



# Creeedmoor

City of

**Stormwater Management Plan**

March 1, 2022

# Agenda

- 1. Welcome and Introductions**
- 2. Background**
- 3. Stormwater Management Plan**
- 4. Next Steps**
- 5. Discussion**

# Welcome and Introduction

- City of Creedmoor Staff – Mike Frangos, Stormwater Administrator, and Heidi Salminen
- Raftelis Financial Consultants – Katie Cromwell and Christina Conchilla



# Stormwater Basics

- Stormwater is the runoff that occurs over the surface of the land when it cannot be absorbed into the ground.
  - It can cause flooding over streets and land, which threatens public safety
  - It can transport sediment and pollutants to bodies of water, which harms water quality
- Infrastructure such as stormwater pipes, drains, and ditches are meant to contain the flow of stormwater, limiting flooding.



# Components of Creedmoor's Stormwater Program



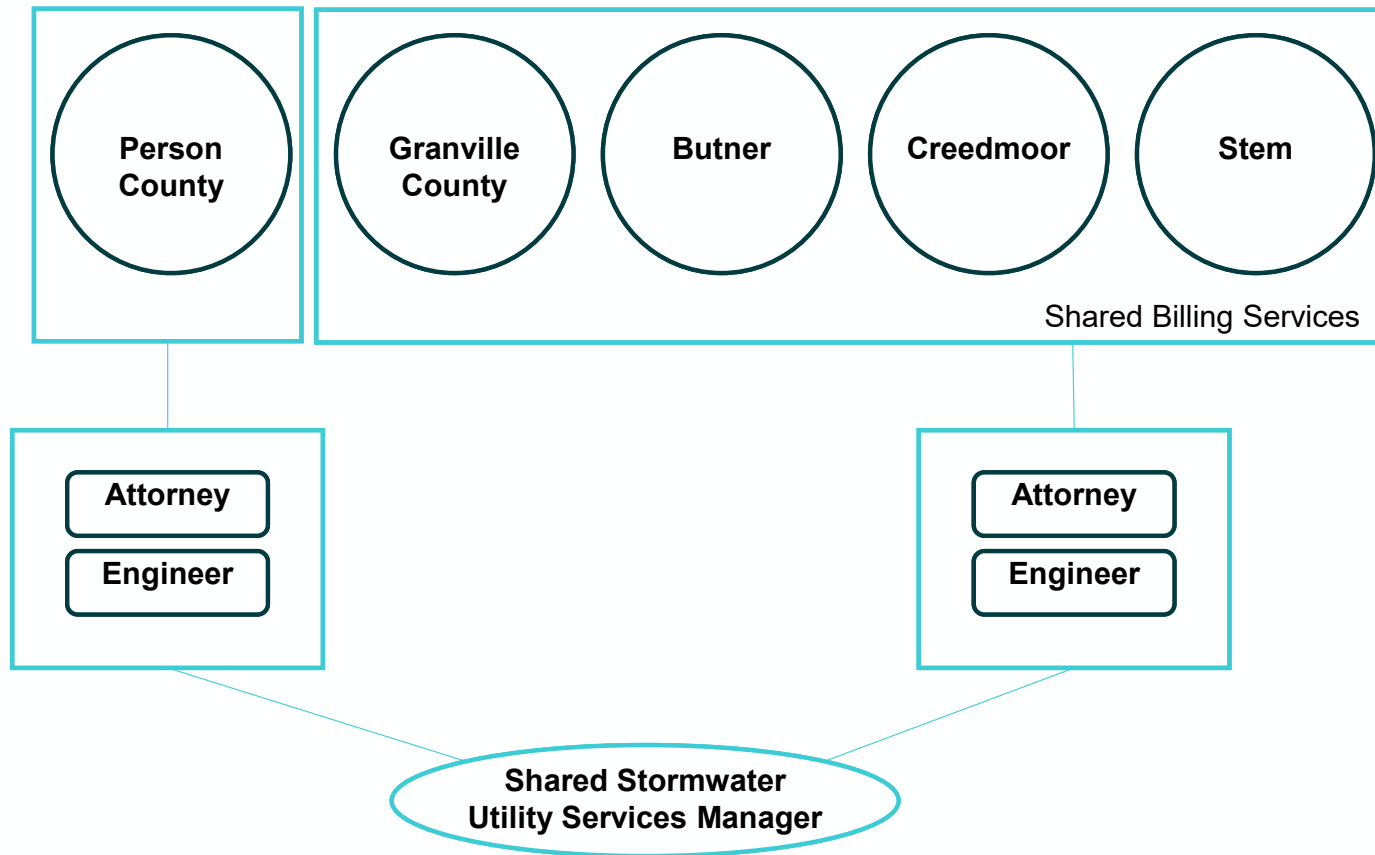
- Channel and ditch mowing and maintenance
- Stormwater drain cleaning
- Street sweeping (only on streets with curb and gutter)
- Municipal Separate Storm Sewer System (MS4) permit compliance
- Drainage maintenance

# Components of Effective Stormwater Programs

- Ensures compliance with all permit & regulatory requirements
- Adequately maintains infrastructure
- Plans for future operational and infrastructure needs
- Completes activities that align with community-specific stormwater program drivers
- Supports community health, safety, and quality of life

# Stormwater Utility

- Created in 2012 to support the jurisdictions facing expensive regulatory requirements
- Jurisdictions can share services through interlocal agreements
- Stormwater Utility Services Manager
  - Facilitates shared billing services
  - Represents jurisdictions at UNRBA
  - Represents jurisdictions with State reporting and coordination



# Upper Neuse River Basin Association

- Formed in 1996
- Comprised of 14 member jurisdictions, 6 soil and water conservation districts, and South Granville Water and Sewer Authority
- The Mission of the UNRBA is to preserve the water quality of the Upper Neuse River Basin through innovative and cost-effective pollution reduction strategies, and to constitute a forum to cooperate on water supply issues within the Upper Neuse River Basin by:
  - Forming a coalition of units of local government, public and private agencies, and other interested and affected communities, organizations, businesses and individuals to secure and pool financial resources and expertise;
  - Collecting and analyzing information and data and developing, evaluating and implementing strategies to reduce, control and manage pollutant discharge; and
  - Providing accurate technical, management, regulatory and legal recommendations
- Leading the Falls Rule Re-Examination effort in order to modify the rules to reflect the latest science, protect water quality, and reduce burden on jurisdictions in the watershed

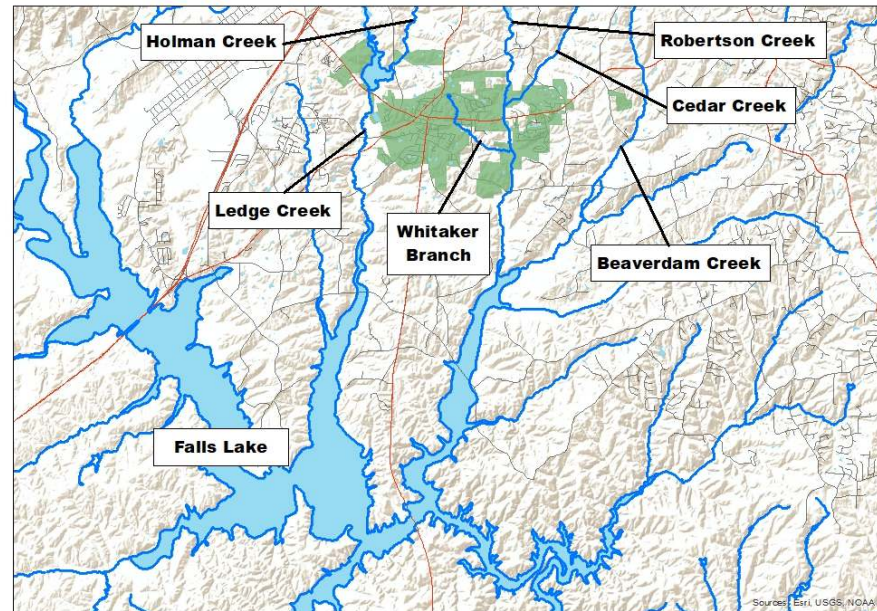




# Background

This presentation will focus primarily on the following stormwater regulations:

1. National Pollutant Discharge Elimination System (NPDES) Phase II Small Municipal Separate Storm Sewer System (MS4)
2. Fall Lake Nutrient Management Strategy – aka Falls Rules



# Background - NPDES



## National Pollutant Discharge Elimination System (NPDES) -

Creedmoor was designated a small MS4 community in January 2010

MS4 Permit – 5 year terms – Creedmoor is on their second permit – current permit issued February 2018 and expires January 2023.

### Requirements:

- Implement Program - 6 Minimum Control Measures (MCMs)
- Stormwater Management Plan (SWMP) – update as needed
- Fund the Program – Creedmoor set up their stormwater utility in 2012 - **Granville-Person County Stormwater Utility along with Town of Butner, Town of Stem, Granville County and Person County**
- Annual Reporting
- Audit – usually once per permit term – **Creedmoor’s first audit will be held in 2022!**

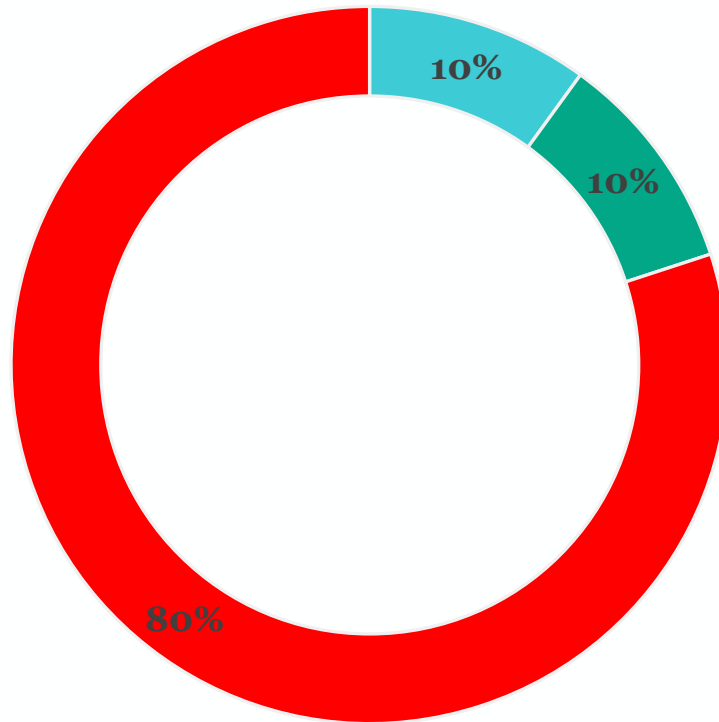
# The Audit

- An MS4 Audit is a review of the Stormwater Management Program by NCDEQ to evaluate whether the MS4 is meeting the requirements specified in the NPDES MS4 Permit & Stormwater Management Plan (SWMP)
- Raftelis has been assisting the City with a pre-audit in preparation



# The Audit - Statistics

According to the most recently available information, MS4 Programs are currently receiving the following compliance audit results:



■ Notice of Compliance ■ Notice of Deficiency ■ Notice of Violation

# Stormwater Management Plan

According to the permit:

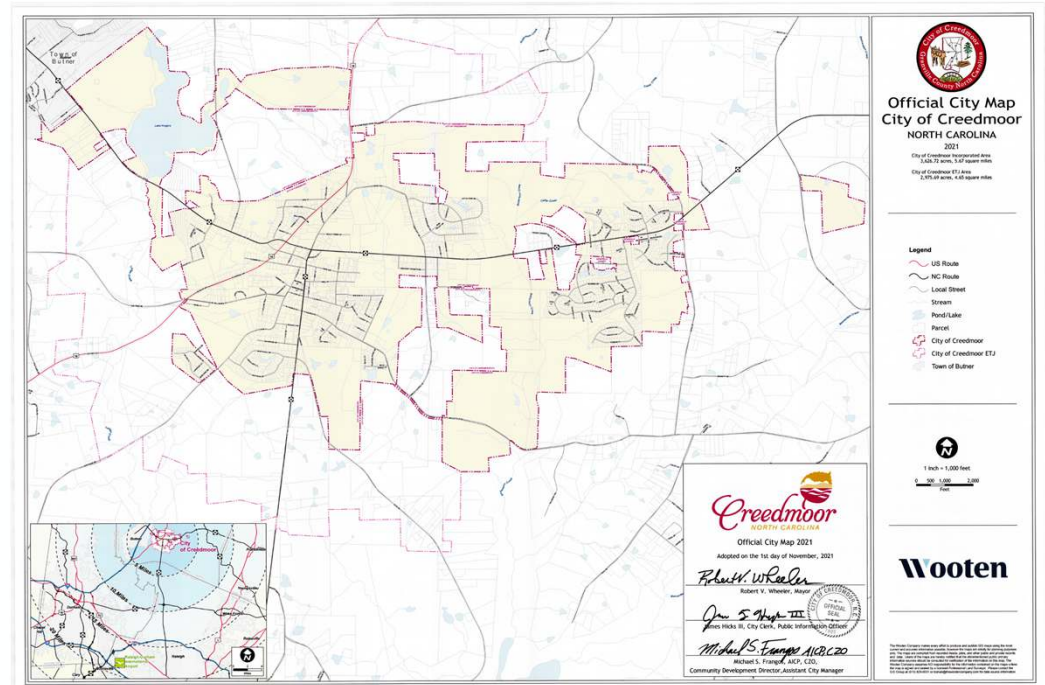
“The Stormwater Plan shall detail the permittee’s stormwater management program for the five-year term of the stormwater permit including, for each measure identified in the permit, a narrative description of the program, a table that identifies each best management practice (BMP) used, the frequency of the BMP, the measurable goals for each BMP, the implementation schedule, funding and the responsible person or position for implementation.”

# Stormwater Management Plan

## Description of the Program

Brief Overview of Creedmoor's program:

- Population and Growth Rate
- MS4 Service Area – City's corporate limits
- Conveyance System
- Land Use Composition
- Receiving Streams
- Water Quality Programs
- Organization

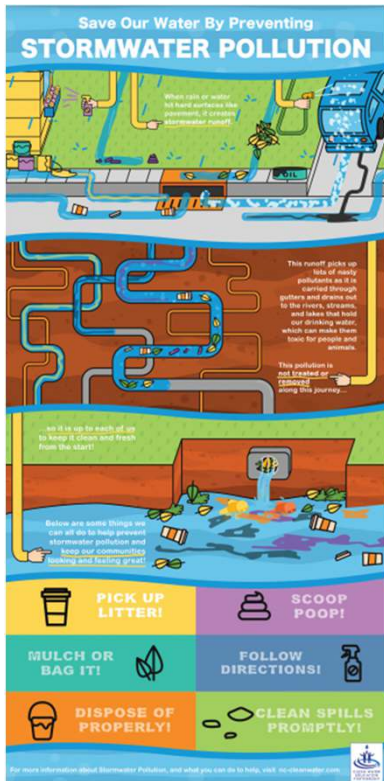


# **Stormwater Management Plan -**

## **6 Minimum Control Measures (MCMs)**

1. Public Education & Outreach
2. Public Involvement & Participation
3. Illicit Discharge Detection & Elimination (IDDE)
4. Construction Site Runoff Controls
5. Post-Construction Site Runoff Controls
6. Pollution Prevention & Good Housekeeping for Municipal Operations (PP/GH)

# Public Education and Outreach



Implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff:

- Target Pollutants
- Target Audience
- Outreach Program
  - Website
  - Distribute education materials
  - Outreach events
  - Mass media
  - Stormwater hotline
  - School Presentations
  - Pet Waste Cleanup Stations



# Public Involvement and Participation

Implement a program to involve the public to participate in the City's stormwater program:

- Public Meeting
- Volunteer Opportunities
- Website
- Community Outreach
- Stormwater hotline



# Illicit Discharge Detection and Elimination (IDDE)

Develop, implement and enforce a program to detect and eliminate illicit discharges:

- IDDE Ordinance – Article 19
- Stormwater system map
- Outfall inspections
- Water quality monitoring
- Stormwater hotline
- Employee training
- Public education and outreach





# Construction Site Stormwater/Runoff Control



The NCDEQ Division of Land Resources Erosion and Sediment Control Program effectively meets the requirements of the Construction Site Runoff Controls in the City of Creedmoor by permitting and controlling development activities disturbing one or more acres of land surface and those activities less than one acre that are part of a larger common plan of development.

# Post Construction Stormwater Management

Develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre:

- Post construction legal authority
- Stormwater control measure (SCMs) program including operation, maintenance, inspections, enforcements
- Stormwater permit plan review



# Pollution Prevention and Good Housekeeping for Municipal Operations



Develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations:

- Inventory of municipal facilities and operations
- Inspection and maintenance program at municipal facilities
- Street sweeping operations
- Operation, maintenance and inspections of municipally owned SCMs
- Employee training
- Vehicle and equipment cleaning operations

Q&A



# Thank you!

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