

A photograph of a river flowing through a dense forest. The water is brownish and turbulent, with white foam from rapids. Large, dark rocks are scattered throughout the riverbed. The surrounding trees are lush green. A semi-transparent green rectangular overlay covers the upper portion of the image, containing the main title.

# **Update on Stormwater Master Plan**

A semi-transparent green rectangular overlay located in the lower-middle section of the image. It contains the text for the Town Council Work Session.

**Town Council Work Session  
January 29, 2025**

# Agenda

- Stormwater Basics
- Program Mission & Master Plan
- Booker Creek Subwatershed Studies
- Moving Forward & Next Steps

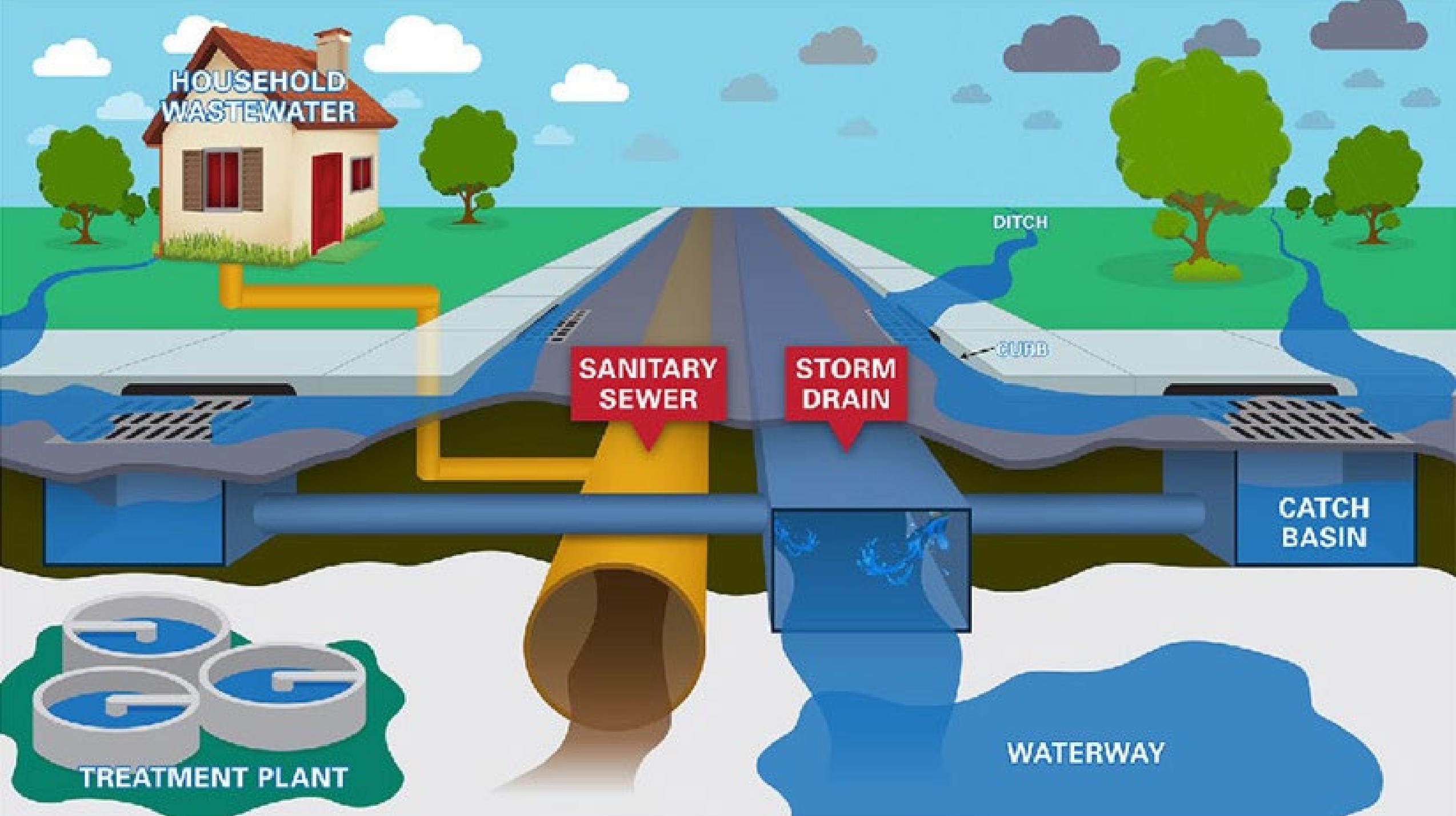


# Stormwater Basics

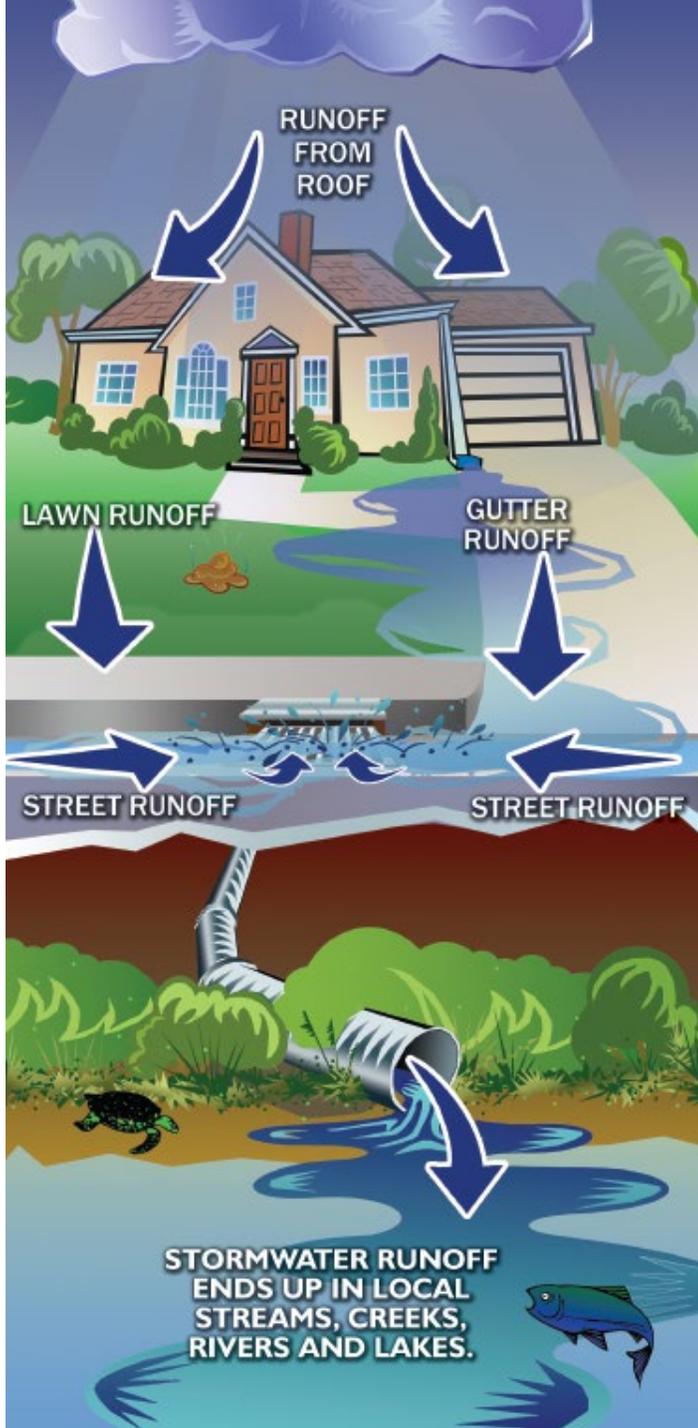


# What is stormwater?

- Any kind of precipitation that does not soak into the ground.



# What's the impact of stormwater?



- Significant negative impacts on water quality
- Stormwater runoff is the greatest source of surface water pollution
- Runoff flows from roofs, driveways, parking lots into storm drains and makes its way to the environment untreated

# **What are stormwater control measures?**

- SCMs are physically engineered structures
- Temporarily store and treat excess runoff
- Regulated by local and state requirements



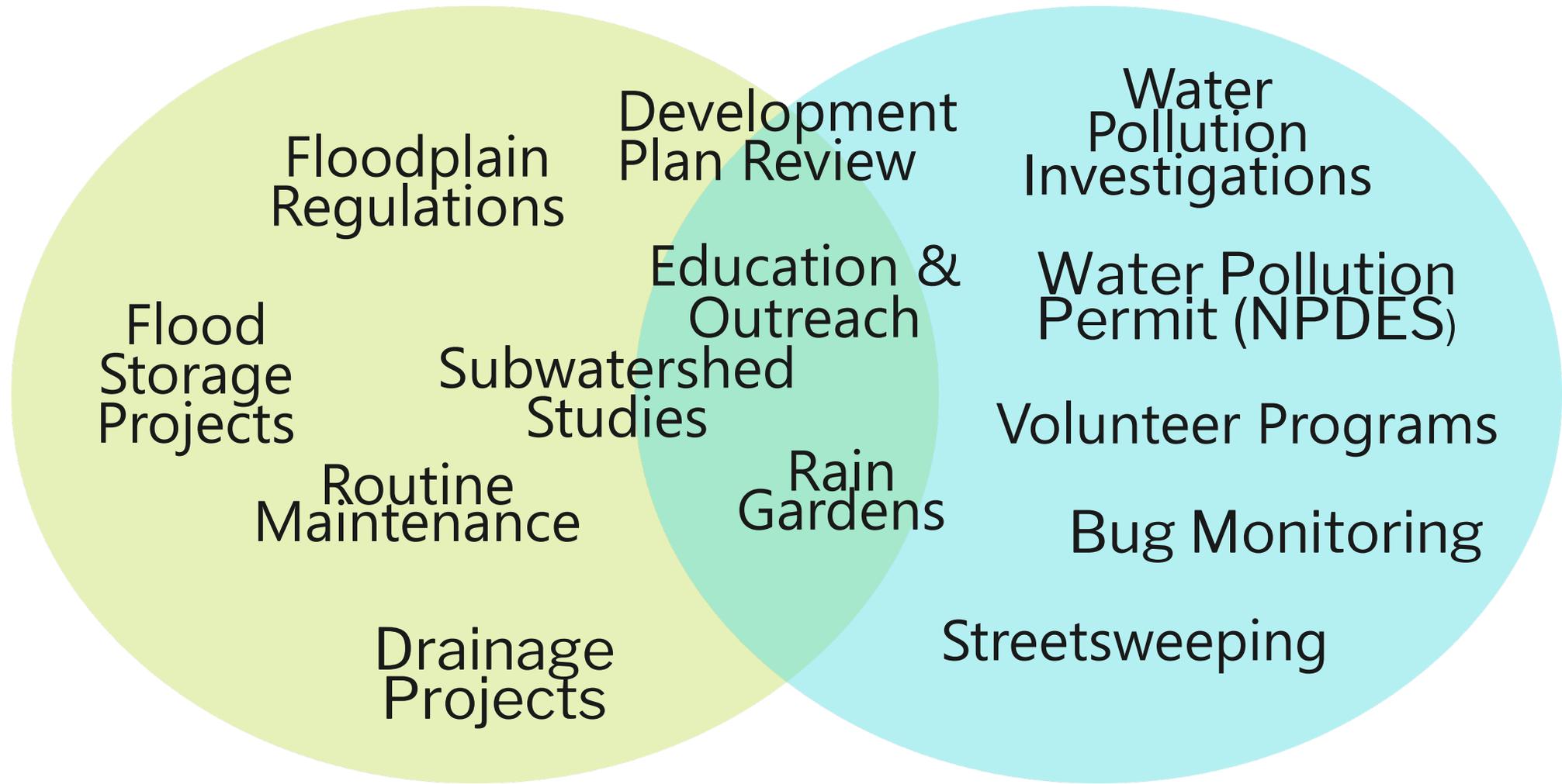
# **Bioretention Basin at St. Thomas More**



**Rain  
Garden at  
Hargraves  
Community  
Center**



# Build Your Own Rain Barrel Workshop



**Stormwater programs should address  
water quantity AND water quality.**

A person wearing a red shirt and dark pants is standing in a shallow stream. The stream is surrounded by large, dark grey rocks and lush green vegetation. The water is clear, reflecting the surrounding environment. The scene is set in a natural, outdoor environment.

# **Stormwater Program Mission & Master Plan**

# Mission

- Protect the health and safety of our residents and our ecosystem
- Address water quality and quantity concerns
- Meet or exceed federal and state requirements

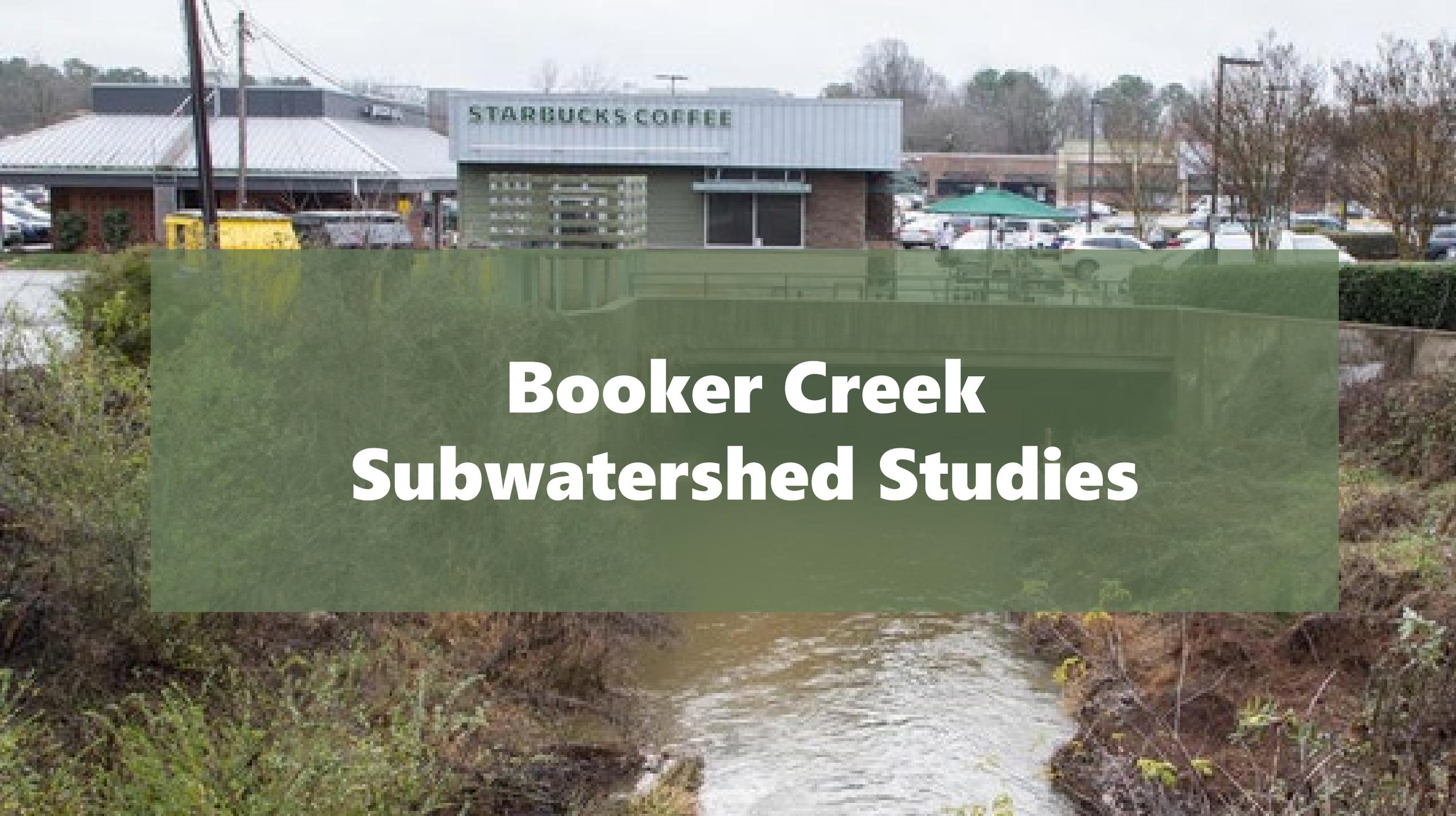
# Master Plan

- Adopted by Council in 2014
- Collaborative, inclusive process
- Links strategic goals to action steps
- Includes both implementation and funding plans
- Includes studying subwatersheds for water quantity and quality improvements

# Master Plan

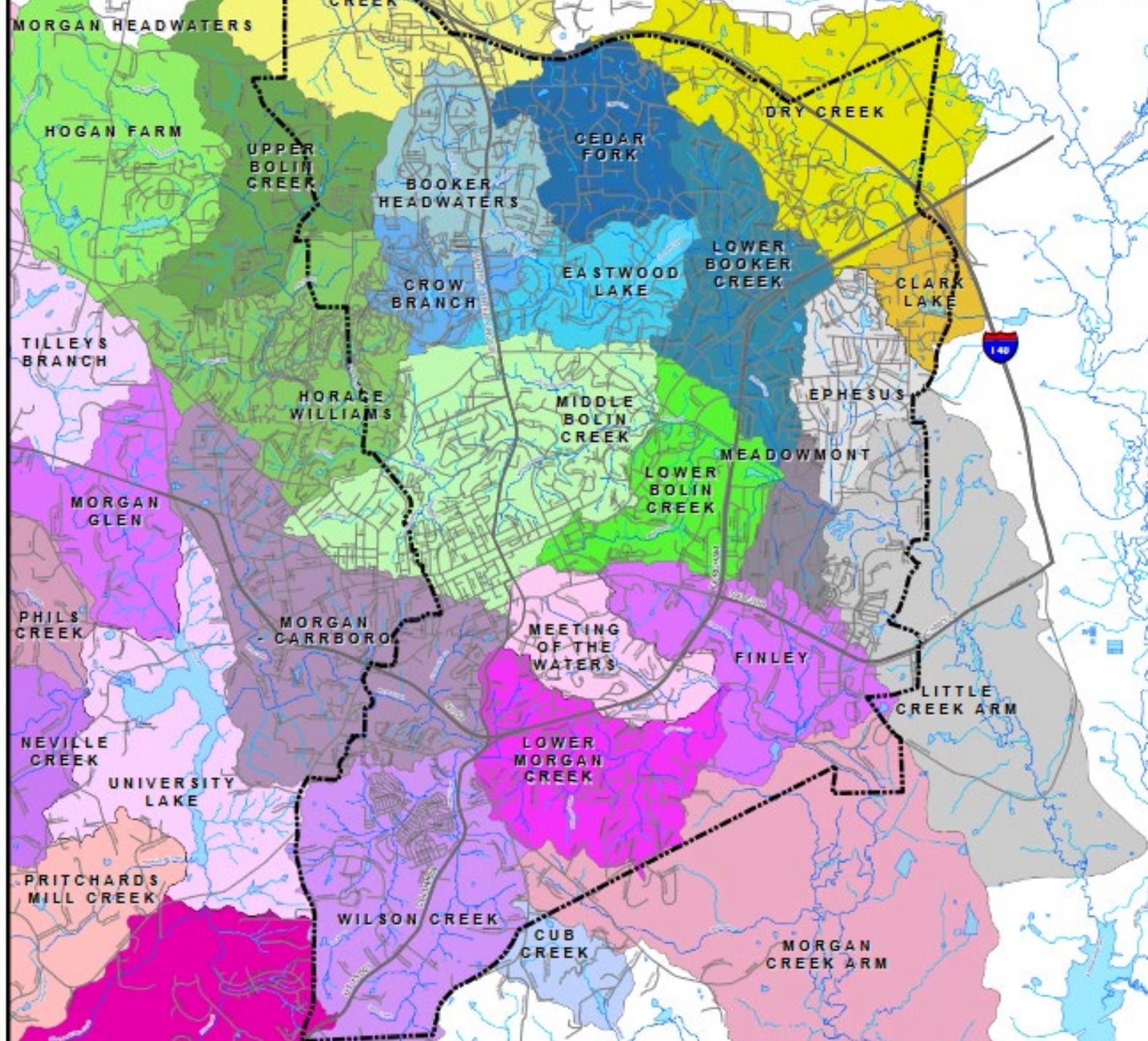
1. Develop and **implement** a comprehensive Master Plan
- 2. Address flooding**
- 3. Address water quality**
- 4. Protect and restore natural stream corridors**
5. Develop formal public education program
6. Define performance standards
- 7. Ensure compliance with federal and state mandates**
8. Establish clear program leadership recognized by public
- 9. Utilize resources efficiently**
10. Establish understanding of stormwater system as a utility

**Our Master Plan reflects the shared interest of staff, Council, and community to address both water quantity and water quality, now and in the future.**



# **Booker Creek Subwatershed Studies**





# **Booker Creek Subwatershed Study Highlights**

- Approved by Council in 2017
- Additional, robust, community engagement
- Residents identified flooding as major concern

# Booker Creek Subwatershed Study Highlights

- Recommends retrofits for **green infrastructure in residential areas** to help with water quality
- Recommends **improving “level of service” for existing grey infrastructure** to help with water quantity
- Recommends **network of flood storage projects** to help with quantity



**Example of residential green infrastructure**



**Example of grey infrastructure improvements**



Current creek conditions



New floodplain added to the creek

## **Example of flood storage project**

# **Booker Creek Flood Storage**

- Priority project because it would have biggest impact on flood prone area
- Designed to mitigate 25-year storms
- Added park amenity in this area of town

# Flood Storage in Action: August 2024



# Flood Storage in Action: August 2024



# Flood Storage in Action: August 2024



**This flood storage project is working as expected.**

- Feedback from downstream residents
- Site inspections during rain events
- Letter of Map Revision (LOMR)

# Community Concerns & Working Group

- Included clear-cutting forest, lack of alternative, and poor communication and outreach
- Council paused projects until Booker Creek Working Group shared recommendations
- Council received recommendations, staff committed to incorporating those as appropriate

# Lessons Learned

- If time between planning and construction is lengthy, we need to intentionally reengage and communicate.
- In design process, we need to double down on neighborhood engagement.
- Future flood storage projects will not require as many trees to be removed

A group of four people are engaged in a field activity in a stream. On the left, a man in a green jacket and grey waders holds a large net. In the center, a man in a safety vest is pouring water from a bucket into the stream. On the right, two women are observing; one is wearing a plaid shirt and a face mask. The scene is outdoors with a rocky stream bed and lush green vegetation on the banks.

# Moving Forward & Next Steps

**As we continue to implement the  
Master Plan and Subwatershed  
Studies, we want to include  
residential green infrastructure AND  
improve grey infrastructure AND  
construct flood storage projects.**

# Moving Forward

- We will continue to educate and encourage residents to retrofit their properties.
- We will require new and re-developments to meet stormwater standards.
- We will continue routine stormwater maintenance and new stormwater construction on Town property.

## **Moving Forward**

- We are confident these projects will advance our mission and yield the greatest public benefit.
- We will continue to balance flood storage needs and environmental protection goals.
- We will continue to leverage Town-wide communications platforms and engagement framework.

## Next Steps

- Identify new funding through the annual budget process.
- Address staff capacity issues, balancing NPDES permit requirements with desire for new programs.
- Advance top priority projects, including flood storage, upsizing culverts, and neighborhood retrofits.



**Questions?**