

50th ANNIVERSARY
CLEAN WATER ACT



WINYAH RIVERS
ALLIANCE

5,250

BACTERIA BLITZ

Results

BACTERIA BLITZ

WEBINAR TOPICS

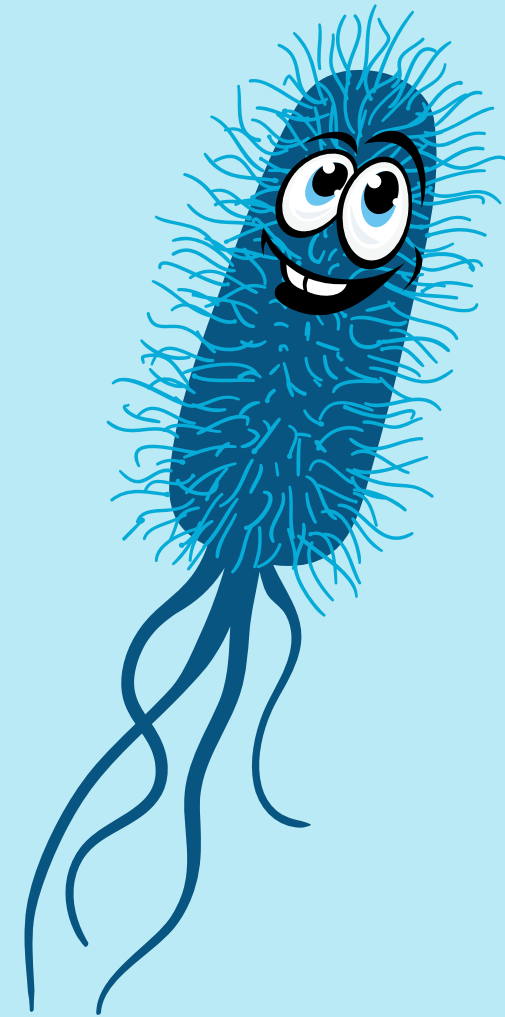
Who is Winyah Rivers Alliance?

What is the Bacteria Blitz?

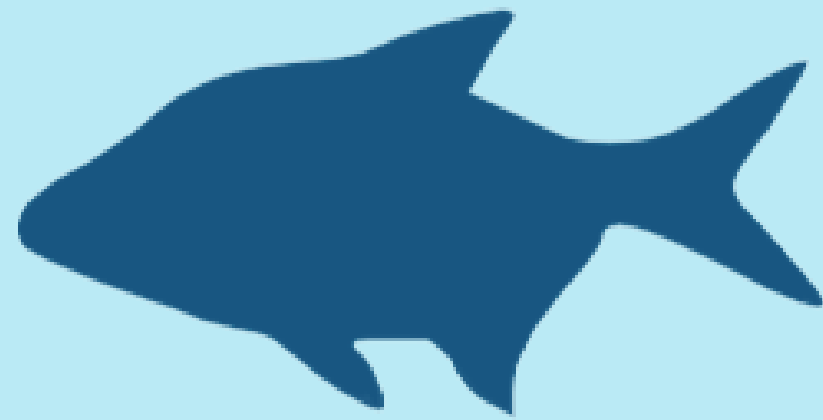
Why is E. coli important?

Bacteria Blitz Results

Next Steps



WINYAH RIVERS MISSION



FISHABLE



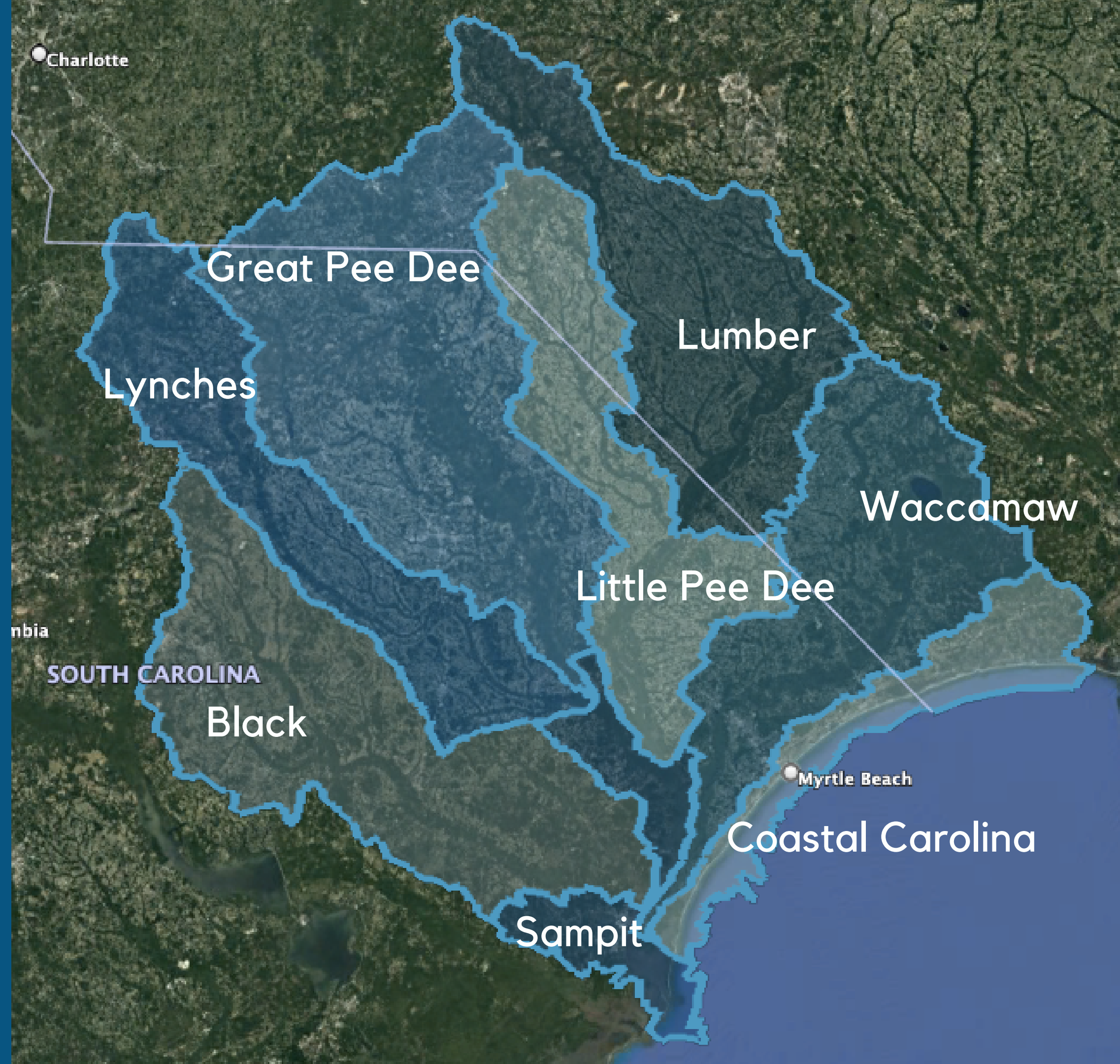
SWIMMABLE



DRINKABLE

GREATER WINYAH BAY WATERSHED

- Seven rivers join at Winyah Bay
- Third largest basin on the East Coast
- Covers 11,700 square miles



meet Your Riverkeepers



CARA SCHILDTKNECHT

Waccamaw Riverkeeper



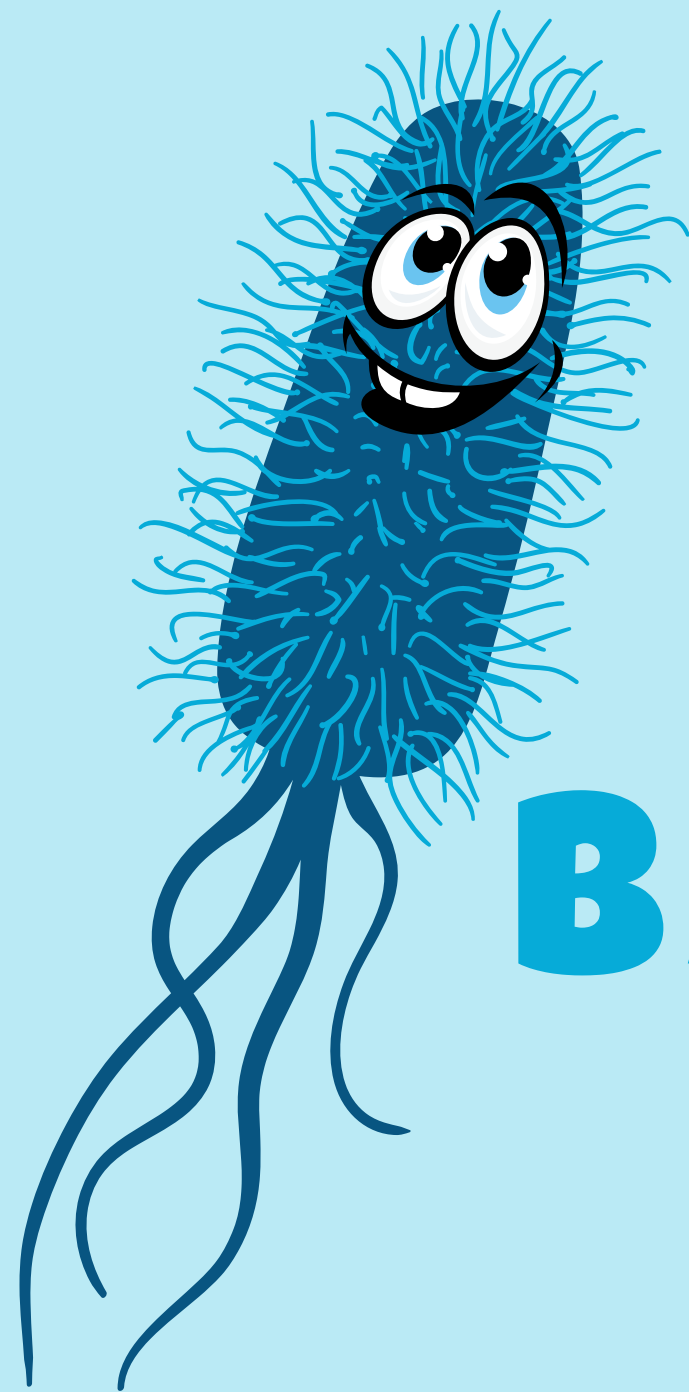
JEFFERSON CURRIE II

Lumber Riverkeeper



ERIN DONMOYER

Black-Sampit Riverkeeper



WHAT IS THE BACTERIA BLITZ?

CITIZEN SCIENCE

Engages local community members in data collection through citizen science.

COMMUNITY EDUCATION

Opportunity to provide educational outreach on the topic of fecal bacteria pollution.

WATERSHED WIDE

Project covers the entire greater Winyah Bay watershed and all seven rivers.

ACCESSIBLE ACTIVITY

Anyone can participate in the Bacteria Blitz! It makes science fun and easy.

**WHY DOES
WINYAH RIVERS
HOST THE
BACTERIA BLITZ?**

WORLD WATER monitoring DAY

Our partners at EarthEcho International host
World Water Monitoring Day each year on September 18th.

This year, we celebrated with our Bacteria Blitz.

Additional sampling kits were provided by our amazing partners!



WHY E. COLI?

EASY TO SAMPLE

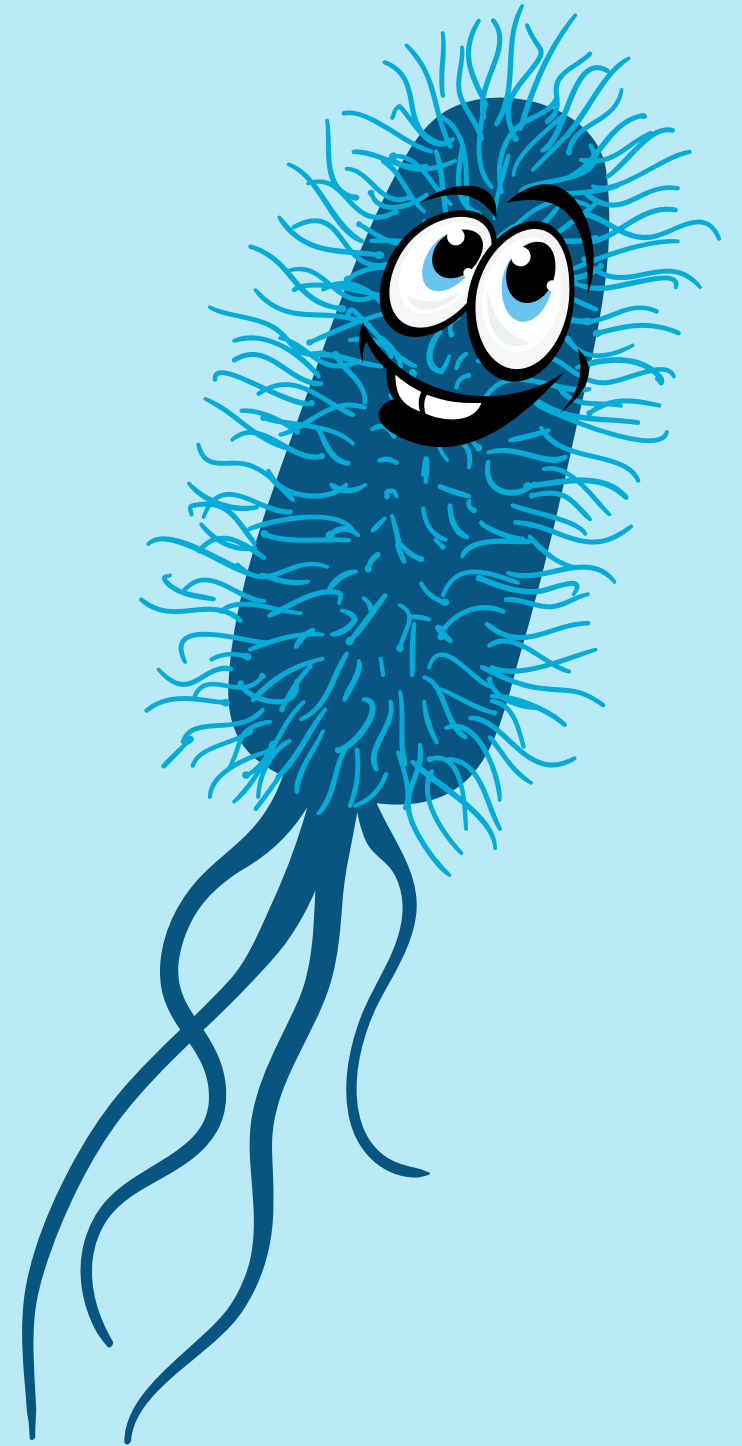
Unlike pathogens and virus, E. coli is easy to sample.

FAST ANALYSIS

Analysis of E. coli concentrations can be done in 24 hours for fast results.

GOOD INDICATOR

E. coli is a the EPA's recommended species to use to indicate the potential for sickness caused by recreating in waters with fecal contamination.





235

235 cfu/100mL or MPN/100mL is the EPA's Beach Action Value for E. coli concentrations in freshwater



36

The EPA's BAV is evaluated at the estimated risk of illness for 36 out of 1,000 primary contact recreators

HOW WE DID OUR BACTERIA BLITZ



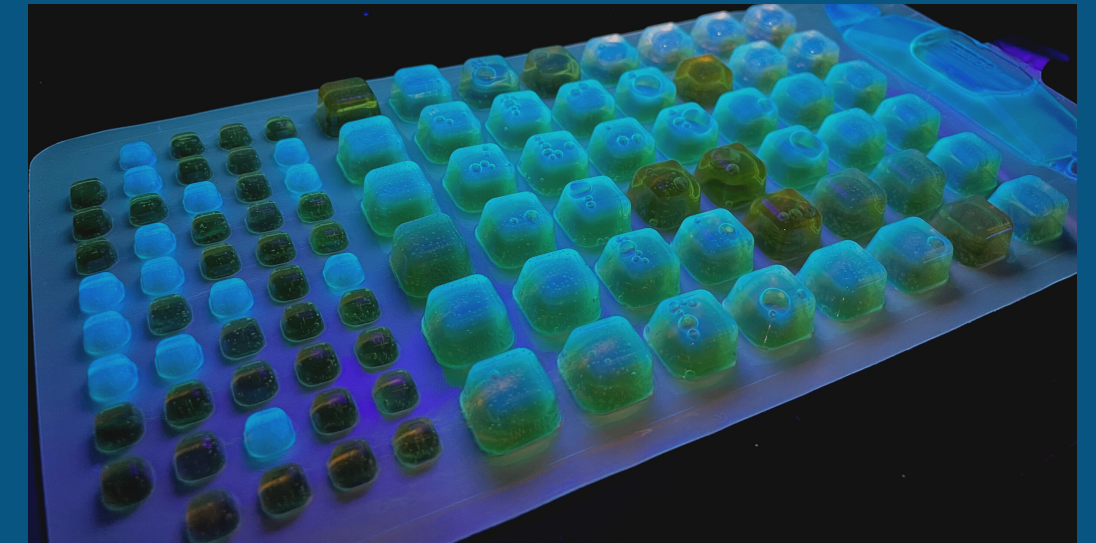
SELECT SAMPLING SITES

Participants selected their sampling sites throughout the greater Winyah Bay watershed



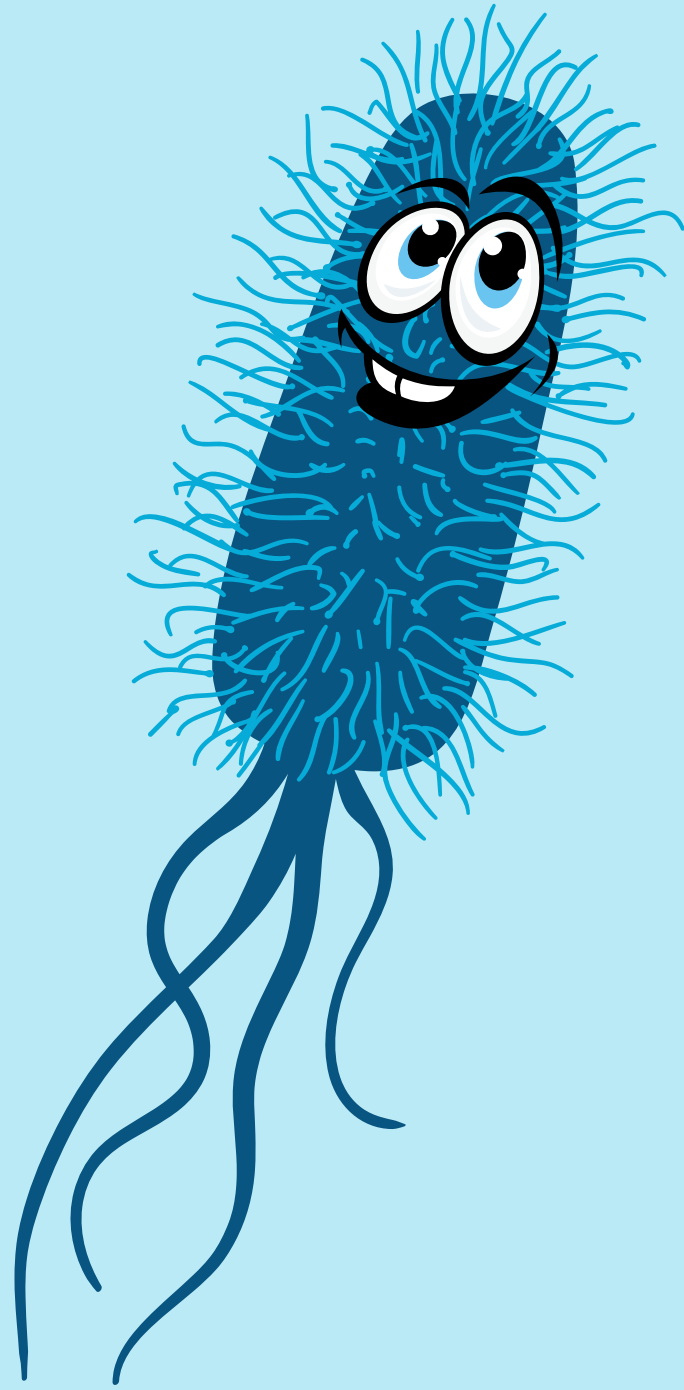
COLLECT WATER SAMPLES

Participants collected water samples during the morning of September 17th, 2022



ANALYZE WATER SAMPLES

Winyah Rivers staff performed sample analysis to determine fecal bacteria concentrations



**NOW FOR THE
RESULTS!**

BY THE NUMBERS



1

day of sampling



43

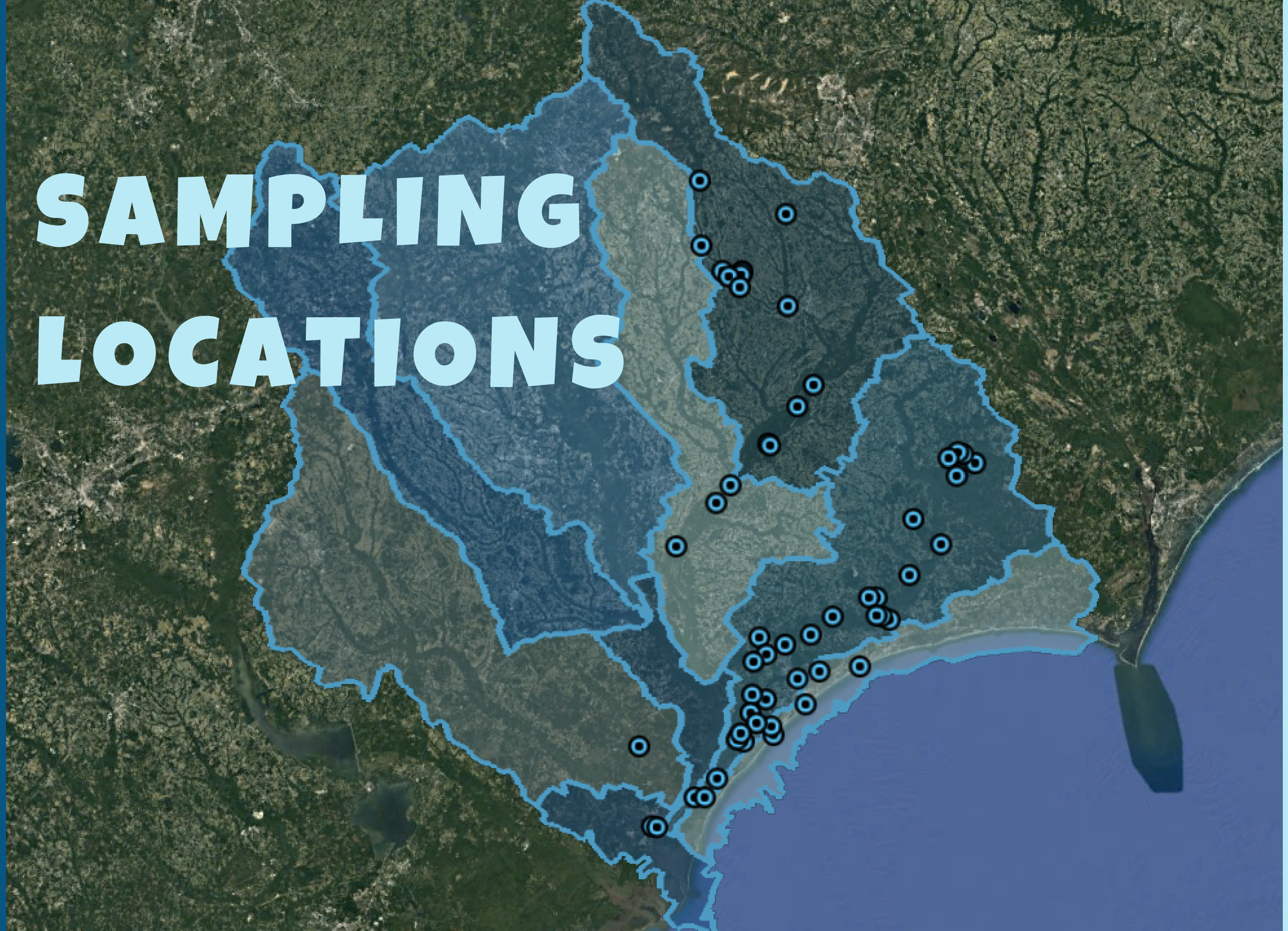
volunteers



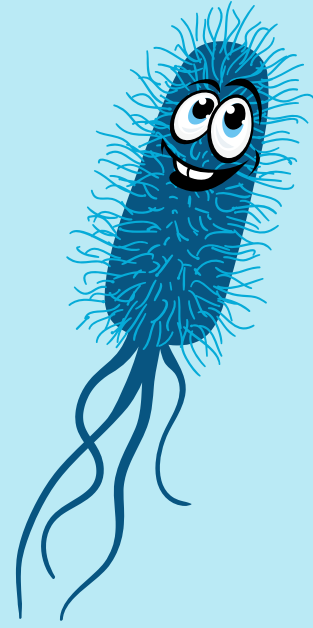
55

samples collected

SAMPLING LOCATIONS



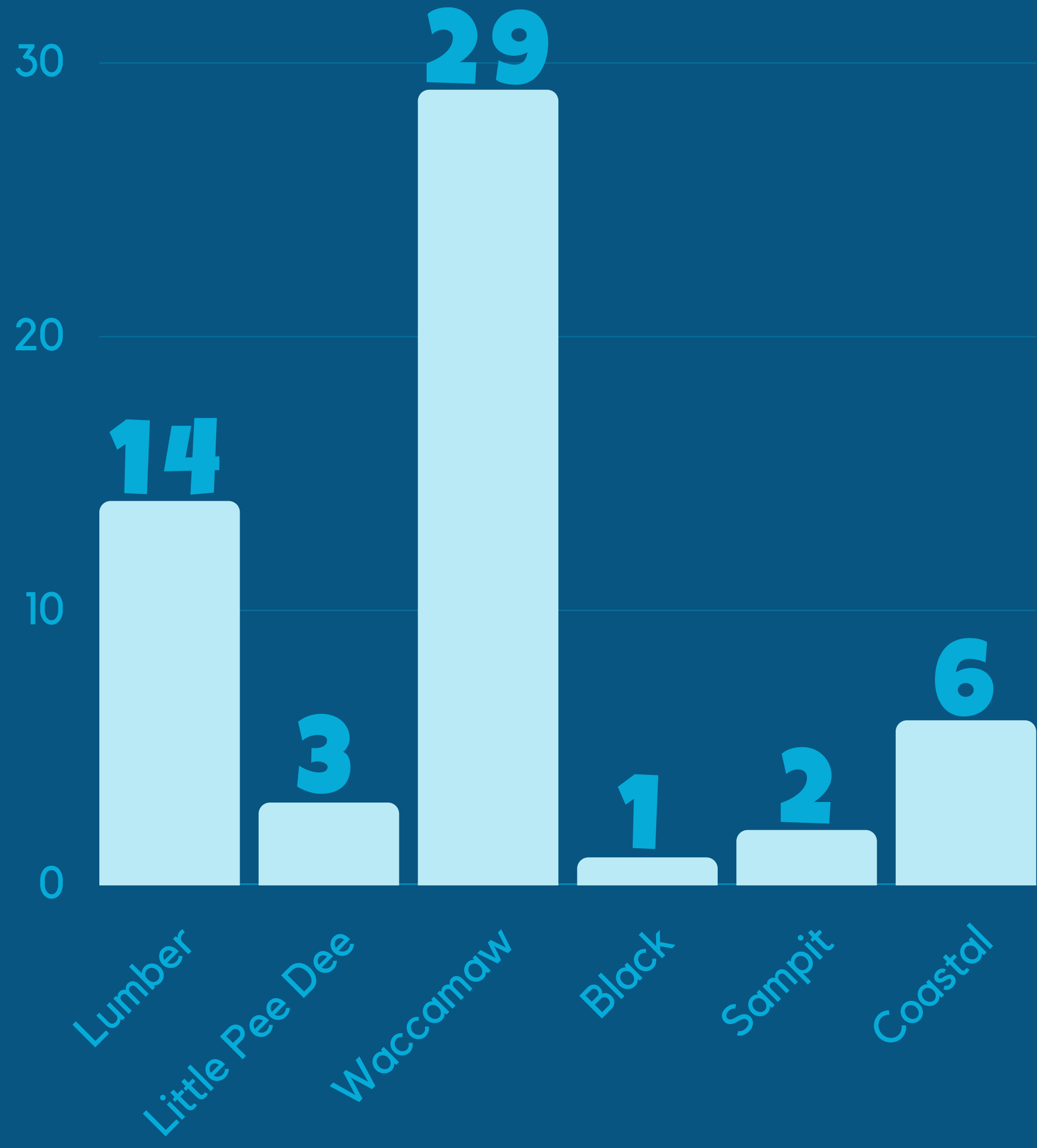
SAMPLES BY WATERSHED



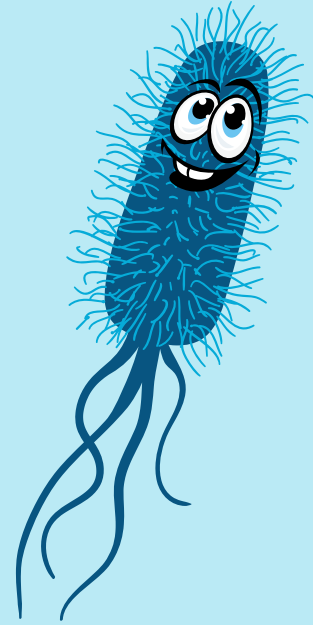
Samples were collected from 5 of our 7 Winyah Bay watersheds

Additionally, samples were collected in the Coastal watershed

Last year, only one watershed was sampled



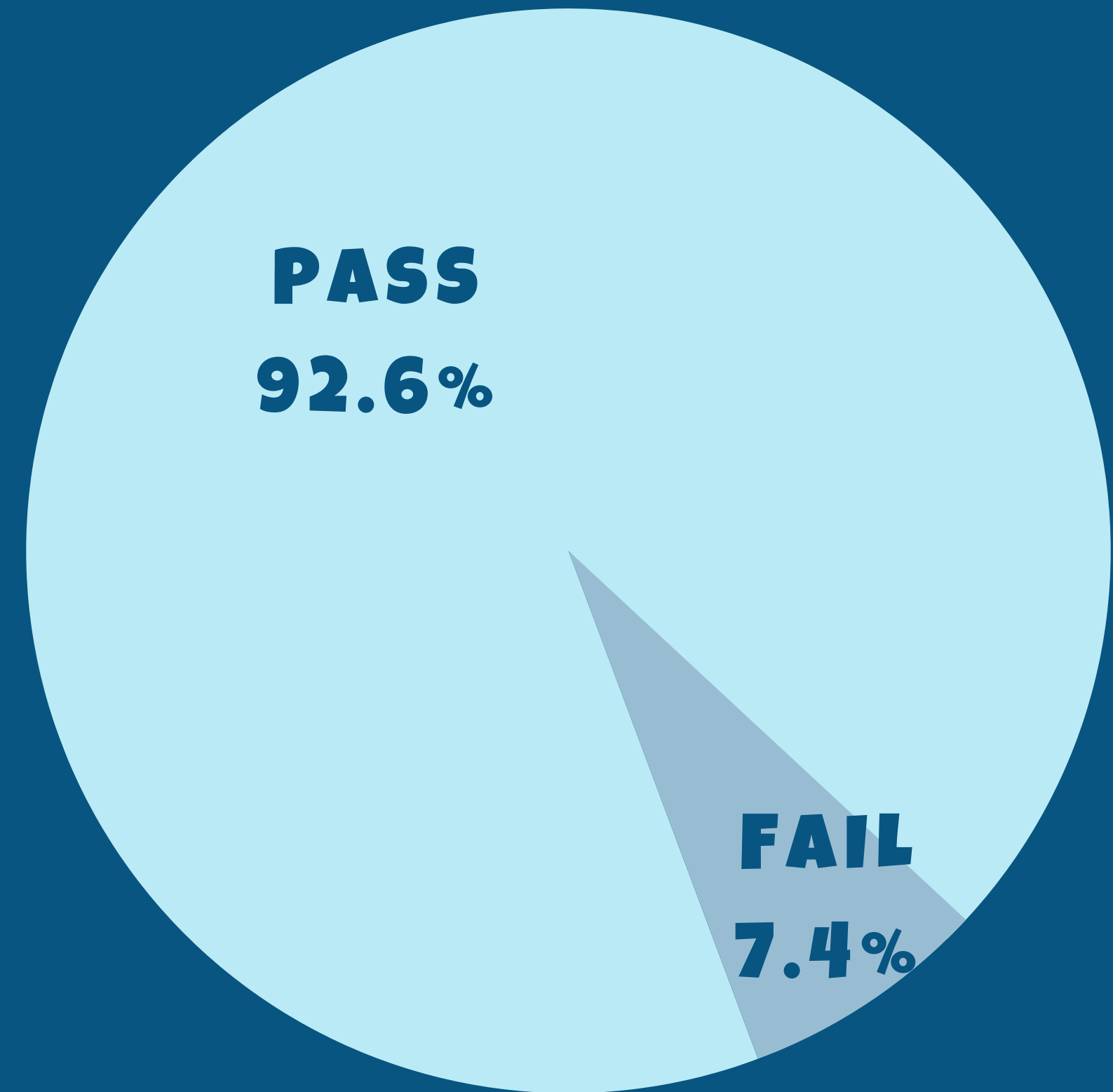
PASS / FAIL RATES



54 samples were analyzed

50 passed the water quality standard

4 failed the water quality standard



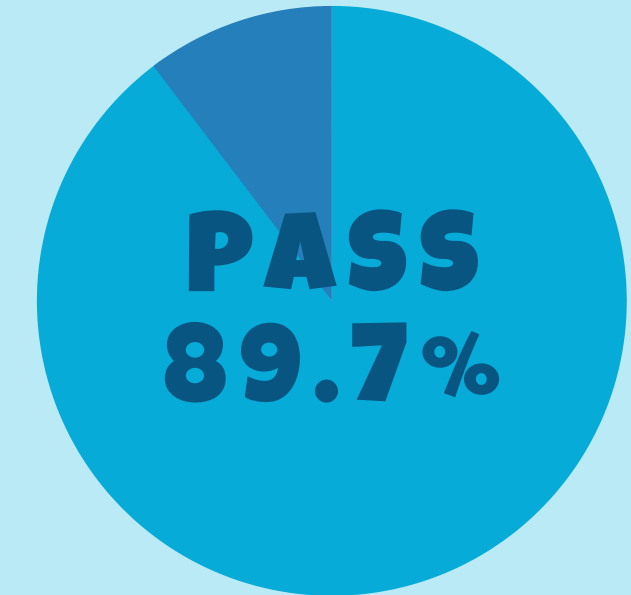
LUMBER
WATERSHED



LITTLE PEE DEE
WATERSHED



WACCAMAW
WATERSHED



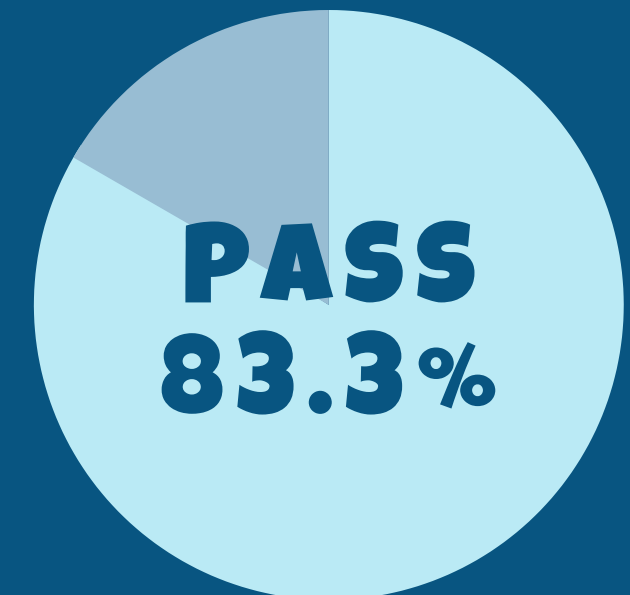
BLACK
WATERSHED

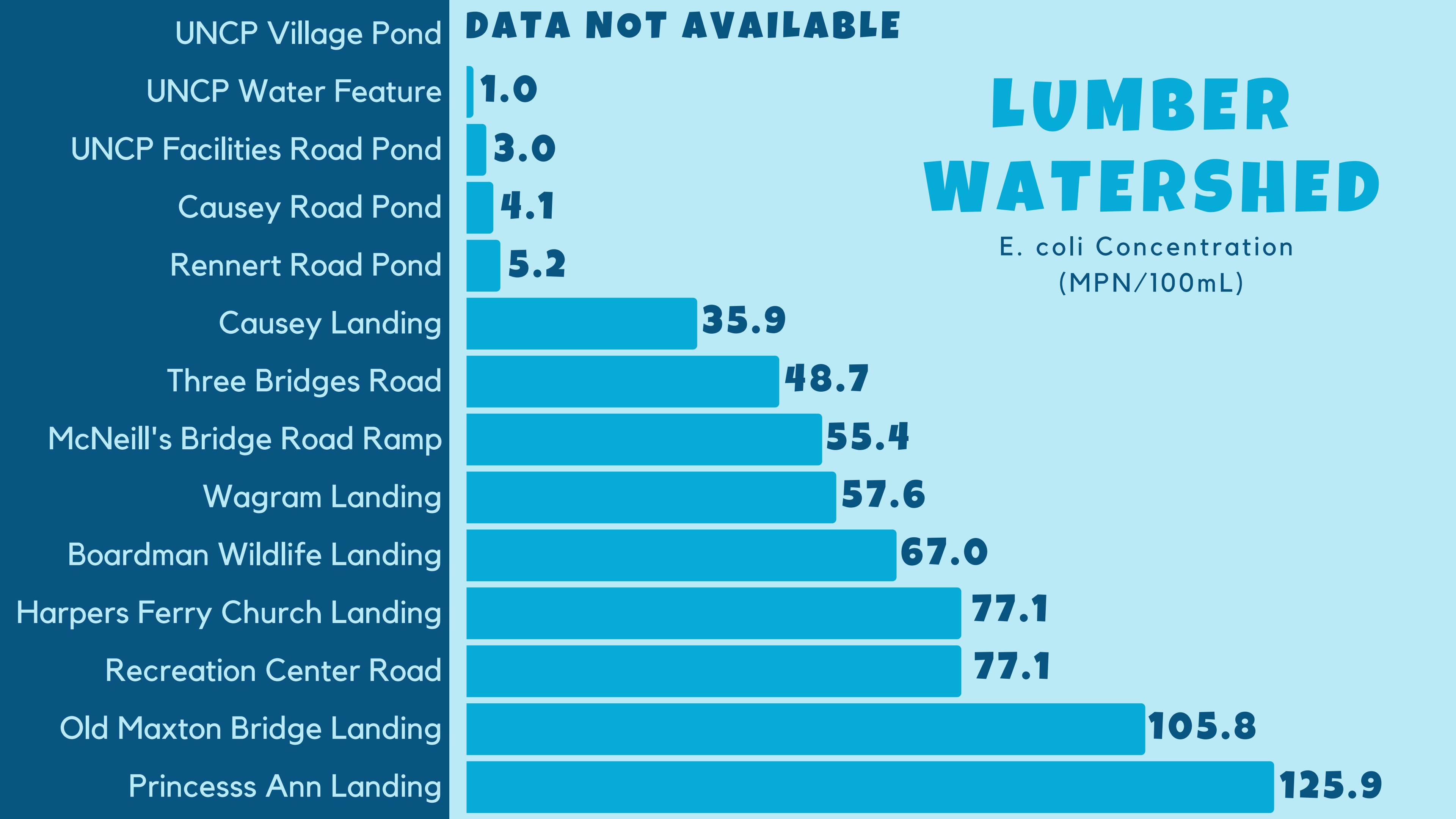


SAMPIT
WATERSHED



COASTAL
WATERSHED





LITTLE PEE DEE WATERSHED

E. coli Concentration
(MPN/100mL)

Church Landing

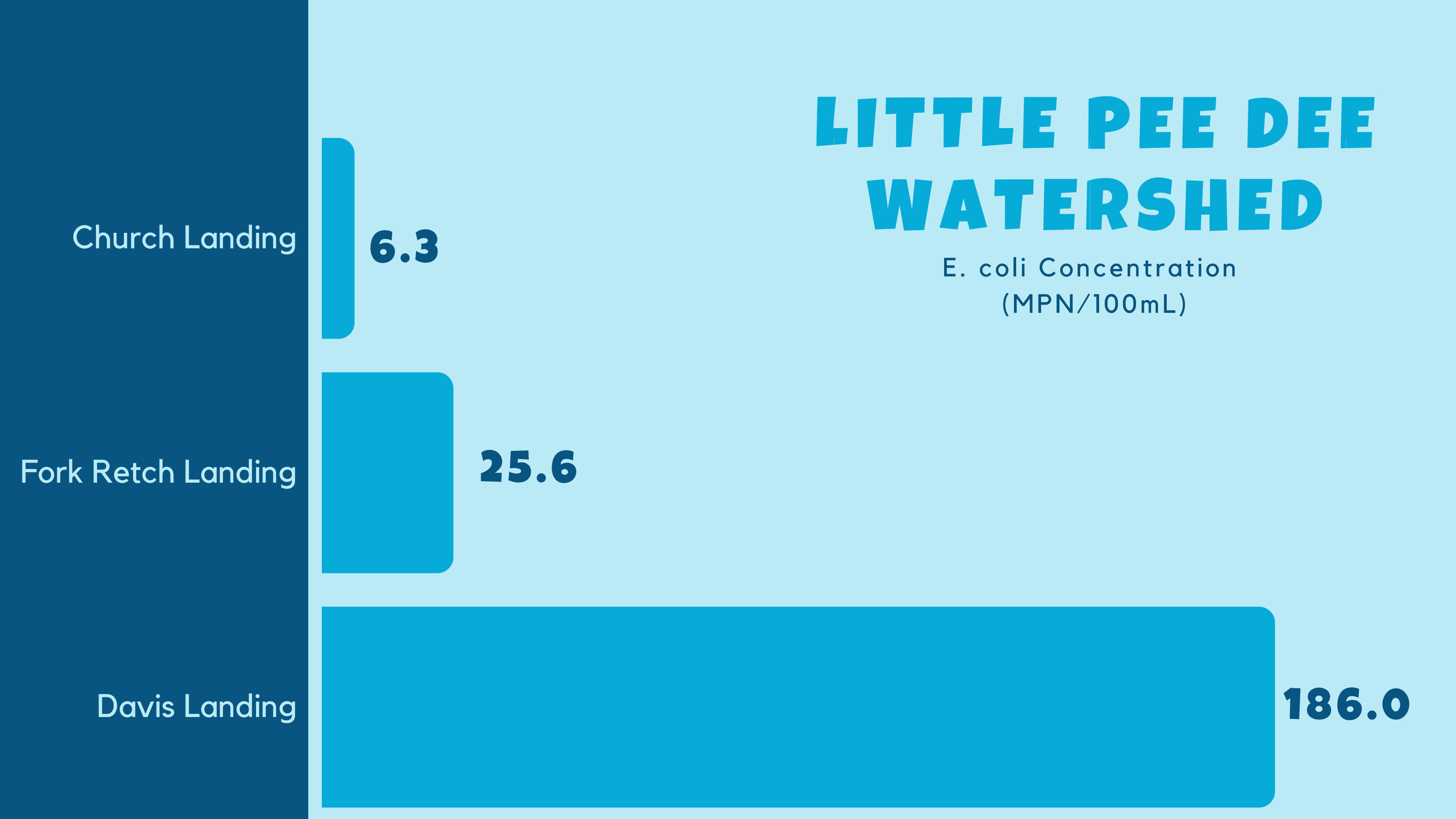
6.3

Fork Retch Landing

25.6

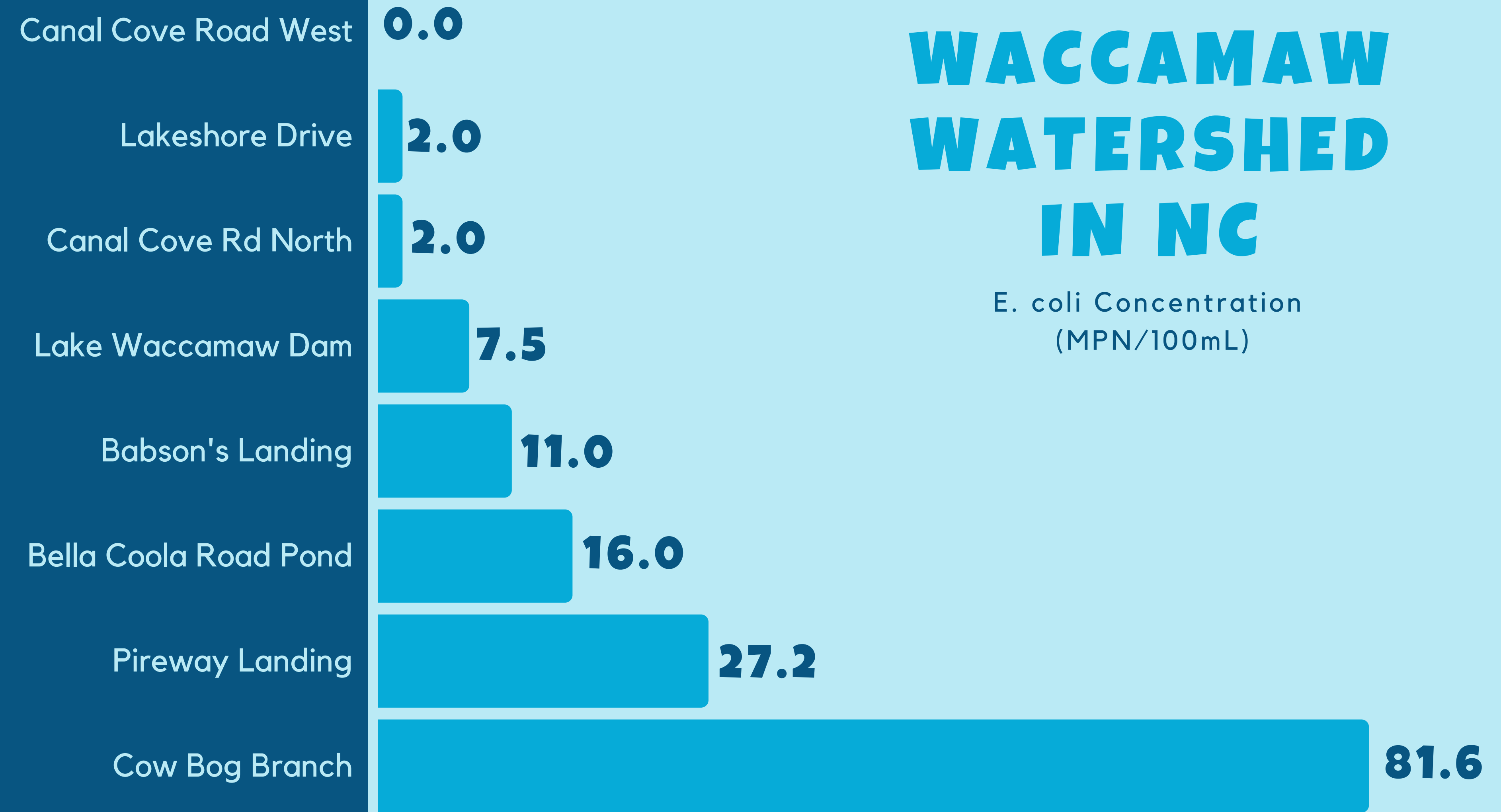
Davis Landing

186.0

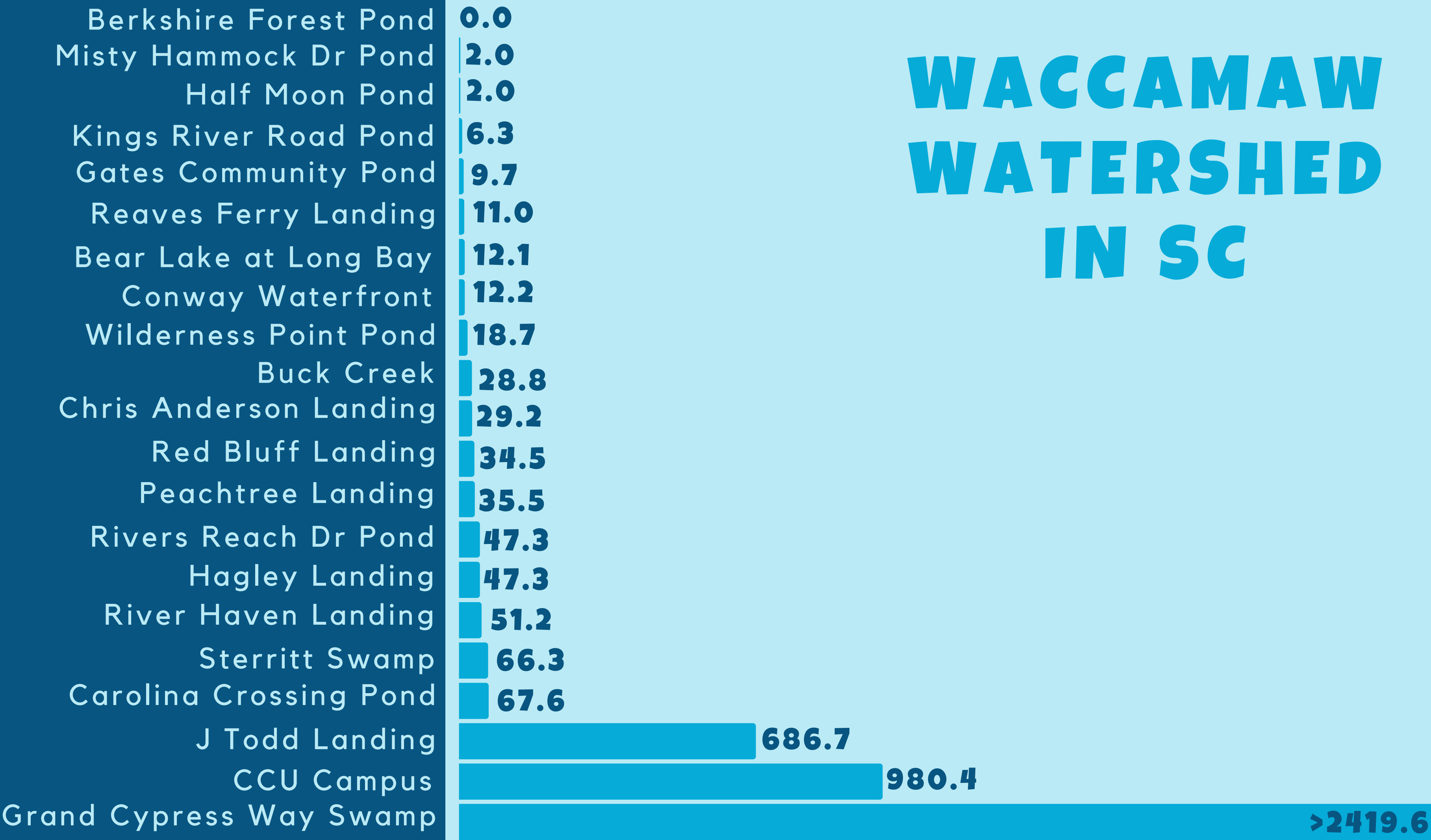


WACCAMAW WATERSHED IN NC

E. coli Concentration
(MPN/100mL)



WACCAMAW WATERSHED IN SC



BLACK & SAMPIT WATERSHEDS

E. coli Concentration
(MPN/100mL)

Rocky Point Community Forest



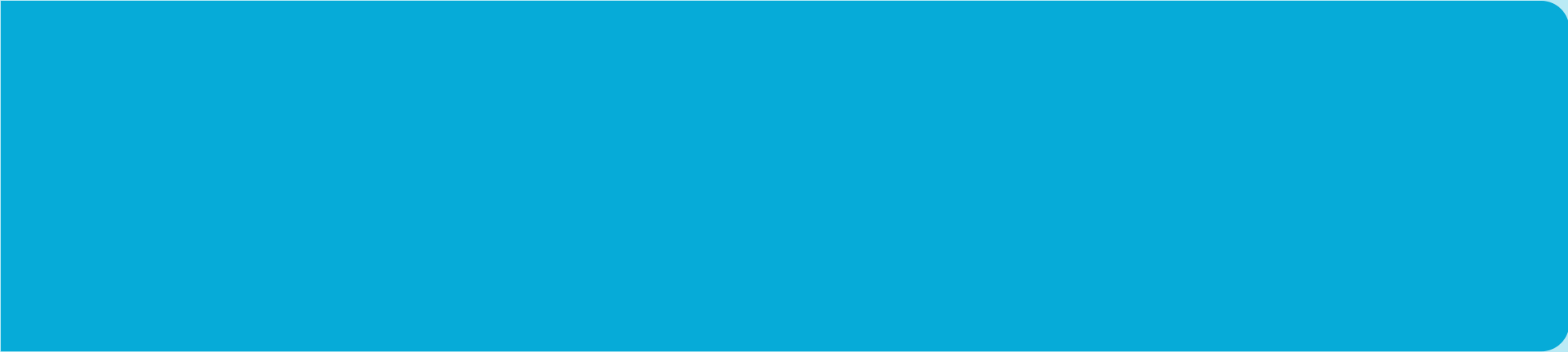
20.1

Carroll Ashmore



22.3

East Bay Park



39.3

COASTAL WATERSHED

E. coli Concentration
(MPN/100mL)

Socastee Park 23.3

South Lake at Briarcliffe Acres 33.1

Ashton Glenn Ditch 73.3

Surfside Swash 129.6

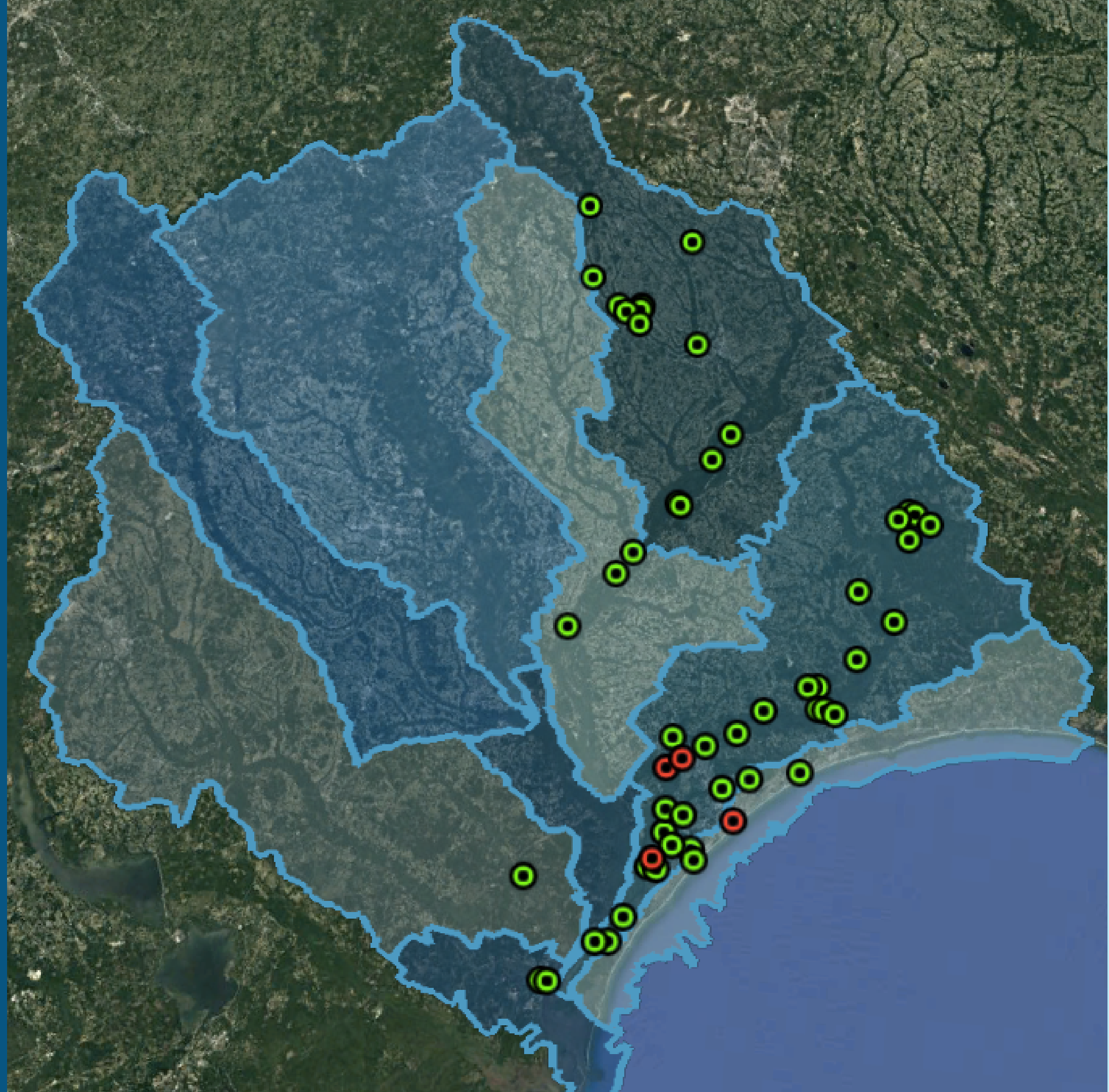
Black Creek 193.5

Withers Swash >2419.6

SAMPLING RESULTS

4 sampling sites failed the
water quality standard

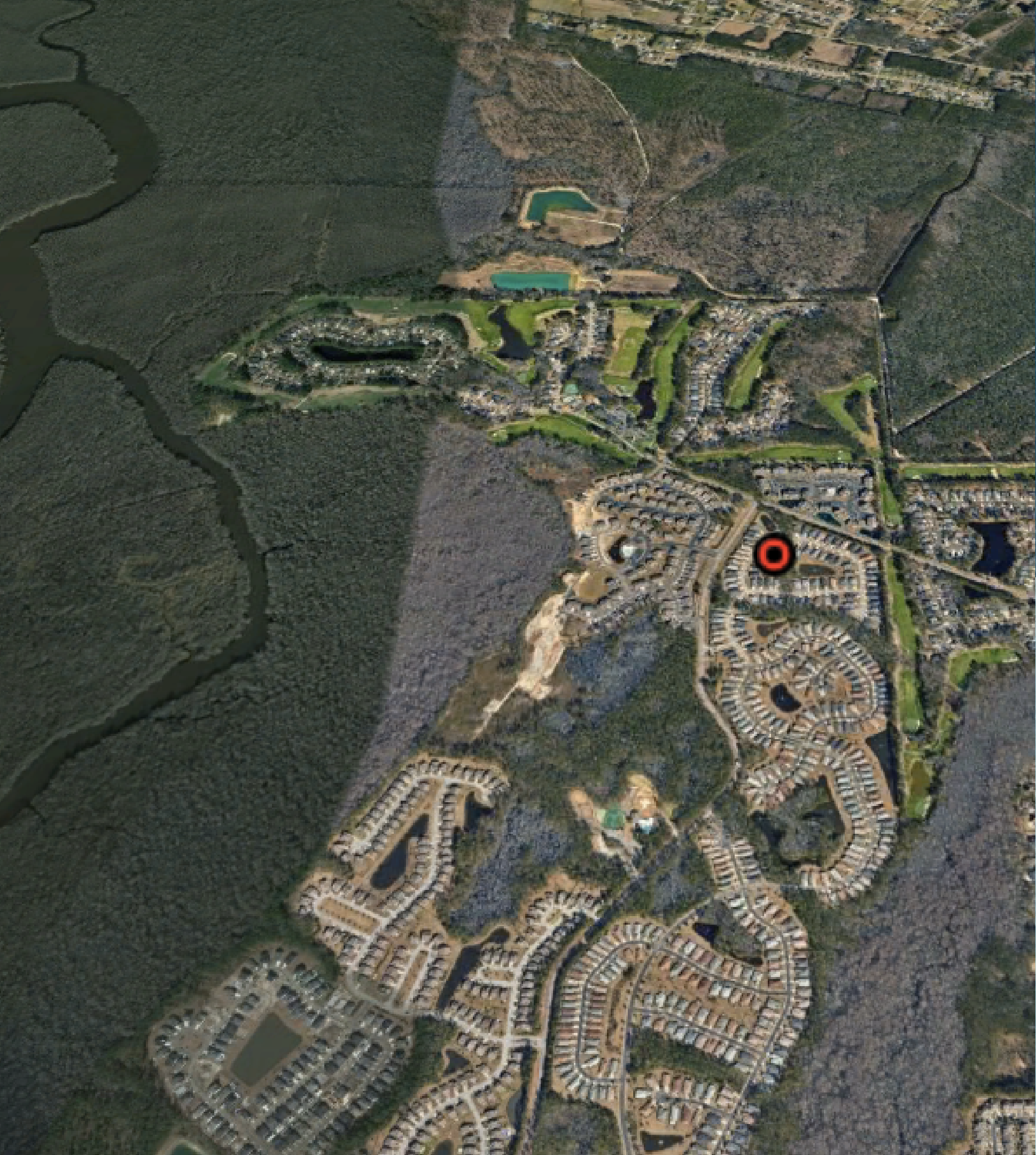
- Withers Swash
- Grand Cypress Way swamp
- CCU Campus Downstream
- J Todd Landing





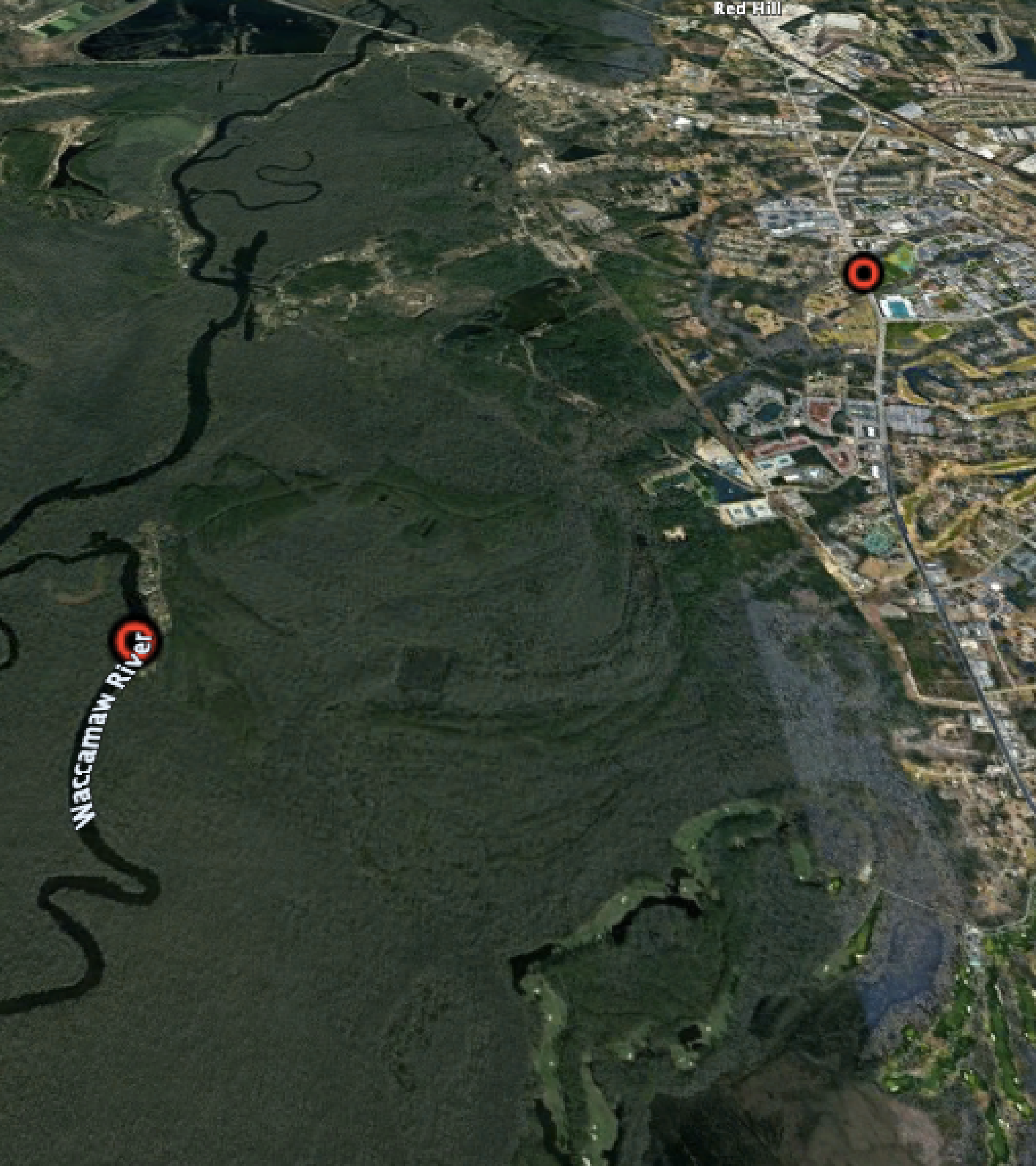
WITHERS SWASH

>2419.6
MPN/100 mL

An aerial photograph of a residential area, likely a golf course or a large housing development, with a red circle marking a specific location. The image shows a mix of green grass, brown earth, and clusters of buildings. A large body of water is visible on the left side.

GRAND CYPRESS WAY SWAMP

>2419.6
MPN/100 mL



CCU CAMPUS + J TODD LANDING

CCU CAMPUS **980.4**
MPN/100 mL

J TODD LANDING **686.7**
MPN/100 mL



WHAT DO OUR RESULTS MEAN?

Low E. coli concentrations are a good indicator that our waterways are in good health.



WHAT DO OUR RESULTS NOT MEAN?

These values are not a guarantee. E. coli concentrations can change rapidly and are not constant.

NEXT STEPS

MARK YOUR CALENDARS

Mark your calendars
for Saturday,
September 16, 2023
for next year's
Bacteria Bitz

CONTINUE TO VOLUNTEER

Contact Winyah
Rivers to continue
volunteering with one
of our programs near
you

GET UPDATES AND INFO

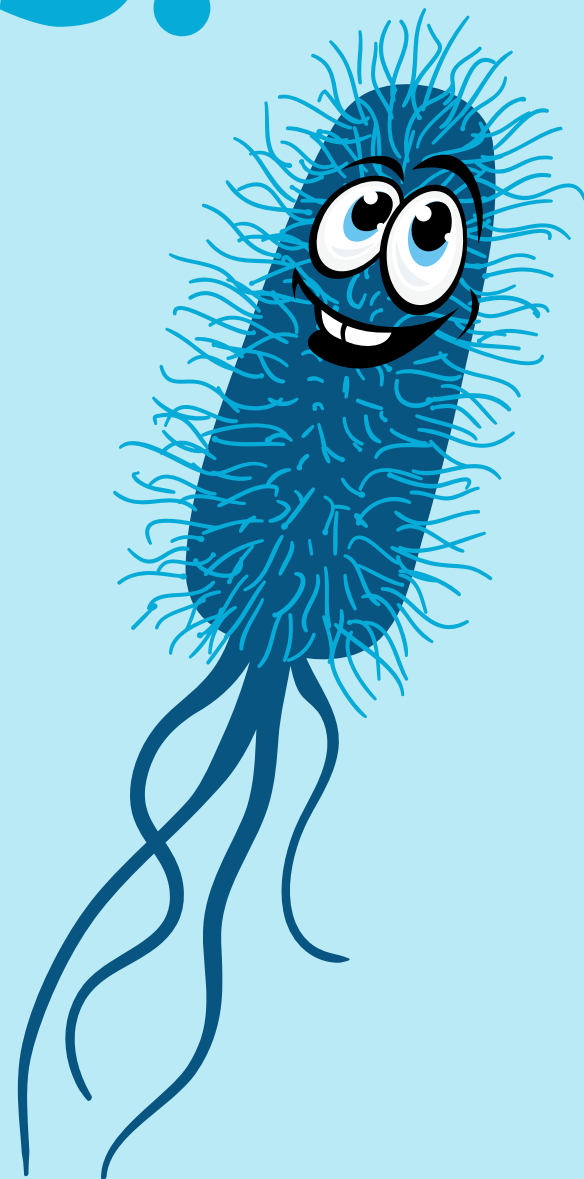
Be sure to follow
Winyah Rivers or sign
up for our newsletter
to stay up to date on
all our activities

THANK YOU 2 OUR SPONSORS!

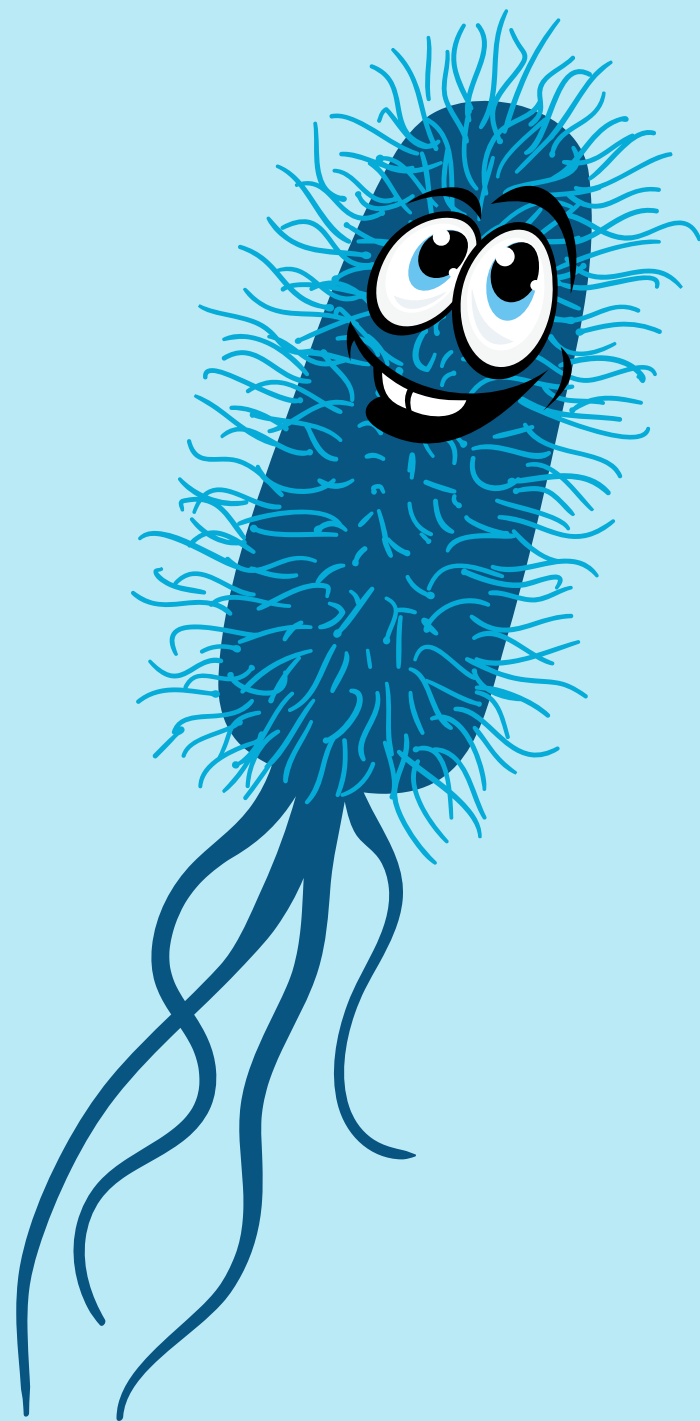
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QUESTIONS?