

# Registration

9:00 AM – 9:30 AM



Georgia's  
**State Water Plan**  
Council Meeting 1  
Draft Agenda

9:00–9:30 a.m.	Registration
9:30–9:45	Welcome and Introductions/ Approve Agenda
9:45–10:00	Recap Water Planning Councils Kick-off Meeting
10:00–12:00 p.m.	MOA, Operating Procedures, and Rules for Meetings
12:00–12:30	Regional Geography, Facilities and Resources Overview
12:30–1:15	Lunch/Present Website Capabilities
1:15–2:15	Trends, Forces, and Factors that will Affect the Future of Water in the Region/Implications of Trends for the Region and Regional Plan
2:15–2:45	Explanation of the Water Planning Process
2:45–3:15	Introduction to Population and Employment Forecasts
3:15–3:30	Break
3:30–3:45	Election of Chair and Vice-Chair
3:45–4:00	Local Elected Officials Comments
4:00–4:15	Public Comments
4:15–4:25	Wrap-up and what to expect Next Meeting
4:25–4:30	Council Meeting 1 Evaluation

# Welcome and Introductions, Review Agenda

9:30 AM – 9:45 AM

# Meeting One Framework

- Understanding our commitments and obligations: Memorandum of Agreement, Operating Procedures, Rules of Conduct, roles and responsibilities of leadership, Water Planning Process
- How we will move forward: The planning process and timelines
- The story of water in our region: Trends, forces, and factors influencing the future of water
- Governance: Who will lead

# Recap Water Planning Councils Kick-off Meeting

9:45 AM – 10:00 AM

# Evaluation of Regional Water Plan Kick-off Meeting

- The majority of respondents (79%) felt that the kick-off meeting met their expectations. An additional 12% say the meeting exceeded their expectations.
- Most respondents (64%) felt that the kick-off meeting gave them ample opportunities to get to know the people they would work alongside of during the regional water planning process.
- Respondents felt that the kick-off meeting did a good job of helping them to understand the characteristics of water resources in Georgia (65%) as well as the characteristics of water users in the state (55%).
- Many respondents reported enjoying the location (the Georgia Aquarium) but had some difficulty with sound issues during the breakout sessions.

# Explanation of the Water Planning Process

2:15 PM – 2:45 PM

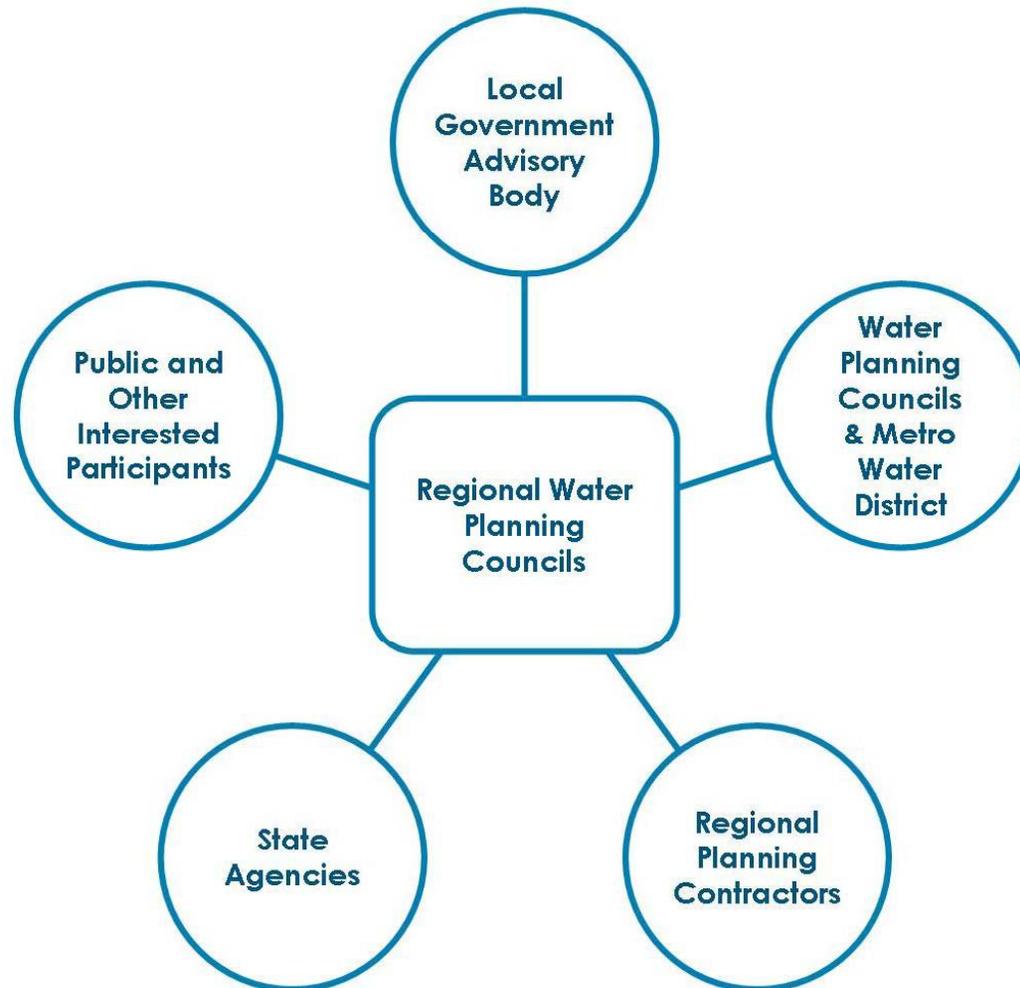


# Georgia's State Water Plan

Water Planning Process and Timeline

[www.georgiawaterplanning.org](http://www.georgiawaterplanning.org)

# Regional Water Planning Participants



# Stakeholders Roles and Responsibilities

**Regional water planning councils** guide the development of the WDCP including selection of management practices and benchmarks to assess progress toward the regional vision and goals and the purpose of the State Water Plan. Planning council members represent local governments, water users, and other water-related interests.

**Regional planning contractors** will provide technical and planning support to the councils and prepare the WDCP following regional water planning council guidance.

A **local government advisory board** and the **public** will provide input during the planning process. The local government advisory board is composed of one representative from each county and city located within the water planning region, and will provide relevant data to the planning council. Feedback from the public will also be solicited throughout plan development.

**Other water planning councils** will coordinate decisions regarding shared water resources.

**Georgia EPD** will ensure consistency with the State Water Plan, and maintain the schedule and budget for WDCP development. A number of additional **contractors** will support EPD and the WDCP planning process by providing specific supporting information, such as resource assessments, forecasting, and training.



# Draft Timeline 2009

March–May	May–June	July–Sept.	Oct.–Dec.
ORGANIZATION	PRE-PLANNING	PLANNING BEGINS	DEFINING CURRENT CONDITIONS
1 Council Meeting ___ / ___ /2009	1 Council Meeting ___ / ___ /2009	1 Council Meeting ___ / ___ /2009	1 Council Meeting ___ / ___ /2009
<p>Training and Introduction to:</p> <ul style="list-style-type: none"> <li>➤Regional Visioning</li> <li>➤Memorandum of Agreement (MOA)</li> <li>➤Planning Process</li> <li>➤Forecasting</li> </ul>	<p>Continued:</p> <ul style="list-style-type: none"> <li>➤Regional Visioning</li> <li>➤MOA (potentially execute)</li> <li>➤Forecasting</li> </ul> <p>Introduction to:</p> <ul style="list-style-type: none"> <li>➤Planning Guidance</li> <li>➤Assessments</li> <li>➤Municipal and Industrial (M&amp;I) Forecasting</li> </ul>	<p>Continued:</p> <ul style="list-style-type: none"> <li>➤Execute MOA</li> <li>➤Finalize Regional Vision</li> <li>➤Assessments</li> <li>➤M&amp;I Forecasting</li> </ul> <p>Introduction to:</p> <ul style="list-style-type: none"> <li>➤Management Practice Training &amp; Selection Criteria</li> </ul>	<p>Continued:</p> <ul style="list-style-type: none"> <li>➤Present Current Assessments</li> <li>➤Forecasting</li> <li>➤Management Practice Training &amp; Selection (Part I)</li> </ul>

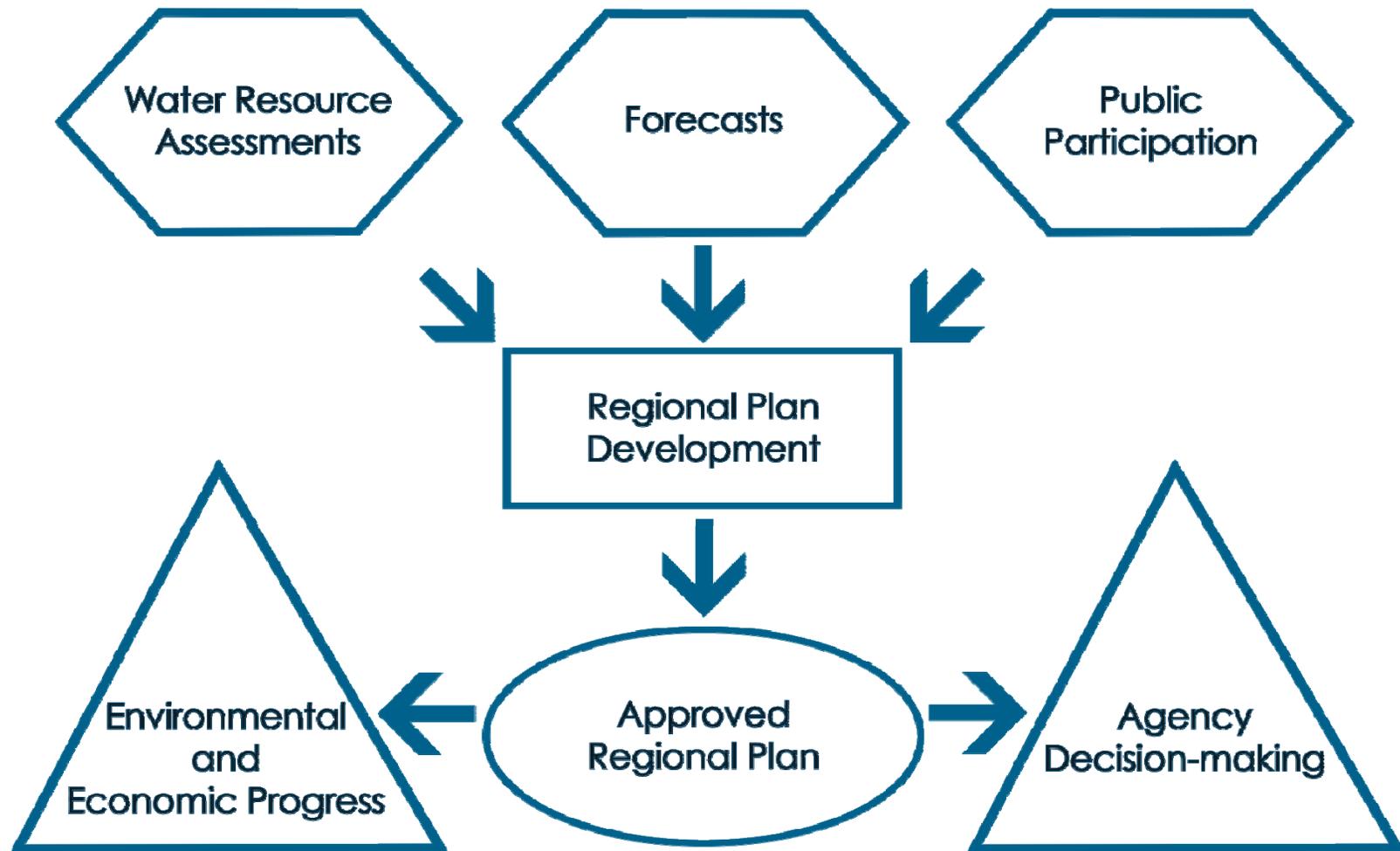
# Draft Timeline 2010

Jan.–March	April–June	July–Sept.	Oct.–Dec.
BEGIN FUTURE PLANNING	FUTURE PLAN REFINEMENT	PLANS TAKE SHAPE	PLAN FINALIZATION
1 Council Meeting ___ / ___ /2010	1 Council Meeting ___ / ___ /2010	1 Council Meeting ___ / ___ /2010	1 Council Meeting ___ / ___ /2010
<p>Continued:</p> <ul style="list-style-type: none"> <li>➤Review of Current Assessments</li> <li>➤Final Forecasts Presented</li> <li>➤Management Practice Selection (Part II)</li> </ul> <p>Introduction to:</p> <ul style="list-style-type: none"> <li>➤Future Assessments (Part I)</li> </ul>	<p>Continued:</p> <ul style="list-style-type: none"> <li>➤Future Assessments (Part II)</li> </ul> <p>Introduction to:</p> <ul style="list-style-type: none"> <li>➤Management Practice Refinement (Part I)</li> </ul>	<p>Continued:</p> <ul style="list-style-type: none"> <li>➤Future Assessments (Final)</li> <li>➤Management Practice Refinement (Part II)</li> </ul>	<p>Final:</p> <ul style="list-style-type: none"> <li>➤Management Practices</li> </ul>

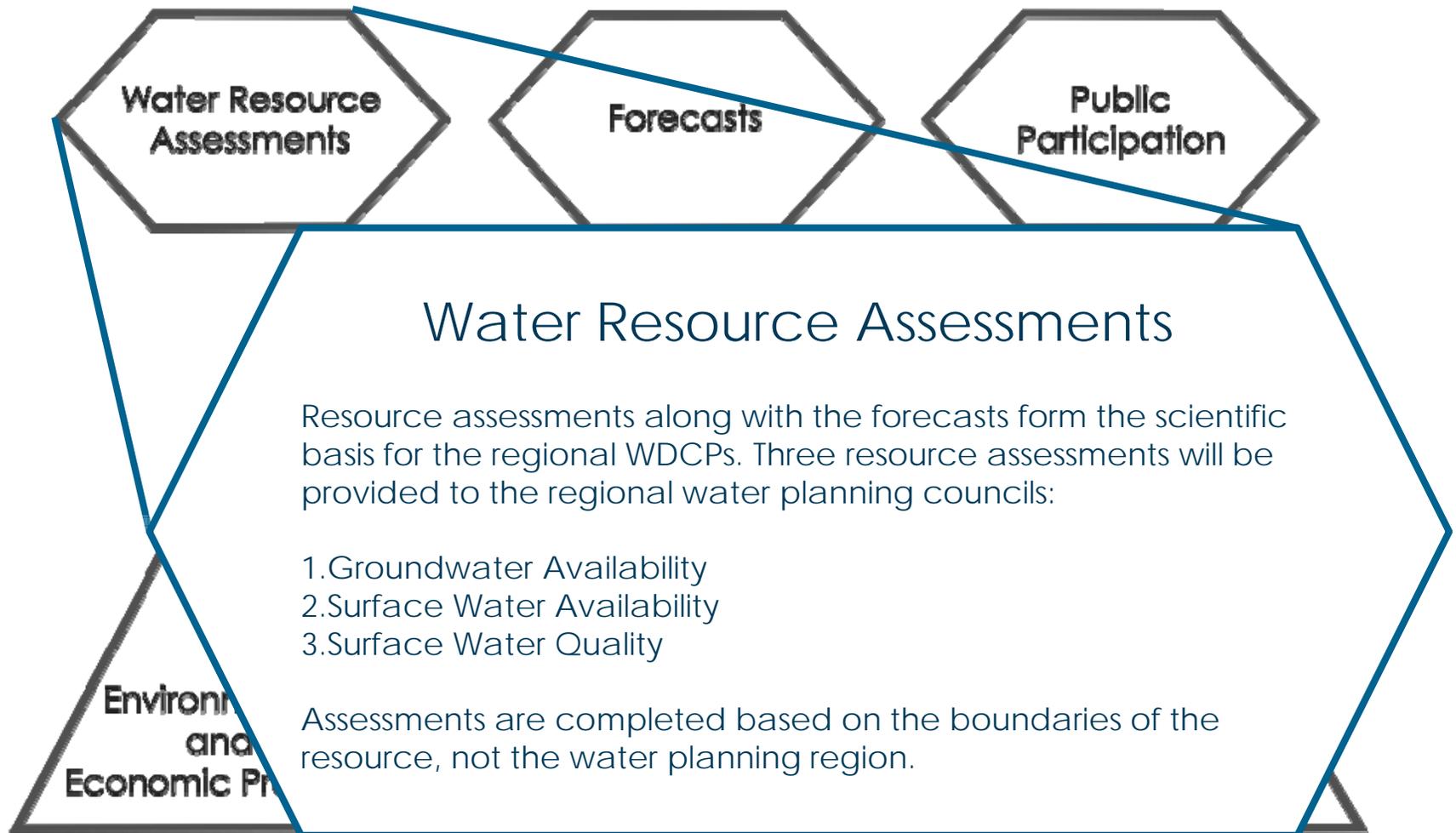
# Draft Timeline 2011

Jan.-March	April-June
COMMENTS AND REVISIONS	PLAN ADOPTION
1 Council Meeting ___ / ___ /2011	1 Council Meeting ___ / ___ /2011
<ul style="list-style-type: none"> <li>➤EPD Review &amp; Back to Councils</li> <li>➤Plan Revision by Councils</li> </ul>	<ul style="list-style-type: none"> <li>➤45-day Public Comment Period</li> <li>➤EPD Review of Public Comments</li> <li>➤Plan Finalization</li> </ul>

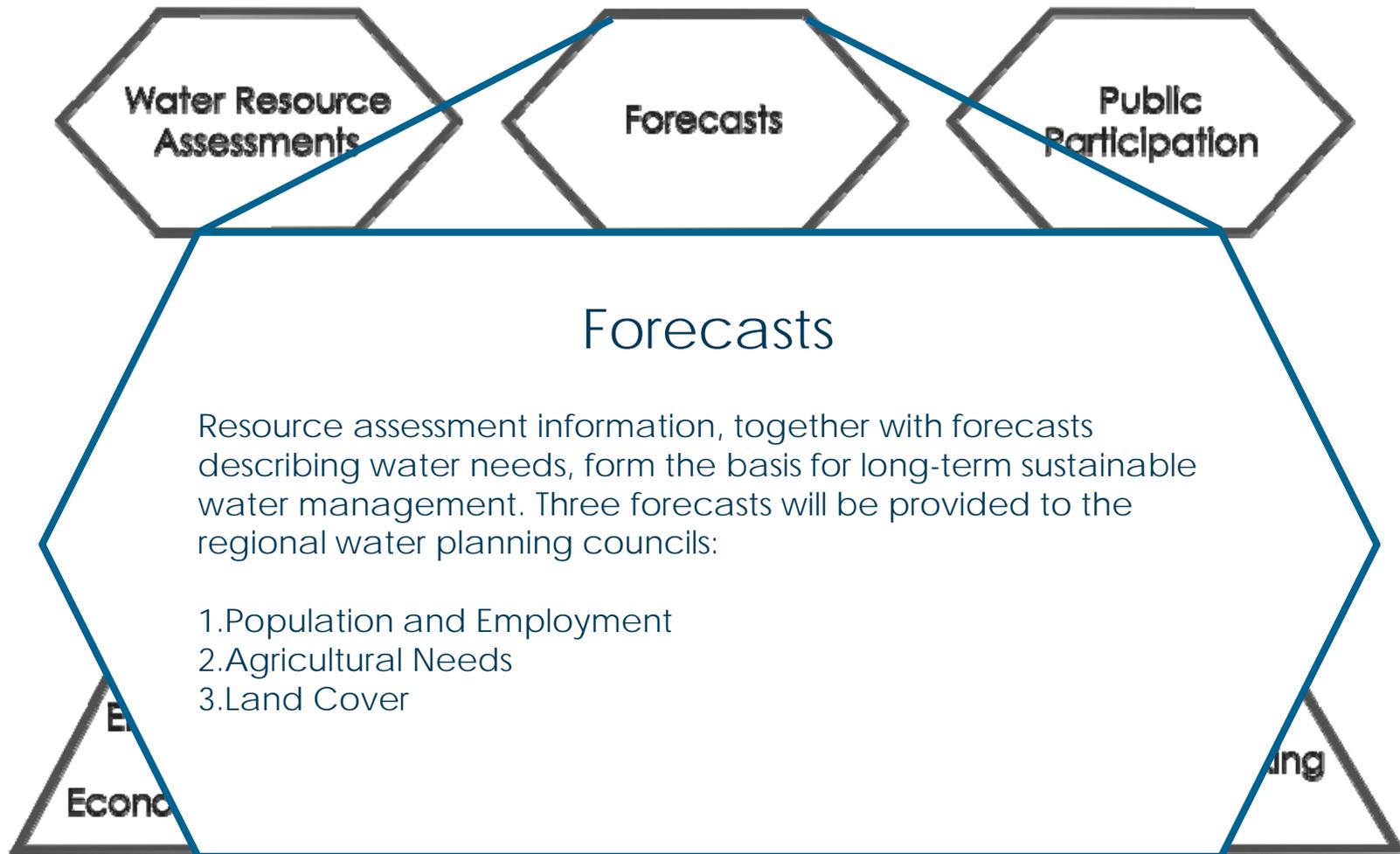
# Water Planning Process



# Planning Information Compilation and Evaluation



# Planning Information Compilation and Evaluation



# Planning Information Compilation and Evaluation



# Development

**Water Resource**

**Forecasts**

**Public**

## Regional Plan Development

Based on the future management practices identified to meet the regional vision, goals, and management objectives, the regional planning contractors in coordination with the regional water planning council will develop the draft WDCP.

The WDCP will follow the WDCP template provided by Georgia EPD to ensure completeness and consistency across the state.

The WDCP will include a summary of results of the planning process as well as a schedule for implementation of the water management practices.

**Environmental  
and  
Economic Progress**

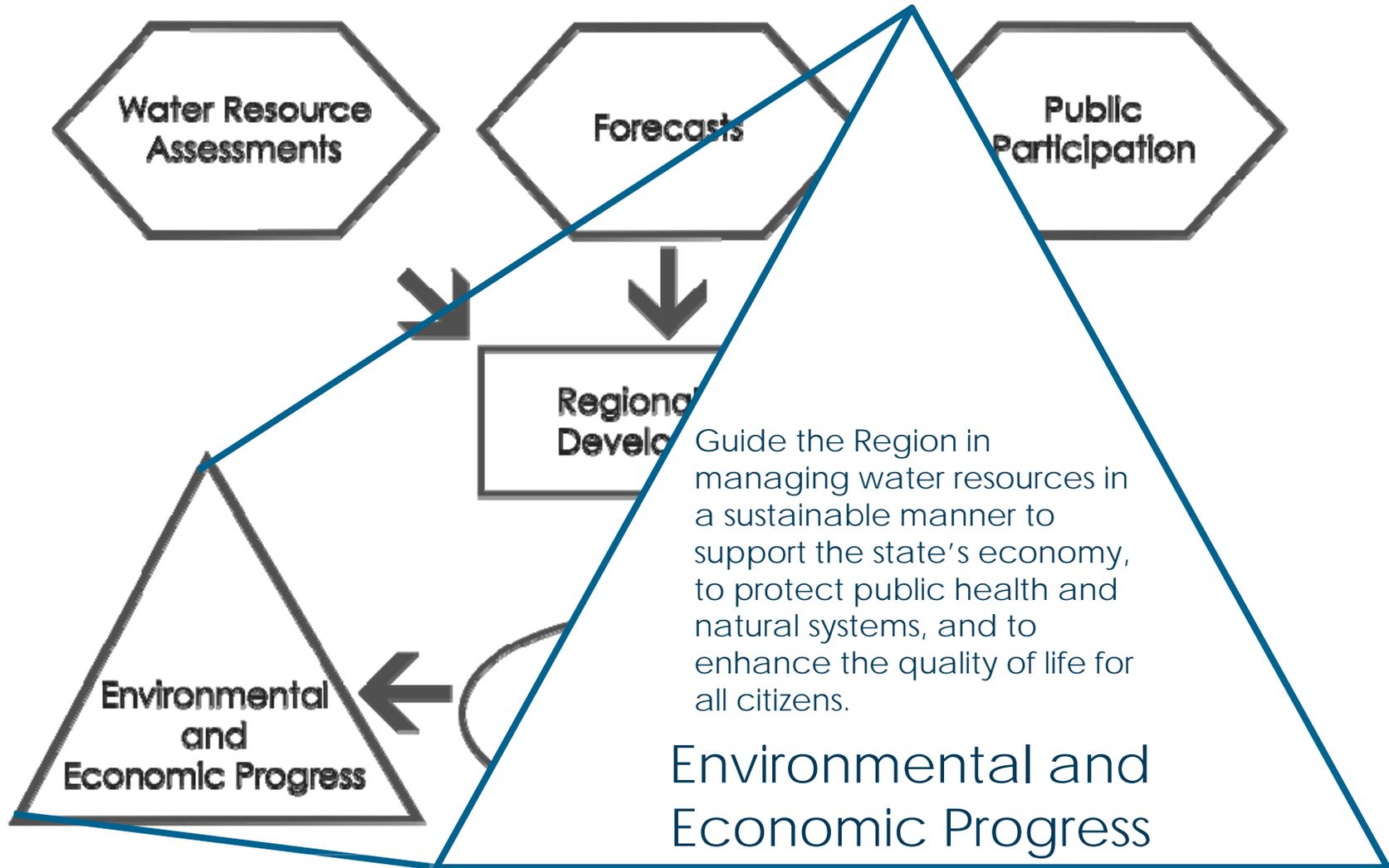
**Approved  
Regional Plan**

**Agency  
Decision-making**

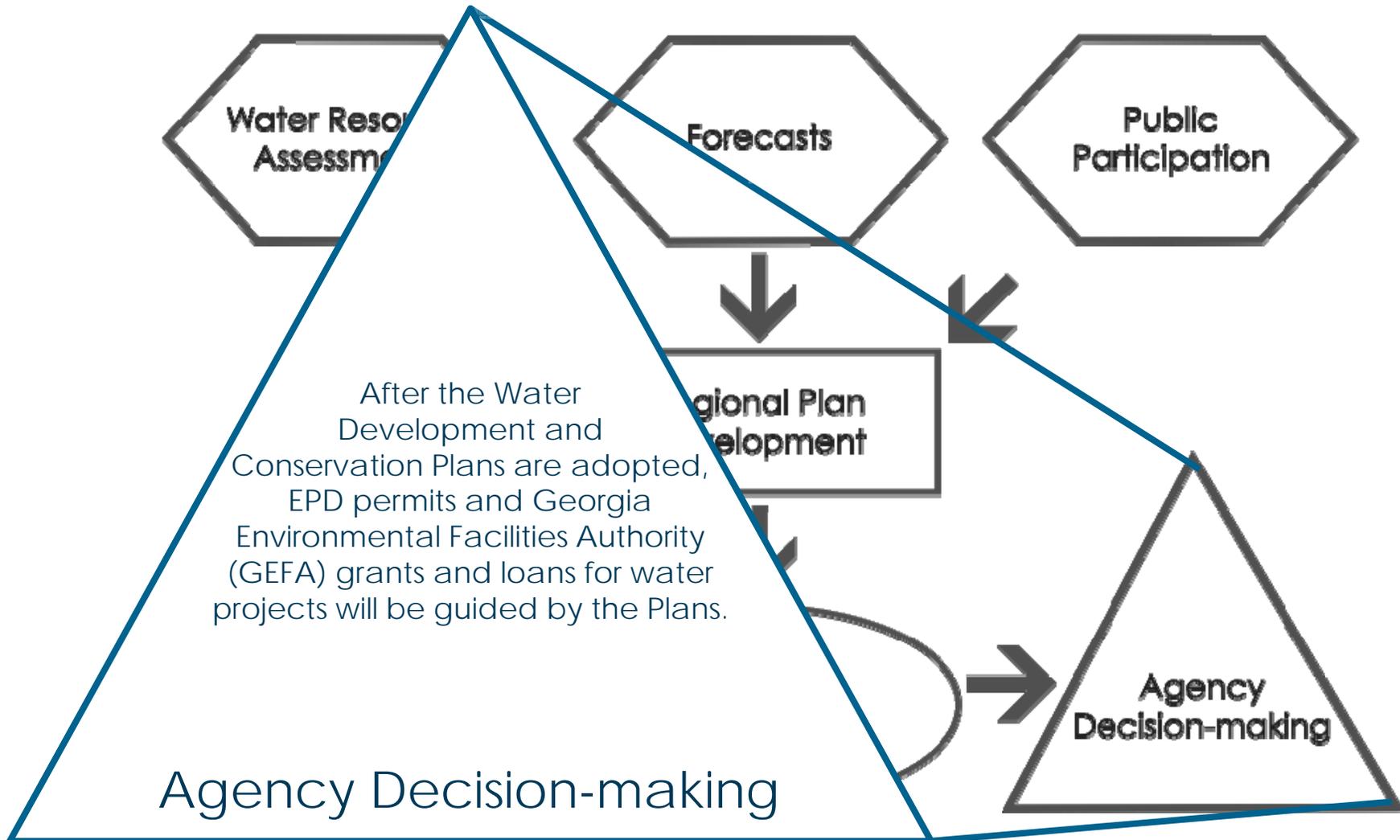
# Final Product



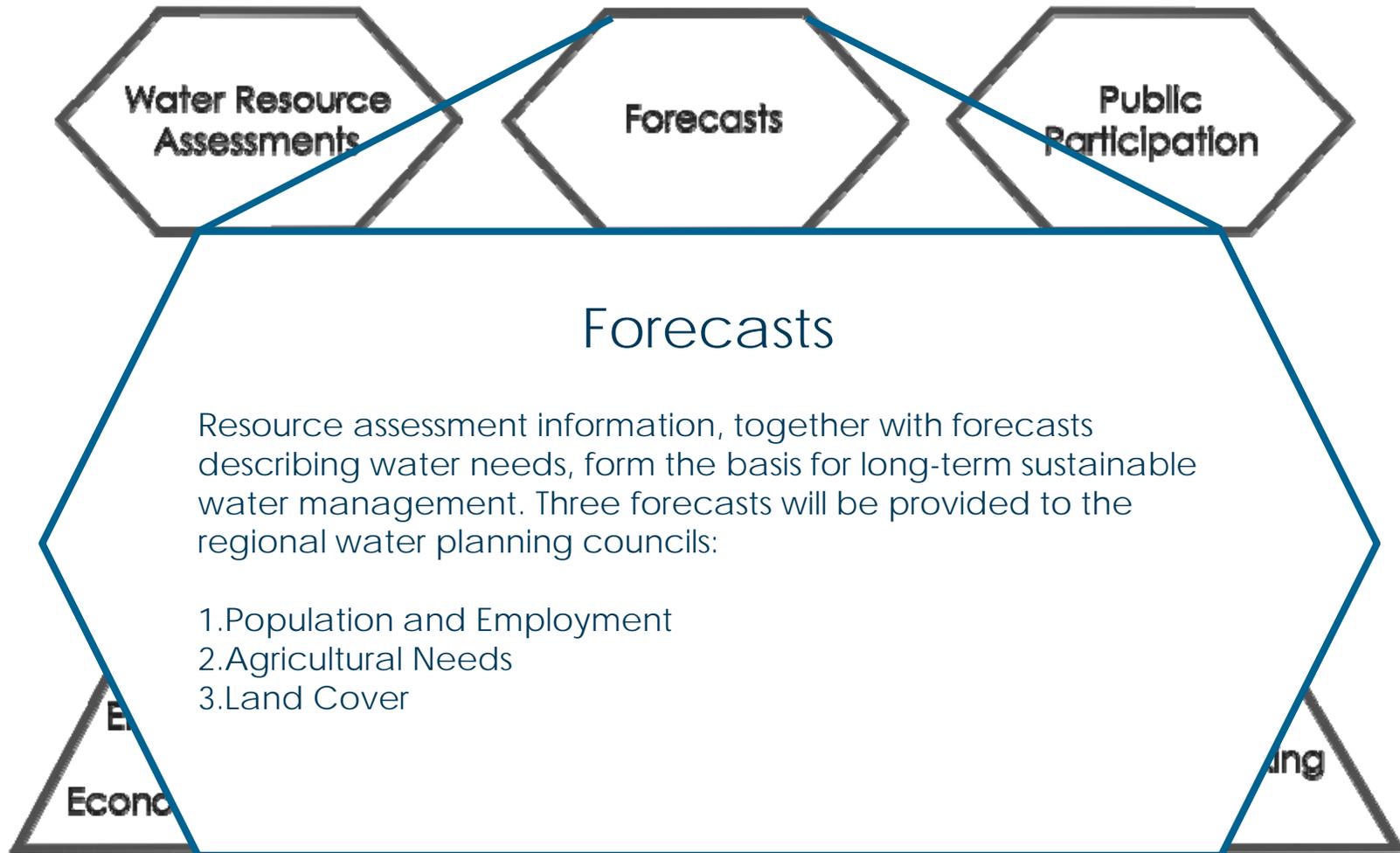
# Results



# Results



# Our Focus Today



# Forecasts

## Population and Employment

The Carl Vinson Institute of Government's (CVIOG) Georgia Demographics program is projecting Georgia population and employment for 10-year intervals over a 40-year planning period.

Population projections are county specific.

Employment projections are water planning region specific.

Population projections will be reviewed by municipal and county associations and other members of the advisory board to CVIOG's demographics program.

State totals for projected population and employment will control any adjustments.

Recommendations for revisions must be fully and factually supported if they are to be given consideration.

# Forecasts

## Agricultural Needs

Agricultural Forecasts, by county, will quantify the anticipated irrigation demand over the planning period for years 2011, 2020, 2030, 2040, and 2050.

UGA will forecast a range of irrigation demands based on four modules:

1. Economics—project anticipated major crop types based on existing irrigated land, current and projected economic trends, and production levels of irrigated versus non-irrigated
2. Climate—develop wet-, average-, and dry-year scenarios for use in the crop growth model, based on historic weather
3. Crop growth and Water Use—determine irrigation demand by county, based on existing mapped, irrigated land; identify and quantify current sources of irrigation water; project future sources
4. Irrigated Land Area—determine irrigation demand by county, based on existing mapped, irrigated land; if prediction of expansion, forecasts will identify areas potentially suitable

# Forecasts

## Land Cover

The Natural Resources Spatial Analysis Laboratory (NARSAL) at the University of Georgia is developing maps of current and projections of future land cover.

Future land cover is modeled by SLEUTH Urban Growth Model

Modeled changes in land cover are driven by land use, growth rates, locations of roads, topography, and population forecasts

Results:

1. Urban growth model
2. Land use change model
3. Future impervious surface density maps
4. Future land cover maps

The land cover maps will improve the resource assessment models and aid with the planning for water-related impacts of future land use changes.

# MOA, Operating Procedures, and Rules for Meetings

10:00 AM – 12:00 PM



# Georgia's State Water Plan

Memorandum of Agreement

[www.georgiawaterplanning.org](http://www.georgiawaterplanning.org)

# Memorandum of Agreement

## What are We Responsible for and How Will We Operate?

Three documents will define responsibilities, operations, and relationships:

1. Memorandum of Agreement (MOA)
2. Operating Procedures
3. Rules for Meetings

# Memorandum of Agreement

## Why is this package necessary?

- Clarify roles and responsibilities:  
Councils, EPD, DCA
- Establish common expectations
- Ensure that everyone knows how  
Councils will operate

# Memorandum of Agreement

## MOA

- Summary of starting points in state law and state water plan
- Required by state water plan and state regulation
- Has three parties:
  - Regional Water Planning Council
  - Environmental Protection Division (EPD)
  - Department of Community Affairs (DCA)
- An agreement to participate in regional water planning

# Memorandum of Agreement

## MOA Contents

Preamble: whereas..

1. Water Planning Council responsibilities
2. EPD responsibilities
3. DCA responsibilities

Signature pages

# Memorandum of Agreement

## Council Responsibilities

- Submit recommended Water Development and Conservation plan to Director
- Submit early drafts and quarterly progress reports
- Adopt and follow Public Involvement Plan
- Provide regional forum for local governments (inside and outside region)
- Coordinate with other Regional Councils
- Conduct open meetings
- Direct the Planning Contractor

# Memorandum of Agreement

## Council Responsibilities (cont.)

- Using data and information provided, identify management practices for the plan that ensure water resource needs are met
- Coordinate with DCA to develop the Plan consistently with local and regional comprehensive plans, including a plan to resolve any inconsistencies
- Coordinate with EPD to respond to public comments on draft final plan
- Adopt operating procedures and rules for meetings

# Memorandum of Agreement

## EPD Responsibilities

- Provide a Planning Contractor to assist the Regional Council
- Provide technical and planning guidance
- Provide template for a Public Involvement Plan
- Provide information on water quantity capacity and assimilative capacity, water use and forecasts, and status of the region's waters
- Review drafts of the plan and provide feedback

# Memorandum of Agreement

## EPD Responsibilities (cont.)

- Coordinate planning across regions
- Fiscal oversight and contract management of the planning contractor
- Coordinate with DCA to ensure consistency with local and regional comprehensive plans
- Provide public notice on the draft plan
- Adopt the plan if complete and consistent

# Memorandum of Agreement

## DCA Responsibilities

- Provide information useful in identifying inconsistencies between draft Water Development and Conservation Plan and local and regional comprehensive plans
- Assist in developing a timeline for resolving inconsistencies
- Provide for Regional Council review and comment on local or regional comprehensive plans as they become due from 2009–2011

# Memorandum of Agreement

## Signature pages

- EPD Director
- DCA Commissioner
- Individual Council Members

NOT a contract or a legally binding document

Signature indicates agreement to participate with these roles, responsibilities and expectations

# Operating Procedures and Rules for Meetings

## Documents to guide Council deliberations

- Recommendations from EPD include practices shown to be effective and workable
- Designed to provide common approaches across councils
- Designed to support Council development of adoptable and implementable plan

# Operating Procedures and Rules for Meetings

## Contents of Operating Procedures

- Definitions
- Council Membership
- Council Leadership
- Decision-making
- Meetings and Governance
- Amendments

# Operating Procedures and Rules for Meetings

## Contents of Rules for Meetings

- Purpose
- Meeting roles: Chair, Vice-Chair, Members, Regional Planning Contractor, and EPD Liaison
- Communications
- Meeting agenda and summaries
- Discussion of issues and proposals
- Decision-making
- Public notice and comment
- Ending the meeting

# Operating Procedures and Rules for Meetings

## Today: Identify Changes

- Identify desired changes
- State rationale: How does change improve the Council's ability to meet its charge?

Next meeting:

EPD feedback on changes

Finalize documents and sign MOA

# Operating Procedures and Rules for Meetings

## Templates Provided by EPD

- Present workable practices
- Designed to provide common approaches across councils
- Designed to support Council development of adoptable and implementable plan

# Operating Procedures and Rules for Meetings

## Operating Procedures

- Definitions
- Council Membership
- Council Leadership
- Decision-making
- Meetings and Governance
- Amendments

# Operating Procedures and Rules for Meetings

## Rules for Meetings

- Purpose
- Meeting roles: Chair, Vice-Chair, Members, Regional Planning Contractor, and EPD Liaison
- Communications: in meetings; with media
- Meeting agenda and summaries
- Discussion of issues and proposals
- Decision-making
- Public notice and comment
- Ending the meeting

# Operating Procedures and Rules for Meetings

## Criteria for Proposed Changes

Regional Council must provide explicit rationale for how the change will improve the process for the Regional Council

Does the change raise:

- Concerns about the council's ability to progress toward an adoptable plan?
- Potential problems with coordination among adjacent councils or councils that share resources?



## Achieving Results through Consensus Decision Making Small Group Worksheet

You will be asked to make a number of decisions as a regional water planning council over the next three years. The clarity of those decisions and the support behind them will depend, in large part, on how those decisions are reached. Many of the decisions reached will have broad and substantial implications, and not all decisions will be 100% beneficial or acceptable to every member of the Council. However, the focus must be on results - **“How can we best assure that our regional council develops a regional Water Development and Conservation Plan that promotes the sustainable use of the water resources of the planning region, through the selection of an array of management practices, that will support the region’s and the state’s economy, protect public health and natural systems, and enhance the quality of life for all citizens?”**

A well-known model of group decision making emphasizes that “the first step toward reducing politics and confusion within your team is to understand that there are five dysfunctions to contend with, and [you must] address each that applies.”<sup>1</sup>

These five dysfunctions are:

1. Absence of **Trust**
2. Fear of **Conflict**
3. Lack of **Commitment**
4. Avoidance of **Accountability**
5. Inattention to **Results**

Consensus is a way to address these dysfunctions. Consensus has also been described as the willingness of everyone to give the decision a ‘trial run’. The model of decision making for all of the regional water planning councils throughout the state is one of **consensus decision making** that is clear, transparent and open. Council members agree in good faith to listen to all points of view, make room for minority views, and attempt to compromise for the good of the plan and the region. The Operating Procedures document states:

*The \_\_\_\_ Water Planning Council shall attempt to reach consensus in its decision making (as described in its Rules for Meetings). In the event consensus on a decision cannot be reached in a reasonable time period, the Council may make decision by a two-thirds majority vote of the members present at the meeting. The Chair, after a reasonable discussion period, may initiate a vote on a decision, unless over-ruled by a simple majority of the members present at the meeting.*



## Operating Procedures/Rules for Meetings Broad Issue Areas Small Group Worksheet

*The purpose of this exercise is to ensure that several regional council members have read and discussed each section of the Operating Procedures and Rules for Meetings in-depth. The two companion documents to the MOA describe how the regional council will conduct its work over the next year; it is critical that the group as a whole understand how they will function and the roles respective members will play. Each work group should carefully read and then discuss the sections assigned to them below. Specifically, each group should address the following questions:*

- 1. Can you see these provisions working as this regional council conducts its business?**
- 2. Is there anything in the sections you read and discussed that causes you concern or that you cannot envision working well?**

At the conclusion of the discussion, one member of your small group should be prepared to relate the group's responses to these two questions to the larger group. If there are sections on which you have concerns, you may make recommended changes to the larger group. However, you must be able to explain clearly how the recommended change would improve the process for this regional council while allowing it to achieve its goal of completing a plan and not affecting coordination with other councils.

**Work Group #1:** Operating Procedures - Council Leadership – Section IV, including General Powers, Number and Qualifications, The Chair of the Council, the Vice Chair of the Council, and Selection of Chair and Vice Chair.

**Work Group #2:** Operating Procedures - Meetings and Governance, Section VI, part one, including Regular Meetings, Other Meetings, Open Meetings, and Meeting Summaries.

**Work Group #3:** Operating Procedures - Meetings and Governance, Section VI, part two, including Quorum, Subcommittees, Presumption of Assent, Resignation of Chair, Vice Chair and Members, Participation by Non-Members and Amendments.

**Work Group #4:** Rules for Meetings – Purpose of rules, Meeting Roles, Communications and Meeting agenda and summaries

**Work Group #5:** Rules of Conduct - Discussion of Issues, Public Notice and Comment, and Ending the Meeting

# Regional Geography, Facilities, and Resources Overview

12:00 PM – 12:30 PM



# Georgia's State Water Plan

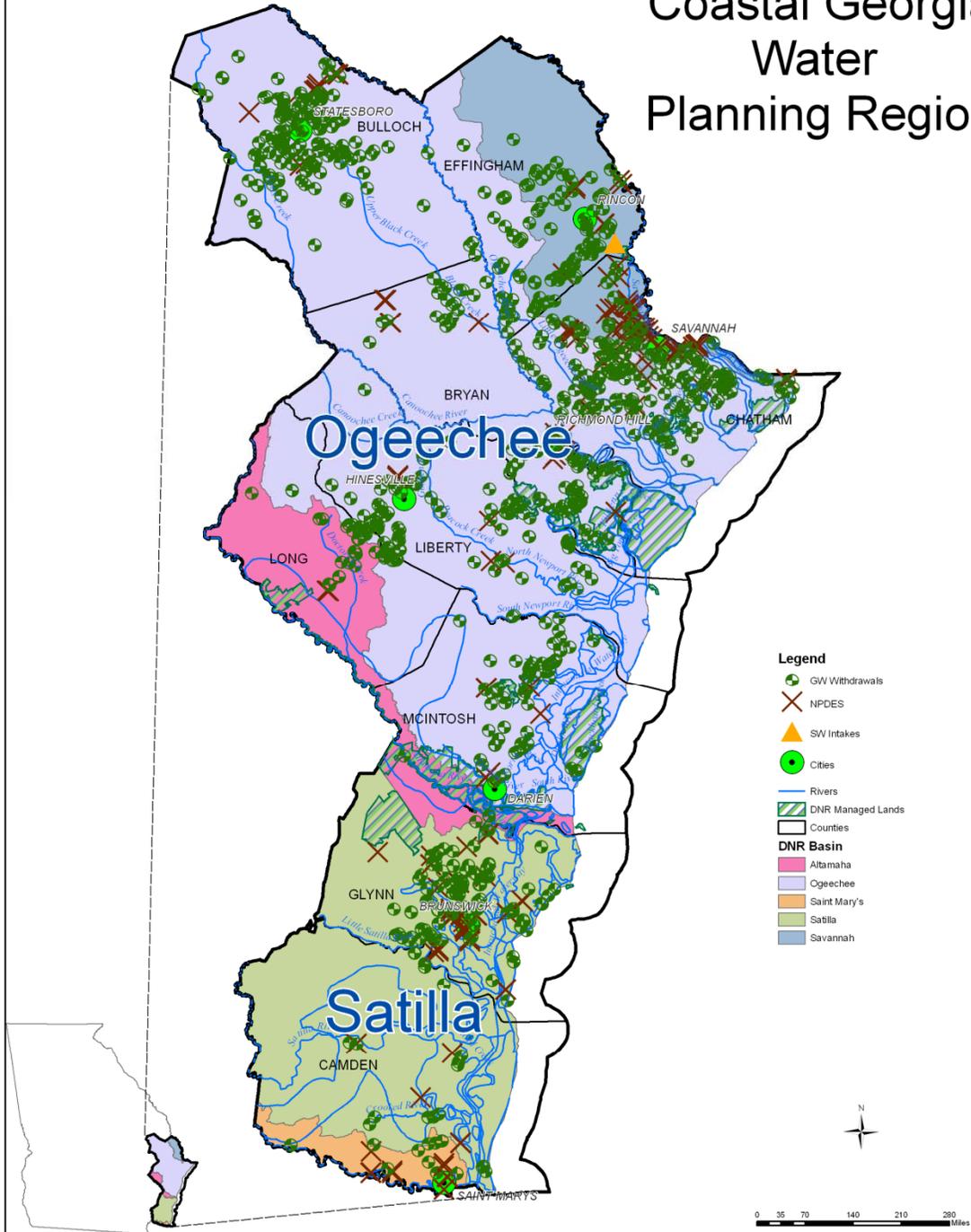
Regional Geography, Facilities and Resources Overview  
Coastal Council  
Council Meeting 1

[www.georgiawaterplanning.org](http://www.georgiawaterplanning.org)

# Purpose

Provide overview of region, water resources and associated issues

# Coastal Georgia Water Planning Region



<b>TOTAL POPULATION - COASTAL</b>	
<b>County</b>	<b>Population 2007</b>
BULLOCH	66,176
EFFINGHAM	50,728
BRYAN	30,132
CHATHAM	248,469
LIBERTY	60,503
LONG	11,300
MCINTOSH	11,420
GLYNN	74,932
CAMDEN	48,689
<b>Total Population</b>	<b>602,349</b>

# Wildlife Resources Regional Issues

- 10 Priority streams including lower portions of Altamaha, Ogeechee, Satilla and St. Mary's Rivers
- Numerous tidal systems and estuaries critical to species
- Critical species include federally endangered West Indian Manatee along with commercially and recreationally important fishery species
- One additional state protected fish and four additional state protected aquatic invertebrates

# Significant Threats To Wildlife Resources

- Development of coastal areas and expansion and maintenance of the Savannah Harbor
- Coastal Land Protection Initiative currently in action; Coordinated by the Wildlife Resources Division, Coastal Resources Division, The Georgia Conservancy, and the Association of County Governments of Georgia

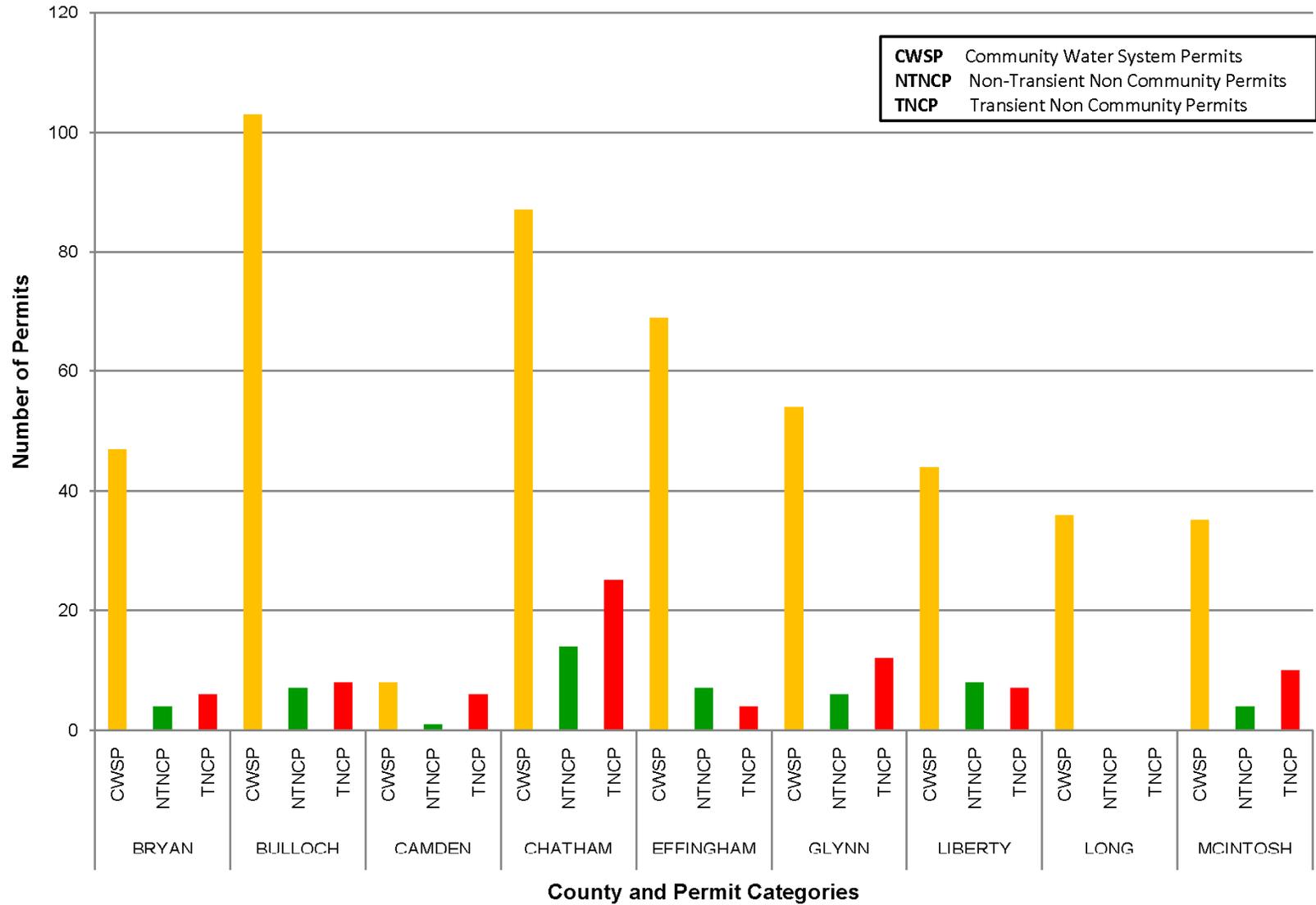
# Surface Water and Ground Water Withdrawal Rates by Category

	Municipal		Industrial		Power		Total	
	No. of Permits	Permitted Avg (mgd)						
Surface Water	1	50.0	6	198.6	3	552.0	<b>10</b>	<b>800.6</b>
Ground Water	69	106.7	26	105.5	4	2.9	<b>99</b>	<b>215.0</b>

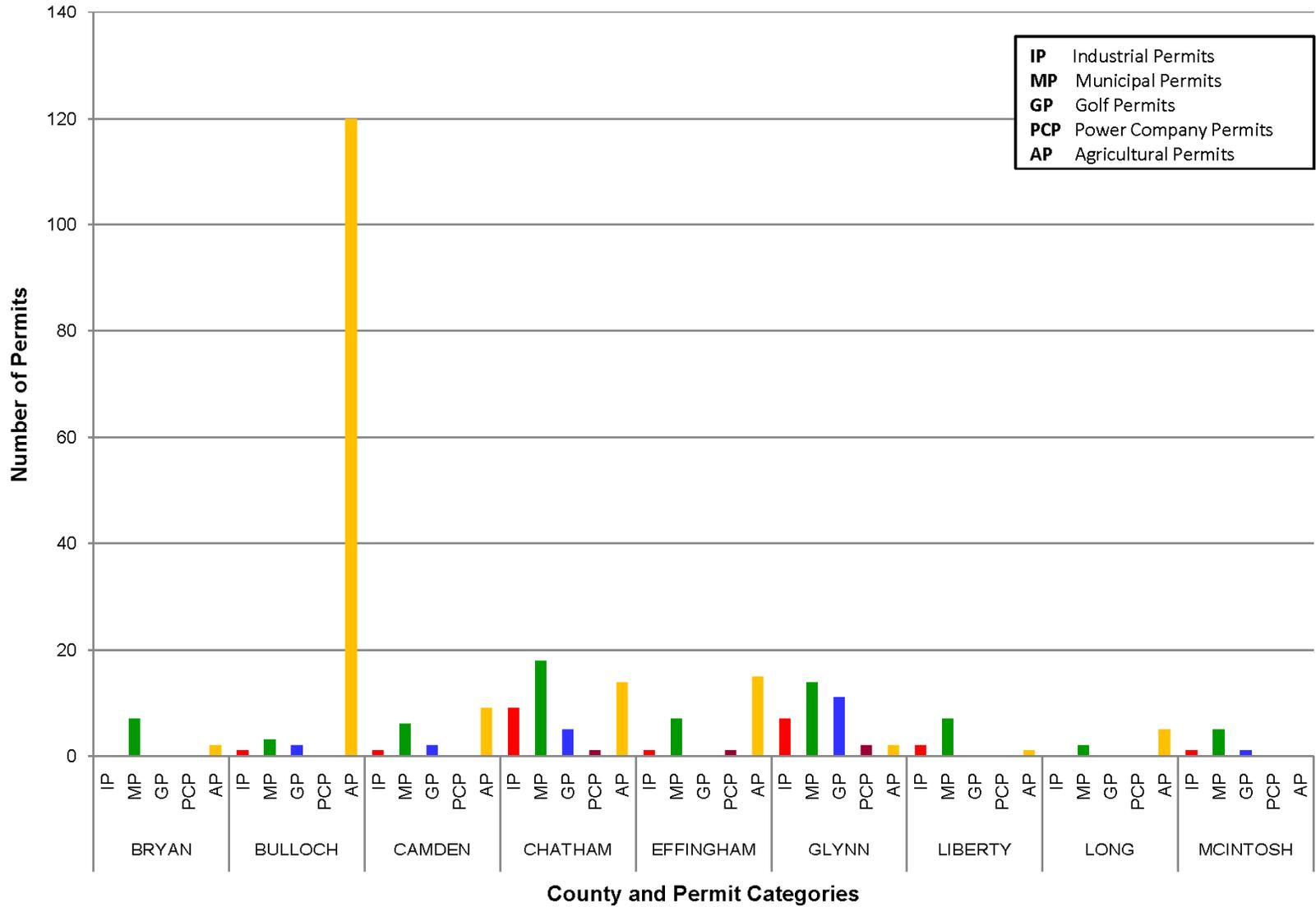
Notes: Surface Water Permitted Monthly Avg, Groundwater Permitted Annual Avg  
Totals do not include private Drinking Water withdrawals



### Drinking Water Withdrawals By Permit Type



### Ground Water Withdrawals By Permit Type



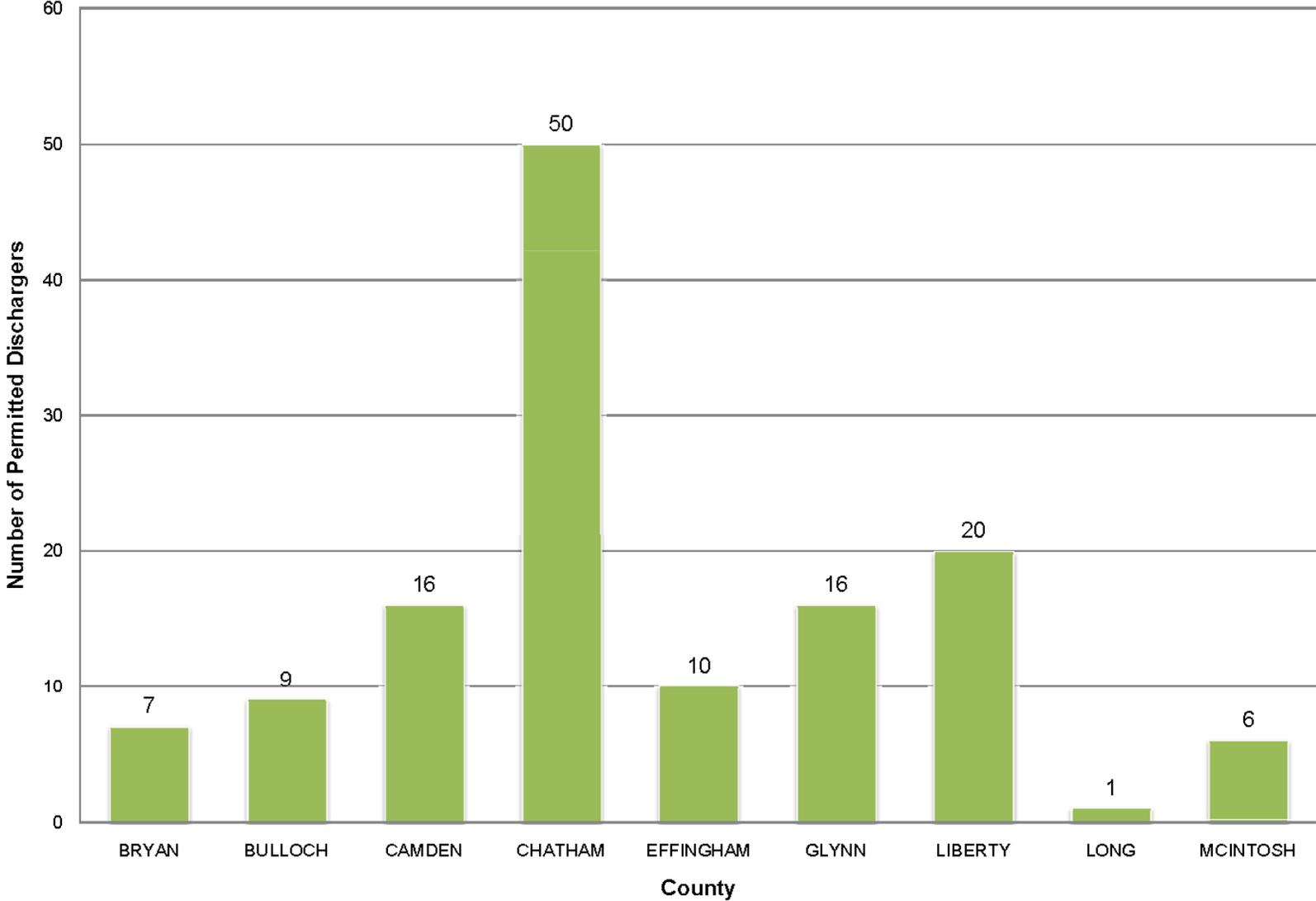
# Agricultural Water Use

	Number of Permits	Permitted Irrigated Acres
Surface Water	337	28,704
Ground Water	171	17,405
Well To Pond	21	2,247
Total	529	47,996

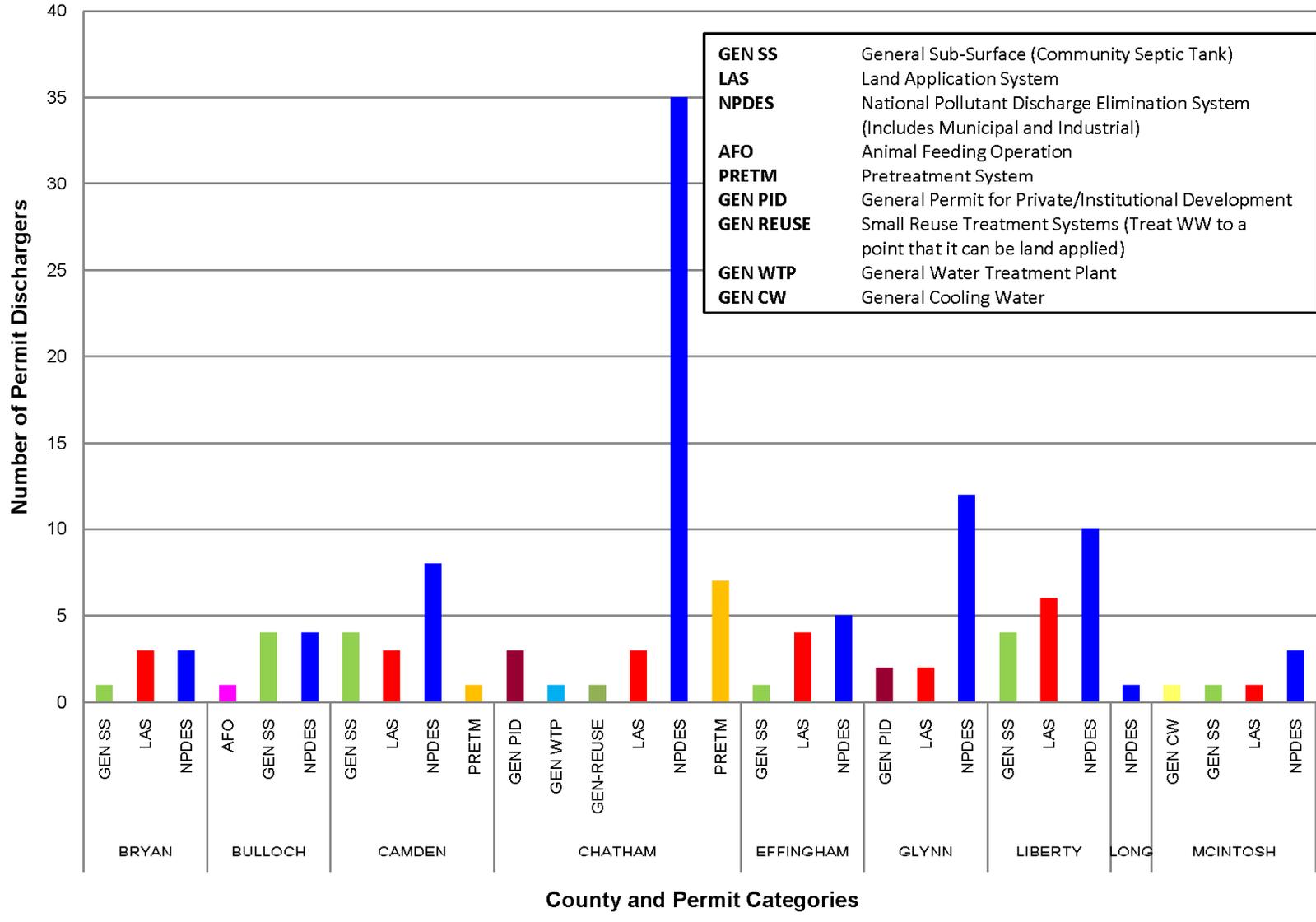
# Forest Cover in Coastal Georgia

<b>Region Acreage</b>	<b>3,329,510</b>
Percent Forested	50.88%

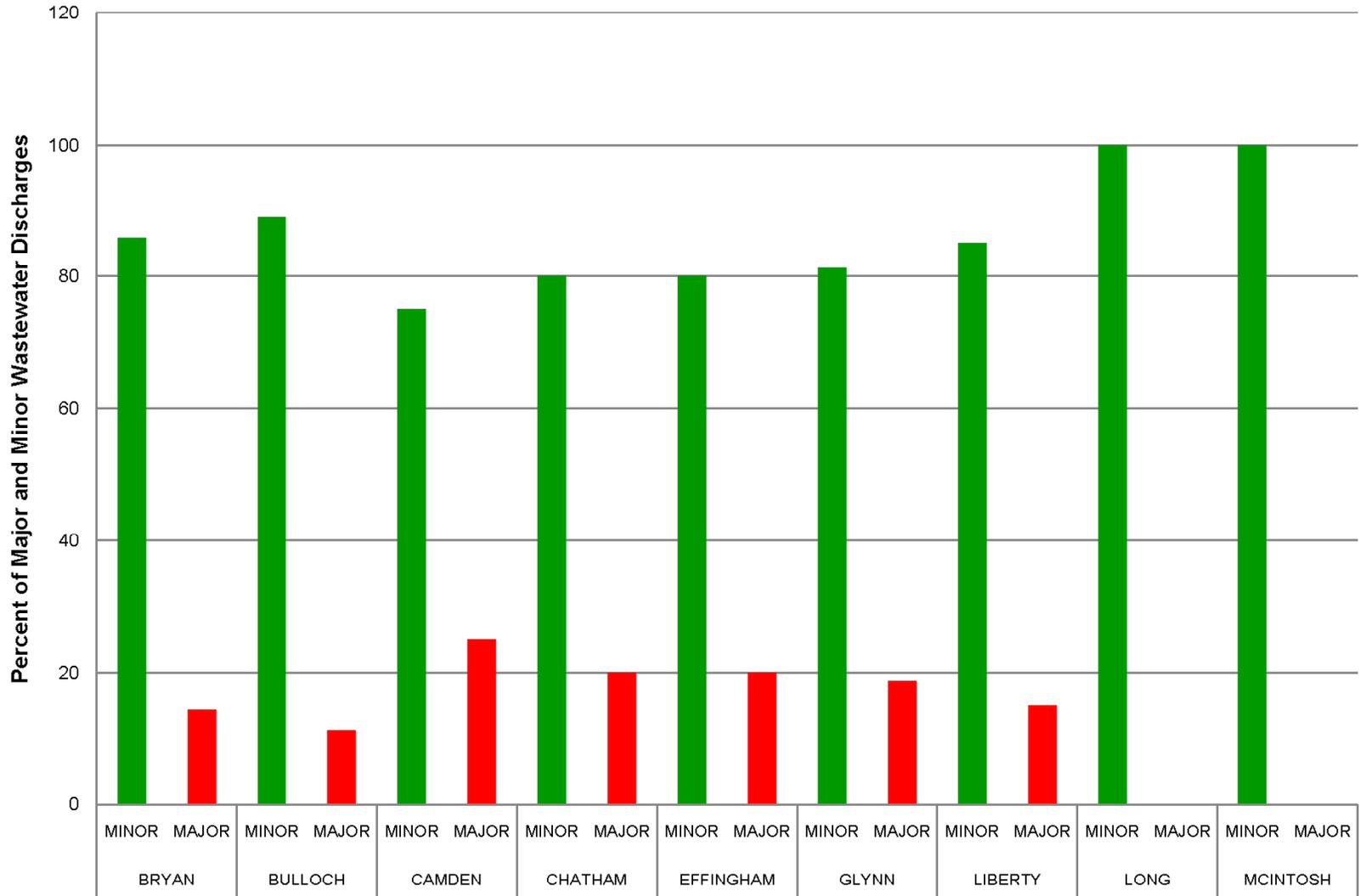
**Total Number of Permitted Dischargers of Wastewater in Region**



### Breakdown of Wastewater Discharge Types

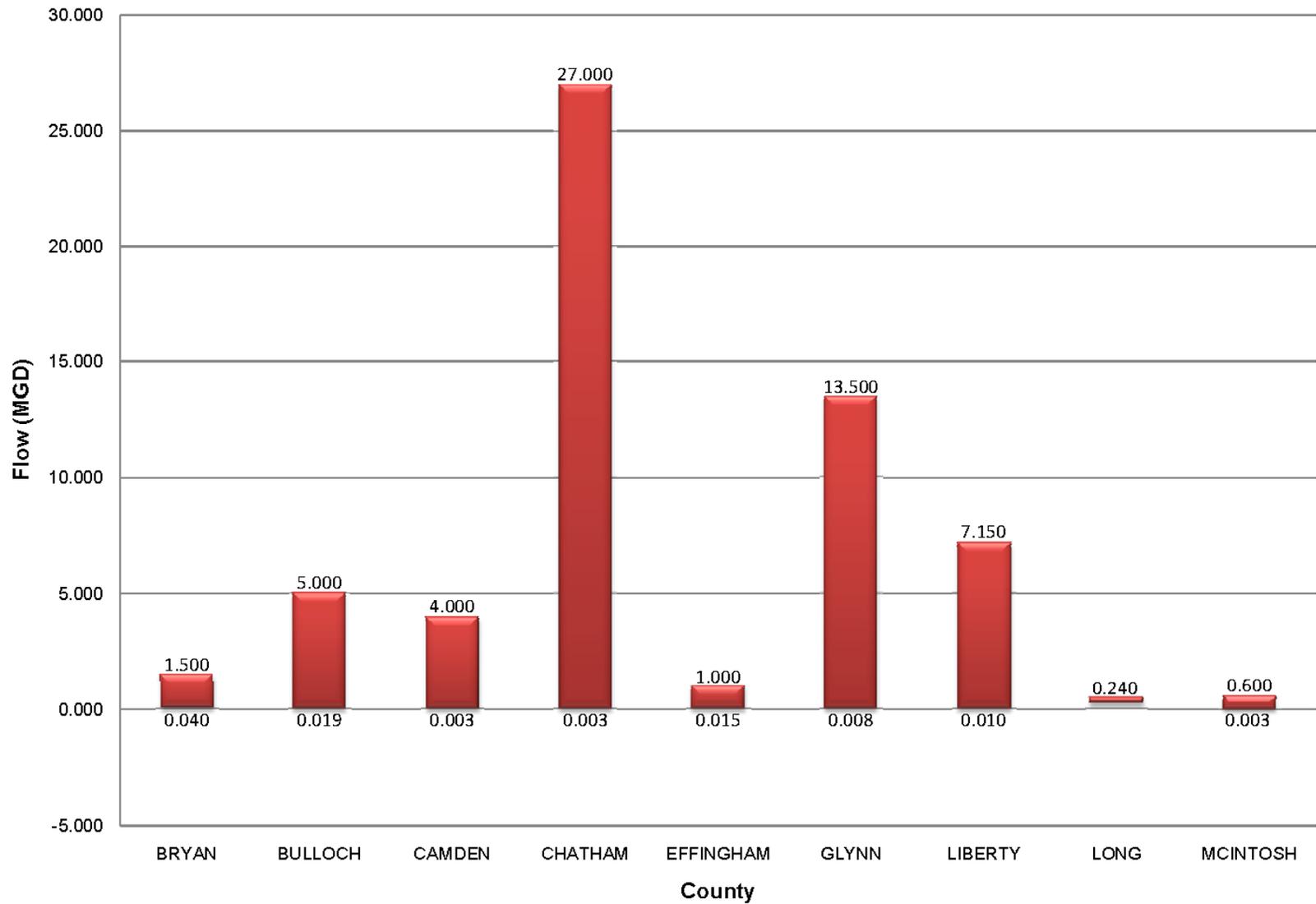


**Breakdown of Minor and Major Wastewater Discharges**

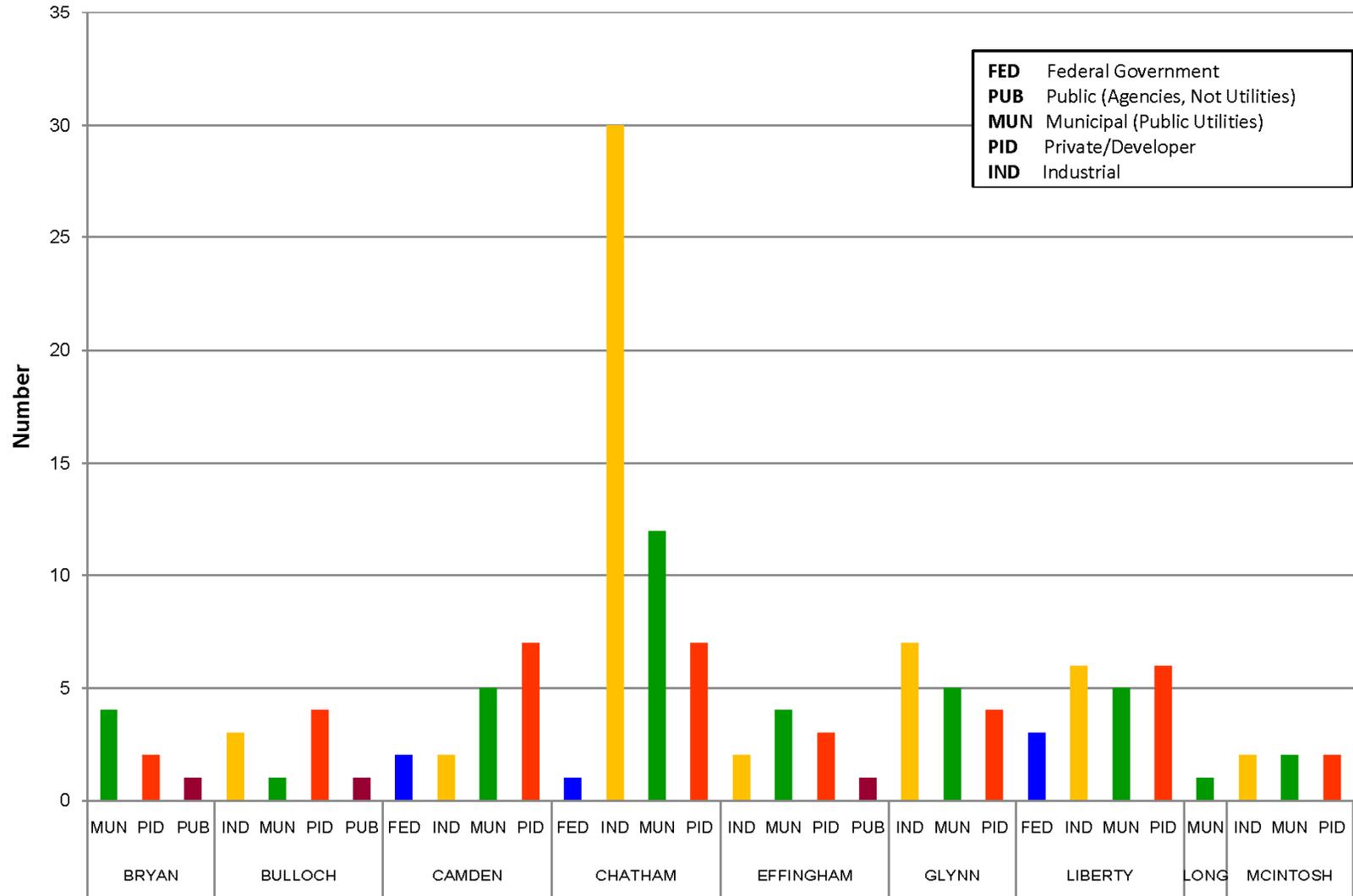


**County**

### Flow Range For Wastewater Facilities in Region



### Breakdown of Wastewater Discharge Owners



County and Wastewater Discharge Owners

# Additional Regulatory Issues

- This presentation gave examples of available water supply and wastewater discharge data.
- Such data are also available on important issues such as Impaired Waters, Total Maximum Daily Loads (TMDLs), Municipal Separate Storm Sewer System (MS4) Permits, and NPDES Construction Stormwater



# Lunch/ Present Website Capabilities

12:30 PM – 1:15 PM

# Georgia's State Water Plan

The Georgia Comprehensive State-wide Water Management Plan (State Water Plan) was adopted by the General Assembly in 2008. The State Water Plan provides for [Regional Assessments](#), [Forecasting](#), and [Regional Water Planning](#).

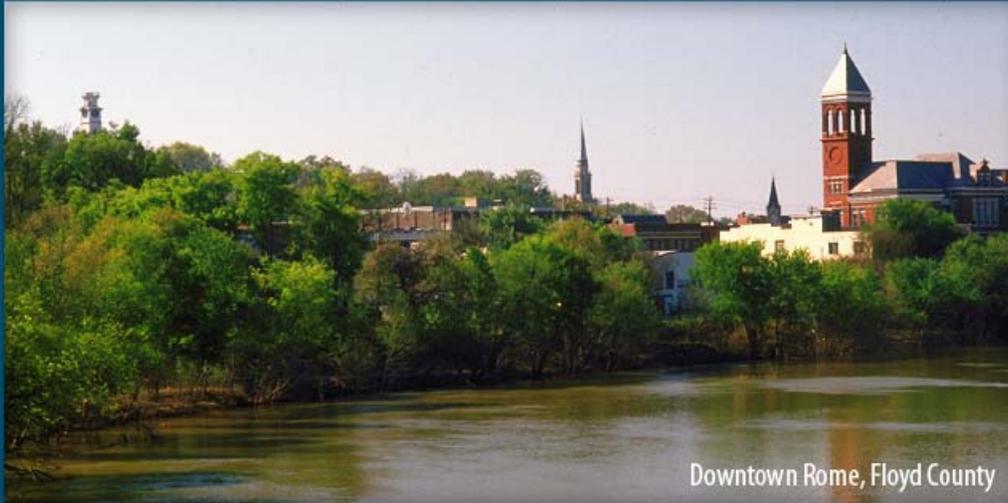
[RESOURCE ASSESSMENTS](#)

[FORECASTING](#)

[REGIONAL WATER PLANNING](#)

[TECHNICAL GUIDANCE](#)

[MORE INFORMATION](#)



Downtown Rome, Floyd County



[click the map to explore our regional websites](#)

## Recent News

### [Public Notice: Kickoff Meeting For Regional Water Planning Councils](#)

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### [Governor's Press Release](#)

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### [List of Regional Water Planning Council Appointments](#)

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[view news archive](#)

## Quick Links

[Water Plan Schedule](#)

[2005-2008 Water Plan](#)

[Contact Us](#)

## Latest Documents

[Minutes, January 2009 Council Meeting](#)

[Handouts, January 2009 Council Meeting](#)

[Final Map of Georgia's Water Planning Regions](#)

**Official State Water Plan Web site**  
**GeorgiaWaterPlanning.org**

**Regional Water Council Sites**

**AltamahaCouncil.org**

**CoastalGeorgiaCouncil.org**

**CoosaNorthGeorgia.org**

**FlintOchlockonee.org**

**MiddleChattahoochee.org**

**MiddleOcmulgee.org**

**SavannahUpperOgeechee.org**

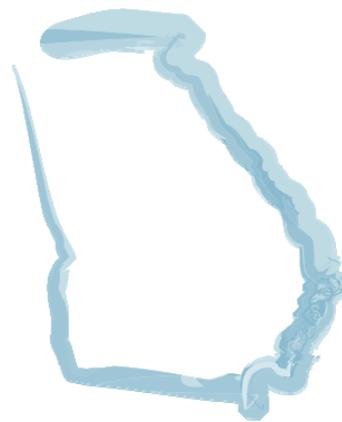
**SuwanneeSatilla.org**

**UpperFlint.org**

**UpperOconee.org**

# Trends, Forces, Factors, and the Implications

1:15 PM – 2:15 PM



# Georgia's State Water Plan

Trends, Forces, Factors  
and the Implications

[www.georgiawaterplanning.org](http://www.georgiawaterplanning.org)

# The Story of Water in Our Region

- What are the trends, forces, and factors that will be affecting the future of water in our region?
- Each person should generate 5–7 ideas and write one each on the sheets provided (one idea per sheet)

# Silent Sort

- What ideas should logically be clustered together?
- What should we call each cluster?

# What is the Story?

- Small groups develop a story of water for the region that incorporates the cluster titles
- Share with the whole group
- Develop a consensus story

# Implications

- What are the implications for this story on our planning efforts?

# Introduction to Population and Employment Forecasts

2:45 PM – 3:15 PM



# Georgia's State Water Plan

Population and Workforce

Current and Historical Context

[www.georgiawaterplanning.org](http://www.georgiawaterplanning.org)

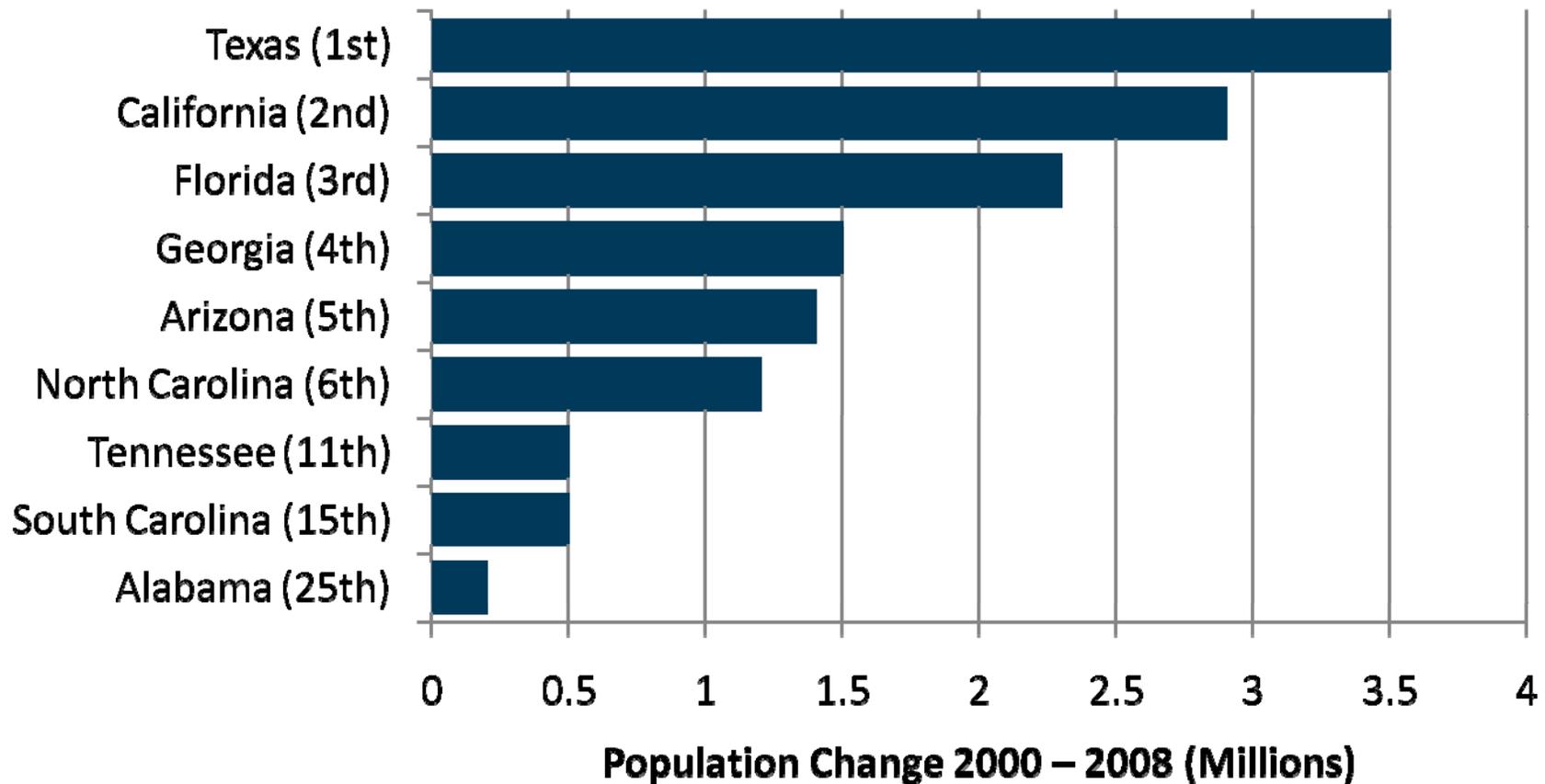
# Population and Workforce

- Georgia has been a leading growth state this decade
- Slow growth 1900 – 1970
- Rapid growth 1970 – Present
- Growth 2009 – 2040?

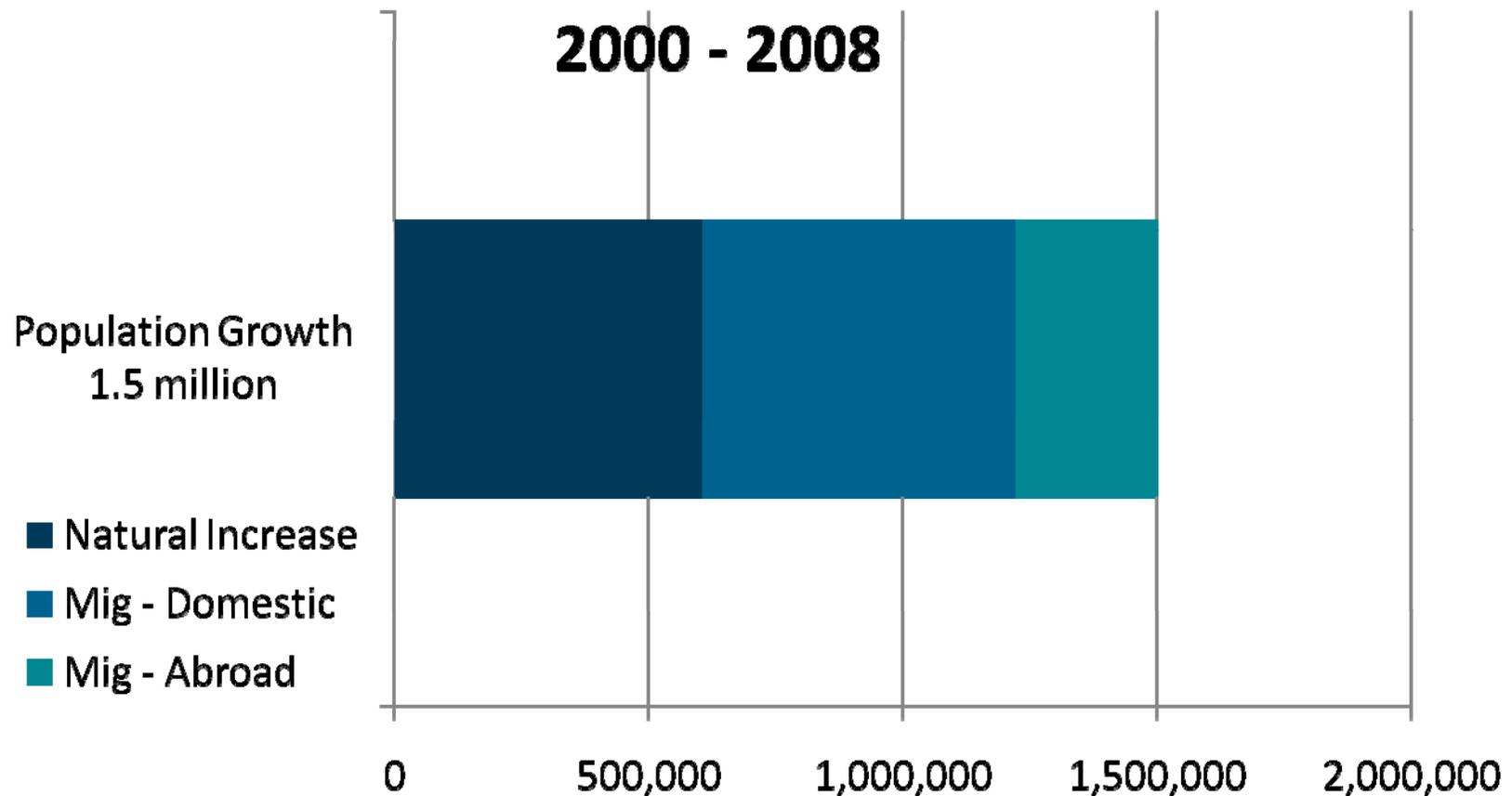
# Population and Workforce

## Recent Trends

# Georgia's population increased by 1.5 million since 2000

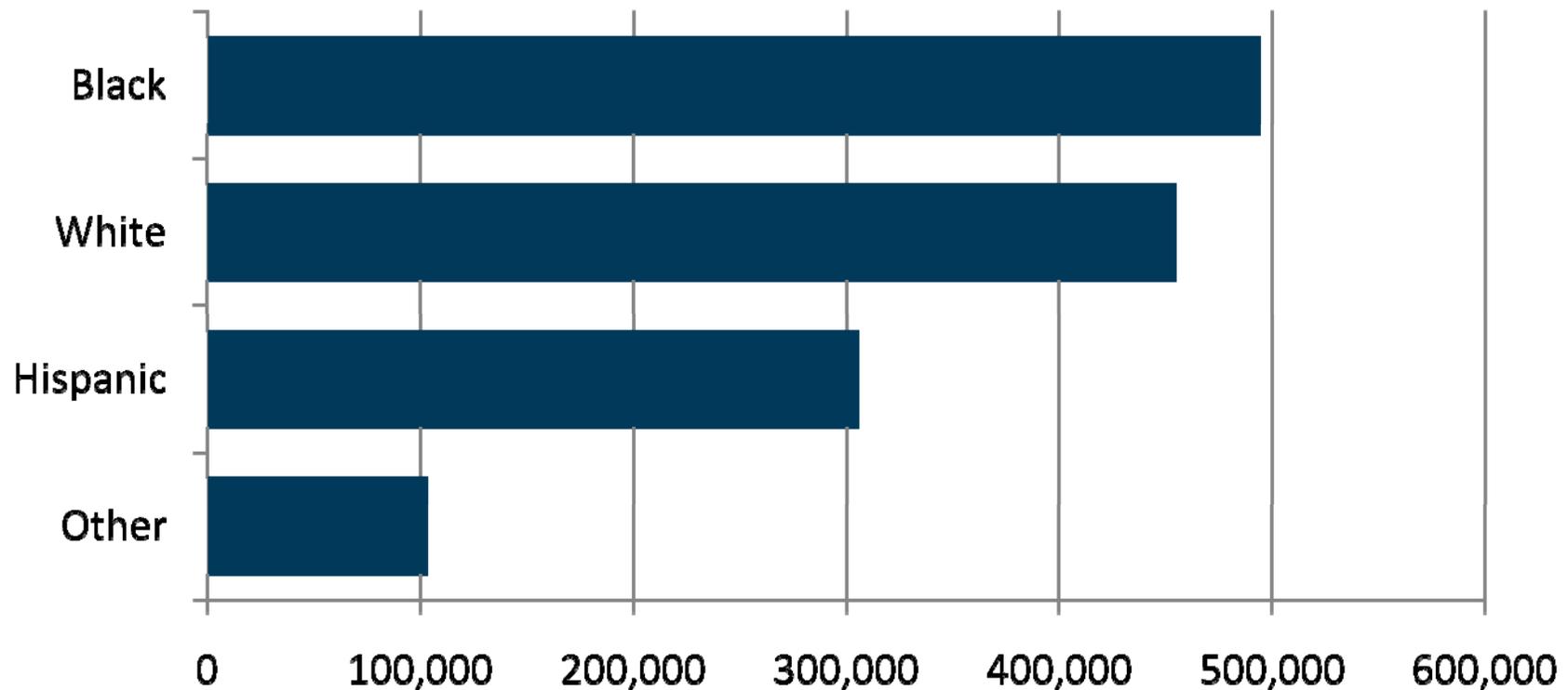


# Georgia's growth fueled by migration

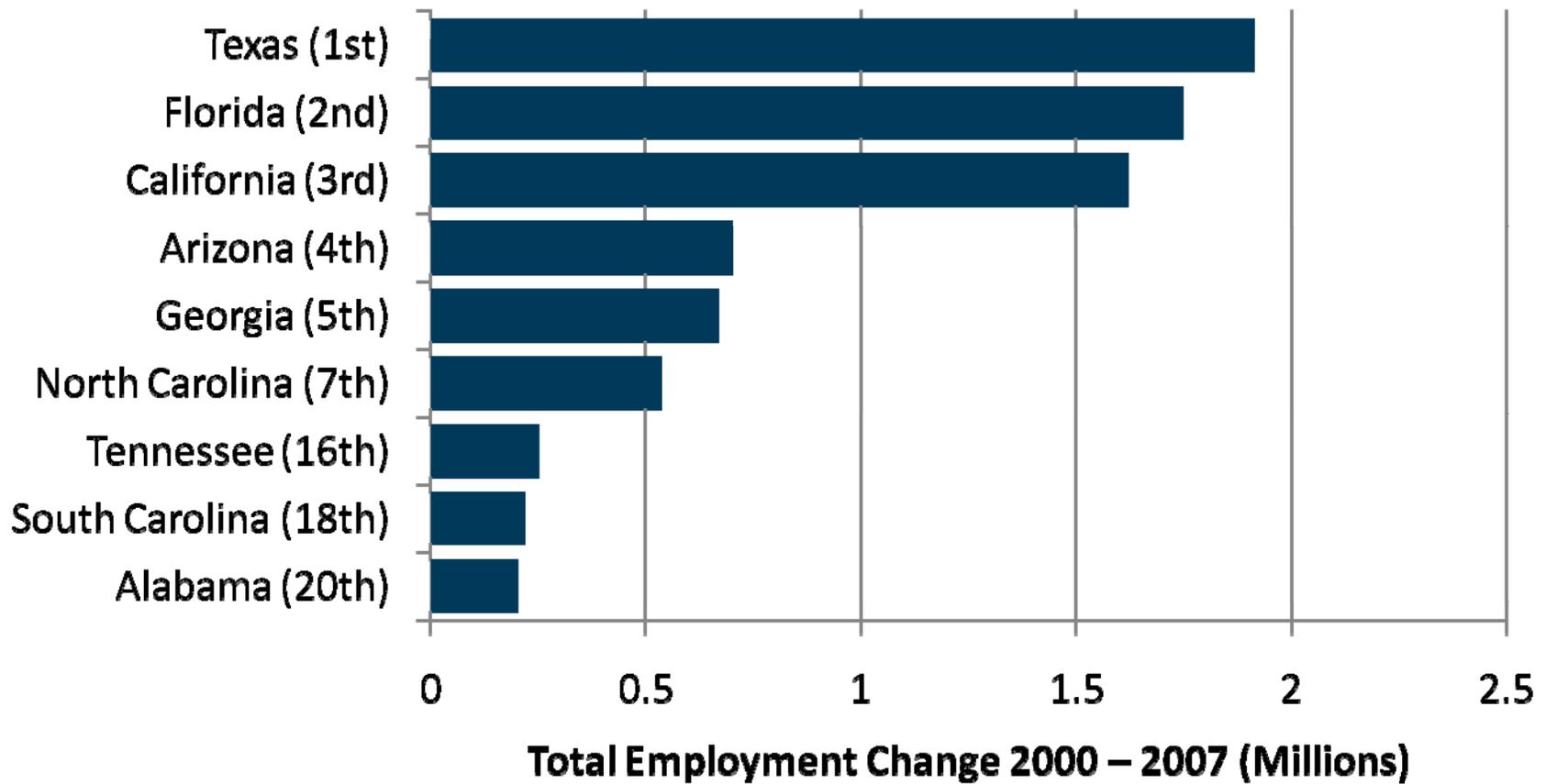


... and by racial and ethnic diversity

**2000 - 2007**



# Georgia ranked 5<sup>th</sup> in total employment growth

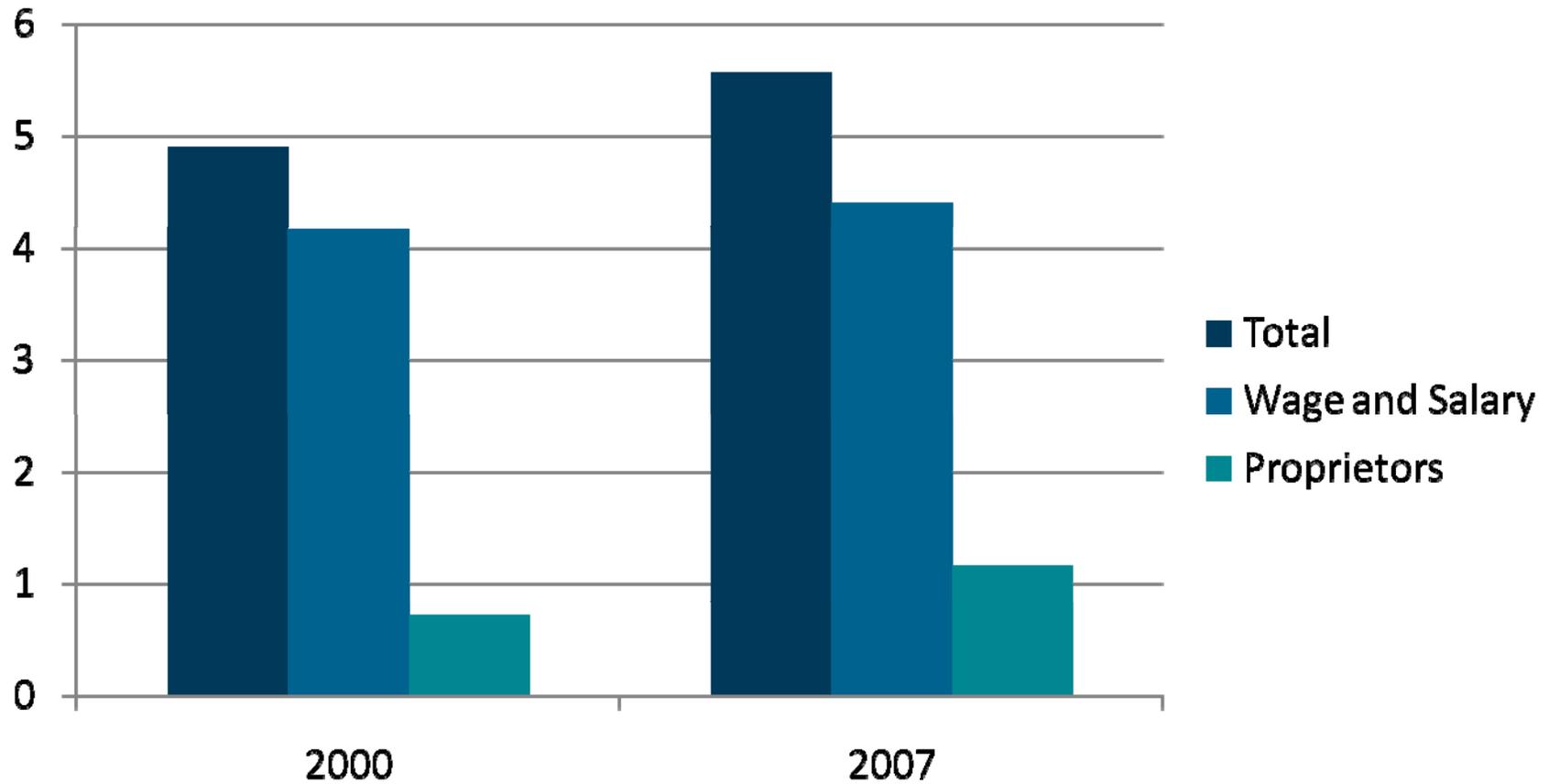


# Categories of Total Employment

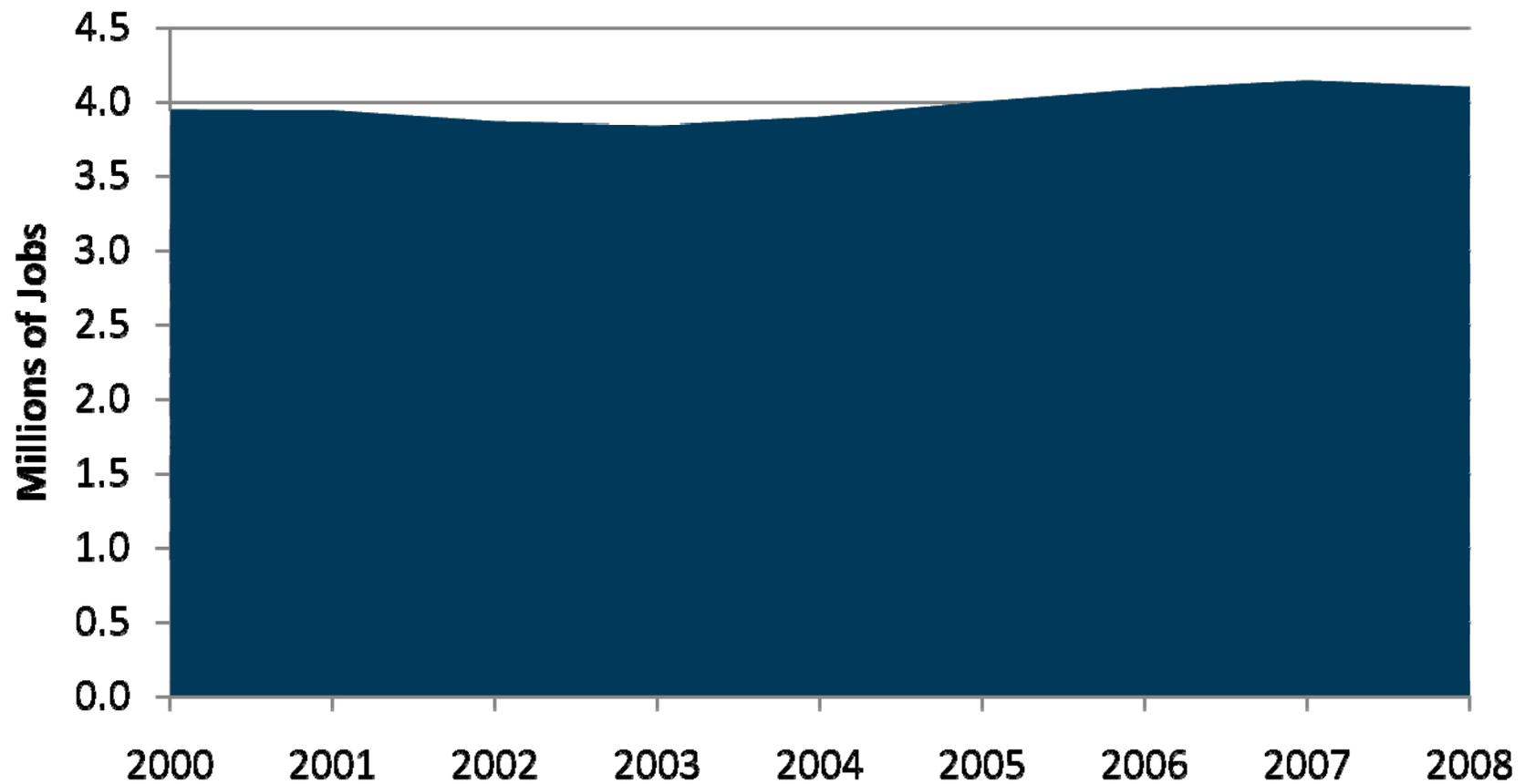
- Wage & Salary Workers
  - Private non-farm
  - Government
  - Farm
- Proprietors and Self-Employed



# Growth in Georgia's Jobs



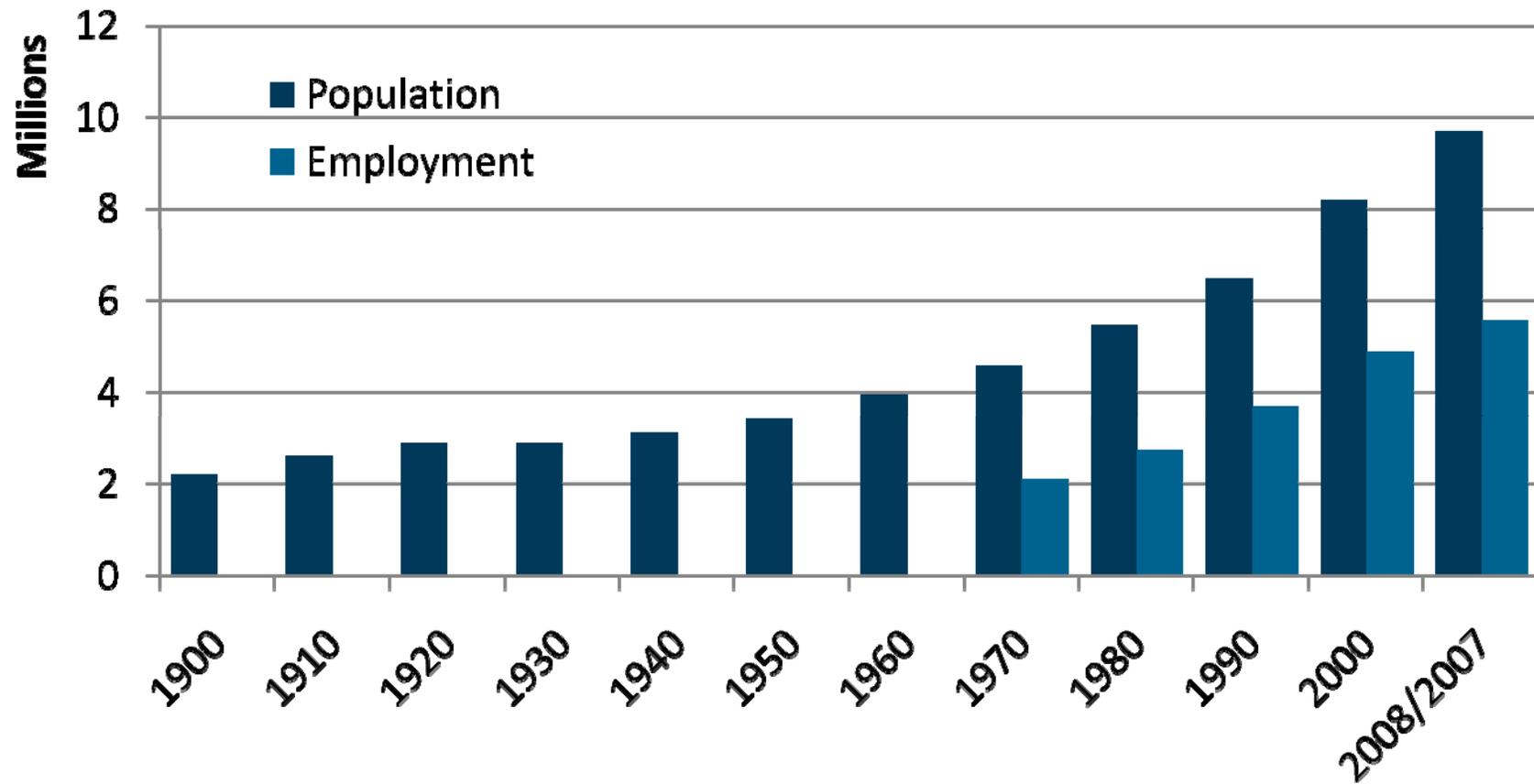
# Changes in Non-Farm Employment



# Population and Workforce

## Historical Trends

# Population of Georgia, 1900-2008

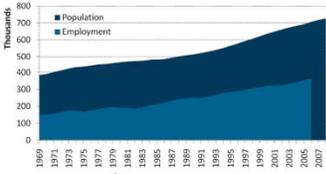


# Population and Workforce

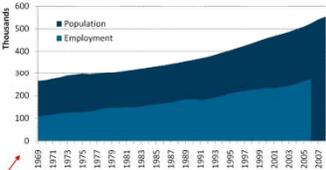
## Regional Perspectives

# Water Planning Regions

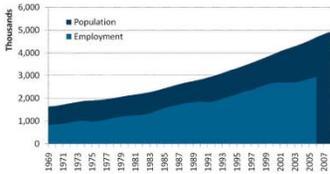
Coosa-North



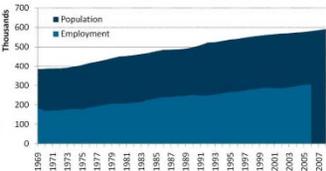
Upper Oconee



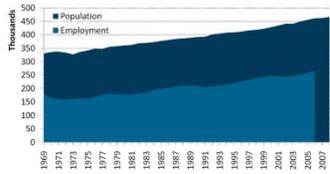
Metro North



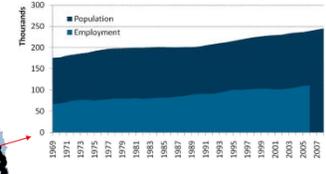
Savannah-Upper Ogeechee



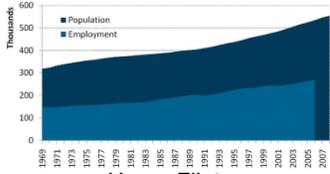
Middle Chattahoochee



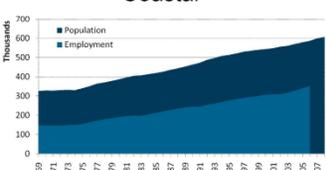
Altamaha



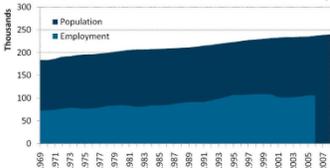
Middle Ocmulgee



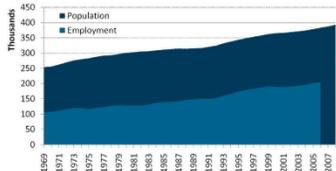
Coastal



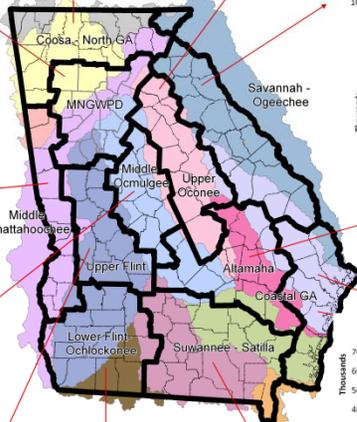
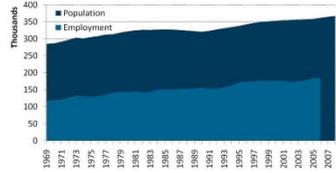
Upper Flint



Suwannee-Satilla



Lower Flint-Ochlockonee



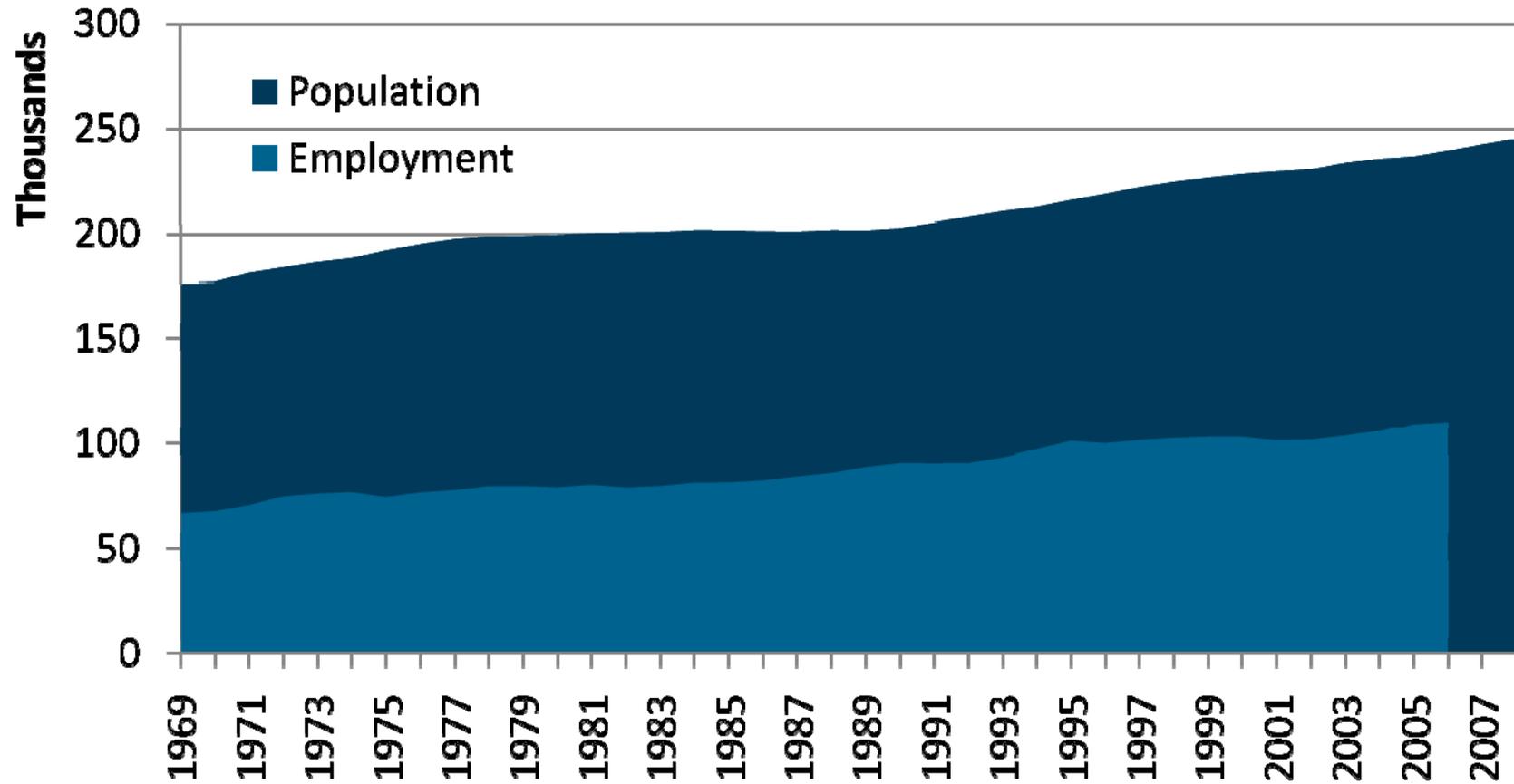
0 510 20 30 40 Miles



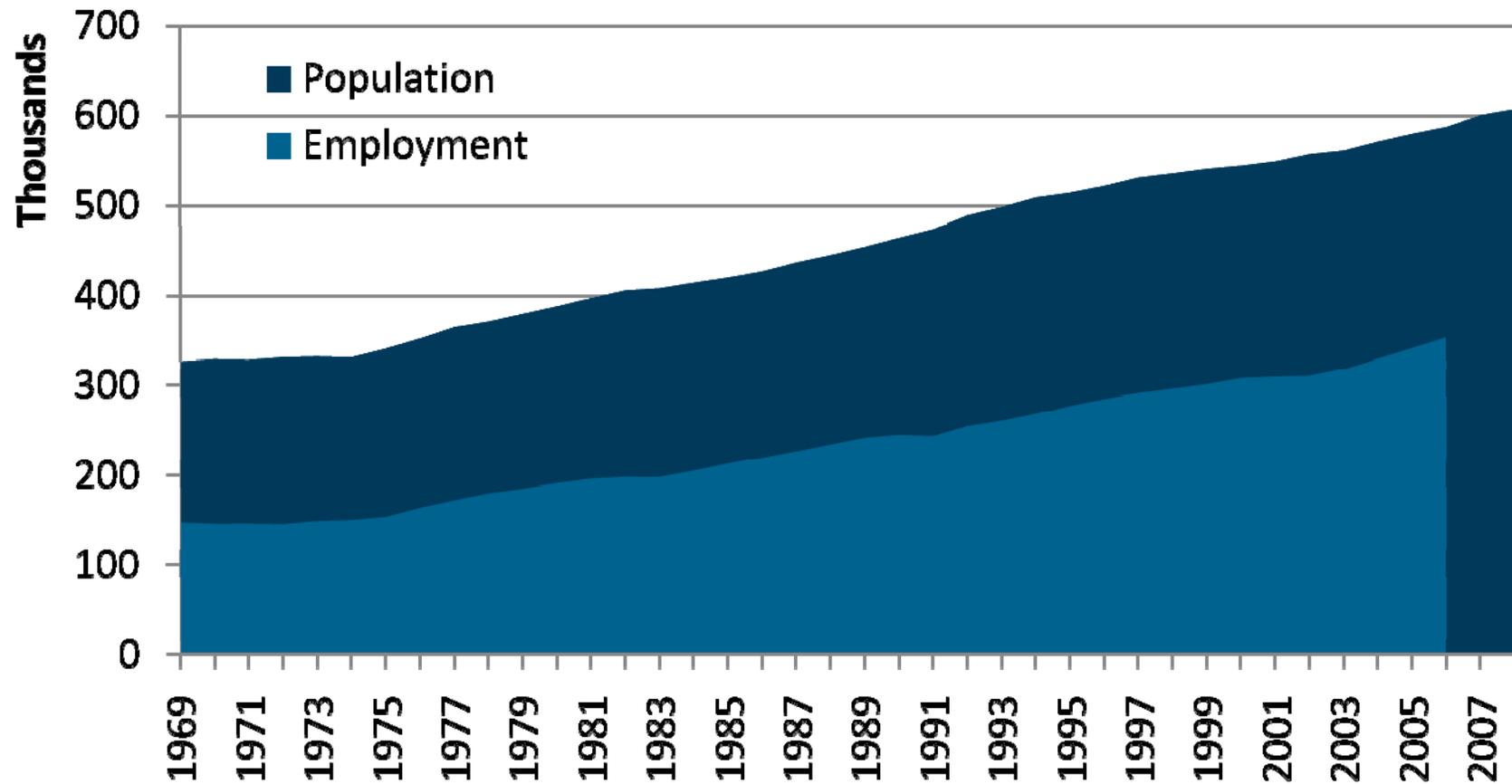
March 2006



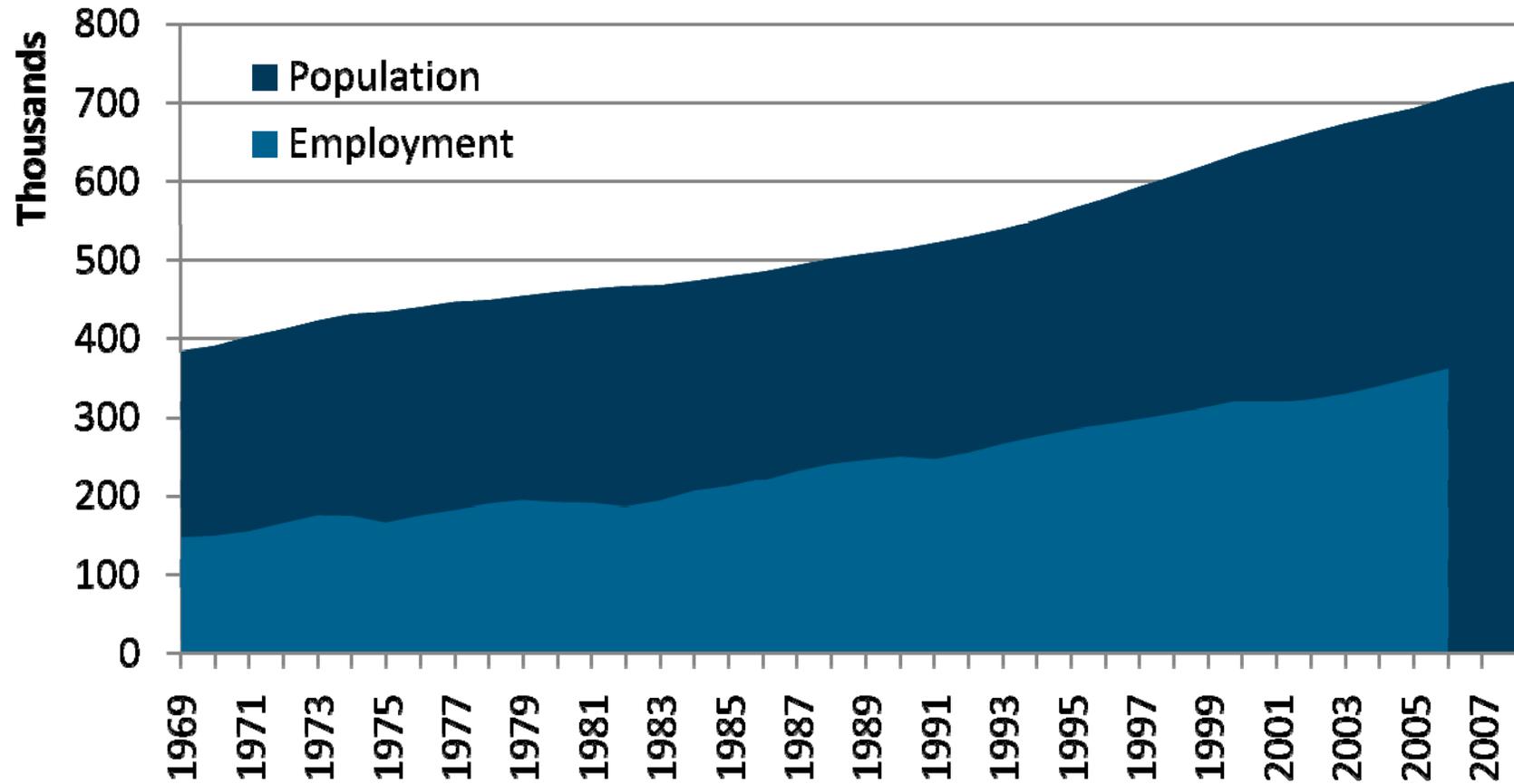
# Altamaha



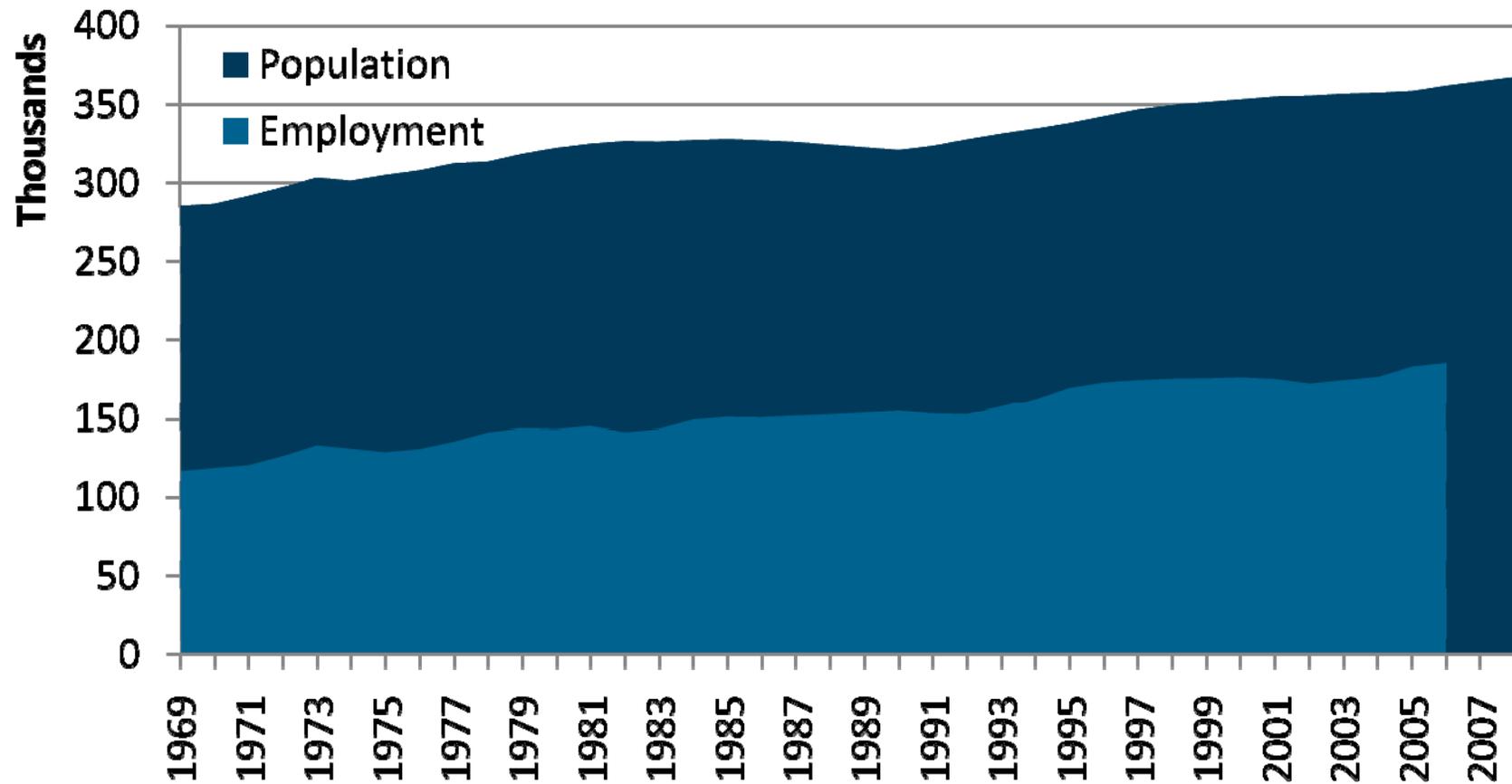
# Coastal



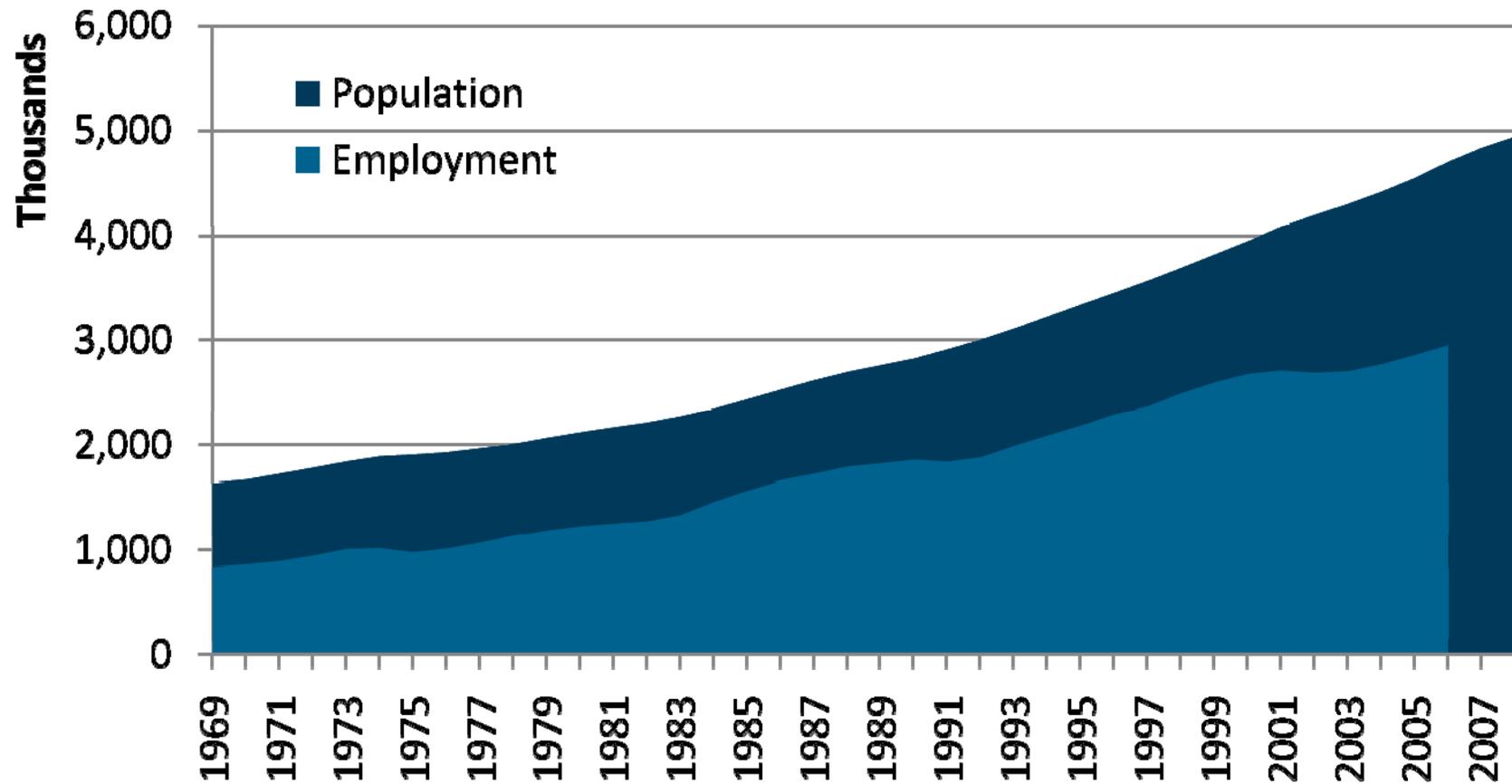
# Coosa-North



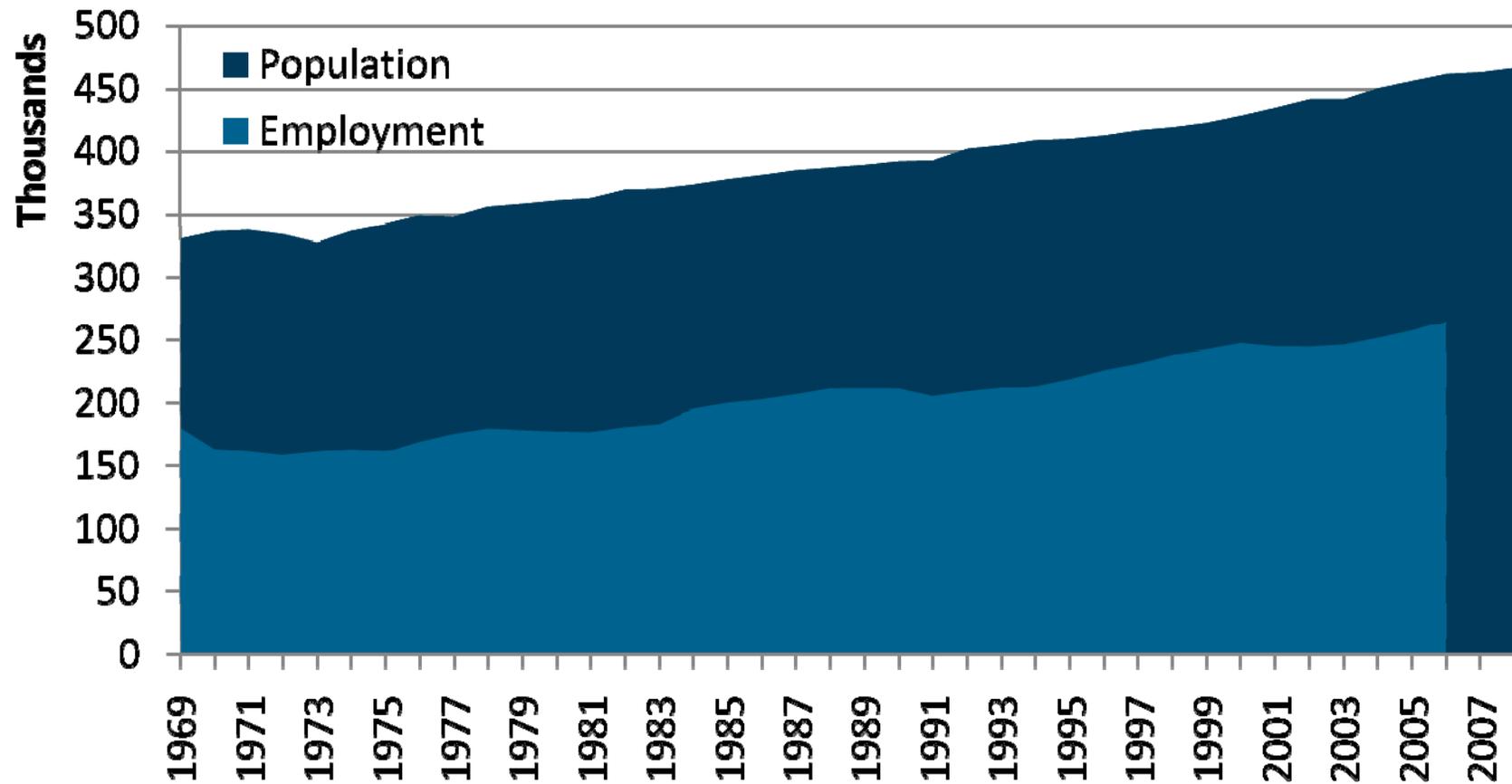
# Lower Flint-Ochlockonee



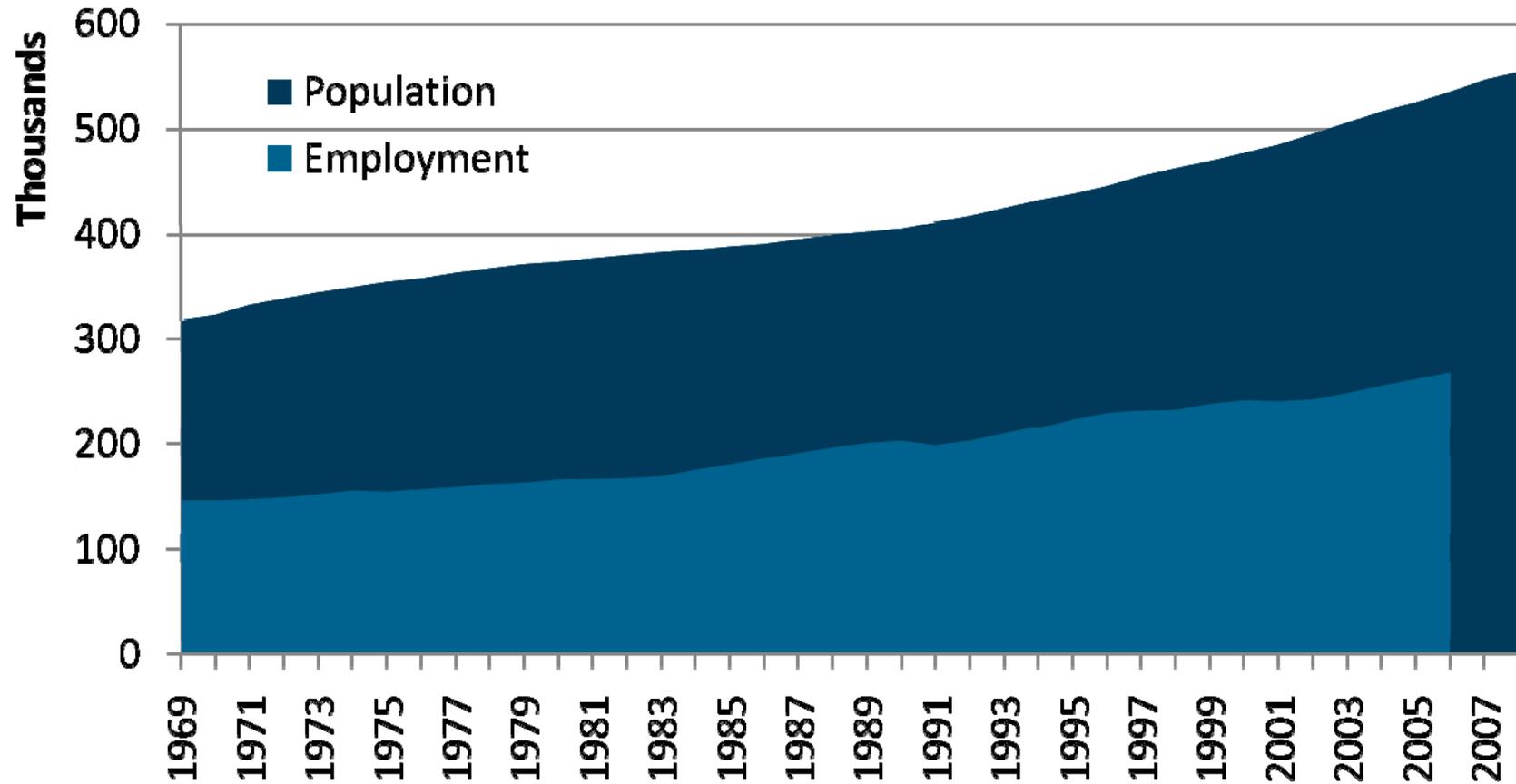
# Metro North



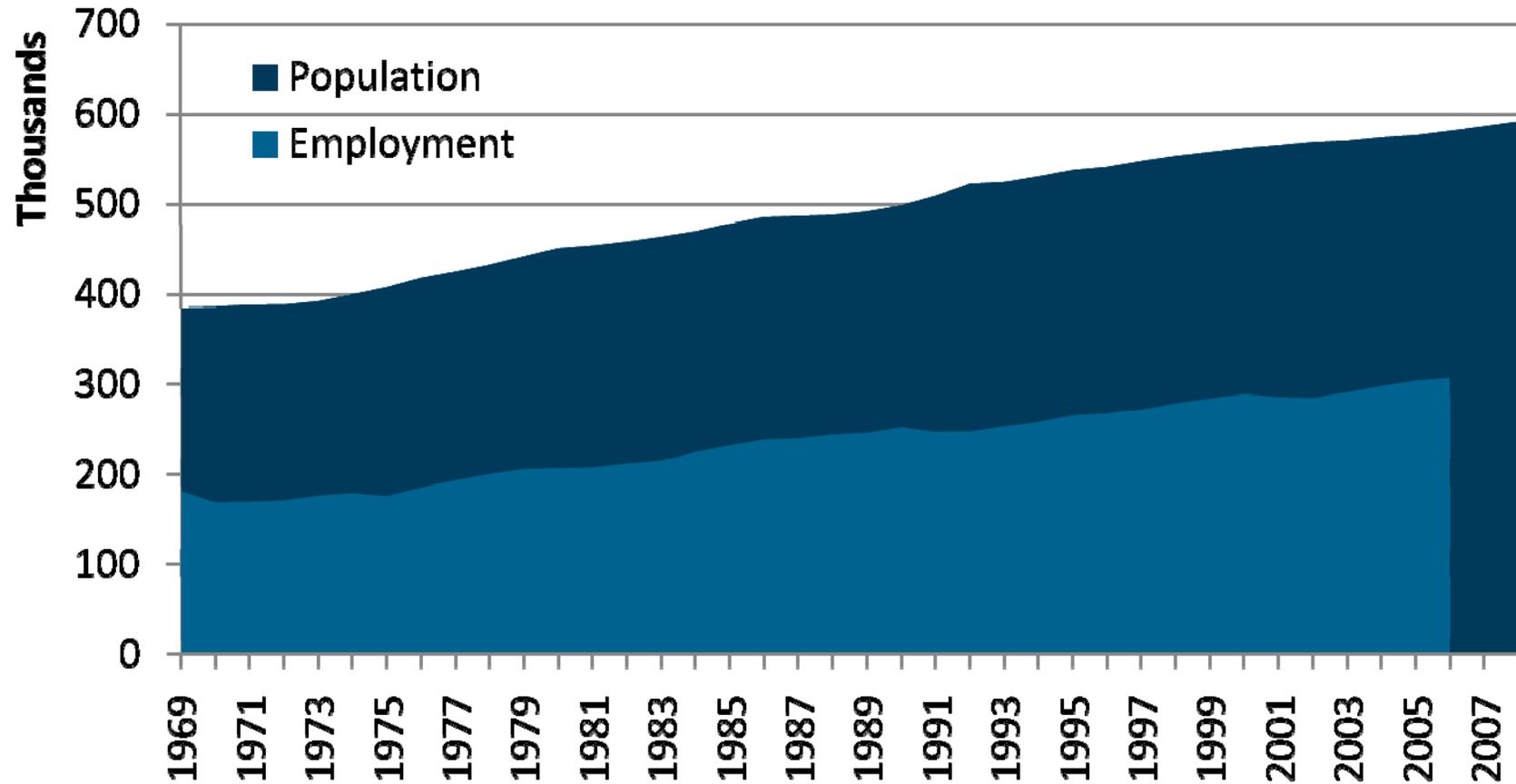
# Middle Chattahoochee



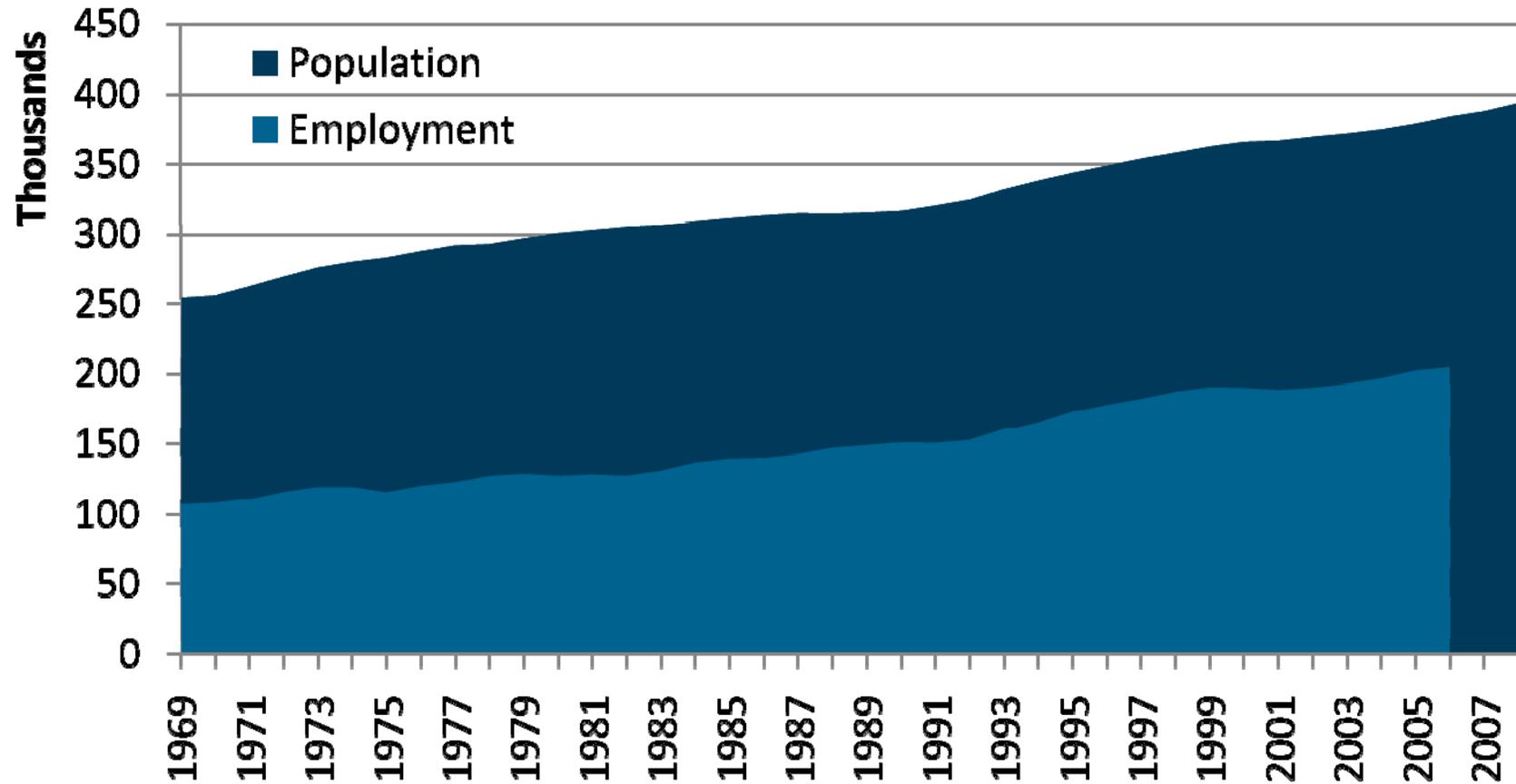
# Middle Ocmulgee



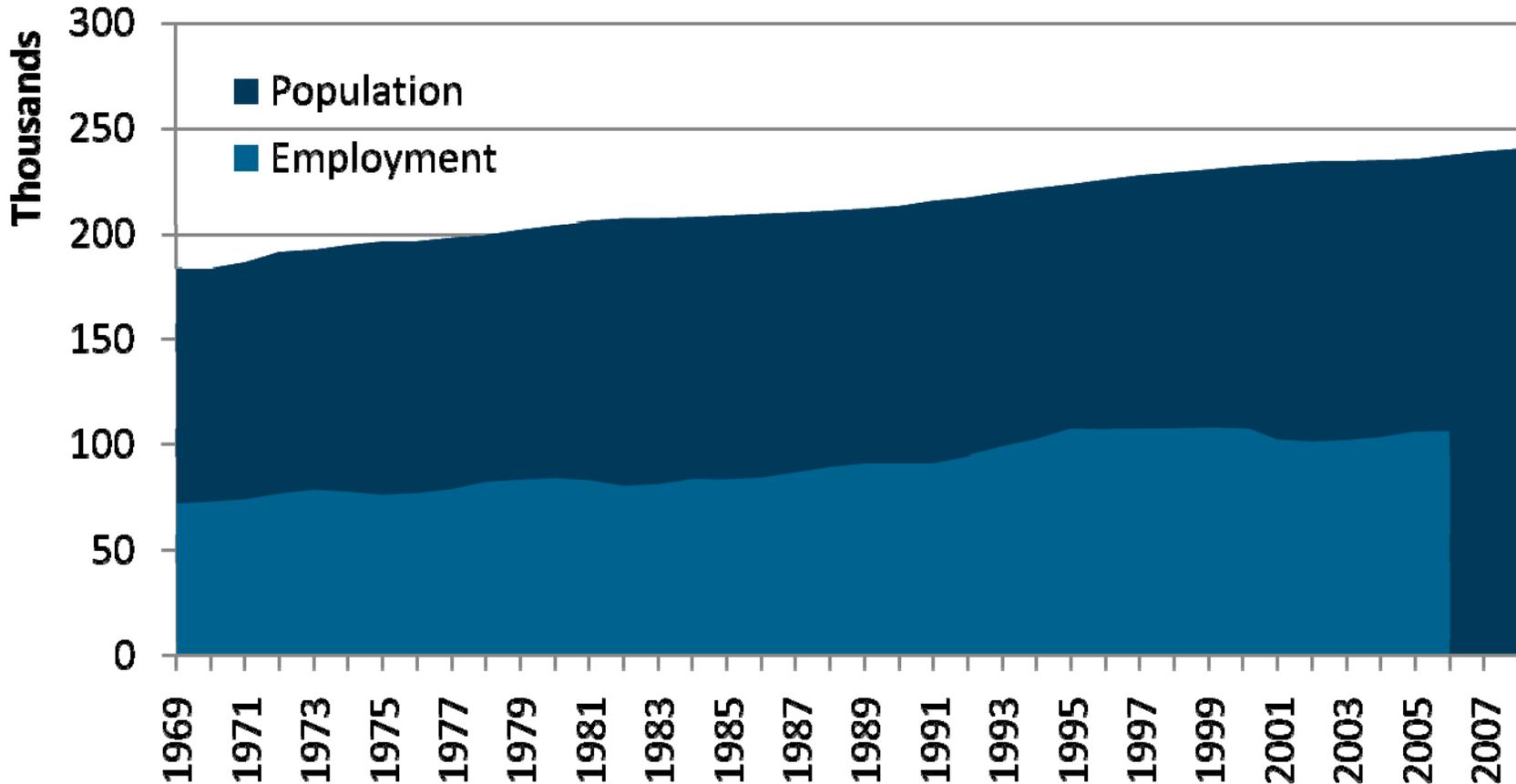
# Savannah-Upper Ogeechee



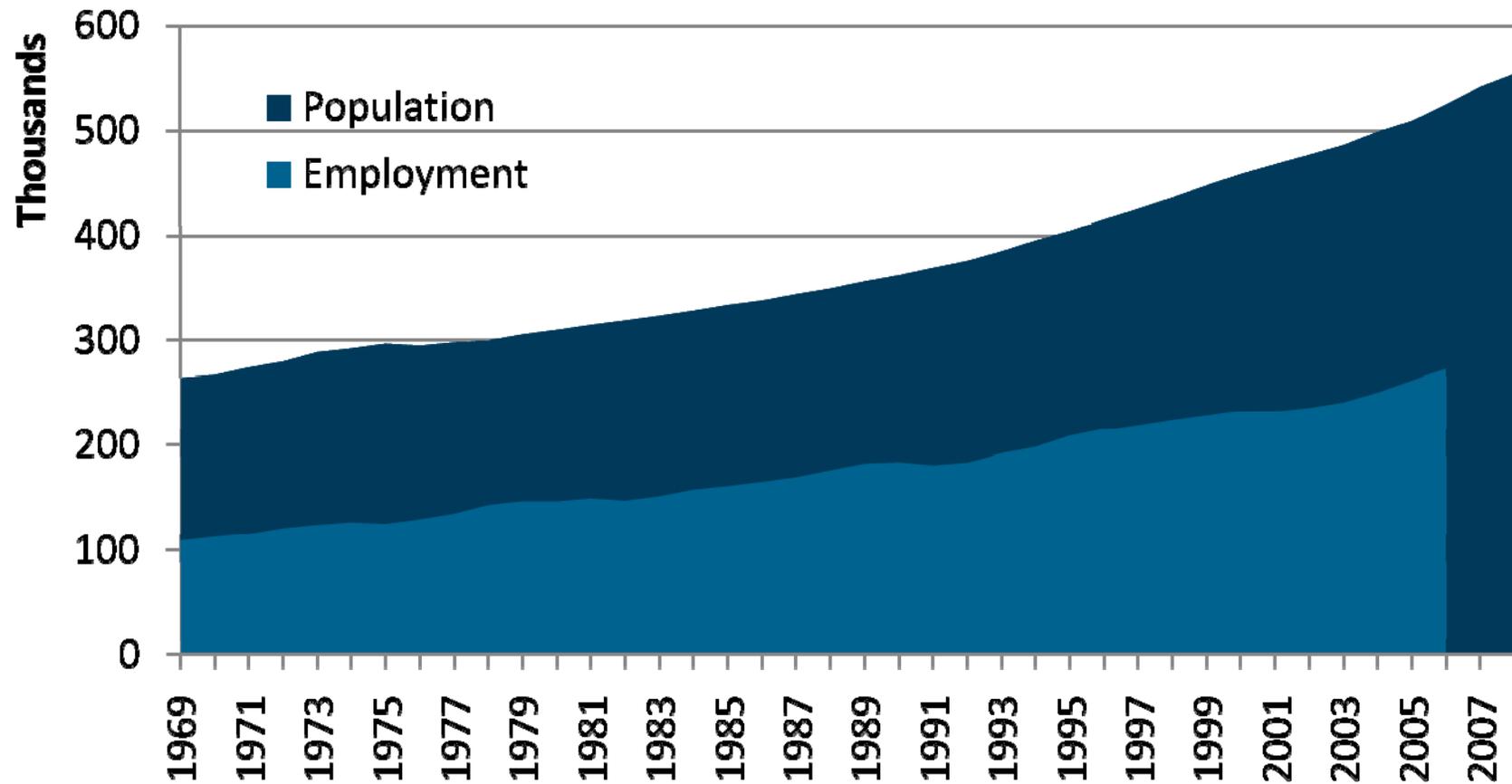
# Suwannee-Satilla



# Upper Flint



# Upper Oconee



# Population and Workforce

## The Future of Growth?



Georgia's  
**State Water Plan**

Population and Workforce

Methods for Projecting Future

[www.georgiawaterplanning.org](http://www.georgiawaterplanning.org)

# Population and Workforce

- Population – initial projections use demographic methods
- Workforce – initial projections use econometric/time series methods
- Population and Workforce projections brought into balance with each other

# Population Projections

## Demographic Method

# Demographic Method

- Start with county population from 1990 and 2000 Census; and 2007 Census estimates
- Each county's population examined by
  - single year of age,
  - sex, and
  - race/ethnicity (Black, Hispanic, White, Other)

# Components of Change

- Births – fertility rates calculated using birth records and census data
- Deaths – survival rates calculated using death records and census data
- Migration – net rates of migration calculated by “surviving” cohorts from 1990 to 2000; and 2000 to 2007

# Alternative Projection Scenarios

- Births – assume fertility rates unchanged
- Deaths – assume survival rates unchanged
- Migration – four alternative rates
  - Zero net migration—births and deaths alone, for analytical purposes
  - 1990-2000 rate
  - Half the 1990-2000 rate
  - 2000-2007 rate

# Review of Total Population

- Examine projection of total population
- Maintain consistency with historical pattern
- Reduce extremes of growth and decline
- Adjust for special events affecting population change
  - Natural disaster
  - Major employment change

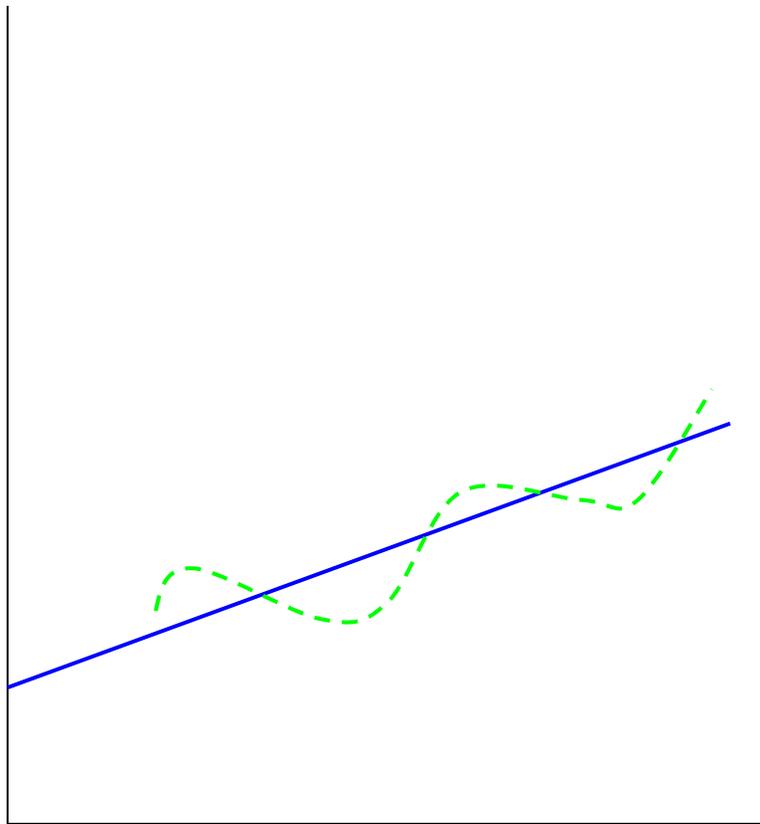
# Population Projections

## Econometric Method

# Econometric Method

- Start with regional employment levels from 1990 to 2008 using GA DOL employment series
- Each region's employment examined by selected industries
- Statistical model captures both trends and cycles

# How Does Such a Model Work?



- The lagged terms for employment allow for a cycle to exist in the forecasts.
- Thus, projections are not just a straight line or constant percentage growth.

# Employment Projections

- Models developed for each industry by region
- Change in each industry influenced by:
  - Change in total employment for region
  - Change in statewide employment for that industry
- Adjustments are made to capture the current recession

# Population and Workforce are Balanced



- Adjustments to employment in retail and services to fit preliminary populations
- Population adjusted to fit the demand for labor based on employment

# Break

3:15 PM – 3:30 PM

# Election of Chair and Vice-Chair

3:30 PM – 3:45 PM

# Local Elected Officials' Comments

3:45 PM – 4:00 PM

# Public Comments

4:00 PM – 4:15 PM

# Wrap-Up, What to Expect Next Meeting

4:15 PM – 4:25 PM

# Council Meeting 1 Evaluation

4:25 PM – 4:30 PM

# Council Meeting 1

PLEASE FOLLOW THESE INSTRUCTIONS...

- ♦ Use a blue or black ink pen to fill out this questionnaire. (DO NOT USE A PENCIL)
- ♦ Completely fill in the appropriate bubble like this
- ♦ If you make a mistake, mark through the incorrect bubble like this , and fill in the correct bubble.



## 1. What planning region are you in?

- Altamaha
- Coastal Georgia
- Coosa - North Georgia
- Lower Flint - Ochlockonee
- Middle Chattahoochee
- Middle Ocmulgee
- Savannah - Upper Ogeechee
- Suwannee - Satilla
- Upper Flint
- Upper Oconee

## 2. Did this council meeting provide you with an explanation of the goals and timeframe of the regional water planning process and help you understand the roles and responsibilities of council members in the process?

- Yes, I felt the meeting provided ample explanation of the goals and timeframe of the regional water planning process and my role as a council member.
- Somewhat, but there could have been more discussion of the process.
- Not very much, the discussion was far too short.
- Not at all

## 3. Please rate this council meeting for...

a. Helping you understand the **MOA, Operating Procedures and Rules for Meetings.**

Excellent Good Fair Poor

b. Helping you understand the **trends, forces, and factors** of water resources that are unique to your planning region and their **implications** for your planning region and the regional plan.

Excellent Good Fair Poor

c. Helping you understand the **Population and Employment Forecasts**: historical context, methods of projection and purpose in the regional water planning process.

Excellent Good Fair Poor

d. Helping you understand the **roles and responsibilities** of the Chair and Vice-chair in your planning region.

Excellent Good Fair Poor

## 4. This council meeting was ...

- Extremely useful
- Somewhat useful
- Only a little useful
- Not useful at all

Please continue survey on back

