

City Council Workshop

November 9, 2020



Find yourself in good company®

Item 1

Update on Pavement Condition Survey



Find yourself in good company®

Time for a New Program

- \$17M – over 108 lane miles
- Last Pavement Condition Survey - 2014
- MPO selected Transmap Engineering



Time for a New Program

Why perform a Pavement Condition Survey?

- Major role in Pavement Management
- Complete inventory of all streets on the system
- Magnitude of distress types
- Budget planning



Time for a New Program

What deliverables do we get from a Pavement Condition Survey?

- Crack Data – types, sizes, locations
- Pavement Condition Index (PCI)
- Deterioration curves
- Program Scenarios

About Transmap

- ⑤ Owned by a Professional Engineer
- ⑤ Esri Public Works Partner - 21 Years
- ⑤ APWA Public Works Partner
- ⑤ Best Technology (LCMS2/LiDAR)
- ⑤ 400 Cities and Counties
- ⑤ Official PCI Calculation
- ⑤ MicroPAVER Trainer Developers

Local Customers

- ⑤ City of Wilmington
- ⑤ City of Gastonia
- ⑤ City of Hendersonville
- ⑤ City of Knightdale
- ⑤ City of Durham
- ⑤ Town of Cary



Find yourself in good company®



Data Collection



Greenville
NORTH CAROLINA

Find yourself in good company®

Road System

\$801M

**Total Pavement
Network Value**

728.55

**Total
Lane Miles**

\$57.4M

**Total 2019
Cost to "Fix"
Everything**

Functional Classification

Functional Class/ Paver Designation	Number of Sections	Number of Lane Miles	Weighted Average PCI
Major Thoroughfare/ Industrial	85	41.67	88
Minor Thoroughfare/ Collector	427	112.79	76
Residential	2,903	574.07	76
Total	3,415	728.53	76



Find yourself in good company®

Pavement Condition Index (PCI)

The results of a Pavement Management System analysis provide a quantitative performance score called the Pavement Condition Index (PCI).

Pavement Condition Index (PCI) is an engineering term representing the surface condition of the pavement on a scale of 0 to 100. For example:

- PCI of 100 is a pavement in perfect condition
- PCI of 0 is a pavement that is failed

The PCI is a distress-based condition index, i.e., specific distresses in the pavement are identified and tallied, and the type, severity, and extent of each distress are used to calculate a single number representing the pavement condition.



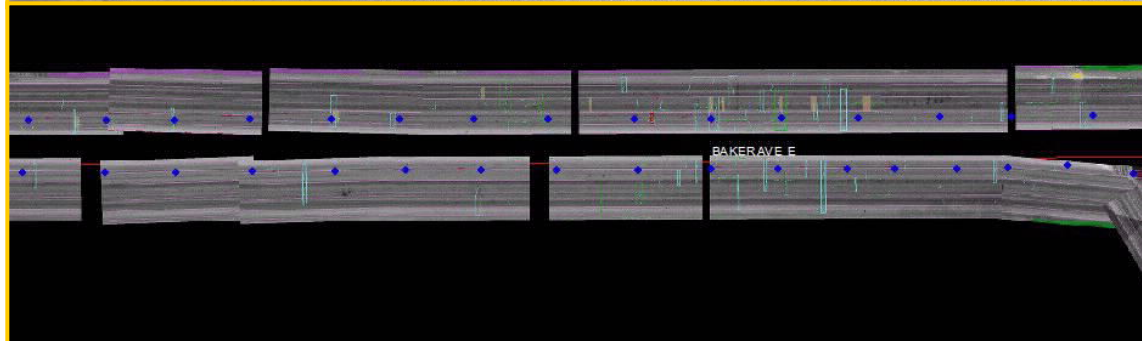
PCI = 90



Greenville
NORTH CAROLINA

Find yourself in good company®

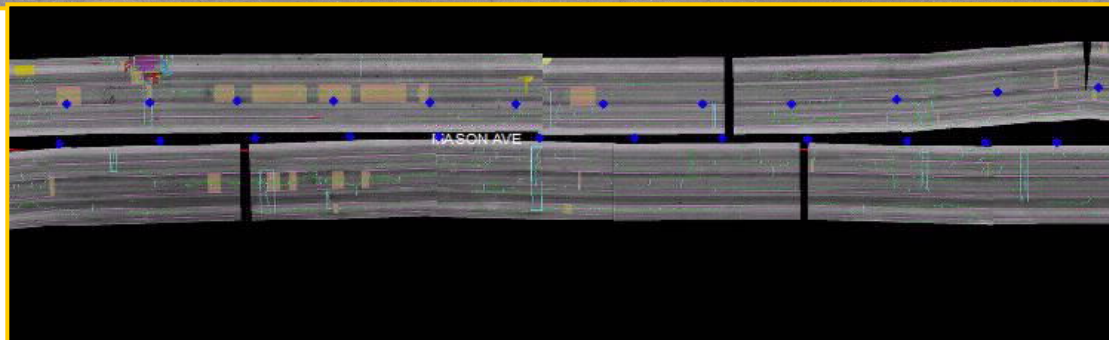
PCI = 70



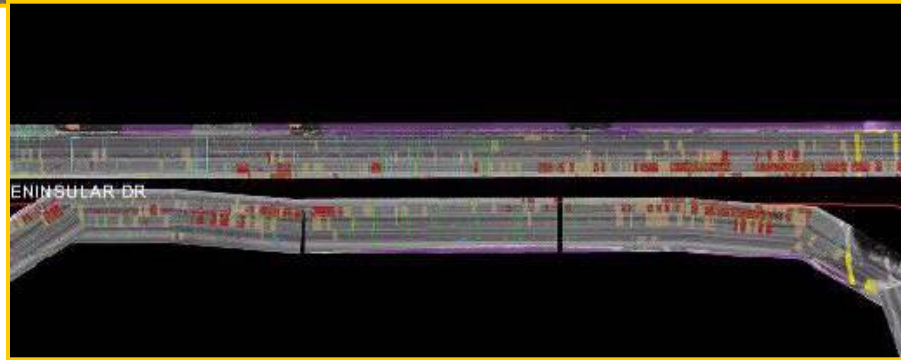
Greenville
NORTH CAROLINA

Find yourself in good company®

PCI = 40



PCI = 15

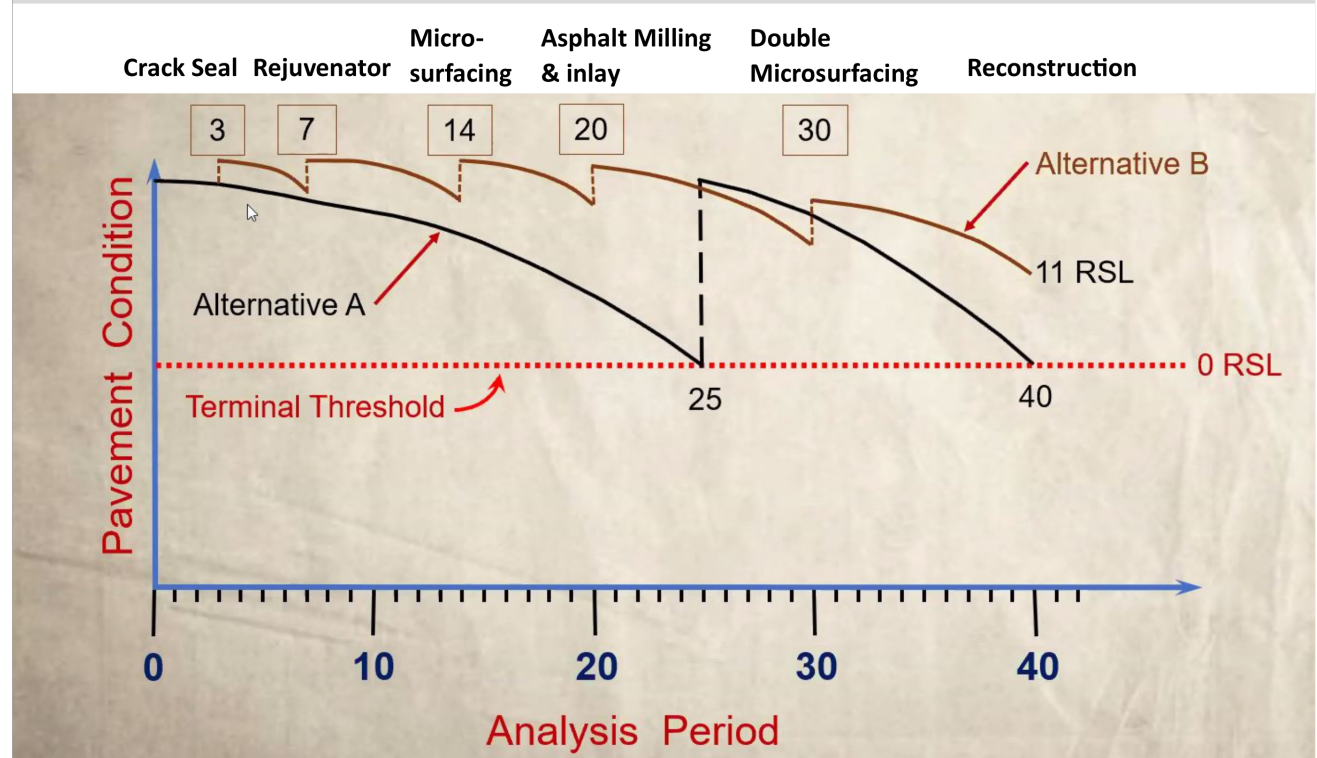


M & R Treatments

M & R Category	M & R Treatment	Expected Result	Current Lane Miles	Length (Miles)	Percent
Maintenance (PCI 85-100)	Crack Sealing	3-5 years	216.92	81.31	29%
	Roadway Spot Patching	1-3 years			
	Reclamite	5-years			
Preservation (PCI 70-84)	Microsurfacing	7-years	313.48	121.1	43%
	Slurry Seal	5-7 years			
Rehabilitation (PCI 31 - 69)	2-inch Mill and Fill or Overlay	15-years	190.3	73.51	26%
Reconstruction (PCI 0 - 30)	Full Depth Repair	20-years	7.85	3.09	1%
		Total	728.55	279.01	100%

Deterioration Curves

Pavement Life Curve based on preservation vs rehabilitation treatments



Moving Forward

- Final Pavement Ratings
- Reports
- Program Scenarios



Find yourself in good company®

Time for a New Program

So we will have all this
information...

How do we use it?



Find yourself in good company®

Time for a New Program

Resurfacing vs. Pavement Management

- Historically only resurfaced streets
- Milling, deep patching, paving



Time for a New Program

Resurfacing vs. Pavement Management

M&R Category	M&R Treatment	Expected Result	Current Lane Miles	Percent
Maintenance (PCI 85-100)	Crack Sealing	3-5 years	216.92	29%
	Roadway Spot Patching	1-3 years		
	Reclamite	5-years		
Preservation (PCI 70-84)	Microsurfacing	7-years	313.48	43%
	Slurry Seal	5-7 years		
Rehabilitation (PCI 31 - 69)	2-inch Mill and Fill or Overlay	15-years	190.3	26%
Reconstruction (PCI 0 - 30)	Full Depth Repair	20-years	7.85	1%
Total			728.55	

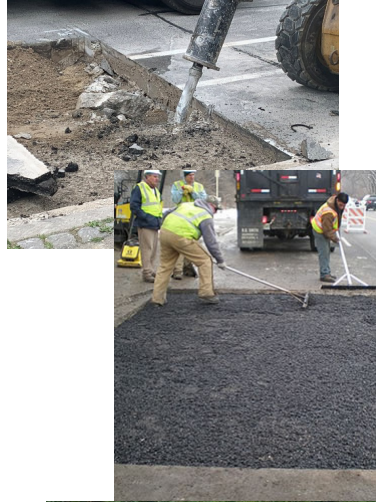
Time for a New Program

Why Maintenance?

- Crack Sealing
- Spot patching



Annual Maintenance of City Roads



Road Repair
Utility Cut Repair
Street Sweeping
ROW Mowing
Pothole repair
Equipment



Annual Maintenance of City Roads



Curb/gutters
Sidewalk
ADA improvements
Traffic Calming
Traffic Striping
Traffic Signals



City Roads – Maintenance Techniques

Roadway Cross-Section:

Crack Seal – cracks within top layer

Slurry Seal – Top layer

Micro-surfacing – Top layer

Resurfacing – Top 2+ layers
(2-inch depth typ.)

Reconstruction – Top 4+ layers



Pavement
preservation

Surface
course

Binder
course

Base

Treated
subgrade

Additional Preservation Techniques: Crack Sealing/Filling

Crack sealing is a method in which hot sealant is applied to working cracks to prevent water intrusion. Typically the roadway crack is > 0.1 inches.

Before



After



Greenville
NORTH CAROLINA

Find yourself in good company®

Additional Preservation Techniques: Crack Sealing/Filling

Crack sealing will extend the life of a road 3 to 5+ years depending on conditions associated with the roadway.



Road resurfacing currently costs \$175k- \$200k per lane mile - adding 5 years is worth \$50k per lane mile (\$10k per year) based on 20 year roadway life.

Crack Sealing – Preventative Treatment



Can be used in conjunction with a slurry seal type of application that will provide additional protection to the roadway surface.

Life Cycle Benefit of Interim Treatments

Crack Sealing – Cost of \$2k-3k per day. Volume of crack sealing is location specific - 2,000 linear feet/day. Estimated cost = \$5k - \$10k lane mile



Spending \$350k annually can provide \$1M+ in return by extending life of a road 3+ years.

Time for a New Program



Why Preservation?

- Microsurfacing
- Slurry seal



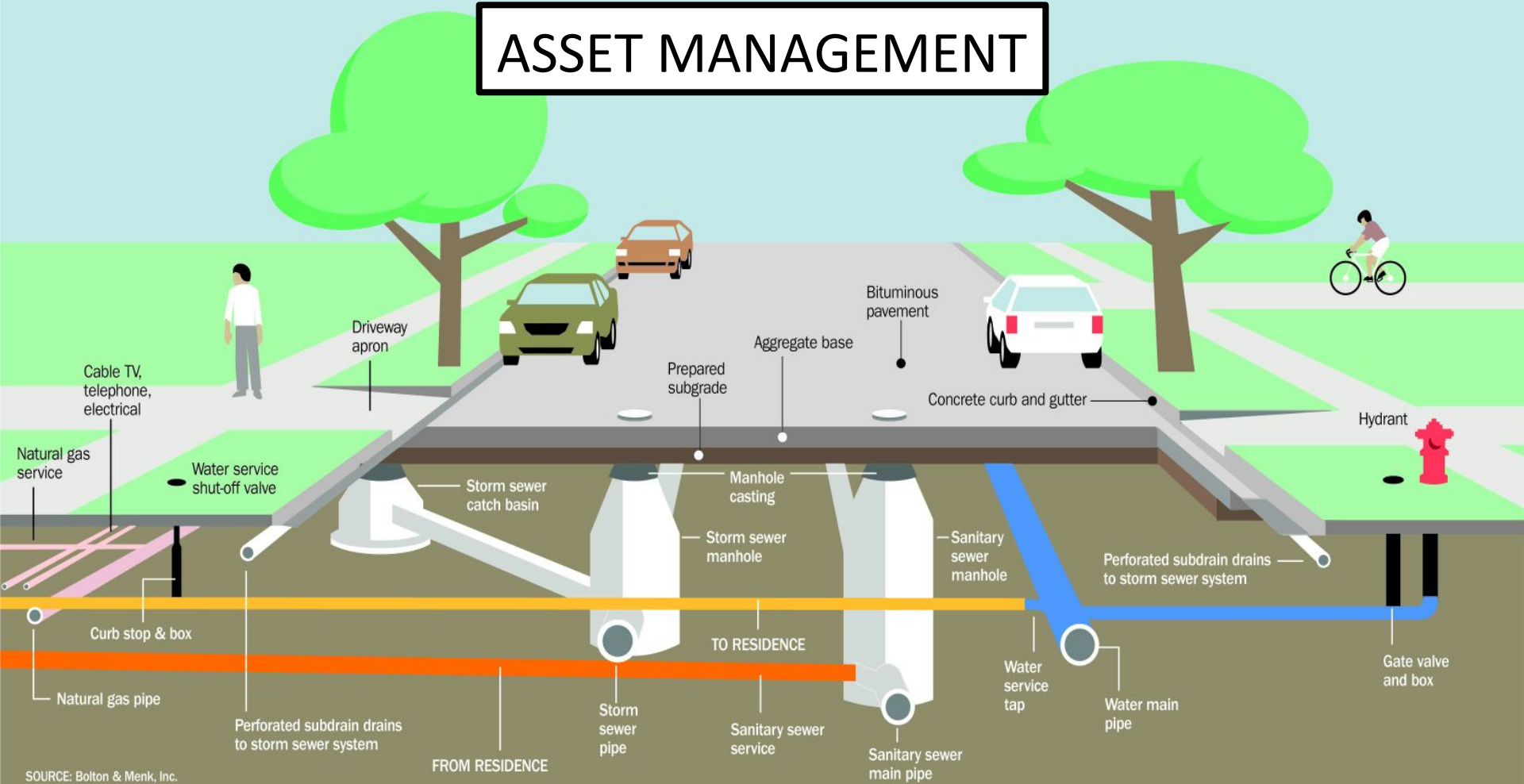
Time for a New Program

Why Rehabilitation?

- Milling
- Resurfacing



ASSET MANAGEMENT



SOURCE: Bolton & Menk, Inc.

Time for a New Program

Asset Management Development Timelines

Maintenance

- Development – 5-6 months

Preservation

- Development – 10-12 months
- Advertisement & Contract Award - 3 months

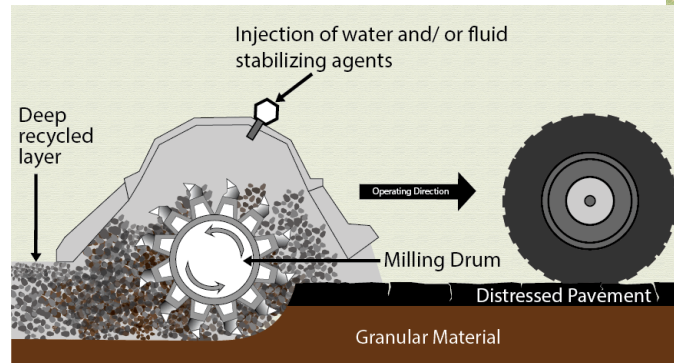
Rehabilitation

- Development – 12+ months
- Advertisement & Contract Award - 3 months

Time for a New Program

Why Reconstruction?

- Excavation and replacement
- Full Depth Reclamation



Time for a New Program

Implementation Considerations

- Sources of funding
- Levels of funding
- Approach to accomplish the work



Time for a New Program

- Quality Infrastructure
 - Affects private development
 - Impacts quality of life
- Pavement Management Program
 - No PMP currently – only resurfacing
 - Invest in resources
 - Broaden treatment options

Comments

Or

Questions



Find yourself in good company®

Item 2

Presentation of Upcoming Stormwater Regulatory Changes



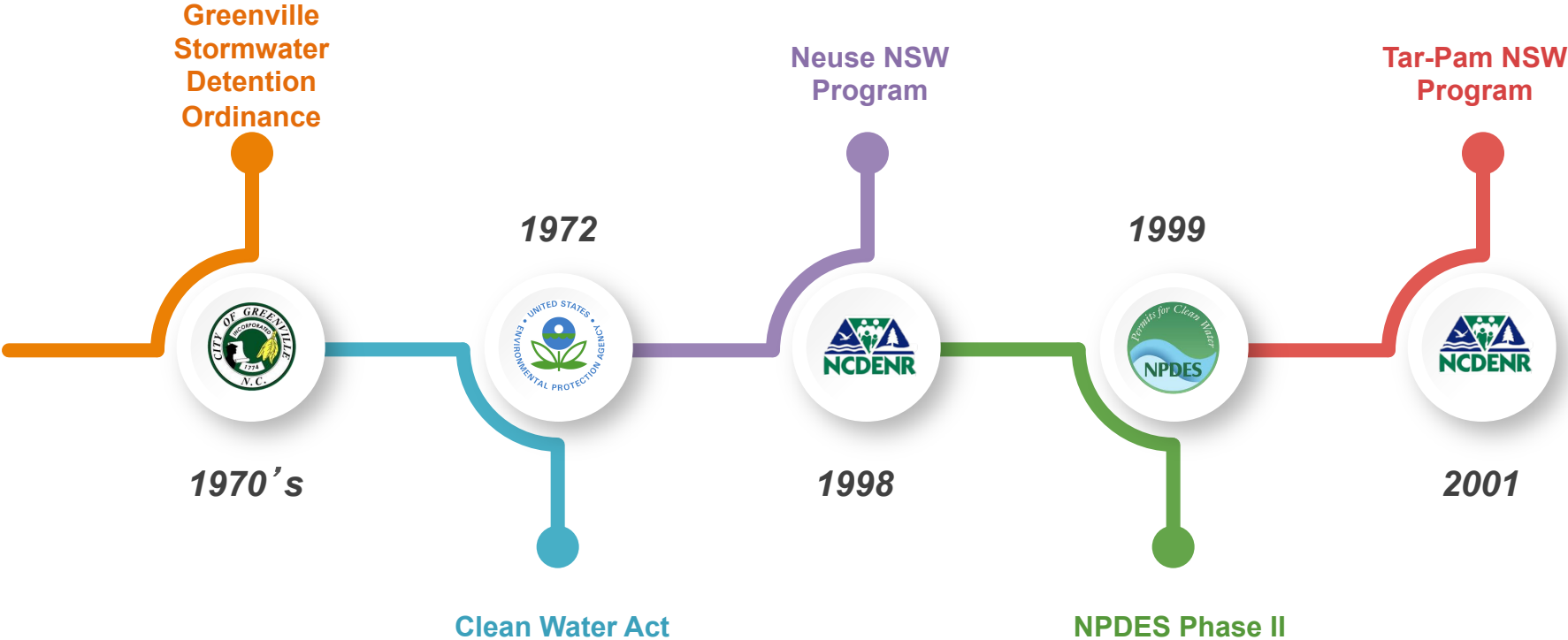
Find yourself in good company®

Item #2: Upcoming Stormwater Regulatory Changes

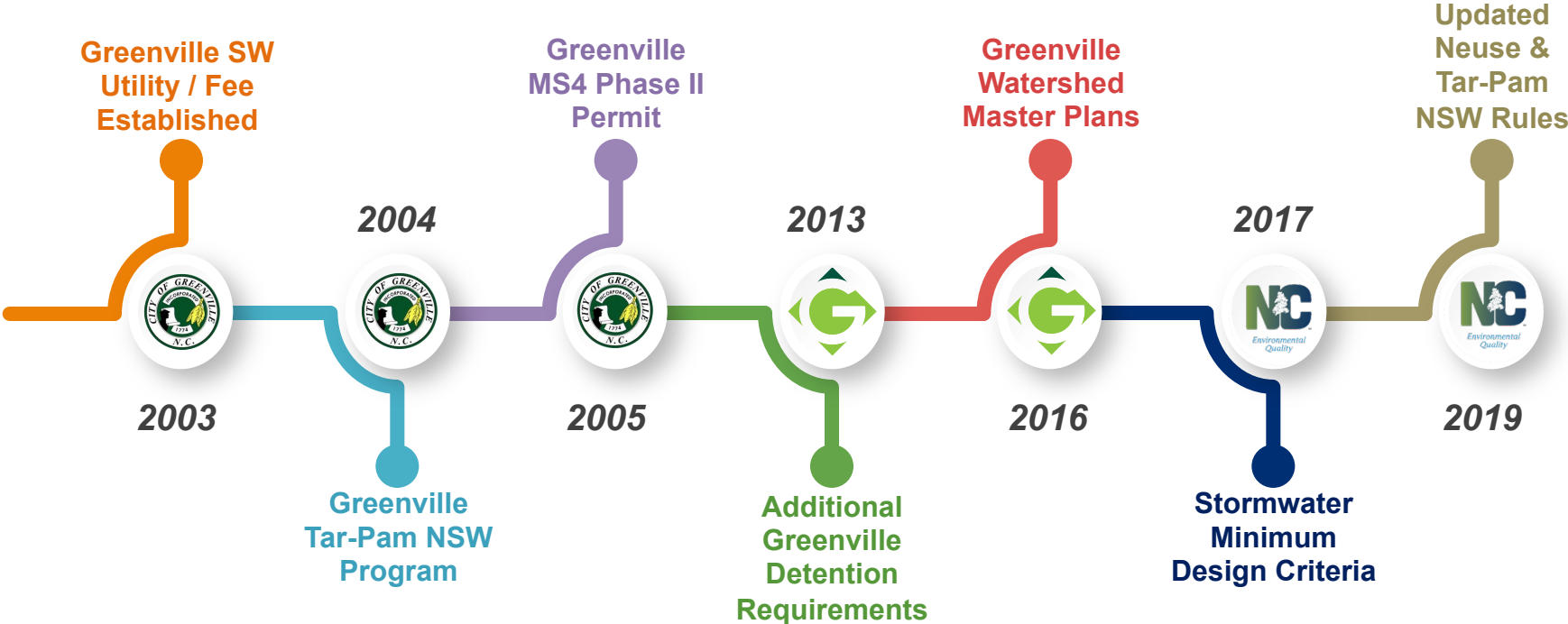


Find yourself in good company®

History of SW Regulations



History of SW Regulations



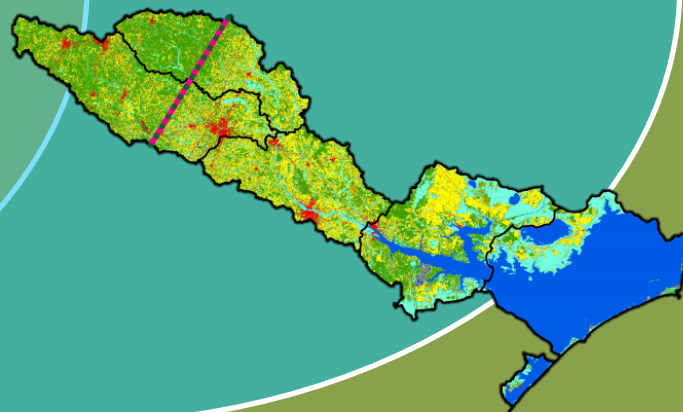
Current SW Regulations

MS4 Phase II

- Construction Runoff
- Public Involvement
- Good Housekeeping

Tar-Pam NSW

- SCMs
- Public Education
- Illicit Discharge Elimination
- Annual Reporting
- Nutrient Mitigation
 - Riparian Buffers






MS4 Phase II Audit

December 3-5, 2019 covering:

- Development review
- Inspections
- Illicit discharge enforcement
- Public education and outreach, and
- Municipal facilities/operations.

Also included audit of Tar-Pam NSW program

City of Greenville 2nd Notice of Compliance in the state.

Notice of Compliance (NOC)	Notice of Deficiency (NOD)	Notice of Violation (NOV)
 <p>Got my ducks in a row image by Redbubble</p>		 <p>image by drawception.com</p>
Qty: 5 COG	Qty: 5	Qty: 36

Required Changes

Current State Requirements	Required Changes
MS4 Phase II & Tar-Pam	MS4 Phase II, Tar-Pam, & Neuse
Nitrogen & Phosphorus Limits Tar-Pam = 4.0lbs/ac/yr N = 0.4lbs/ac/yr P	Tar-Pam = 4.0lbs/ac/yr N = 0.4lbs/ac/yr P Neuse = 3.6lbs/ac/yr N
Peak flow control 1yr storm	No flow requirements
2007 BMP Manual	Minimum Design Criteria
MS4 Permit only subject to public comment	MS4 Permit & SWMP subject to national public comment



Required Changes

Current State Requirements	Required Changes
Nitrogen threshold requires <u>S</u> tormwater <u>C</u> ontrol <u>M</u> easure	>24% Impervious requires Primary SCM
Offset payment allowed for redevelopment	>24% Impervious requires Primary SCM
Redevelopment District Exempt from Tar-Pam	No Redevelopment District Exemption

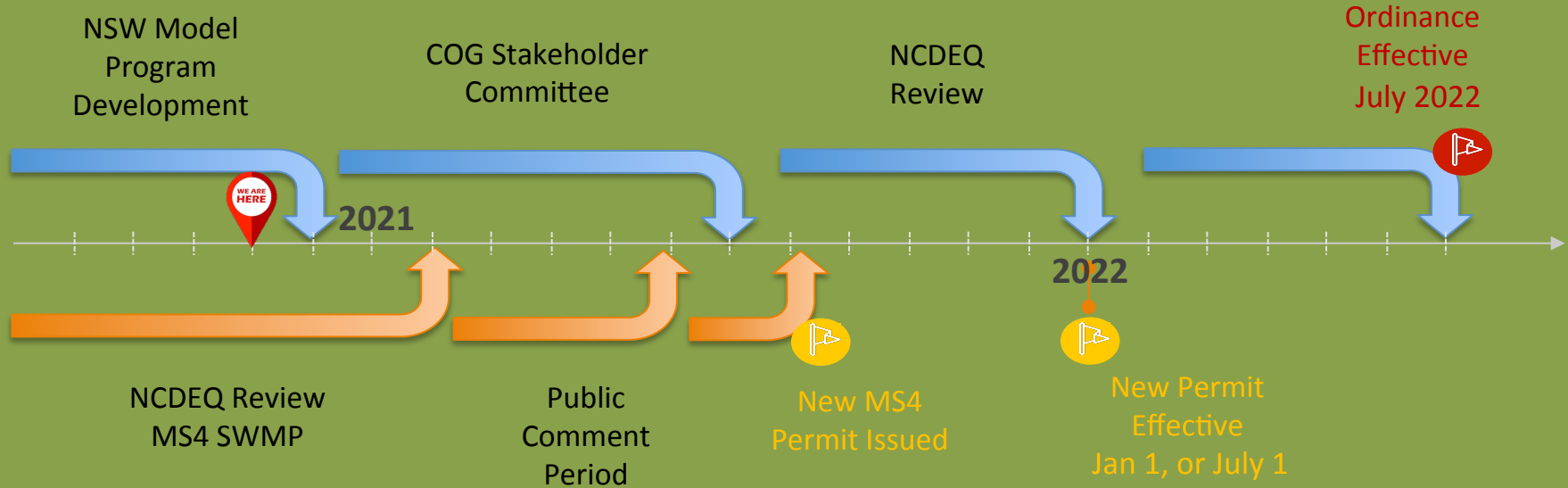


New Local Optional Changes

Current Local Requirements	Optional Changes
Offset payments to private banks	City-owned Nutrient Offset Bank
25yr detention in certain areas	25yr detention city-wide
On-site detention controls	Add fee-in-lieu option
Detention-only controls not inspected annually	Annual inspection of all control facilities



Timeline for Changes



Stakeholder Committee

Developers, Engineers, and Others
Council Liaison

Objectives:

- 1.Satisfy state and federal requirements
- 2.Review existing City ordinances & policies
- 3.Recommend changes to ordinances & policies

Commitment: January 2021 – June 2021

- Meetings (every 2 weeks for 6 months)



Find yourself in good company®

Item 3

African-American Cultural Trail Development



Greenville
NORTH CAROLINA

Find yourself in good company®

Greenville-Pitt County African American Cultural Trail



The creation of an African American Cultural Trail will serve several purposes for the Greenville-Pitt County community

- Community amenity-The AACT would benefit a wide variety of local interests
- Diversification-AACT would add to and diversify cultural offerings within our destination
- Economic initiative-Enhance leisure travel and support other markets
- Placemaking/Storytelling-Convey the many contributions of the people who lived, worked, and played in Greenville's African American Community

African American Cultural Trail



- 1 The Sycamore Hill Baptist Church
- 2 Town Common- History & Stories pre-Urban Renewal
- 3 Early Black Health Professionals & Buildings
- 4 Early Black Businesses - "The Block"
- 5 The Roxy Theater
- 6 Eppes Heritage Site
- 7 Early Black Churches
- 8 Agricultural / Early Landowners

Current initial plan includes both brick and mortar and audio stops

Stop 1-Sycamore Hill Gateway Plaza (Launching point of the trail)

Stop 2-Greenville Town Common-Pre Urban Renewal (Audio)



Stop 3-Uptown District highlighting early black health professionals (Audio stop)

Stop 4-The Block Highlighting early black businesses

Stop 5-The Roxy Theater



Stop 6- Eppes Heritage Site

Stop 7-Early Black Churches
(York AME Zion, Cornerstone, St.
Andrews)

Stop 8-Early Black Landowners*

*AACT Committee is working to pinpoint
the exact locations of where these lands
were north of the Tar River

-Carver Library recently identified



The AACT is respectfully requesting that the City of Greenville provide 10K in funding to assist in purchasing a subscription of Visit App to market and cross promote the trail.

Major Features:

- One touch social sharing
- GPS turn by turn sharing
- Audio
- Trail itinerary builder
- Simpleview CRM Integration

9:41



9:41



9:41



9:41



Breweries



< Passp...

Passport



Current Level

-

Next Level

Region Ale E

Total Check Ins

0

Total Required

7



Windmill Brewing >



Three Floyds Brewing Co. & Brew Pub >



Malt Brothers @ 95ate5 >



18th Street Brewery - Hammond Location >



Byway Brewing >



New Oberpfalz Brewing >



Bulldog Brewing Company >



Wildrose Brewing Company >

Beers



Messages



🍷🍷 Munster Ale Fest is less than a week away! 🍷🍷 Mon

The 3rd Annual Wildrose Chili Cook Off is this Sunday! Oct 4

October is here! Munster Ale Fest is right around the corner! Oct 1

🔴 It's National Drink Beer Day! Sep 28

Have you been to the South Shore's newest brewery? Sep 25

Location change for Portage Brewfest & Taco Test... Sep 20

🔴 Only one week until Portage Brewfest & Taco Test! Sep 14

Celebrate Oktoberfest at Byway Brewing tomorrow! Sep 13

🍷🍷 Crown Brewing's Pumpkin Fest is Saturday! 🍷🍷 Sep 12

Saturday is looking like a beautiful day for the Beer, Bacon & Bourbon Festival at... Sep 11



Breweries



Beers



Messages



Events



More



Breweries



Beers



Messages



Events



More



Breweries



Beers



Messages



Events



More



Breweries



Beers



Messages



Events



More



Greenville
NORTH CAROLINA

**GREENVILLE-PITT COUNTY
CONVENTION & VISITORS BUREAU**

Find yourself in good company[®]

City Council Workshop

November 9, 2020



Greenville
NORTH CAROLINA

Find yourself in good company®