

Empowering Communities: The RainSmart Initiative

City of Chattanooga
WaterWays



WaterWays
clean water • healthy communities

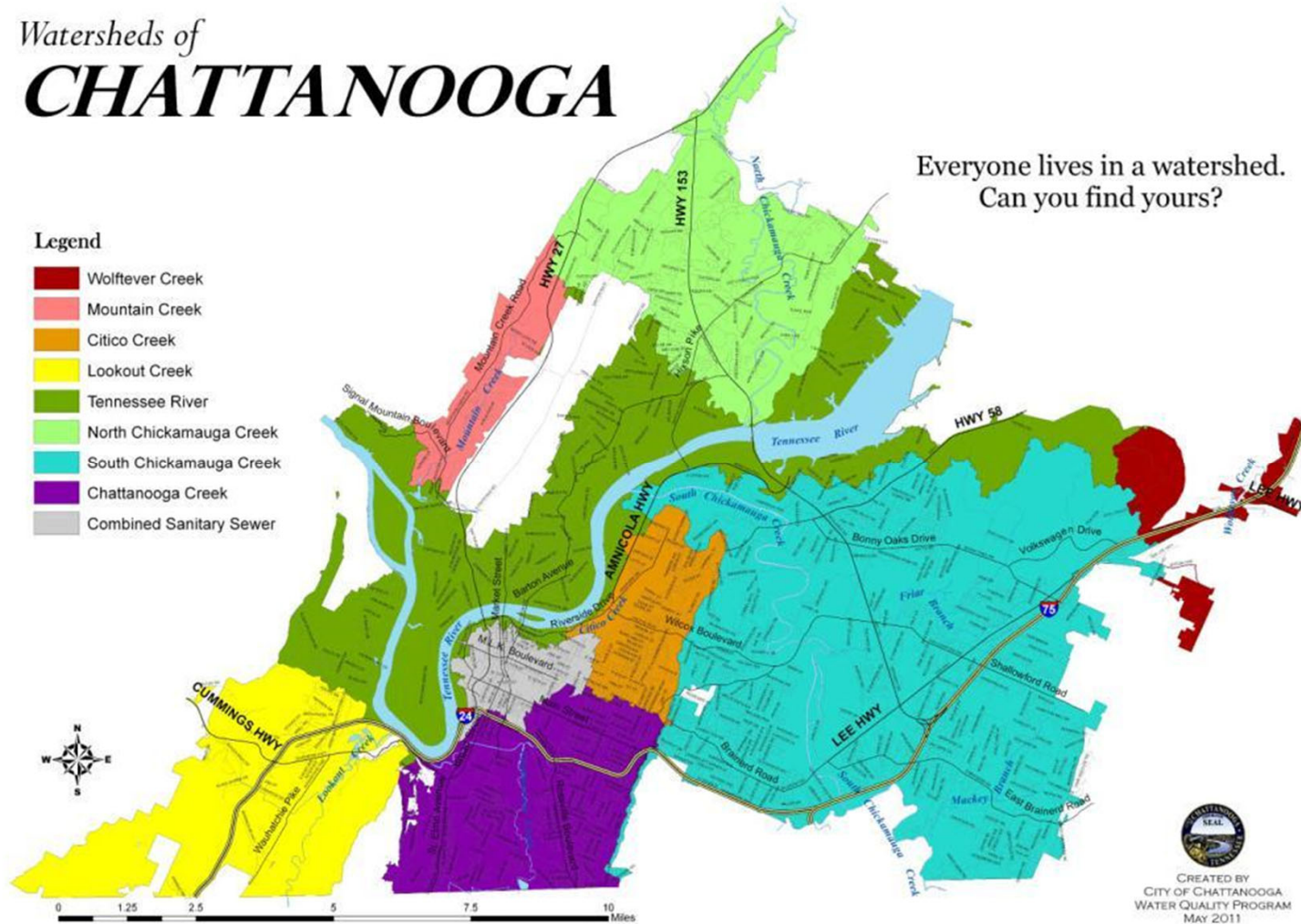


- The City of Chattanooga has eight watersheds and one area referred to as the combined sewer area
 - All eight watersheds in the Chattanooga drainage area flow into the Tennessee River, which flows through the heart of downtown.
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Watersheds of *CHATTANOOGA*

Legend

- Wolftever Creek
- Mountain Creek
- Citico Creek
- Lookout Creek
- Tennessee River
- North Chickamauga Creek
- South Chickamauga Creek
- Chattanooga Creek
- Combined Sanitary Sewer

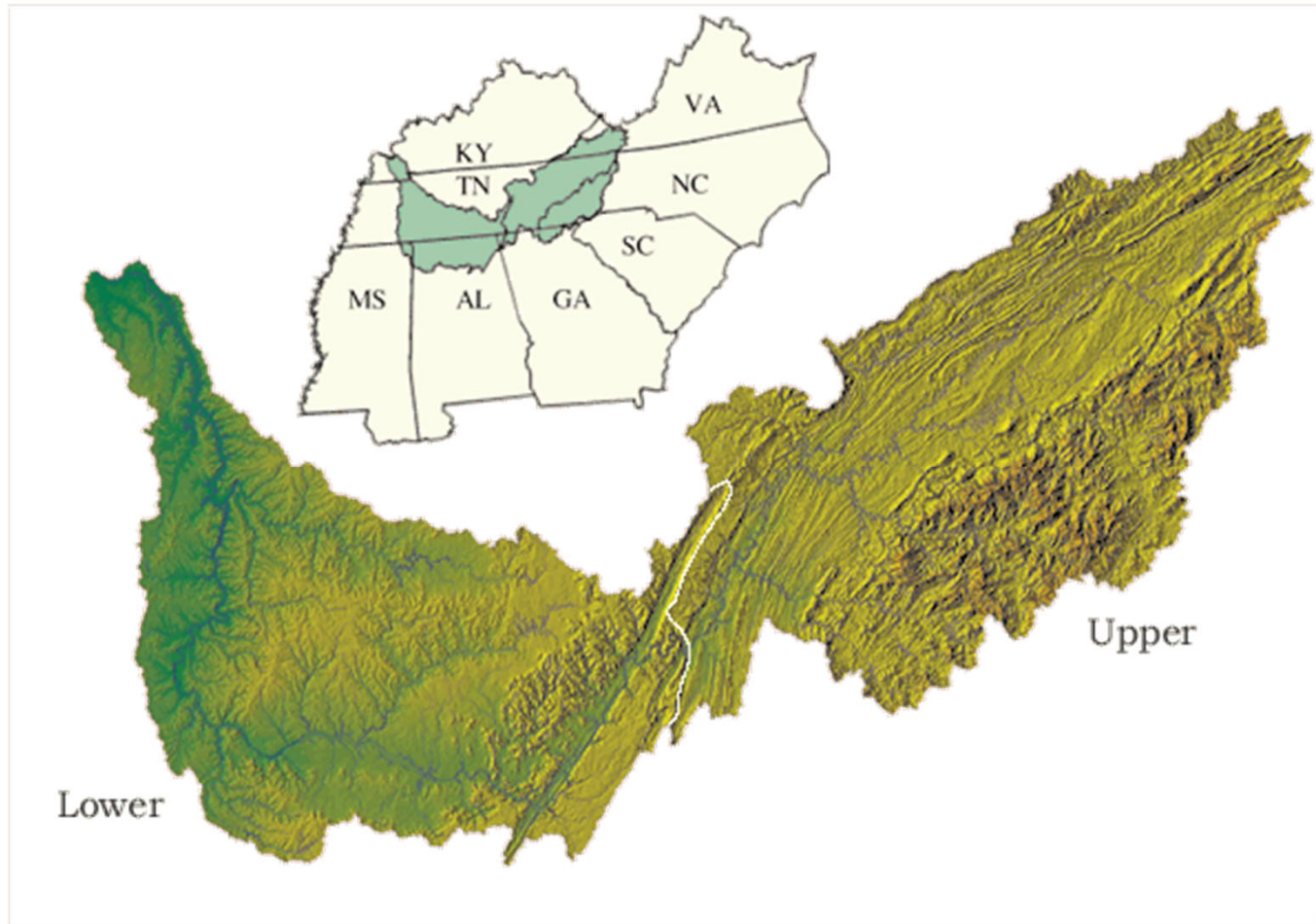



 CREATED BY
 CITY OF CHATTANOOGA
 WATER QUALITY PROGRAM
 MAY 2011

The eight Chattanooga area drainages are:

- Wolftever Creek
- Mountain Creek
- Citico Creek
- Lookout Creek
- Tennessee River
- North Chickamauga Creek
- South Chickamauga Creek
- Chattanooga Creek

Tennessee River Watershed



What is The City's Stormwater Division?



- We deal with natural water bodies and stormwater runoff.
- Our mission is to protect the water quality in the City of Chattanooga while achieving 100% compliance with federal and state clean water laws.



GRAY VS. GREEN INFRASTRUCTURE

Gray infrastructure directs stormwater somewhere else.
Examples: storm sewer systems and water treatment plants.

Green infrastructure keeps rain where it falls, allowing it to soak into the ground.
Examples: rain gardens, bioswales, and green roofs.



Replicating nature / Green infrastructure

- Plants, roots and soils vs. concrete and pipes
- Positively affects air and water quality, city temperatures, aesthetics
- Different maintenance methods could create more jobs
- Zoom out - takes in environment as a whole, uses stormwater as a resource working with the land



● *Bioretention basin at John A. Patten Rec Center*

Native plants and Green Infrastructure in Chattanooga



Bioretention, Renaissance Park



Bioretention, Warner Park

Let's Talk About



RainSmart



- City of Chattanooga Stormwater Resources residential incentive program
- Goals are: education + incentive
- RainSmart satisfies these parameters of the NPDES Permit: SATISFIES THESE PARAMETERS OF THE NPDES PERMIT:
 - Reduce Runoff
 - Watershed Protection
 - Public Outreach and Involvement
- Free assessment of stormwater issues & reimbursement for using RainSmart best practices
- Rain gardens, SupportScape (native plantings), & rain barrels

Rain Garden

Green infrastructure systems designed to capture and infiltrate runoff from rooftops using amended soils and native plants.

- RG size estimated based on impervious surface area
- Reimbursement for size/volume + materials + contracted labor

Reimbursement up to \$1000/property

Workshop option = community educational programming in partnership with Waterways



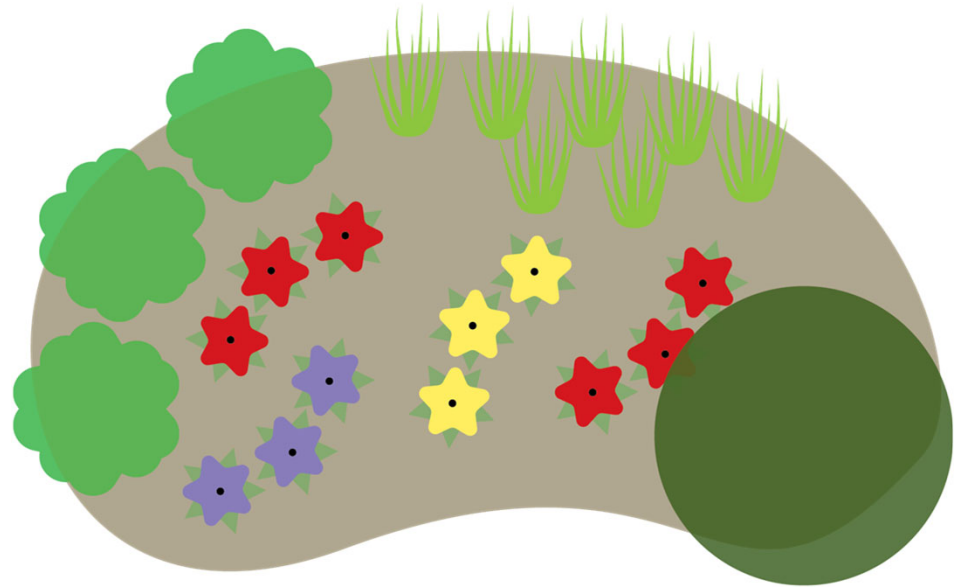
14,564 gallons captured per 1" rain event by RainSmart Rain Gardens (so far)

SupportScapes

Intentional planting of native plant species to mimic stormwater mitigation that naturally occurs in meadows, forests, and other ecosystems.

- Dense planting of 10+ native species
- Reimbursement of 75% of rebate eligible costs - native plants, compost, and mulch

Reimbursement up to \$500/property



Rain Barrels

Installation of rain barrels to collect stormwater runoff from impervious surfaces (roof, driveway, etc.)

**Reimbursement of \$50 per barrel,
up to 10 barrels or \$500/property**

Annual Rain Barrel Distribution Day

Participants receive 2 barrels at a subsidized price (\$39-\$49/barrel) per household



Let's Talk About



RainSmart Yards

FREE program!

In person survey + sustainable yard advice for stormwater management.

Plant identification, yard walk, fun conversation!

If awarded: “RainSmart” yard sign!

Summary report listing achievements and “next steps” for your yard.

The more yards incorporating these practices = reductions in stormwater runoff and sewer overflows





City resident incentives— \$\$\$\$!

City of Chattanooga residents:

Annual water quality fee discount:

- Bronze = 25% off
- Silver = 50% off
- Gold = 75% off

Water quality fee was ~\$183 in 2023

RainSmart reimbursement program

RSY Criteria	Yes	No	N/A		Yes	No	N/A	
Located within City limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All toxic substances recycled or disposed of properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Recommendations
All downspouts exit on property/garden?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Swimming pool backwash & drainage buffered?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Invasive species present?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pet waste disposed of or buffered 30 ft?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are they being actively controlled?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Septic system working properly/not leaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Additional Comments
Are they being actively eradicated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yards on a waterway; is there a buffer of native plants?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Native plants incorporated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Buffer zone at least 5 ft?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Spring pollinator species	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Rain garden or other green infrastructure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Award Status
				Rain barrels/rain collection systems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Fall pollinator species	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Environmentally safe sealers used on paved surfaces?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				Best management practices implemented for erosion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	★ ★ Bronze ★ ★
Summer pollinator species	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fertilizers used?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25% off Water Quality Fee!
				if yes, is soil pH tested?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	★ ★ Silver ★ ★
				Native trees planted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	50% off Water Quality Fee!
Pesticides or herbicides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Natural/organic fertilizers only?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	★★★★ Gold ★★★★★
Sprinklers used responsibly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Extra green infrastructure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	75% off Water Quality Fee!
Lawn mowed no shorter than 3 inches?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	100% of stormwater contained?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	💧 Honorable Mention 💧
Grass clippings/leaves left in place or composted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					follow our recommendations and re-survey!
Mulch without added dyes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					Surveyor: _____
All trash properly disposed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					Date: _____

Collaboration



Challenges of Collaboration

Collaboration



Litter boom - Chattanooga Creek



J22-026 Data Summary Chattanooga Litter Boom

Litter Boom Chattanooga Creek_St. Elmo Ave	Amount - Recycle		Amount - Dispose		Amount - Total		Debris Lbs.
	Lbs.	cf	Lbs.	cf	Lbs.	cf	
Jun-23	43.57	29.00	379.74	68.00	423.31	97.00	242.03
2023 / Q2 Total	43.57	29.00	379.74	68.00	423.31	97.00	242.03
Site Total	43.57	29.00	379.74	68.00	423.31	97.00	242.03
Totals to date	43.57	29.00	379.74	68.00	423.31	97.00	242.03

Debris - Things other than floating litter that are caught by the Litter Boom - these numbers are not included in the overall total to date

Rain Garden Workshop



11-12-23

1:00 - 3:30pm

Learn to build your own RainSmart-approved rain garden with this hands-on workshop in the East Lake Community! Lunch will be provided.

Visit our Eventbrite to register.



WILD WANDER: Plant Natives Weekend

Join WaterWays this weekend at Wild Wander!

Native Plant Sale and Expo

Saturday, April 13, 2024, 9 am - 2 pm
First Horizon Pavilion
1826 Reggie White Blvd.
Chattanooga, TN 37408
Free Event, Open to the Public

Rain Garden Workshop with WaterWays and the City of Chattanooga

Sunday, April 14, 2024, 11:30 am - 1:30 pm
Residence in St. Elmo
Free Event, Registration Required

Interpretive Wildflower Walk at Shirley Miller Wildflower Trail

With WaterWay's Executive Director, Mary Beth Sutton
Sunday, April 14, 2024, 2:30 pm - 4:00 pm
Registration Required

*Registration link in our bio





Conservation & Corks



An Evening of Wine & Environmental Engagement



Market : 5-7pm
Wine Tasting : 5:30pm
Nature Trivia : 7pm



Pop-up market with local vendors selling native plants, outdoor gear, raffles, food, and MORE!



50/50 Wine Bar
43 Station St,
Chattanooga, TN 37408

A portion of proceeds from 50/50 will benefit conservation in the Chattanooga Area!

September 18, 2024
5-9PM



Adopt-A-WaterWay: Sponsored by the City of Chattanooga

ADOPT-A-WATERWAY WITH WATERWAYS!

Improving water quality as a whole starts locally.

Adopt a section of stream near you today! This is a simple, free, and effective program for *any* group.

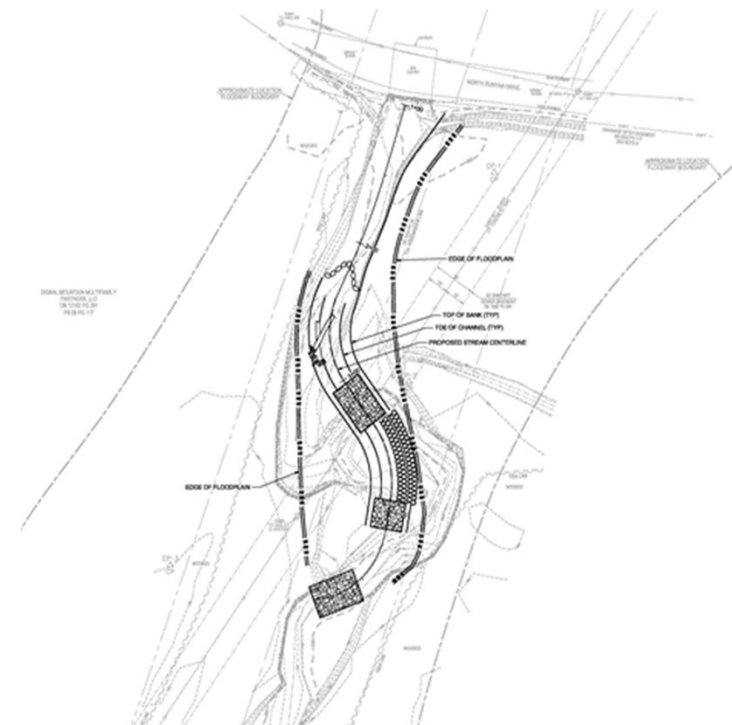
Help us keep our watersheds healthy for generations to come!



Current Projects: WaterWays x City of Chattanooga

319 grant + ARP funding for reducing streambank erosion in the Mountain Creek watershed

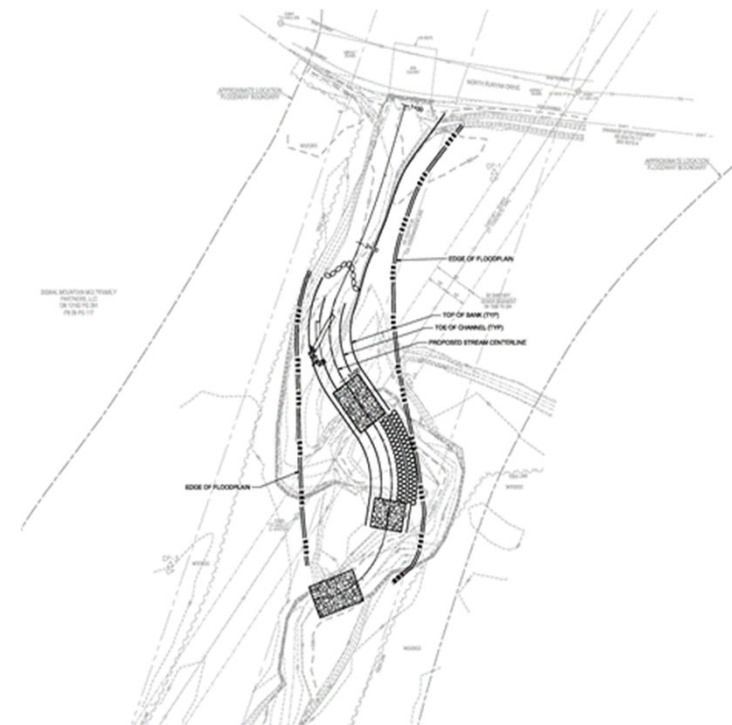
- Quail Hollow neighborhood and Red Bank High School campus
 - City of Chattanooga is providing hydraulic study and engineering design
 - WaterWays will implement! - RBHS engineering students will learn design and construction



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319 grant + ARP funding for reducing streambank erosion in the Mountain Creek watershed

- Quail Hollow neighborhood and Red Bank High School campus
 - City of Chattanooga is providing hydraulic study and engineering design
 - WaterWays will implement! - RBHS engineering students will learn design and construction
- Mountain Creek Church of Christ
 - City of Chattanooga is providing no-rise hydraulic study and permitting assistance
 - WaterWays will implement restoration projects!



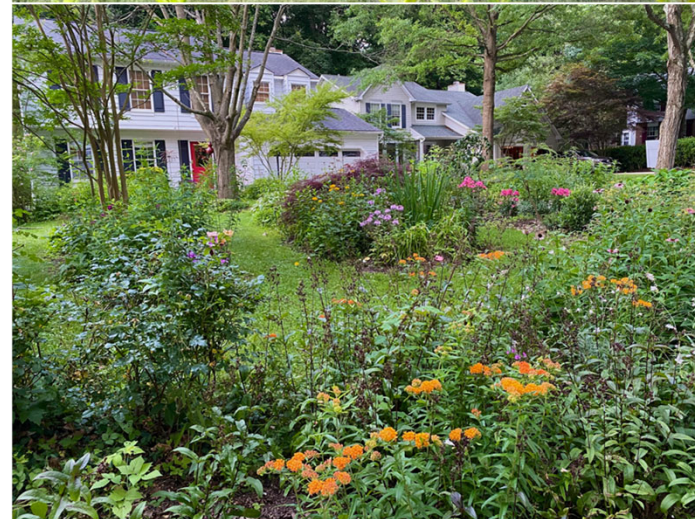
Challenges of Collaboration



A photograph of a well-maintained garden. In the foreground, a green lawn is bordered by a low wall of smooth, light-colored stones. To the left of the lawn, there is a dense cluster of pink flowers, possibly asters, and some yellow flowers. To the right, there is a large, dense bush of pink flowers, also likely asters, with some yellow flowers interspersed. The background shows more greenery and a hint of a residential area with a car visible in the distance.

If half of American lawns were replaced with native plants, we would create the equivalent of a 20 million acre national park, 9X bigger than Yellowstone, or 100X bigger than Shenandoah National Park

**CHATTANOOGA
NATIONAL
PARK CITY***





CHATTANOOGA NATIONAL PARK CITY*



CHATTANOOGA
PARK STEWARDS



Thank you!

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