



Source Water Protection- What It Is and Why It's Important

Raven L. Lawson, Watershed Protection Manager

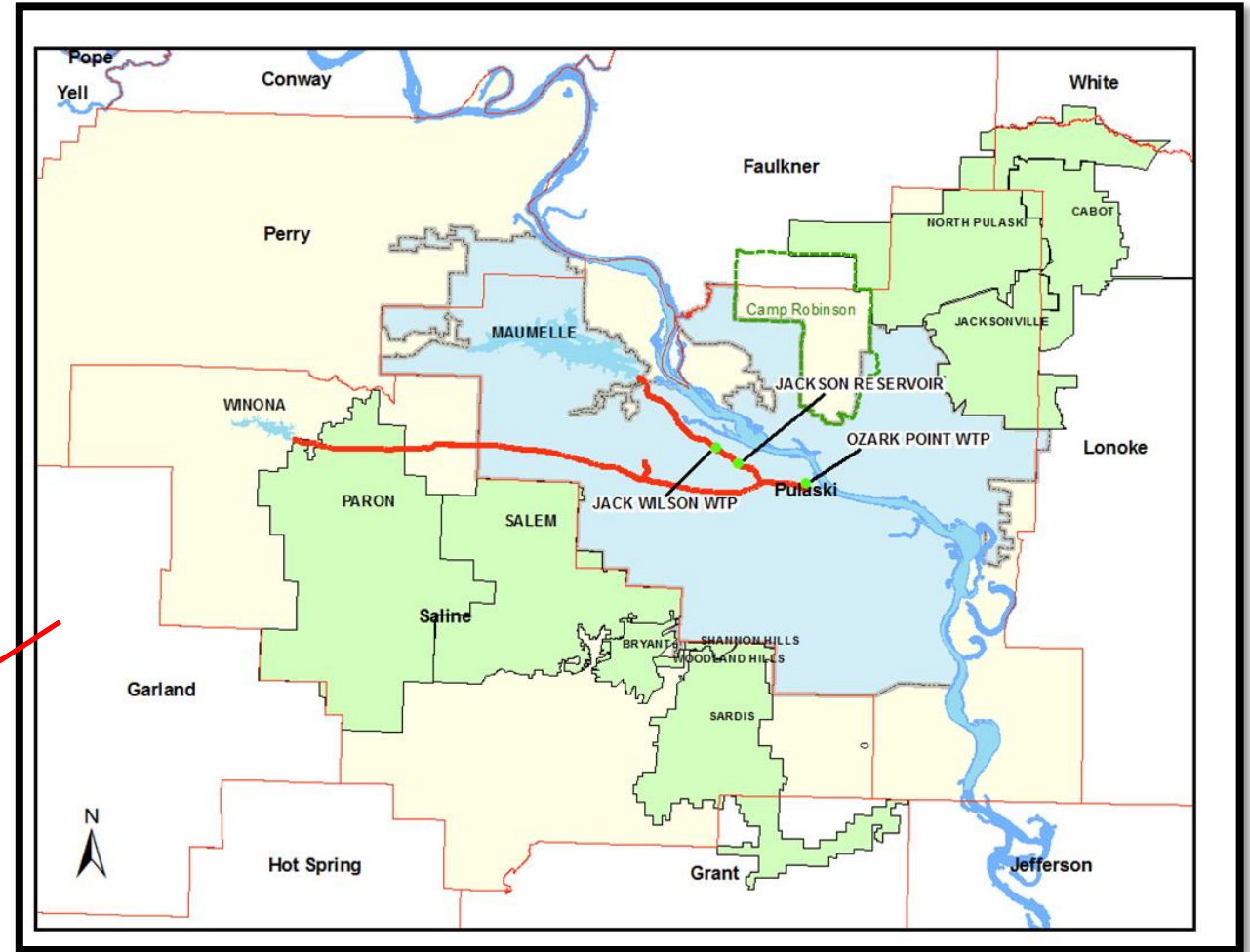
South Carolina Water Plan Symposium

May 30, 2018



Central Arkansas Water

- Serves over 450,000 Arkansans with safe, high quality water
- One in every 7 Arkansans benefit from CAW's service
- Supply from 2 reservoirs: Lake Maumelle & Lake Winona



Where does YOUR drinking water come from?...

80% of South Carolina's public drinking water
is from a surface water source.

Who is responsible for drinking water protection?...

Federal: EPA- SDWA

State: Health and Environmental

Local Government: City/County Planning

Utilities and Municipalities

Businesses & Industries

NGOs: American Water Works Assoc.

Individuals: Rate-payers and Residents

What are some demands on a water supply?...

Development

Industry

Agriculture

Mining

Recreation

Ecosystem Considerations

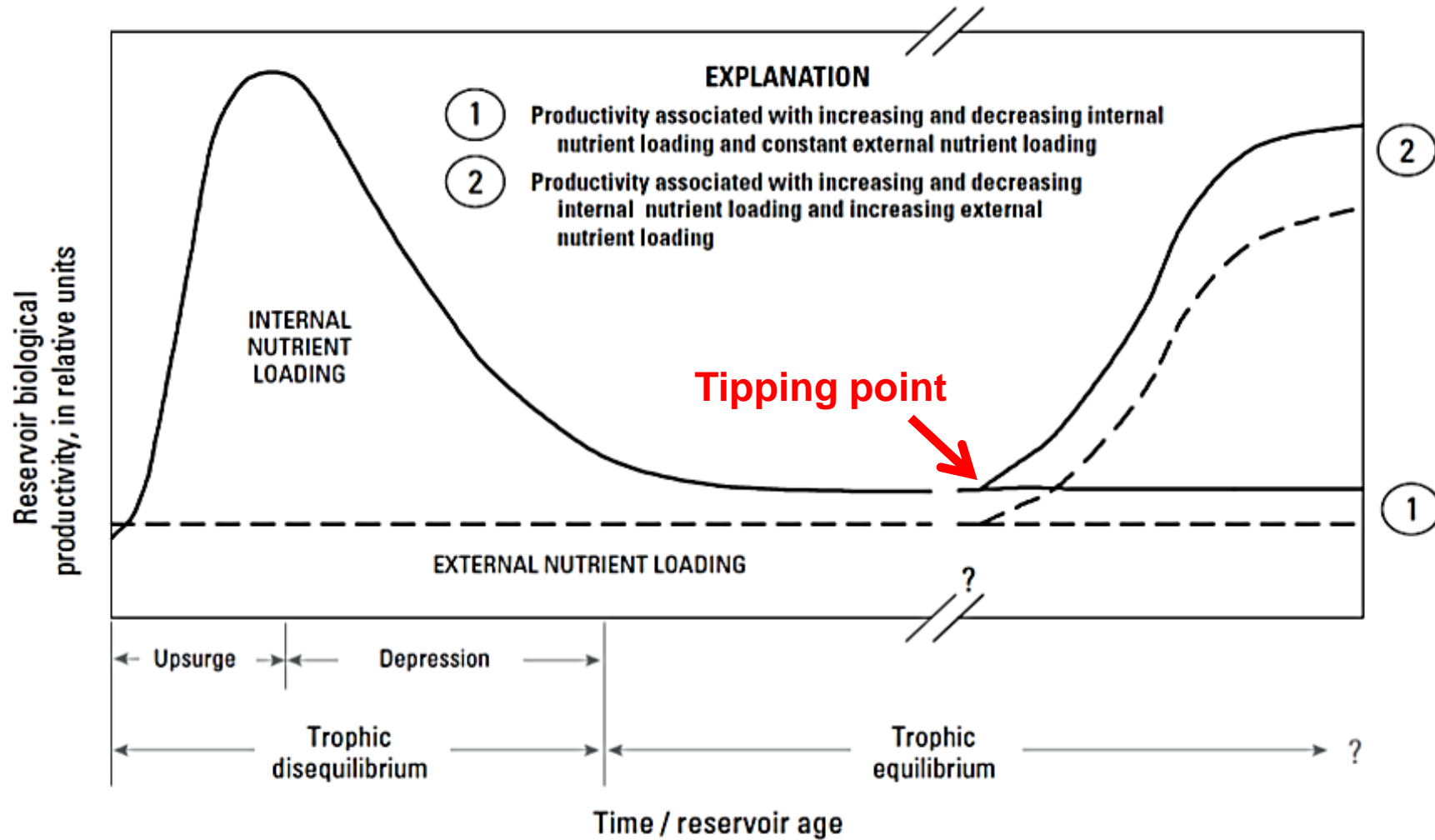
Water Quality vs. Quantity

Drinking Water Is Important!

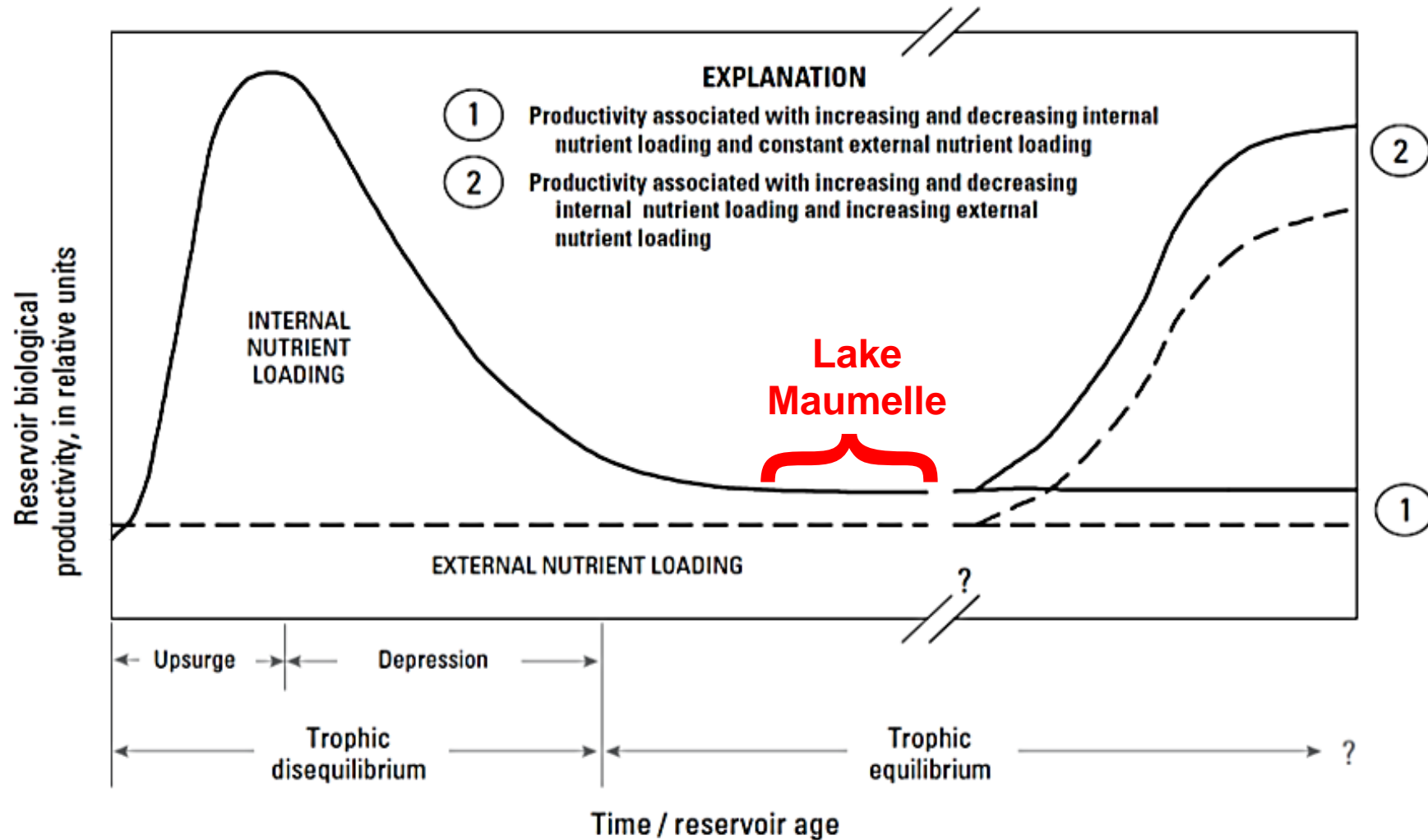
Why is not a top focus in planning efforts?

Be Proactive!

Why Invest in Watershed Protection?



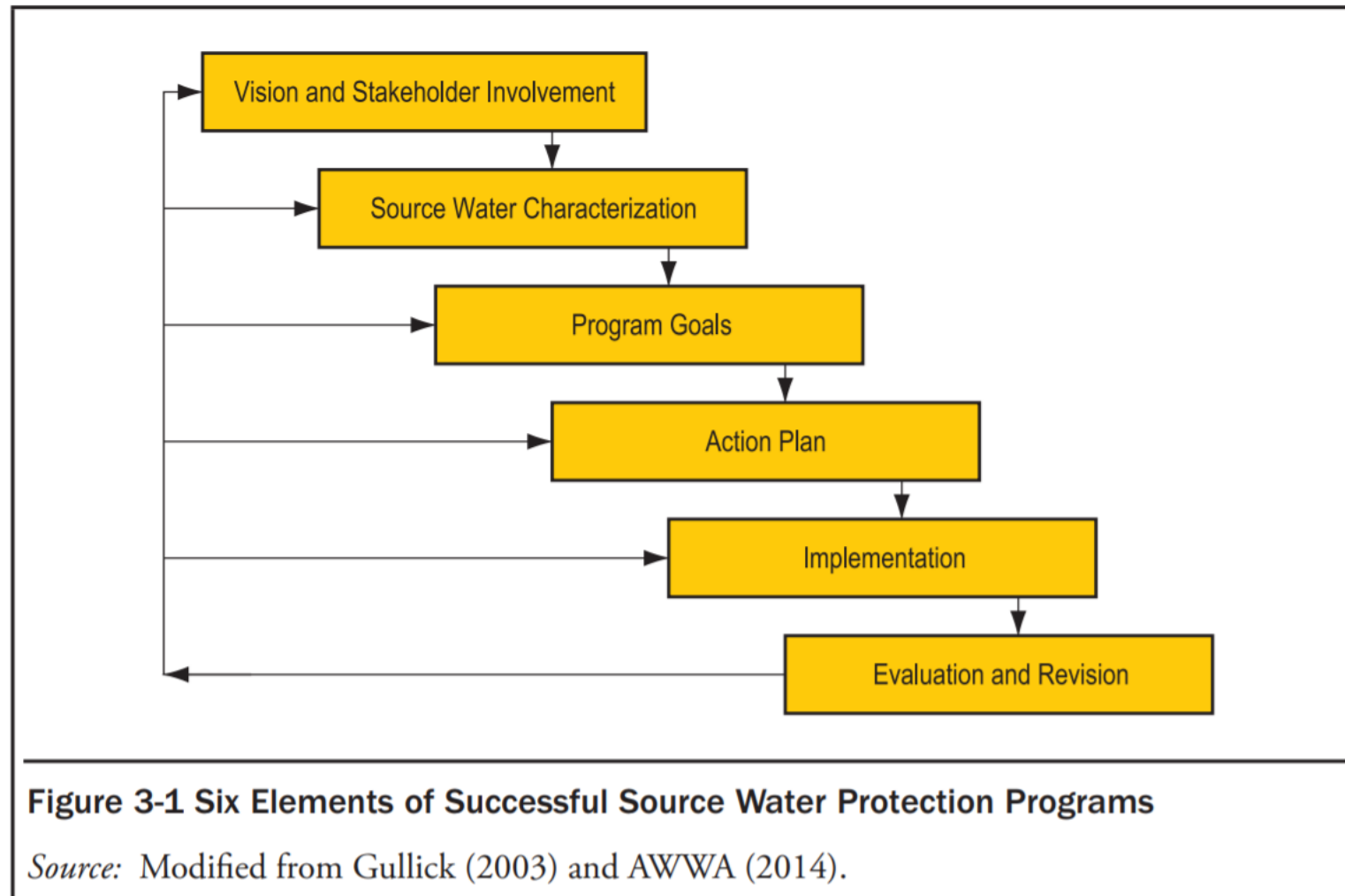
Why Invest in Watershed Protection?



How do we PLAN for protecting source waters?

Regulations & Ordinances
Volunteer Actions
Land Management

AWWA G300 Standard



Involves stakeholders at all levels

Policy Advisory Council

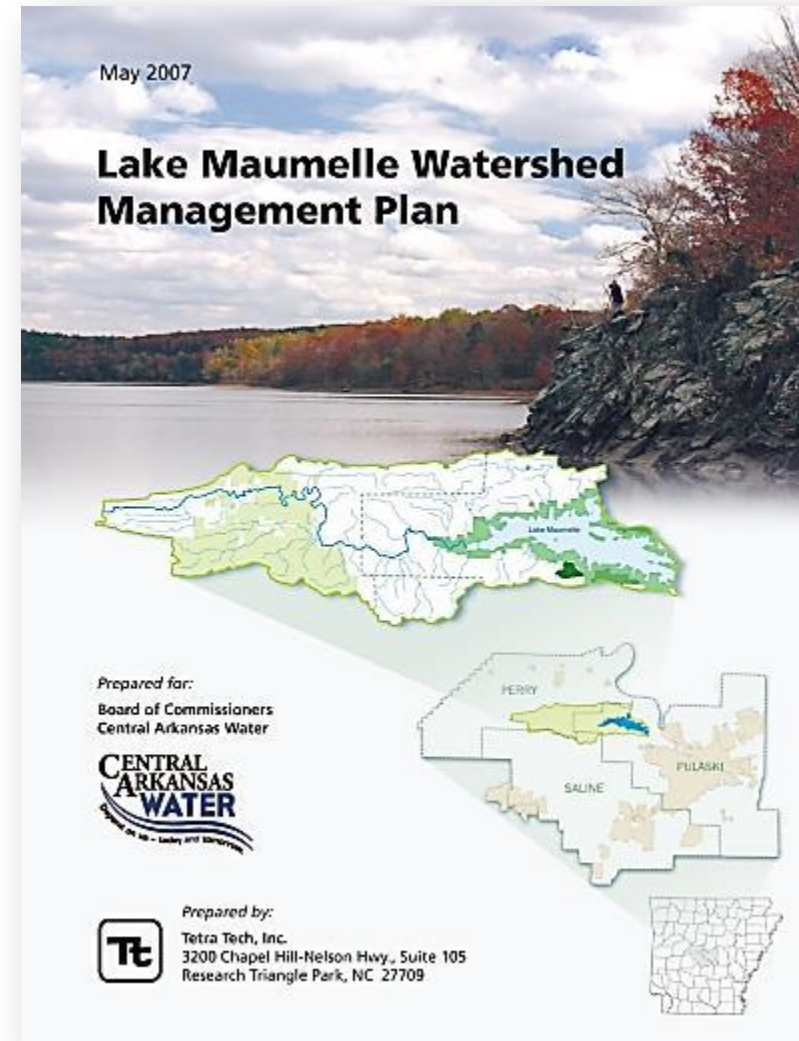
- Arkansas Realtors Association
- Audubon Arkansas
- CAW Board
- Citizens Protecting Maumelle Watershed
- City of Little Rock
- City of North Little Rock
- Deltic Timber
- Grande Maumelle Sailing Club
- League of Women Voters
- Little Rock Regional Chamber of Commerce
- Maumelle Water Corporation
- Maumelle Bass Club.
- North Little Rock Chamber of Commerce
- Perry County Quorum Court
- Pulaski County Quorum Court
- Ratepayers (Little Rock)
- Ratepayers (Wholesale)
- Ratepayers (North Little Rock)
- Sierra Club
- Small Property Owners (Western)
- Small Property Owners (Northern)
- US Forest Service

Guided the overall development of the plan and established the overarching goals and principles of the plan itself. Decisions required consensus.

2007 Management Plan

Findings:

- Existing water quality is very good
- Future water quality will not meet goals under build-out scenarios

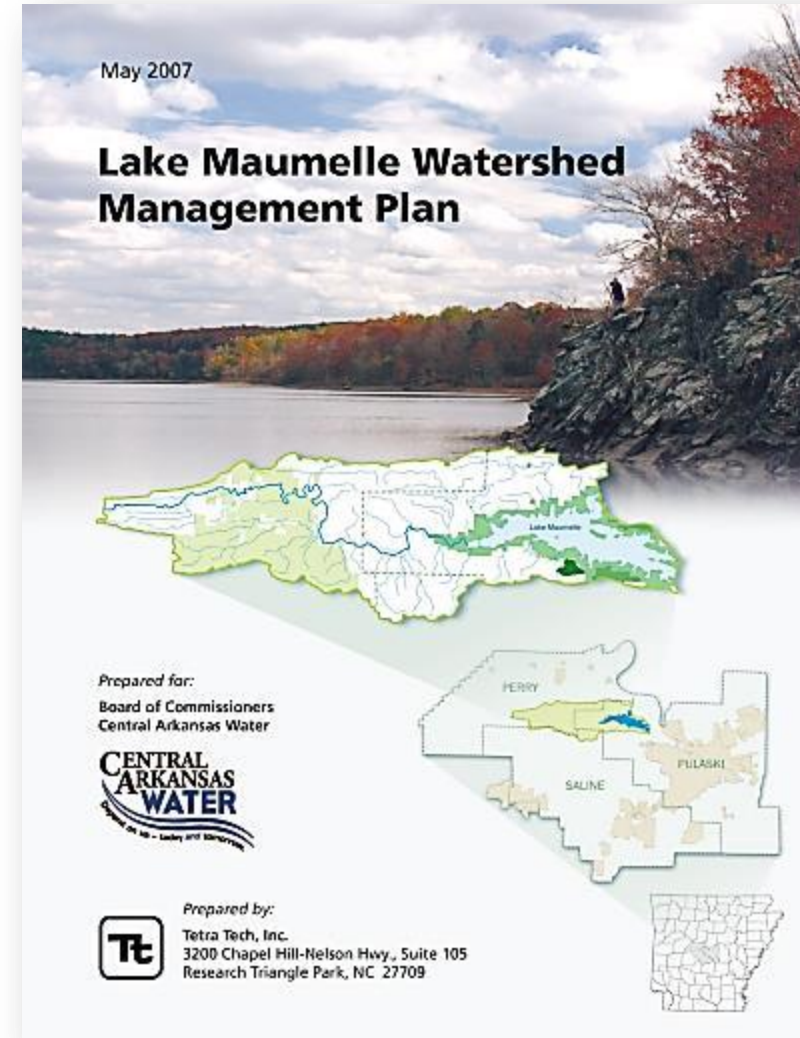


2007 Management Plan

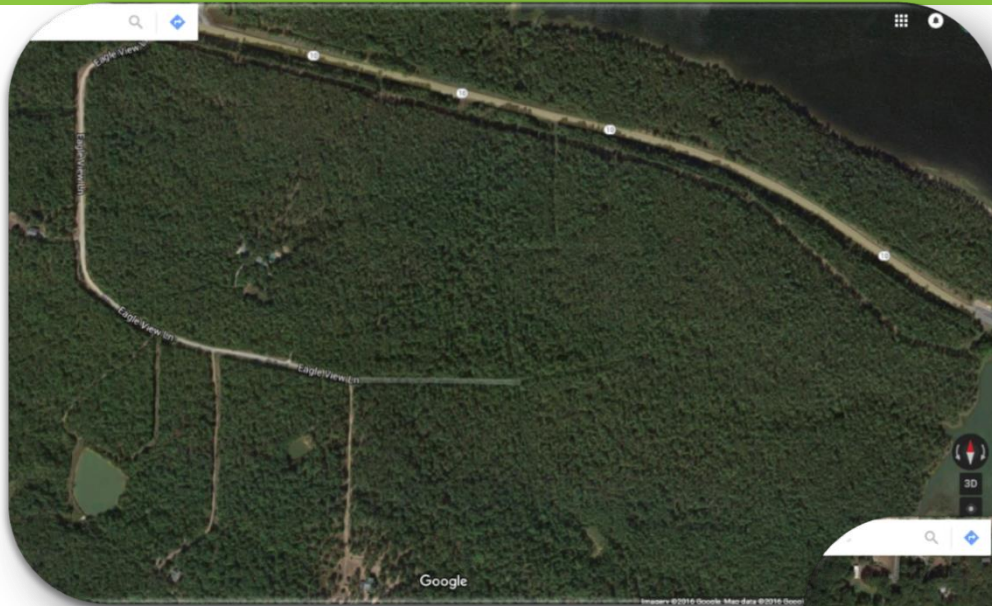
Set targets for Total Organic Carbon (TOC), Turbidity, and Phosphorous

- Recommended Management Strategies
- Recommended New Regulations
- Recommended Actions

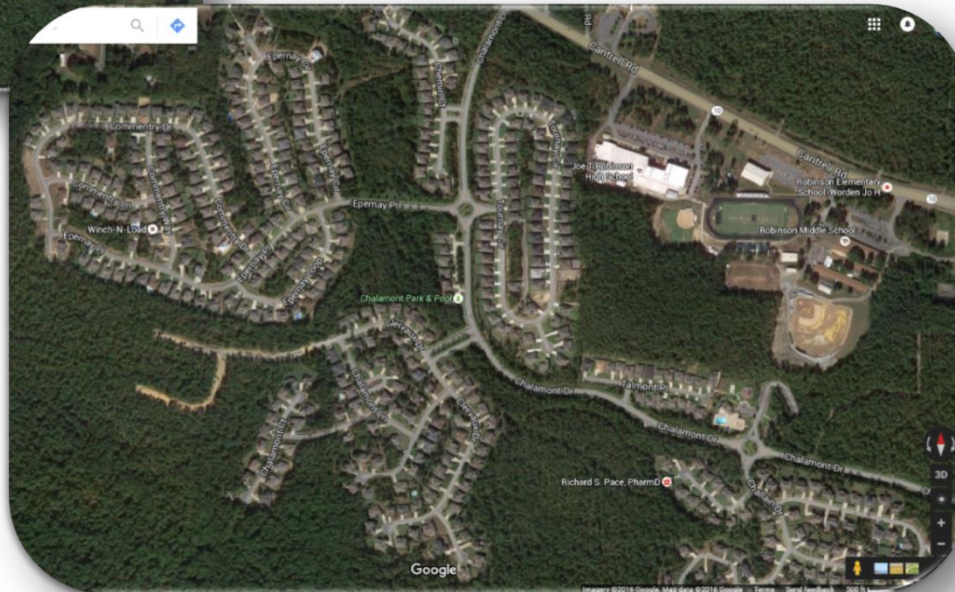
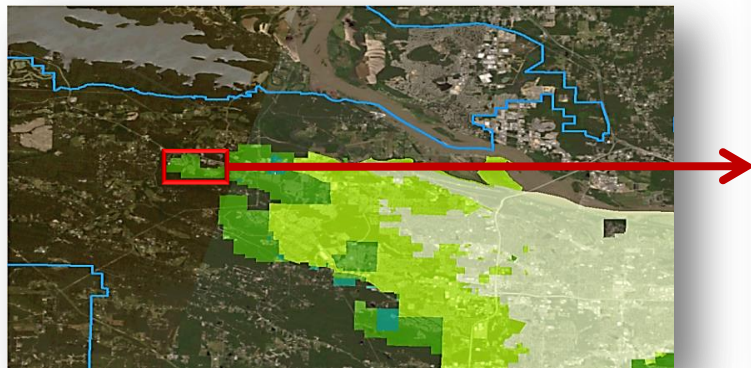
Acquire 1,500 acres of Conservation Land (by 2017)



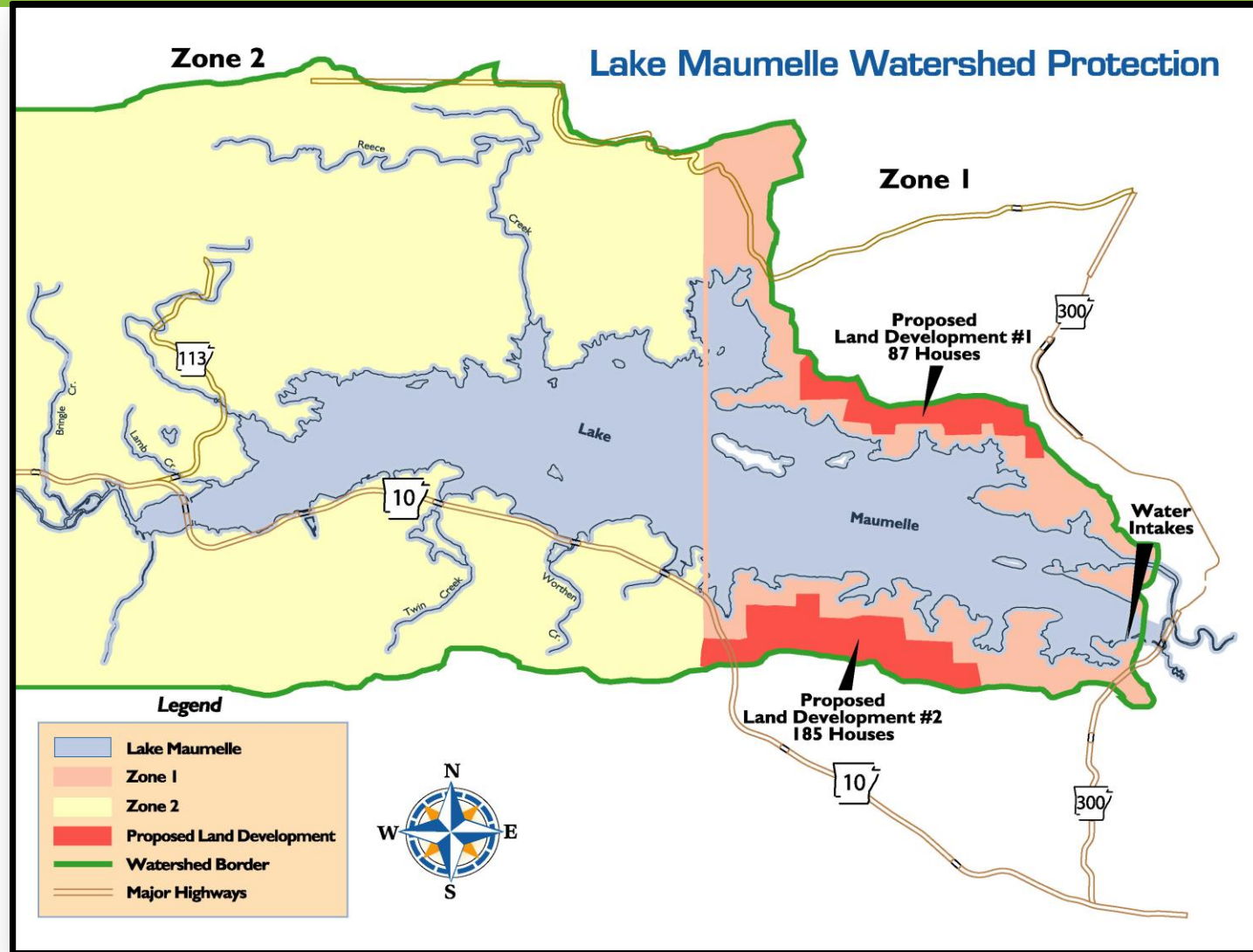
CAW- Development Pressures



Future water quality will not meet goals under build-out scenarios...



Proposed Developments Pre-2004



REGULATION NO. 6 REGULATIONS FOR STATE ADMINISTRATION OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

CHAPTER SIX: LAKE MAUMELLE BASIN

Reg.6.601 Lake Maumelle Basin

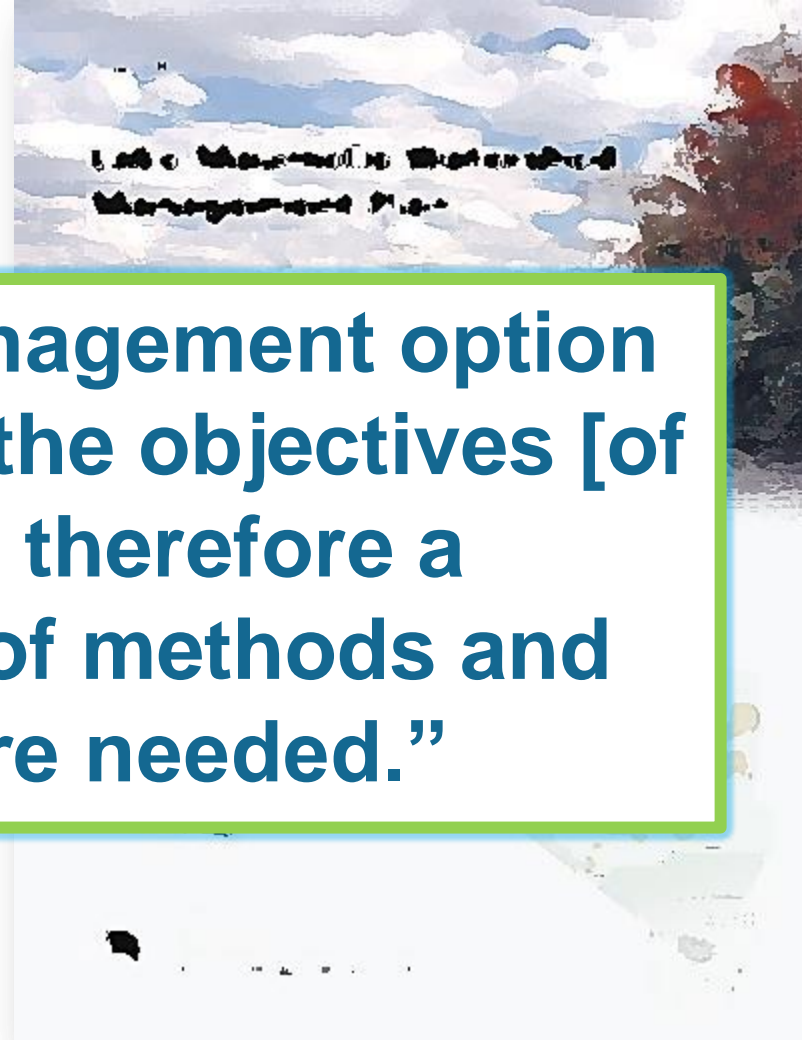
All surface discharges of wastewater in the Lake Maumelle Basin are prohibited, with the exception of discharges permitted under the NPDES stormwater discharge program.

2007 Management Plan

Findings:

- Existing water quality
- Future water use scenarios

“No single management option can meet all of the objectives [of this plan]; therefore a combination of methods and actions are needed.”



Nonpoint Source Pollution

Housing, Ag, Forests, Septic...

Lake Maumelle Watershed Zoning Ordinance

Pulaski County Subdivision and Development Code Ordinance

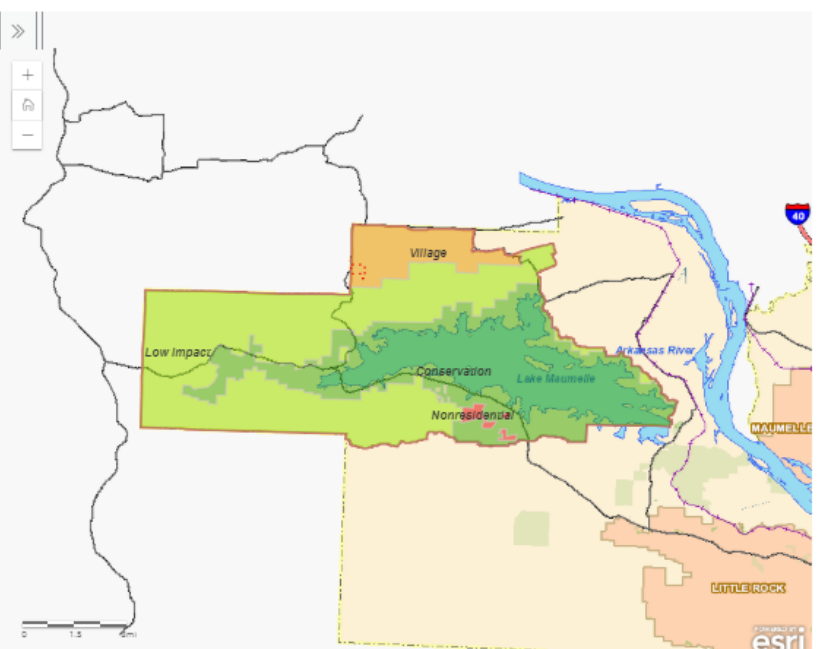
Erosion and Sediment Control Field Guide for the Lake Maumelle Drainage Basin

Site Evaluation Tool (SET)

(Establishes Surface Runoff Loading Rates for new development, and suggests BMPs.)

Regulations, Ordinances & Permits

Zoning Actions in the Lake Maumelle Watershed (Map)



[Lake Maumelle Watershed Zoning Ordinance](#)

[Lake Maumelle Watershed Streams Map \(reference only\)](#)

[Lake Maumelle Watershed Zoning Map \(reference only\)](#)

[Comprehensive Land Use Plan for the Lake Maumelle Watershed](#)

[Subdivision and Development Code Ordinance](#)

[Master Road Plan Ordinance](#)

[Lake Maumelle Watershed Legal Description Ordinance](#)

[Stormwater Management and Drainage Manual for the Lake Maumelle Drainage Basin](#)

[Erosion and Sediment Control Field Guide for the Lake Maumelle Drainage Basin](#)

[Site Evaluation Tool \(SET\) Excel Worksheet](#)

[Site Evaluation Tool User Guidance and Documentation for the Lake Maumelle Drainage Basin](#)

[Lake Maumelle Watershed Property Owners Map](#)

Managing the Land

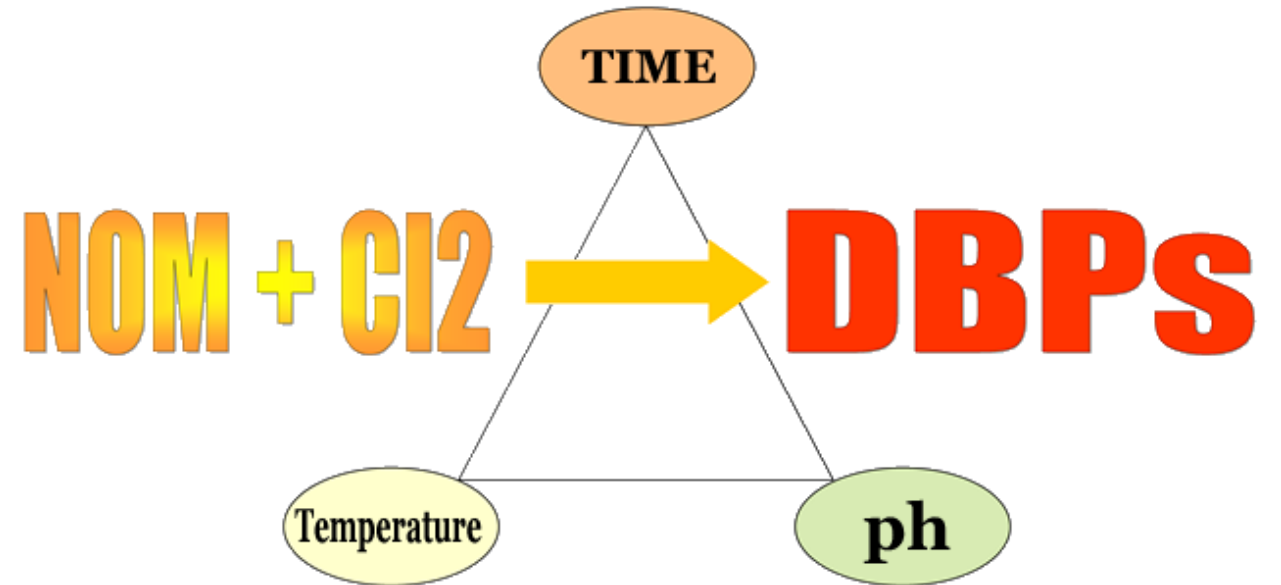
- 1) Land Acquisitions and Conservation
- 2) Forest Management: Fire, Thinning, Roads
- 3) Restoration & Reforestation
- 4) Monitoring
- 5) Wildlife and Recreation
- 6) Education and Outreach
- 7) Risk Mitigation and Emergency Response



THREATS: Disinfection Byproducts, Sediment Contamination, Emerging Contaminants



DBP Formation

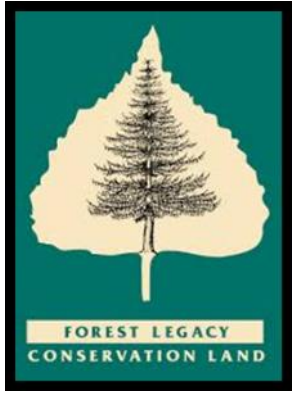


Is proper and proactive source water protection easy?

We can't do it alone:



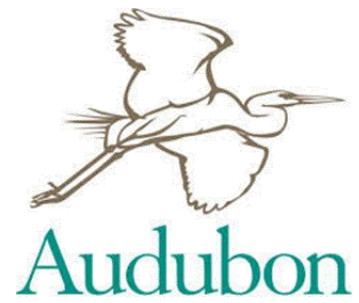
US Army Corps of Engineers®



WATERSHED CONSERVATION
RESOURCE CENTER



The Nature Conservancy
Protecting nature. Preserving life.™



Questions?



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