

GEOCACHING THE RAIN

Using geocaching to educate the public



What is a geocache?

- A container (cache) placed in a hidden location specifically to be found by others using GIS information and clues

The screenshot shows the geocache page for "Caching the Rain" (GC661GH) on geocaching.com. The page includes the following information:

- Cache Name:** Caching the Rain
- Owner:** aic_stormwater
- Hidden:** 11/21/2015
- Difficulty:** ★★★★★
- Terrain:** ★★★★★
- Size:** (regular)
- Favorites:** 1
- Coordinates:** N 33° 56.990 W 083° 22.492 (UTM: 17S E 280533 N 3759134)
- Location:** In Georgia, United States, 5 0.8 mi from your home location
- Actions:** Print, No Logs, 5 Logs, 10 Logs, Driving Directions, Download (LOD waypoint file, GPX file, Send to My GPS)
- Disclaimer:** Please note Use of geocaching.com services is subject to the terms and conditions in our disclaimer.
- Geocache Description:** Athens-Clarke County Stormwater Geocache: "Water Logged"
"Water Logged" is a Geotrail created by Athens-Clarke County Stormwater Department that shows how rainwater gets from our streets to our streams. Stormwater runoff is the number one source of water pollution in the United States. When rain falls on impervious surfaces, such as rooftops, roads, sidewalks, parking lots, and driveways, instead of being absorbed by the ground, it flows into storm drains and from
- Admin Tools:** Edit, Edit Attributes, Waypoints, Upload Images, Archive, Disable
- Attributes:** View Gallery (9), Watch (0), Bookmark, Ignore

Clean Water Act

- National Pollutant Discharge Elimination System (NPDES) introduced in 1972
- Permit system for point sources of pollution



My Clean Water Act



NPDES Phase I

- In 1990, the EPA required medium and large cities or certain counties with populations of 100,000 or more to obtain NPDES permit coverage for their stormwater discharges.
- Approximately 750 cities and counties

NPDES Phase II

- In 1999, the EPA required small municipalities (>10,000) to obtain NPDES permit coverage for their stormwater discharges.
- Approximately 6,700 areas



Athens-Clarke County

- Regulated under the NPDES Phase II permit
- First permit issued for 2003-2007
- Stormwater utility implemented 2005
- Mission: To enhance and protect the water resources of Athens-Clarke County



Permit requirements

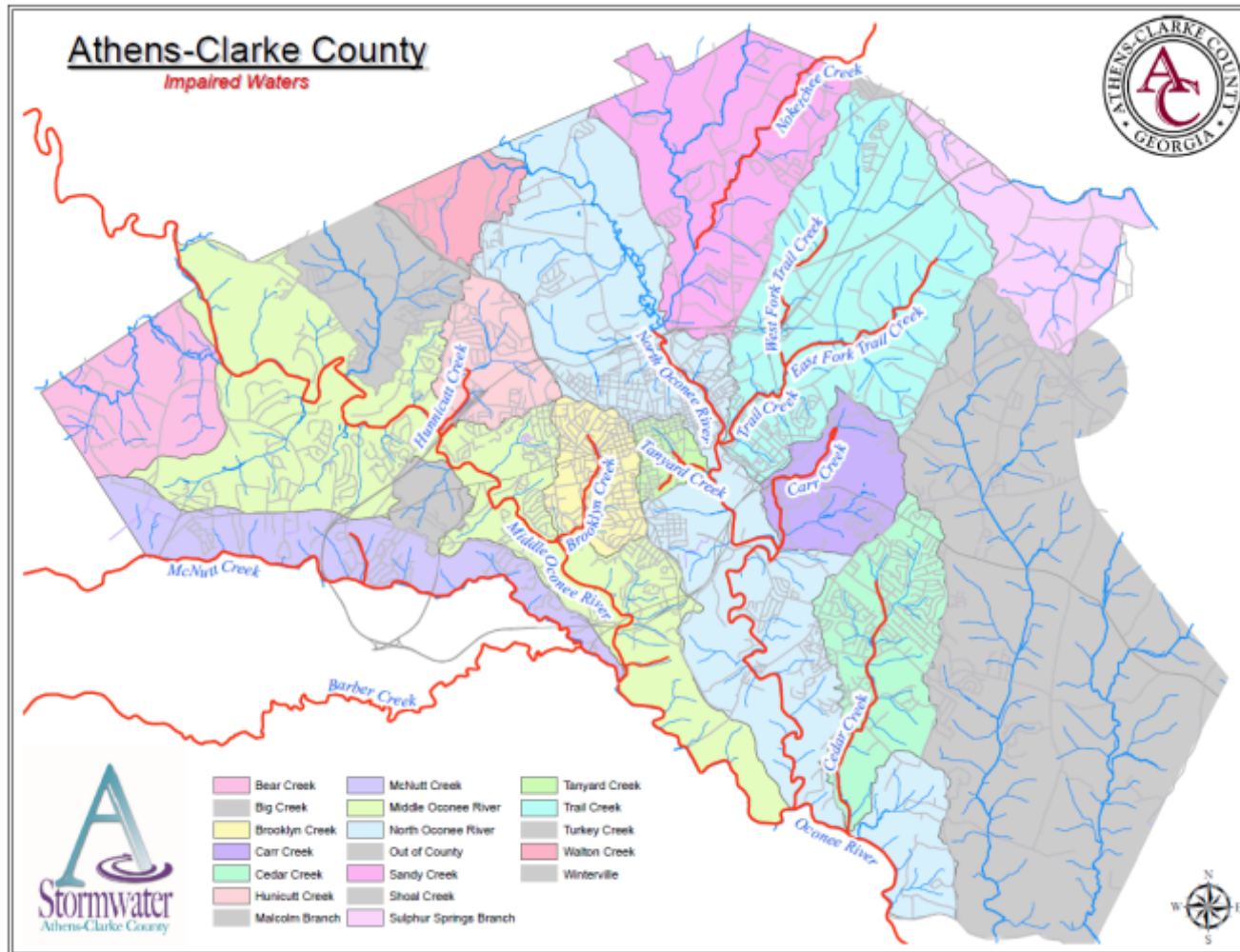
- Public Education & Outreach
- Public Participation & Involvement
- Illicit Discharge Detection and Elimination
- Construction Site Stormwater Runoff Control
- Post-Construction Stormwater Management
- Pollution Prevention/Good Housekeeping
- Enforcement Response Plan
- Impaired Waters Monitoring and Implementation Plan

Water quality in Athens-Clarke County

- 82 miles of impaired waters
- Local government dedicated to:
 - Water quality improvement and protection
 - Open and transparent government

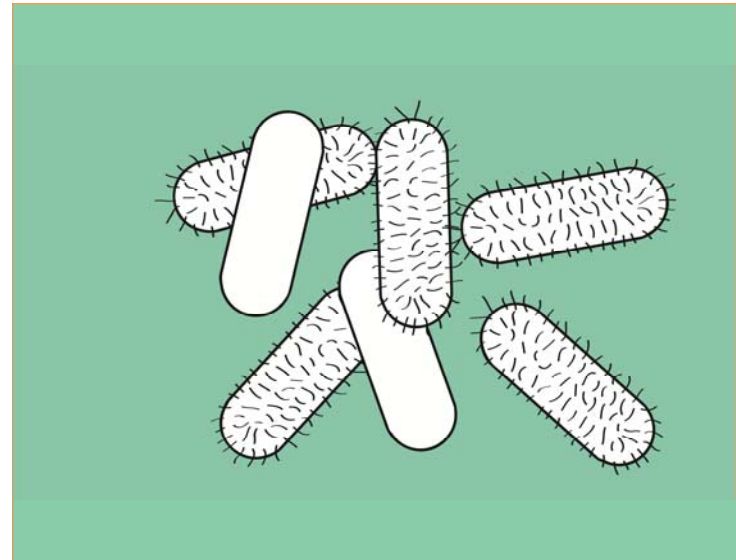


Water quality in Athens-Clarke County



Common pollutants

- Fecal coliform
 - Agriculture
 - Sewer breaks and septic leaks
 - Pet and wild animal waste
- Sediment
 - Bare patches
 - Stream bank erosion
 - E & S violations



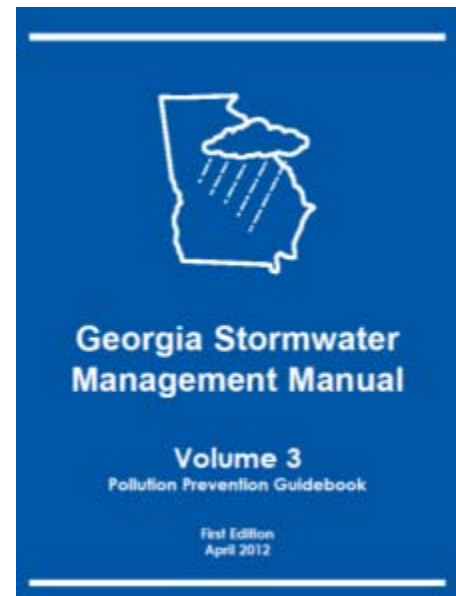
Community goals

- Provide a healthy and desirable community through conservation and active utilization of our environment and natural resources.
- Preserve water resources through practical conservation and other methods.
- Develop, provide, and maintain environmentally sensitive infrastructure systems.



Why conduct education outreach?

- Permit requirements
- Effective tool for addressing NPS pollution
- Encourage environmental stewardship



Public Education and Outreach

- Conduct K-12 activities
- Participate in community events
- Work with businesses
- Create informational materials



Public Participation and Involvement

- Storm drain decals
- Partner on community service events
- Stormwater Steward Award



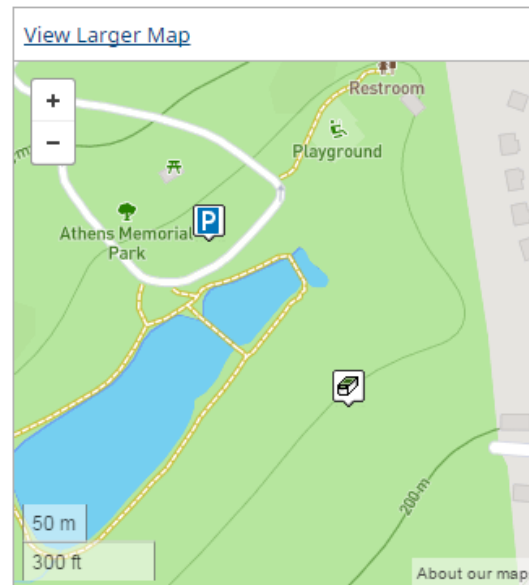
Finding a hook

- New types of engagement
- Utilize technology
- Encouraging exploration



Geocaching

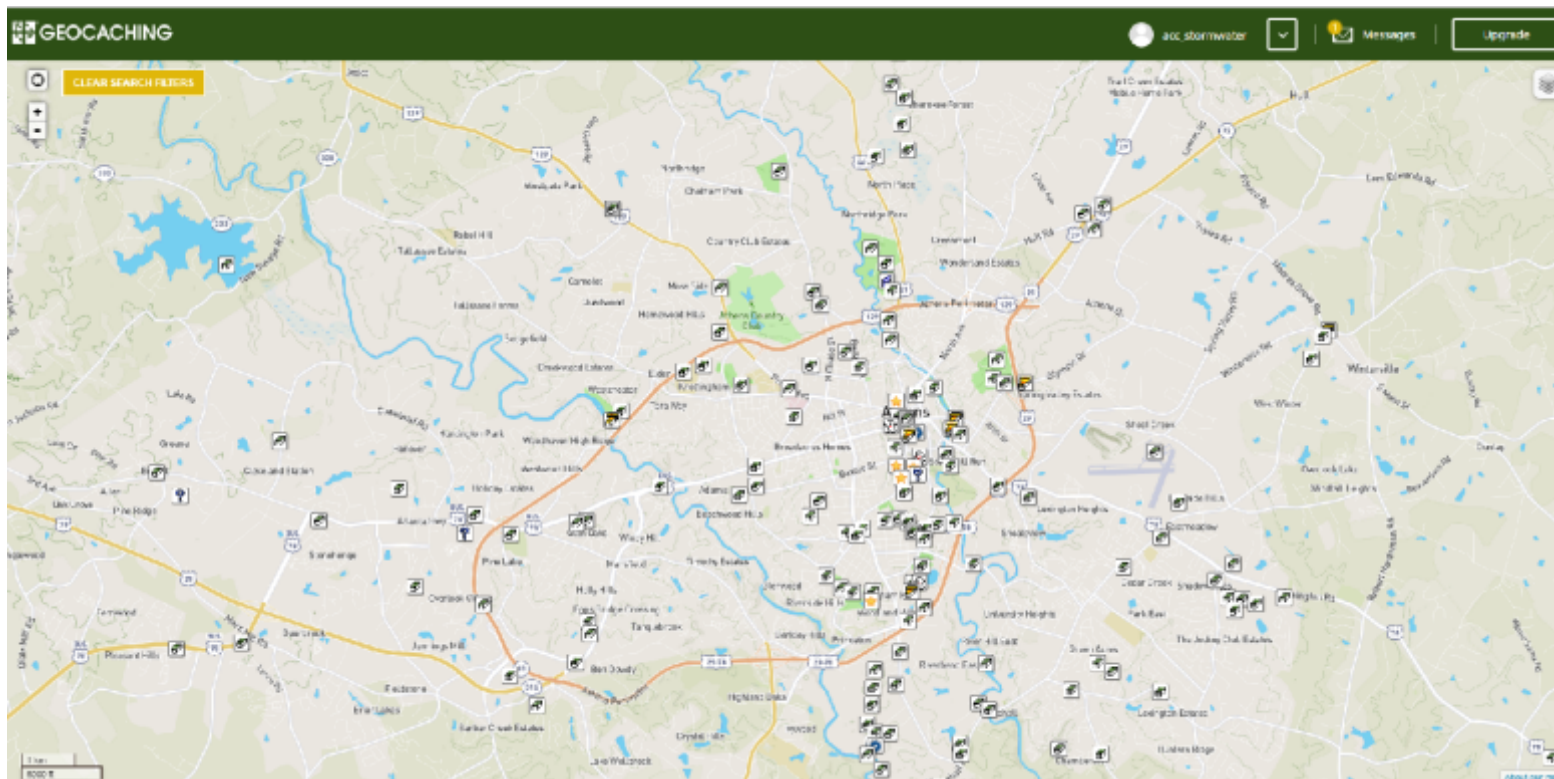
- Utilizes new technology recently made highly accessible
- Allows for tracking
- Allows for educational information and interaction
- Waterlogged – a Geotrail



[Notes about Printing Maps](#)

Geotrails

- Series of geocaches
- Can have a theme
- Allow for greater engagement



Geocache theme

- Topics to highlight
 - From street to stream
 - Rain harvesting
 - Green infrastructure
 - Fecal coliform
 - Stream bank erosion
- Prizes: custom buttons for each location



Geocache size

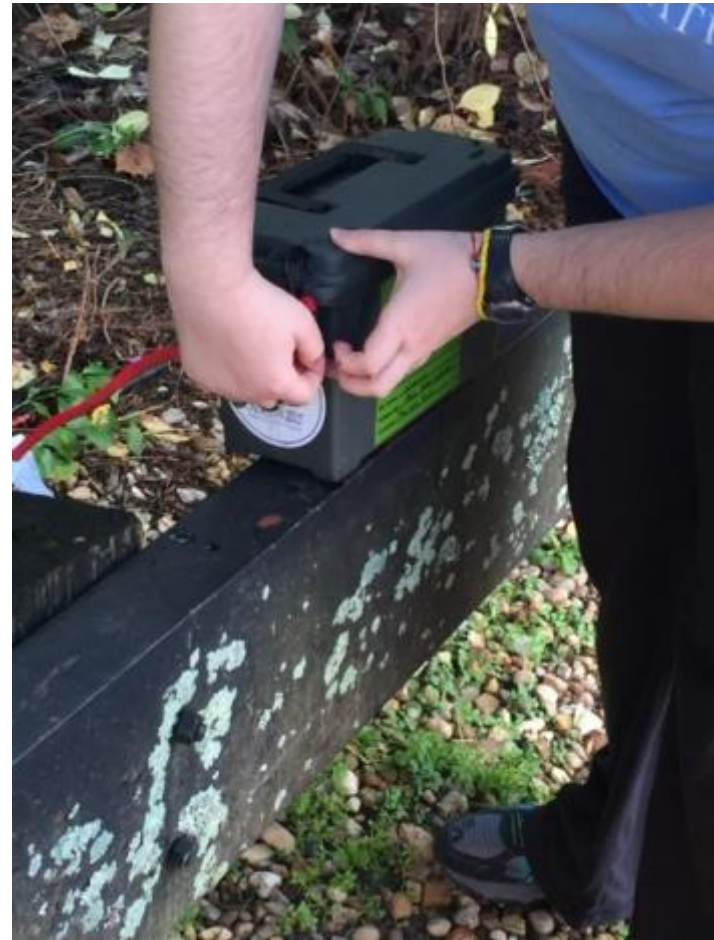
- Micro, small, regular, large, super large
- Determine size based on:
 - Location
 - Education goals
 - Interaction goals



Photo credit: hadley.grace

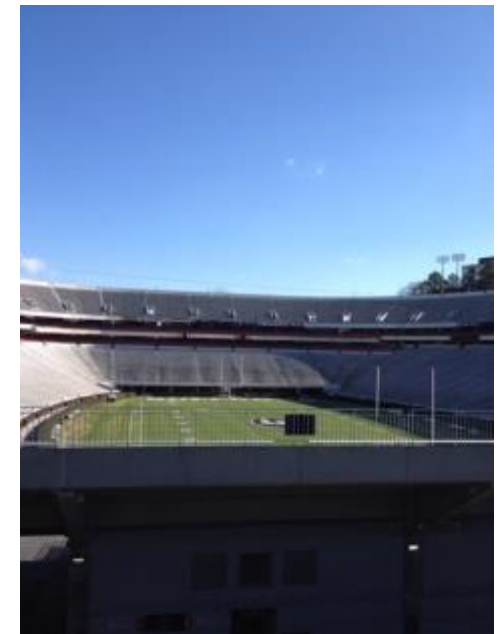
Geocache placement

- Identify locations
 - Away from incidental contact
 - Somewhat secluded
- Contact proper authorities
 - Facility or land managers
 - Police departments



Caching the Rain

- Education goal: Connects stormwater infrastructure, such as catch basins, to local waterways
- Location: UGA Campus



apbishop

Member



47

Found it

My first FTF! Walked around looking like a dummy for a while then finally had to use the hint. I think the coordinates are not exactly right, but it may just be my GPS. Either way, TFTC and thanks for all you guys do in Clarke County!

11/15/2015

[View Log](#)

We Make it dRain

- Education goal: highlight rain harvesting
- Location: Transportation & Public Works Department



roxyrxgirl

Premium Member



366

Found it

thanks for this nice geotrail. i love learning about things when I geocache nice large urban cache.

3/12/2016

[View Log](#)

Photo credit: awesomedill

Bridge Over Troubled Waters

- Education goal: Highlight an armored stream and inform visitors about erosion
- Location: UGA Campus



Karenmc831
Premium Member



👍 816

👍 Found it

Awesome cache! Thank you! We found this on a very rainy day. The description was very informative and helped my 9 year old understand why it was armored. (His class just finished a unit on erosion so this was a perfect cache for him!)

12/30/2015


[View Log](#)

Paws Poo-llution

- Education goal: Inform the public about the impact of pet waste on water quality
- Location: Public park



[hersheycat](#)

 Premium Member



 3655

 Found it

Lots of great dogs around here including a cool big white one that loves rolling in the mud. Cache was in good shape. Thanks for the gun hide on s great day!

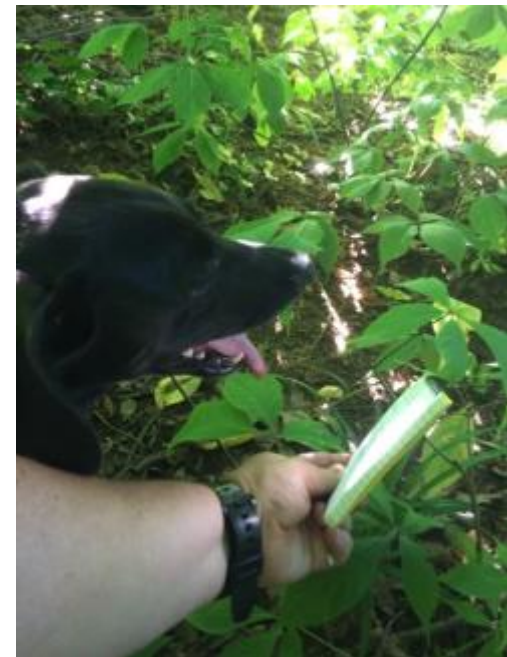
4/10/2016

[View Log](#)

Photo credit: DianeAndSteven

Moving in Flow Motion

- Education goal: Highlight a green infrastructure treatment train
- Location: UGA Campus



[CachingJAK](#)

 Premium Member



 673

 Found it

I have enjoyed having these new educational caches to find especially when they take you to beautiful area of this college campus. Thanks again, acc_stormwater! Loving this geotrail! Keep 'em coming!

11/19/2015

[View Log](#)

Photo credit: ThistleRacer

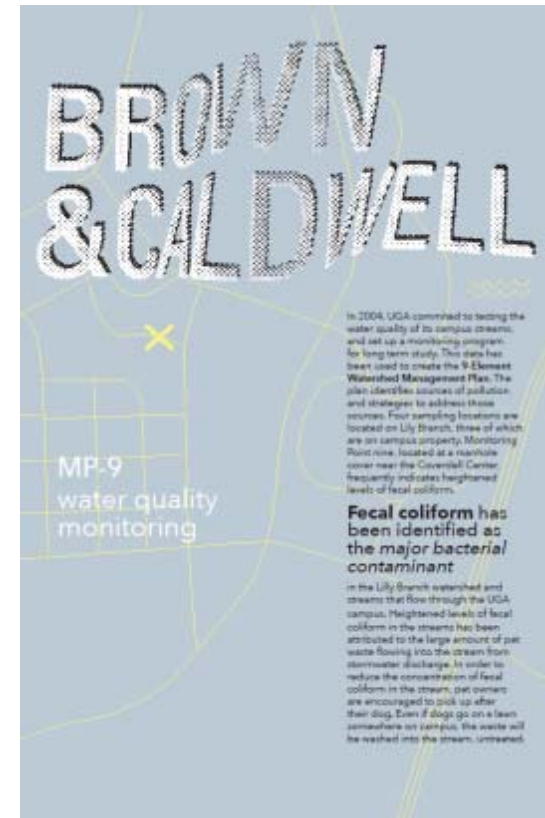
Watershed UGA Geotrail

- New project with long-time partners
 - Watershed UGA
 - UGA Office of Sustainability
 - Environmental Law Practicum
- Added five new geocaches to UGA's campus highlighting campus streams and daylighting efforts



Watershed UGA Geotrail

- Student created materials



Materials Created By: Ruby Lin, BFA

Lessons learned

- **Do** provide information online and in the geocache
- **Do** provide small prizes for geocachers
- **Do** promote the geocache through traditional media, social media, events, and word of mouth
- **Do** respond quickly to comments about the cache
- **Do not** advocate for a particular agenda
- **Do not** hide the cache in an area where it could be unintentionally damaged or removed
- **Do not** hide the cache on property without contacting the owners and local law enforcement first



Future Steps

- Expanding across the county
- Switching locations to maintain interest
- Providing informational prizes
- Building partnerships

Questions?

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