

2015 Water-Use Compilation A National Perspective

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**Alabama Water Resources Conference
Orange Beach, Alabama
September 2015**

Mission and Goals

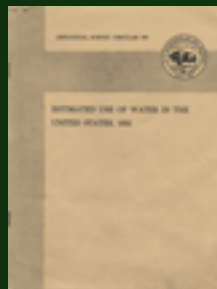
Mission: compile and disseminate the water-use data for the Nation.

Goals:

- Analyze the source, use, and disposition of water.
- Document trends in water use in the United States
- Develop water-use data bases
- Publish water-use data reports



1950



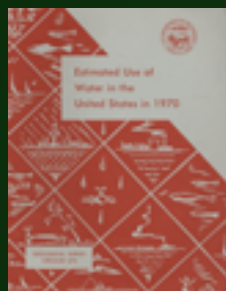
1955



1960



1965



1970



1975



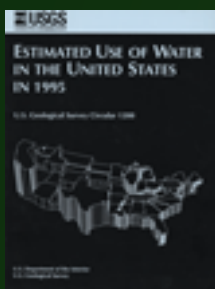
1980



1985



1990



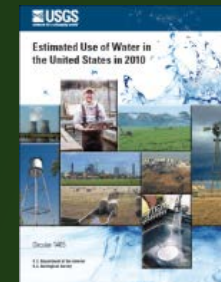
1995



2000



2005



2010

Research and National Methods

Comparison of USGS Irrigation Data to Other Sources

Documentation of Methods and Inventory of Irrigation Data
Collected for the 2000 and 2005 U.S. Geological Survey
*Estimated Use of Water in the United States, Comparison of
USGS-Compiled Irrigation Data to Other Sources,
and Recommendations for Future Compilations*

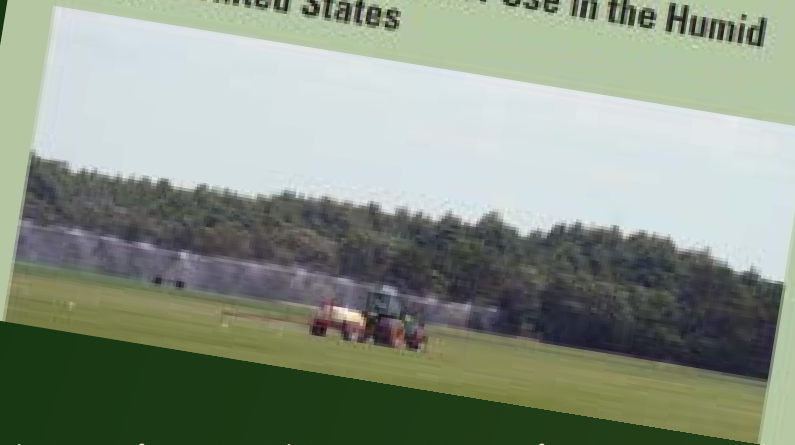


Estimating Irrigation Water Use in the Eastern U.S.

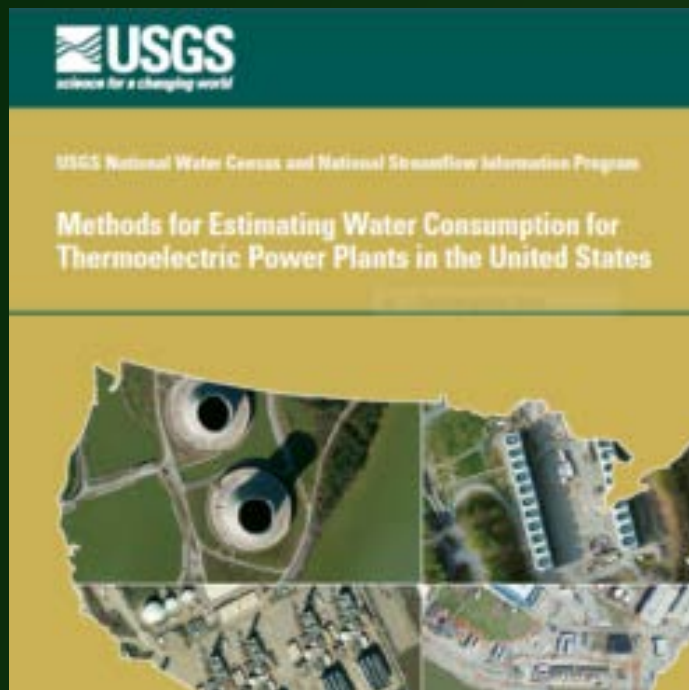
USGS
science for a changing world

Prepared in cooperation with the Water-SMART Initiative

Estimating Irrigation Water Use in the Humid Eastern United States

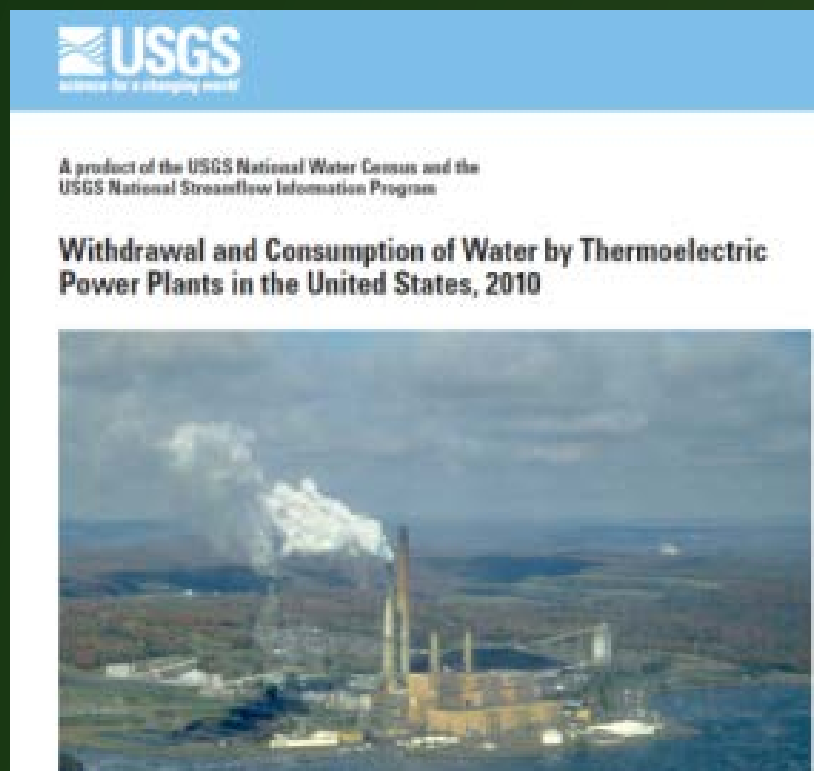


Research and National Methods

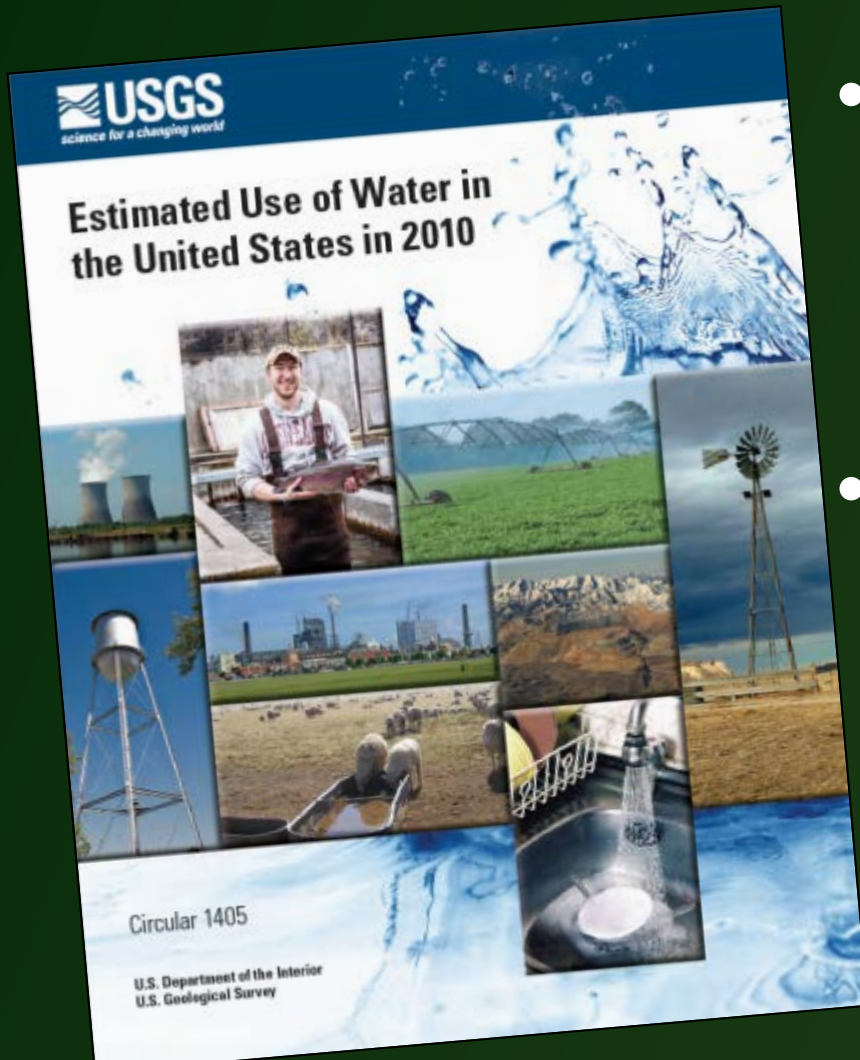


Methods for Estimating Water Use for TE Power Plants

Withdrawal and Consumption of Water by TE Power Plants



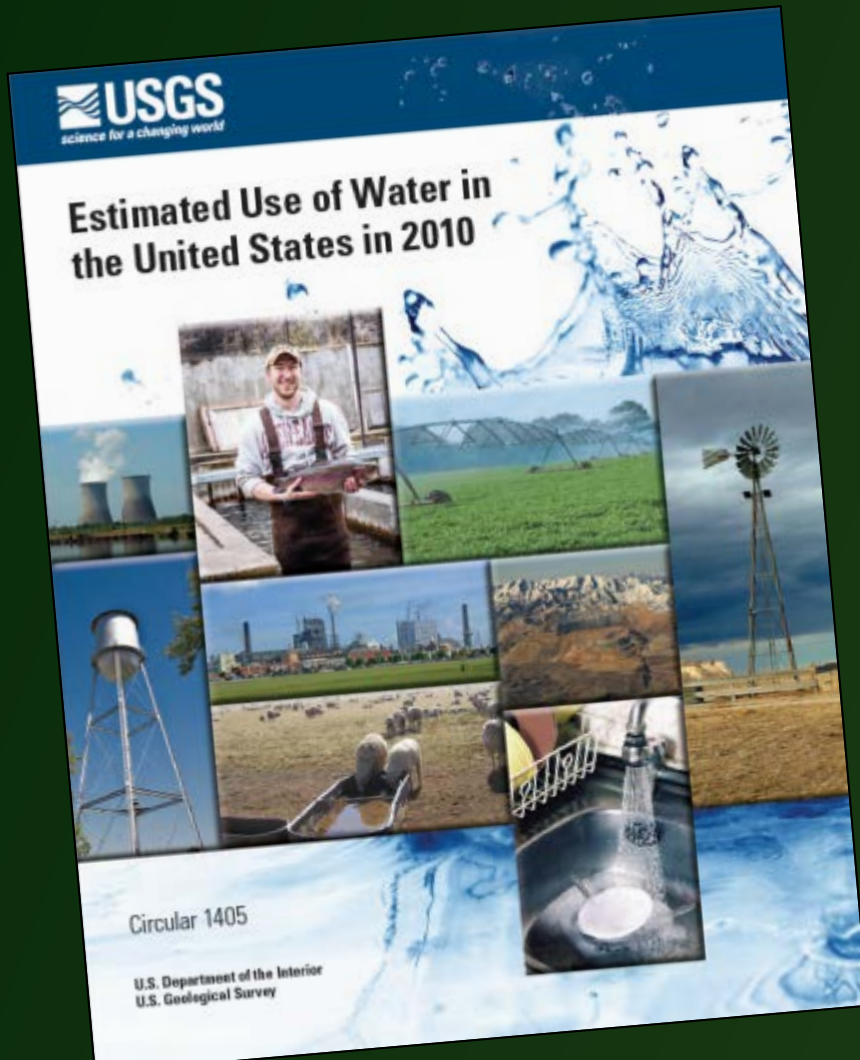
2010 Compilation



- **Total withdrawals 355 BGD; 13% decline (-54 BGD) since 2005**
- **Lowest total withdrawals since before 1970.**

<http://pubs.usgs.gov/fs/2014/3109/pdf/fs2014-3109.pdf>

2010 Compilation



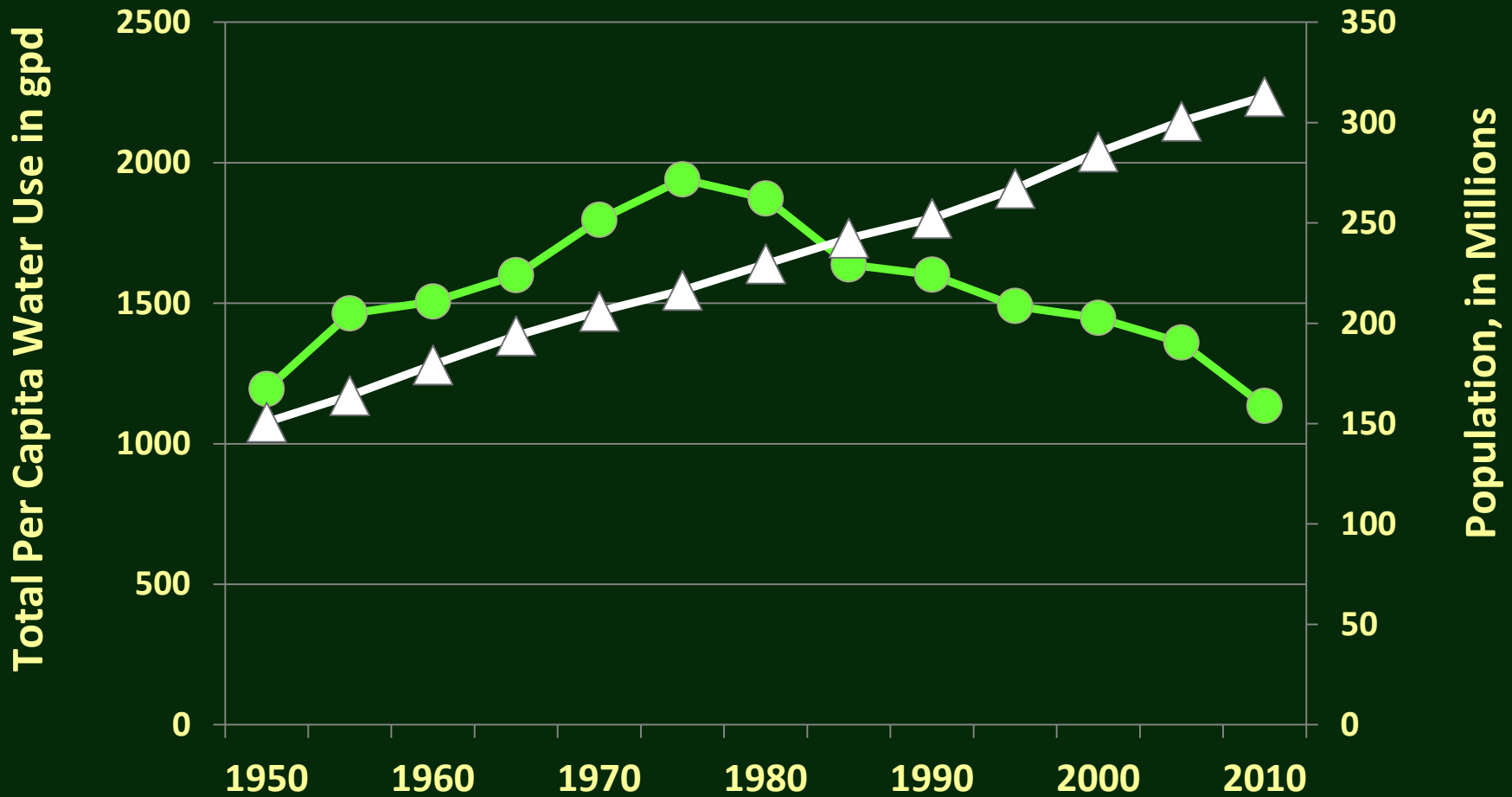
- TE – 161 BGD
- IR – 115 BGD
- PS – 42 BGD

**Combined 90 % of total
withdrawals**

<http://pubs.usgs.gov/fs/2014/3109/pdf/fs2014-3109.pdf>

GROSS PER CAPITA USE 1950-2010

● Per Capita Use ▲ Population

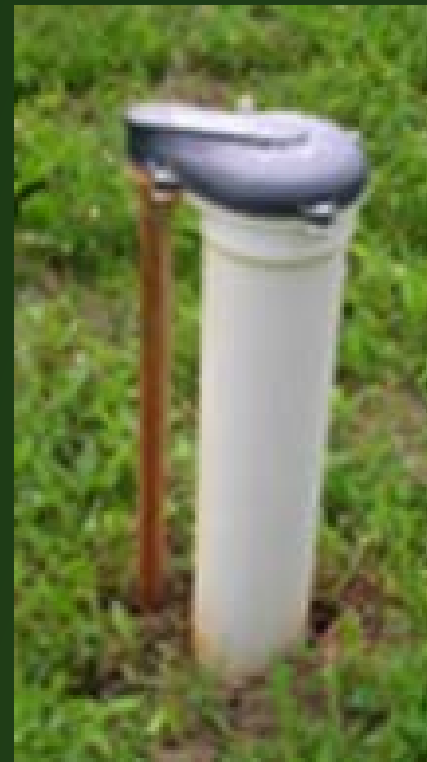


2015 Compilation - schedule

- **Workshop – Nov 2015**
- **Data / documentation submitted Jan 2017**
- **Review completed June 2017**

2015 -- For each category of water use

- **Data Compilation and Documentation**
- **Data Sources and Methods**
- **Data Review**
 - In-house review**
 - Regional review**
 - National review**



2015 Compilation - Changes

Most mandatory elements unchanged

TE Consumption new mandatory element

IR Consumption (under consideration)



National Data Sets

County estimates from National Program

- **Livestock**
- **Aquaculture**
- **Mining**
- **Thermoelectric
withdrawal and consumption**



WSC Data Sets

County / watershed estimates from State or Local Program

- Public Supply
- Industrial
- Domestic
- Irrigation



Going forward ...

- **NWUIP – Strategic Planning**
- **State grants**
- **Effects of WSC reorg**



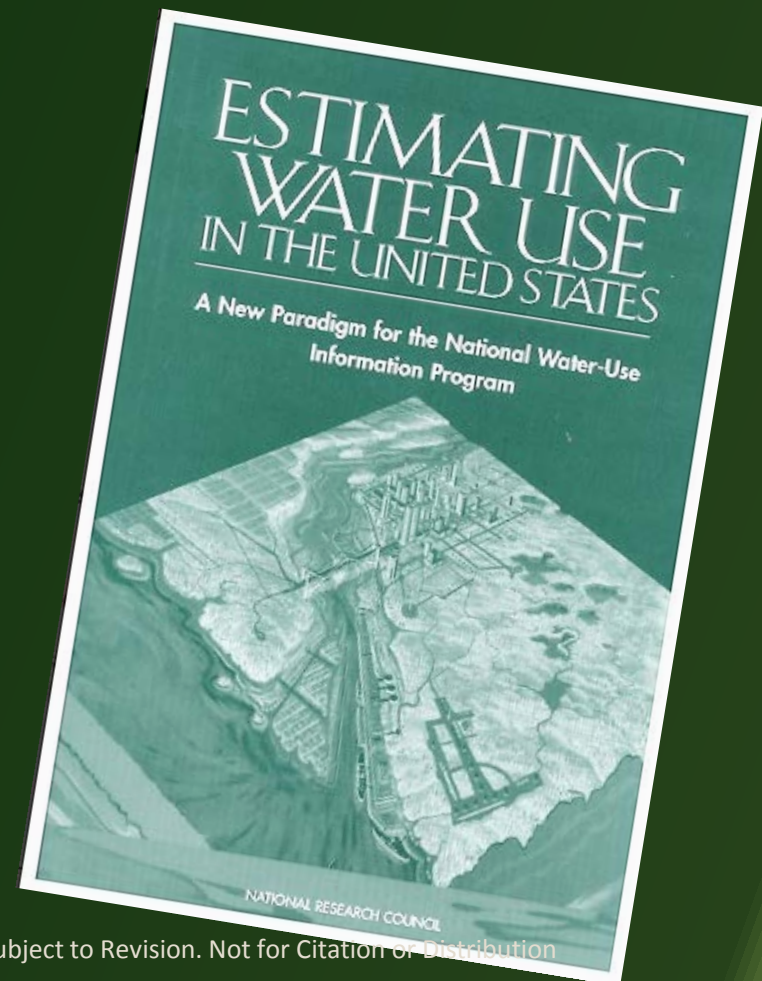
Strategic Planning

.... direction of the Water Use program for the next 10 years.

Recommendations and goals from

USGS Water-Science Strategy and

National Research Council



State Grants

Water Use Data and Research

- **New program -- part of SECURE Water Act**
- **\$12.5 million authorized in the act.**
- **\$1.5 million for grants in FY2015**
- **Grants provided to State Water Resource Agencies**
- **\$25,000 initial, \$250,000 total max**

State Grants

Water Use Data and Research

Goals --

- improved water use data collection
- online or automated data reporting
- Electronic data retrieval / storage
- integrating State datasets into USGS database

State Grants

Water Use Data and Research

- **2015 Program**
- **About 45 states participating**
- **Collaboration with ICWP**
- **Stakeholder meetings in**
 - **Salt Lake City, Utah – September 17, 2015**
 - **Tuscaloosa, Alabama – October 15, 2015**
 - **Chicago, Illinois – October 27, 2015**

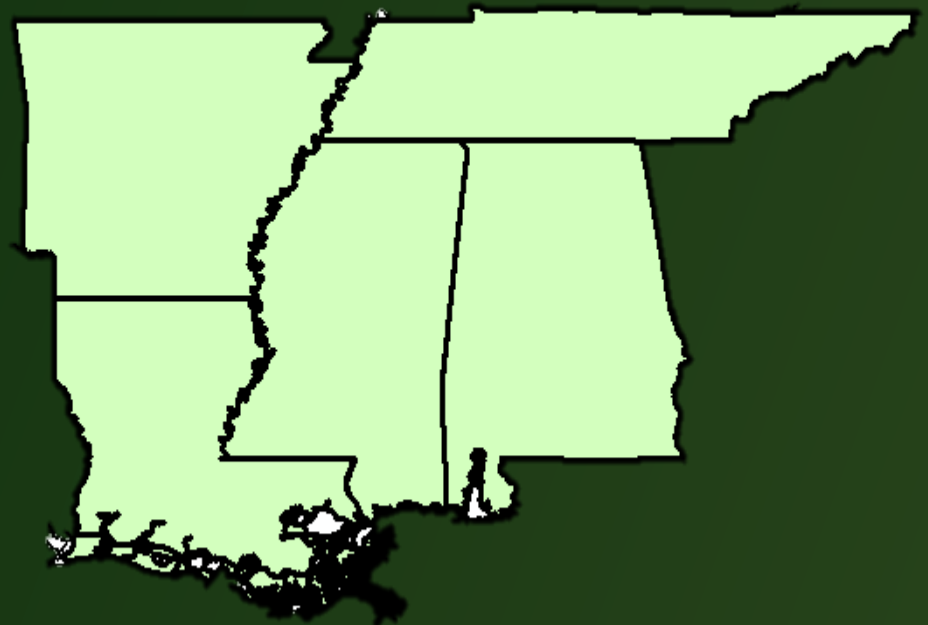
Summary

- **2010 – decrease in total use**
- **2015 compilation will have earlier start**
- **Add consumptive use**
- **Grants to state water resource agencies**



Going forward --WSC Mergers

- **LMG WSC --- Tenn., Ala., Miss., La., Ark.**
- **Effects? --**
 - **No change**
 - **Combined roles**
 - **Multi-state roles**
 - **Available funds**





Questions ??

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11/10/2010