

# The Future of Mitigation in Charlotte



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# Presentation Outline

1. Bank History
2. Bank Overview
3. Bank Projects
4. Future Credit Projection
5. Future Opportunities



# Umbrella Bank History

- 1993: Charlotte-Mecklenburg Storm Water Services created
- 1997: Wetland Restoration Program (WRP) created
- 1997: Charlotte gets jealous and decides to start own bank
- June 16, 2004: City of Charlotte Umbrella Stream and Wetland Mitigation Bank established
- First two (2) projects accepted for inclusion in the Umbrella Bank were Edwards Branch and Dairy Branch projects
- As of today, six (6) projects accepted for inclusion in the Umbrella Bank scheduled to provide 38,171 linear feet of stream and 6.4 acres of wetland credit

# The Umbrella Bank

1. Eliminates project delays due to mitigation requirements
2. Keeps mitigation dollars in Charlotte
3. Allows maximum flexibility in the use of credits
4. Places project success in the hands of project managers with experience in stream and wetland design, construction and maintenance
5. Helps City meet larger water quality goals in targeted watersheds
6. Results in large-scale, watershed-based projects that exceed the benefits of small scale, fragmented, on-site mitigation efforts
7. Provides water quality benefits in advance of impacts

# Pros and Cons of a Municipal Bank

- Pros

- Allows City to target watersheds in need
- Keeps mitigation dollars in Mecklenburg County
- Can sell credits at cost
- Power of condemnation

- Cons

- Process and accountability (read: bureaucracy)
- Limited service area within HUCs
- Political challenges
- Power of condemnation

# Use of Bank

The Umbrella Bank is intended to provide mitigation for City of Charlotte and Mecklenburg County public projects located within the jurisdictional limits of Mecklenburg County



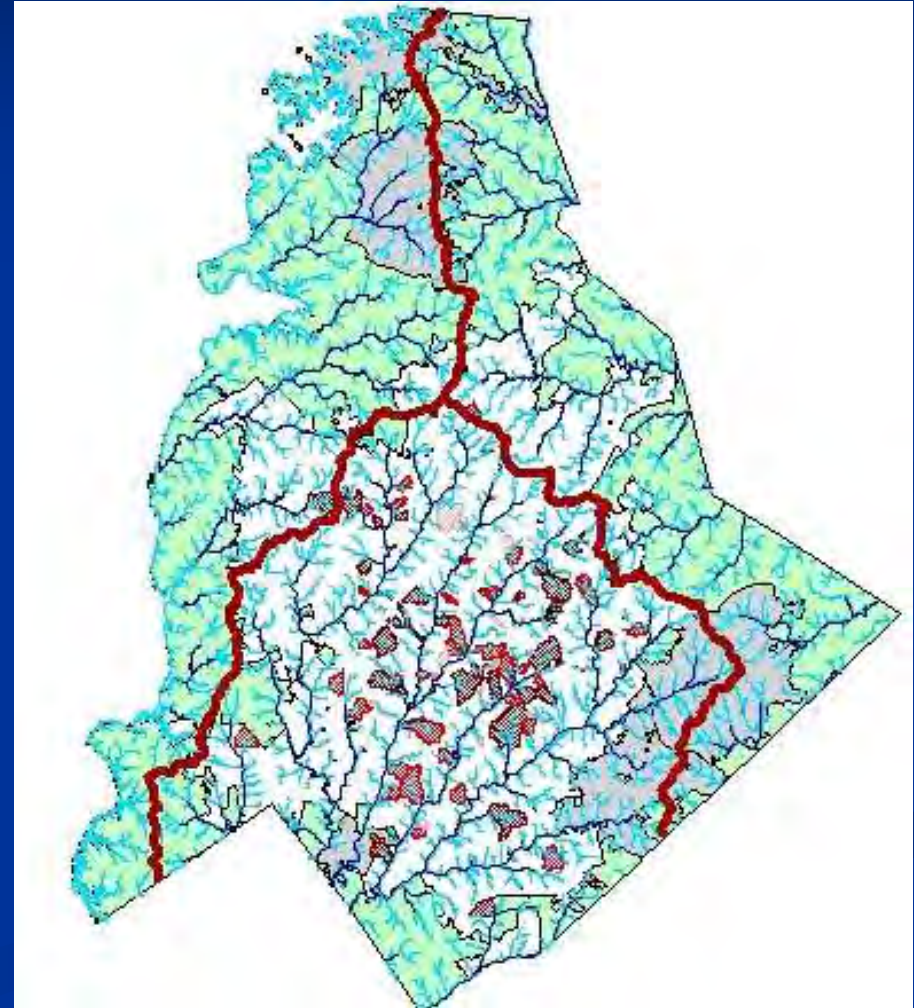
# Geographical Service Area

The Umbrella Bank can only provide compensatory mitigation for impacts to aquatic resources in the following Hydrologic Units:

Catawba 01

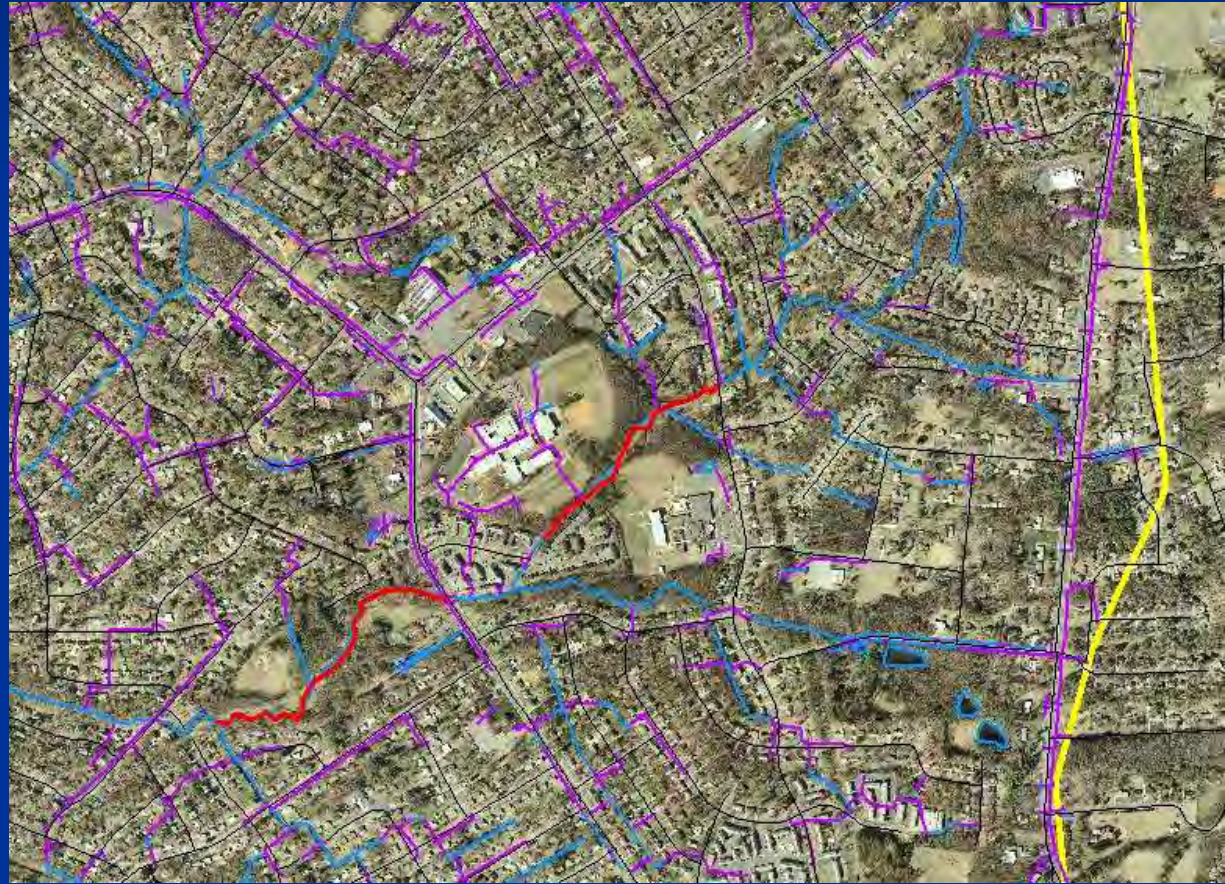
Catawba 03

Yadkin 05

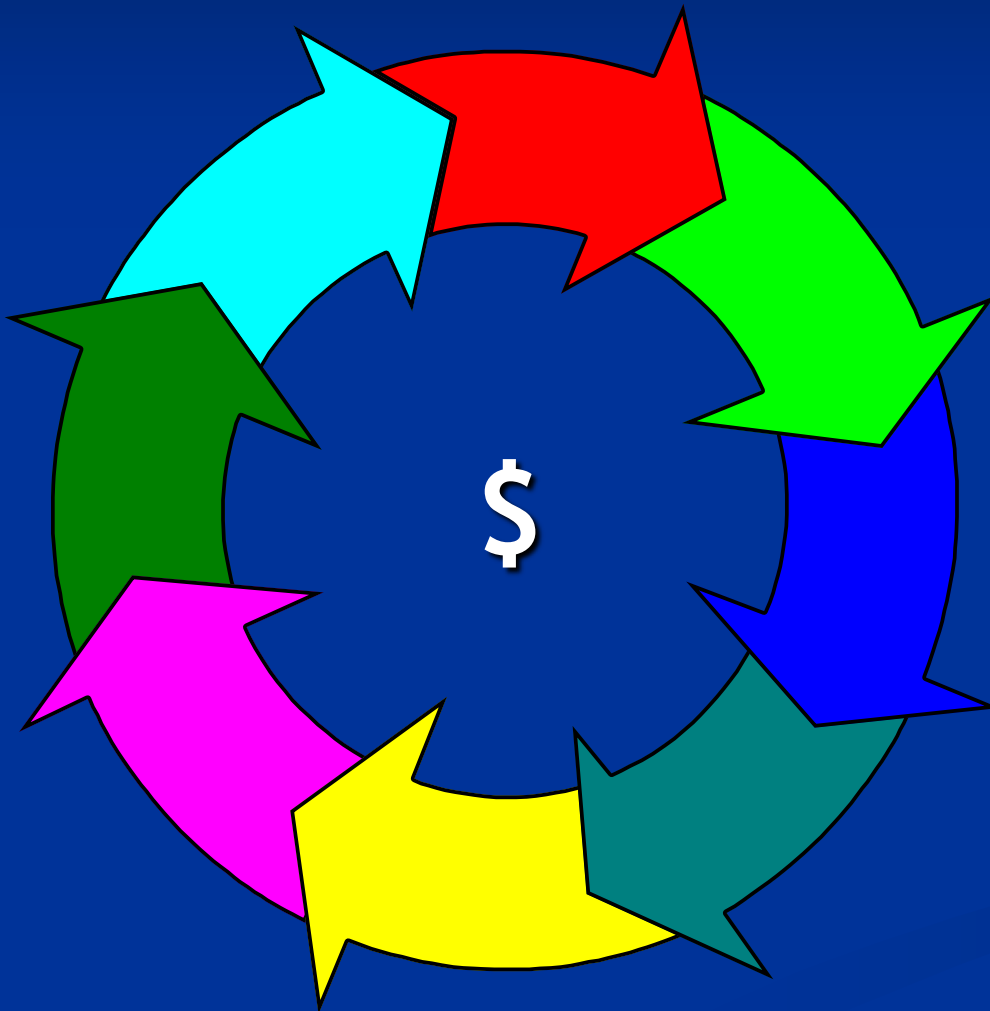


# Getting Personal

- In urban areas, the watershed approach mandates work on small, private properties
- Increases costs considerably



# City and County Public Projects



# Stream Credit Costs

Mitigation Credits cost CMSWS approximately \$450 per credit/linear foot to plan, design, construct, monitor and maintain.

Mitigation Credits are sold at cost.

Current EEP Rate (Urban) = \$344



# Wetland Credits Costs

The Umbrella Bank does not currently maintain a balance of saleable wetland credits.

Future planning efforts will focus on wetland restoration and creation.

The current EEP rate for riparian wetlands is \$63,414 per acre.



# Mitigation Bank Projects

IRT Approved Projects	Stream	Wetland
Edwards Branch	11,292	0.20
Dairy and Sedgefield Park Branch	5,350	0.00
Muddy Creek and Eastland Branch	6,992	2.90
Briar Creek: Randolph to Providence	1,805	0.00
McAlpine Creek: Sardis to Providence	4,753	0.72
Torrence Creek and Torrence Creek Trib #2	7,979	2.58
<b>TOTAL</b>	<b>38,171</b>	<b>6.4</b>

# Non-bank Mitigation Projects

404/401 Approved Projects	Stream	Wetland
Sedgefield Park	651	0.00
Hope Park Branch	3,551	0.00
Douglas Branch	3,266	0.00
Nightingale	1,525	0.00*
Hidden Valley	680	0.00*
Dale Avenue	585	0.00
Edsel Place	2,750	0.00
<b>TOTAL</b>	<b>13,008</b>	<b>0.00</b>

# Projects in Planning/Design

Project	Stream Credit	Wetland Credit
<b>03050101 - Upper Catawba</b>		
Allenbrook Tributary	2000	0.00
Coulwood Branch	3000	0.20
Huntersville Business Park	10000	0.00
Monteith Park	3000	0.00
<b>03050103 - Lower Catawba</b>		
Brentwood CIP	3000	0.00
Briar Creek – Cavalier	2000	0.00
City View	2000	0.00
Coliseum Creek	3000	0.00
Collins Park Branch	1500	0.00
Glassy Creek	3000	0.00
Hackers Branch	3000	0.00
Lakewood	3000	0.00
Morningside	1850	0.00
Robinhood	3000	0.00
Taggart Creek	15000	0.00
<b>03040105 - Rocky</b>		
Meridale	3000	7.00
Newell	4000	0.00
<b>TOTAL</b>	<b>65250</b>	<b>7.20</b>

# 2020 Predictions

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Basin (8-digit HUC)	Stream (feet)	Wetland (acres)
Upper Catawba	25,979	2.78
Lower Catawba	83,550	4.02
Rocky (Yadkin)	7,000	7.00
<b>Totals</b>	<b>116,529</b>	<b>13.80</b>

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# 2020 Predictions

- Total stream credits sold since 2004 = 13,204
- Average stream credit sales per year = 1,886
- Predicted stream credit surplus by 2020 = 71,457
- Enough credits to last until 2058

# Options

- Stop funding projects and close bank after 2020
  - Leaves mitigation in the hands of EEP, private sector and resource agencies
  - Likely reduces benefits to Mecklenburg County
- Modify MBI to allow sales to general public
  - Allows bank to meet needs of local communities
  - Keeps mitigation dollars in Mecklenburg County
  - Allows the City to target specific watersheds

# Future Mitigation Projects

Projects identified by Stream Restoration Ranking Protocol, opportunities in Flood Control Capital projects, targeted watershed improvement plans and other known opportunities.

Many projects will be sited on public parcels

- Parks
- Schools
- Other public parcels

Other projects will be sited on private parcels

- Single-family residential
- Multi-family residential
- Commercial
- Industrial



**Success of future mitigation projects and long-term sustainability will rely on partnerships and cooperation between CMSWS and landowners**

# The Future of Charlotte's Program

- Build as many projects as funding allows
- Continue working on process improvement to make projects more cost-effective
- Continue targeting watersheds based on mitigation needs and larger water quality goals
- Continue to work with regulators and the mitigation community on best practices
- Continue to work with practitioners and the academic community to solve technical problems associated with urban stream restoration and recovery
- Continue partnering with consultants, landowners and mitigation bankers to implement cost-effective projects that benefit all parties

A photograph of a residential area with a stream, trees, and houses. The word "Questions?" is overlaid in large white text. The scene shows a narrow stream flowing through a yard with many bare trees. In the background, there are houses, including a prominent red brick one. The ground is covered in dry leaves and grass. The sky is clear and blue.

Questions?