

Georgia's Forestry Water Quality Program

Presented at the Environmental Advisory
Council

February 8, 2007

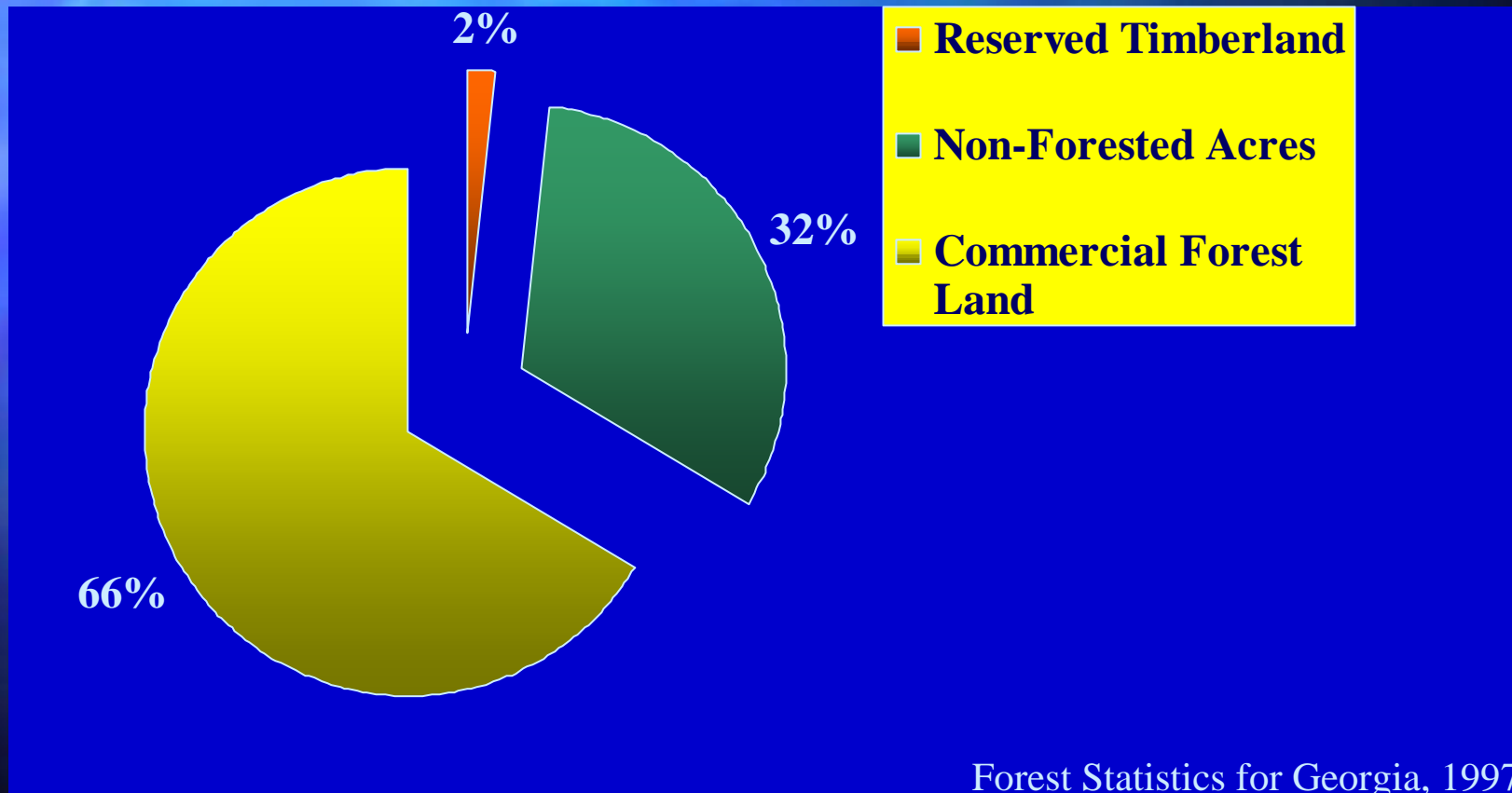
Georgia Forestry Commission

Frank Green



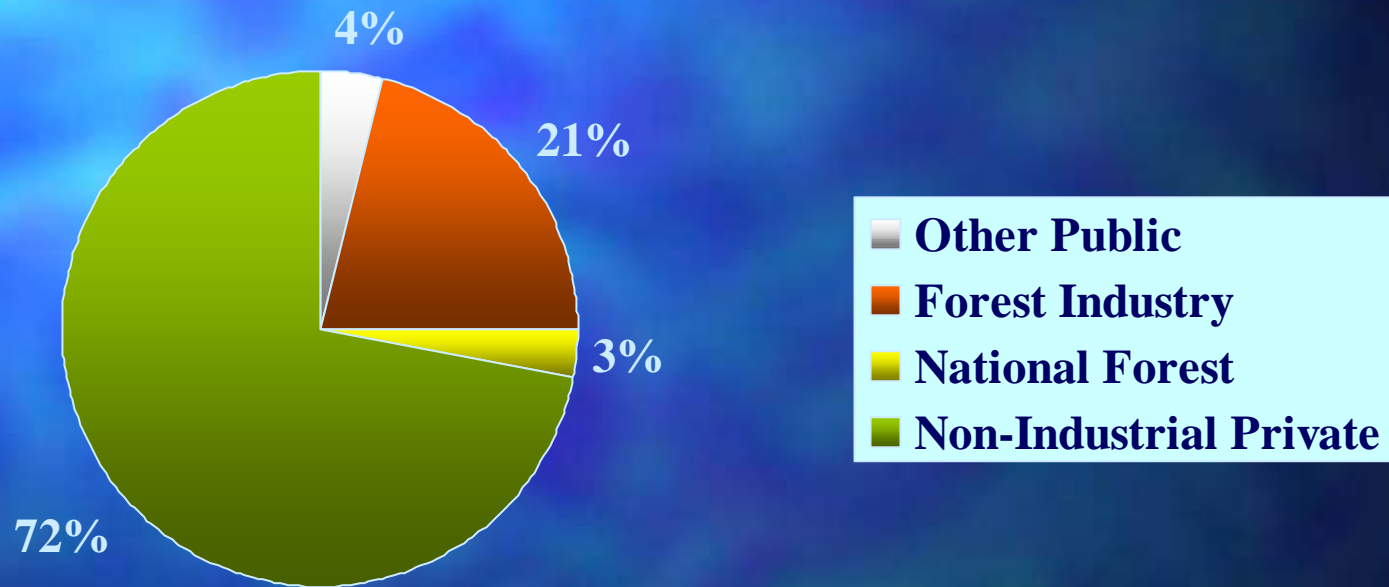
Georgia's Land Use

37,068,000 acres



Forest Statistics for Georgia, 1997

Georgia's Commercial Forest Ownership



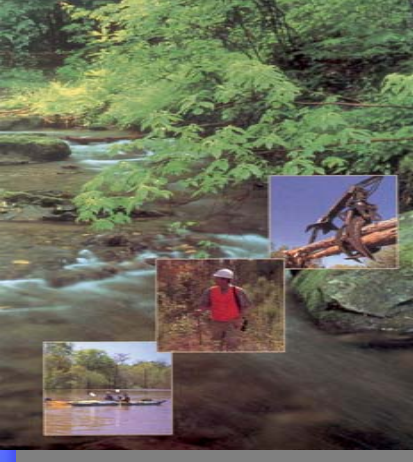
Silvicultural Nonpoint Pollution Contract with GA EPD

- Since 1981, GFC has been the lead agency designated to carry out the forestry water quality program.
- Most recent contracts are for 2-yr periods and reimburse GFC for services in the amount of \$300,000.
- Last contract, the GFC's total expense was over \$950,000

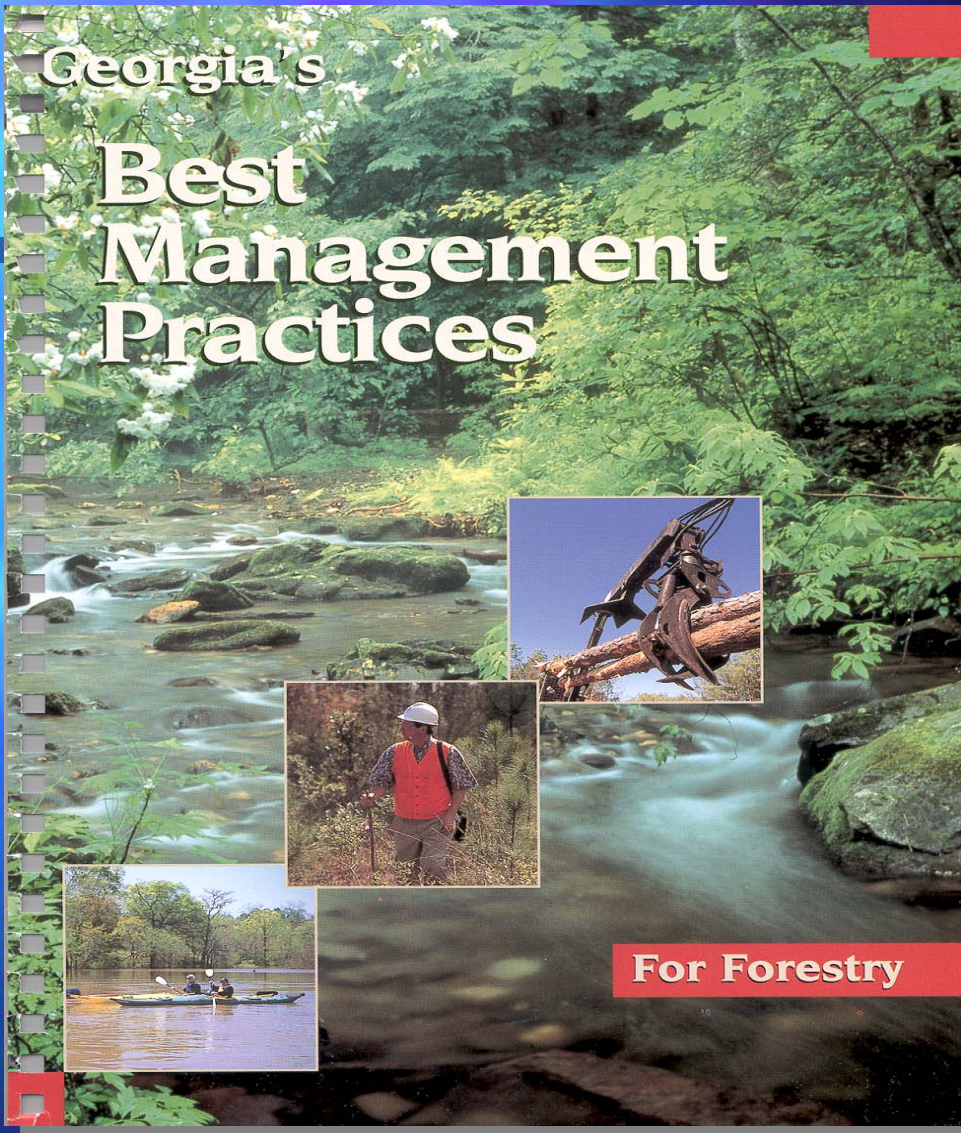
GFC Program Responsibilities

- Spearhead the development and modification of BMPs as needed.
- Educate the forest community on BMPs.
- Conduct BMP use and effectiveness monitoring surveys.
- Investigate and mediate forestry water quality complaints.

Sustaining Your Forest and Georgia's Water Quality



Reforestation, Site Preparation, Management and Protection



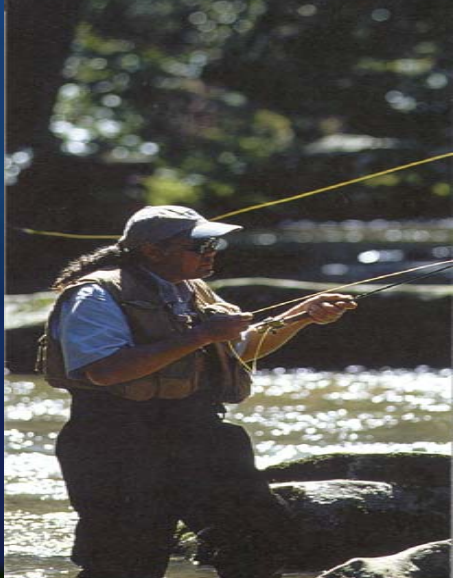
Georgia's Best Management Practices

For Forestry

Timber Harvesting and Road Construction



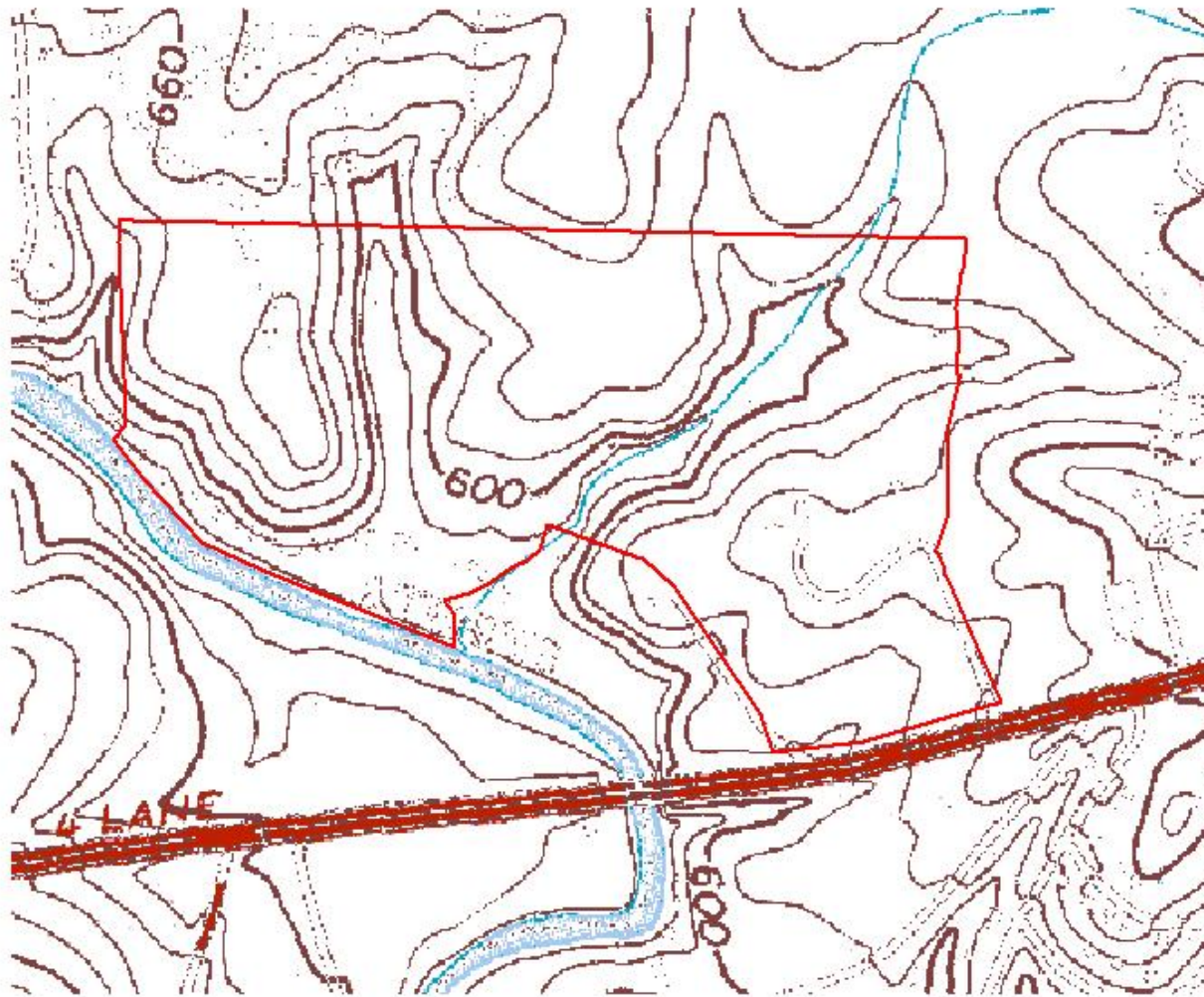
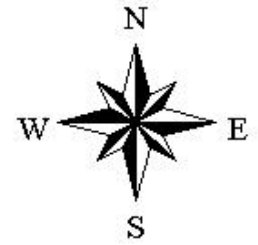
Trout Streams of Georgia



Major Sections

- Planning
- Streamside Management Zones
- Stream Crossings
- Roads
- Timber Harvesting
- Site Prep and Reforestation
- Management and Protection

Contour Map



 Boundary.shp



Streamside Management Zones

	Perennial Stream	Intermittent Stream	Trout Stream
Slight (<20%)	40 Feet	20 Feet	100 Feet
Moderate (21-40%)	70 Feet	35 Feet	100 Feet
Steep (>40%)	100 Feet	50 Feet	100 Feet

New Guidance

- March 1990 – BMP Guidance for Canals and Ditches
- September 2003 – BMP Guidance for Floodplain and Riparian Landforms in GA
- Ephemeral Areas and Gullies

Water Quality Personnel

- 1 Statewide Coordinator – Frank Green located at Macon HQ
- 4 FTE: Regional Coordinators
- 6 part time District Water Quality Foresters

Educational Accomplishments from 1981 –June 2006

- provided 2,096 BMP talks to over 69,153 persons
- Provided BMP advice on 73,595 cases involving over 4.6 million acres
- Distributed over 84,972 BMP manuals
- Provided each district with a table top exhibit and a billboard to rotate at local woodyards
- Conducted over 377 field demonstrations

Educational Partners

- University of Georgia Warnell School of Forestry and Natural Resources
- Georgia Forestry Association
- Southeastern Wood Producers Association
- American Forest & Paper Association (SFI)
- US Forest Service

Georgia Master Timber Harvester Program

- Donna Gallaher – Coordinator @ UGA
- 4 to 5 courses per year
- Loggers are required to attend a two day workshop in order to deliver wood to participating SFI member companies
- Full morning devoted to BMPs and harvest planning.
- 3,419 people have gone through the course

Continuing Logger Education

- Participants required to receive 12 hours of continuing ed every 2 years of which 4 must be environmental.
- Provided via SE Wood Producers Assoc., Technical Colleges, and industry companies.
- Workshops concentrating on BMP deficiencies ie. stream crossings and forest roads.
- 40 workshops per year
- 1,786 people have maintained their MTH status.



Road Layout & Construction







Pine Country RC&D Timber Bridge Loan Program





Geoweb Crossings



Compliance Monitoring

- Statewide Surveys conducted in 1991, 1992, 1998, 2002 and 2004.
- Use USFS FIA data to determine a stratified random sample.
- Pull local timber tax bills from county tax assessors office to select sites.
- Evaluated 412 sites in 2004.
- Will conduct another in 2007 and every two years after.

Marked SMZs



Stabilized Roads



Rolling Dips

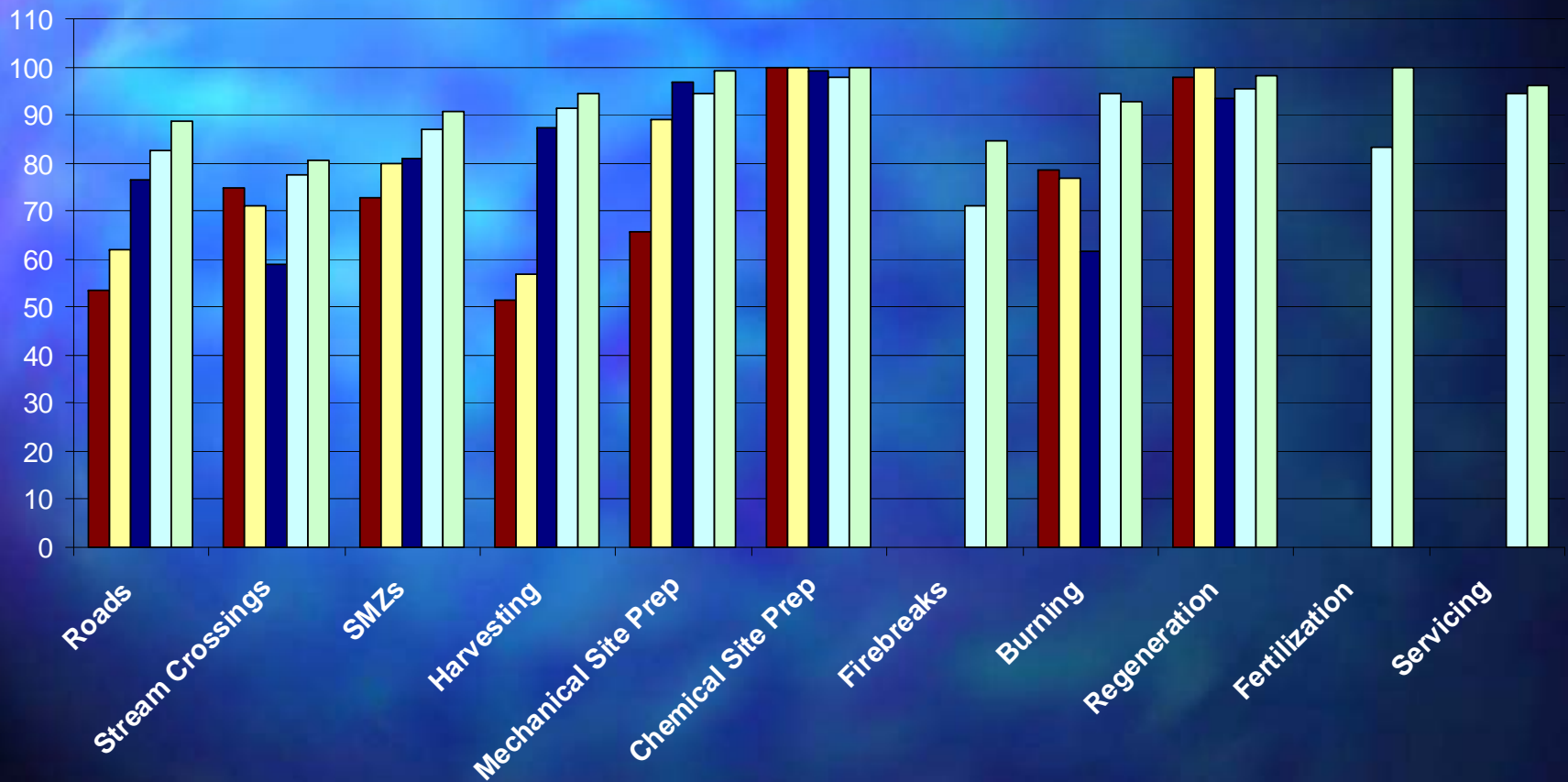


Stabilized Stream Crossings



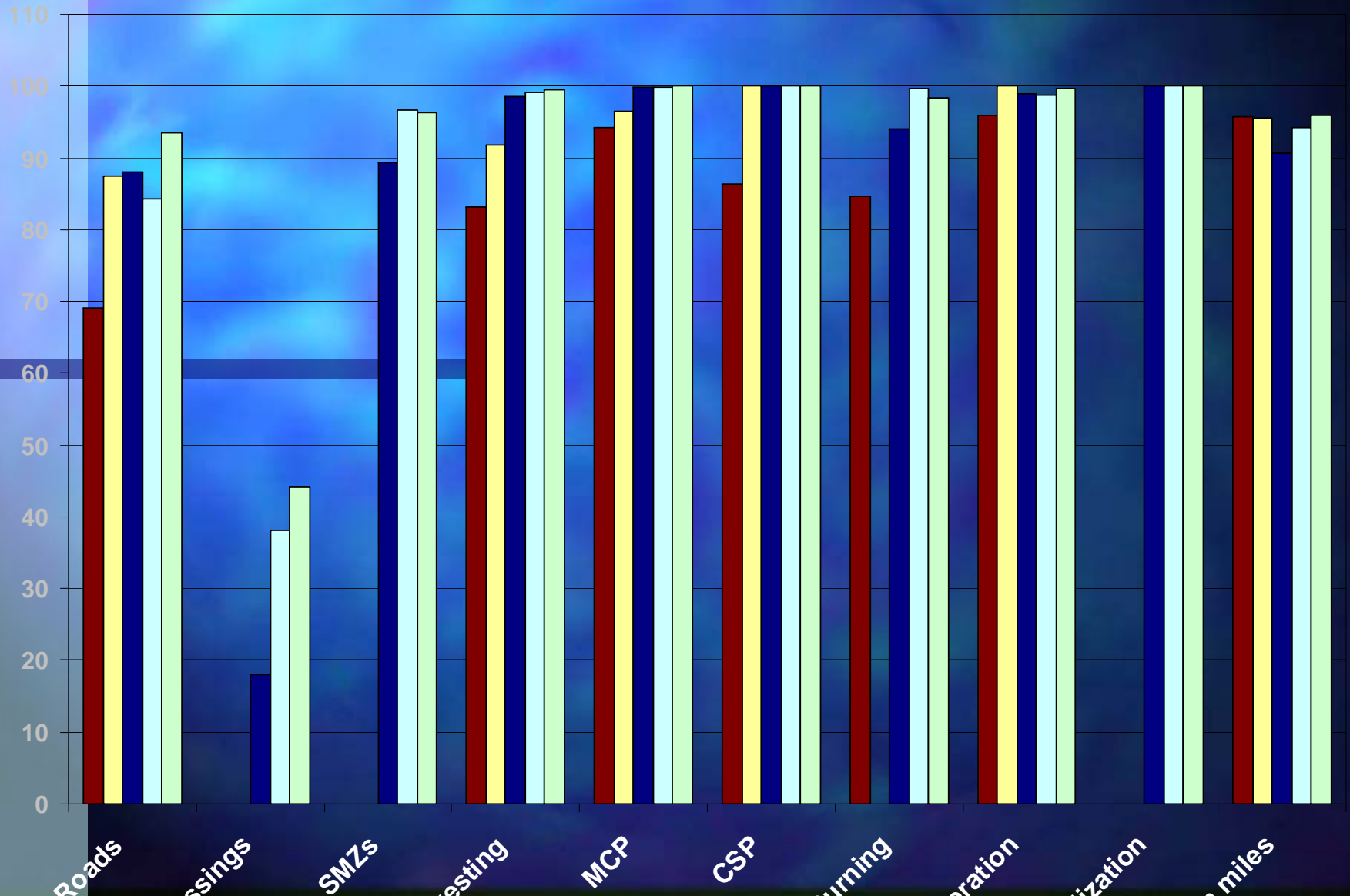
Trends in BMP Implementation

■ 1991 ■ 1992 ■ 1998 ■ 2002 ■ 2004



Trends in BMP Compliance

1991 1992 1998 2002 2004



Monthly BMP Assurance Exams

Why the Need for the Assurance Exams?

- More timely data needed than waiting 2 to 3 years for statewide BMP implementation survey results
- Recommended by State Foresters and AF&PA as a component of a quality state program
- Identified in the Southern Forest Resource Assessment
- Identified as a component in TMDL Implementation Plans
- Provide education to landowners and assistance to forest operators

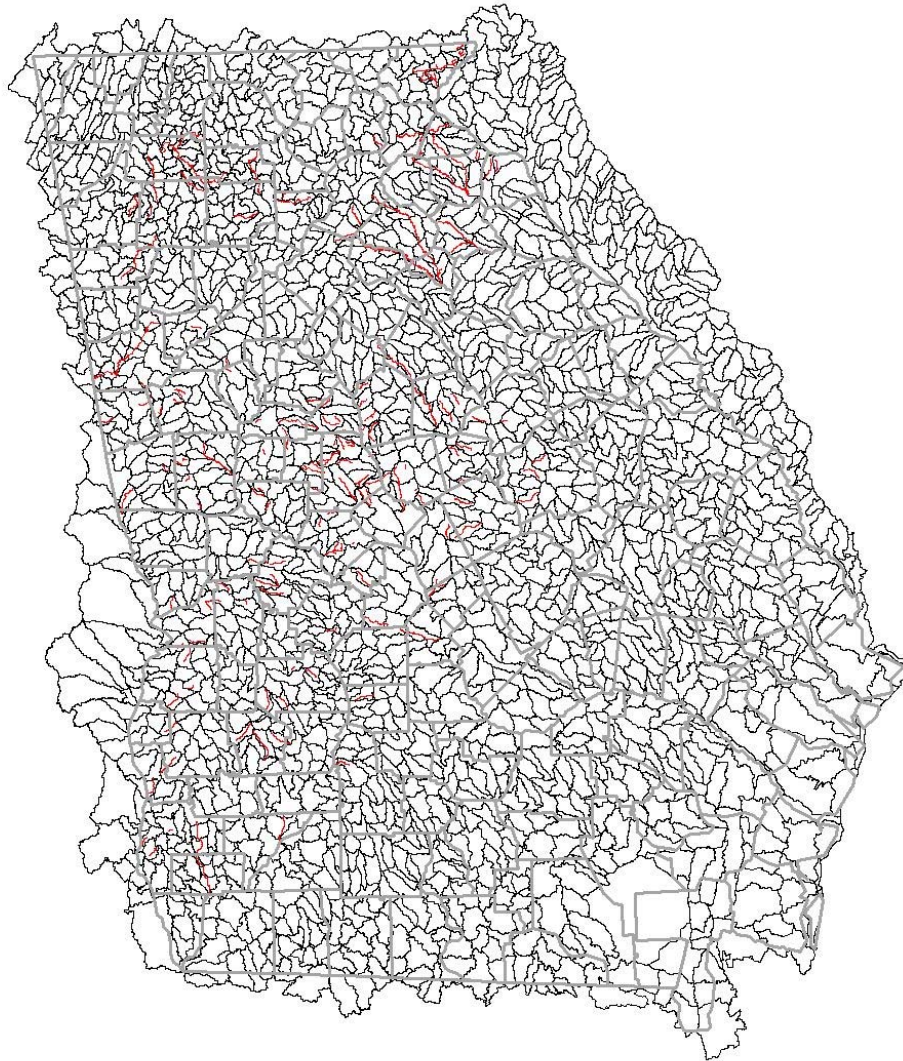
Assurance Exams Funding

- Section 106 Grant
- 100% no match
- \$125,000 per annual contract

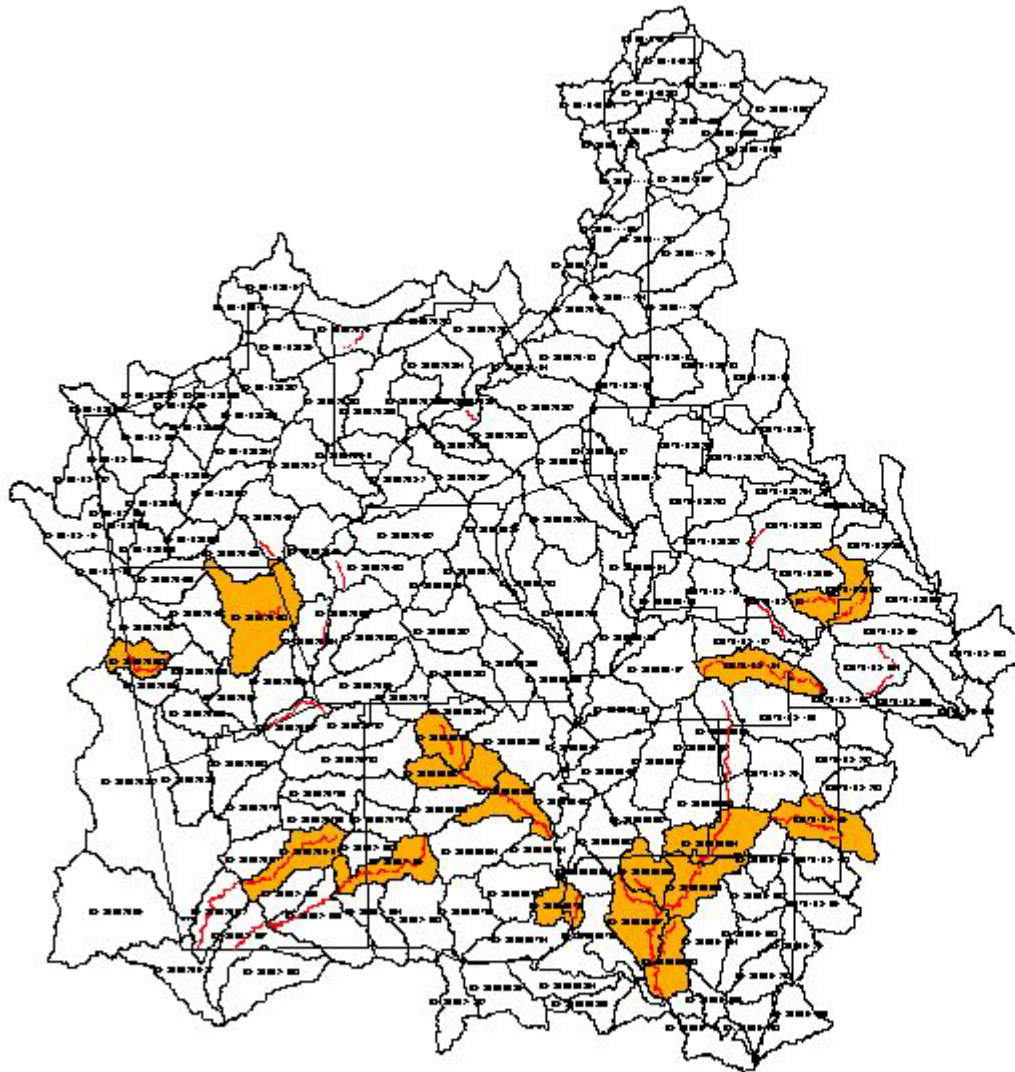
Site Identification

- Target active sites with priority on those in sediment TMDL watersheds
- Sites could be identified by air, county records, personal knowledge, or requests

TMDL STREAM SEGMENTS 2002



District 4 Impaired TMDL Stream Locations



stream	stream name	32460001
stream	stream name	32460001
stream	stream name	32460002
stream	stream name	32460003
stream	stream name	32460004
stream	stream name	32460005
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stream	stream name	32460050





N50072

U.S. NAVY



Inspection Protocol

- Forester would visit site ASAP, interview logger or operator and obtain landowner, timber buyer, and receiving mill(s) information
- Landowner contacted to obtain permission and to educate about BMPs and responsibilities
- With permission, forester conducts initial exam
- Denials are recorded

Initial Examination

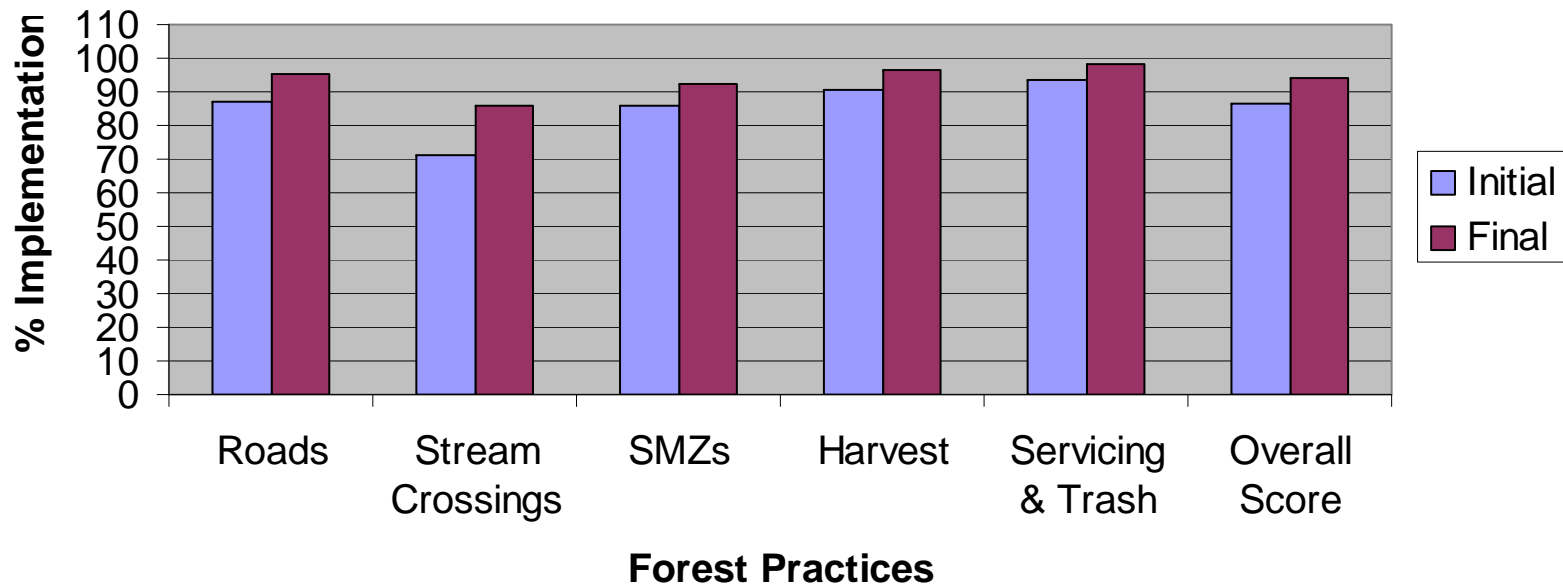
- BMP questions based on Yes, No (all or none implementation basis) or N/A.
- Forest operator should sign completed Initial Exam form showing results and any needed recommendations
- Provide landowner and other immediate parties with copy of completed Initial Exam

Final Examination

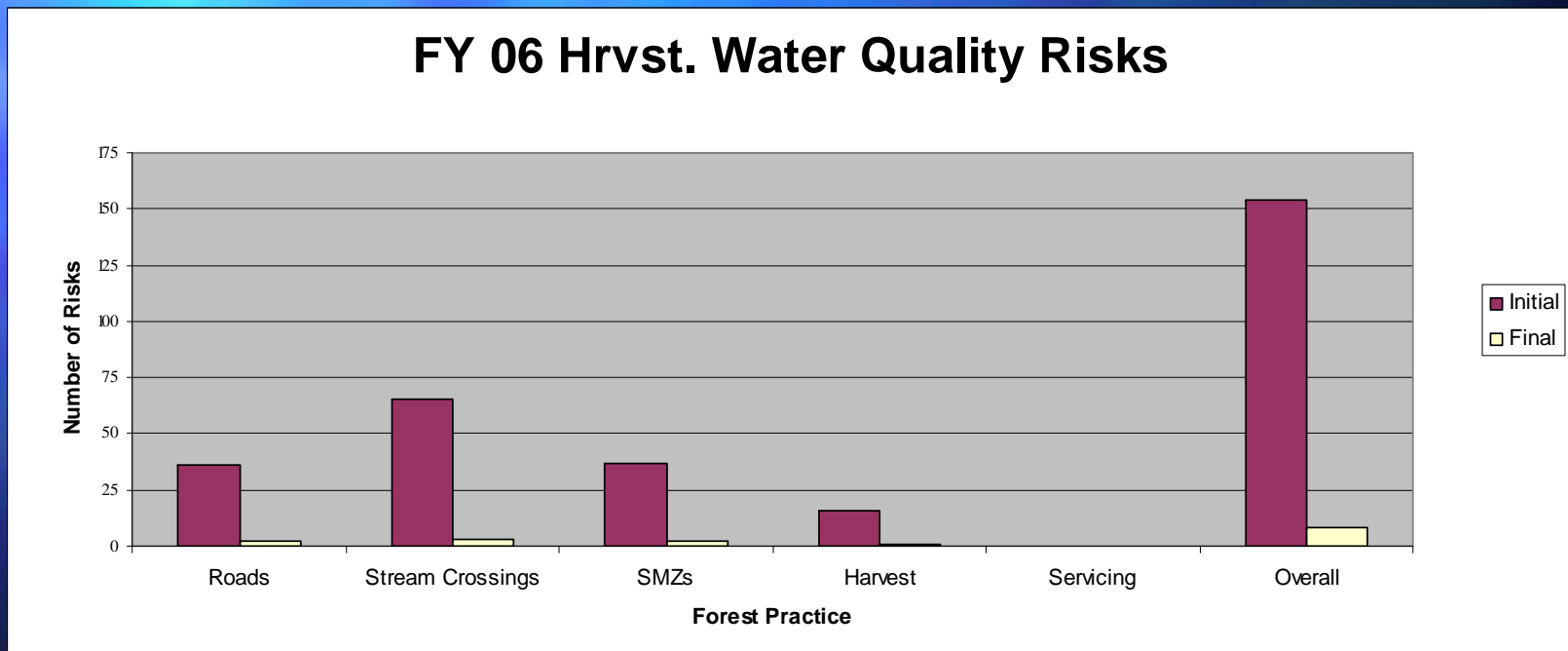
- Prefer the logger or operator to call before leaving the site in case equipment is needed
- If operator is satisfied with score and no major problems exist, it is signed off and recorded
- If operator is not satisfied, then more time is given and the site will be re-inspected
- Problems are given 30 days for correction
- Final Report to landowners and other parties
- Noncompliance reports to SFI and EPD

FY 06 BMP Implementation Results (418 Inspections)

FY06 BMP Hrvst. Assurance Exams



FY06 Water Quality Risks Results



BMP Effectiveness Monitoring

- UGA – Rhett Jackson
 - 2 papers on SMZs
- International Paper Southlands Experiment Station
 - Dry Branch study – Masato Miwa



Investigate & Mediate Complaints





Statewide Complaints from 1981 –June 2006

- 1,641 complaints investigated
- Companies are notified by GFC of BMP complaints
- Have turned over several offenders to GA EPD or EPA

State & Federal Regulations

- GA Water Quality Control Act (EPD)
\$50,000 per day
- Clean Water Act 15 stream crossing mandates (EPA)
- BMPs are quasi-regulatory
- Board of Registration for Foresters

Local Ordinances

- Tree Protection Ordinances
- Zoning
- Road
- Georgia Growth Planning Act (Water Supply Watersheds/Reservoirs, River Corridors, Mountain Top)

Other Issues

- Georgia Erosion & Sediment Control Act exemptions
- The “gray area”. Is it Development, Forestry, Agriculture, or Mining?
- SMZs widths and road densities
- TMDL & NPDES

The "Gray Area"



2000 E & S Amendment

- 6) Forestry land management practices, including harvesting; provided, however, that when such exempt forestry practices cause or result in land-disturbing or other activities otherwise prohibited in a buffer, as established in paragraphs (15) and (16) of subsection (b) of Code Section 12-7-6, **no other land-disturbing activities, except for normal forest management practices, shall be allowed on the entire property upon which the forestry practices were conducted for a period of three years after**

Georgia River Basin Planning

- GFC responsible for writing silvicultural narrative. Information includes:
 - current FIA data and trends
 - silvicultural tree nurseries w/in basin
 - BMP implementation survey data and trends
 - educational accomplishments
 - strategies to decrease nonpoint introductions

References

- Call 1.800.GATREES
- www.gatrees.org
- Local GFC Water Quality Foresters
- Local GFC Offices (manuals and pamphlets)



Questions???
