

Stormwater Program Update

City Council Budget Work Session

May 18, 2017

Stormwater Program

- Stormwater Utility Fee
- Program Expenditures
- Stormwater CIP
- Ongoing Project Update
- Recommended Project List
- Future Planning

Stormwater Utility Fee

- Currently \$3.75/month (ERU) or \$45/year
- Proposed \$0.50 increase for FY18
 - Provides \$914,490 per year
- \$4.25/month or \$51/year
 - \$0.25 increase proposed for FY19 & FY20
 - Total \$4.75/month or \$57/year

Residential Stormwater Rates and Revenues: Preliminary Analysis

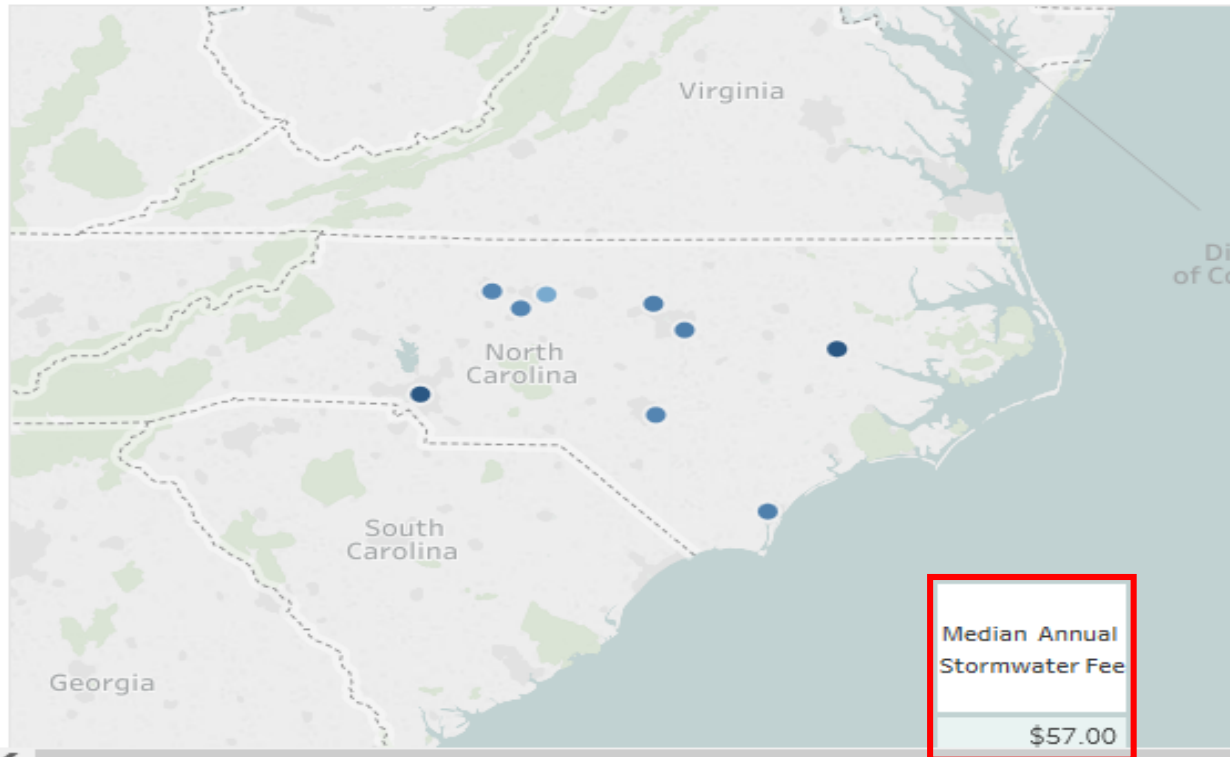
(Environmental Finance Center at the UNC School of Government 2017)



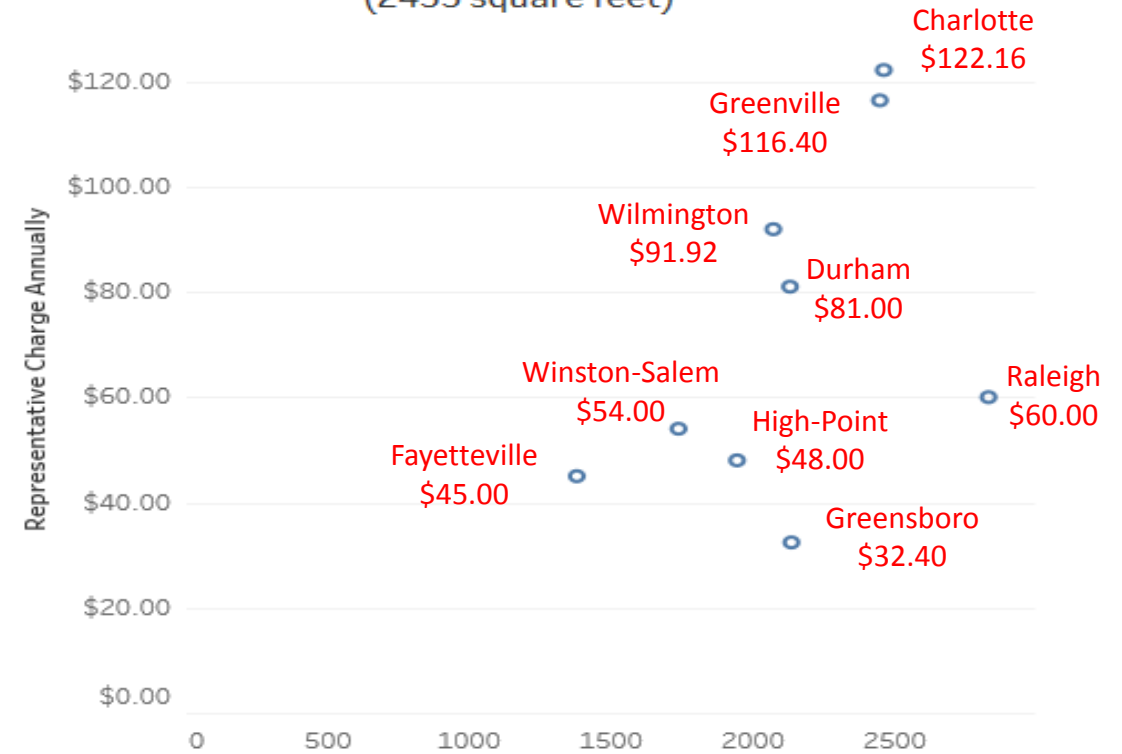
UNC
ENVIRONMENTAL
FINANCE CENTER

Geographic Region: (All) | Area in sq. mi: (All) | Population in Municipali... (2013 Census): 100,000+ | Stormwater Revenues: (All) | Fee Structure: (All) | Population De: (All)

Residential Annual Stormwater Fee (Example Property: 2455 Impervious sq. feet)

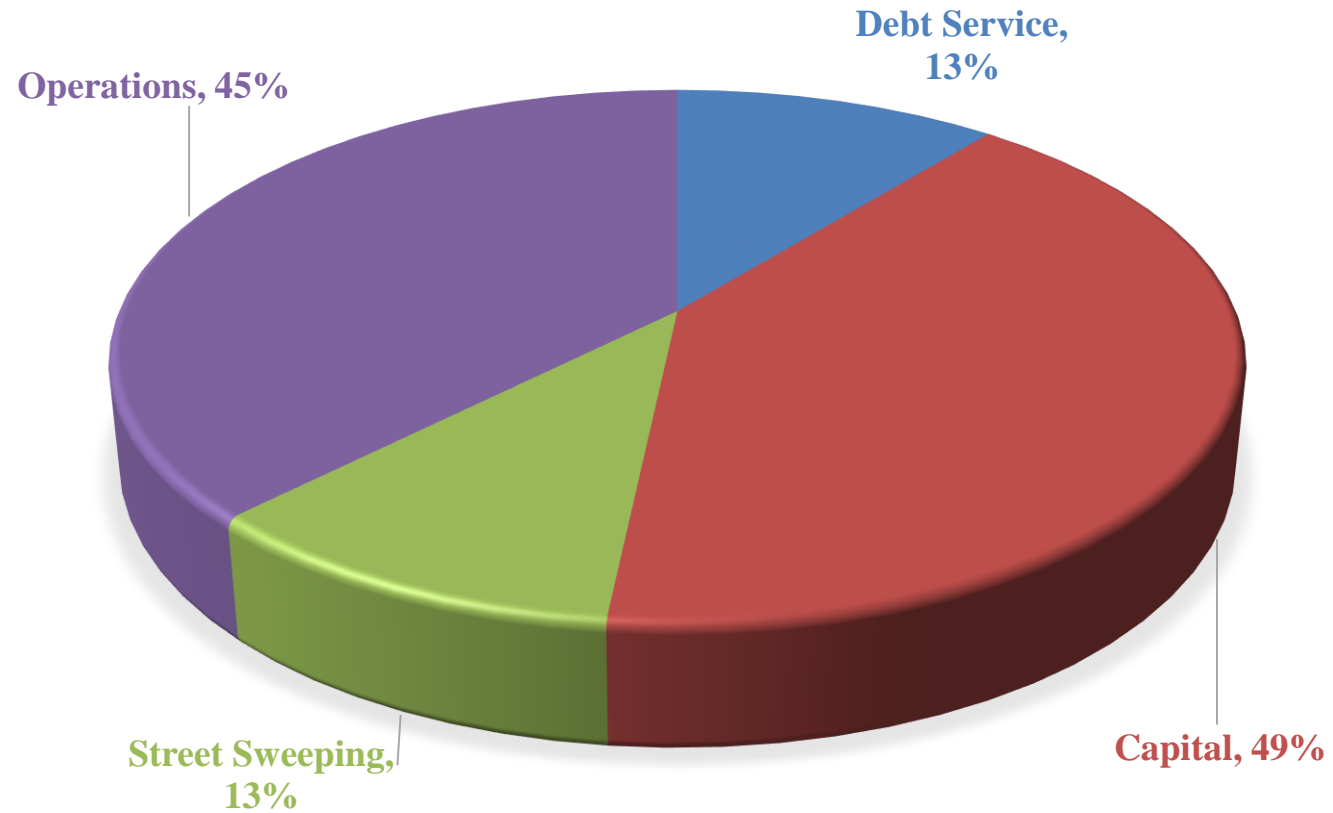


Population Density vs. Representative Annualized Single Family Residential Fee (2455 square feet)



Program Expenditures

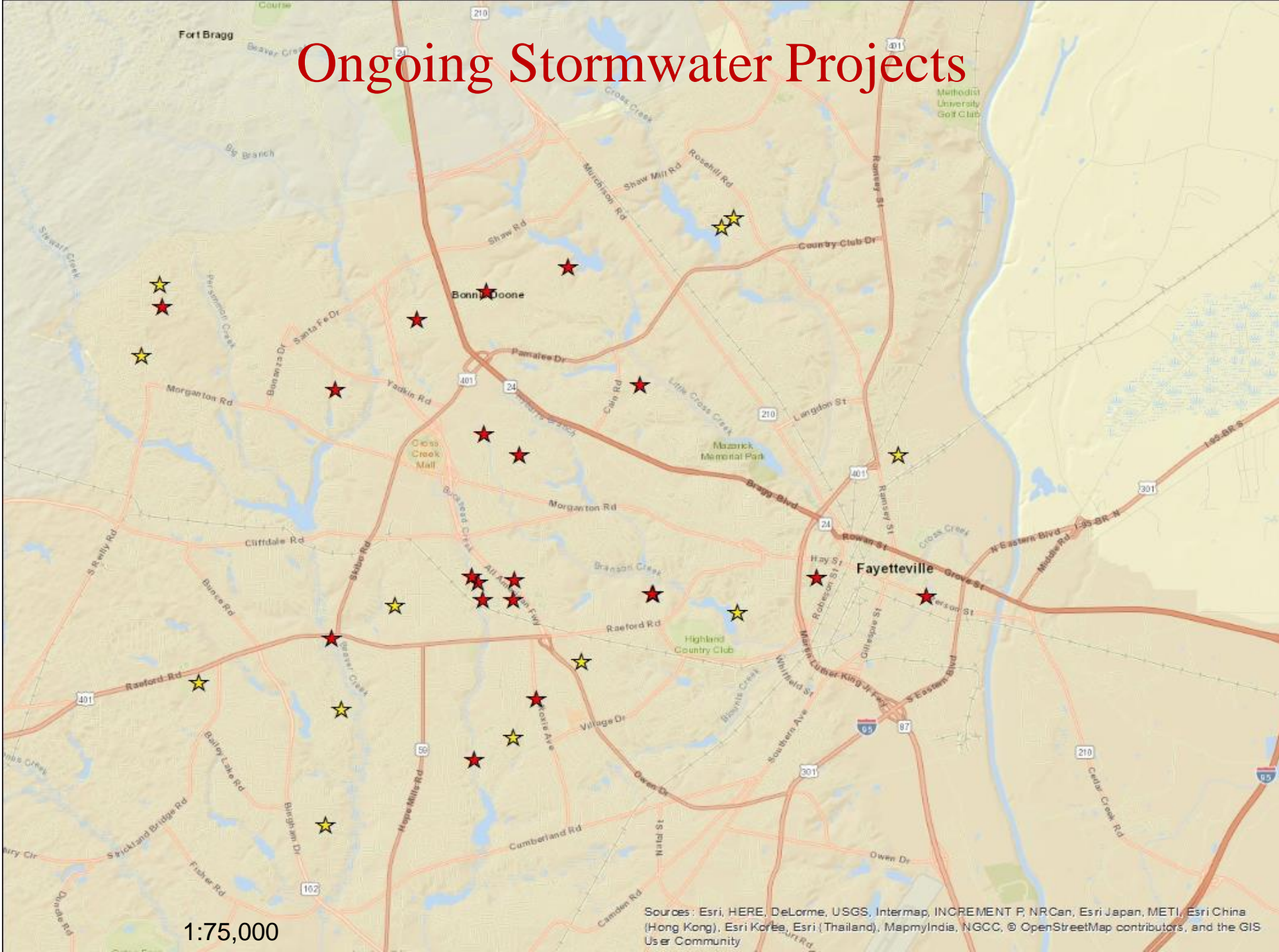
FY17 YR END PROJECTION: \$7,004,899



Stormwater CIP

- 33 CIP projects completed since 2011
 - Total cost of \$19,399,400
- 24 CIP project ongoing
 - Total cost of \$13,388,100
- 61 project pending in program to be funded
 - Total cost of \$ \$38,443,200

Ongoing Stormwater Projects



1:75,000

Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

Legend

- ★ Spot_Repair_Active_Projects
- ★ CIP_Active_Projects

On-going Stormwater CIP Project Status

Status	Project Name	Estimated cost/Budget
Prior Fy's		
Under Construction	Godfrey Outfall Phase 1 & 2)	\$1,253,006.48
Under Construction	Bonnie Doone West of 3 and Central of 2 (Area 1)	\$552,193.00
Under Construction	Spot Repairs Package 1 - Dandridge, Ashbrook, Friendly	\$74,887.00
Under Construction	Spot Repairs Package 2 - North, Landau 1, Landau 2	\$231,458.00
Advertise & Bid	Coventry Culvert and Floodplain Bench (FPB), Glenwich Berm, Devonshire Drive FPB	\$1,750,946.00
Advertise & Bid	Bonnie Donne Area 12	\$112,350.00
Advertise & Bid	Ferncreek Norwood	\$112,350.00
Advertise & Bid	Yadkin Phase 2	\$2,291,794.00
Under Design	Bonnie Doone Area 5	\$1,539,272.00
Under Design	Roxie Ave Phase 1	\$1,402,800.00
Under Design	Spot Repair Package 1 Design - Norton	\$103,362.22
Under Design	Spot Repair Package 2 Design (estimated construction cost \$91,273.00) - Martindale, Forest Lake	\$84,431.00
Under Design	Spot Repair Package 3 Design - Blairwood, Mum Creek, Delliert	\$75,007.78
Under Design	Regiment (Design only)	\$65,000.00
Under Design	Spruce St Phase II	\$815,000.00
Design on-hold	Raeford Rd. Flood Plain Bench (design only)	\$184,605.00
Re-assesing	Land Acquisition Infiltration Basin Max Abbott	\$316,377.00
	Total	\$10,964,839.48

FY17		
Re-assesing	Infiltration Basin Max Abbott Phase 1	\$290,000.00
Under Design	Spot Repair Program	\$200,000.00
Under Design	Beaver Creek 2 Watershed Study	\$420,000.00
Under Design	McGilvary Street	\$238,234.00
Under Design	Broyhill Drive drainage improvement	\$171,990.00
Under Design	Bonnie Doone, Area 2	\$557,550.00
Re-assesing	Dry Detention Sycamore Dairy	\$245,500.00
	Easement / Land Acq	\$150,000.00
	Project Management	\$150,000.00
	Total	\$2,423,274.00
	Total On-going projects	\$13,388,113.48

Recommended Project List

Includes

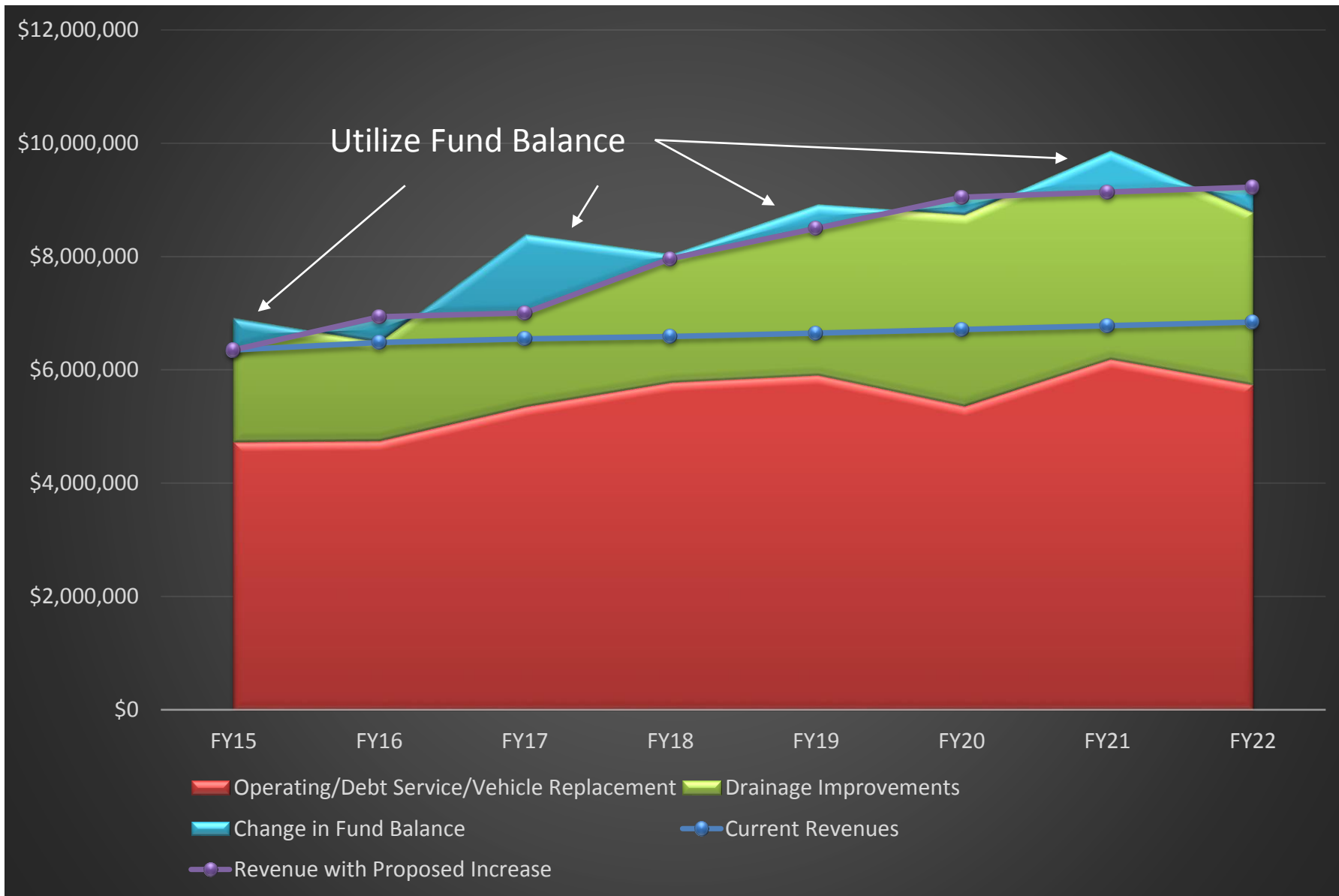
- Council's request to accelerate projects by 25%
- Continuation of planned Stormwater Fee increase
 - \$0.50 FY 18
 - \$0.25 FY 19 and FY 20

**Stormwater CIP
Budget Recommendation - Revised**

					5/17/2017	
	Project Name	Estimated cost/Budget	Council District	Watershed	Project Source	Revision notes
FY18	Neville St	\$560,000.00	2	Cape Fear 1	Drainage Complaint	
FY18	North St (1226)	\$1,100,000.00	2	Cape Fear 1	Drainage Complaint	
FY18	Spot Repair Program	\$300,000.00			Drainage Complaint	
FY18	Easement / Land Acq	\$150,000.00			-	
FY18	Project Management	\$150,000.00			-	
	Total	\$2,260,000.00				
FY19	Blount's Creek Watershed Study	\$500,000.00	2, 5, 9	Blounts Creek	Watershed Study	
FY19	Sunbury Dr (867)	\$620,000.00	3	Cross Creek	Drainage Complaint	
FY 19	Louise St	\$470,000.00	7	Beaver Creek 2	Drainage Complaint	
FY 19	* Spruce Street, Acorn Phase 3	\$520,000.00	2	Little Cross Creek	Drainage Complaint	* Moved from FY20
FY 19	* Breezewood (2700)	\$300,000.00	2	Blounts Creek	Drainage Complaint	* Moved from FY21
FY 19	Spot Repair Program	\$300,000.00			-	
FY 19	Easement / Land Acq	\$150,000.00			-	
FY 19	Project Management	\$150,000.00			-	
	Total	\$3,010,000.00				
FY20	Raeford Rd (Lafayette Village)	\$980,000.00	5	Beaver Creek 2	Neighborhood Study	
FY20	* Roxie Ave Phase 2	\$1,900,000.00	5	Buckhead Creek	Watershed Study	* Moved from FY22
FY20	Spot Repair Program	\$200,000.00			Drainage Complaint	
FY20	* Easement / Land Acq	\$150,000.00			-	* Increased by \$50K
FY20	Project Management	\$150,000.00			-	
	Total	\$3,380,000.00				
FY21	Watershed Study	\$500,000.00	N/A	N/A	Watershed Study	
FY21	Raeford FPB	\$1,145,550.00	5, 9	Buckhead Creek	Watershed Study	
FY21	* Bonnie Doone Area 3	\$1,526,400.00	3, 4	Little Cross Creek	Neighborhood Study	* Added project
FY21	Spot Repair Program	\$200,000.00			Drainage Complaint	
FY21	Easement / Land Acq	\$150,000.00			-	
FY21	Project Management	\$150,000.00			-	
	Total	\$3,671,950.00				
FY22	* Roxie Ave Phase 3	\$710,280.00	5	Buckhead Creek	Watershed Study	* Added project
FY22	* Birch (Lafayette Village)	\$1,833,120.00	5	Beaver Creek 2	Neighborhood Study	* Added project
FY22	Spot Repair Program	\$200,000.00			Drainage Complaint	
FY22	Easement / Land Acq	\$150,000.00			-	
FY22	Project Management	\$150,000.00			-	
	Total	\$3,043,400.00				
	Grand Total	\$15,365,350.00				
	Remaining projects in program	48				
		\$ 26,777,896.84				

Projected Stormwater Revenues and Expenses

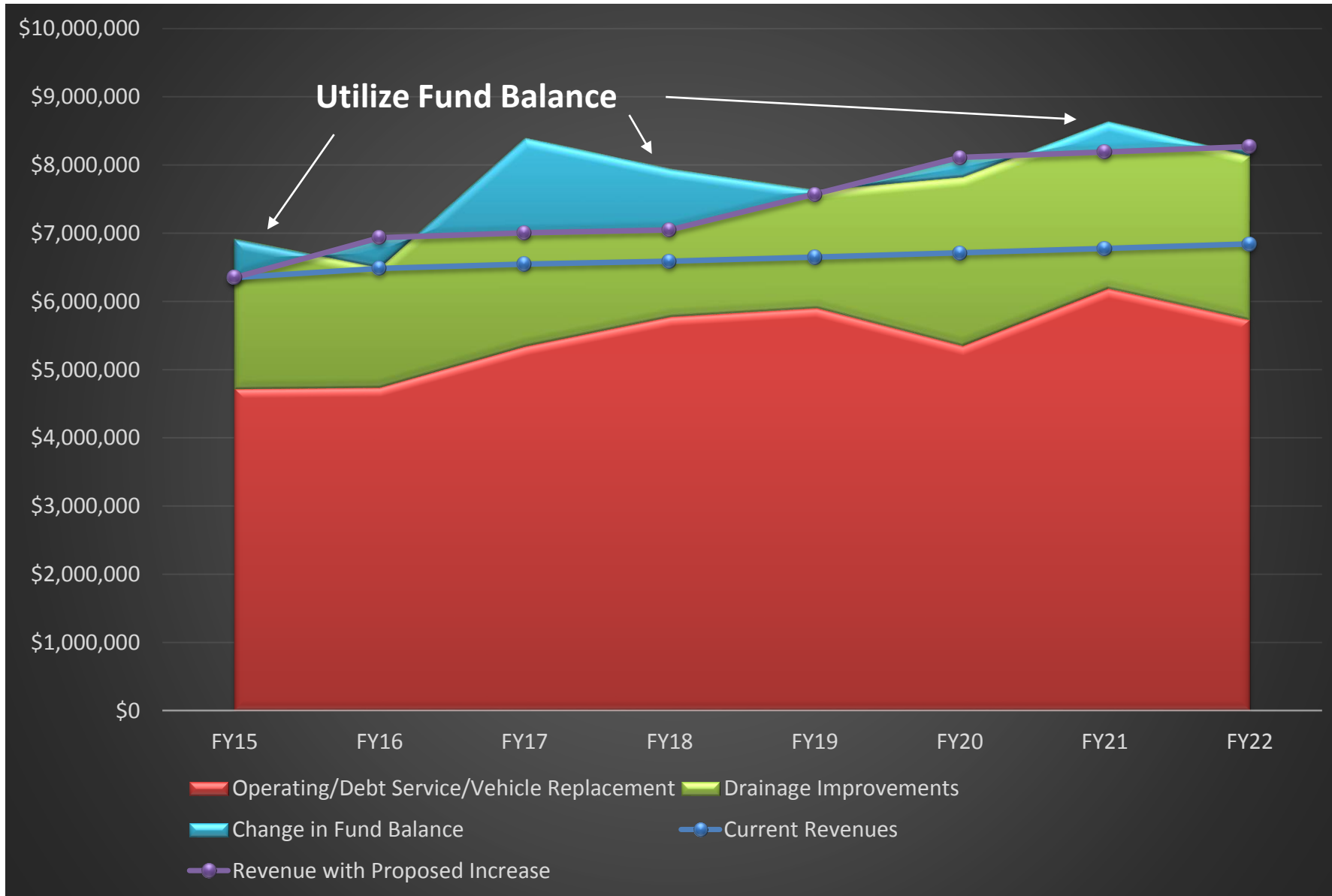
\$0.50 Fee Increase & 25% Acceleration



Financial Model

		Actual FY15	Actuals FY16 Modified Accrual	Projected FY17 Yr End (excl. Hurricane SL)	Recommended FY18	Projected FY19	Projected FY20	Projected FY21	Projected FY22
Revenues									
Storm Water Fee (\$3.50)		6,196,083	6,318,583	6,374,535	6,443,445	6,507,879	6,572,958	6,638,688	6,705,075
Fee Increase FY16 (0.25)			451,327	457,245	457,245	461,817	466,435	471,099	475,810
Fee Increase FY17 (0.00)				-	-	-	-	-	-
Fee Increase FY18 (0.50)					914,490	923,635	932,871	942,200	951,622
Fee Increase FY19 (0.25)						461,817	466,435	471,099	475,810
Fee Increase FY20 (0.25)							466,435	471,099	475,810
Total Storm Water Fees		6,196,083	6,769,910	6,831,780	7,815,180	8,355,148	8,905,134	8,994,185	9,084,127
Total Revenue		6,350,945	6,935,716	7,004,899	7,962,190	8,496,875	9,046,025	9,135,019	9,224,293
Expenditures									
Operating									
Total Operating Costs		3,536,435	3,699,136	4,054,888	4,142,543	4,266,820	4,394,824	4,526,669	4,662,469
Income Available for Debt Service		2,814,510	3,236,579	2,950,011	3,819,647	4,230,055	4,651,201	4,608,350	4,561,824
Debt Service									
Total Debt Service		917,415	913,213	913,463	913,086	917,081	920,214	917,642	914,443
Net Income before Capital Expenditures		1,897,095	2,323,366	2,036,548	2,906,561	3,312,974	3,730,987	3,690,708	3,647,381
Capital									
Vehicles/Equipment		58,000		130,500	440,000	227,210	41,000	-	156,000
Stormwater Drainage Improvements		2,199,842	1,759,440	3,045,320	2,260,000	3,010,000	3,380,000	3,671,950	3,043,400
Street Sweeping -Vehicles/Equip		210,000	132,000	250,000	285,000	498,000	-	747,000	-
Total Capital		2,467,842	1,891,440	3,425,820	2,985,000	3,735,210	3,421,000	4,418,950	3,199,400
Total Expenditures		6,921,692	6,503,789	8,394,171	8,040,629	8,919,111	8,736,038	9,863,261	8,776,312
Revenue Over (Under) Expenditures		(570,747)	431,926	(1,389,272)	(78,439)	(422,236)	309,987	(728,242)	447,981
Beginning Available Fund Balance		2,720,219	2,227,866	2,601,827	1,212,555	1,134,116	711,880	1,021,867	293,625
Ending Available Fund Balance		2,227,866	2,601,827	1,212,555	1,134,116	711,880	1,021,867	293,625	741,605

Projected Stormwater Revenues and Expenses (No Fee Increase & 30% Decrease in Capital Expenditures)



Financial Model (no increase)

	Actual FY15	Actuals FY16 Modified Accrual	Projected FY17 Yr End (excl. Hurricane SL)	Recommended FY18	Projected FY19	Projected FY20	Projected FY21	Projected FY22
Revenues								
Storm Water Fee (\$3.50)	6,196,083	6,318,583	6,374,535	6,443,445	6,507,879	6,572,958	6,638,688	6,705,075
Fee Increase FY16 (0.25)		451,327	457,245	457,245	461,817	466,435	471,099	475,810
Fee Increase FY17 (0.00)			-	-	-	-	-	-
Fee Increase FY18 (NONE)				-	-	-	-	-
Fee Increase FY19 (0.25)					461,817	466,435	471,099	475,810
Fee Increase FY20 (0.25)						466,435	471,099	475,810
Total Storm Water Fees	6,196,083	6,769,910	6,831,780	6,900,690	7,431,513	7,972,263	8,051,985	8,132,505
Total Revenue	6,350,945	6,935,716	7,004,899	7,047,700	7,571,611	8,110,626	8,190,969	8,271,335
Expenditures								
Operating								
Total Operating Costs	3,536,435	3,699,136	4,054,888	4,142,543	4,266,820	4,394,824	4,526,669	4,662,469
Income Available for Debt Service	2,814,510	3,236,579	2,950,011	2,905,157	3,304,791	3,715,802	3,664,300	3,608,866
Debt Service								
Total Debt Service	917,415	913,213	913,463	913,086	917,081	920,214	917,642	914,443
Net Income before Capital Expenditures	1,897,095	2,323,366	2,036,548	1,992,071	2,387,710	2,795,588	2,746,658	2,694,423
Capital								
Vehicles/Equipment	58,000		130,500	440,000	227,210	41,000	-	156,000
Stormwater Drainage Improvements	2,199,842	1,759,440	3,045,320	2,160,000	1,720,000	2,470,000	2,445,550	2,400,000
Street Sweeping -Vehicles/Equip	210,000	132,000	250,000	285,000	498,000	-	747,000	-
Total Capital	2,467,842	1,891,440	3,425,820	2,885,000	2,445,210	2,511,000	3,192,550	2,556,000
Total Expenditures	6,921,692	6,503,789	8,394,171	7,940,629	7,629,111	7,826,038	8,636,861	8,132,912
Revenue Over (Under) Expenditures	(570,747)	431,926	(1,389,272)	(892,929)	(57,500)	284,588	(445,892)	138,423
Beginning Available Fund Balance	2,720,219	2,227,866	2,601,827	1,212,555	319,626	262,126	546,714	100,821
Ending Available Fund Balance	2,227,866	2,601,827	1,212,555	319,626	262,126	546,714	100,821	239,244

Master Planning

- Request for Interest (RFI) – Study multiple watersheds
- Request for Qualification (RFQ) – To review stormwater ordinance
- Cost and Duration Factors
 - Complexity of scope
 - Public involvements & outreach
 - Stakeholder involvement
 - Characteristics and size of the watersheds
 - Review periods

Master Planning

- **Peer Cities**
 - Chapel Hill – working on first detailed study.
 - Durham – Portion of city addressing water quality issues. Quantity control in place since 1997.
 - Greenville – Master Plan developed to study 7 basins.
 - Greensboro – Comprehensive study of 2 basins completed in the past.
 - Raleigh – 16 basins updated as budget allows. Dynamic CIP list with only current budget year fixed.
 - Wilmington – Comprehensive study of 2 basins to determine if stormwater system meets standard.
 - Winston-Salem – 15 basins with a dynamic list, addressing one basin at a time.

WATERSHED BASINS AND STUDIES

WATERSHED BASIN	AREA WITHIN CITY		TOTAL AREA	
	ACRES	SQ MI	ACRES	SQ MI
BEAVER CREEK 1	6,767	10.6	14,845	23.2
BEAVER CREEK 2	5,269	8.2	5,411	8.5
BEAVER CREEK 3	2,200	3.4	2,922	4.6
BLOUNTS CREEK	7,392	11.5	7,566	11.8
BONES CREEK	5,262	8.2	11,650	18.2
BUCKHEAD CREEK	2,847	4.4	5,485	8.6
CAPE FEAR 1	3,731	5.8	3,952	6.2
CAPE FEAR 2	2,005	3.1	6,678	10.4
CARVERS CREEK	2,765	4.3	10,922	17.1
LITTLE CROSS CREEK	4,634	7.2	6,512	10.2
CROSS CREEK	6,716	10.5	10,872	17.0
LITTLE ROCKFISH CREEK 1	5,229	8.2	13,452	21.0
LITTLE ROCKFISH CREEK 2	1,132	1.8	7,213	11.3
ROCKFISH CREEK	699	1.1	21,704	33.9
STEWARTS CREEK	1,287	2.0	6,930	10.8
STUDY AREAS				
	ACRES	SQ MI		
BRANSON CREEK WATERSHED STUDY	3,433	5.4		
BUCKHEAD CREEK WATERSHED STUDY	3,520	5.5		
LAFAYETTE VILLAGE NEIGHBORHOOD STUDY	145	0.2		
BONNIE DOONE NEIGHBORHOOD STUDY	301	0.5		

STUDY AREAS	ACRES	SQ MI
BRANSON CREEK WATERSHED STUDY	3,433	5.4
BUCKHEAD CREEK WATERSHED STUDY	3,520	5.5
LAFAYETTE VILLAGE NEIGHBORHOOD STUDY	145	0.2
BONNIE DOONE NEIGHBORHOOD STUDY	301	0.5

Legend

<all other values>

Dmg_Study

- BONNIE DOONE NS
- BRANSON CREEK WS
- BUCKHEAD CREEK WS
- LAFAYETTE VILLAGE NS
- <all other values>

STUDY AREAS

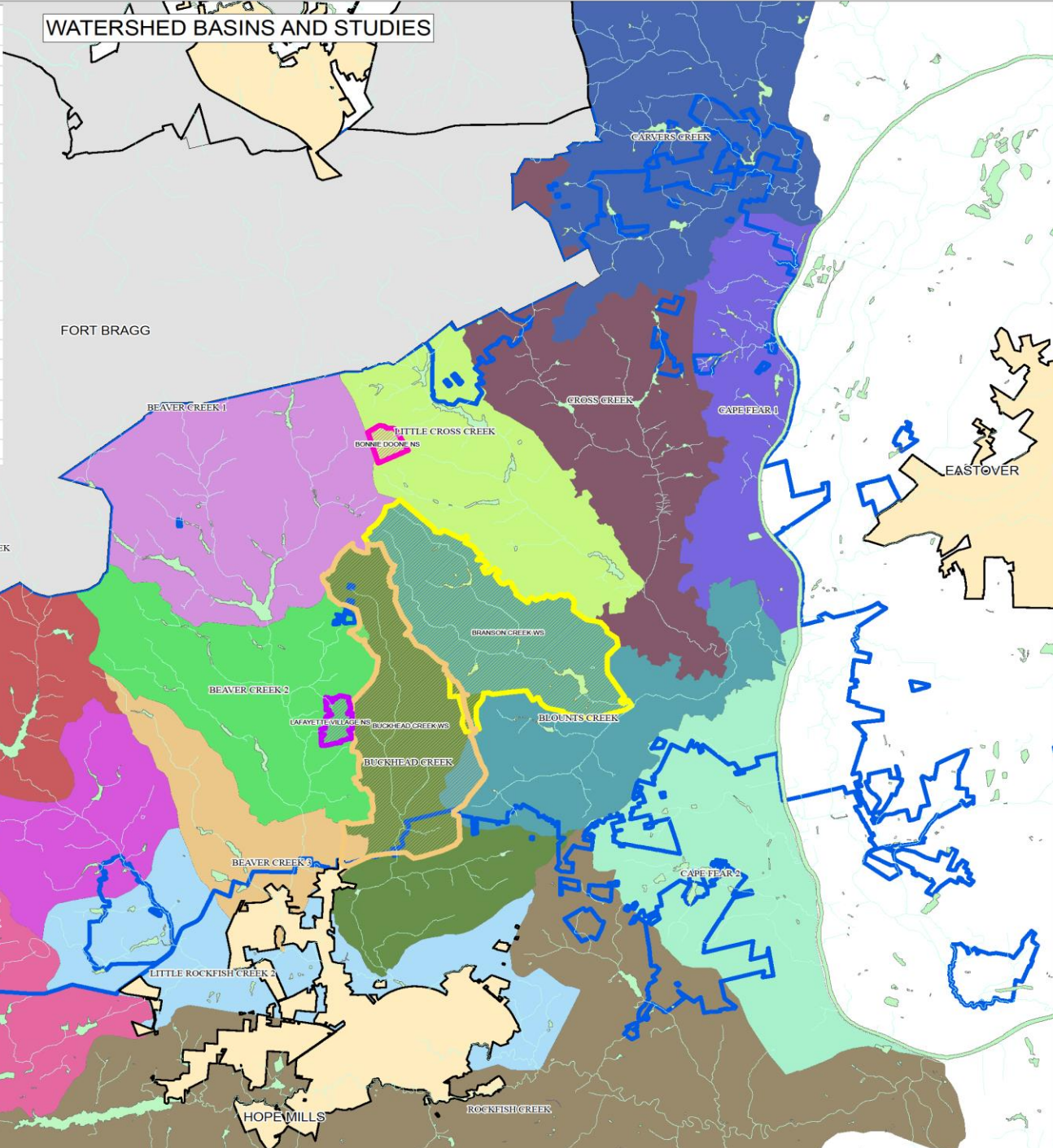
- BONNIE DOONE NEIGHBORHOOD STUDY
- BRANSON CREEK WATERSHED STUDY
- BUCKHEAD CREEK WATERSHED STUDY
- LAFAYETTE VILLAGE NEIGHBORHOOD STUDY
- <all other values>

DRAINAGE BASIN

- <all other values>
- BEAVER CREEK 1
- BEAVER CREEK 2
- BEAVER CREEK 3
- BLOUNTS CREEK
- BONES CREEK
- BUCKHEAD CREEK
- CAPE FEAR 1
- CAPE FEAR 2
- CARVERS CREEK
- CROSS CREEK
- LITTLE CROSS CREEK
- LITTLE ROCKFISH CREEK 1
- LITTLE ROCKFISH CREEK 2
- ROCKFISH CREEK
- STEWARTS CREEK



This map is not a certified survey and has not been reviewed by a local government agency for compliance with any applicable land development regulations.
Map prepared by City of Fayetteville Engineering Division





Studies Completed

Study Area	Size(SQ MI)	Size(Acres)	Cost Study	Duration (concurrent)	Identified needs of improvements
Buckhead Creek WS	5.5	3520	\$ 408,874	16 months	\$ 12,900,000
Branson Creek WS	5.4	3433	\$ 213,910	16 months	\$ 9,100,000
Lafayette Village NS	0.23	145	\$ 83,500	7 months	\$ 4,900,000
Bonnie Doone NS	0.48	302	\$ 216,593	6 months	\$ 6,100,000
Total	11.61	7400	\$ 922,877	16 months	\$ 33,000,000

City of
Fayetteville
North Carolina

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www.cityoffayetteville.org

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Fayetteville
OUTFRONT



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On-going Stormwater CIP Project Status **Last updated 5-15-17**

Status	Project Name	Estimated cost/Budget	Location	Council District	Watershed	Project Source	Timeline notes
Prior Fy's							
Completed	Glen Canyon Culvert Replacement	\$980,863.50	506 Glen Canyon Dr	4	Beaver Creek 1	Drainage complaint	Completed
Completed	Buckhead-Kingsford	\$1,824,146.00	540 Levenhall Dr & 4215 Ferncreek Dr	5	Buckhead Creek	Watershed Study	Completed
Completed	Person St Innovative Stormwater/ Greenscape	\$563,531.00	400 Person St	2	Blounts Creek	Staff Initiative	Completed
Under Construction	Godfrey Outfall Phase 1 & 2)	\$1,253,006.48	7307 Godfrey Dr	4	Beaver Creek 1	Annexation project	Construction: June 2017-January 2018
Under Construction	Bonnie Doone West of 3 and Central of 2 (Area 1)	\$552,193.00		4	Beaver Creek 1	Neighborhood Study	Construction: June 2017-September 2017
Under Construction	Spot Repairs Package 1 - Dandridge, Ashbrook, Friendly	\$74,887.00	524 Dandridge, 756 Ashbrook, & 3211 Friendly	4, 9, & 5	Beaver Creek 1, 2, Buckhead Creek	Drainage Complaints	To be constructed by in-house crew
Under Construction	Spot Repairs Package 2 - North, Landau 1, Landau 2	\$231,458.00	1111 North, 1033 Landau	2, 3	Cape Fear 1, Cross Creek	Drainage Complaints	North Construction: May - July 2017 Landau 1 & 2 Construction: September - November 2017
Advertise & Bid	Coventry Culvert and Floodplain Bench (FPB), Glenwich Berm, Devonshire Drive FPB	\$1,750,946.00	4498 Coventry Rd	5	Buckhead Creek	Watershed Study	Construction: August 2017 - February 2018
Advertise & Bid	Bonnie Donne Area 12	\$112,350.00	1522 Stansfield Dr	3 and 4	Little Cross Creek	Neighborhood Study	Construction: August 2017 - October 2017
Advertise & Bid	Ferncreek Norwood	\$112,350.00	4364 Ferncreek Dr	5	Buckhead Creek	Watershed Study	Construction: August 2017 - October 2017
Advertise & Bid	Yadkin Phase 2	\$2,291,794.00	Cimarron to Santa Fe	4	Beaver Creek 1	Drainage complaint	Construction: August 2017- June 2018
Under Design	Bonnie Doone Area 5	\$1,539,272.00	5204 Ike St			Neighborhood Study	20% design. Design complete: December 2017
Under Design	Roxie Ave Phase 1	\$1,402,800.00	1001 Martindale Dr	5	Buckhead Creek	Watershed Study	90 % design. Design complete: July 2017 Advertise & Bid: August - September 2017 Construction: November 2017 - October 2018
Under Design	Spot Repair Package 1 Design - Norton	\$103,362.22	6320 Norton Dr	7	Beaver Creek 3	Drainage Complaint	90% design. Easement challenges
Under Design	Spot Repair Package 2 Design (estimated construction cost \$91,273.00) - Martindale, Forest Lake	\$84,431.00	Martindale Dr, 506 Forest Lake Rd	5, 2	Buckhead Creek, Blounts Creek	Drainage Complaint	90% design. Easement challenges / Utility conflicts
Under Design	Spot Repair Package 3 Design - Blairwood, Mum Creek, Delliert	\$75,007.78	Blairwood Dr, 5604 Mum Creek Ln, 6503 Delliert Ct	7, 6, 4	Beaver Creek 2, 3, 1	Drainage Complaint	70% design. Design complete: July 2017 Advertise & Bid: August - September 2017 Construction: November 2017- February 2018
Under Design	Regiment (Design only)	\$65,000.00		9	Blounts Creek	Watershed Study	20% design. Design complete: December 2017
Under Design	Spruce St Phase II	\$815,000.00	1109 Acorn St & 1108 Stamper Rd	2	Little Cross Creek	Drainage Complaint	90 % design. Design complete: July 2017 Advertise & Bid: August - September 2017 Construction: November 2017 - June 2018
Design on-hold	Raeford Rd. Flood Plain Bench (design only)	\$184,605.00		5 and 9	Buckhead Creek	Watershed Study	On-Hold until NCDOT completes Raeford Rd median project
Re-assesing	Land Acquisition Infiltration Basin Max Abbott	\$316,377.00	2601 Brigadoon Ln	5	Blounts Creek	Watershed Study	Cost of land is prohibitive. Suggest re-directing funds to another project within the same watershed.
	Total	\$14,333,379.98					
FY17							
Re-assesing	Infiltration Basin Max Abbott Phase 1	\$290,000.00	2601 Brigadoon Ln	5	Blounts Creek	Watershed Study	Cost of land is prohibitive. Suggest re-directing funds to another project within the same watershed.
Under Design	Spot Repair Program	\$200,000.00				Drainage Complaint	Under investigation

Status	Project Name	Estimated cost/Budget	Location	Council District	Watershed	Project Source	Timeline notes	
Under Design	Beaver Creek 2 Watershed Study	\$420,000.00		4,7,9	Beaver Creek 2	Watershed Study	May 2017 - September 2018	
Under Design	McGilvary Street	\$238,234.00	717 McGilvary St	2	Cross Creek	Roadway CIP	70% design. Design complete: July 2017 Advertise & Bid: August - September 2017 Construction: November 2017- October 2018	
Under Design	Broyhill Drive drainage improvement	\$171,990.00	4321 Ferncreek Dr	5	Buckhead Creek	Watershed Study	Design Complete: December 2017 Advertise & Bid: January - February 2018 Construction: April - June 2018	
Under Design	Bonnie Doone, Area 2	\$557,550.00	5008 Collins St	4	Little Cross Creek	Neighborhood Study	Design Complete: February 2018 Advertise & Bid: March - April 2018 Construction: June - October 2018	
Re-assesing	Dry Detention Sycamore Dairy	\$245,500.00	2500 Thorngrove Ct	9	Blounts Creek	Watershed Study	Development in the location	
	Easement / Land Acq	\$150,000.00				-		
	Project Management	\$150,000.00				-		
	Total	\$2,423,274.00						
	Total On-going projects	\$13,388,113.48	(doesn't include completed projects)					

Stormwater CIP Budget Recommendation - Revised

5/17/2017

	Project Name	Estimated cost/Budget	Council District	Watershed	Project Source	Revision notes
FY18	Neville St	\$560,000.00	2	Cape Fear 1	Drainage Complaint	
FY18	North St (1226)	\$1,100,000.00	2	Cape Fear 1	Drainage Complaint	
FY18	Spot Repair Program	\$300,000.00			Drainage Complaint	
FY18	Easement / Land Acq	\$150,000.00			-	
FY18	Project Management	\$150,000.00			-	
	Total	\$2,260,000.00				
FY19	Blount's Creek Watershed Study	\$500,000.00	2, 5, 9	Blounts Creek	Watershed Study	
FY19	Sunbury Dr (867)	\$620,000.00	3	Cross Creek	Drainage Complaint	
FY 19	Louise St	\$470,000.00	7	Beaver Creek 2	Drainage Complaint	
FY 19	* Spruce Street, Acorn Phase 3	\$520,000.00	2	Little Cross Creek	Drainage Complaint	* Moved from FY20
FY 19	* Breezewood (2700)	\$300,000.00	2	Blounts Creek	Drainage Complaint	* Moved from FY21
FY 19	Spot Repair Program	\$300,000.00			-	
FY 19	Easement / Land Acq	\$150,000.00			-	
FY 19	Project Management	\$150,000.00			-	
	Total	\$3,010,000.00				
FY20	Raeford Rd (Lafayette Village)	\$980,000.00	5	Beaver Creek 2	Neighborhood Study	
FY20	* Roxie Ave Phase 2	\$1,900,000.00	5	Buckhead Creek	Watershed Study	* Moved from FY22
FY20	Spot Repair Program	\$200,000.00			Drainage Complaint	
FY20	* Easement / Land Acq	\$150,000.00			-	* Increased by \$50K
FY20	Project Management	\$150,000.00			-	
	Total	\$3,380,000.00				
FY21	Watershed Study	\$500,000.00	N/A	N/A	Watershed Study	
FY21	Raeford FPB	\$1,145,550.00	5, 9	Buckhead Creek	Watershed Study	
FY21	* Bonnie Doone Area 3	\$1,526,400.00	3, 4	Little Cross Creek	Neighborhood Study	* Added project
FY21	Spot Repair Program	\$200,000.00			Drainage Complaint	
FY21	Easement / Land Acq	\$150,000.00			-	
FY21	Project Management	\$150,000.00			-	
	Total	\$3,671,950.00				
FY22	* Roxie Ave Phase 3	\$710,280.00	5	Buckhead Creek	Watershed Study	* Added project
FY22	* Birch (Lafayette Village)	\$1,833,120.00	5	Beaver Creek 2	Neighborhood Study	* Added project
FY22	Spot Repair Program	\$200,000.00			Drainage Complaint	
FY22	Easement / Land Acq	\$150,000.00			-	
FY22	Project Management	\$150,000.00			-	
	Total	\$3,043,400.00				
	Grand Total	\$15,365,350.00				
	Remaining projects in program		48			
		\$		26,777,896.84		

**Stormwater CIP
No fee increase on FY18**

5/17/2017

	Project Name	Estimated cost/Budget	Council District	Watershed	Project Source	Revision notes
FY18	Neville St	\$560,000.00	2	Cape Fear 1	Drainage Complaint	
FY18	North St (1226)	\$1,100,000.00	2	Cape Fear 1	Drainage Complaint	
FY18	* Spot Repair Program	\$200,000.00			Drainage Complaint	* Reduced by \$100K
FY18	Easement / Land Acq	\$150,000.00			-	
FY18	Project Management	\$150,000.00			-	
	Total	\$2,160,000.00				
FY19	* Blount's Creek Watershed Study	\$600,000.00	2, 5, 9	Blounts Creek	Watershed Study	* Increased by \$100K
FY19	Sunbury Dr (867)	\$620,000.00	3	Cross Creek	Drainage Complaint	
FY 19	Spot Repair Program	\$300,000.00			Drainage Complaint	
FY 19	* Easement / Land Acq	\$100,000.00			-	* Reduced by \$50K
FY 19	* Project Management	\$100,000.00			-	* Reduced by \$50K
	Total	\$1,720,000.00				
FY20	Spruce Street, Acorn Phase 3	\$520,000.00	2	Little Cross Creek	Drainage Complaint	
FY20	* Louise St	\$470,000.00	7	Beaver Creek 2	Drainage Complaint	* Delayed from FY19
FY20	Raeford Rd (Lafayette Village)	\$980,000.00	5	Beaver Creek 2	Neighborhood Study	
FY20	Spot Repair Program	\$200,000.00			Drainage Complaint	
FY20	* Easement / Land Acq	\$150,000.00			-	* Increased by \$50K
FY20	Project Management	\$150,000.00			-	
	Total	\$2,470,000.00				
FY21	Watershed Study	\$500,000.00	N/A	N/A	Watershed Study	
FY21	Raeford FPB	\$1,145,550.00	5, 9	Buckhead Creek	Watershed Study	
FY21	Breezewood (2700)	\$300,000.00	2	Blounts Creek	Drainage Complaint	
FY21	Spot Repair Program	\$200,000.00			Drainage Complaint	
FY21	Easement / Land Acq	\$150,000.00			-	
FY21	Project Management	\$150,000.00			-	
	Total	\$2,445,550.00				
FY22	Roxie Ave Phase 2	\$1,900,000.00	5	Buckhead Creek	Watershed Study	
FY22	Spot Repair Program	\$200,000.00			Drainage Complaint	
FY22	Easement / Land Acq	\$150,000.00			-	
FY22	Project Management	\$150,000.00			-	
	Total	\$2,400,000.00				

Grand Total **\$11,195,550.00**

Remaining projects in program **51**
\$ 30,847,696.84

North Carolina Stormwater Rates and Revenues - Preliminary Analysis

Environmental Finance Center at the UNC School of Government

Data as of February 2017. Data Sources: US Census Data, Local Government websites, North Carolina Office of State Treasurer

Name of Stormwater Utility (e.g. Albany)	Utility Revenues (Storm Water Fees)	Population in Municipality (2013 Census)	Residential Fee Structure	Representative Charge for Single Family Resident (2,455 sq. ft./ Month)	Representative Charge for Non-Residential: (25,976 sq. ft. /Month)
Archdale	\$484,362.00	11,554	Single (Flat Fee)	\$5.00	\$35.96
Asheville	\$5,388,153.00	87,236	Tiered Flat Fees	\$4.41	\$46.91
Atlantic Beach	\$316,559.00	1,504	Single (Flat Fee)	\$4.00	
Belmont	Not Reported	10,412	Single (Flat Fee)	\$3.00	\$31.17
Bessemer City	Not Reported	5,441	Single (Flat Fee)	\$2.07	\$5.00
Burlington	Not Reported	51,510	Single (Flat Fee)	\$2.50	\$5.00
Butner	Not Reported	7,699	Tiered Flat Fees	\$5.58	\$20.95
Carolina Beach	\$924,206.00	5,986	Single (Flat Fee)	\$9.00	\$116.89
Chapel Hill	Not Reported	59,635	Tiered Flat Fees	\$6.54	\$56.61
Charlotte (Mecklenburg)	\$70,042,000.00	792,862	Tiered Flat Fees	\$10.18	
Clemmons	\$757,469.00	19,329	Single (Flat Fee)	\$5.00	\$32.86
Concord	\$3,965,529.00	83,506	Tiered Flat Fees	\$4.30	\$35.80
Cornelius (Mecklenburg)	\$387,393.00	26,898	Tiered Flat Fees	\$4.17	\$33.51
Cramerton	\$83,348.00	4,244	Single (Flat Fee)	\$3.00	\$15.00
Creedmoor	\$288,873.00	4,326	Tiered Flat Fees	\$8.92	\$58.28
Dallas	\$86,559.00	4,531	Single (Flat Fee)	\$2.85	\$29.61
Davidson (Mecklenburg)	\$222,124.00	11,750	Tiered Flat Fees	\$4.66	\$38.37
Durham	\$18,275,554.00	245,475	Tiered Flat Fees	\$6.75	\$73.06
Elizabeth City	\$399,241.00	18,266	Single (Flat Fee)	\$3.00	\$21.65
Elon	\$78,000.00	9,513	Single (Flat Fee)	\$2.00	\$2.00
Fayetteville	\$6,792,851.00	204,408	Single (Flat Fee)	\$3.75	\$42.99
Gastonia	\$2,549,033.00	73,209	Single (Flat Fee)	\$3.25	\$31.86
Gibsonville	Not Reported	6,640	Single (Flat Fee)	\$0.75	\$0.75
Graham	\$61,779.00	14,280	Single (Flat Fee)	\$1.00	\$1.00
Granville County in Falls Lake Watershed	Not Reported	58,275	Tiered Flat Fees	\$1.50	\$5.28
Granville County outside Falls Lake Watershed	Not Reported	58,275	Tiered Flat Fees	\$0.50	\$1.34
Greensboro	\$9,657,773.00	279,639	Tiered Flat Fees	\$2.70	\$27.58
Greenville	\$4,904,736.00	89,130	Tiered Flat Fees	\$9.70	\$62.99
High Point	Not Reported	107,741	Single (Flat Fee)	\$4.00	\$40.15
Hillsborough	Not Reported	6,381	Single (Flat Fee)	\$6.25	\$50.00
Holly Springs	\$424,890.00	28,915	Single (Flat Fee)	\$3.00	\$6.00
Hope Mills	Not Reported	16,248	Single (Flat Fee)	\$4.00	\$68.78
Huntersville (Mecklenburg)	\$818,027.00	50,458	Tiered Flat Fees	\$4.17	\$33.51
Indian Trail	\$1,169,457.00	35,494	Tiered Flat Fees	\$4.24	\$34.05
Jacksonville	\$2,941,150.00	69,079	Single (Flat Fee)	\$5.00	\$45.57
Kannapolis	\$2,449,156.00	44,359	Tiered Flat Fees	\$6.00	\$47.96
Kernersville	\$1,037,037.00	23,567	Single (Flat Fee)	\$3.29	\$28.70
Kinston	Not Reported	21,641	Single (Flat Fee)	\$4.50	\$38.21
Kure Beach	\$277,267.00	2,084	Single (Flat Fee)	\$8.71	
Landis	Not Reported	3,105	Single (Flat Fee)	\$5.00	\$10.00
Lumberton	\$900,312.00	21,823	Single (Flat Fee)	\$4.25	\$26.63
Matthews (Mecklenburg)	Not Reported	29,384	Tiered Flat Fees	\$4.63	\$38.44
Mecklenburg County (unincorporated)	Not Reported	990,977	Tiered Flat Fees	\$3.79	\$29.61
Mint Hill (Mecklenburg)	\$330,967.00	24,543	Tiered Flat Fees	\$4.17	\$33.51

North Carolina Stormwater Rates and Revenues - Preliminary Analysis

Environmental Finance Center at the UNC School of Government

Data as of February 2017. Data Sources: US Census Data, Local Government websites, North Carolina Office of State Treasurer

Name of Stormwater Utility (e.g. Albany)	Utility Revenues (Storm Water Fees)	Population in Municipality (2013 Census)	Residential Fee Structure	Representative Charge for Single Family Resident (2,455 sq. ft./ Month)	Representative Charge for Non-Residential: (25,976 sq. ft. /Month)
Monroe	\$2,130,785.00	33,975	Tiered Flat Fees	\$4.00	\$44.65
Mooreville	\$1,606,732.00	34,887	Single (Flat Fee)	\$3.40	\$32.71
Morrisville	\$516,542.00	21,932	Single (Flat Fee)	\$2.08	\$19.33
Mount Holly	\$240,072.00	13,904	Single (Flat Fee)	\$2.50	\$12.99
Nags Head	Not Reported	2,835	Single (Flat Fee)	\$4.00	\$4.00
New Bern	Not Reported	30,242	Single (Flat Fee)	\$2.10	\$17.60
Oak Island	Not Reported	7,216	Single (Flat Fee)	\$2.75	\$11.80
Oxford	\$163,627.00	8,695	Single (Flat Fee)	\$2.00	\$21.94
Person County inside watershed	Not Reported	39,276	Tiered Flat Fees	\$1.33	\$1.01
Person County outside watershed	Not Reported	39,276	Tiered Flat Fees	\$0.50	\$4.03
Pineville (Mecklenburg)	\$399,353.00	8,061	Tiered Flat Fees	\$4.09	\$34.77
Plymouth	Not Reported	3,766	Single (Flat Fee)	\$3.00	\$3.00
Raleigh	\$17,938,660.00	431,746	Tiered Flat Fees	\$5.00	\$57.47
Ranlo	Not Reported	3,485			
Rocky Mount	\$4,068,312.00	56,954	Single (Flat Fee)	\$5.00	\$51.55
Shelby	Not Reported	20,325	Single (Flat Fee)	\$2.50	\$25.00
Spring Lake	Not Reported	13,037	Single (Flat Fee)	\$2.75	\$0.00
Stallings	\$481,394.00	14,645	Single (Flat Fee)	\$3.83	\$34.68
Stem	Not Reported	469	Tiered Flat Fees	\$7.33	\$56.12
Swansboro	Not Reported	2,993	Tiered Flat Fees	\$2.50	\$40.00
Thomasville	\$137,835.00	29,968	Single (Flat Fee)	\$1.00	\$1.00
Wallace	Not Reported	4,010	Single (Flat Fee)	\$4.85	\$0.00
Washington	\$664,287.00	9,811	Tiered Flat Fees	\$4.00	\$40.00
Wilmington	\$9,928,041.00	112,067	Single (Flat Fee)	\$7.66	\$79.59
Wilson	\$2,736,197.00	49,628	Single (Flat Fee)	\$3.80	\$38.19
Winston-Salem	\$10,715,512.00	236,441	Tiered Flat Fees	\$4.50	\$41.30
Winterville	Not Reported	9,530	Single (Flat Fee)	\$2.00	
Wrightsville Beach	\$111,001.00	2,552	Single (Flat Fee)	\$7.00	
Zebulon	\$109,109.00	4,591	Single (Flat Fee)	\$2.00	\$38.00

Preliminary data collected by the Environmental Finance Center at the UNC School of Government. Revised 4/21/2017. Please contact Jeff Hughes with questions: jhughes@sog.unc.edu