

Tallapoosa Watershed Project



Innovations in Understanding Basin-Scale Nutrient Dynamics

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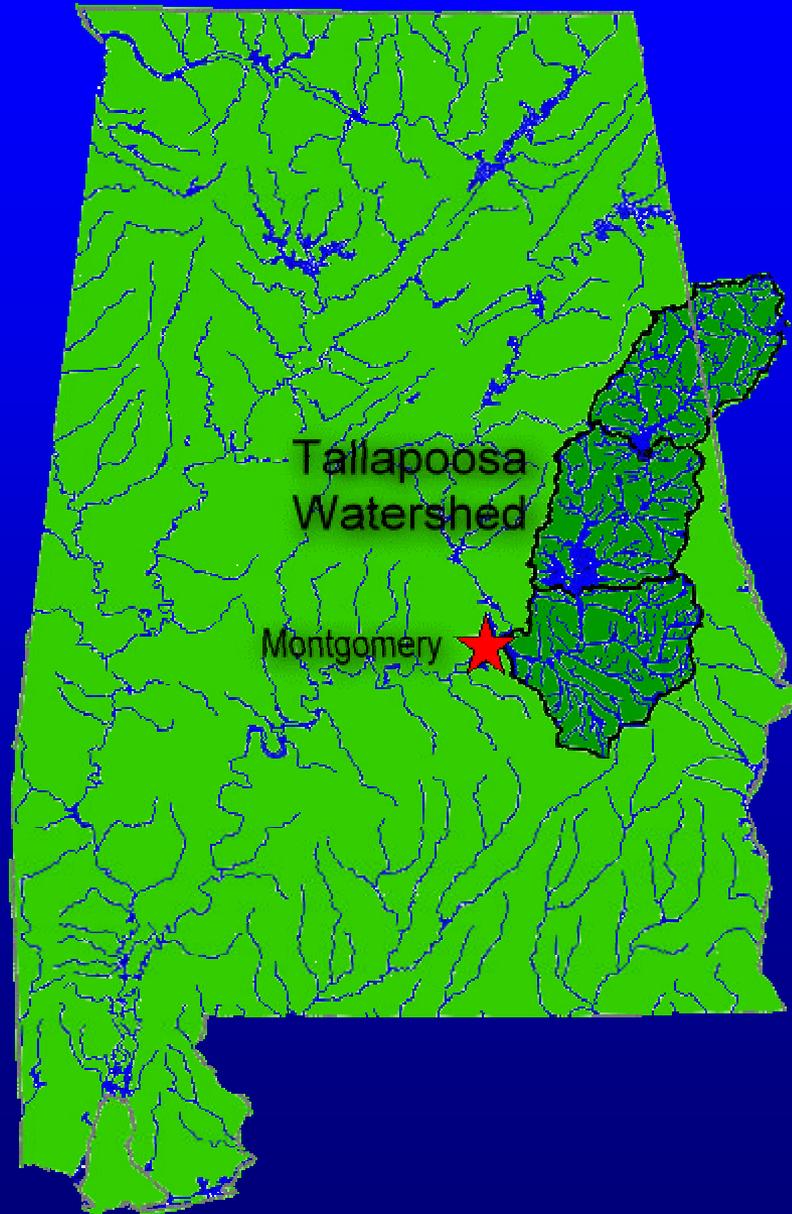
CSREES National Water Conference
San Antonio, Texas
February 8, 2006

A Transferable Model of Stakeholder Partnerships for Addressing Nutrient Dynamics in Southeastern Watersheds

Integrated project (2003-07) funded by the USDA,
Cooperative State Research, Education and Extension System

TWP Goals...

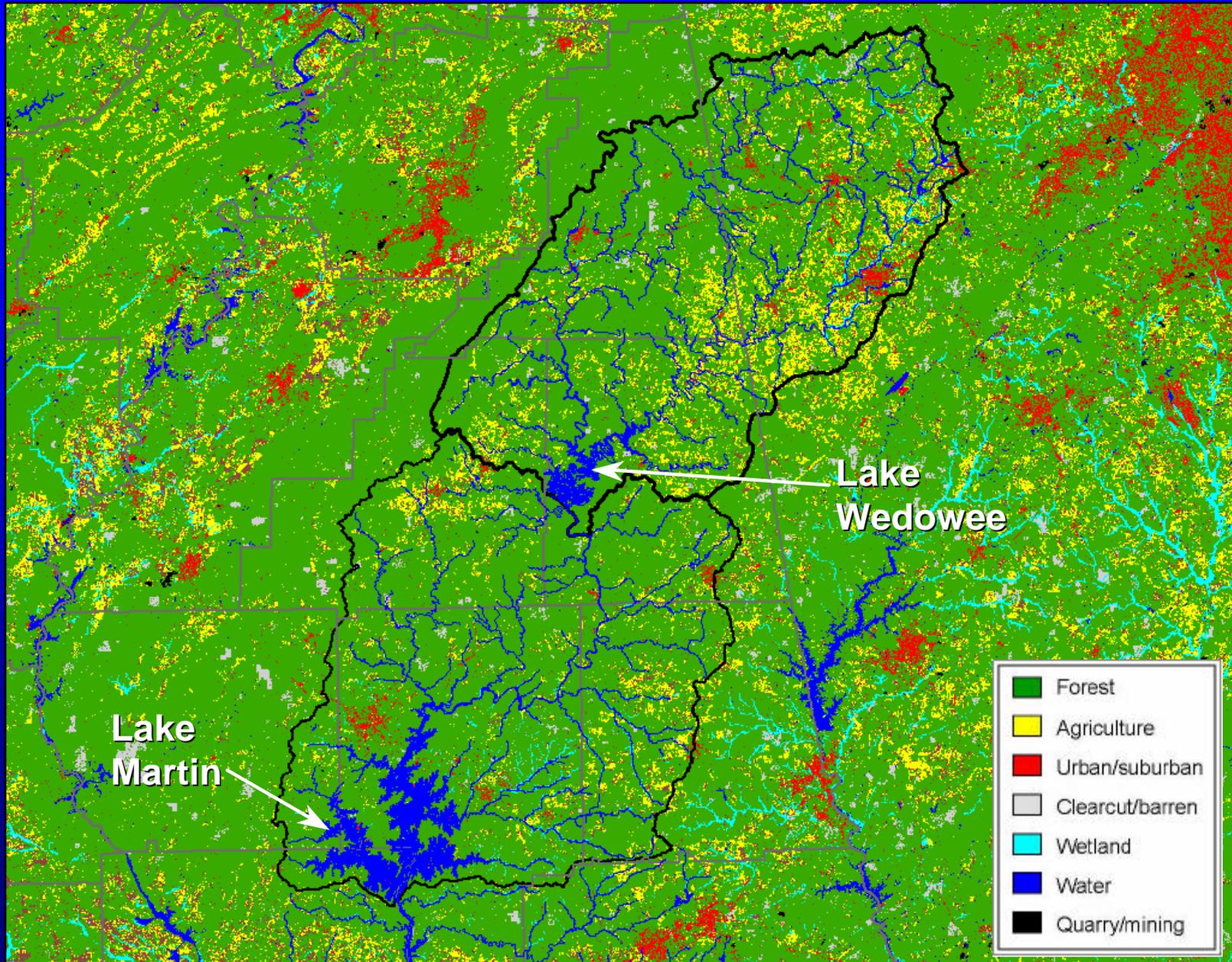
- **Optimal technology mix for basin-level research**
- **Comprehensive aquatic science outreach to the public**
- **Transferable model for river basin management**



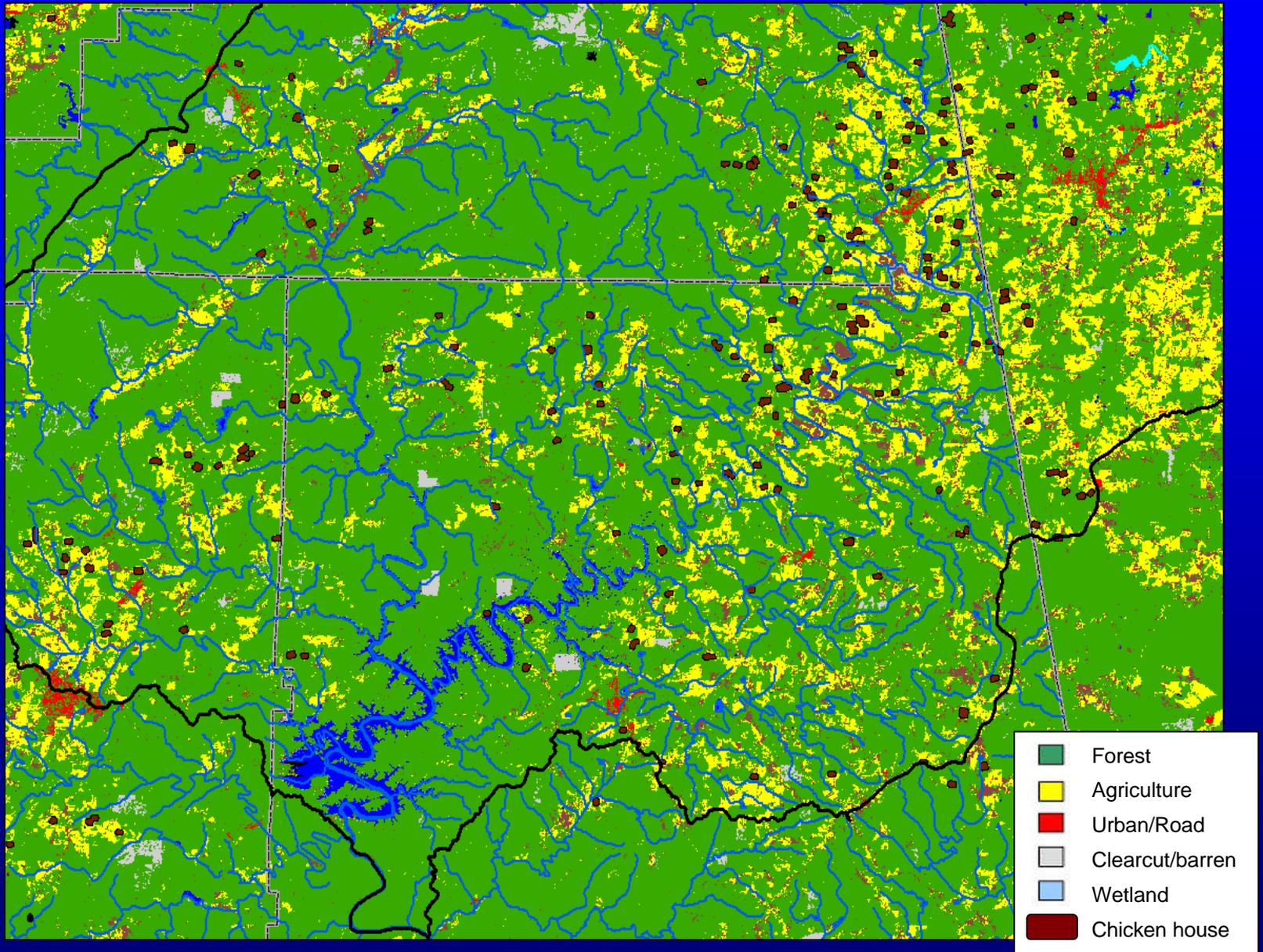
Tallapoosa
Watershed

Montgomery ★

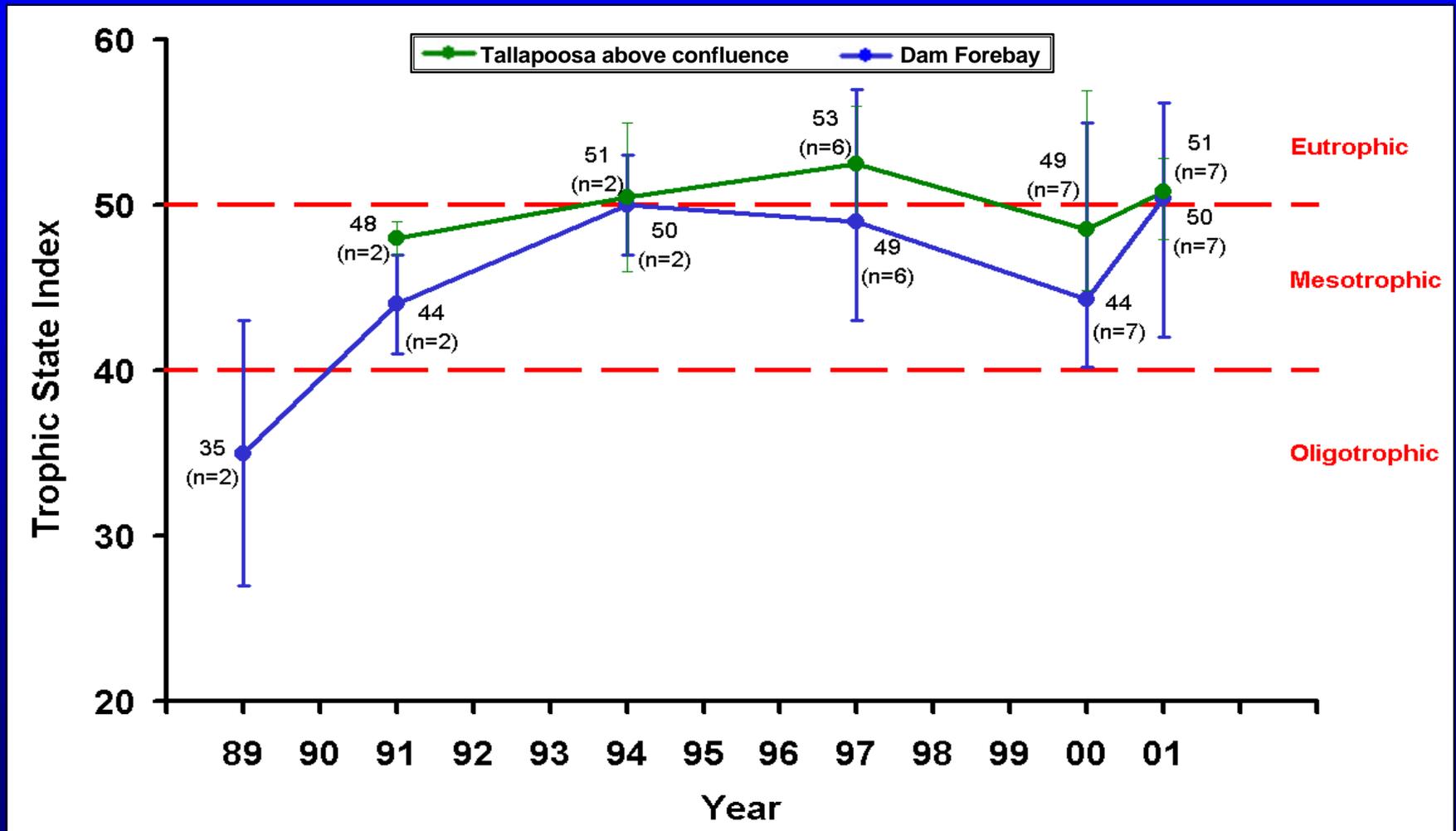
Middle and Upper Tallapoosa Watershed



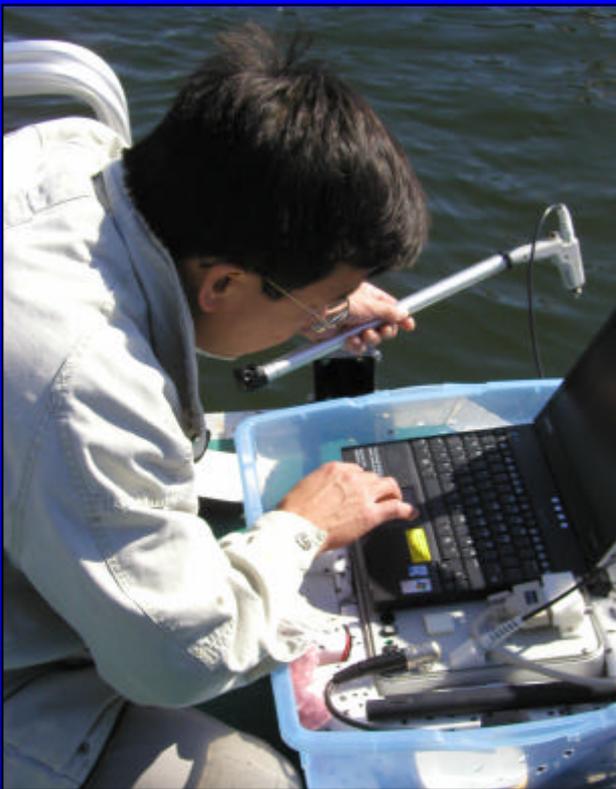
Land Use in the Tallapoosa Watershed



Lake Wedowee Trophic State Index 1989-2001



TWP Research



High Tech
Alternative

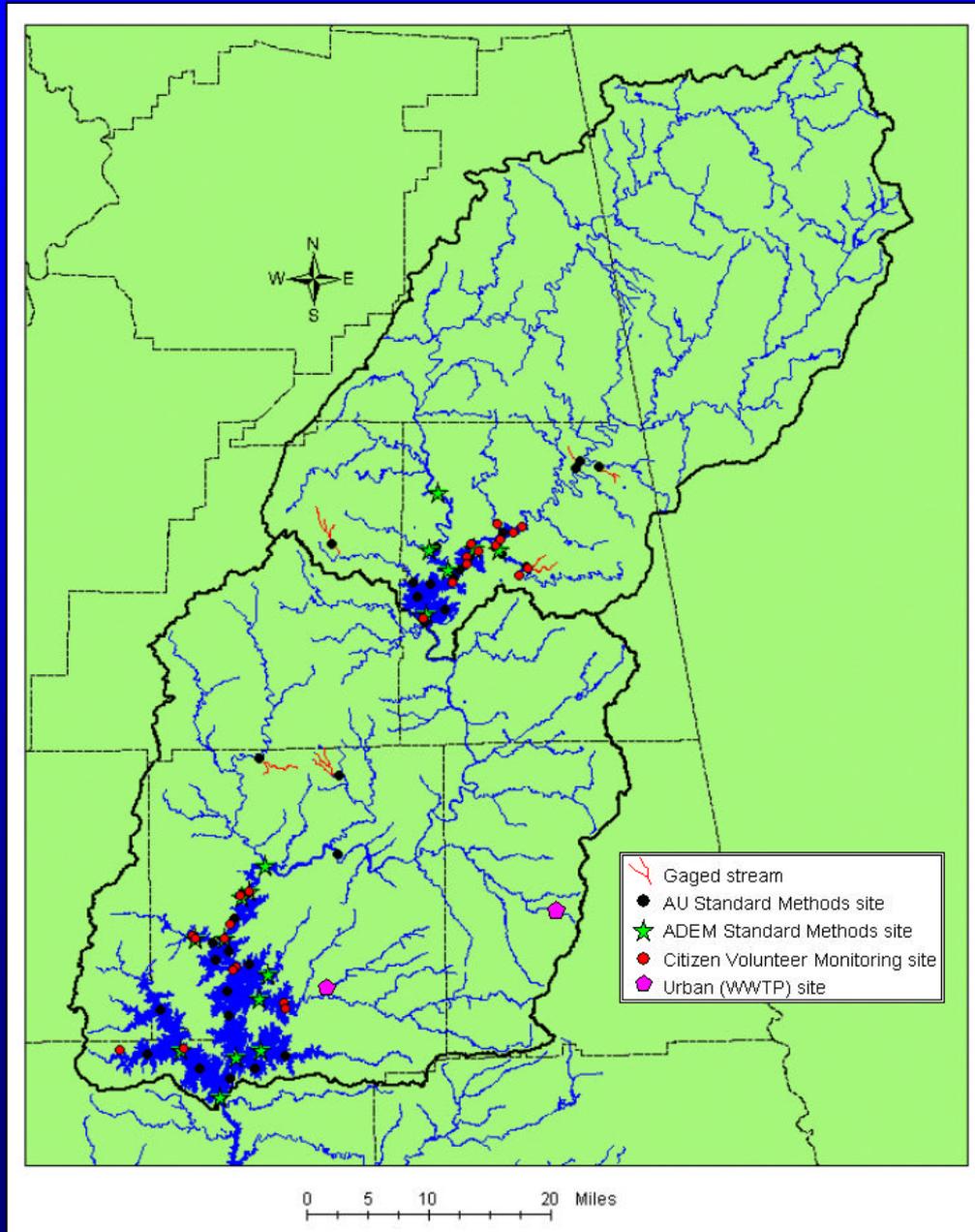


Low Tech
Alternative



Standard Methods

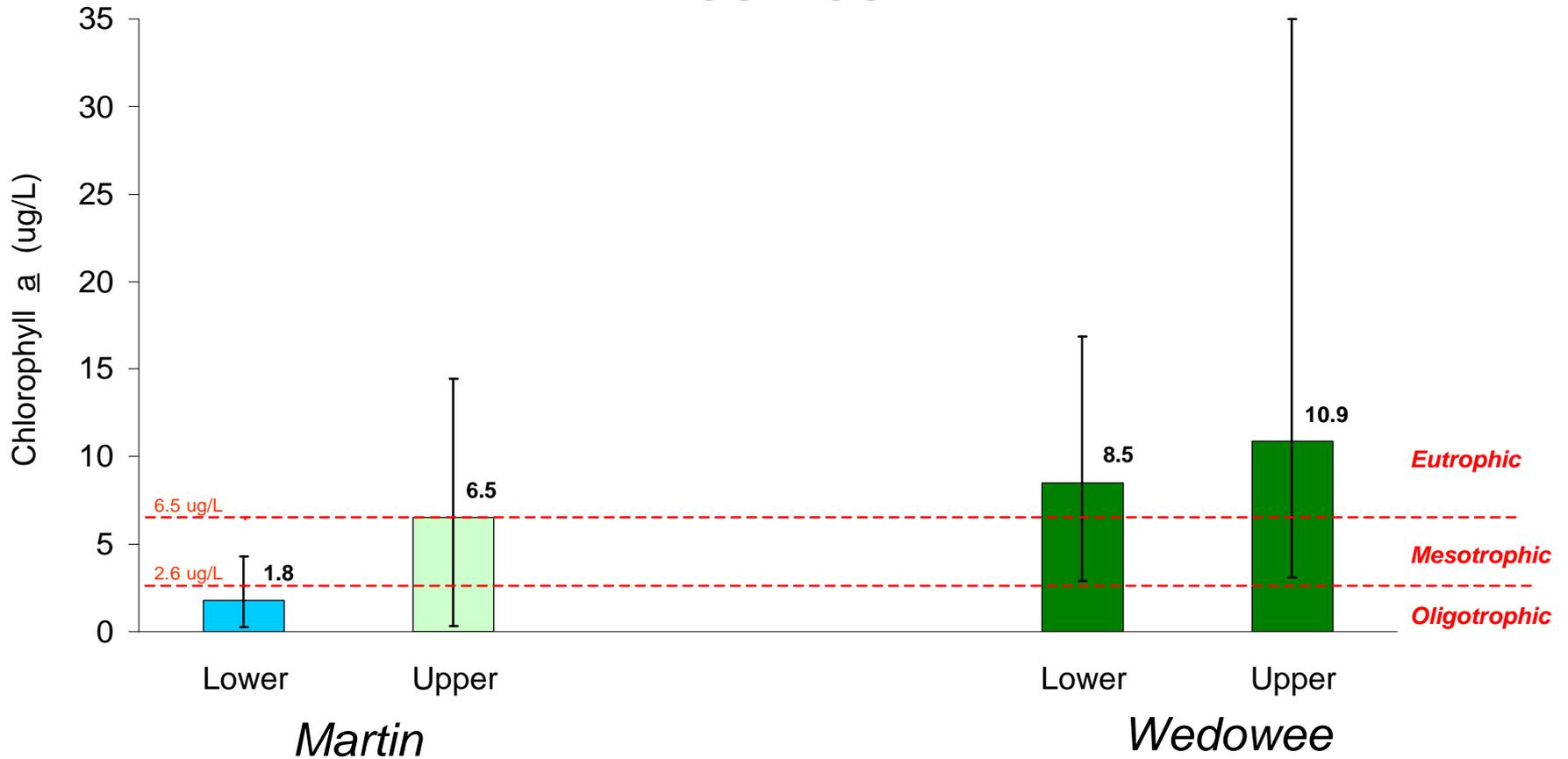
TWP Sample Sites



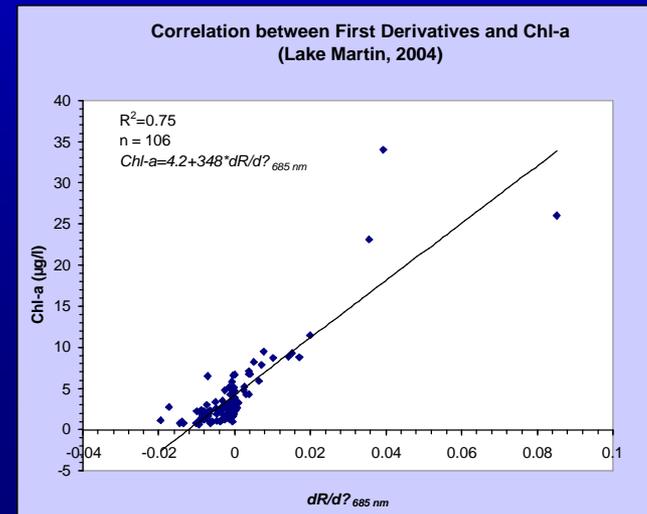
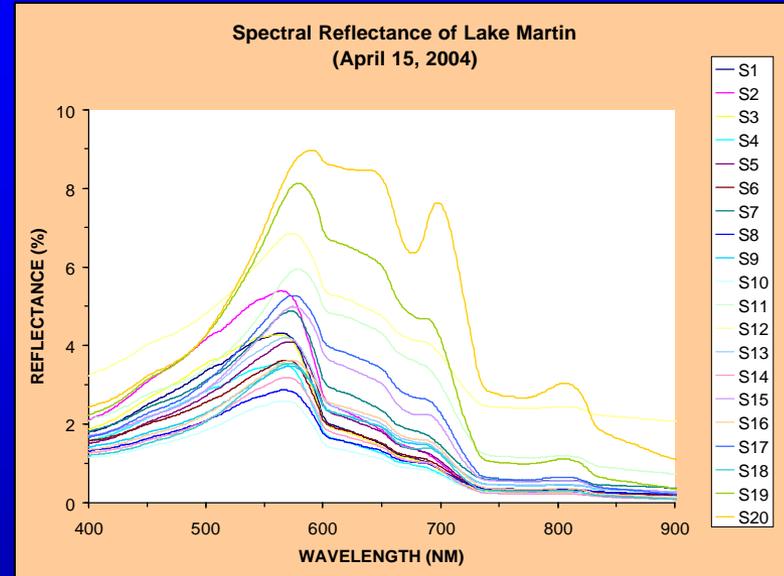
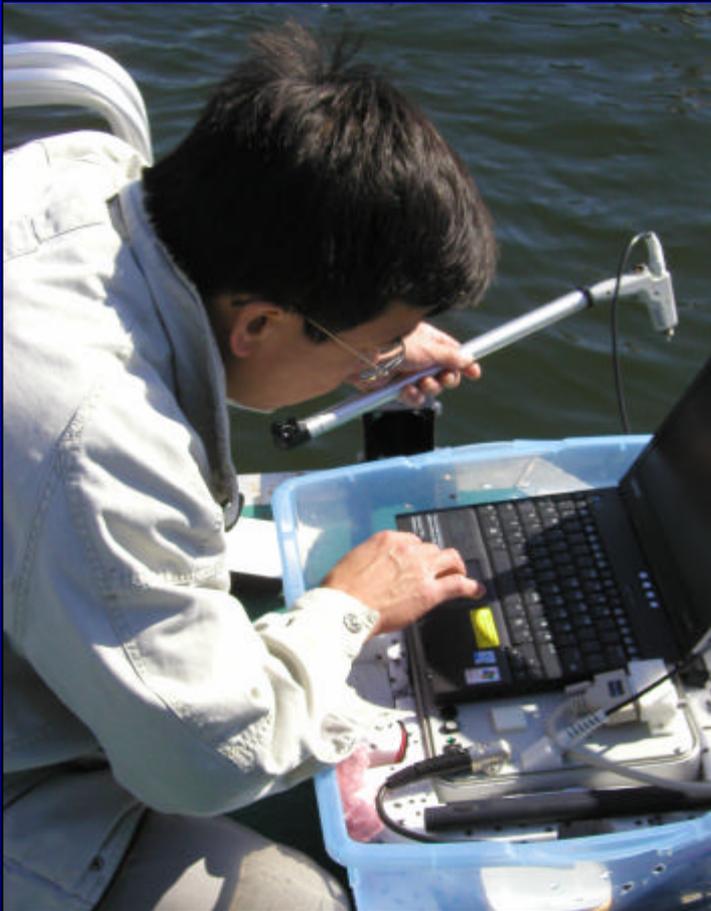
TWP Standard Methods Sampling



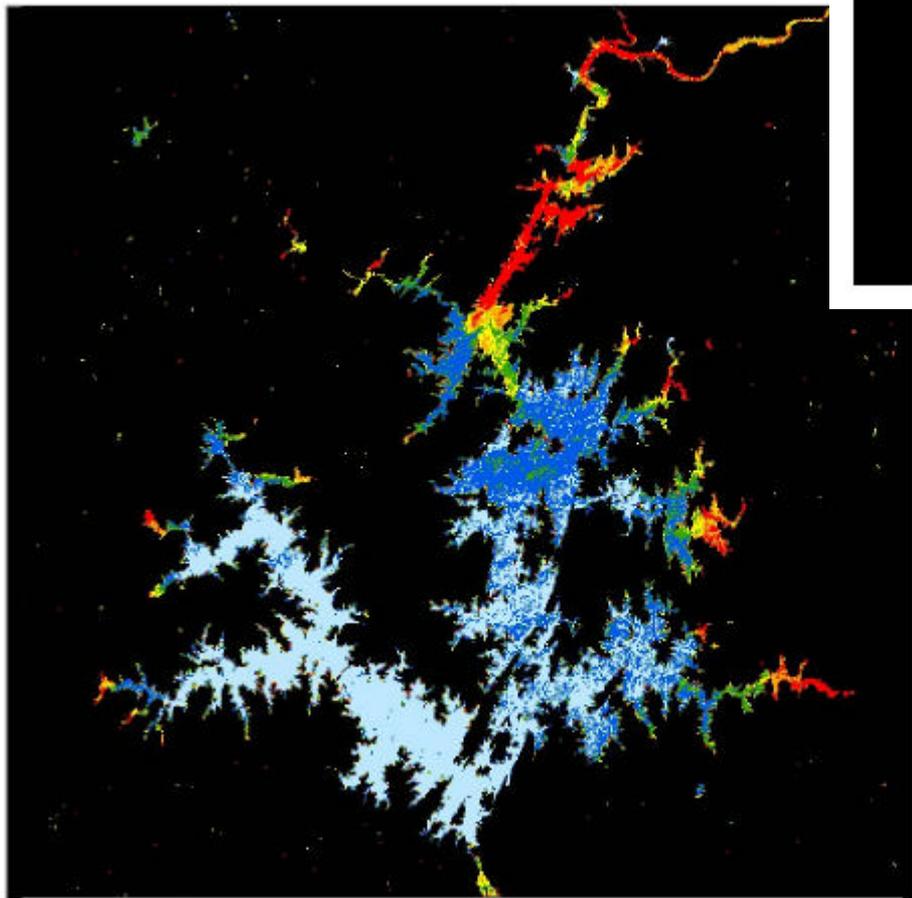
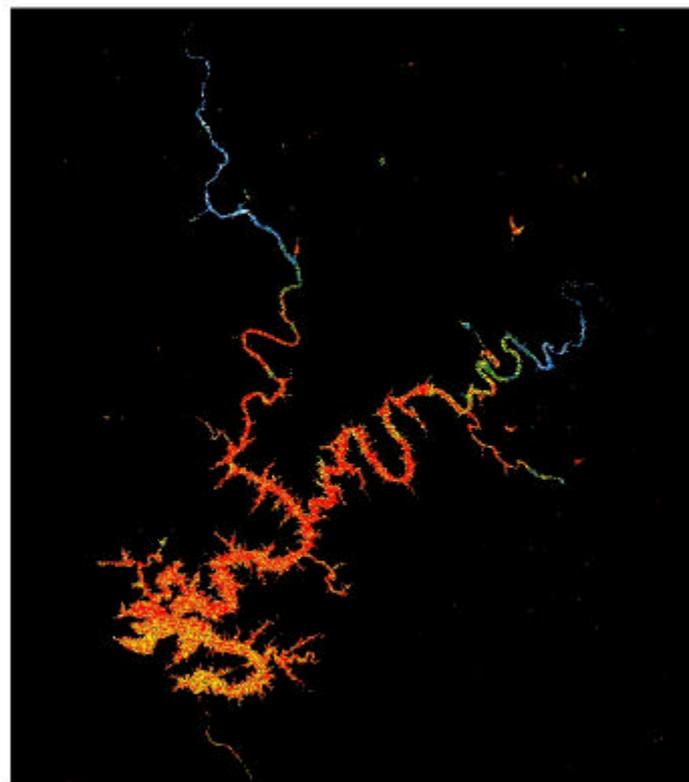
CHLOROPHYLL a - MARTIN vs. WEDOWEE 2004-05



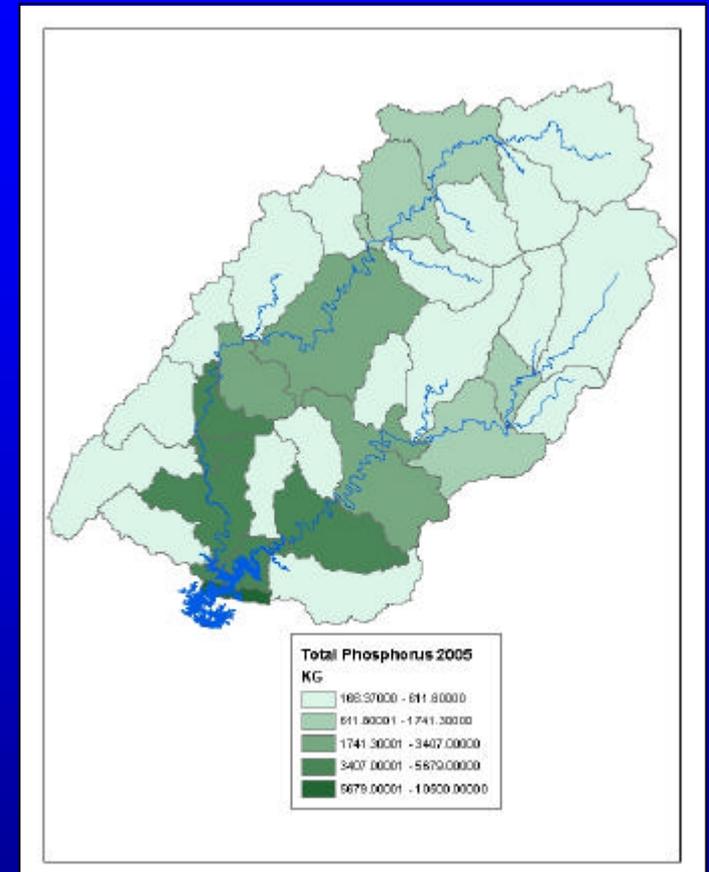
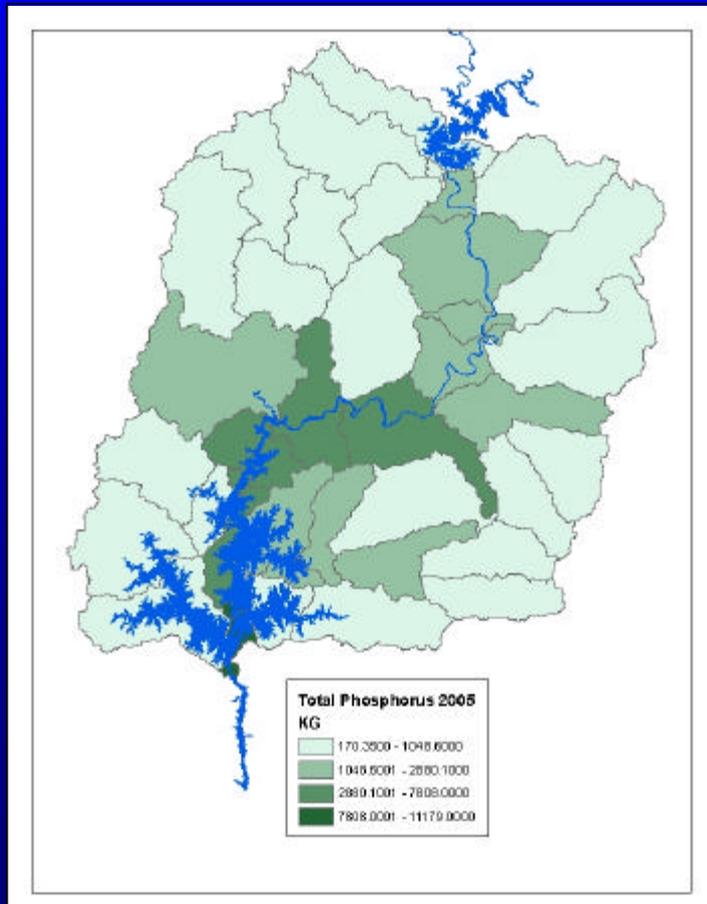
High Tech Alternative Remote Sensing



TWP Lake Maps Chlorophyll a



High Tech Alternative SWAT Modeling



Citizen Volunteer Data

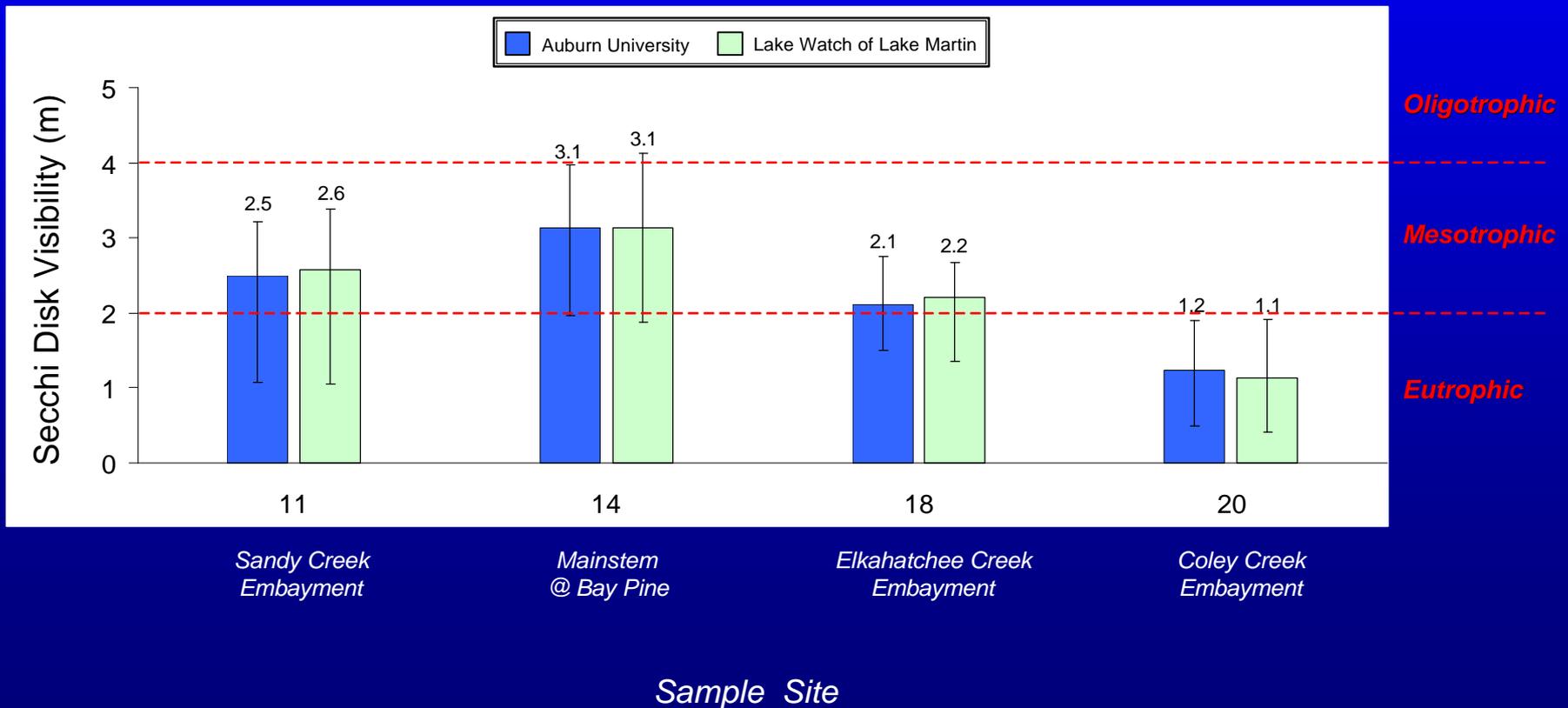
vs.

AU Standard Methods Data



Secchi Disk Visibility - Lake Martin

AU vs. LWLM, April-October 2004

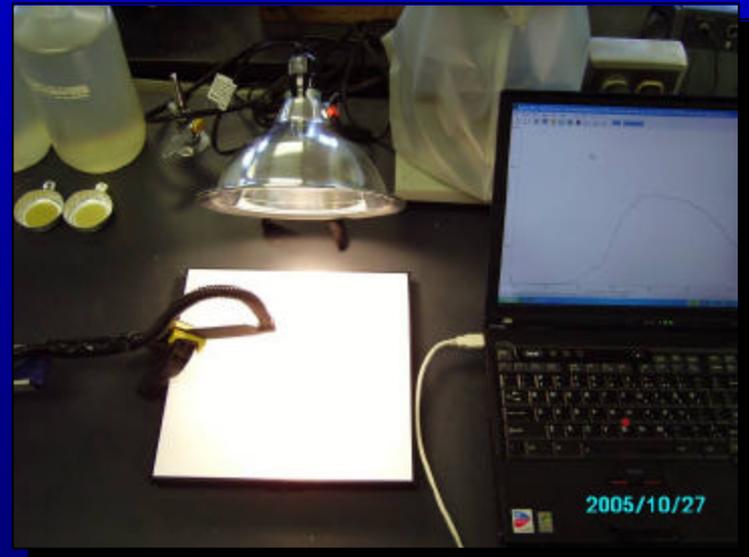


Total Suspended Solids Measurements



New Tools

TSS Spectral Reflectance and Chromaticity Measurements



TWP Education and Extension

- Teacher Workshops
- Aquatic Science Curricula
- Camp ASCCA Displays
- “State of Our Watershed” Conference
- TWP Website



2005 State of Our Watershed Conference



Living Streams

**A Flexible Aquatic Science
Curriculum
Designed For Grades 6 through
12**



Adapted to Alabama Course of Study Standards

Living Streams Field Work



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Tallapoosa Watershed Project

Tallapoosa Watershed Project



The Project Research Education Extension Events

This project is funded by the Cooperative State Research, Education and Extension System (CSREES) of the U.S. Department of Agriculture

Where is the Tallapoosa Watershed?
[View more about it](#)
[Link to Report of Alabama Project](#)

TWP Education/Extension Activities
Teacher and students learning about GIS and remote sensing on a TWP research team sampling trip.

Click on the picture to enlarge and to see more photos.



NEWS AND UPCOMING EVENTS ON WATER ISSUES

February 5-8, 2006 / [National Water Conference](#) / USDA-CSREES Research, Extension and Education Water Quality and Quality

[USDA-CSREES Calendar](#) / This calendar highlights national-scale events that are related to the efforts of the CSREES National Water Quality Program

[2004 and 2005 Stream, river, and point source sampling sites](#), using Standard Methods

Analysis of satellite imagery is being used to determine land cover and use, and determine nutrient and sediment loading of waterbodies.

See two satellite images of New Orleans before and after Katrina to realize the quality of the photos. Click on the map.



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Tallapoosa Watershed Project

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prepared for

CSREES
Cooperative State
Research, Education
and Extension
Service
U. S. Department of
Agriculture



**A Transferable Model of
Stakeholder Partnerships for
Addressing Nutrient Dynamics
in Southeastern Watersheds**

Annual Report - 2004

by

Department of
Fisheries and
Allied Aquacultures
Auburn University



February 2005