

A photograph of a stream with rocky banks. The water is dark and flows through a channel lined with large, smooth, greyish-brown rocks. On the right bank, a large, corrugated metal pipe is partially visible, protruding from the rocks. The background shows a grassy hillside with several large trees and a fence line. The sky is clear and blue. The text "TMDL Basics" is overlaid in the center of the image in a bold, yellow, sans-serif font.

TMDL Basics

What is a TMDL?

TMDL stands for: **Total Maximum Daily Load**

- ✓ It is a calculation of the maximum amount of a particular pollutant that a water body - river, stream, lake or estuary, can receive and still be safe and healthy **and**;
- ✓ the maximum amount of a pollutant that a water body can accept and still meet Georgia water quality standards

TMDL Basics

- Each pollutant must have a separate TMDL calculated for it, so there can be multiple TMDLs for a water body
 - ✓ Fecal
 - ✓ Sediment
 - ✓ Metals
 - ✓ Temperature
 - ✓ Dissolved Oxygen
 - ✓ Etc.

TMDL Basics

- Pollutants come from both point and nonpoint sources

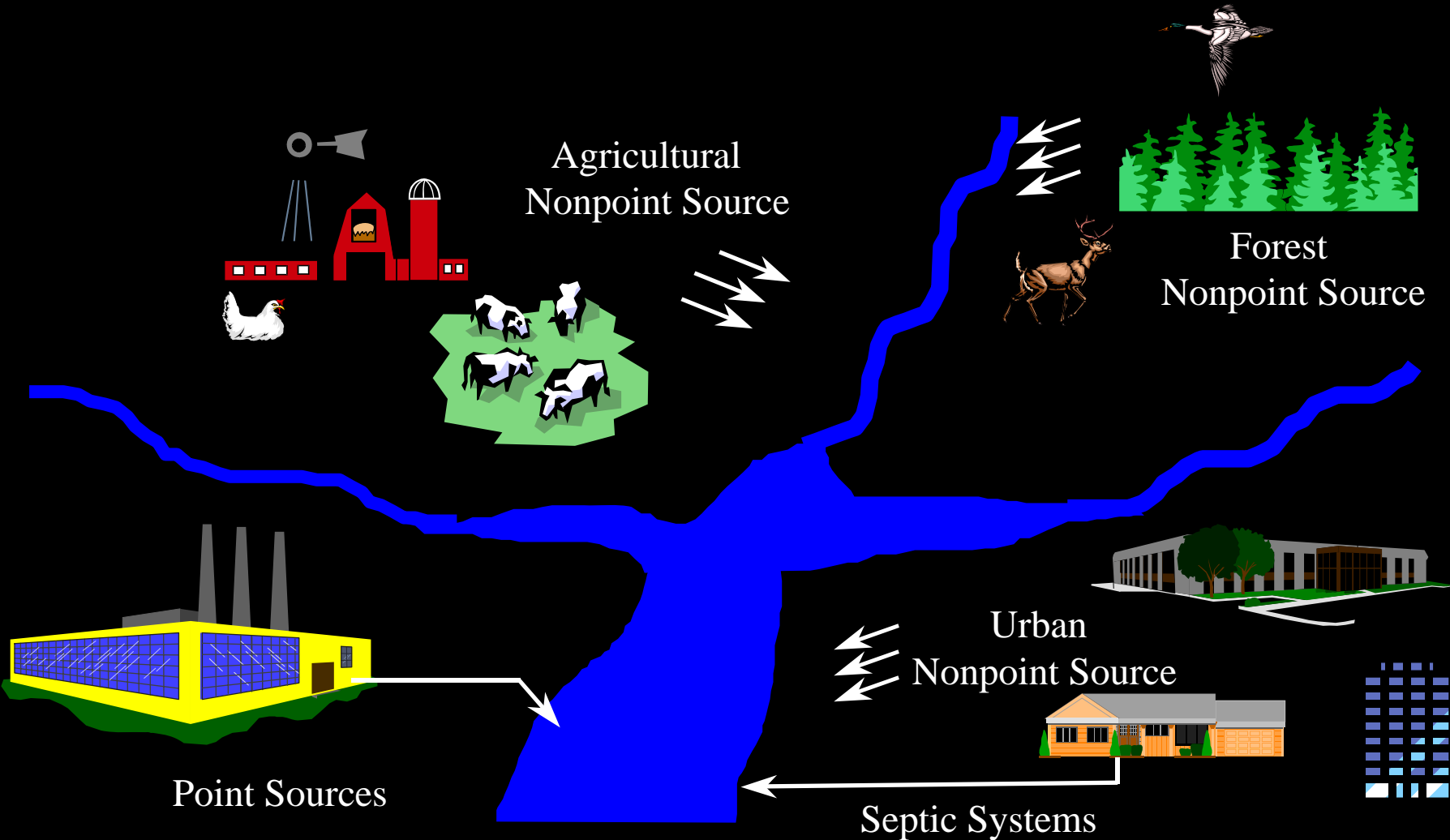


TMDL Basics

- TMDLs must take into account the water quality of the entire watershed and assess all pollutant loadings within it



Pollutant Sources

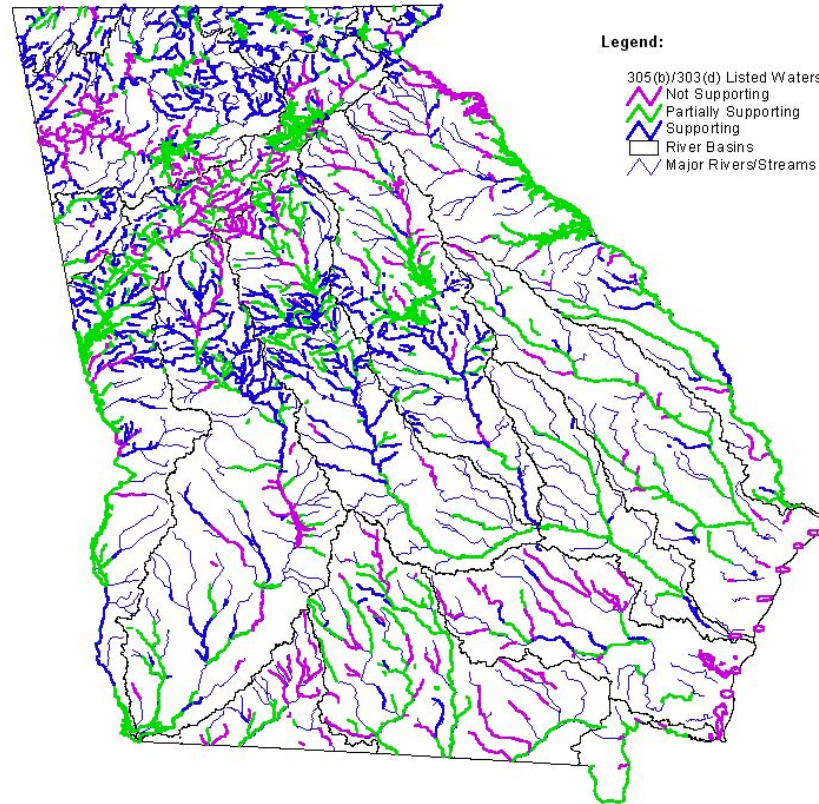


Why Calculate TMDLs

- USEPA requires all States to:
 - Identify waters not meeting standards and list them on the 305(b)/303(d) list
 - Set priorities for TMDL development for waters listed on the 303(d) list
 - Develop a TMDL for each pollutant for each listed water body
 - Submit TMDLs to USEPA for approval, or USEPA will develop TMDLs for the state

Georgia's Listed Waters

State of Georgia 305(b)/303(d) Listed Waters for the Year 2000



Georgia's TMDL Priorities

Projected TMDL Development

for River Basins of Georgia
Years 1999 - 2004*

**Coosa, Tallapoosa
Tennessee**

109 TMDLs during
year 2003

Savannah & Ogeechee

3 TMDLs during year 1999
52 TMDLs during year 2004

Chattahoochee & Flint

271 TMDLs during
year 2002

**Oconee, Ocmulgee,
Altamaha**

263 TMDLs during
year 2001

*116 TMDLs were completed in 1998

**Ochlockonee, Suwannee,
Satilla, Saint Marys**

165 TMDLs during year 2000

Courtesy Georgia EPD

The Road Ahead

- Litigation has resulted in court orders and consent decrees requiring TMDL development
- Over 1,100 TMDLs must be developed in Georgia over the next five years
- For listed water bodies, no new loadings of a listed pollutant may be permitted for discharge into the water body until a TMDL is developed

Developing TMDL Implementation Plans

- ✓ A TMDL is a tool to establish controls needed to meet water quality standards
- ✓ A TMDL Implementation Plan must be developed and put into effect to ensure a water body meets the TMDL over time
- ✓ The plan must identify and allocate existing pollutant loadings, *as well as allocate future loadings related to land use, etc.*

Georgia TMDL Implementation Plans

- September 2000 court ruling required development of over 100 implementation plans by April 19, 2001
- EPD contracted with Georgia's 16 Regional Development Centers to develop the first round of TMDL Implementation Plans for:
 - ✓ Fecal Coliform Bacteria
 - ✓ Dissolved Oxygen
 - ✓ Biota Impact (usually fish communities)

Get Involved In Developing TMDL Implementation Plans

- Stakeholders include **everyone** contributing to the pollutant load!
 - ✓ Cities and counties
 - ✓ Industrial facilities
 - ✓ Timber growers and lumber operations
 - ✓ Every individual, since our daily behavior contributes to pollution
 - ✓ Farmers and agribusiness operations



TMDLs and the Public

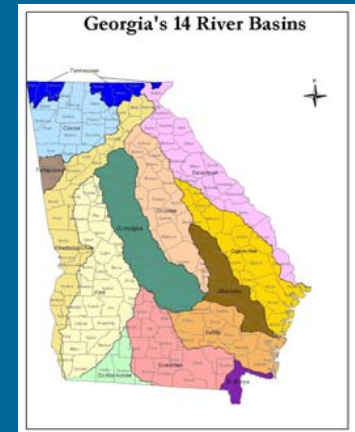
- What can interested citizens do?
 - ✓ Watch for notices & participate in TMDL development public hearings and meetings
 - ✓ Watch for notices & participate in TMDL Implementation Plan stakeholder meetings
 - ✓ Get involved with local watershed programs
 - ✓ Begin now to eliminate nonpoint source pollution in your daily activities: at work and at home

How Can We Address These Issues?

- Get involved . . . Think in terms of a **watershed community**.
- Support local government efforts to deal responsibly with land use, development, and water quality issues.
- Take responsibility for your own activities.
- Search for Regional Solutions

Regional Solutions

- It is not “business as usual”
 - Water issues do not respect political boundaries ... think in terms of watersheds and river basins
 - Work to develop regional watershed master plans
 - Solutions will be expensive, work together to secure necessary funding for plan implementation

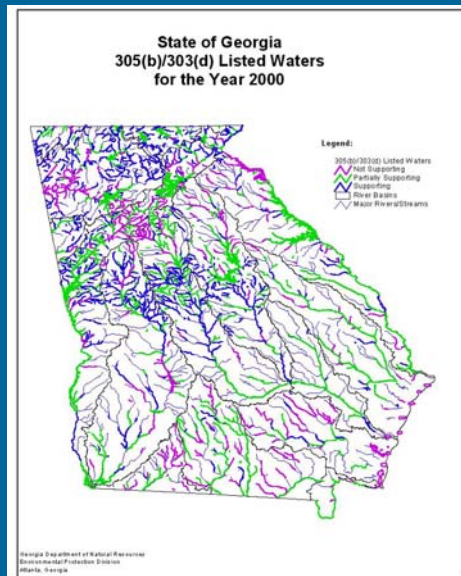
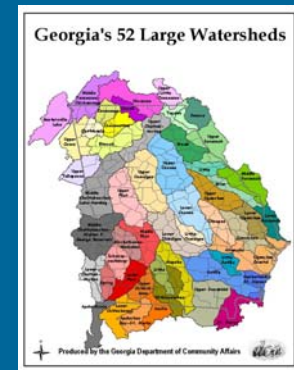


TMDLs and Local Governments

- Implementation of TMDL Plans will impact:
 - ✓ Growth, development, and land use planning
 - ✓ Recreational activities and opportunities
 - ✓ Drinking water withdrawal permits
 - ✓ Wastewater plant discharge permits
 - ✓ Storm water discharge permits, including the Phase II storm water permitting program

Local Governments Need to Prepare for TMDL Implementation

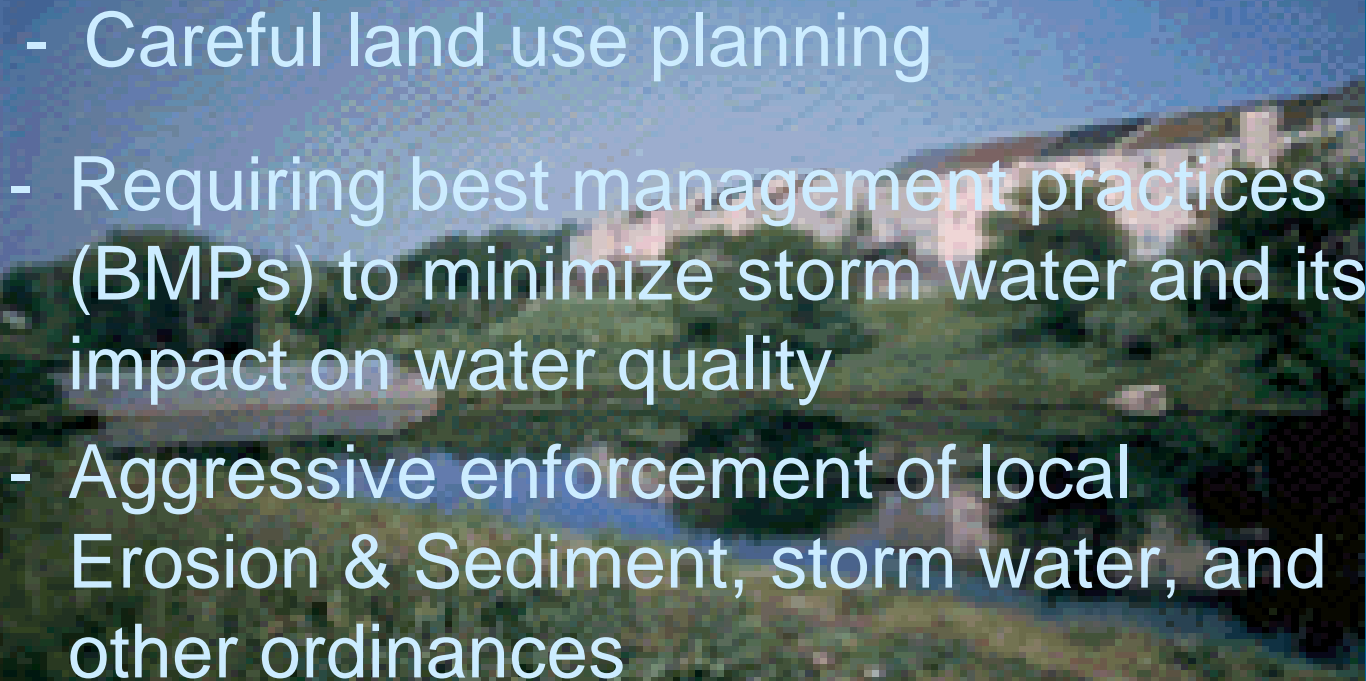
- By learning about watersheds in your jurisdiction. It may be in one watershed or several, and;



- Checking for water bodies on the 303(d) list in their jurisdiction and look at the quality of the data used to put them on the list, and;
- Verify the listing by looking at other existing data or starting a local monitoring program

Local Governments Need to Prepare for TMDL Implementation

- By implementing effective storm water management through:

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- Careful land use planning
 - Requiring best management practices (BMPs) to minimize storm water and its impact on water quality
 - Aggressive enforcement of local Erosion & Sediment, storm water, and other ordinances

Local Governments Need to Prepare for TMDL Implementation

- By developing partnerships within a watershed. TMDL allocations must be distributed among **all** pollutant sources, regardless of political boundaries, and
- Educating and Involving the Public
 - We all contribute to water pollution problems



Funding Sources

- Georgia EPD 319(h) grants
- GEFA State Revolving Fund Loans
- EPA grant programs
- Georgia Greenspace Program Funds
- Bonds
- Impact fees and storm water utility fees
- Private Donations & Foundation Grants

Where Can I Get More Information on TMDL Issues?

- Georgia EPD and USEPA
- Georgia Department of Community Affairs
- Regional Development Centers
- Association County Commissioners of Georgia
- Georgia Municipal Association
- Community Watershed Organizations
- Water Authorities and Planning Districts

Acknowledgements



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