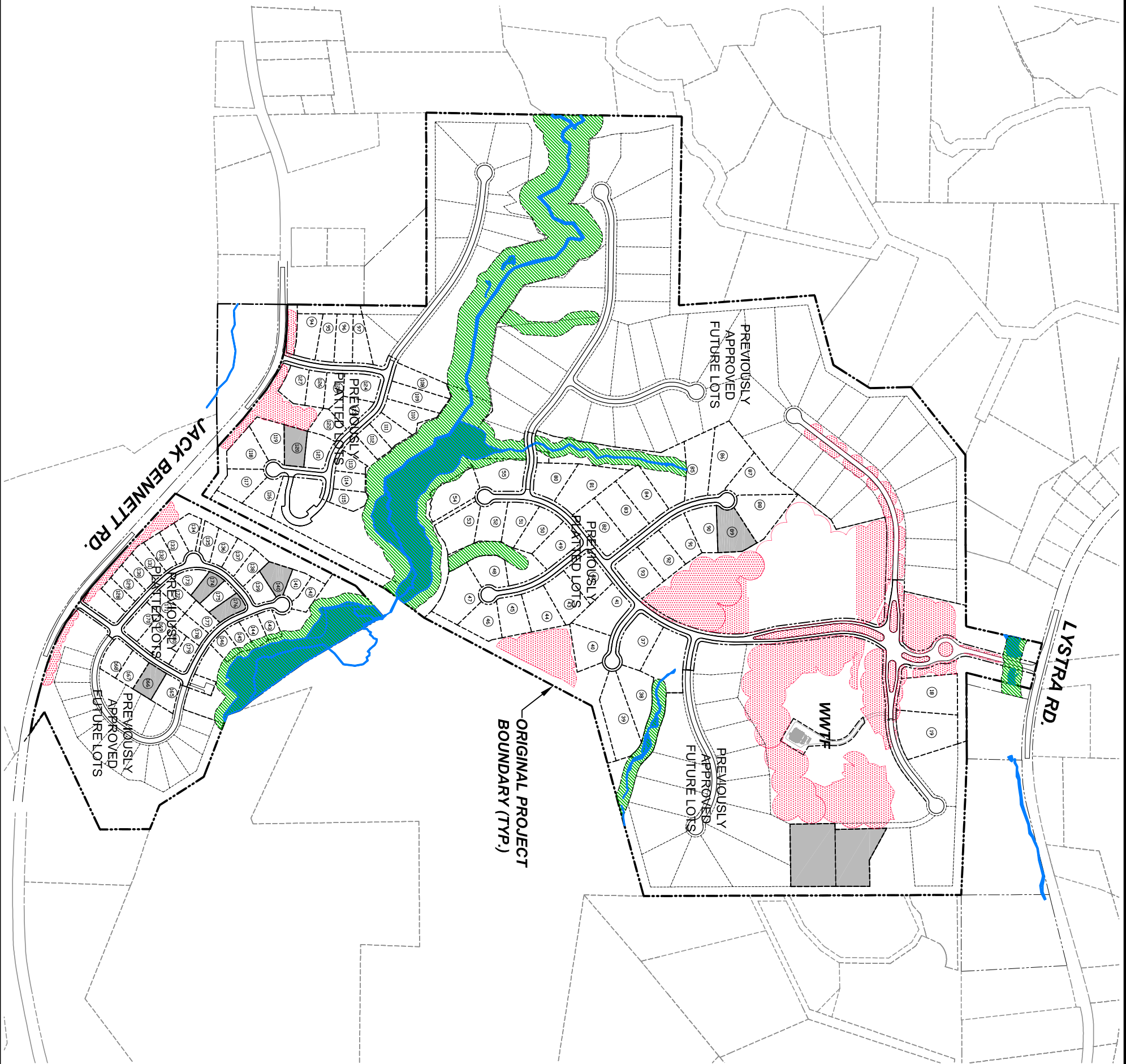
**PROPOSED OPEN
SPACE EXHIBIT**

OCTOBER 2012



NORTH





LEGEND

- LOTS OWNED BY OTHERS
- CURRENT PERMITTED SPRAY AREA
- WETLAND & STREAM RIPARIAN BUFFER AREAS
- WETLAND AREA
- CURRENTLY PERMITTED SPRAY AREA **38.9 Ac.**



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**WESTFALL
SUBDIVISION**

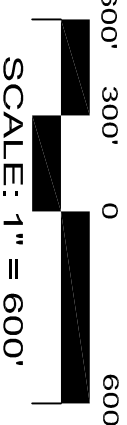
CHATHAM COUNTY,
NORTH CAROLINA

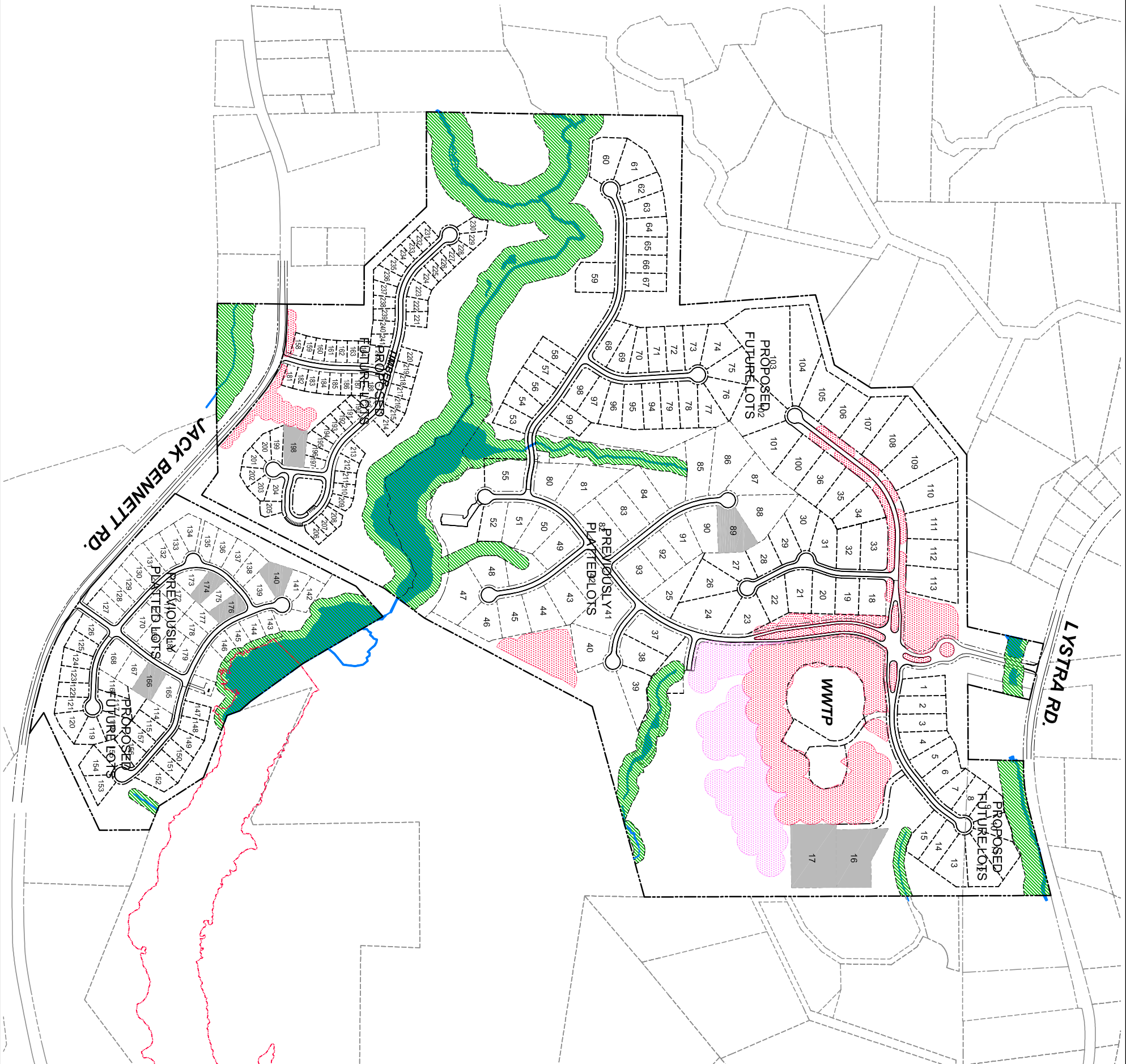
**CURRENT
PERMITTED SPRAY
AREA EXHIBIT**

OCTOBER 2012



NORTH





LEGEND

-  LOTS OWNED BY OTHERS
-  CURRENT PERMITTED SPRAY AREA (± 19.1 Ac.)
-  SPRAY AREA TO BE PERMITTED (± 7.7 Ac.)
-  WETLAND & STREAM RIPARIAN BUFFER AREAS
-  WETLAND AREA



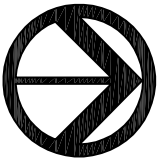
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**WESTFALL
SUBDIVISION**

CHATHAM COUNTY,
NORTH CAROLINA

**PROPOSED SPRAY
AREA EXHIBIT**

OCTOBER 2012



NORTH

