What Volunteer Monitoring has to Offer Municipal Officials... a Case from Alabama

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Auburn University, Alabama

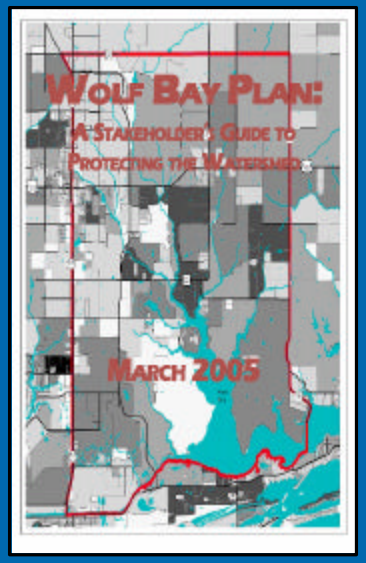
CSREES National Water Conference
San Antonio, Texas
February 6, 2006

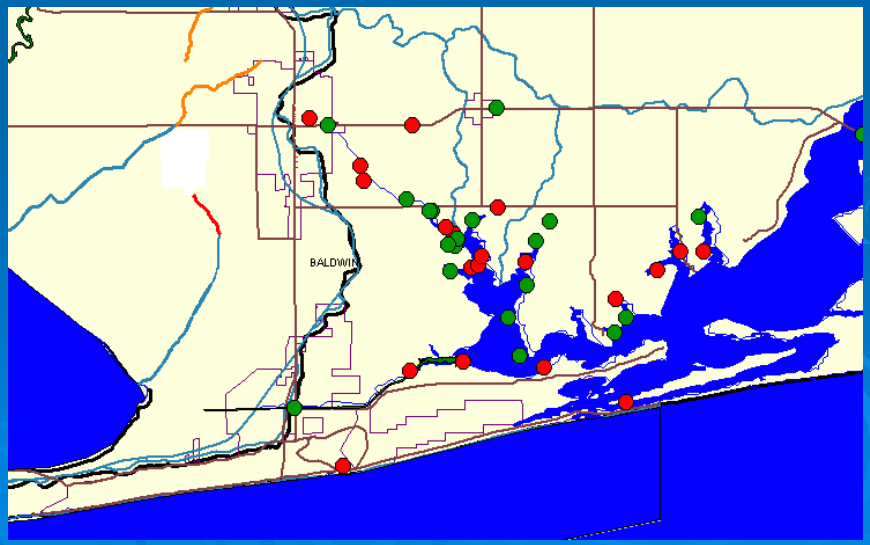
Case Studies

- Wolf Bay Watershed Watch…
  environmental gradients and change
- Save Our Saugahatchee…
  partners in a watershed management plan
- Rocket City Water Watch…
  urban geeks launch monitoring program

Wolf Bay Watershed Watch…

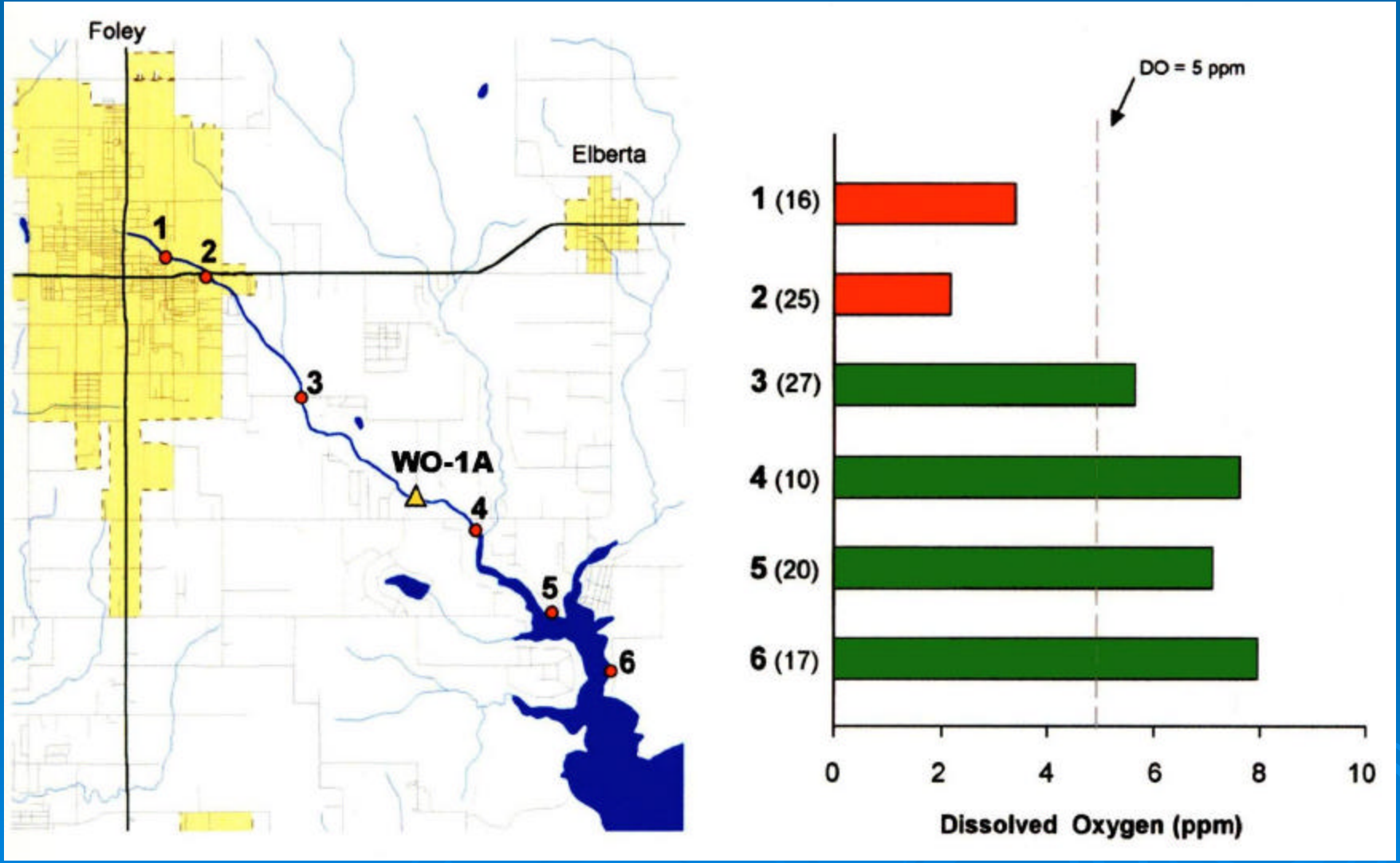
environmental gradients and change



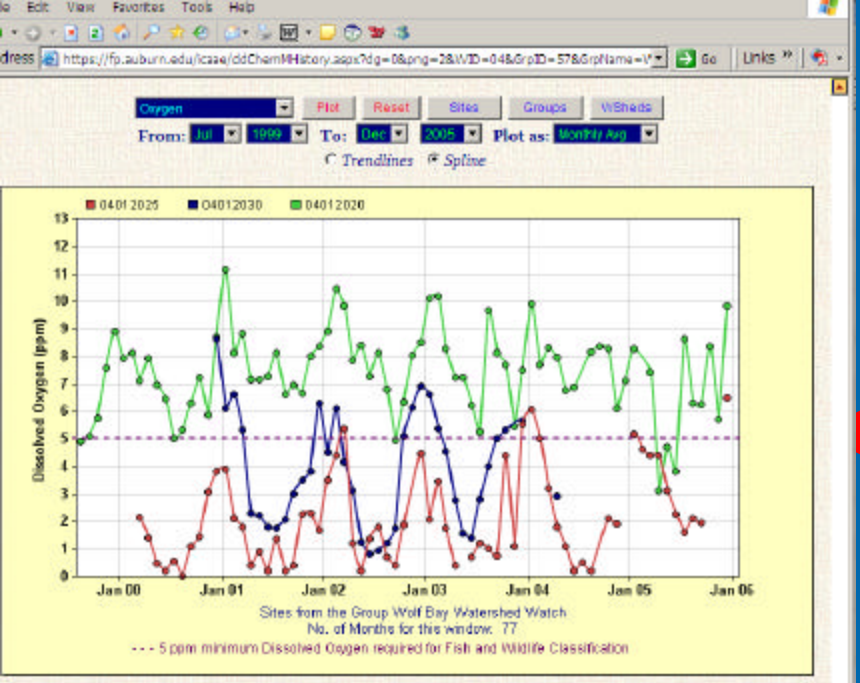


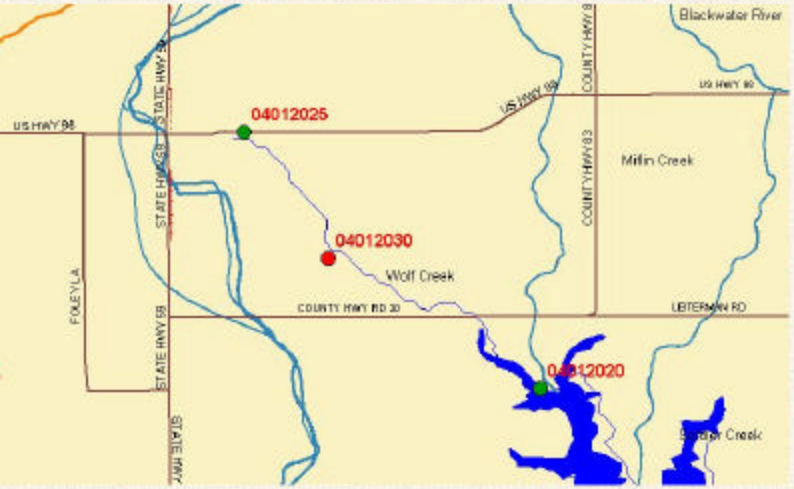
Oxygen Gradient in Wolf Creek

March 2000



Multi-year Oxygen Gradien in Wolf Creek





AWW Site Code	Waterbody Name	Site Description	County	Latitude	Longitude	First Date	Last Date	Chem No.	Bac No.	Map!	Status
4012020	Wolf Creek	Cummings Dock	Baldwin	30.3557	-87.6096	26 Jul 1999	26 Dec 2005	117	112		
4012025	Wolf Creek	upstream from US98 bridge	Baldwin	30.4067	-87.6683	11 Mar 2000	27 Dec 2005	74	66		
4012030	Wolf Creek	Foley Beach Expressway bridge	Baldwin	30.3817	-87.6317	23 Dec 2000	23 Apr 2004	38	37		

AWW Home || Water Data

Data Graph

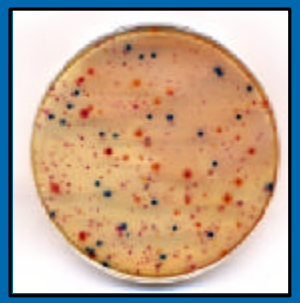
Site Map

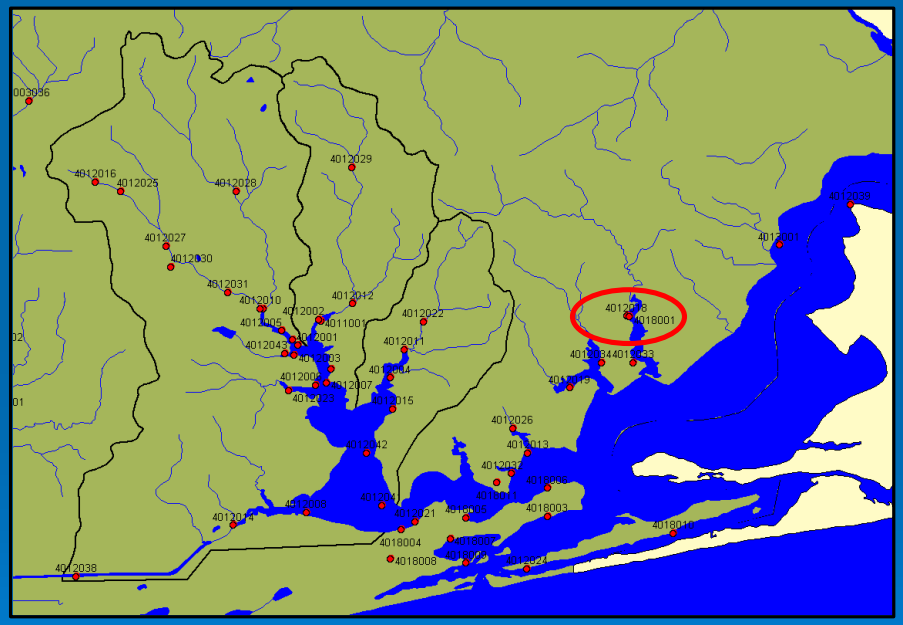
Data Table

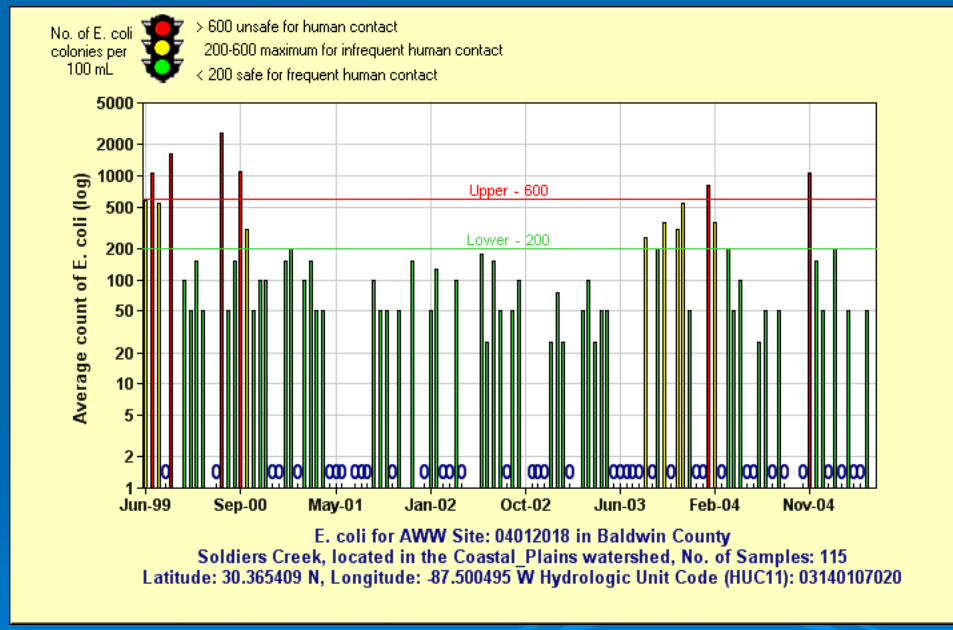
Monitoring Bacteria (E. coli) Concentrations

Site 18 Soldier Creek

Citizen Monitor: Jerry Knaebel

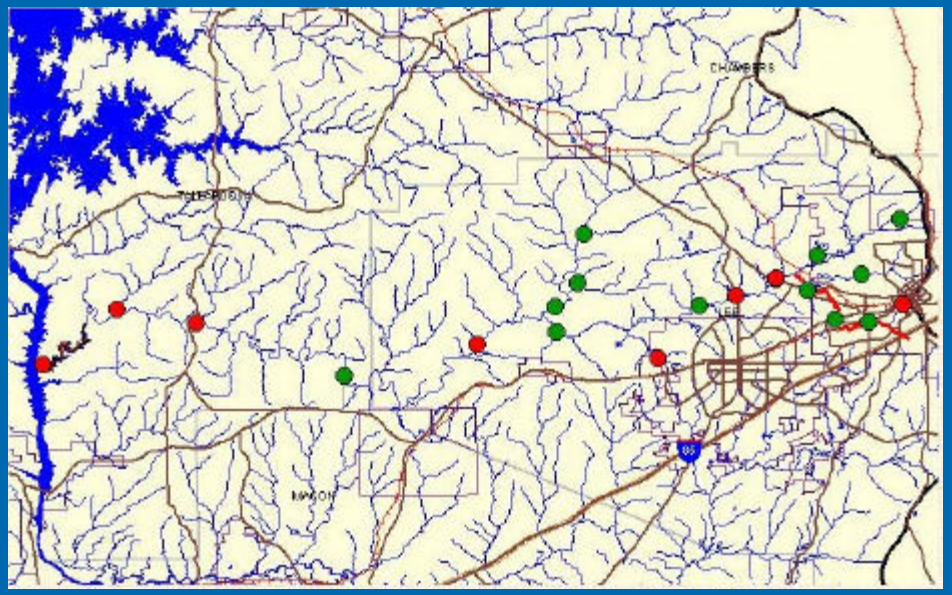


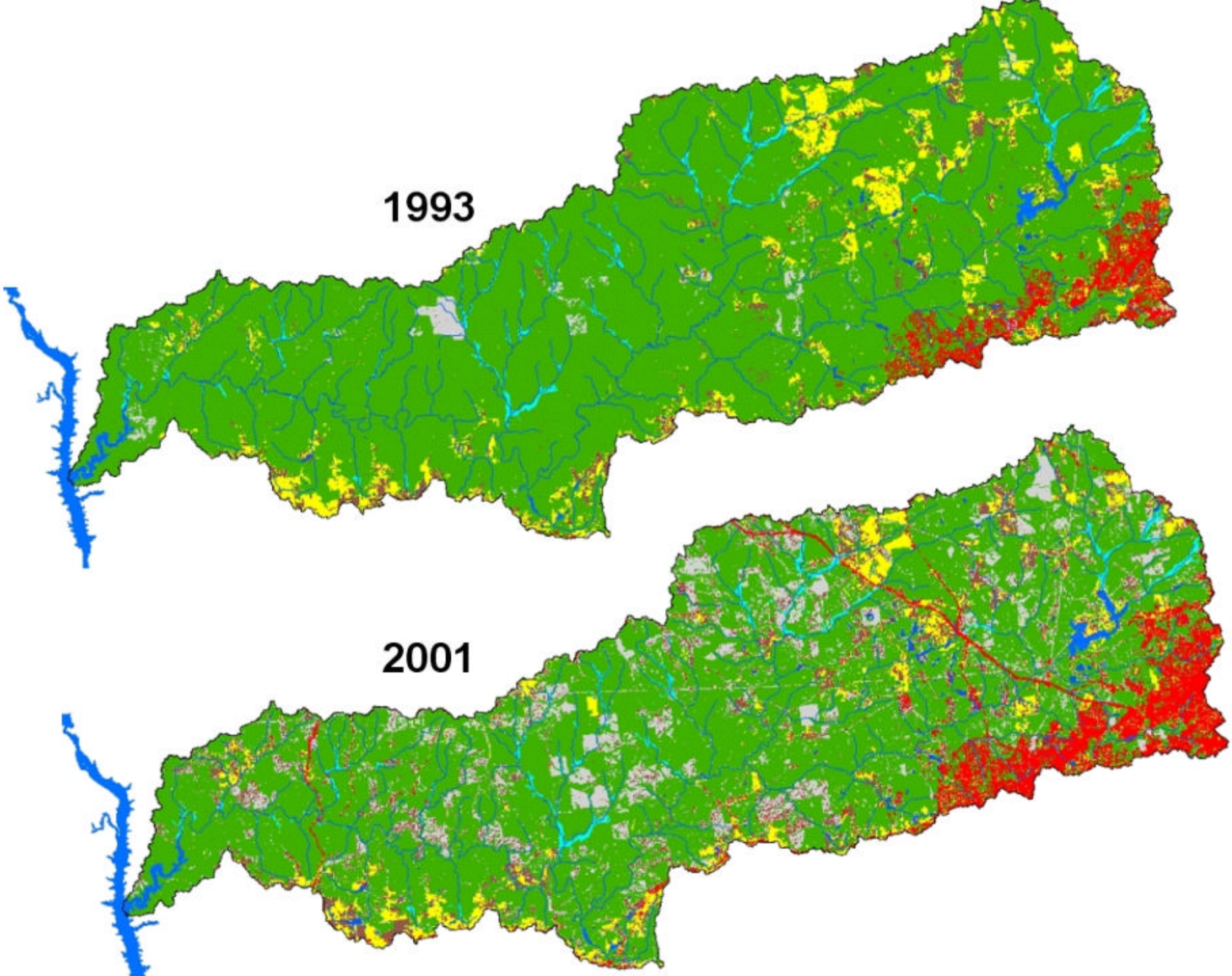




Save Our Saugahatchee...

partners in a watershed management plan




1993
2001

New policy to protect streams from development

DAVID LAZENBY
STAFF WRITER

Auburn officials are taking a hard look at the city's stream ordinances, an important step toward quality water conservation.

A subcommittee of the Triennial Review, a process in which city leaders review Auburn zoning ordinances, is expected to make final recommendations on future stream buffer requirements at a meeting of the city's planning department on Tuesday.

'The key is to strike a balance between good proper quality development and protecting water quality.'

Dqvid Watkins
Auburn city manager

Cliff Webber, a retired research fellow with the Auburn University Fisheries Department who serves on the Triennial Review subcommittee, said a change to stream buffer ordinances is overdue because evidence shows that the city's four major streams have too much turbidity, a term used to describe the measurement of the presence of finely divided solid particles in water.

High levels of these particles can ruin habitat areas for fish and other aquatic life. Suspended particles also can increase other pollutants, such as metals and bacteria. Therefore, turbidity readings are useful as an indicator of other pollutants.

Webber said local creek contamination was created in recent years by "rapid development" in Auburn.

"Our lab has research data showing that Saugahatchee Creek, Chewacla Creek, Parkerson Mill Creek and Moores Mill Creek all have excess sediment that is being washed into the channel during most heavy rain events over the last six years," he said.

David Watkins, Auburn city manager, said the Saugahatchee watershed is classified as one that has a higher than acceptable level of nutrients, including phosphorus.

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POLICY: *Officials work for water conservation*

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Watkins said in addition to hurting the environment, ignoring the issue of stream water quality has the potential to hurt Auburn financially.

"We're having to remove part of that phosphorus from wastewater," said Watkins, adding it is a "very expensive" process.

"If that creek was pristine, if we had no problems, we wouldn't have had to remove it. That would have cut back on that improvement by several million dollars."

The proposed buffer ordinance was developed partly by the city's Water Resource Management Department.

Scott Cummings, the city's water and sewer director, could not be reached for comment Friday.

According to Webber, the current revision requires a stream buffer width of 100 feet on each side of the channel on watersheds with an area of at least 640 acres. It also requires that 25 feet on each side of the stream be left undisturbed.

Watkins said, "If you don't deal with sedimentation runoff, you will end up with major problems for your wastewater permits."

"There's a vested interest from both taxpayers and developers that we try to do this right up front so we don't incur some huge cost down the road," he said.

Tom Hayley, an area developer who owns Hayley-Redd Development, said initial stream recommendations would have needlessly decreased land utility, therefore increasing the cost of new homes in the city.

However, he said land developers and city conservationists are close to having a compromise that will please both sides of this issue.

Watkins said it is important to find a solid middle ground between construction and conservation.

"The key is to strike a balance between good proper quality development and protecting water quality," he said.

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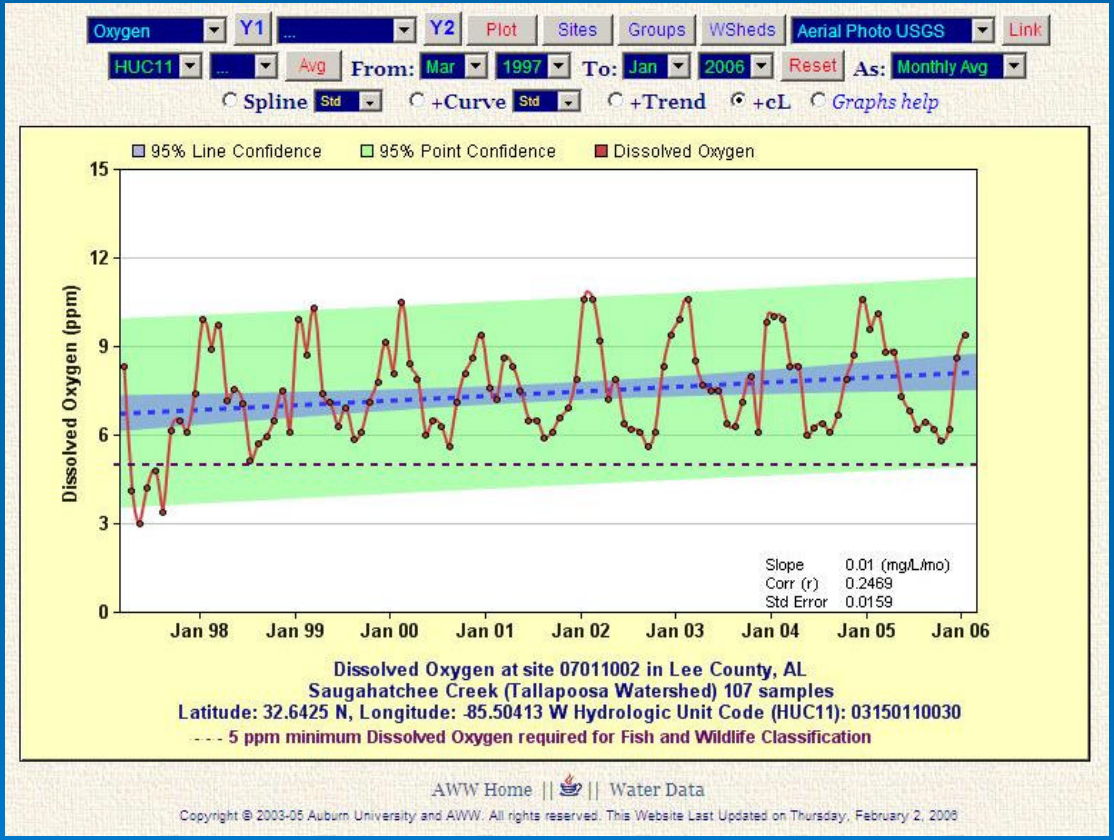
SOS… Education, Monitoring and Policy

SOS…Long-term Data Sets

Site 2 Saugahatchee Creek
Citizen Monitor: David Newton



Saugahatchee Watershed Management Plan (SWaMP) Stakeholders

- Alabama Water Watch
- City of Auburn
- City of Opelika
- Save Our Saugahatchee, Inc.
- WestPoint Home, Inc.
- MeadWestvaco, Inc.
- NRCS and Lee Co. SWCD
- LT Clean Water Partnership
- AU Fisheries Department
- ACES
- AU Student Chapter SWCS

Saugahatchee Watershed Management Plan

SWAMP STAKEHOLDER GROUP AND AUBURN UNIVERSITY

Prepared by Ron Estridge, Eric Reutebuch and Dr. Bill Deutsch

This project was funded in part by the Alabama Department of Environmental Management and the U.S. Environmental Protection Agency, Region 4, through a Clean Water Act Section 319(h) non-point source grant.

February 2005

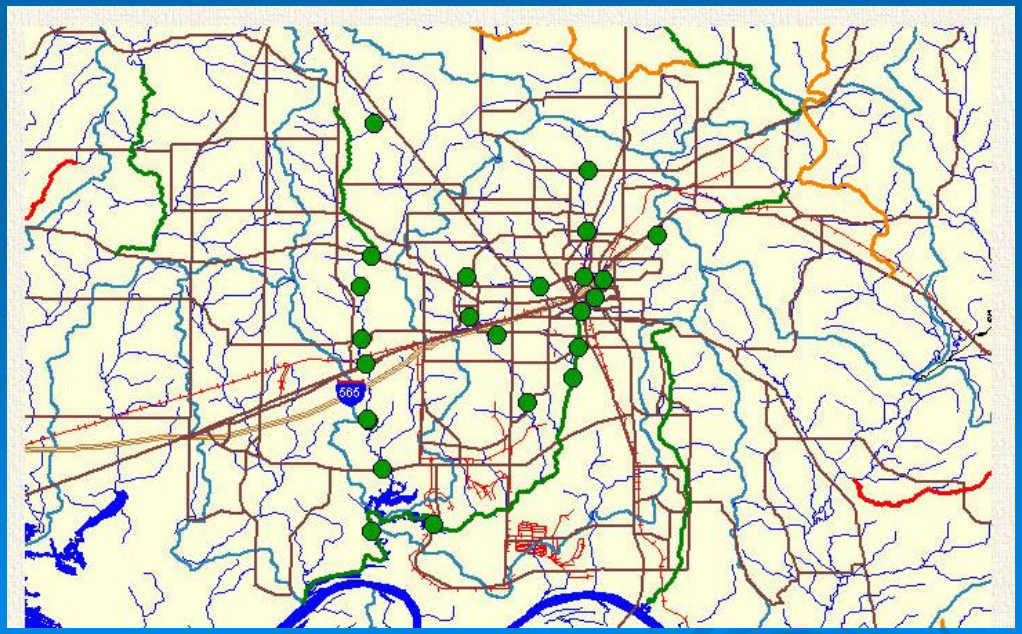
Rocket City Water Watch…

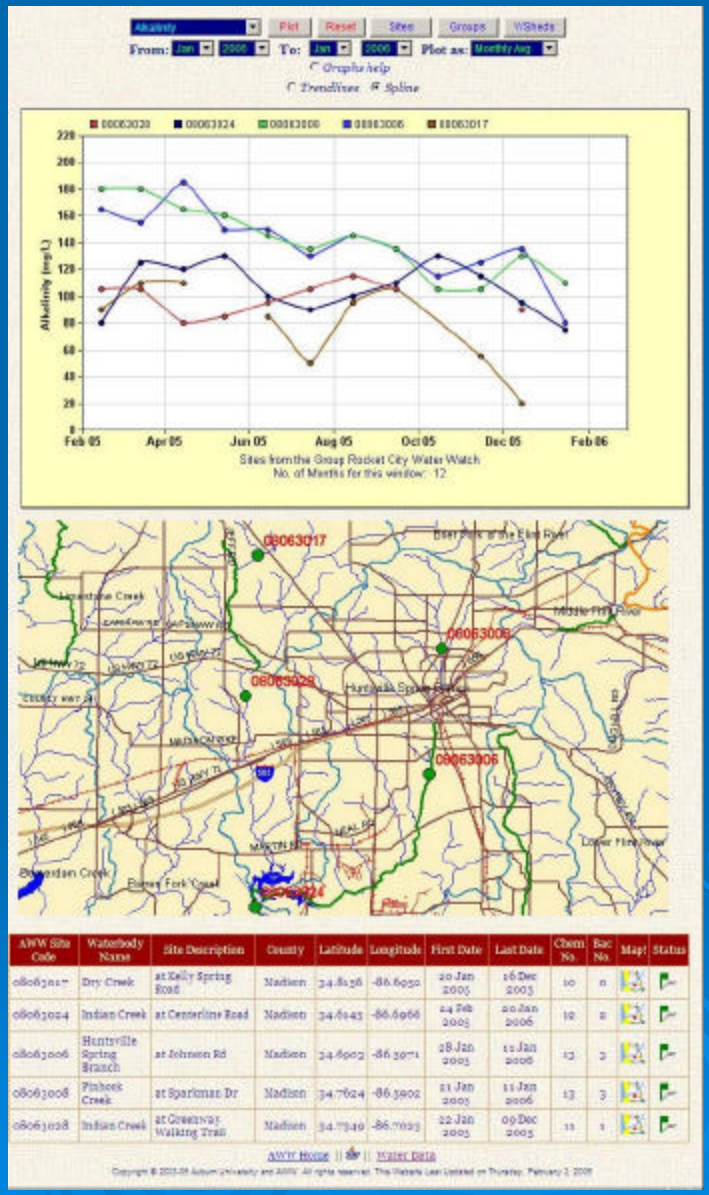
urban geeks launch monitoring program

A Comprehensive Monitoring Strategy in Huntsville, AL

Rocket City Water Watch
Established Jan 2005

- 19 monitors
- 30 sampling sites
- 240 Chemistry Records
- 26 Bacteriological Records





What Volunteer Monitoring has to Offer….

- Long-term, credible data sets
- A variety of public outreach opportunities
- Advocacy for innovative water policies
- Partnerships for implementing watershed management plans