

### **Stormwater Overview**

May 17, 2018



### Agenda

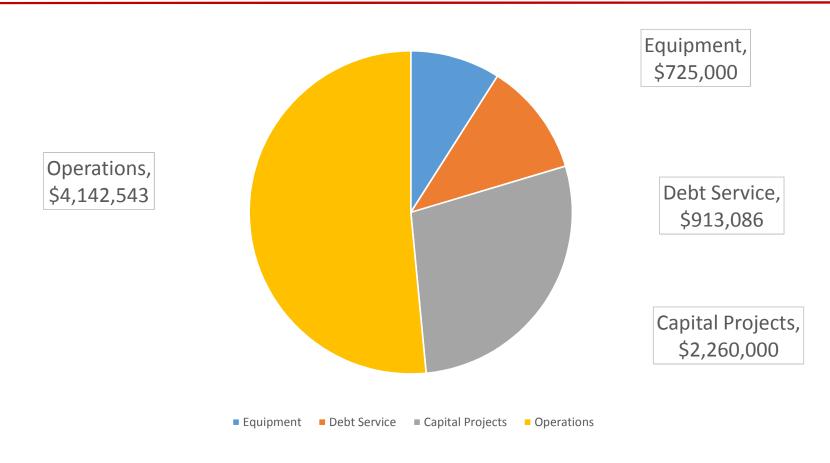
- Budget Snapshot
- Capital Improvements Plan (CIP)
- Enhanced Program Timeline
- Council Discussion



## **Budget Snapshot**



# Original Approved FY18 Stormwater Budget

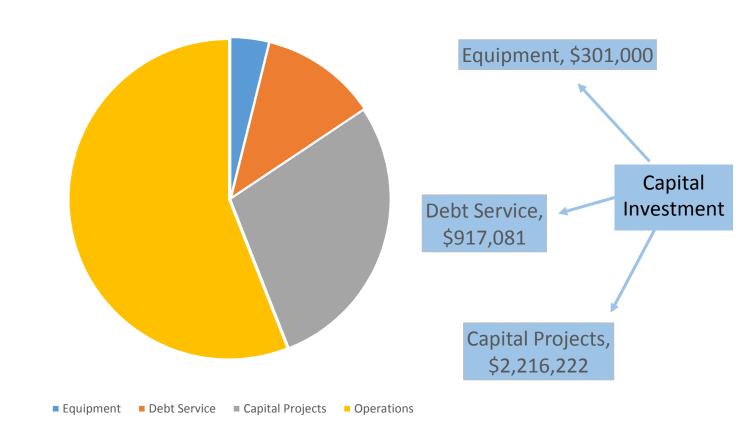




# Proposed FY19 Stormwater Budget

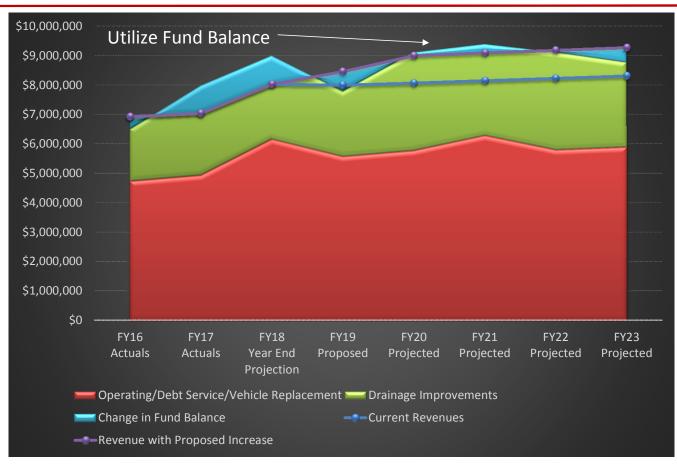


Total budget also includes projected increase of fund balance by \$665,034





# Projected Stormwater Revenues and Expenses \$0.25 Fee Increases in FY19 and FY20





## Capital Improvement Plan



### **Capital Improvement Plan**

- Provides an average of \$3 million annually for projects to address stormwater quantity problems
- Projects identified through:
  - Citizen Complaints leading to investigations
  - Watershed studies Buckhead, Branson Creek, Beaver Creek II
  - Neighborhood Studies Lafayette Village and Bonnie Doone
- Projects prioritized by criteria including safety, prevention of property damage, system improvement, traffic flow, and benefitted properties
- 5-year CIP plan reviewed & adjusted annually and approved by Council as part of the budget process



### **Approved 5-year CIP (Handout)**

#### Approved Stormwater CIP FY18 budget

|       |                                |                       |                  |                    | 5/17/              | 2017                 |
|-------|--------------------------------|-----------------------|------------------|--------------------|--------------------|----------------------|
|       | Project Name                   | Estimated cost/Budget | Council District | Watershed          | Project Source     | Revision no          |
|       | Neville St                     | \$560,000.00          | 2                | Cape Fear 1        | Drainage Complaint |                      |
|       | North St (1226)                | \$1,100,000.00        | 2                | Cape Fear 1        | Drainage Complaint |                      |
|       | Spot Repair Program            | \$300,000.00          |                  |                    | Drainage Complaint |                      |
|       | Easement / Land Acq            | \$150,000.00          |                  |                    | -                  |                      |
|       | 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 |                      |
|       | * Easement / Land Acq          | \$150,000.00          |                  |                    | - 1                | * Increased by \$50K |
|       | 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 | ridded project       |
| 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 | , adea project       |
| FY22  | Easement / Land Acq            | \$150,000.00          |                  |                    | -                  |                      |
| FY22  | Project Management             | \$150,000.00          |                  |                    |                    |                      |
| 1122  | r roject wanagement            | \$130,000.00          |                  |                    |                    |                      |

Grand Total \$15,365,350.00



# Previously Appropriated Project Status (Handout)

- Detailed status on handout
- Since last update to Council (September 2017)
  - 1 watershed study started (Beaver Creek 2)
  - 2 project advertised for construction
  - 2 projects under construction
  - 5 projects complete



### **Spot Repair Program**

| Project               | Contract Estimate | Actual Cost  | Difference in<br>Estimate and Cost | Savings (%) |
|-----------------------|-------------------|--------------|------------------------------------|-------------|
| Rock Canyon           | \$49,300          | \$14,661.69  | \$34,638.31                        | 70%         |
| <b>Chester Circle</b> | \$32,120          | \$4,805.46   | \$27,314.54                        | 85%         |
| <b>Devane St</b>      | \$44,620          | \$16,441.45  | \$28,178.55                        | 63%         |
| Delliert Dr           | \$43,029          | \$17,212.83  | \$25,816.17                        | 60%         |
| Ashbrook Dr           | \$38,000          | \$36,586.26  | \$1,413.74                         | 4%          |
| Landau 1 & 2          | \$220,107*        | \$75,871.15  | \$144,235.85                       | 66%         |
| Dandridge             | \$29,100          | \$11,376.44  | \$17,723.56                        | 61%         |
| Totals                | \$456,276         | \$176,955.28 | \$279,320.72                       | 61%         |

<sup>\*</sup>Estimate shown for Landau 1&2 is actual bid amount received.



### tteville Proposed 5-year CIP (Handout)

|       |                                  | Proposed Stormwater CIP<br>FY19 budget |                  |                    |                    |  |
|-------|----------------------------------|--|------------------|--------------------|--------------------|--|
|       |                                  |  |                  |                    | 5/17/20            | 118  |
|       | Project Name                     | Estimated cost/Budget                  | Council District | Watershed          | Project Source     | Revision notes                                       |
| FY19  | Blount's Creek Watershed Study   | \$500,000.00                           | 2, 5, 9          | Blounts Creek      | Watershed Study    |  |
| FY19  | * Sunbury Dr (867) Design        | \$85,128.00                            | 3                | Cross Creek        | Drainage Complaint | * Moved construction budget to FY20                  |
| 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 |  |
| FY 19 | * Breezewood (2700) Design       | \$41,094.00                            | 2                | Blounts Creek      | Drainage Complaint | * Moved construction budget to FY20                  |
| FY 19 | Spot Repair Program              | \$300,000.00                           |                  |                    |                    |  |
| FY 19 | Easement / Land Acq              | \$150,000.00                           |                  |                    | -                  |  |
| FY 19 | Project Management               | \$150,000.00                           |                  |                    |                    |  |
|       | Total                            | \$2,216,222.00                         |                  |                    |                    |  |
| FY20  | * Sunbury Dr (867) Construction  | \$534,872.00                           | 3                | Cross Creek        | Drainage Complaint | * Design in FY19                                     |
| FY20  | * Breezewood (2700) Construction | \$258,906.00                           | 2                | Blounts Creek      | Drainage Complaint | * Design in FY19                                     |
| FY20  | Roxie Ave Phase 2                | \$1,900,000.00                         | 5                | Buckhead Creek     | Watershed Study    |  |
| FY20  | * Roxie Ave Phase 3 Design       | \$136,600.00                           | 5                | Buckhead Creek     | Watershed Study    | *Moved design from FY22. Construction budget in FY21 |
| FY20  | Spot Repair Program              | \$200,000.00                           |                  |                    | Drainage Complaint |  |
| FY20  | Easement / Land Acq              | \$150,000.00                           |                  |                    |                    |  |
| FY20  | Project Management               | \$150,000.00                           |                  |                    |                    |  |
|       | Total                            | \$3,330,378.00                         |                  |                    |                    |  |
| FY21  | Watershed Study                  | \$500,000.00                           | N/A              | N/A                | Watershed Study    |  |
| FY21  | * Roxie Ave Phase 3 Construction | \$573,680.00                           | 5                | Buckhead Creek     | Watershed Study    | *Design in FY20. Moved Construction budget from FY22 |
| FY21  | Bonnie Doone Area 3              | \$1,526,400.00                         | 3, 4             | Little Cross Creek | Neighborhood Study |  |
| FY21  | Spot Repair Program              | \$200,000.00                           |                  |                    | Drainage Complaint |  |
| FY21  | Easement / Land Acq              | \$150,000.00                           |                  |                    | •                  |  |
| FY21  | Project Management               | \$150,000.00                           |                  |                    |                    |  |
|       | Total                            | \$3,100,080.00                         |                  |                    |                    |  |
| FY22  | * Raeford Rd (Lafayette Village) | \$980,000.00                           | 5                | Beaver Creek 2     | Neighborhood Study | * Moved from FY20 due to NCDOT project timeline      |
| FY22  | Birch (Lafayette Village)        | \$1,833,120.00                         | 5                | Beaver Creek 2     | Neighborhood Study |  |
| FY22  | Spot Repair Program              | \$200,000.00                           |                  |                    | Drainage Complaint |  |
| FY22  | Easement / Land Acq              | \$150,000.00                           |                  |                    |                    |  |
| FY22  | Project Management               | \$150,000.00                           |                  |                    |                    |  |
|       | Total                            | \$3,313,120.00                         |                  |                    |                    |  |
| FY23  | Raeford FPB                      | \$1,145,550.00                         | 5, 9             | Buckhead Creek     | Watershed Study    | * Moved from FY21 due to NCDOT project timeline      |
| FY23  | Shawcroft                        | \$859,362.00                           | 1                | Carvers Creek      | Drainage Complaint |  |
| FY23  | Brigadoon 2692                   | \$368,470.00                           | 5                | Branson Creek      | Watershed Study    |  |
| FY23  | Spot Repair Program              | \$200,000.00                           |                  |                    | Drainage Complaint |  |
| FY23  | Easement / Land Acq              | \$150,000.00                           |                  |                    |                    |  |
| FY23  | Project Management               | \$150,000.00                           |                  |                    |                    |  |
|       | Total                            | \$2,873,382.00                         |                  |                    |                    |  |
|       | Grand Total                      | \$14,833,182.00                        | ı                |                    |                    |  |



# Identified Unfunded Stormwater Projects

Bonnie Doone Area 4 Shawcroft

Brigadoon 2692

2018 Elvira St

Bonnie Doone GP 1, Area 1

Tryon

Buckhead Creek/Ashton Rd BC/HB Site 4, Morganton to Cliffdale

Cilitaale

Bonnie Doone Area 9

2309 Gunston Ct

Branson Creek Site 20

**Hybarts Site 22** 

BC/HB Site 17, N Edgewater Bahia Loop/Montibello Drainage Study

BC/HB Site 15, Ellerslie Dr

BC/HB Site 3, Courtyard Ln

305 Thurston Ct

BC/HB Site 19, Bateman Ct

BC/HB Site 16, Skye Dr (2847)

BC/HB Site 5, Kirkwood Dr

BC/HB Site 21, Cliffdale Rd

Ashton Rd & Ramblewood Dr

Acacia / Hazelwood

309 & 303 Woodcrest Dr

Bonnie Doone Area 7

Bonnie Doone Area 10

Bonnie Doone Area 6

8317 English Saddle Dr

469 Kingsford Rd

Bonnie Doone Area 11

Ashton Rd & Friar Ave

203 Hinsdale Ave

6855 Mahogany Rd

Ferncreek FPB & Floodwall

BC/HB Site 6, Cliffdale Rd-Murray Hill

2230 Ft Bragg Rd

Bonnie Doone Area 8

1813 Finnegan St

BC/HB Site 14, Youngstown Dr

**Lake Francis** 

Westwood

BC/HB Site 1, Behind Dodge Dealership

BC/HB Site 9, Argyll Rd

BC/HB Site 10, Tallywood Lake

BC/HB Site 12, behind Flea Market

BC/HB Site 13, behind Metz auto

Powell St

Cape Fear #2 Watershed Study

Country Club Branch Watershed Study

Big Cross Creek Watershed Study

### 50 Identified projects - Total Estimated Cost \$28,300,000

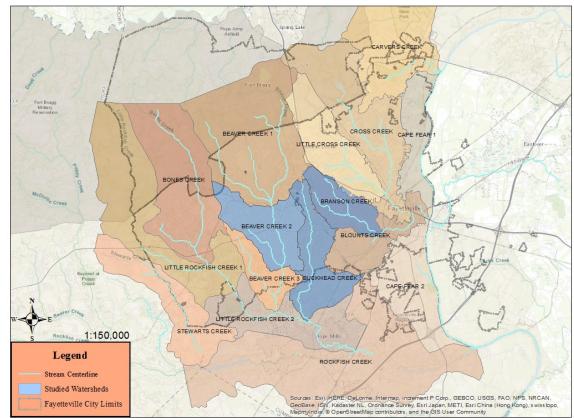


### **Unstudied Watersheds**

- Unstudied Watersheds
  - Beaver Creek 2 (underway)
  - Beaver Creek 1 & 3
  - Bones Creek
  - Little Rockfish Creek
  - Blounts Creek
  - Cape Fear 1
  - Cross Creek
  - Little Cross Creek
  - Cape Fear 2
  - Carvers Creek
  - Little Rockfish Creek 2
  - Rockfish Creek
  - Stewarts Creek
- 26 years to complete at current rate

Studied Watersheds
Branson Creek
Buckhead Creek







## **Enhanced Program Timeline**

Keith Readling, PE
Executive Vice President
Raftelis



## Discussion



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