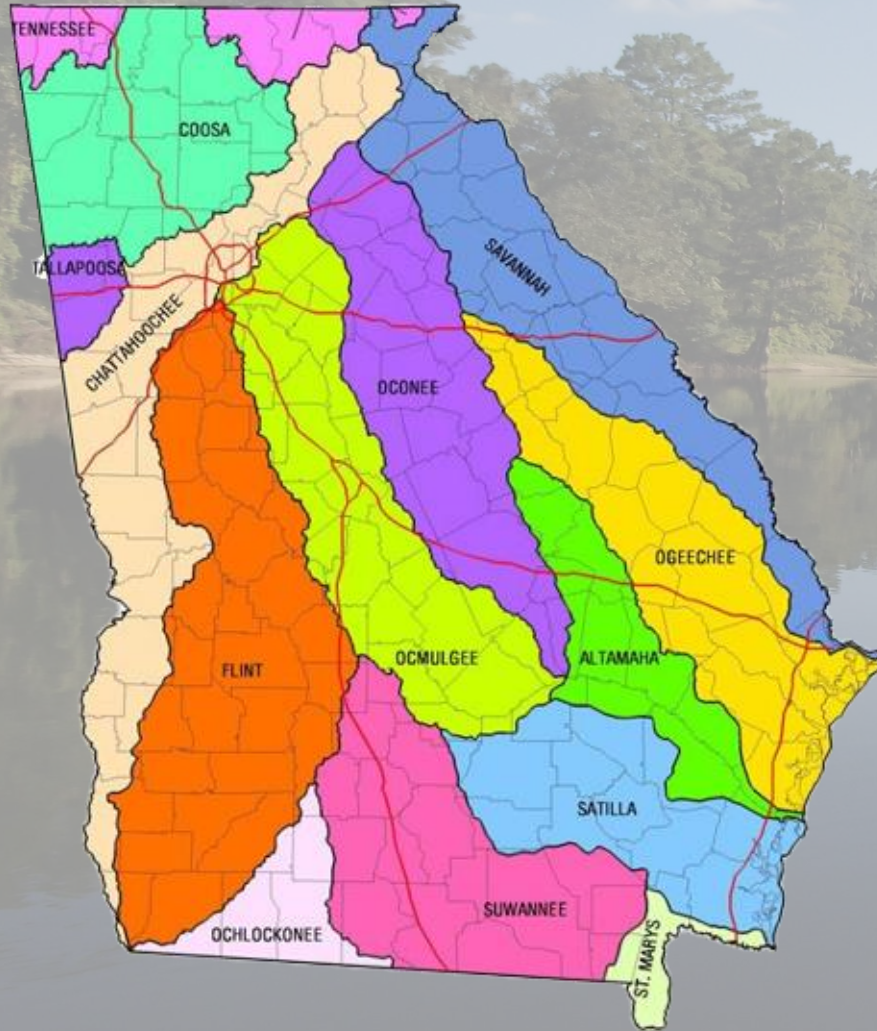# Georgia Adopt-A-Stream Introduction

What is a Watershed?

- A land area from which water, sediment, and dissolved materials drain to a common point along a stream, wetland, lake, or river.

- Its boundaries are defined by the highest points of land around the waterbody.

A. Vicente, U.S. Forest Service

Where is Your Watershed?

Point vs. Nonpoint Source Pollution

- **Point Source**
  - Easily identifiable pollutant source
  - Regulated by GA EPD through the NPDES permitting process

Chattahoochee Riverkeeper

WARNING!
Sewage
Avoid contact with river after rain.

CSO Outfall No. 044
D.C. Water and Sewer Authority 202-612-3400

American Rivers

Point vs. Nonpoint Source Pollution

- **Nonpoint Source**
  - Sources that are not easily distinguishable or identifiable
  - Everyone contributes
  - The main cause of water quality problems in GA
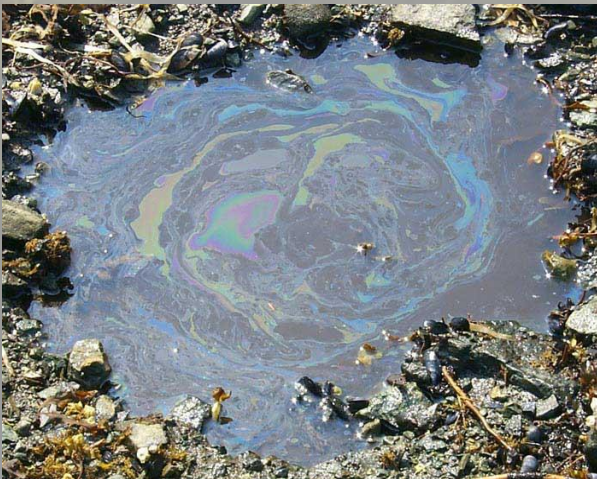
Why Monitor Water Quality?

- Our quality of life is directly related to the quality of the rivers, streams and wetlands around us.

- Regular monitoring provides baseline 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!
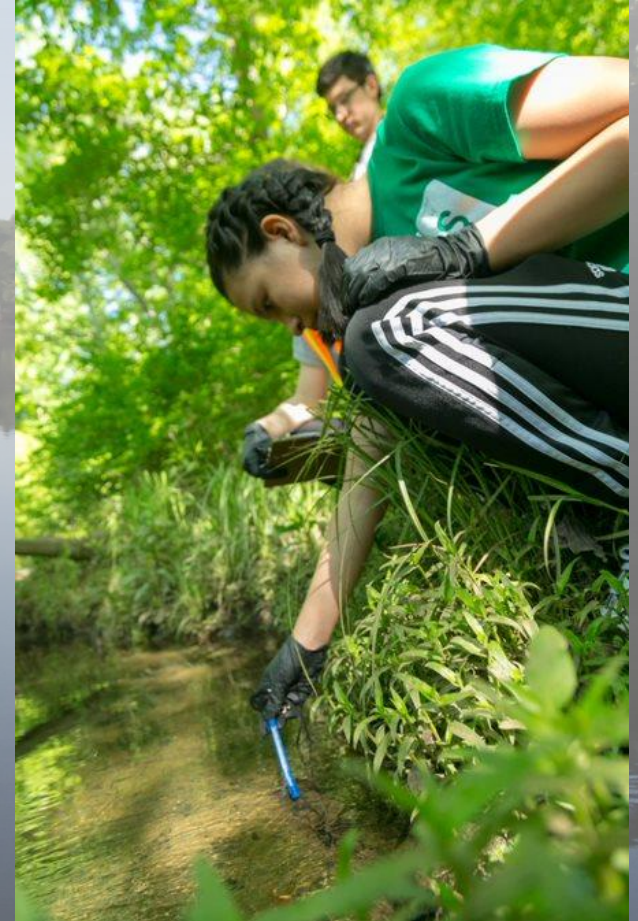
What is Georgia Adopt-A-Stream?

Georgia Adopt-A-Stream

A citizen science water quality monitoring program encouraging all Georgians to get familiar with their watersheds, monitor impacts, improve streams, rivers, wetlands, lakes, and estuaries, and inform others about their effect on water quality.

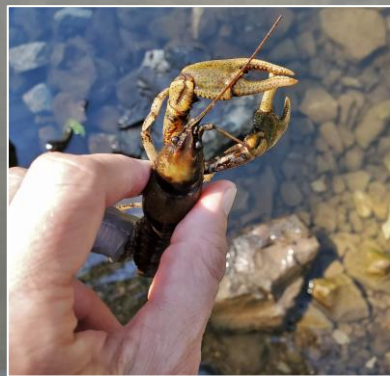**Georgia Adopt-A-Stream**
Volunteer Water Quality Monitoring

A
Awareness

D
Data

O
Observations

P
Partnerships

T
Tools & Training
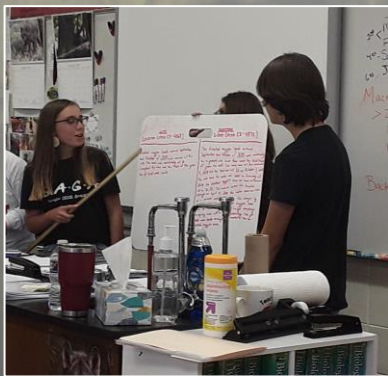
Increase public **awareness** of nonpoint source pollution & water quality issues

Collect baseline water quality **data** according to Adopt-A-Stream protocols

Take **observations** of sites to note water quality conditions

Seek **partnerships** with local gov'ts, nonprofits, & other organizations to share results & resources

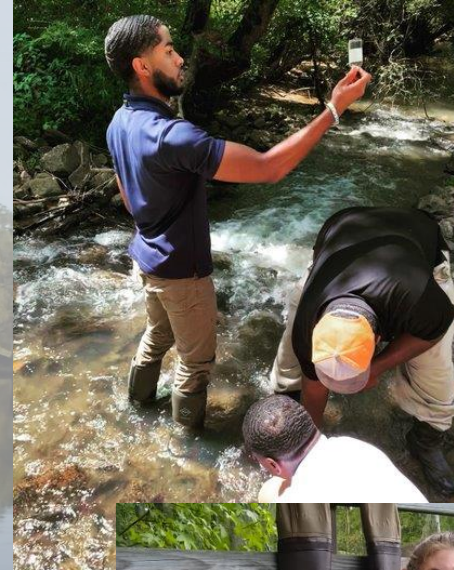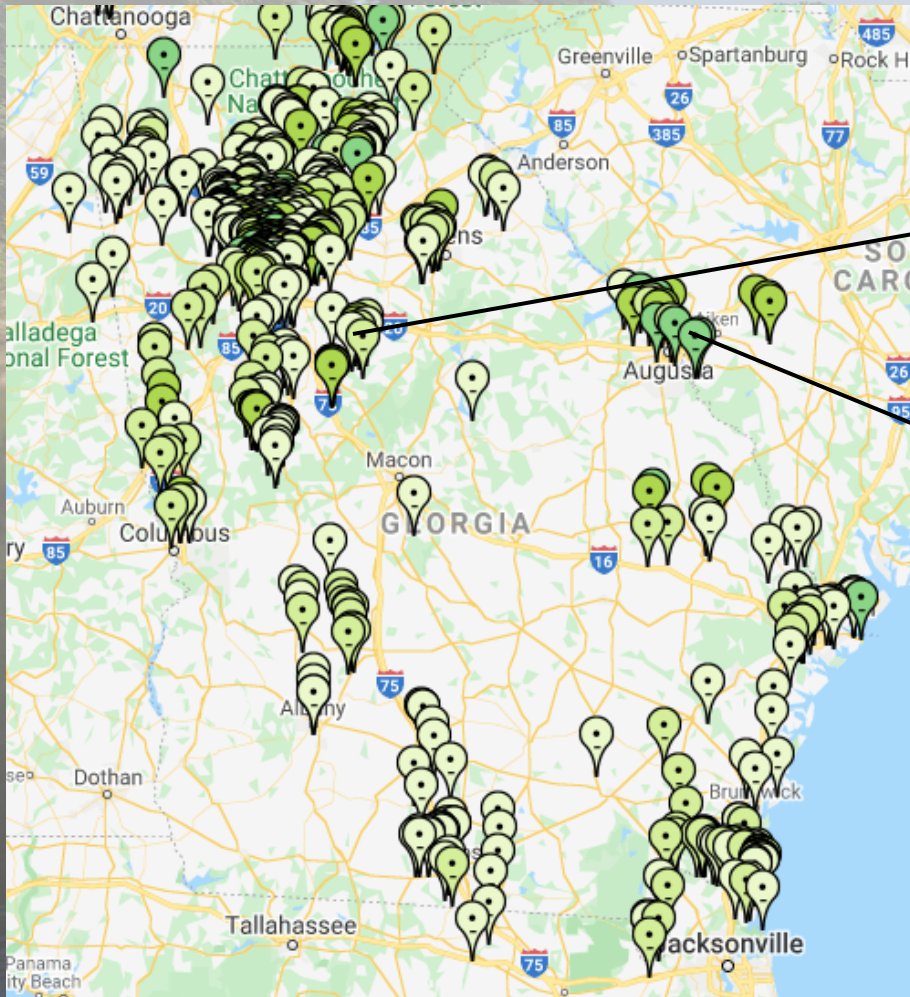Utilize **tools & training** provided by staff & local coordinators

Volunteer Network and Support

Volunteer Network and Support

State
Staff
2 to 4

Board
Members
20

Local Coordinators
70

Volunteers
3,000 +

Getting Started with AAS

1. Determine Your Goals

2. Attend a Monitoring Workshop

3. Form a Group and Select a Site

4. Obtain Equipment

5. Start Monitoring!

Determine Your Goals

- Questions to consider:
  - Why do I want to monitor?
  - What site might I like to adopt?
  - What type of data do I want to collect?
  - Who might be interested in my data?
- Can be driven by group, site, community, etc.
- Goals may shift over time, but can help focus monitoring efforts and maintain participation

Attend a Monitoring Workshop

- QA/QC workshops

    - Quality Assurance/Quality Control

    - Procedure based data collection

    - More frequent monitoring

- Non-QA/QC workshops

    - Observational data collection

    - Less frequent monitoring

- Allows you to create an AAS account

QA/QC Monitoring Programs

Macroinvertebrate

- Test for stream macroinvertebrate diversity

- Survey quarterly or once every season

Chemical

- Test for basic parameters: dissolved oxygen, temperature, pH, & conductivity

- Survey monthly

Bacterial

- Test for *E. coli* bacteria, which can indicate the presence of pathogens

- Survey monthly
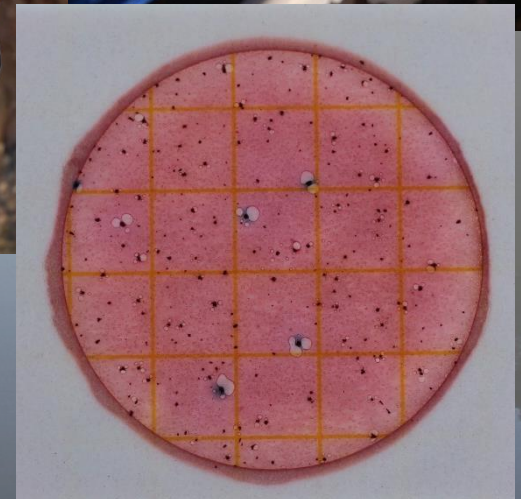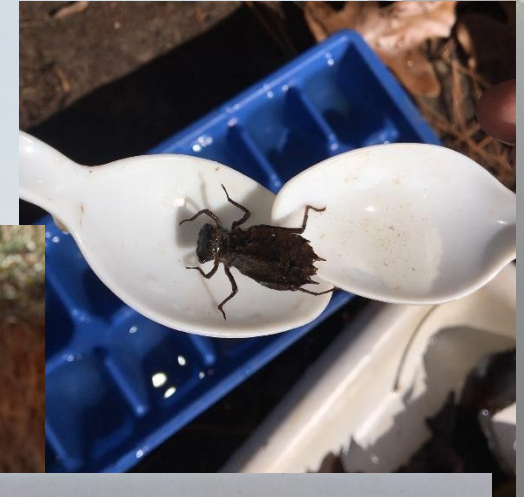
Quality Assurance Project Plan

- Certification
  - QA/QC and Trainer workshops
  - Annual recertifications
  - Consistent monitoring schedule and set protocol
- Database
  - Only certified volunteers can enter and edit data
  - Errors and warnings

Non-QA/QC Monitoring Programs

Watershed Survey

- Map your watershed and conduct survey of the land uses around your waterbody

- Survey annually

Visual Stream Monitoring

- Visual and physical evaluation of stream conditions

- Survey quarterly or once every season

Amphibian Monitoring

- Passively monitor for frogs and salamanders

- Survey quarterly or once every season
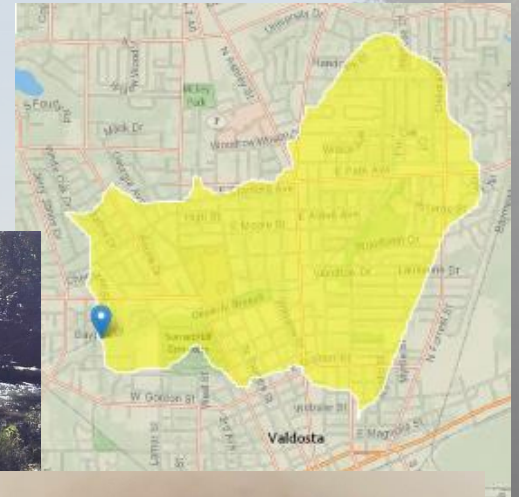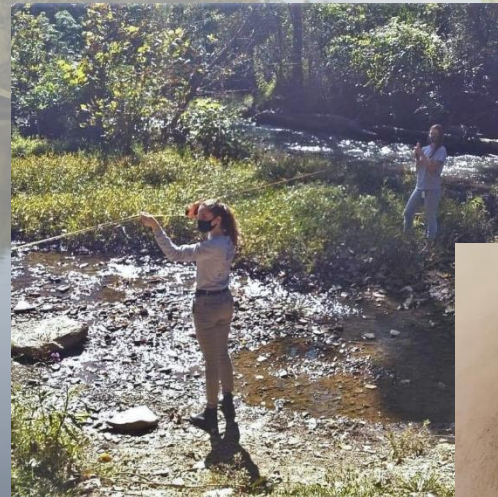
Form a Group and Select a Site

- Form a Group

    - Must register a group to register site and enter data

    - Can be an individual, but recommend at least 2 people

    - Community groups, classes, families, etc.

- Select a Site

    - AAS does not assign sites

    - Ask local coordinators for suggestions

    - Easy, safe, and legal to access!

Obtain Equipment

- Purchasing info on AAS website
- Reach out to local coordinator for loan
- Contact state office

Start Monitoring!

- Set up monitoring schedule
- Consistently monitor one or more sites
- Submit and review data
- Follow up on problems

How are your data used?

- Establish baseline conditions for waterbodies across the state

- Discover and report water quality issues

- Educate your community

- Help inform status of streams for 303d/305b list
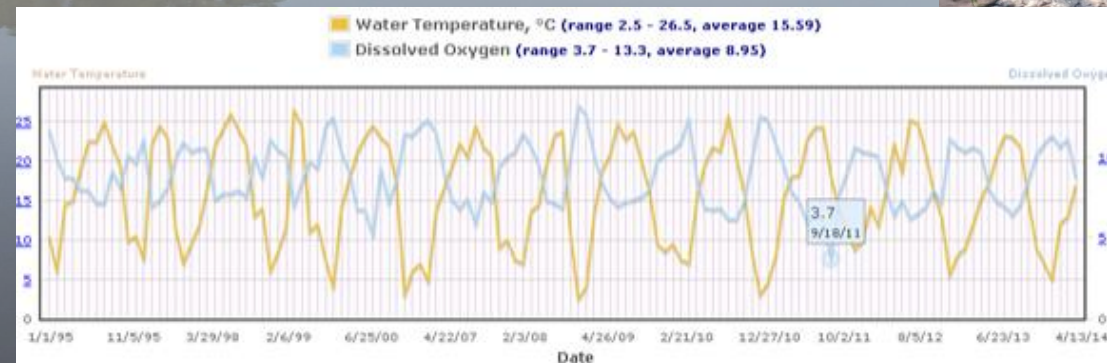
Volunteer Monitoring Data Uses
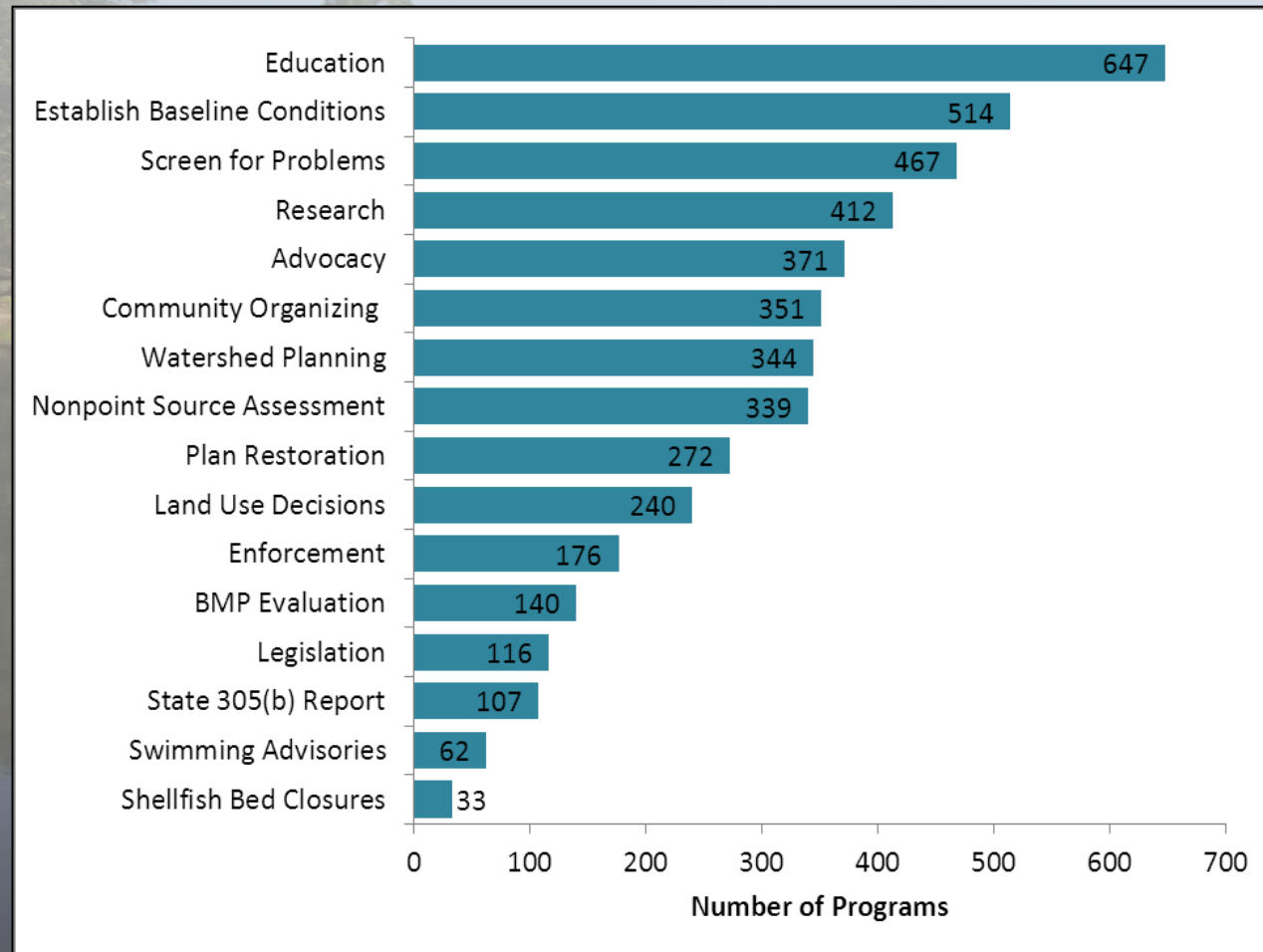
More Ways to Get Involved

- Confluence
  - Annual volunteer conference
  - Expert talks and workshops
  - Networking and social events

- Awards
  - Volunteers
  - Trainers
  - Watershed groups

- Quarterly E-Newsletter

- Green Infrastructure
  - Stream restoration
  - Rain gardens and barrels

AAS Website - Get Involved

AAS Website - Data Entry

AAS Website - Materials & Resources

Other EPD Outreach Programs

- **Rivers Alive-** Georgia's statewide annual volunteer waterway cleanup program

- **Project WET** (Water Education Today)- Curriculum designed for formal and non-formal educators of K-12 students to promote stewardship of water resources

- **River of Words-** Annual youth poetry and art contest that inspires children to translate observations of their watersheds into creative expression

Follow AAS and Stay Connected!

✉ aas@dnr.ga.gov

🖱 AdoptAStream.Georgia.gov

f facebook.com/georgiaadoptastream
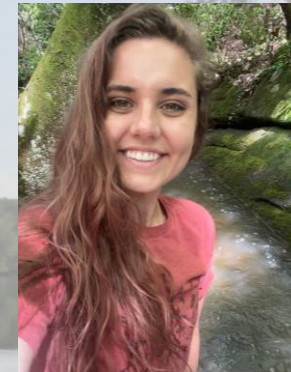
📷 @georgiaadoptastream

📍 2 Martin Luther King Jr. Drive
Suite 1462, East Tower
Atlanta, Georgia 30334

📞 470.938.3341
470.524.5791

Harold Harbert, Watershed Outreach Manager

Bailey Crapps Sauls, AAS State Coordinator

Cecilia Nachtmann, AAS State Coordinator

Jackie Encinas, Outreach Specialist