

Georgia Adopt-A-Stream

Introduction



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Georgia Adopt-A-Stream

- What is it?

Georgia's volunteer water quality monitoring program

- Program Goals

A: Increase public **awareness**

D: Collect quality baseline water quality **data**

O: Gather **observations**

P: Encourage **partnerships** between citizens & local government

T: Provide **tools & training**

Water Quality Issues In Georgia

- Control of toxic substance in rivers, streams and lakes
- Reduction of nonpoint source pollution
- Increase public involvement in water quality improvement projects
- Continued implementation of a comprehensive water management plan



Point Source Pollution

- Easily identifiable pollutant source (point to source)
- Regulated by the EPD through the NPDES (National Pollutant Discharge Elimination System) permitting process

Examples:

- Industrial Discharge
- Sewage treatment plant
- Exposed leaking sewer pipe

Nonpoint Source Pollution

- The #1 cause of water quality problems in Georgia
- Typically caused by sources that are not easily distinguishable or identifiable
- Everyone contributes

Examples:

- Runoff from roads and parking lots
- Erosion/Sediment
- Fertilizers and pesticides
- Animal waste
- Illicit spills and illegal dumping
- Leaking septic systems

Why Is Monitoring Water Quality Important?

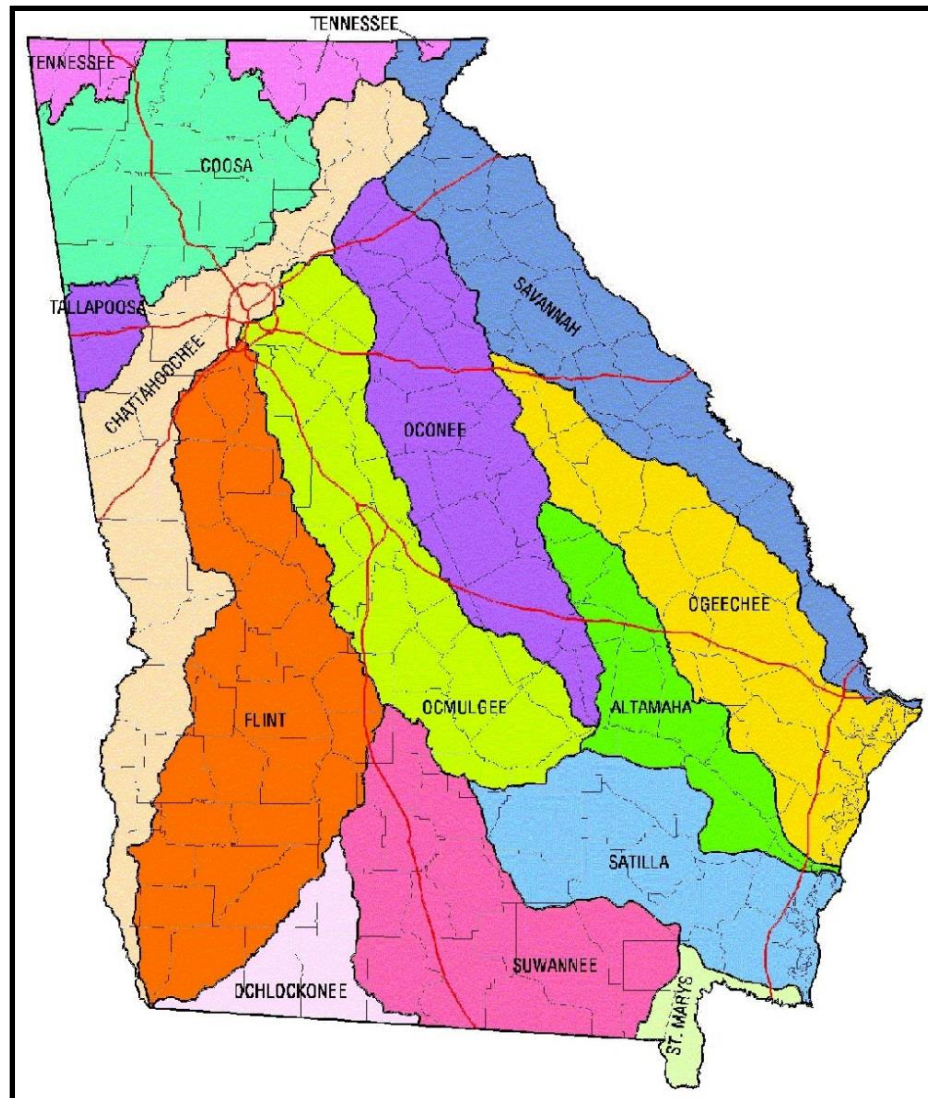
- Our quality of life is directly related to the quality of the rivers, streams and wetlands around us
- Regular monitoring provides specific information about the health of our local streams and other water bodies
- All the water we have now is all the water we'll ever have (Water Cycle)

Getting Started

- Register a Group Name
- Register your monitoring site on our online database
- Set up a monitoring schedule
- Notify your local government
- Decide who will receive your data
- Find local partners
- Develop a “Who To Call” list
- Conduct at least one cleanup and one outreach activity annually

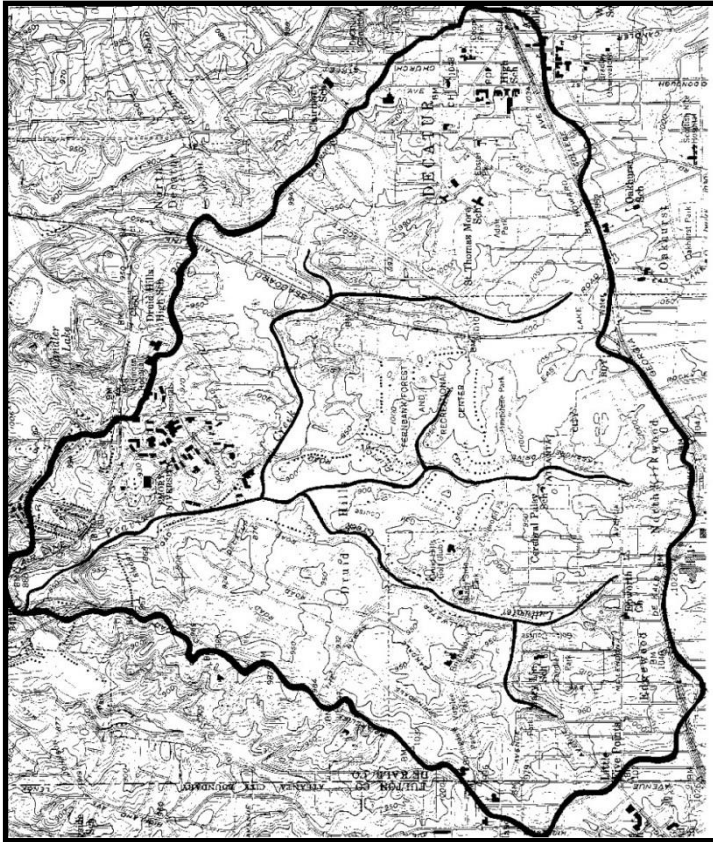


Getting to Know Your Watershed



<https://adoptastream.georgia.gov/manuals>

Watershed Survey & Map Assessment



What

- Map your watershed and conduct a comprehensive survey of the land uses, potential and actual pollution sources, geography and history of your waterbody and its watershed

Why

- Getting to know your watershed is the first step to understanding your stream, wetland, lake, or coastal water
- The health of your waterbody is directly impacted by land uses and activities

When

- Every year

Visual Stream Monitoring



What

- Visual & physical evaluation of stream conditions

Why

- Critical water pollutants and habitat damage, such as sedimentation, erosion and excessive nutrients, can be detected through the visual survey

When

- Quarterly or once every season

Macroinvertebrate Monitoring

What

- Inventory of macroinvertebrates in the stream

Why

- The overall health of the stream can be determined by the diversity of macroinvertebrates found.
- The presence of macroinvertebrates indicate the quality of both water and habitat

When

- Quarterly or once every season



Chemical Monitoring



What

- Testing for pH, dissolved oxygen, temperature, and conductivity
- Additional tests include nutrient sampling, Secchi disk, salinity, turbidity, and settleable solids

Why

- Provides “snap shot” of water quality
- Oxygen is needed for respiration
- Temperature is directly related to biological activity
- pH measures the acidity or basicity of the water
- Conductivity measurements indicate potential inorganic or organic pollutants

When

- Once a month

Bacterial Monitoring

What

- Sampling for E. coli bacteria

Why

- Indicates presence of disease causing agents in the water body
- Indicates the safety of the waterbody for recreational uses

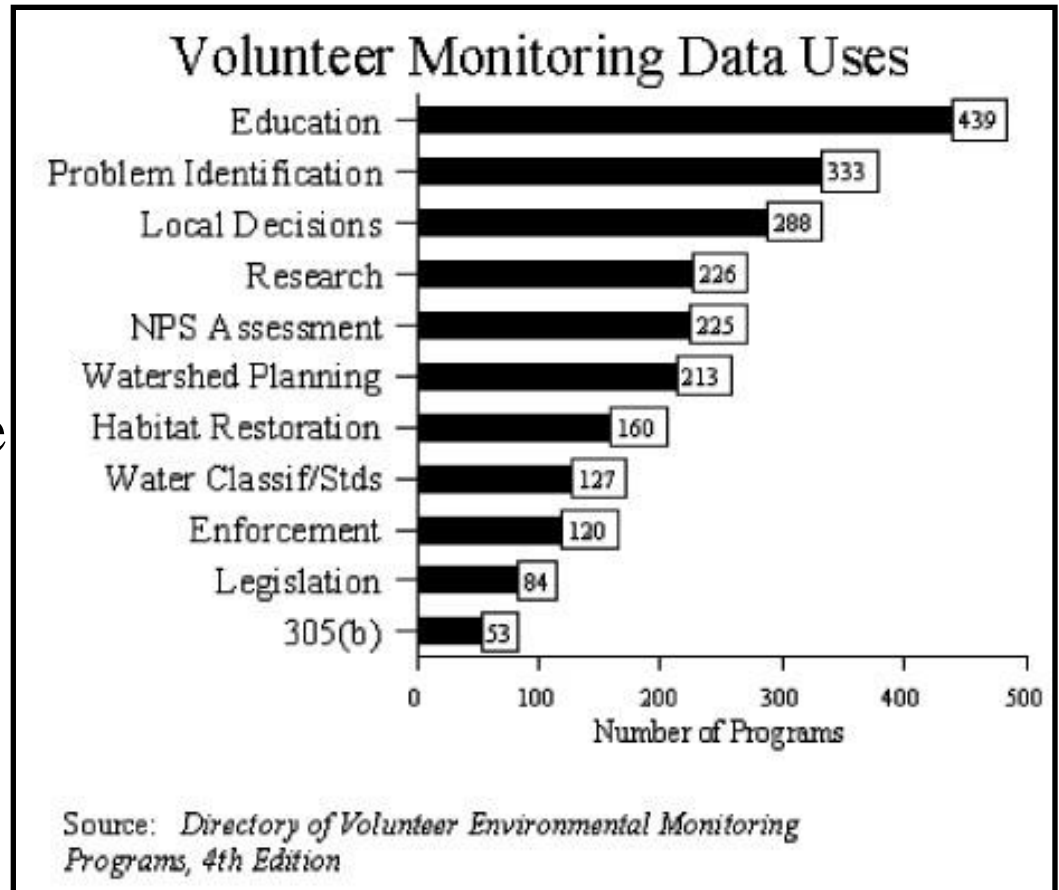
When

- Once a month



Quality Assurance Project Plan

- Quality Assurance Quality Control (QAQC)
- Only **individuals** are certified
- Certification is valid for **one year**



Organizational Levels of Georgia Adopt-A-Stream

State Staff

Advisory Board

Local Coordinators & Trainers

*Partners who act as local contacts and
provide assistance to monitoring groups*

*Individuals or groups who monitor a stream, wetland,
lake or coastal waters*

*Citizens who participate in a cleanup or other outreach activity
organized by any of the above mentioned groups of people*

Equipment for Volunteers



Georgia Adopt-A-Stream Resources

- **Website:** AdoptAStream.Georgia.gov
- **Getting To Know Your Watershed** Manual
- **Visual Stream Survey** Manual
- **Macroinvertebrate and Chemical Stream Monitoring** Manual
- **Aquatic Macroinvertebrate Field Guide for Georgia's Streams**
- **Amphibian Monitoring** Manual
- **Wetland Monitoring** Manual
- **Adopt-A-Lake** Manual
- **Adopt-A-Stream Educator's Guide**
- **Georgia Outdoors: Georgia Adopt-A-Stream & Rivers Alive** Video
- Getting Started: Watershed and Visual Stream Assessment workshops
- Macroinvertebrate Monitoring workshops
- Chemical & Physical Monitoring workshops
- Bacterial Monitoring workshops
- Amphibian Monitoring workshops
- Train – The – Trainer workshops
- **You Are The Solution To Water Pollution** Poster and Brochure
- Life at the Water's Edge: A guide to stream care in Georgia
- Online Water Quality Database
- Newsletter
- Teacher PLU Credits
- Technical and logistical support for volunteers and communities