Watershed Master Plan **Final Deliverables:**

Carvers Creek Watershed Study Bones Creek Watershed Study Cross Creek Watershed Study

> **City Council Regular Session:** June 23, 2025





Purpose

Provide an overview of watershed studies

 Provide a summary on the final deliverables for Carvers, Bones, and Cross Creek watershed studies

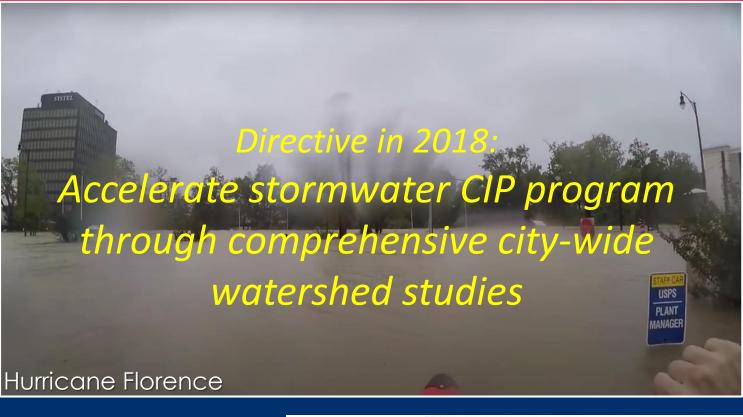
Request consensus on accepting the final deliverables



Comprehensive Vision







Visualize a Flood Resilient Fayetteville



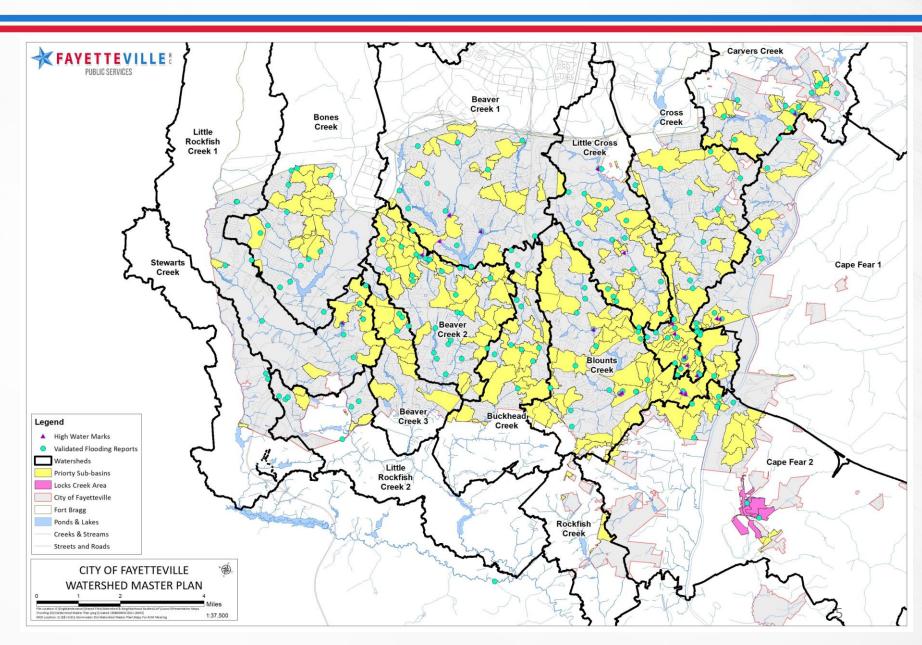
Where? High Priority Study Areas

Flooded Roads

Emergency Facilities

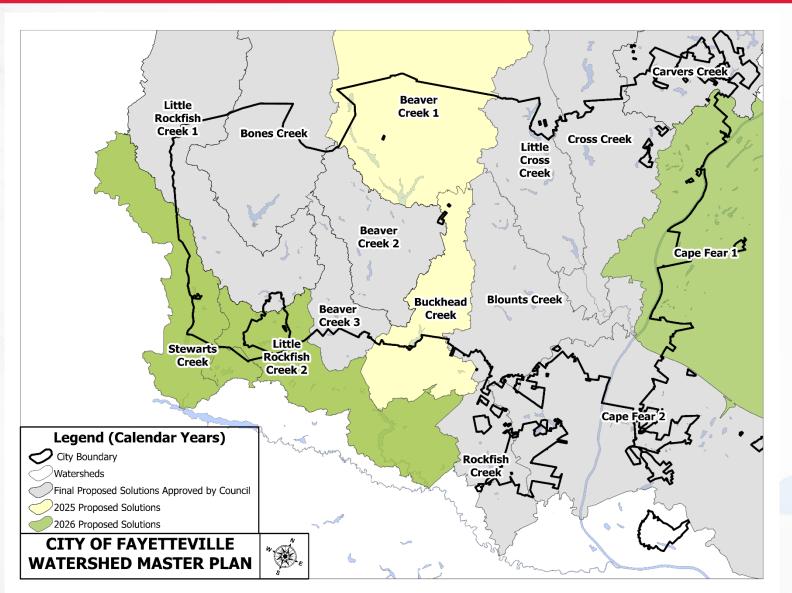
Disconnected
Structures (Single
Access
Neighborhoods)

Structures (>400Ft2)





Preparedness: Proposed Solutions in CIP



Study Area

790 – Total Sub-basins

228 – Priority I Sub-basins

31 – Sq. Miles

Study Identified

684 – Concern Areas (CAs)

367 – CAs Selected

364 – Proposed Solutions

Miles of Impacted Lane Length Identified – 196 | Resolved – 132

Number of Traverse Road Crossings Identified – 638 | Resolved – 389

Number of Disconnected Structures Identified – 2080 | Resolved – 1811

Number of Impacted Structures

10-yr | 25-yr | 50-yr

Identified – 641 | 977 | 1101

Resolved – 421 | 625 | 725

Current Estimated Total Cost \$1.16 B



Winning Grants!

STORMWATER MANAGEMENT

Fayetteville, North Carolina, awarded with \$3.5 million for stormwater improvement

Fayetteville, North Carolina, was awarded with a \$3.5 million grant for stormwater improvement.

June 4, 2024

Fayetteville's commitment to infrastructure leads to FEMA \$15.4 million grant finalist

BY STAFF REPORT, POSTED 1 YEAR AGO

Like 1

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GOVERNMENT

Golden LEAF Foundation awards City of Fayetteville \$1M

* FAYETTEVILLE! Blounts Creek Solution Impact Area

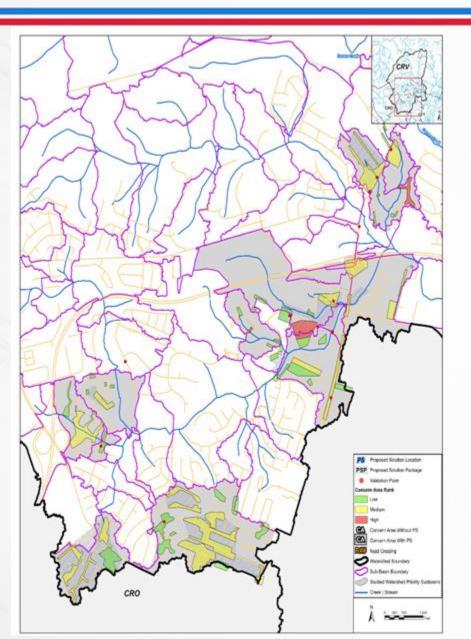
BY STAFF REPORT, POSTED 2 MONTHS AGO

With Wayland Dr BRIC grant (\$3.7M), ARPA (\$10.6M)
And several other grants = Over \$26M Awarded to Date!





Carvers Creek - Proposed Solutions



Study Area

103 - Total Sub-basins

12 - Priority I Sub-basins

1.58 – Sq. Miles

Study Identified

61 - Concern Areas (CAs)

30 - CAs Selected

18 – Proposed Solutions

Miles of Impacted Lane Length Identified – 8.8 | Resolved – 3.0

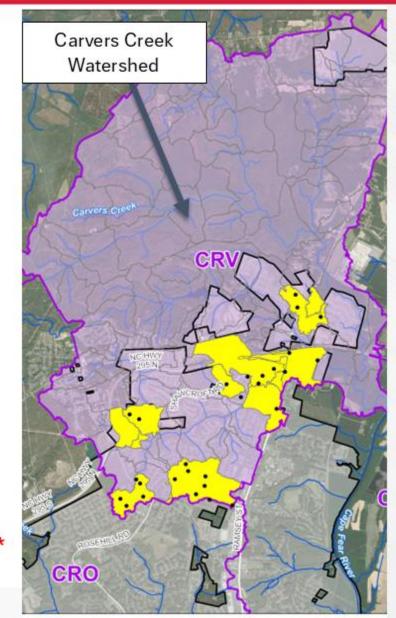
Number of Traverse Road Crossings Identified – 12 | Resolved – 12

Number of Disconnected Structures Identified - 772 | Resolved – 772

Number of Impacted Structures 10-yr | 25-yr | 50-yr Identified – 14 | 27 | 36 Resolved – 7 | 17 | 23

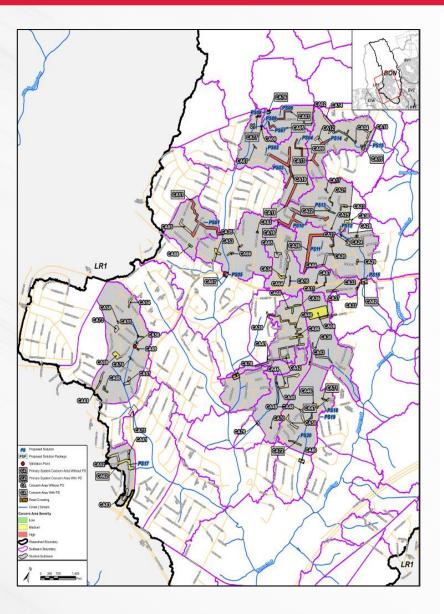
Current Total Cost (2024) \$69,000,000*

*Includes College Lake Dam Improvements





Bones Watershed – Proposed Solutions



Study Area

101 – Total Sub-basins

15 - Priority I Sub-basins

2 – Sq. Miles

Study Identified

88 – Concern Areas (CAs)

21 - CAs Selected

20 – Proposed Solutions

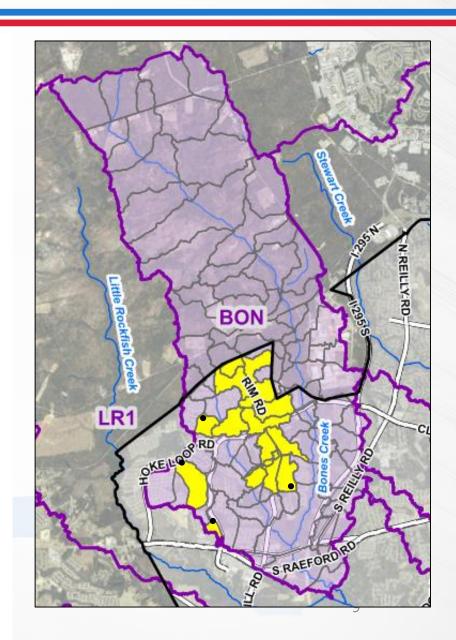
Miles of Impacted Lane Length Identified – 9.6 | Resolved – 7.0

Number of Traverse Road Crossings Identified – 34 | Resolved – 10

Number of Disconnected Structures Identified – 9 | Resolved – 8

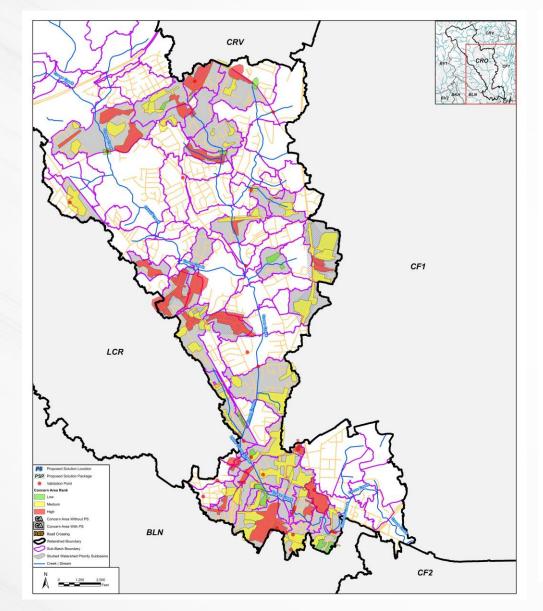
Number of Impacted Structures 10-yr | 25-yr | 50-yr Identified – 87 | 123 | 136 Resolved – 70 | 97 | 105

Current Total Cost \$65M





Cross Creek – Proposed Solutions



Study Area

128 - Total Sub-basins

42 – Priority I Sub-basins

4.4 – Sq. Miles

Study Identified

108 – Concern Areas (CAs)

83 - CAs Selected

83 - Proposed Solutions

Miles of Impacted Lane Length Identified – 79.1 | Resolved – 54.7

Number of Traverse Road Hazards Identified – 405 | Resolved – 286

Number of Disconnected Structures Identified - 72 | Resolved – 36

Number of Impacted Structures

10-yr | 25-yr | 50-yr

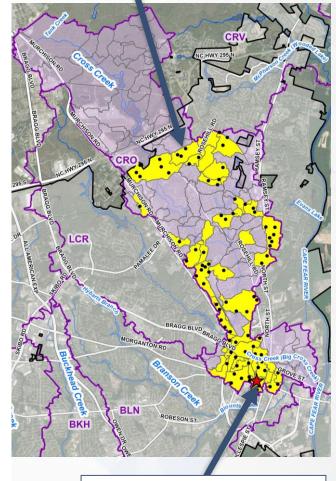
Identified - 148 | 241 | 290

Resolved - 86 | 147 | 163

Current Total Cost \$386,600,000*

* Downtown channel improvement project represents \$50M of total cost

Cross Creek Watershed



Downtown Fayetteville



Options and Recommendations

Options:

- 1. Council provides consensus to approve the final deliverables for the following watershed studies: Cross Creek, Bones, and Carvers.
- Council does not provide consensus to approve the final deliverables for the following watershed studies: Cross Creek, Bones, and Carvers, and remands back to staff with additional guidance.

Recommended Action:

Council provides consensus to approve the final deliverables for the following watershed studies: Cross Creek, Bones, and Carvers.

Thank you!





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