



**Western Piedmont**  
Council of Governments

*Creative Regional Solutions Since 1968*

# **Western Piedmont Stormwater Partnership Education and Outreach Public Involvement and Participation**

**April 5, 2019**



# Western Piedmont Water Resources Committee



# Stormwater Trainings



# Stormwater Partnership



Creative Regional Solutions Since 1968



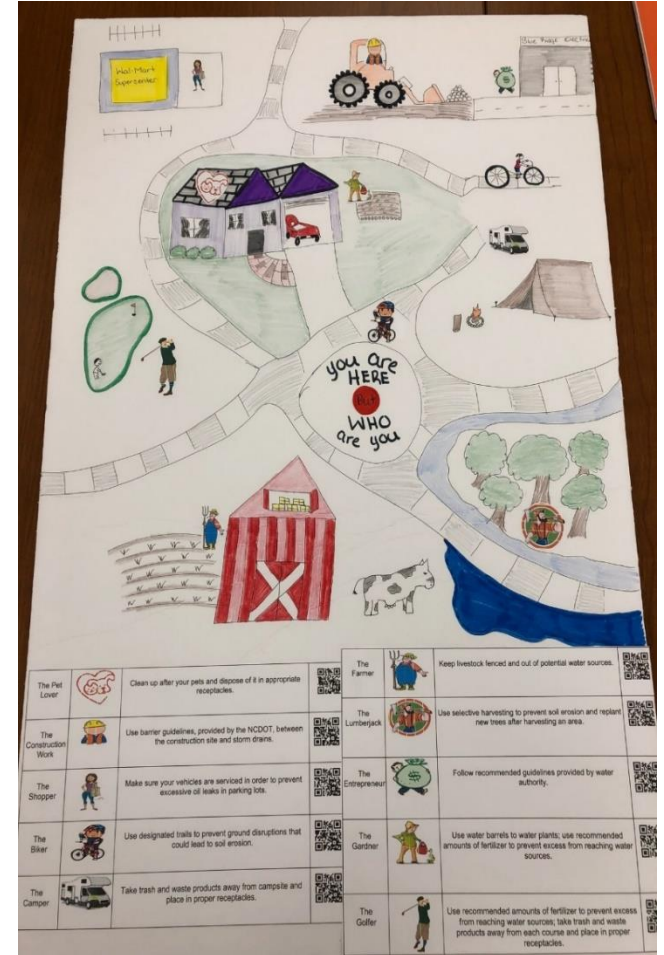
# Teacher Workshops



# Teacher Workshops – Project WET



# STEM West



# School Presentations





# STEM Tours



# STEM Presentations

March 16, 2018 - River Bend Middle School

March 28, 2018 - Mill Creek Middle School

April 13, 2018 - Maiden Middle School

April 19, 2018 - Arndt Middle School

Oct 4, 2018 - Newton Conover Middle School

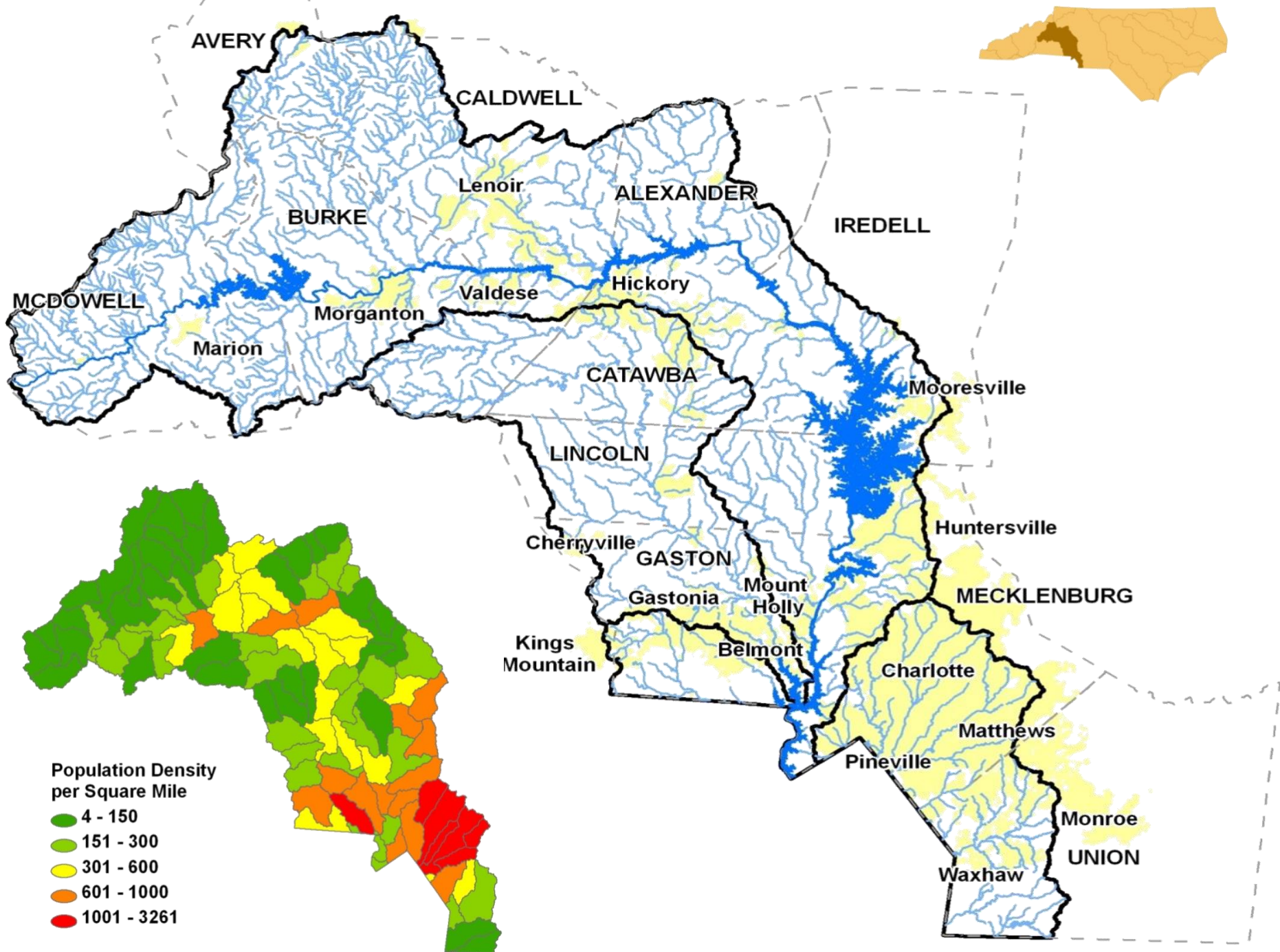
Oct 30, 2018 - Grandview Middle School



# STEM Presentations

March 1, 2019 - Jacobs Fork Middle School  
March 8, 2019 - Maiden Middle School  
March 22, 2019 - River Bend Middle School  
April 4, 2019 - Arndt Middle School  
April 18, 2019 - Mill Creek Middle School





# ***Nonpoint Sources***

## **Agriculture**



## **Stormwater**



## ***Point Sources***

## **Forestry**



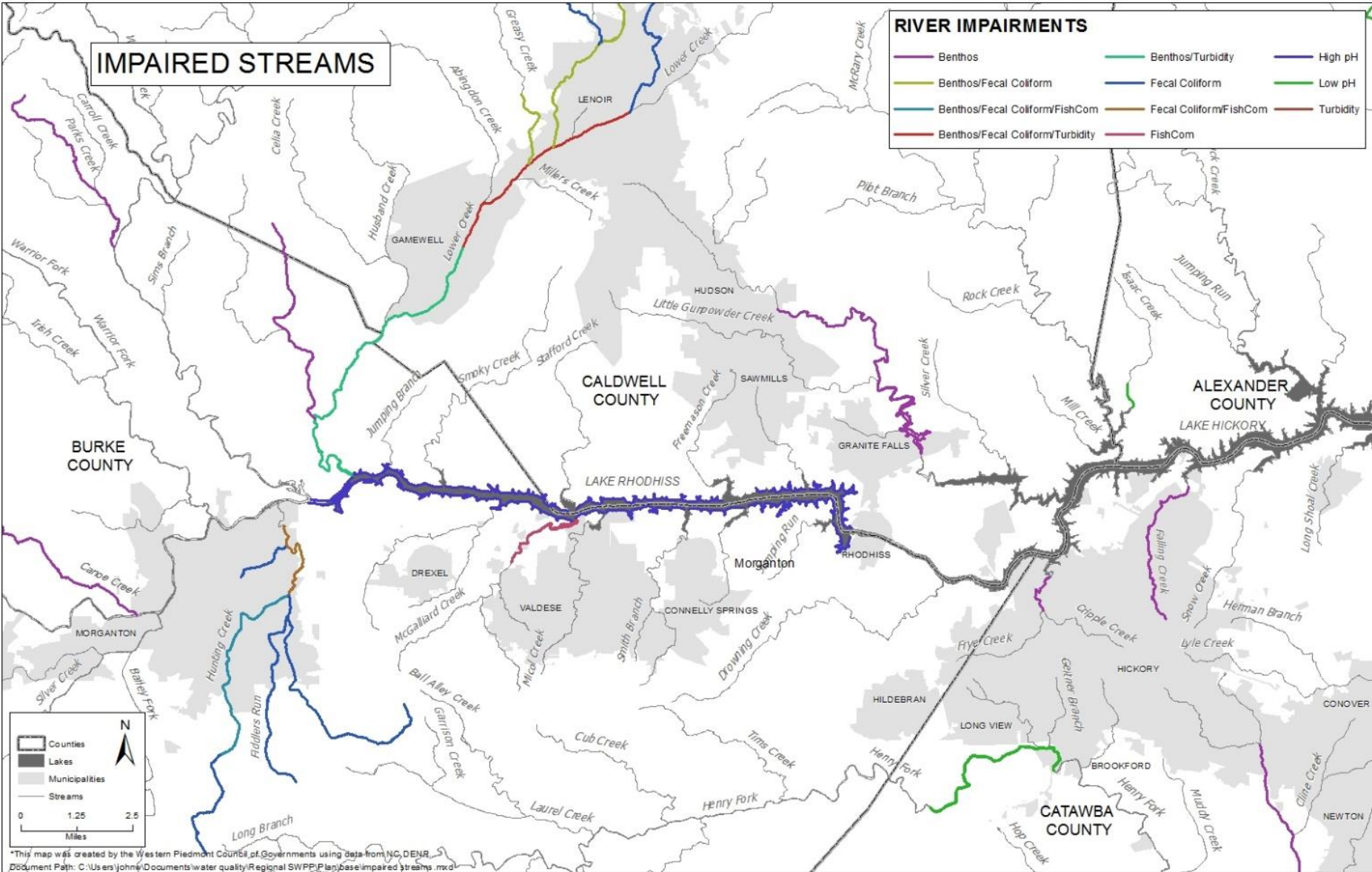
## **Construction**



# IMPAIRED STREAMS

## RIVER IMPAIRMENTS

- Benthos
- Benthos/Turbidity
- High pH
- Benthos/Fecal Coliform
- Fecal Coliform
- Low pH
- Benthos/Fecal Coliform/FishCom
- Fecal Coliform/FishCom
- Turbidity
- FishCom



**Legend:**

- Counties
- Lakes
- Municipalities
- Streams

**Scale:** 0, 1.25, 2.5 Miles

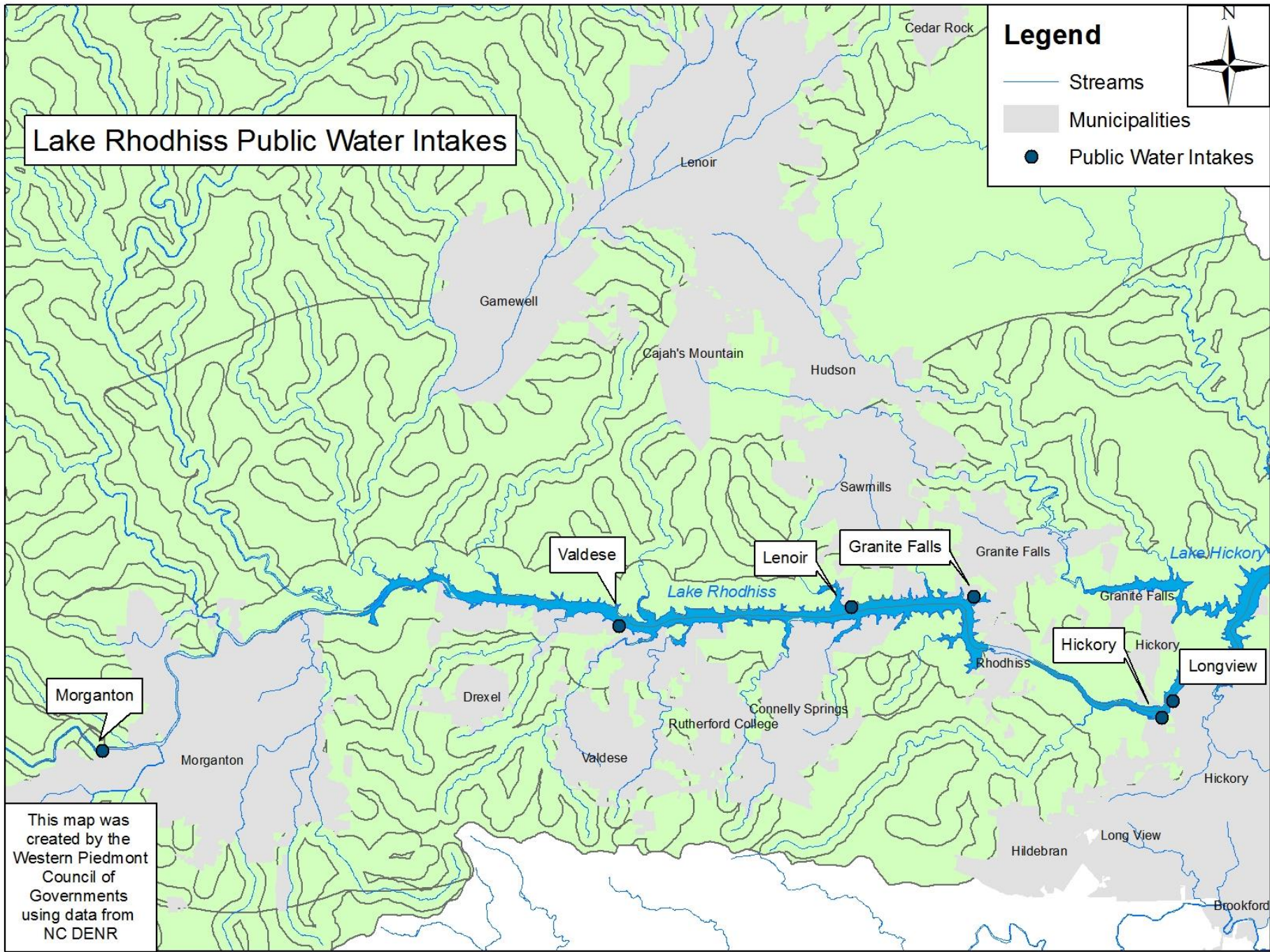

**North Arrow:** N

\*This map was created by the Western Piedmont Council of Governments using data from NC DENR.  
 Document Path: C:\Users\john\Documents\water quality\Regional SWPP\Plan\base\impaired\_streams.mxd

# Lake Rhodhiss Public Water Intakes

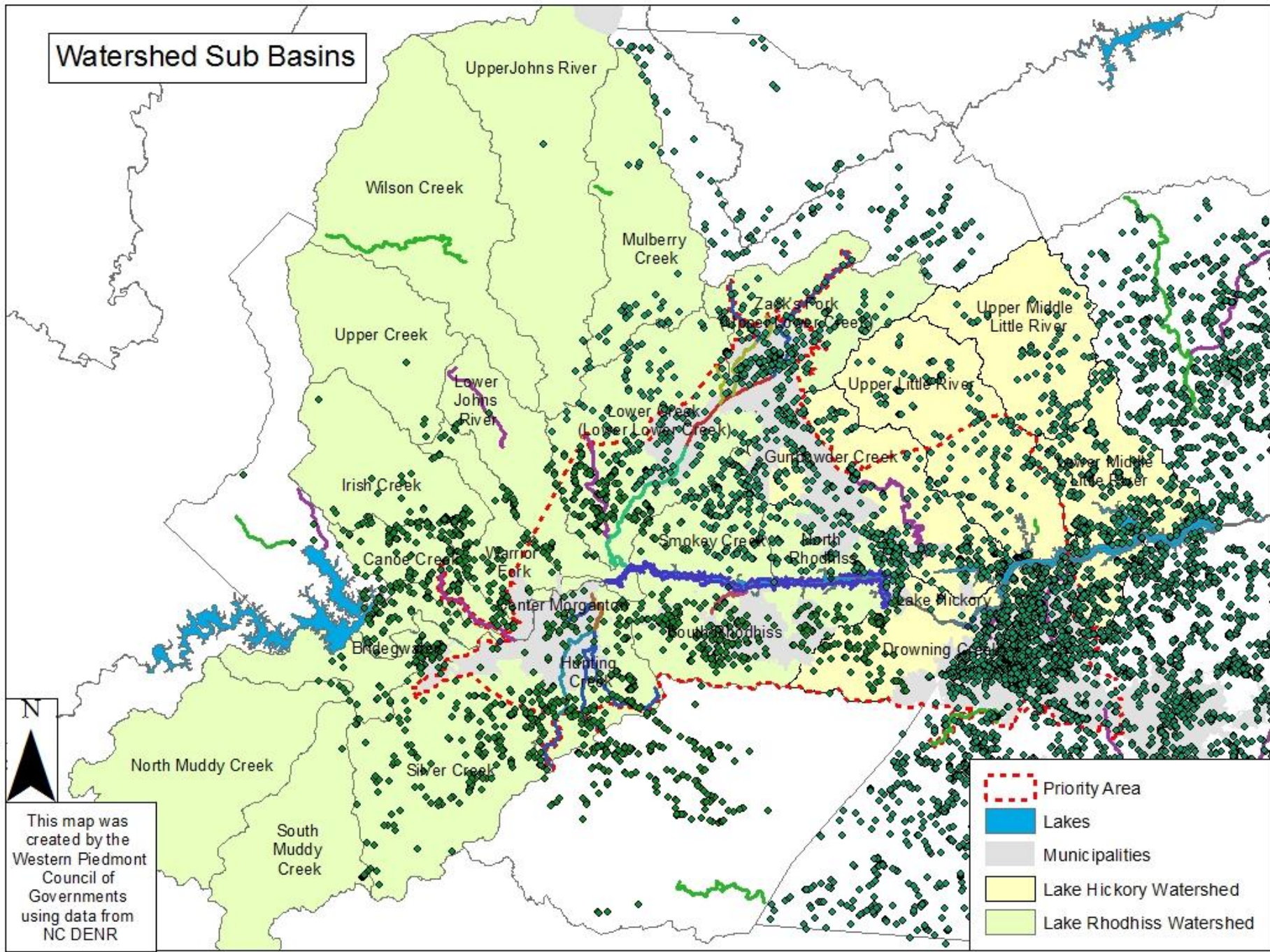
**Legend**

- Streams
- Municipalities
- Public Water Intakes



This map was created by the Western Piedmont Council of Governments using data from NC DENR

# Watershed Sub Basins



This map was created by the Western Piedmont Council of Governments using data from NC DENR

- Priority Area
- Lakes
- Municipalities
- Lake Hickory Watershed
- Lake Rhodhiss Watershed



# Stormwater: Where does it go?



# Stormwater: Where does it go?



# Stormwater Impacts on Water Quality

**Decreased Quality**

- First Flush
- Nutrients
  - Sediment
  - Pathogens
  - Toxic Contaminants
  - Debris
  - Thermal Stress

Results in Impacts to Aquatic Resources

# Stormwater Impacts on Water Quantity



Erosion

Increased Quantity



Flooding

1 inch rainfall on 1 acre of woods = no runoff.



The same one inch of rainfall on 1 acre of asphalt will produce over **27,000 gallons** of runoff.

# Capture Rainwater



Make your own!

# Properly Dispose of Pet Waste



- Only 40% of NC dog owners pick up after pets
- Average dog waste =  $\sim\frac{1}{4}$  lb per day

## Problems with excess waste:

Exposure to parasites

Exposure to bacteria like *E. coli* and other pathogens

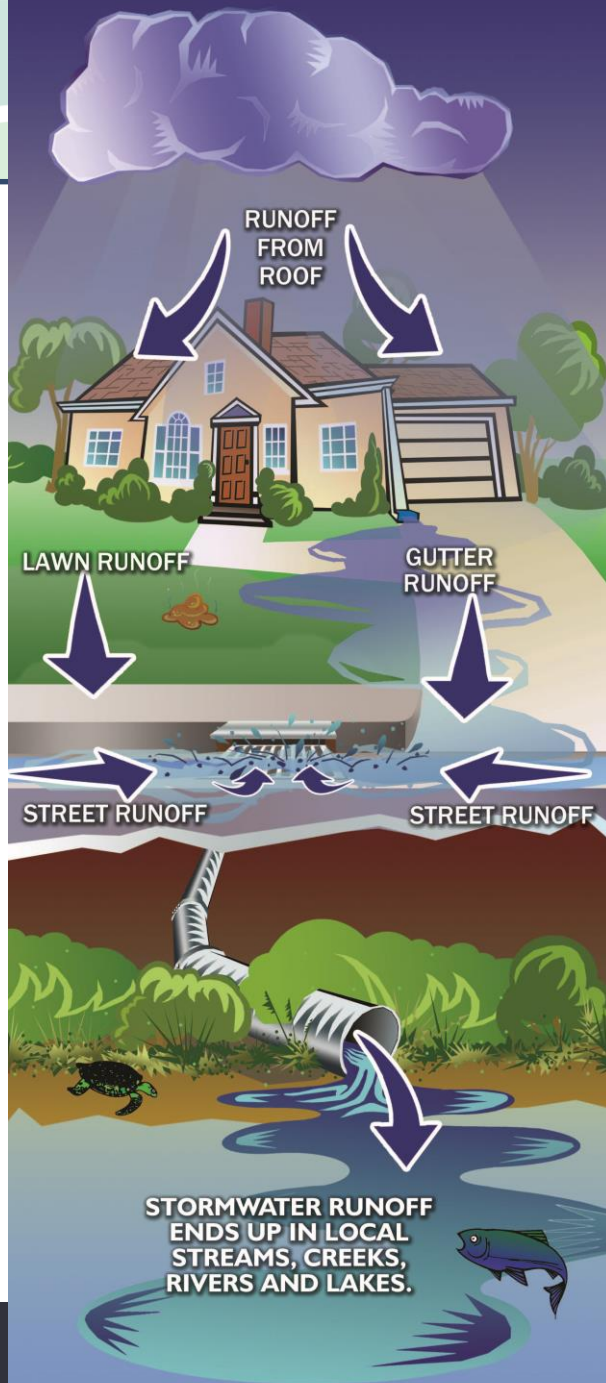
Excess nutrients cause algal blooms

# Watch Your Water

- Adopt a Storm Drain or two!
- Help keep pollution out of water!
  - Automobile fluids
  - Pet Waste
  - Fertilizers
  - Pesticides
  - Litter
  - Leaves, too!
  - Paint







# School Participation



# Earth Day



# Enviroscape Model





# **5<sup>th</sup> Annual WNC Water Quality Conference Details**

**Thursday, July 26, 2018**

**Sponsored by:**

**Reese Institute for Conservation of Natural Resources, Lenoir-Rhyne University**

**Western Piedmont Council of Governments**

**Western Piedmont Water Resources Committee**

**Western Piedmont Storm Water Partnership**

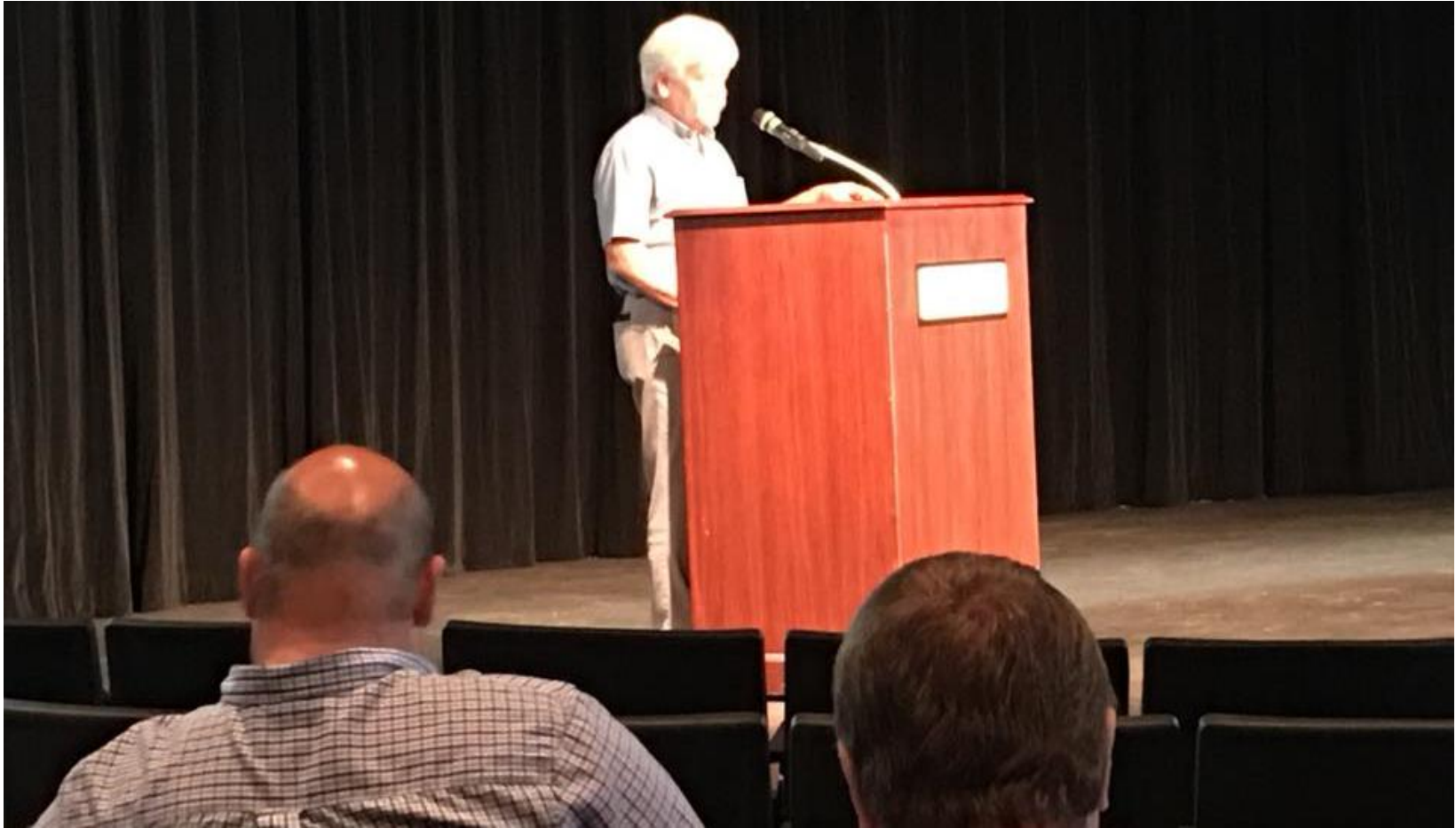
**9:35 A.M. to 10:20 A.M. "The Catawba River Nutrient Study" |  
Speaker: Brian Wrenn, Ecosystems Branch Chief, NC Division of  
Water Resources**



**10:25 A.M. to 11:00 A.M. "Riparian Buffer Rule Changes"**  
**Speaker: Sue Homewood, NC Division of Water Quality/Resources**



***11:15 A.M. to 12:00 P.M. "Mecklenburg County Stormwater"  
Speaker: Rusty Rozelle, Mecklenburg County Stormwater***





**1:10 P.M. to 1:55 P.M. "The information planners need to conserve nature in their jurisdictions"**

**Speaker: Sara A. Gagne, PhD, Associate Professor of Landscape Ecology, UNC Charlotte**



**2:10 P.M. to 2:55 P.M. "Urban Rainscaping: Small Scale Solutions for Protecting NC Water Resources"**

**Speaker: Mitch Woodward, Area Specialized Agent, Watersheds and Water Quality**



**2:55 P.M. to 3:30 P.M. "Agricultural Best Management Practices for Water Quality Protection" | Speaker: Randy Willis, District Administrator, Catawba County Soil and Water; Blake Henley, Soil Conservation Technician, Catawba County Soil and Water**



# Conference Dates

- 2019: Water Quality Conference on Thursday, July 25 and Air Quality Conference on Friday, July 26
- 2020: Water Quality Conference on Thursday, July 30 and Air Quality Conference on Friday, July 31

# Stream Clean-up

