



WATR: Looking Back & Moving Forward

everyone lives downstream.



Ken Brown - *outgoing Executive Director*
Katie Price - *incoming Executive Director*

December 5, 2024

Mission

To protect and enhance the health and quality of the Tuckasegee River and its watershed.

Recognizing the necessity of clean water and the value of the river to the whole community, WATR will encourage citizen involvement, awareness, and appreciation of the river and the watershed.

01

02

03

Monitor

WATR samples water quality year-round and is the front line defense for watershed alerts and abuses - essential for effective stewardship and conservation.

Restore

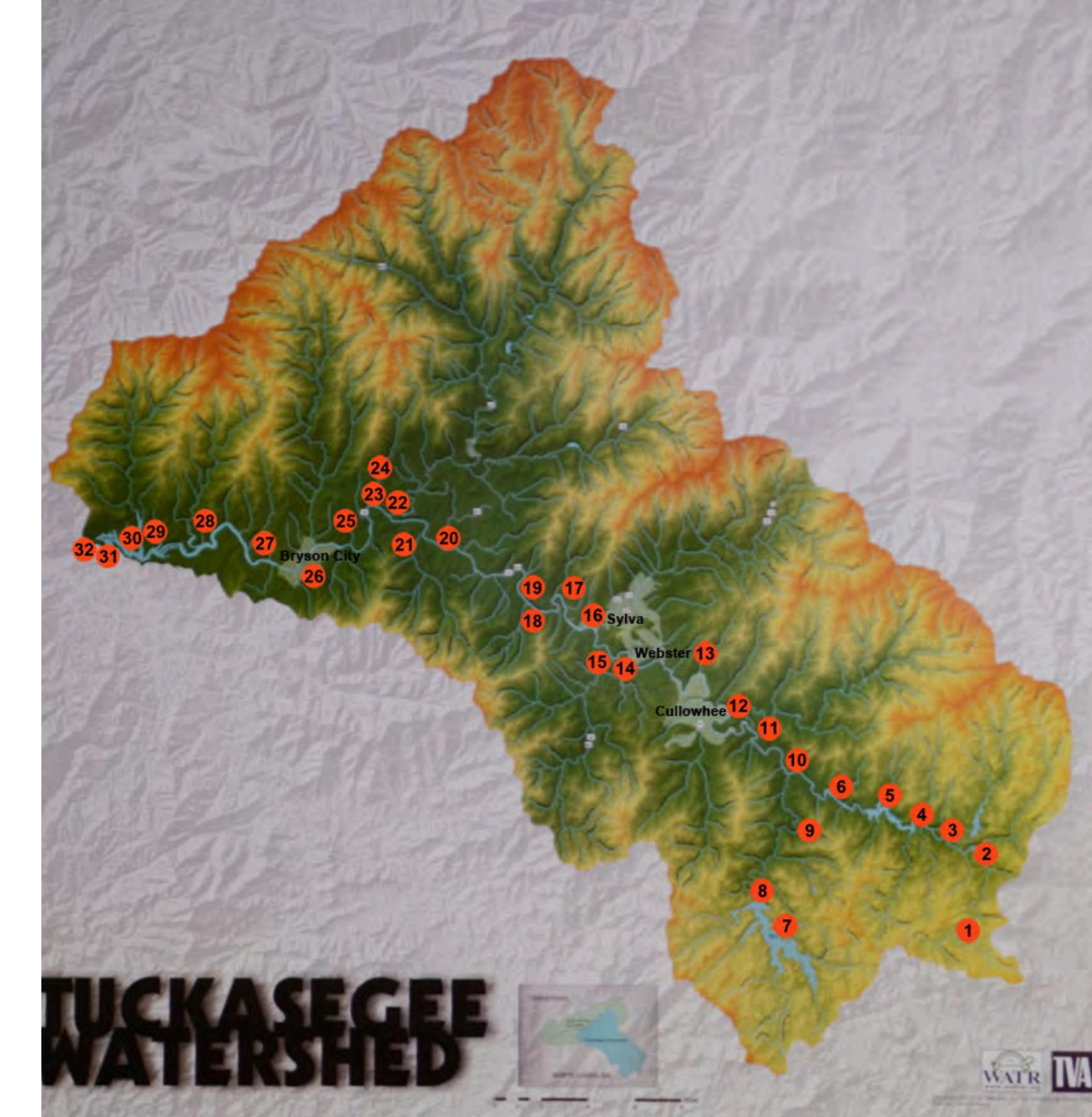
WATR projects repair & restore damaged streambanks, and help clean up waterways with community partners.

Educate

WATR with our partners runs educational events for the community and students about how to protect from erosions, flooding, & maintain clean water.

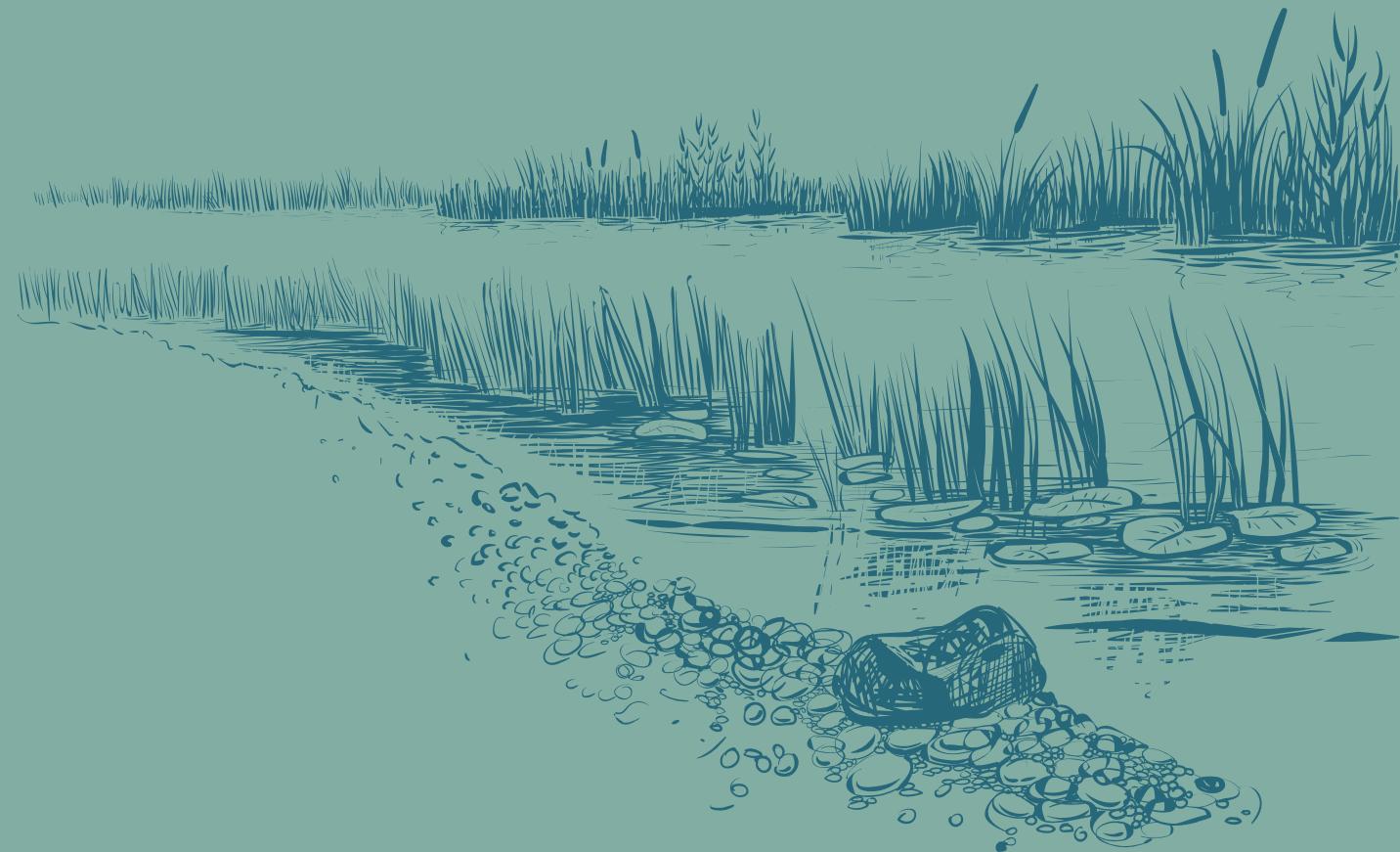
HOW BIG IS THE WATERSHED?

- Tuckasegee River is 60 miles long.
- Entire watershed drains 655 square miles or 1,700 square kilometers.
- It is entirely located within ancestral Cherokee lands, now also Jackson and Swain Counties.
- Tuckasegee is derived from the Cherokee language, likely from a Cherokee village called *Tsikitsi* or “crawling terrapin”.



We forget that the water cycle and the life
cycle are one.

–Jacques Cousteau



MONITOR WE SEE, WE ACT.

- Ela Dam: Not So Fast! Illegal massive sediment release triggers national partnerships for dam removal.
- Citizen First Alerts: WATR is there for homeowners downstream of bad construction.
- Water Quality Monitoring: Montly year-round and weekly in peak tourism season. WATR works for residents, visitors, and businesses who depend on clean, healthy waters.

ELA DAM

It was around 1 p.m. on Monday, Oct. 4, when Ken Brown's phone started lighting up with photo texts depicting a massive sediment load dropping into the Oconaluftee River below Ela Dam, also known as the Bryson Hydroelectric Project. Within half an hour, he was standing on the riverbank....

- Smoky Mountain News

(WATR original founding member and longtime board member Ralph Murphy placed the phone call to Ken!)



MUDGY WATERS
SEDIMENT RELEASE IMPACTS OCONALUFTEE

Built in 1924, Ela Dam sits above an ecologically important stretch of river. Smoky Mountain News - December 8, 2021

NEXT UP: REMOVAL!

From First Alert to a Plan for Removal.

Grassroots environmental advocacy at work!

Key Partners leading this removal project effort:

- EBCI
- American Rivers
- MainSpring
- MountainTrue





EROSION FAILURES

WATR is the first alert contact for residents and organizations in Jackson and Swain Counties.

WATR's strong relationships with NC DEQ, partner environmental organizations, and citizen's trust means when WE SEE, WE ACT!

Cullowhee

WNC Millennial Housing Project

- Egregious lack of erosion control.
- Homes damaged.
- NC DEQ Fines.

Webster

Homeowner Riverbank & Road Damage

- Erosion control ignored on steep bank.
- Riverbank buffer vegetation removed for a "better view".



WATER QUALITY MONITORING

POOP METERS, BACTERIA COUNTS, SWIM GUIDES - OH MY!

WATER SAMPLING

Water quality sampling is the boots on the ground monthly testing of the Tuckasegee River and tributaries that tells us if our waters are safe from fecal ecoliliform and bacteria contaminants. Samples are also analyzed for turbidity, sediment content, nutrients, and more.

Swim Guide

Swim Guide is a National Program

- Swimmable, drinkable, fishable water for everyone.
- Weekly testing, April - August

VWIN

Volunteer Water Information Network

- EQI NC wide program
- Monthly sampling, critical data for grants

SMIE

Macroinvertebrate Sampling Team

- Aquatic insects sampling for creek health
- Aquatic ecology training for members



SWIM GUIDE OVERVIEW

- Monitors fecal e.coliform & sediment for recreational areas in the Tuckasegee River & watershed.
- Testing for unhealthy animal waste, sewage, and sediment levels.
- Called the Swim Guide because it monitors whether it is ok to swim in the water!
- Currently WATR samples 13 locations across Swain & Jackson Counties.

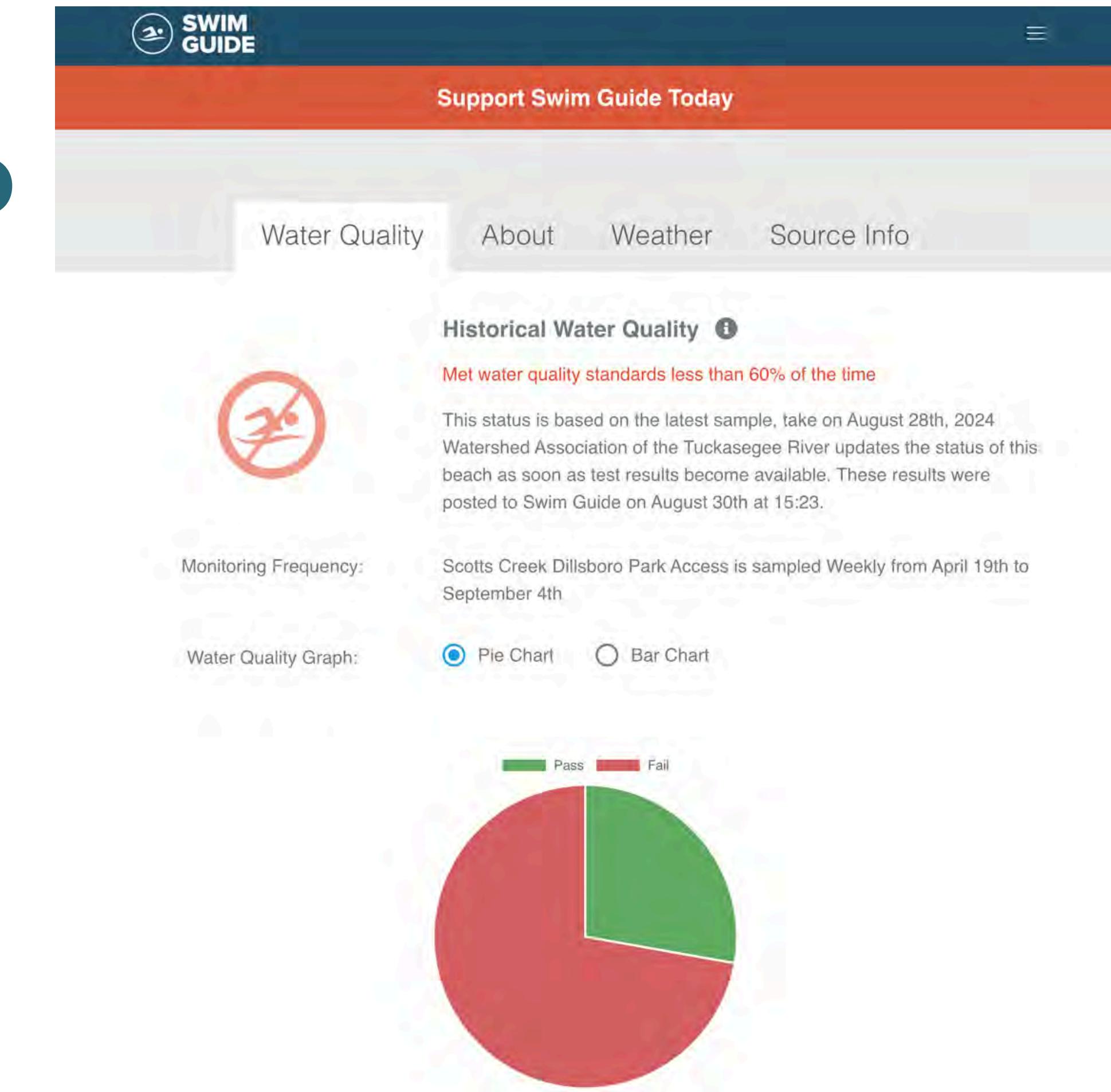
Sampling Site		2024		
ID	Name	Min	Max	Mean
SG01	Tuckasegee at East LaPorte	45	921	254
SG03	Jackson Co Webster Access	27	1540	311
SG04	Dillsboro Park Access - Scotts Creek	34	1550	318
SG06	CJ Harris Access	61	11700	978
SG08	Oconoluftee Island Park	30	2190	318
SG09	Locust Creek Access	29	977	225
SG10	Island Park	42	1730	243
SG11	Ela Access	53	5040	505
SG12	Shook Cove Access	0	26	10
SG13	Tuckasegee Lake Access	0	152	32
SG14	Pine Creek Access	0	21	5
SG15	Barkers Creek Access Area	35	922	235
SG16	Cullowhee Access	20	361	172
SG17	Above Sav Cr confluence	28	3970	365

Scott Creek Dillsboro Park Access

Swim Guide - Jackson County Example Location

This access point is a primary visitor and resident location to recreate on the Tuckasegee River.

Scott Creek is a 303(d) impaired water body, as classified by NC DEQ.



Scott Creek - Weekly Results

- Sampling is weekly from April through end of August.
- Results can vary widely based on rain events.
- Historically, Scott Creek is not returning consistently to acceptable levels by the following week after rain events, for this sampling location.

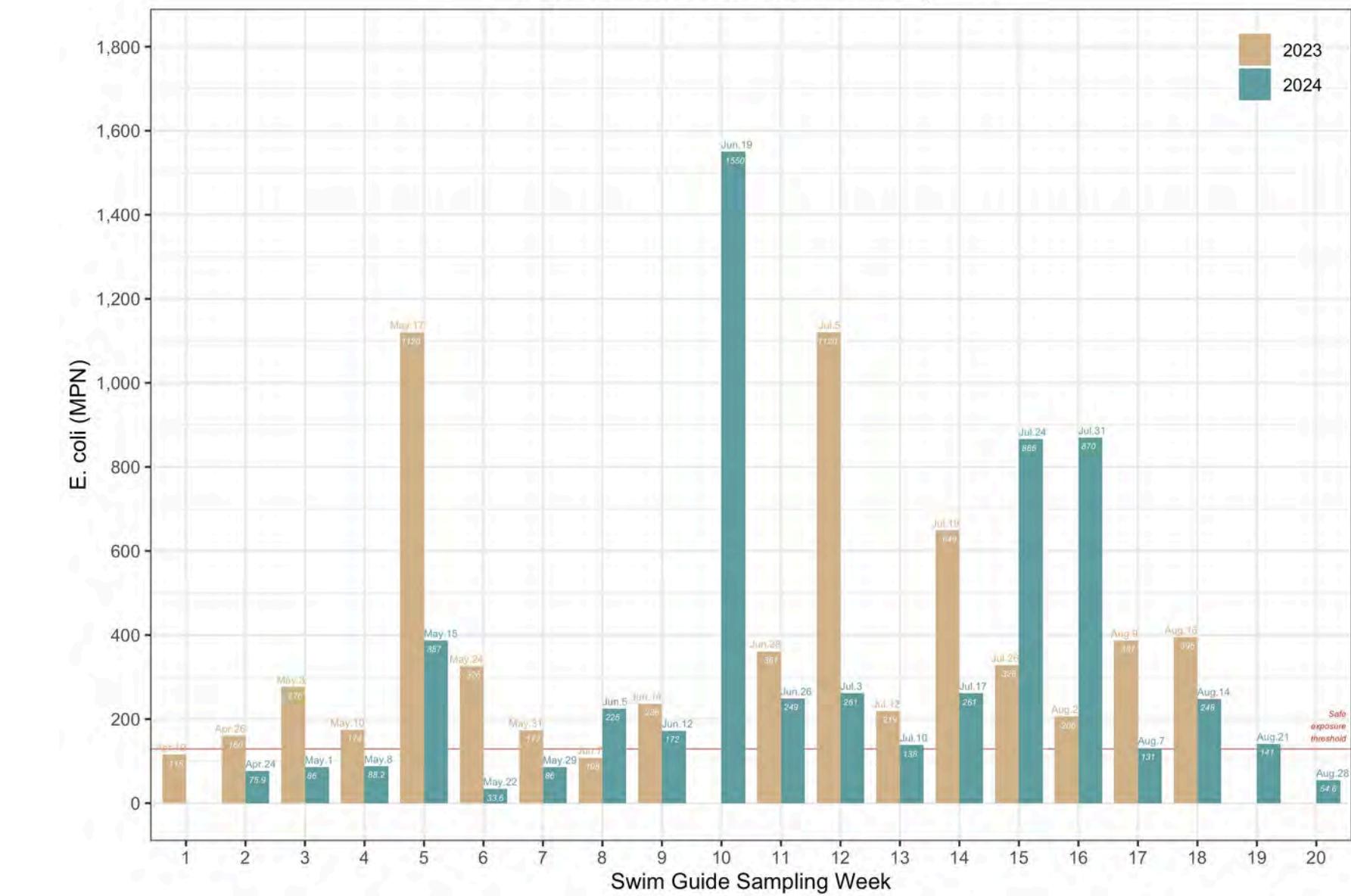
1550

Peak June 19, 2024

1120

Peak May & June 2023

E. coli counts: Scott Cr. at Tuckasegee R.

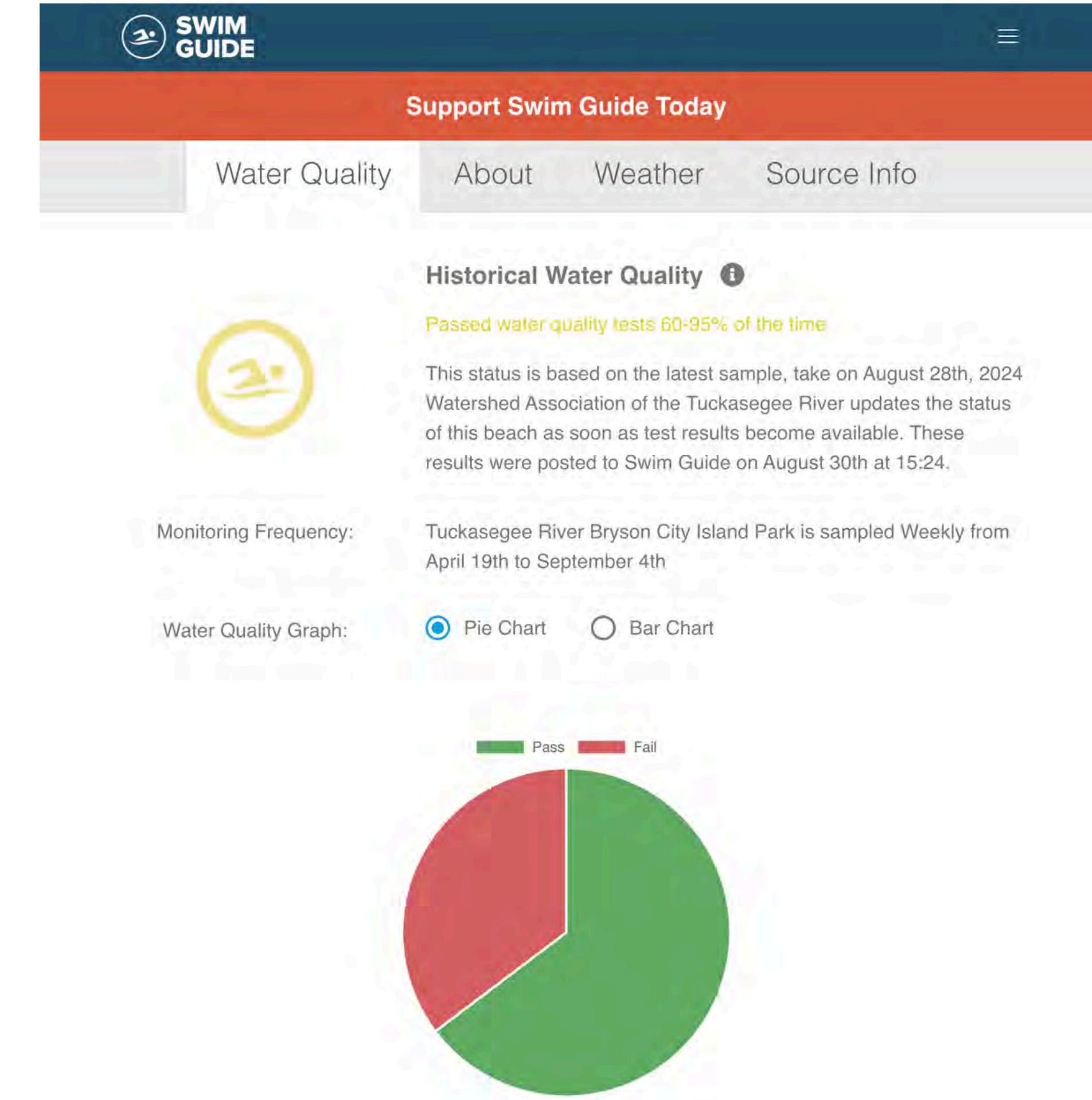


Island Park Bryson City

Swim Guide - Swain County Example Location

Island Park is a popular location in the middle of Bryson City with natural trails to enjoy the Tuckasegee River.

This location has good results, and let's keep it up and get it even higher.



Island Park - Weekly Results

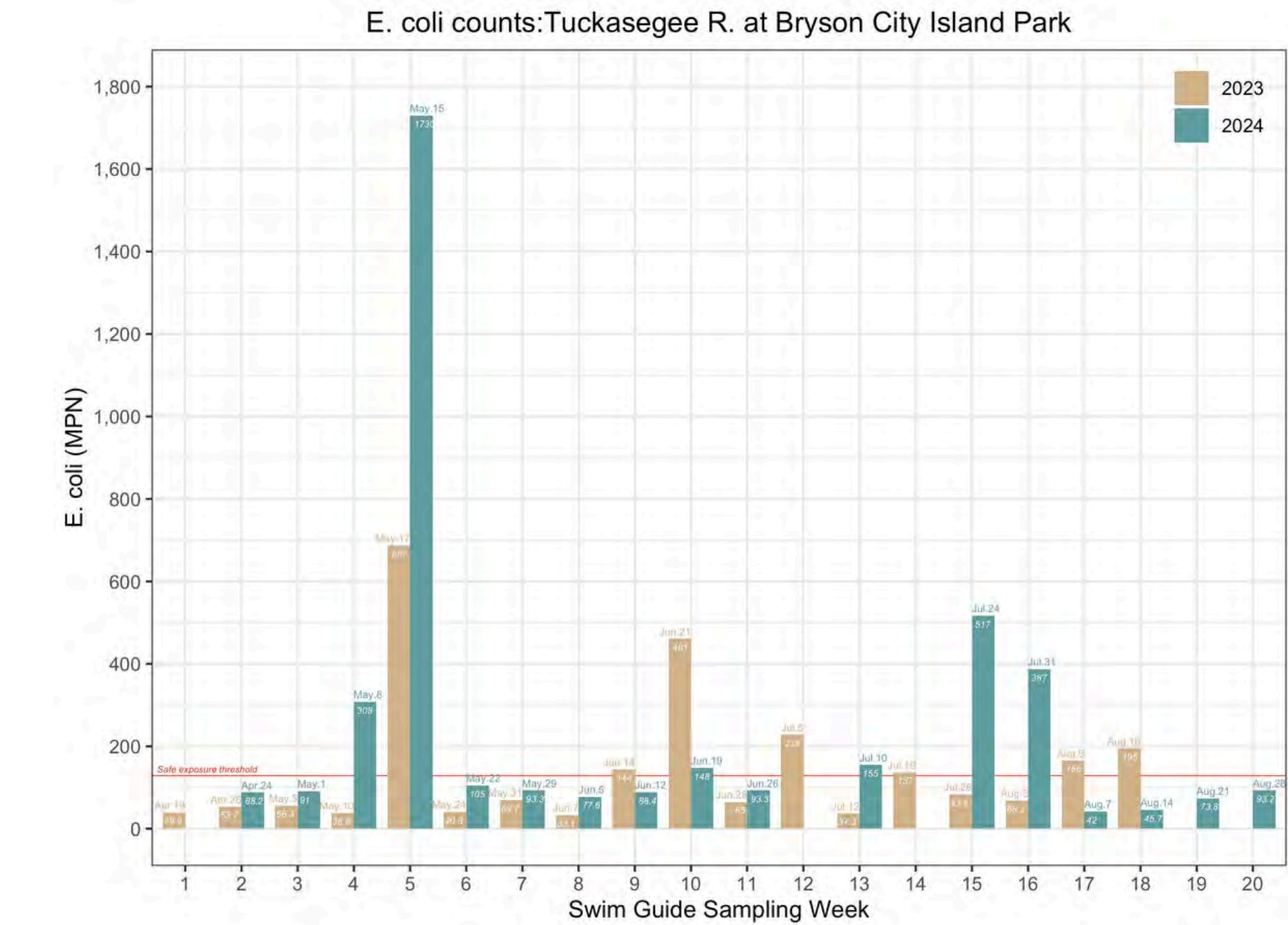
1730

Peak May 15, 2024

687

Peak May 17, 2023

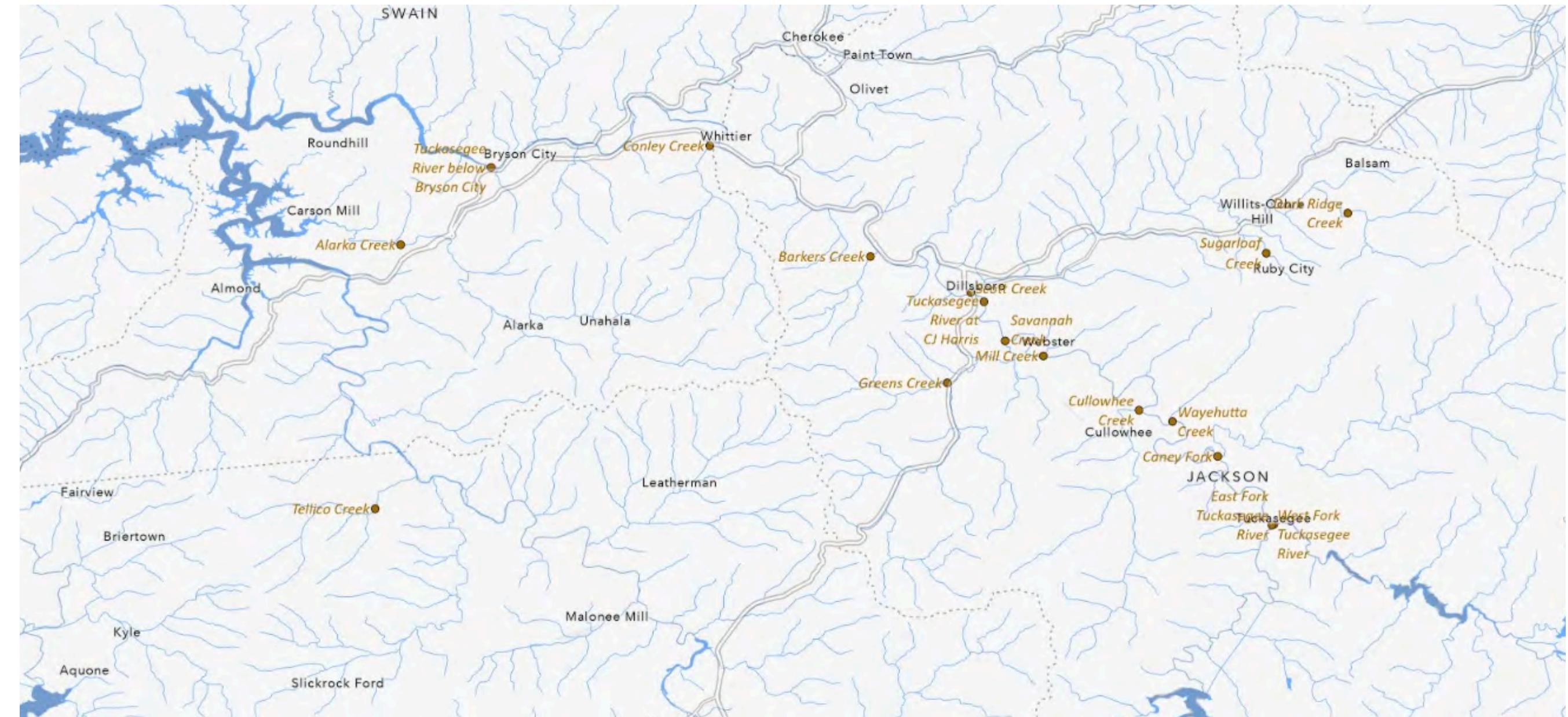
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- Historically, acceptable levels return typically by the following week, for this sampling location.



WVIN OVERVIEW & LOCATIONS

Volunteer-based surface water monitoring network program across WNC. WATR provided essential monthly data for DEQ, that is otherwise not monitored. Our expert monitoring work helps us win significant watershed project grants.

- 19 current sites
- 2001-2011 monitored
- 2018-2024 monitored
- Requires certification to be able to have WVIN program for WATR



RESTORE: WE PLAN, WE DO.

- Panthertown: 30,000 people annually “over-love” Schoolhouse Falls, causing severely eroded streambanks.
- East LaPorte Park lost its streambank protection for aquatic life, known as the Riparian “food and filter” Buffer zone.
- WATR worked with valued partners to create a restoration and repair plan, then led getting the work done!

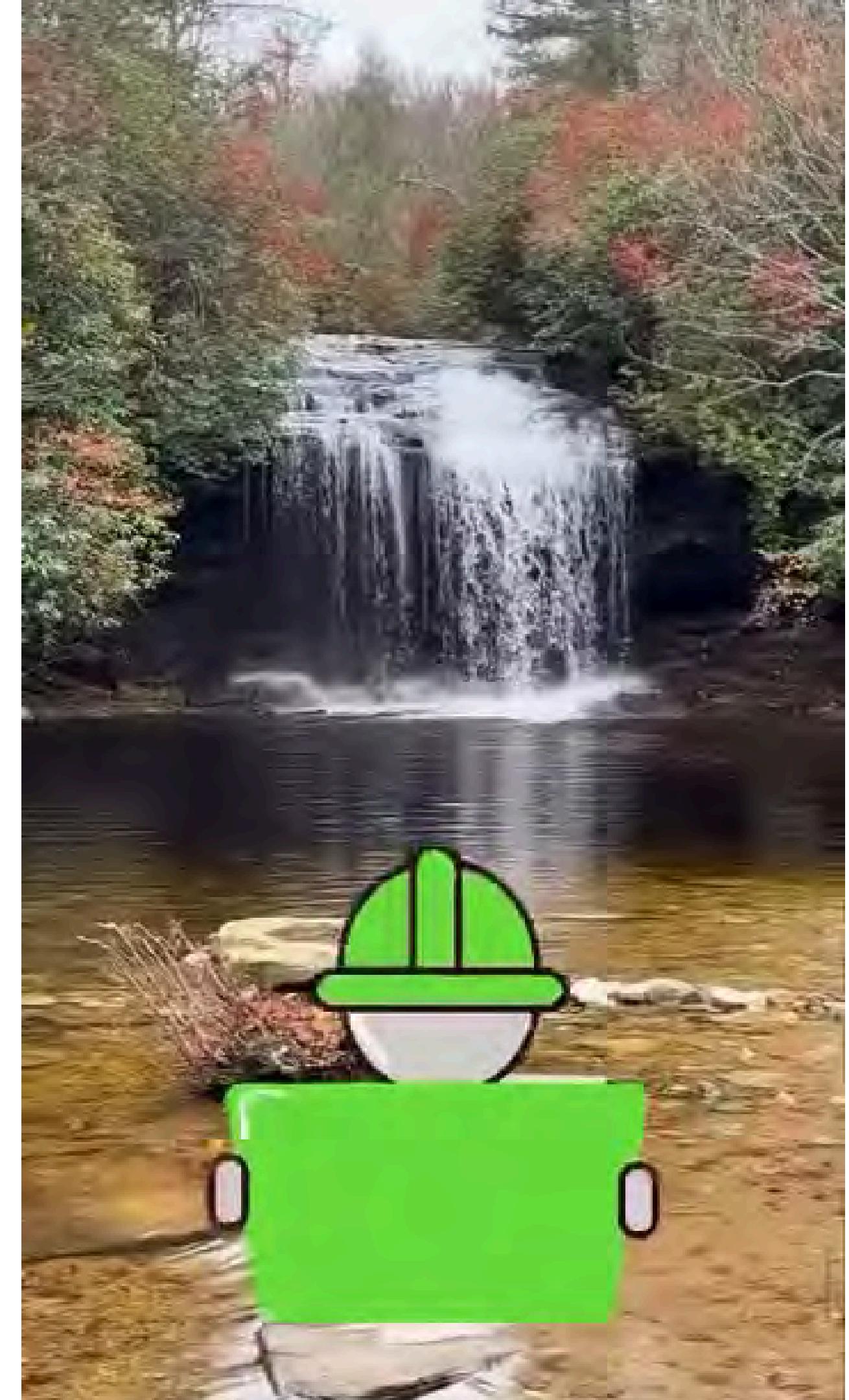
Panthertown - Schoolhouse Falls

WATR and Friends of Panthertown collaborated on a major grant for major streambank restoration and repair at popular Schoolhouse Falls, in November 2024. A large team of volunteers, co-led by Kara McMullen and Ken Brown, did the work in a week.



Panthertown: Repaired

*Thanks for Krista Robb for this wonderful
video reel of the project in partnership
with Friends of Panthertown.*



East LaPorte Park

The riverbank on the Tuckasegee River at East LaPorte Park over time became was mostly denuded of trees or other streambank vegetation.

WATR and partners planted trees and live stakes to restore “food & filter” riparian buffer zone for aquatic life and water quality health.

Preparing

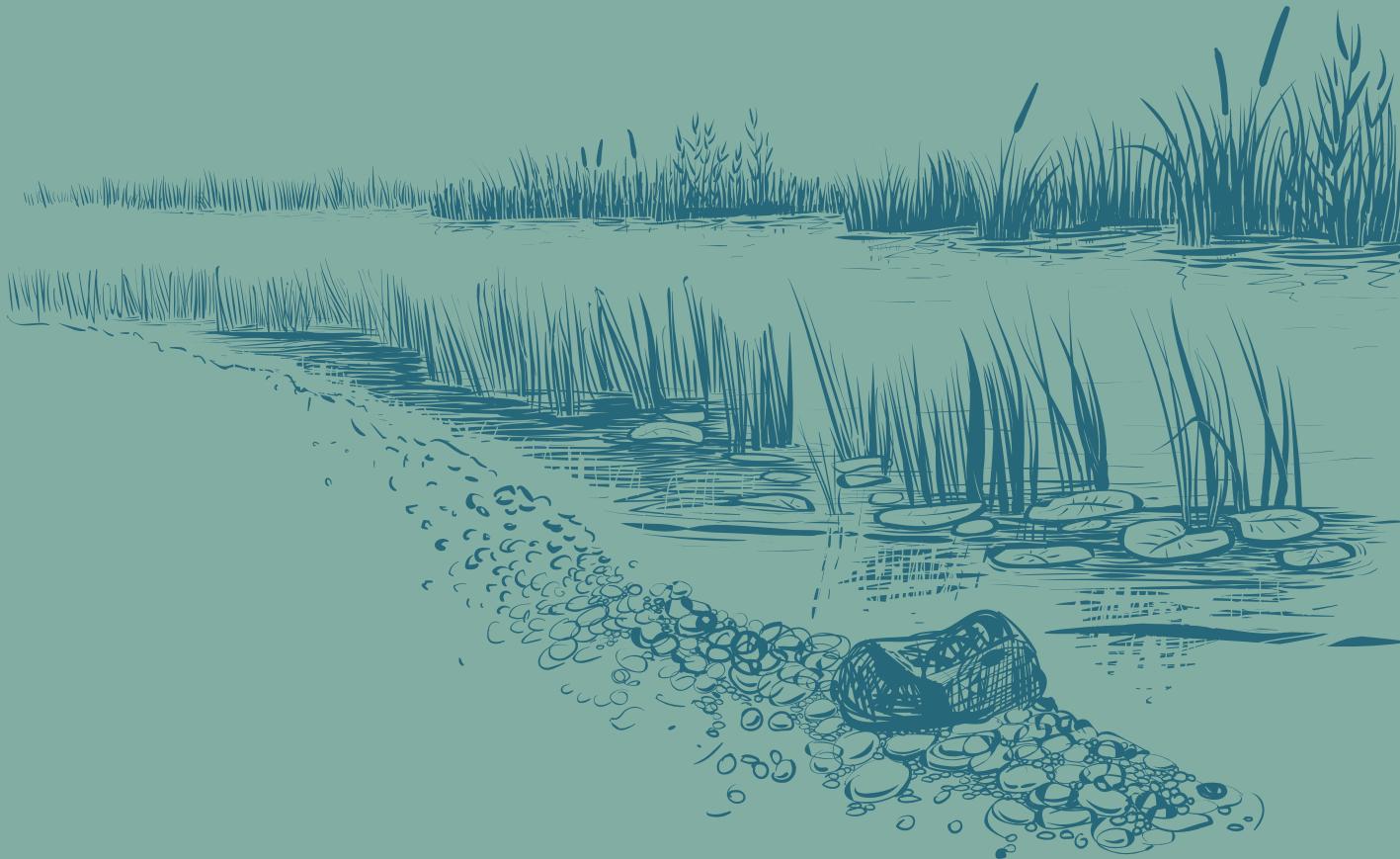


Planting

EDUCATE WE TEACH, WE SHARE.

- Monteith Farmstead Discovery Trails: What's a Riparian "food & filter" Buffer Zone? Why do we care?
- What do bugs tell us about water quality (and happy trout)?
- What do the Cherokee people, the first stewards of these waters, tell us about how to fish responsibly?
- River snorkeling is the very best way to see, learn, and be inspired to protect, our aquatic backyard.

Water is the driver of Nature.
—Leonardo da Vinci



Monteith Farmstead Park

The goal of the WATR Discovery Trails at Monteith Farmstead Park is encourage the stewardship of streamside land, and educate the citizenry on how best to protect riparian zone (land beside the streambanks).

WATR does educational events, Scott Creek cleanups, and streambank restoration & repair projects here.





Swain STEM Camp

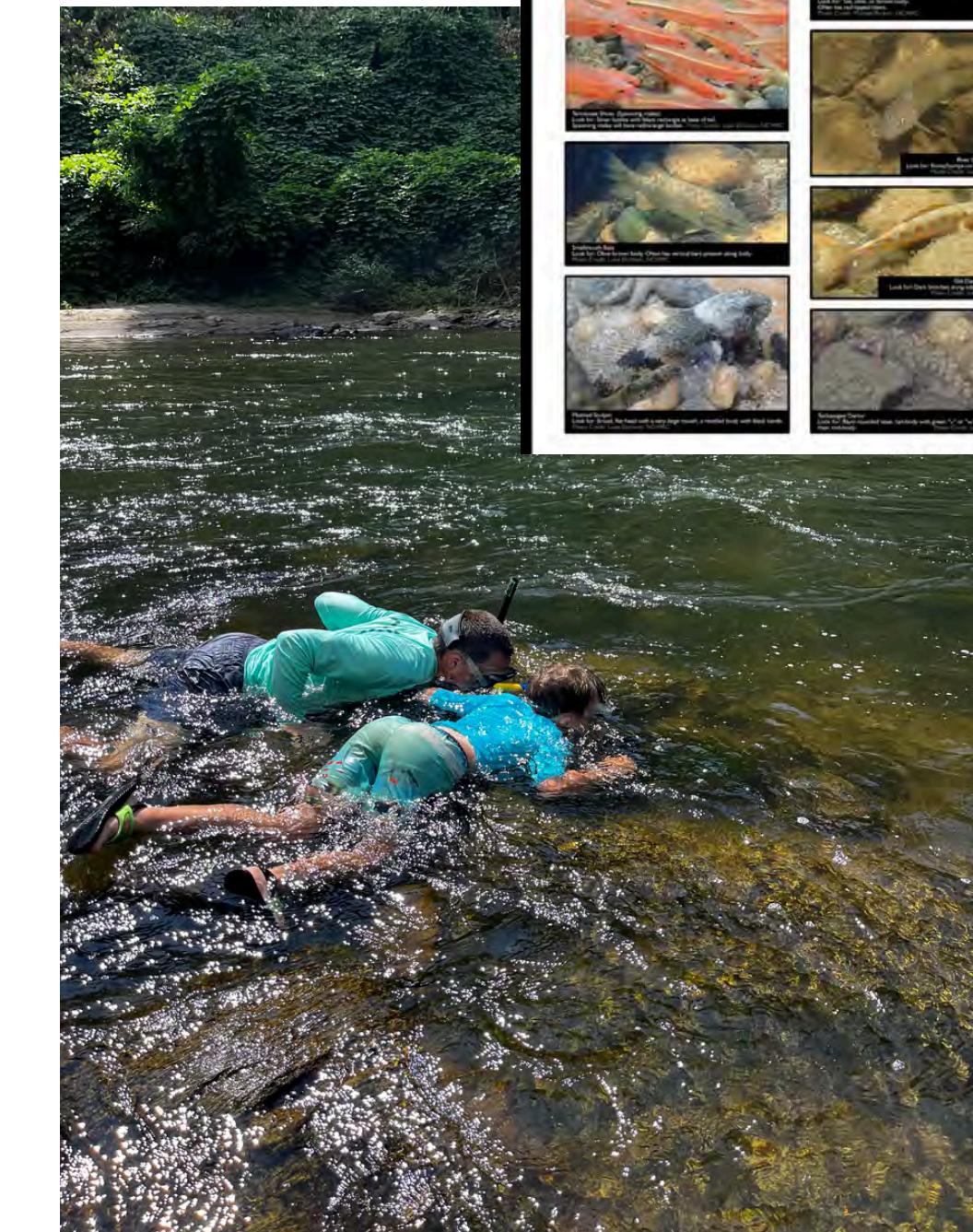
This summer day program at Island Park in Bryson City brought together water science, conservation, and outdoor experiential education for 54 Summer STEM Camp students in Swain 3rd-8th grade. **Need More Outdoors** led this program and partners included Endless River Adventures, WATR, Mainspring, and Swain County Schools.



Blue Ridge Snorkel Trail

WATR taught and shared all about bugs (aka macroinvertebrates, or trout food) in the East LaPorte and the Island Park Blue Ridge Snorkel Trail events, with key partners: Mountain True, NC Wildlife Resources, and MainSpring.

River snorkeling is not just for kids!



Tuckasegee River
at East LaPorte Park

Snorkel Site

The Blue Ridge Snorkel Trail is made up of publicly accessible river and stream locations where people can safely snorkel and experience the underwater world. Each site is unique and offers a different set of habitats and species to observe. During the spawning season of spring and early summer male fishes are often more colorful than female fish of the same species. Put a mask and snorkel on and see!




Snorkeling Basics:
Equipment: Mask, snorkel and sturdy footwear.
How: Swim, float or crawl around the river with your head under the water. If you can wade in the water, you can snorkel it! Use rocks to grab onto and pull yourself along while you explore.

Safety & Environmental Concerns:
Snorkel with a friend.
Rocks are homes for animals - don't move rocks around.
Do not touch wildlife.
Be aware of slippery rocks, deep water and swift current.
Help keep our banks and waters clean.

The Tuckasegee River is teeming with wildlife! A rich community of aquatic critters requires clean water, which benefits everyone, whether you hike, swim, or fish. Restoring the forest, especially along our streams, is a great way to improve our rivers.
How can you help?
Get involved! Support a local organization like Mainspring Conservation Trust, Watershed Association of the Tuckasegee River, and Mountain True.

The Blue Ridge Snorkel Trail was developed by the NC Wildlife Resources Commission, Mountain True and Mainspring Conservation Trust. The Blue Ridge Snorkel Trail program was funded in part by the Tennessee Valley Authority and the NC Chapter of the American Fisheries Society.

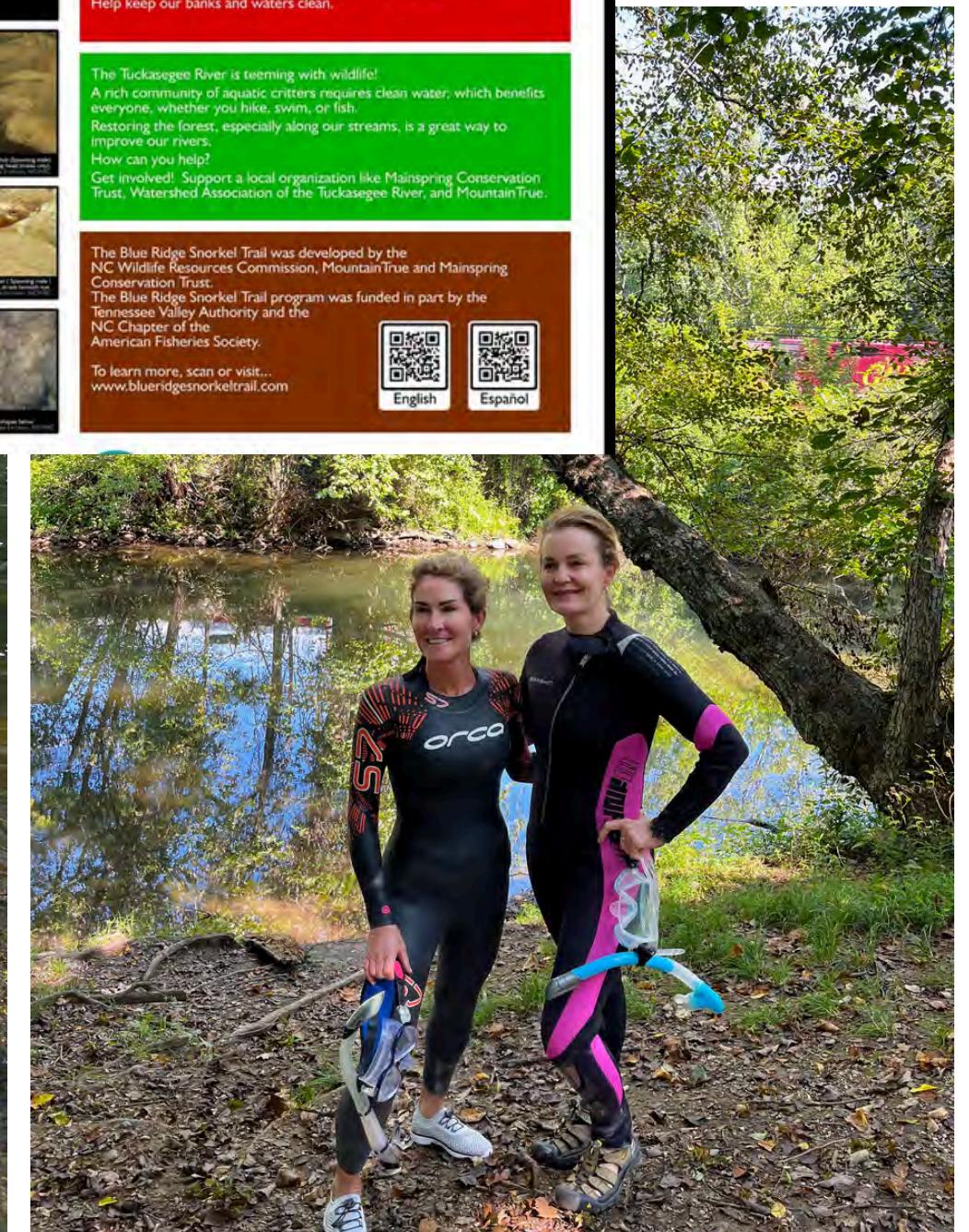
To learn more, scan or visit... www.blueridgenorkeltrail.com



English



Espanol



What you people call your natural resources
our people call our relatives
-Oren Lyons, Faith Keeper of the Onondaga



Fish Weirs

In partnership with the Eastern Band of the Cherokee, WATR has conducted fish weir events to learn and share about this unique traditional way to fish.

Bringing back consistent Fish Weir events is a WATR goal for 2025 and beyond.



Strong Partnerships

There is so much we can do together.

- MainSpring
- MountainTrue
- NC DEQ
- Enviro Science
- Balsam Trust
- Duke Energy
- Jackson County
- Swain County
- Swain Clean
- WCU
- American Rivers
- Need More Outdoors
- Wildwater
- NOC
- Tuck Fly Shop
- Trout Unlimited
- Highland Cashiers Trust
- Eco Foresters
- Jackson Solid Waste
- Liquid Spark, Inc.
- Current and past auction donors

Join Us!



LOOKING FORWARD

2025 CHALLENGES & OPPORTUNITIES

MOVING FORWARD: 2025

Climate Resilience

Bryson City is the garbage collection point for the entire Tuckasegee River watershed, starkly demonstrated during Hurricane Helene.

WATR must play front line offense with education and monitoring, and front line defense with remediation and cleanup, working closely with our exceptional community partners, like **Swain Clean, Jackson County Solid Waste**.



MOVING FORWARD: 2025

Climate Resilience

Aggressive Advocacy

WATR must courageously lead with science to protect community health and safety to prevent bad policy legislation.

Smoky Mountain **news**

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ARCHIVED NEWS

Macon County floodplain ordinance debate heats up

WRITTEN BY [HANNAH MCLEOD & LILLY KNOEPP](#)

WEDNESDAY, JULY 03, 2024



Rivers in Western North Carolina, although normally peaceful, are prone to flash flooding. Hannah McLeod photo

A proposed change to Macon County's floodplain regulation has prompted outcry from the public and rippled across the county government.

MOVING FORWARD: 2025

Climate Resiliency

Aggressive Advocacy

Community Partnerships

WATR will continue to build, leverage and work in partnership with local and regional organizations also focused on community and environmental health, stewardship, and protection.

Local colleges and universities, non-profits, businesses, and citizens are all critical to the success of our efforts in the Tuckasegee watershed.



MOVING FORWARD: 2025

Climate Resilience

Aggressive Advocacy

Community Partnerships

Funding Expansion

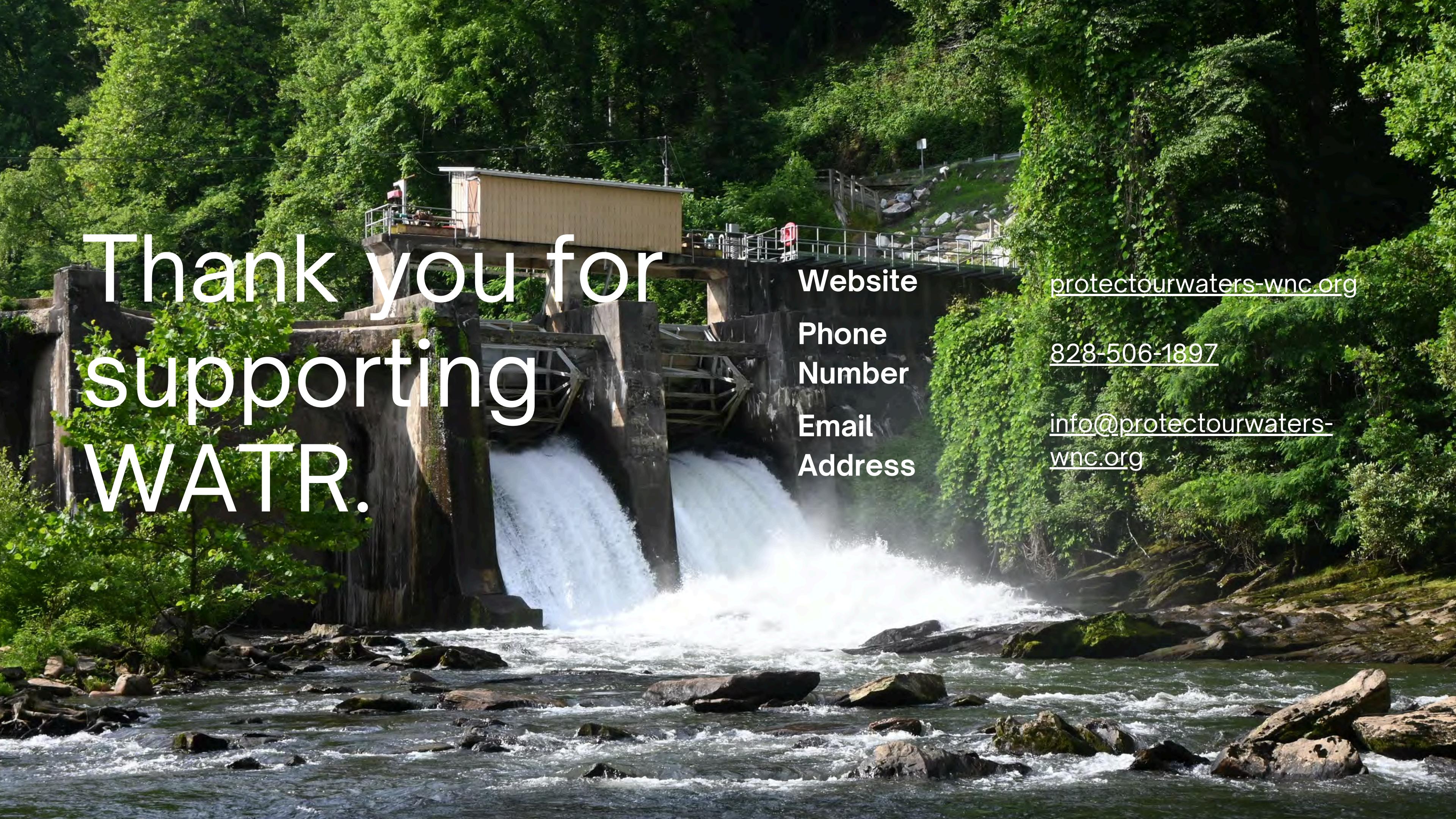
WATR seeks to triple our annual funding budget in order to add paid staff, new restoration/repair projects, more cleanups, expanded education, homeowner consultations, and more Swim Guide sampling locations.



**Thousands have lived without love, not one
without water.**

-W. H. Auden





Thank you for
supporting
WATR.

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