



Northeast Creek and Crooked Creek Watershed Improvement Project



*Public Works
Engineering And Stormwater
Services
101 CITY HALL PLAZA
DURHAM, NC 27701
P 919.560.4326
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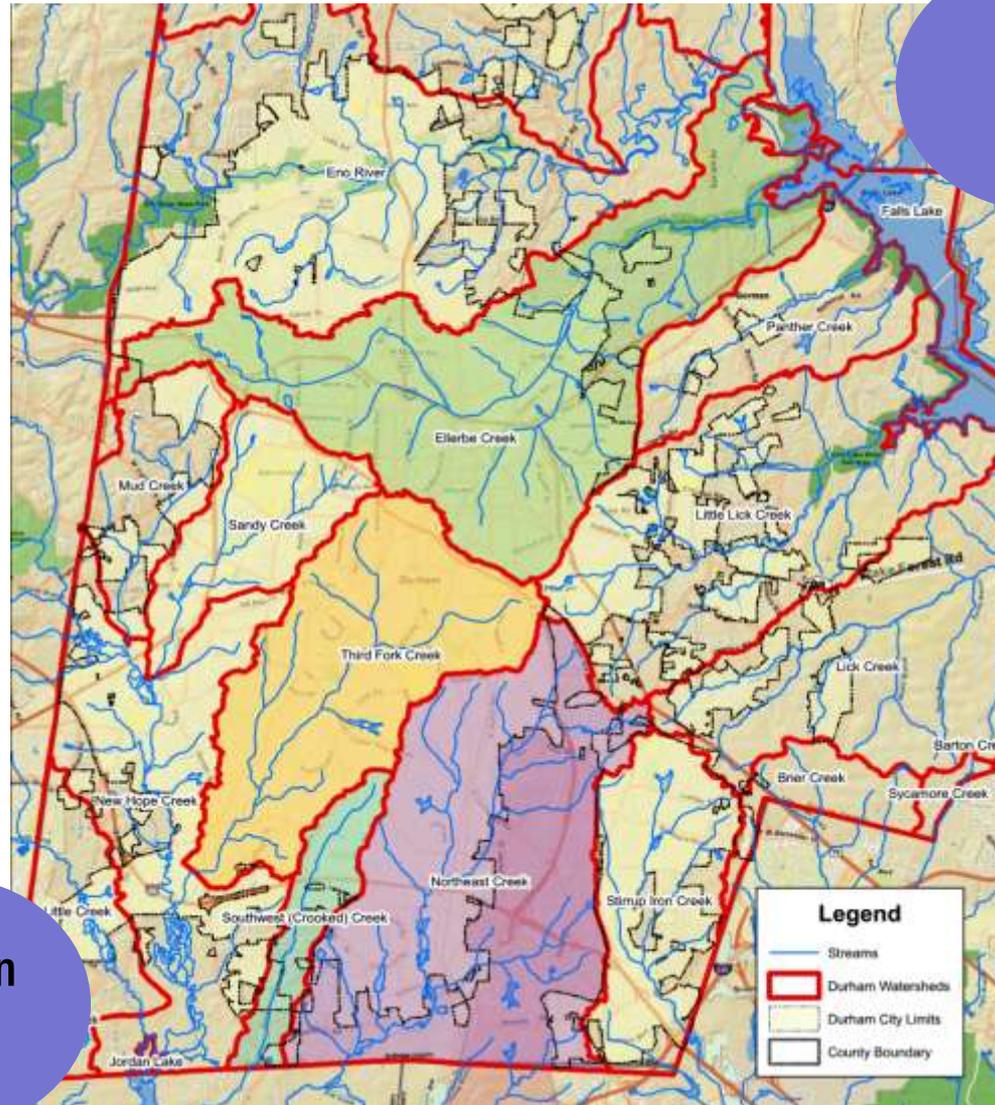
Sandra.Wilbur@durhamnc.gov

Sandra Wilbur, PE, City of Durham Public Works Department

Presented to Durham City Council Work Session
July 21, 2011



Falls
Lake



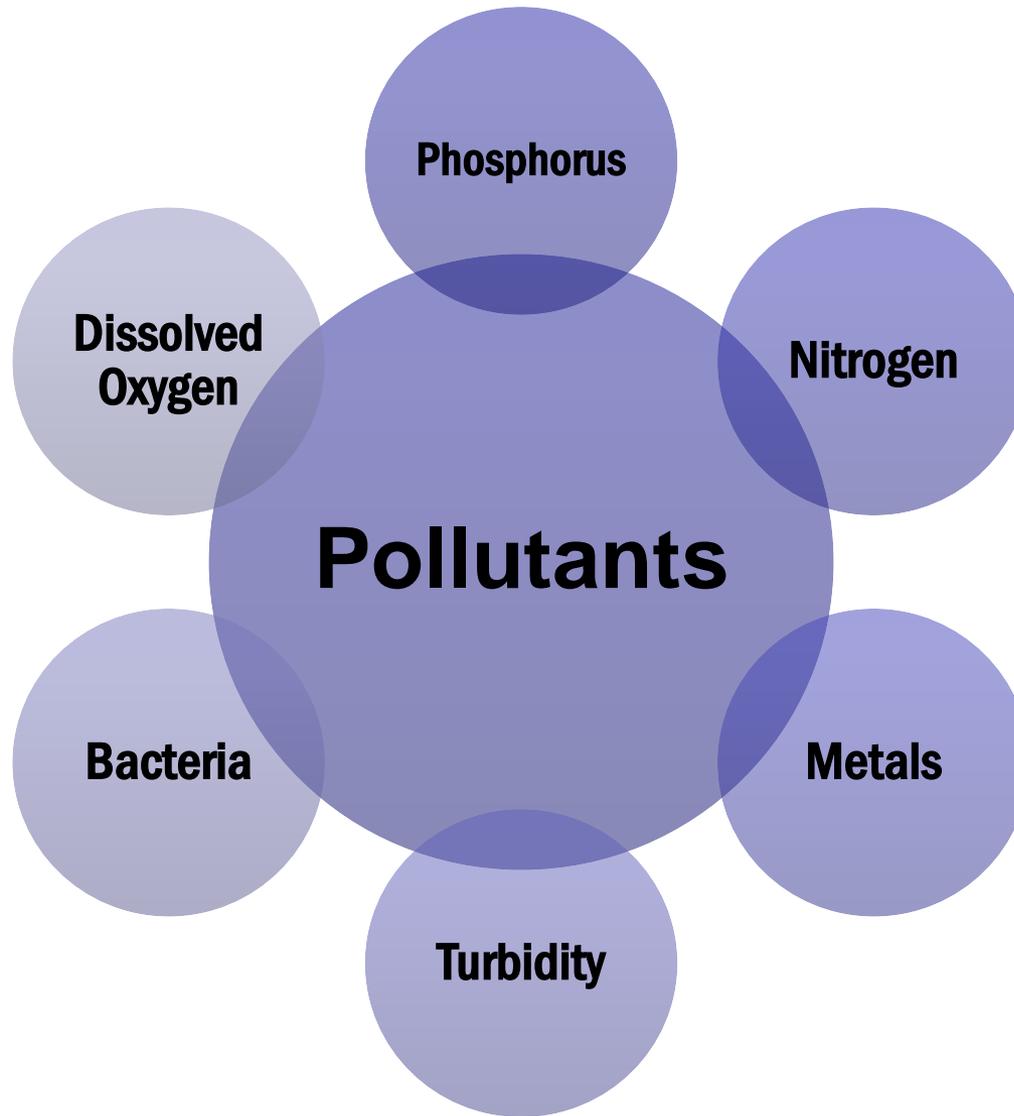
Jordan
Lake

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Schedule of activities



Activities	Dates
Initial Public Meeting	June 1, 2011
Stormwater BMP Assessments Field Work	July 2011
Stream Condition Inventory Field Work	September - October 2011
Pilot Study Area and Watershed Scale Water Quality Analyses	August 2011 – April 2012
Public Meeting #2	October 2011
Critical Area Protection Plan	December 2011
Riparian Area Management Plan	March 2012
Draft Watershed Improvement Plan	March - May 2012
Public Meeting #3	April 2012
Final Watershed Improvement Plan	August 2012

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Public Meeting

What are Stormwater Control Measures?

Stormwater Control Measures (or SCMs) is a general term that describes both **devices** and **activities** that control the quantity and quality of the stormwater that flows off our land and into our streams.

Promoting Academic, Spiritual, and Social Development

GA

Baton 80°F
AccuWeather.com Weather Forecast

The Herald-Sun
July 5, 2011

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College

Watershed management goals to be topic at Environmental Affairs Board hearing
4 months ago | 2011-07-05 | 1 | 0 | 0 | 0 | 0 | 0

City of Durham

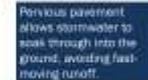
DURHAM – The city's Stormwater Services Division recently launched the Northeast Creek and Crooked Creek Watershed Management Implementation Project aimed at studying ways to revitalize the health of the creeks and their surrounding areas as well as comply with water quality regulations.

The project goals will be presented during an Environmental Affairs Board meeting on Wednesday at 7 p.m. in the Committee Room of City Hall, 101 City Hall Plaza.

Residents are invited to provide input and guidance about the goals and objectives to help shape and prioritize the potential watershed improvement projects.

In June, field crews will begin assessing stormwater devices in the watersheds for Northeast Creek and Crooked Creek. Field evaluation and assessment activities of the streams are expected to begin in September. After the field work is completed, a list of prioritized potential watershed improvement projects will be developed. The projected completion date for this project is summer 2012.

The city has contracted with Brown and Caldwell Environmental Engineers to complete



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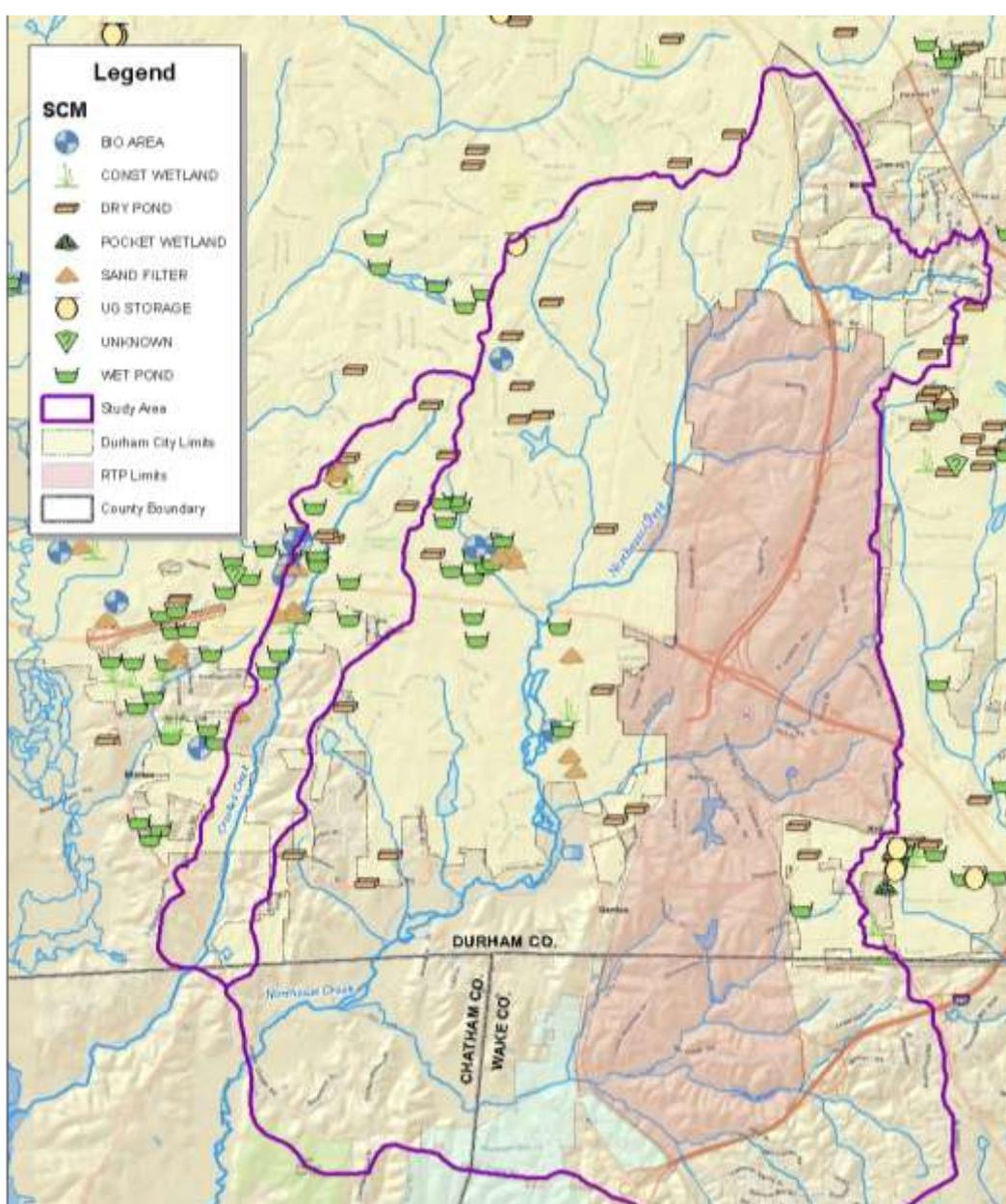
Field Activities

DURHAM



1869
CITY OF MEDICINE





Opportunities to Improve Existing Stormwater Control Measures

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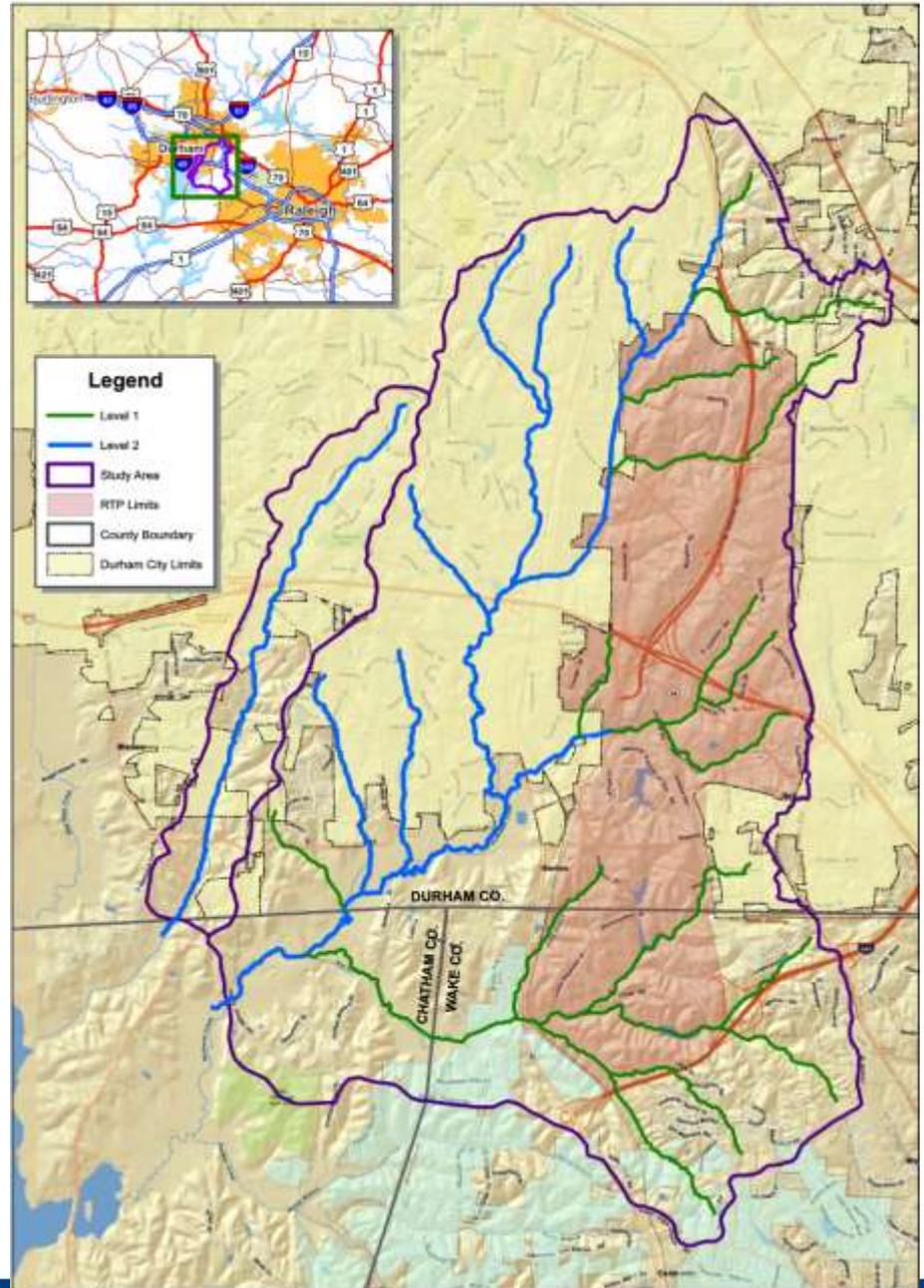


What's next?

Opportunities to Stabilize and Restore Streams

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Project Evaluation Criteria



Water Quality

Habitat

Stream Protection

Community
Enhancement

Implementation

Public Safety



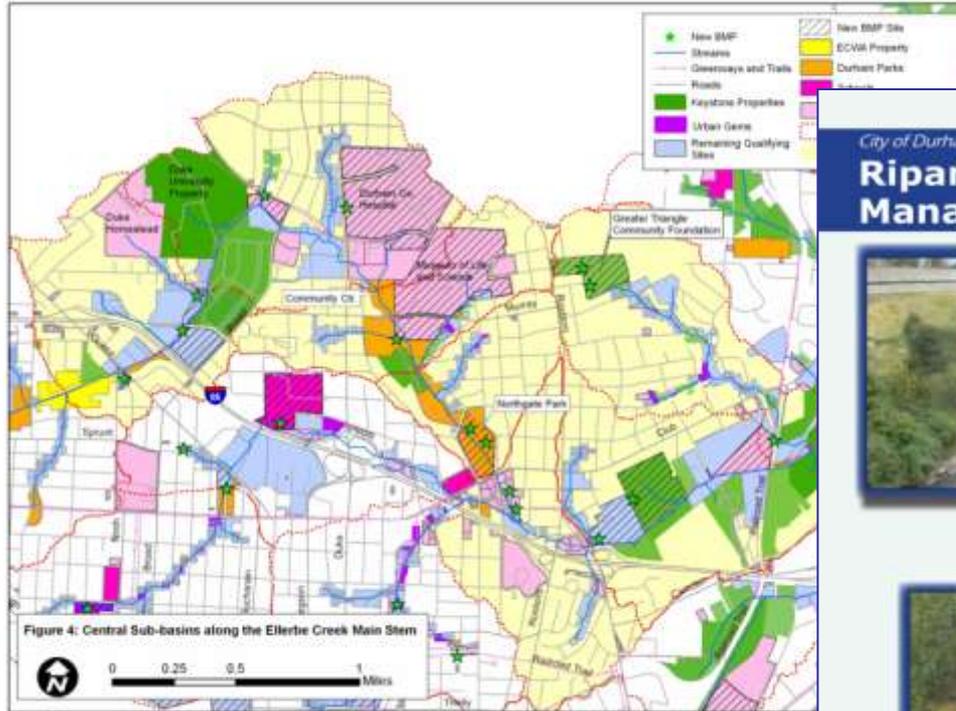
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Critical Areas and Riparian Buffers

Critical Area Protection Plan



City of Durham Watershed Improvement Program

Riparian Area Management Plan

BROWN AND CALDWELL
RJG&A
Watershed Management Consultants

September 2009

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Recommendations

Elerbe Creek WMIP - Project Description
Subwatershed: 21

Project ID: 21003
Project Type: New BMP



Figure 1 - Plan View of BMP Project with Aerial Photos

Prioritization Criteria Scores (Total Points in Parentheses)			
Criteria	Score	Criteria	Score
<u>Water Quality Benefits</u>		<u>Community Enhancement</u>	
TN (12.5 pts)	12.5	Property Protection (5 pts)	1.0
TP (5 pts)	5.0	Property Protection Bonus	0.0
Sediment (12.5 pts)	2.5	Property Owner / Acceptance (5 pts)	1.0
Fecal Coliform (5 pts)	5.0	Acceptance Bonus	0.0
Water Quality Bonus	0.0	Public Education (10 pts)	6.0
<u>Habitat and Biological Integrity</u>		<u>Implementation Issue</u>	
Habitat/Biology (15 pts)	0.0	Property Ownership (5 pts)	2.0
Habitat/Biology Bonus	0.0	Accessibility for Construction (5 pts)	5.0
<u>Stream Bank Protection</u>		City Program Compatibility (2.5 pts)	1.5
Stream Bank Protection (10 pts)	6.0	Permitting/ Adverse Env. Impacts (2.5 pts)	1.0
<u>Public Safety and Public Property</u>		Permitting Bonus	0.0
Public Safety and Property (5 pts)	0.0	Total Project Score (100 pts)	48.5
Safety Bonus	0.0		
Additional Project Information			
Total cost includes the 20-year present value of operations and maintenance.			
PINs: 0842-17-10-0638			

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Former Duke Diet and Fitness Center

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Database for Reporting

Parcel ID	Parcel Name	Parcel Address	Parcel Type	FBI
00041	3000 Meridian Parkway SP1 (MT Durham Funding Company)	3000 Meridian Parkway	SP	0026-00-8
00042	3000 Meridian Parkway SP2 (MT Durham Funding Company)	3000 Meridian Parkway	SP	0029-00-8
00043	3030 Meridian Parkway SP (MT Durham Funding Company)	3030 Meridian Parkway	SP	0026-00-8
00044	3030 Meridian Parkway WP (MT Durham Funding Company)	3030 Meridian Parkway	WP	0026-00-8
00045	AAA Mvs Storage SP	754 Junction Road	SP	0045-04-0
00028	Alamity Place WP	Southwest of the intersection of NC Highway 94 and Gates Chapel Road	WP	0068-00-8
00443	Advanced Auto Parts at NC 54 SP	East of the intersection of NC 54 and Jesse Lake Road, 118 W. NC 54 Highway	SP	0018-04-2
00046	Arden Summit Farms SP	Northwest of the intersection of Durham Chapel Hill Blvd and Garrett Road	WP	0000-00-5
00007	Ardenwood Crossing DP	2702 Kogerback Ln (between Lots G1 and G4)	DP	0008-00-8
00008	Alexander Village Shopping Center Phase 1 DP	Northwest portion of the TW Alexander Drive/Fage Road intersection, 2304 TW Alexander Dr	DP	0016-00-2
00009	Alexander Village Shopping Center Phase 1 DP	Northwest portion of the TW Alexander Drive/Fage Road intersection, 2304 TW Alexander Dr	DP	0016-00-2
00026	Alpha Highway 95 Retail DP	Southfield of the intersection of NC Highway 95 and Oldenwood Drive	DW	0036-00-0
00002	Alta Springs SP	180 Spring Meadow Drive Chapel Hill NC	SP	0066-00-9
00000	Alta Springs WP1	180 Spring Meadow Drive Chapel Hill NC	WP	0066-00-9
00004	Alta Springs WP2	180 Spring Meadow Drive Chapel Hill NC	WP	0066-00-9
00007	Alta Walk Senior Apartments DW	6709 Fairbottle Road, southeast of the intersection of Fairbottle Road and East Woodcroft Parkway	DW	0028-00-1
00024	Aluminum Company of NC	1235 Harris Road	SP	0045-01-6
00003	Anderson Valley Townhomes WP1	South of the intersection of Oldson Road and Lynn Road	WP	0040-07-8
00004	Anderson Valley Townhomes WP2	South of the intersection of Oldson Road and Lynn Road	WP	0040-07-8
00005	Anglo Storage - Bennett Memorial DP	4101 Bennett Memorial Road	DP	0002-00-9
00400	Ardenstone LSI	North of NC Highway 95, off Chandler Road	LS	0041-00-0
00012	Atty's Restaurant at NC 54	On Highway 54 North, approximately 25 miles south of State Road	DP	0047-00-4
00008	Aurfield Place CP (Quality not reported, estimated)	Off of Queens Road and Arfield Drive, on the south side of the site (south of Lots 16A and 16B)	CP	0025-00-4
00001	Aurfield Place Phase 3 & 4C (DP)	East side of Queens Road at the intersection of Queens Road and Arfield Drive	DP	0025-00-1
00449	Aurfield Place Phase 3 & 4C (DP)	East side of Queens Road at the intersection of Queens Road and Arfield Drive	DP	0025-00-1
00404	Aurfield Place Phase 3 (DP)	Off of Queens Road, north of its crossing with Crooked Creek, located on the western side of the property	DP	0025-00-1
00002	Aurton Hall Ph. 5 & 6 L5-4P	Midwest Springs Road and Sherwin Road	LS	0006-00-0
00003	Aurton Hall Ph. 5 & 6 L5-4C	Midwest Springs Road and Sherwin Road	LS	0006-00-0
00009	Aurton Hall Ph. 5 & 6 WP #10 (small)	Midwest Springs Road and Sherwin Road	WP	0006-00-0
00016	Aurton Hall Ph. 5 & 6 WP #10 (small)	Midwest Springs Road and Sherwin Road	WP	0006-00-0
00010	Aurton Hall Ph. 5 & 6 WP #11 (large)	Midwest Springs Road and Sherwin Road	WP	0006-00-0
00396	Aurton Hall Phase 1A WP1	Frontage on Midwest Springs Road and Sherwin Road (southeastern portion of the property, off of Fair WP)	WP	0006-00-0
00397	Aurton Hall Phase 1A WP2	Frontage on Midwest Springs Road and Sherwin Road (southern side of property, off of Aurton Drive R WP)	WP	0006-00-0
00390	Aurton Hall Phase 1A WP3	Frontage on Midwest Springs Road and Sherwin Road (southeastern portion of the property)	WP	0006-00-0
00391	Aurton Hall Phase 1A WP4	Frontage on Midwest Springs Road and Sherwin Road (northwestern portion of the property)	WP	0006-00-0
00006	Aurton Subdivision FOD 5A WP1	Frontage on Midwest Springs Road and Sherwin Road (northwestern portion of the property)	WP	0006-00-0
00012	Aurton Subdivision FOD 5A WP4	Southeast End of Whittier Ln (off of Lee Wilcox Ln)	WP	0026-00-0
00011	Aurton Subdivision FOD 5B WP1	Off of Lee Wilcox Ln	WP	0026-00-0
00010	Aurton Subdivision FOD 5B WP2	Adjacent to 1301 Fairmont St	WP	0026-00-0
00008	Aurton Subdivision FOD 7 DP	Intersect 8 and 11 Providence Way (off E. Woodcroft Place)	DP	0026-00-4
00009	Aurton Subdivision FODS 1 & 2 (Aurton Apartments South Terrace at Aurton) WP	Off Southwestern entrance to the facility, adjacent to Public Check crossing	WP	0026-00-4