



Opportunities for MS4 Engagement Through Volunteer Monitoring Programs



Who?

- SC Adopt-a-Stream Program (SC AAS)
- Monitor
- FREE Workshops
- EPA Approved
- Valuable Data Uses
- Educated Citizens
- Healthier Streams

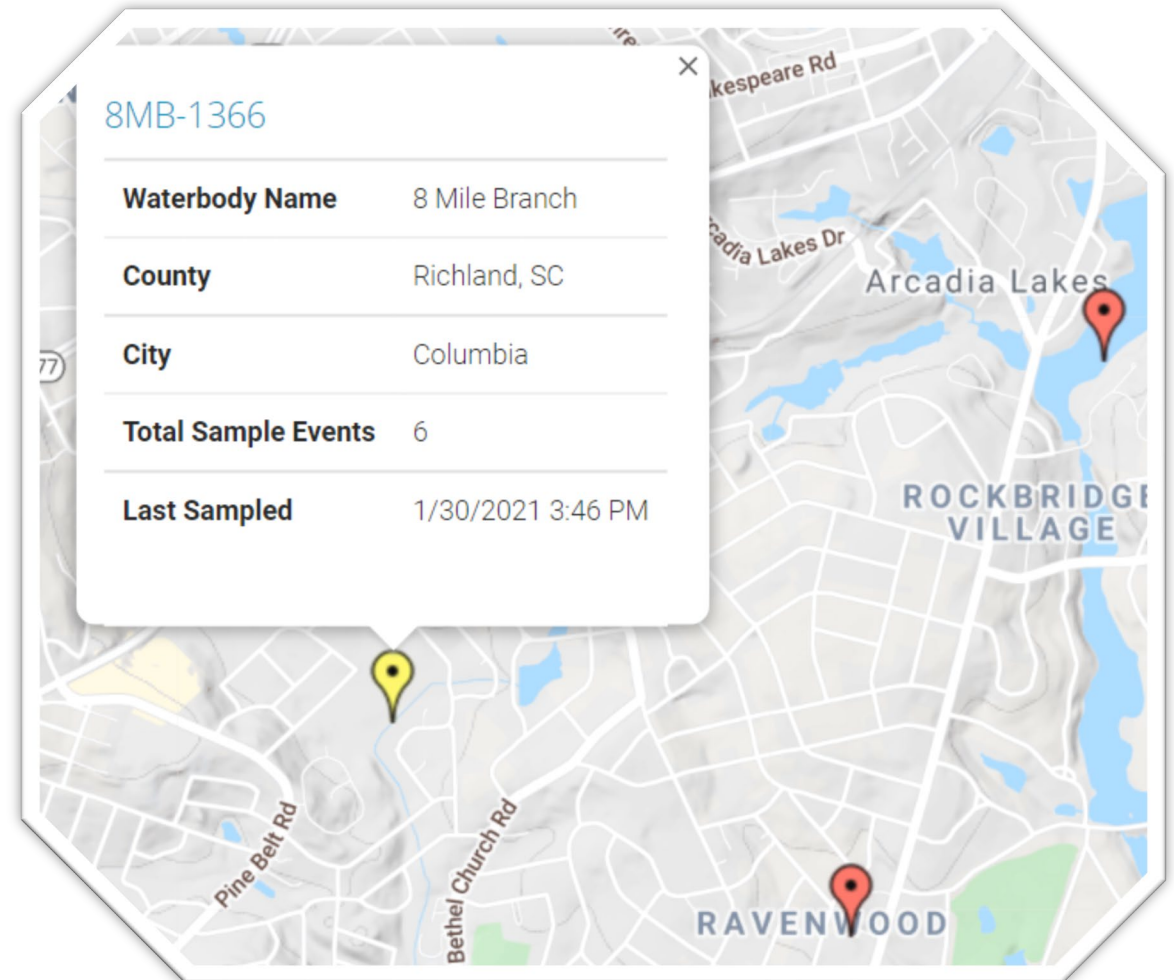


www.scadoptastream.org



Why do volunteers join?

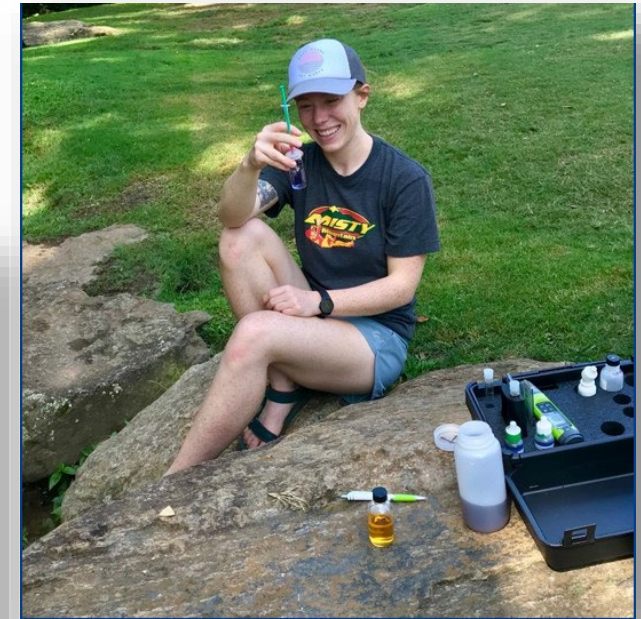
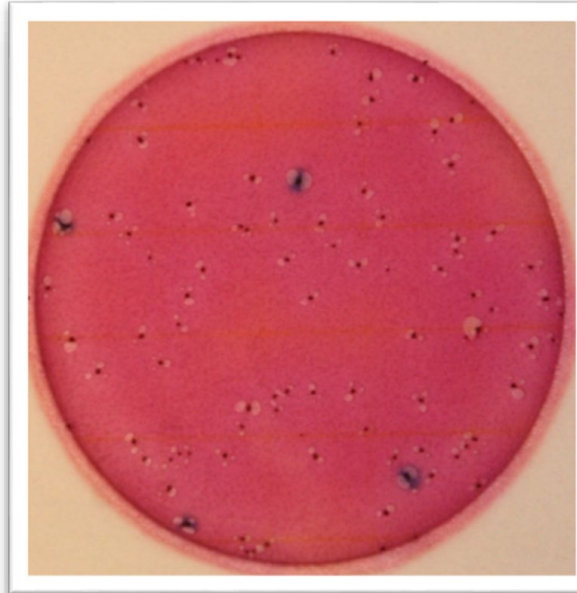
- Baseline Data – VALUABLE
- Citizen Stewards – IMPACT
- ↑ Water Quality – COMMUNITY
- Outreach – EDUCATION
- Find Problem – FIX IT
- **NOT** regulatory



What do volunteers measure?

Measured Monthly:

- Air Temperature
- Water Temperature
- Dissolved Oxygen
- pH
- Conductivity
- Bacteria
- Salinity
- Transparency



When do volunteers monitor?

Measured Quarterly:

- Macroinvertebrates

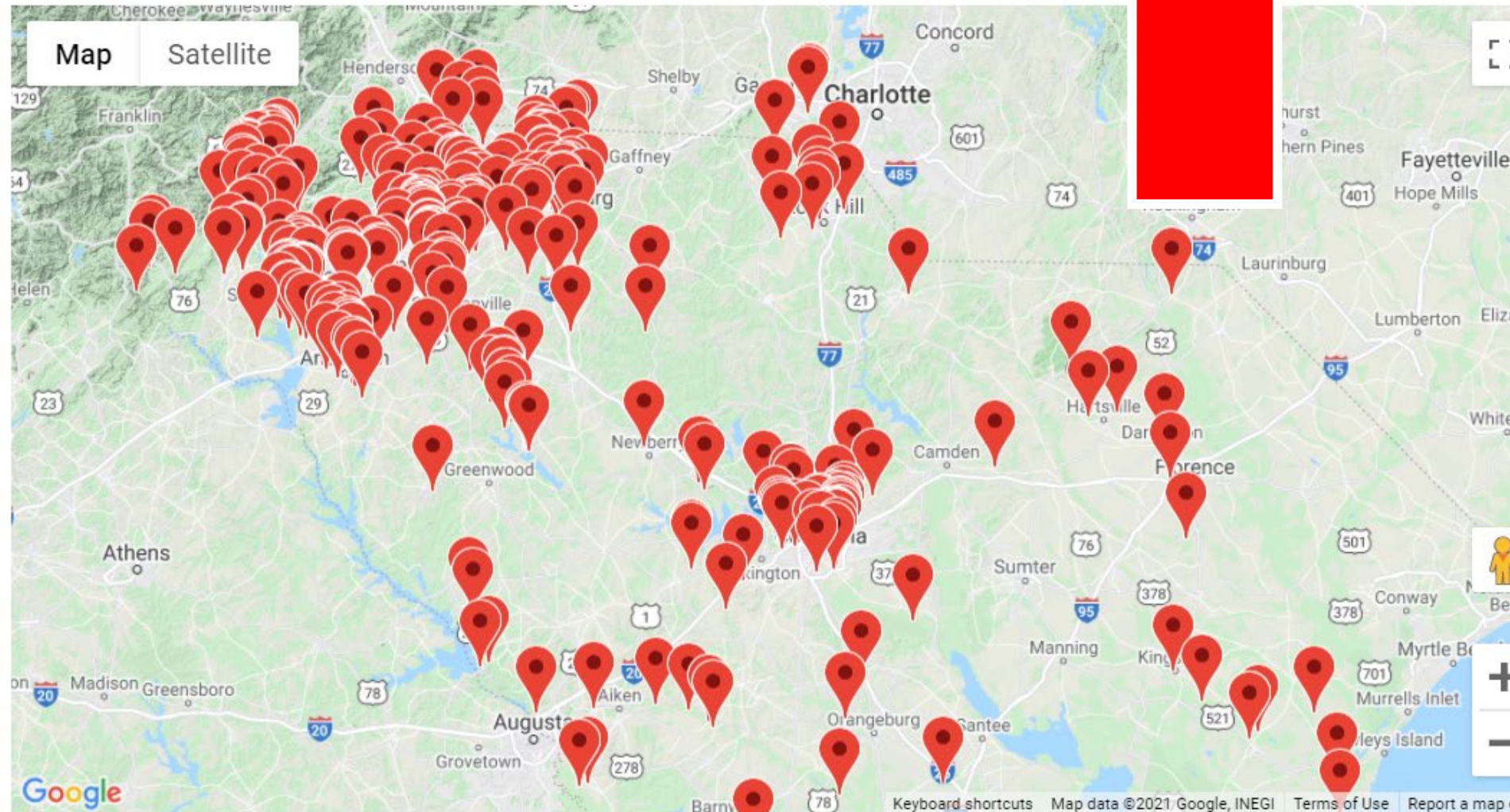
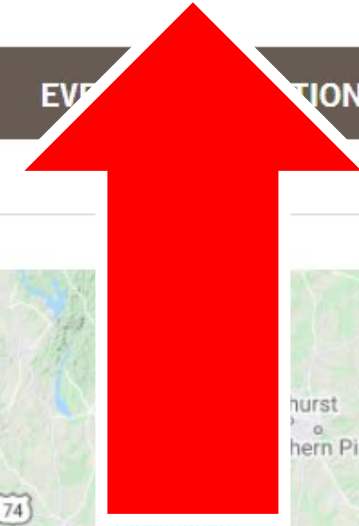
Measured Yearly:

- Physical Habitat Assessment



Website?

- Publicly Accessible Database
- Explore Upcoming Events
- E-Newsletter Sign-up
- Data Export



SC ADOPT-A-STREAM / SITE PROFILE

Site Information

Site ID: TB-1374
Creek: Taylors Branch
HUC-8: 03060103 - Upper Savannah
Waterbody Type: Freshwaters
County: Pickens
City: Sunset
Latitude: 34.9010
Longitude: -82.8558
Date Added: 09/17/2020
Group(s): Reserve Stream Stompers



Monitoring Events

of Monitoring Events: 13

Earliest Monitoring Event: 09/14/2020 12:25 PM

Most Recent Monitoring Event: 08/27/2021 9:20 AM

Site Images



Upstream Photo 08/27/2021 9:20 AM



Downstream Photo 08/27/2021 9:20 AM



Upstream Photo 07/14/2021 9:30 AM



Downstream Photo 07/14/2021 9:30 AM



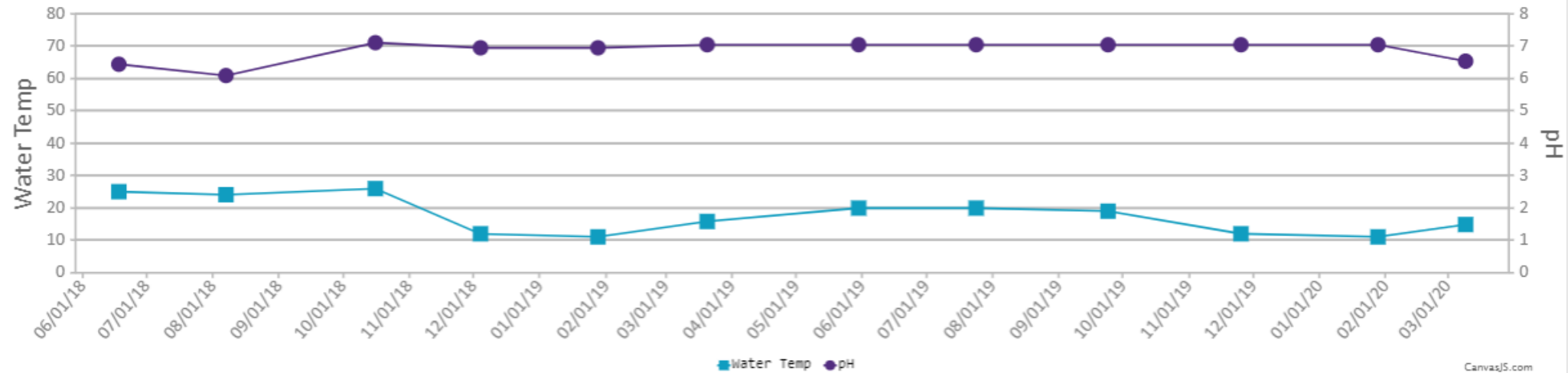
Additional Photo 07/14/2021 9:30 AM



Upstream Photo 06/16/2021 9:05 AM



Chemical Data



To use this data in MS Excel, simply select the data you want to copy; with selection copied, hit Ctrl/Cmd-C; place your cursor in a cell in Excel; right click your mouse and select Paste Special; select Text in the Paste options. All data will download into separate columns.

Date	E. coli (cfu/100ml)	pH (Standard Unit)	Conductivity (µS/cm)	Water Temp (°C)	Air Temp (°C)	DO (mg/L (ppm))	Macro Rating	Habitat Rating
03/09/2020 3:26 PM	33.33	6.55	53.00	15.00	22.50	8.60	Not available	Not Available
01/28/2020 1:36 PM	0.00	7.05	55.00	11.00	18.00	9.30	Not available	Not Available
11/25/2019 2:41 PM	133.33	7.05	53.00	12.00	21.50	8.25	Not available	Not Available
09/24/2019 10:30 AM	100.00	7.05	55.00	19.00	22.50	7.55	Not available	Not Available
07/24/2019 11:02 AM	800.00	7.05	55.00	20.00	23.50	7.15	Not available	Not Available
05/30/2019 6:49 AM	333.33	7.05	56.00	20.00	21.00	6.90	Not available	Not Available
03/20/2019 4:38 PM	0.00	7.05	54.00	16.00	21.00	8.25	Not available	Not Available
01/28/2019 2:39 PM	0.00	6.95	53.00	11.00	16.00	9.25	Not available	Not Available
10/01/2018 1:46 PM	133.33	6.95	55.00	12.00	15.00	7.00	Not available	Not Available
09/03/2018 3:04 PM	200.00	7.10	63.00	26.00	34.00	6.55	Not available	Not Available
08/07/2018 2:15 PM	600.00	6.10	58.00	24.00	31.00	6.00	Not available	Not Available
06/18/2018 2:25 PM	633.33	6.45	64.00	25.00	34.00	6.40	Not available	Not Available



	Protocol	Duplicate Precision	Test 1	Test 2
Air Temp	All	N/A	17	N/A
Water Temp	All	N/A	18.5	N/A
pH	All	+/- 0.25	6.5	6.5
Dissolved Oxygen	All	+/- 0.6	5.4	5.8
Conductivity	FW	N/A	157	N/A

Trash Cleanup

- The site is clean
- The site is clean
- I cleaned the site
- Site needs organized cleanup

Water Color

- No Color
- No Color
- Brown / Muddy
- Green
- Milky / White
- Tannic
- Other

Water Odor

- Natural / None
- Natural / None
- Gasoline
- Sewage
- Fishy
- Chlorine
- Other

8MB-1366

Waterbody Name

8 Mile Branch

County

Richland, SC

City

Columbia

Total Sample Events

6

Last Sampled

1/30/2021 3:46 PM

Why collaborate with SC AAS?



Volunteers = public education and outreach



Sampling events = public participation



Find illicit discharges that may have gone unnoticed



Lower costs to treat drinking water by being proactive



Bacteria Alerts, Odor Alerts, Illegal Dumping



You help SC AAS...

1. Share your knowledge as a trainer
2. Sponsor monitoring supplies
3. Utilize and share data
4. Identify adoptable streams
5. Become a volunteer

“Hubs” – Kit Cost

← Anderson Regional Joint Water ...

NAME of your organization, etc.
Anderson Regional Joint Water System

Timestamp
1/8/2018 9:59:20

Email Address
tburns@arjwater.com

STREET ADDRESS, CITY, STATE ZIP
998 Hunters Trl, Anderson, SC 29621

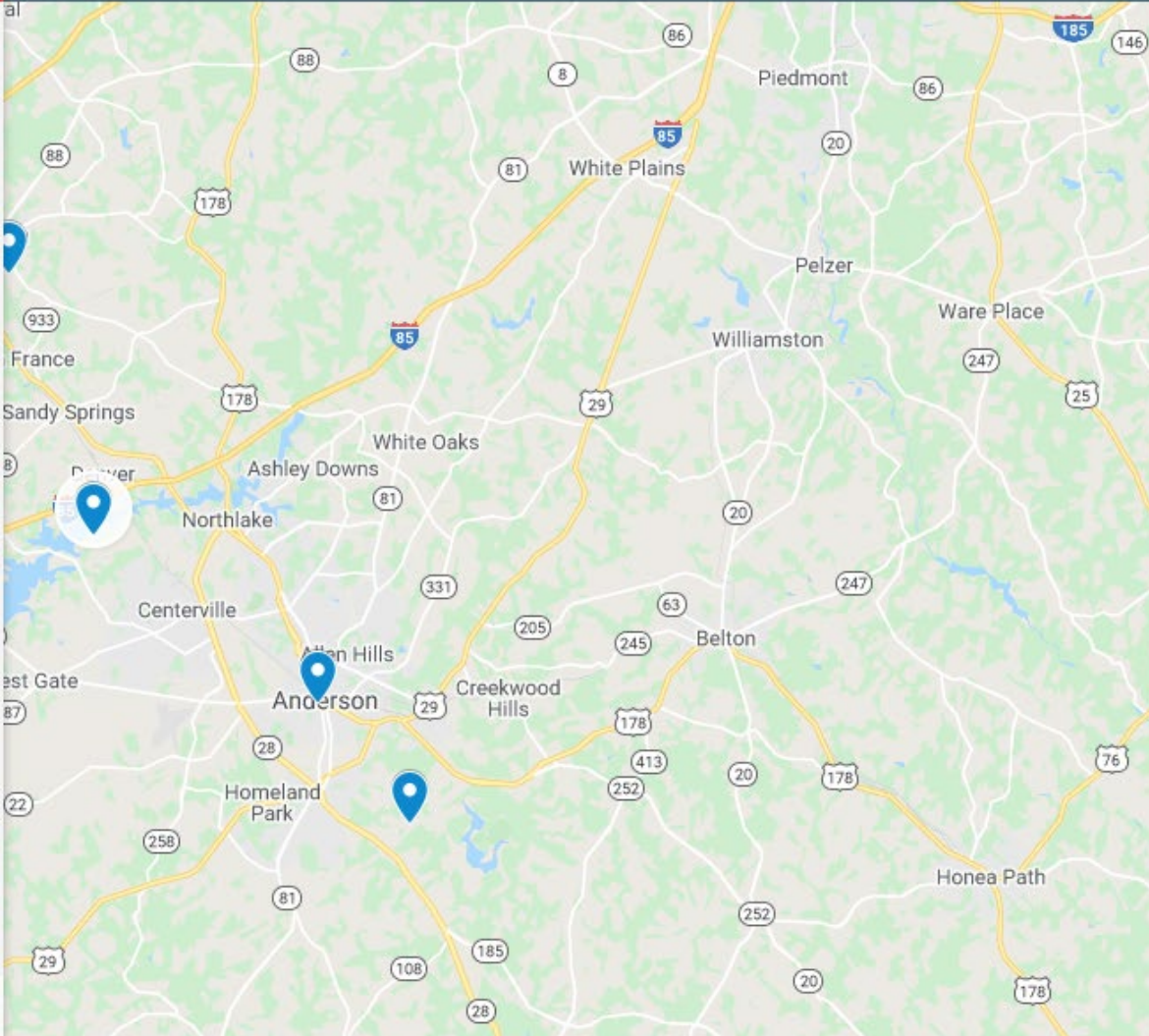
Name of contact, if preferred.
Trey

PHONE NUMBER
864-760-8041

EMAIL ADDRESS
tburns@arjwater.com

OPERATING HOURS
6am-5pm

Policies that you want to share regarding kit lending.
Have fun!

A map of the Anderson, South Carolina area, showing major highways (Interstates 85, 185, 178, 29, 25, 86, 88, 81, 20, 146, 108, 28, 252, 413, 205, 331, 247, 76, 178, 258, 22, 87, 933) and local towns (Anderson, White Plains, Pelzer, Williamston, Ware Place, Sandy Springs, Ashley Downs, Northlake, Centerville, Allen Hills, Creekwood Hills, Belton, Honea Path). Three blue location pins are visible: one near Sandy Springs, one in Anderson near Ashley Downs, and one near Homeland Park.

Examples of MS4 Involvement

Richland and Anderson County Stormwater

- Certified staff, purchased monitoring kits, provided training space, provided printed materials and promoted program at events

Richland County Stormwater's Education Coordinator

- Certified SC AAS Trainer/hosts workshops

Pickens County Stormwater Manager

- "AAS ...increase(s) awareness of the County's nonpoint source pollution and water quality issues."



Spartanburg County Stormwater manager

- Quick follow-up on high bacteria counts or concerning odors/colors

Town of Hilton Head Island MS4 Coordinator

- Tidal Saltwater Trainer

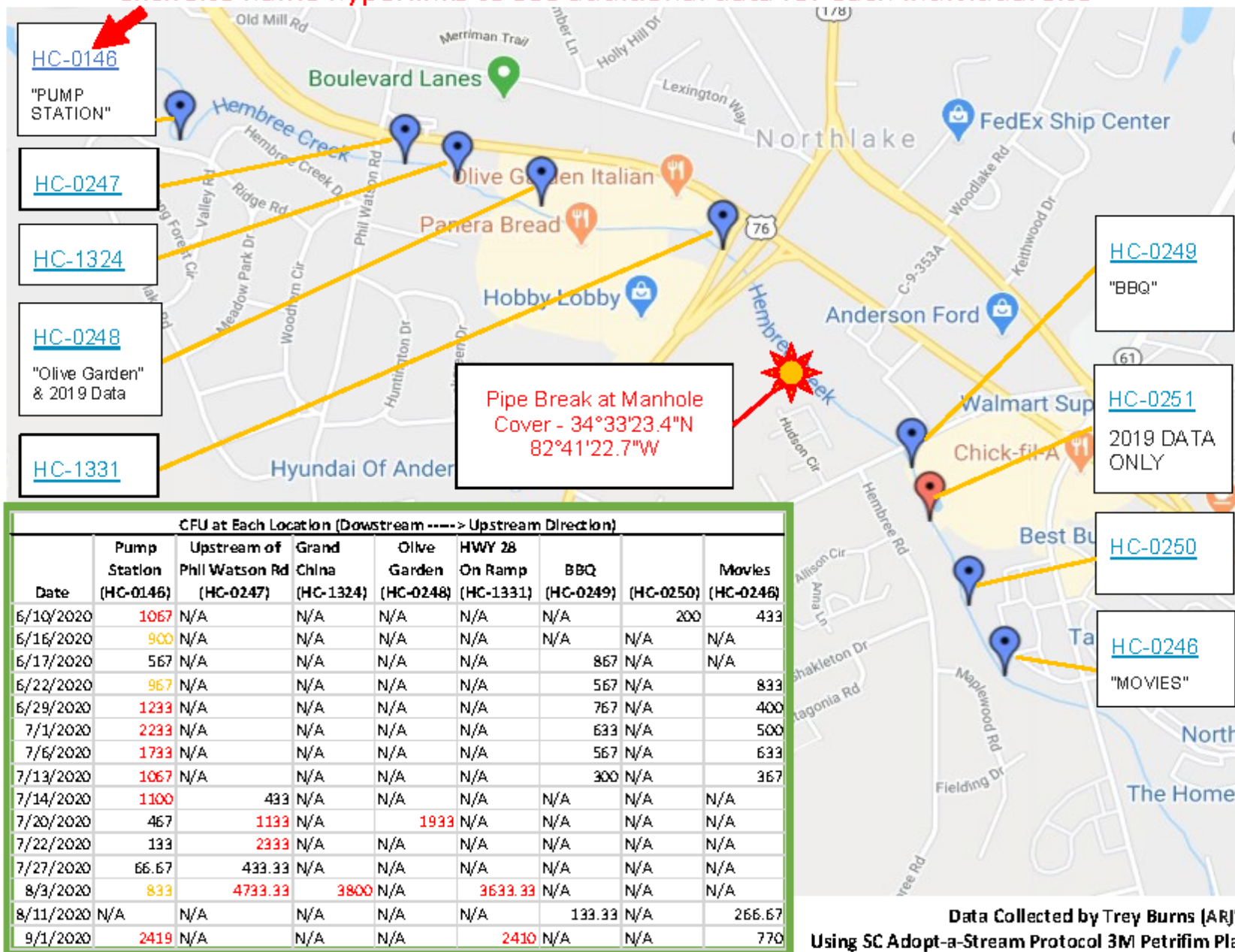


York County CEPSCI Inspectors

- Monitor stream sites while they are out inspecting construction projects

Hembree Creek Bacteria Source Discovery: 9/9/2020

****Click site name hyperlinks to see additional data for each individual site****



Data Collected by Trey Burns (ARJWS)
Using SC Adopt-a-Stream Protocol 3M Petrifim Plates
www.scadoptastream.com
Last Updated: 9/16/20 at 12:40 PM

Executive Director of Powdersville Water Dyke Spencer

- “Public education is the best way to correct the path we are on.....teaching people how they impact the environment during their daily living. This program allows them to get involved and be a part of their environment and part of the solution.”
- “Adopt a Stream is a great opportunity for our company to accomplish several things:
 - Shows that our company (Powdersville Water) is in the “environment” business and that we were serious about preserving our water resources.....so we involved ourselves in the effort.
 - Teaches our own operators about a biological & ecological part of the business they are in.
 - I have been very impressed in how quickly this program has caught on in the upstate and we have an opportunity to place our “mark” on something that will be viewed as “GOOD” to our consumers statewide.
 - I believe that anything we can do to promote the protection of our water resources is just an extension of our daily job as water providers.”

ADOPT STREAM

CENTER for
WATERSHED
EXCELLENCE  dhec

www.scadoptastream.org



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Upcoming Workshops

October 16th
Spartanburg
October 23rd
North Augusta

