

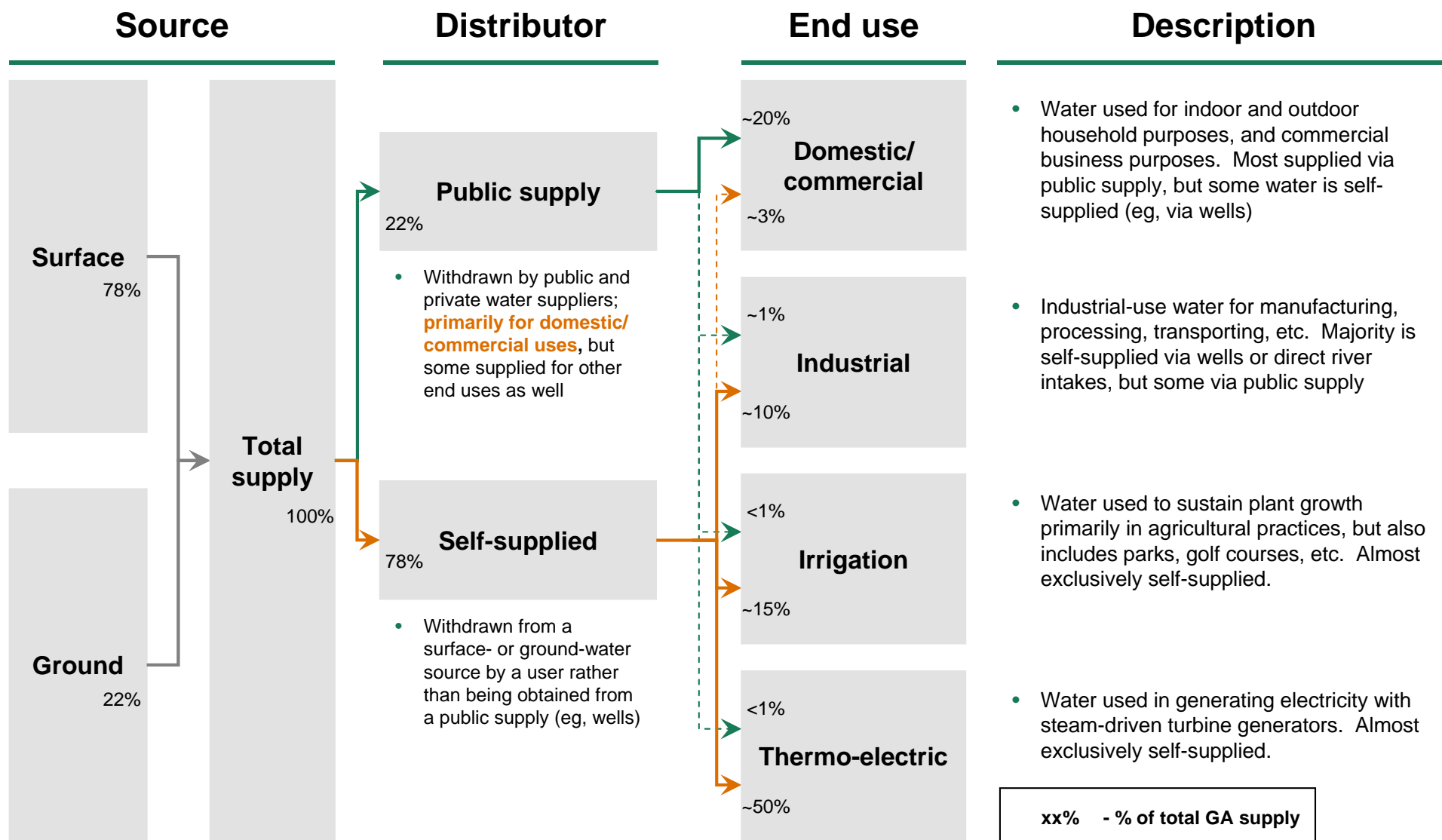
# **Water Contingency Planning Task Force**

## Appendix II

Factbase (water usage, degree of progress in recent years)

December 2009

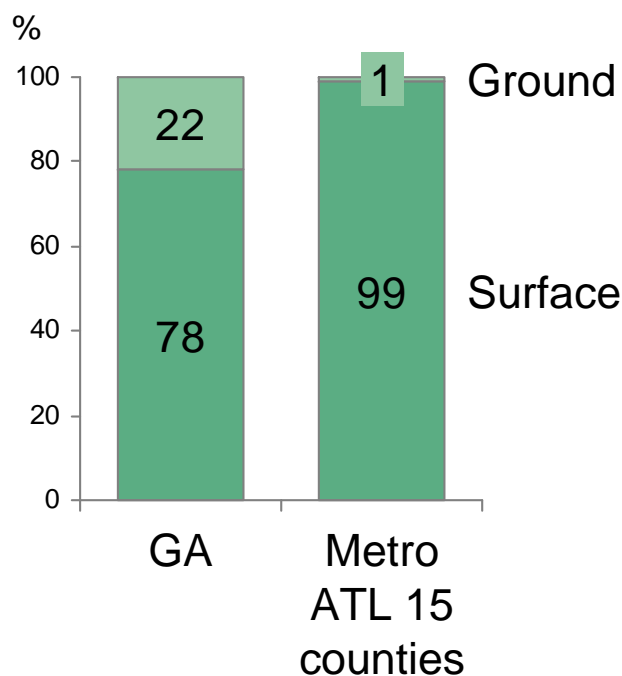
# The basics: Overview of GA water supply system



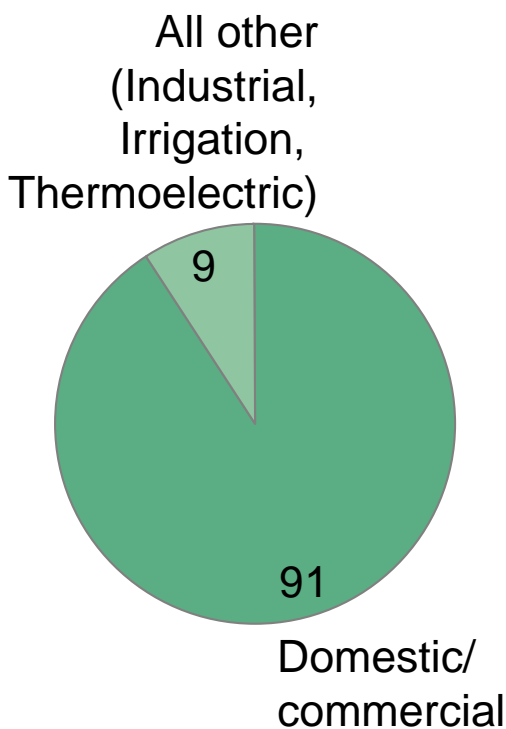
Source: USGS  
144200-01 TF Appendix II.ppt

# The basics: Overview of GA water supply system

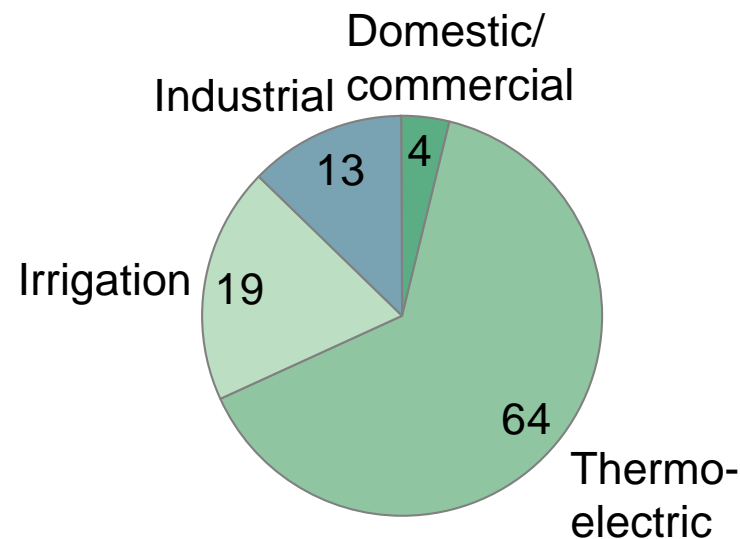
**Water sources very different for Metro ATL vs GA**



**Public supply = 22% of GA withdrawals**



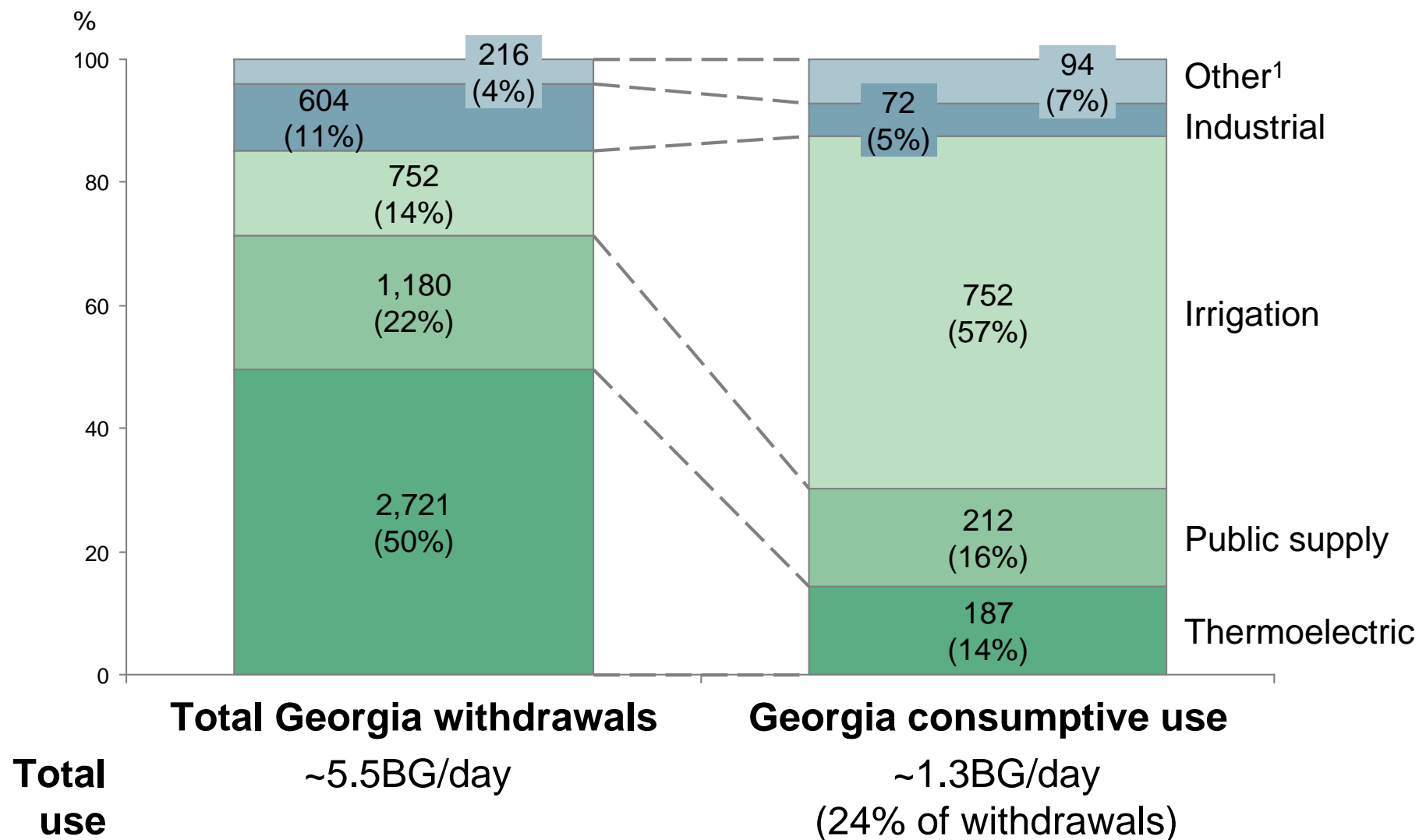
**Self supply = 78% of GA withdrawals**



**Very high reliance on surface water**

Source: USGS "Water Use in Georgia by County for 2005; and Water-Use Trends, 1980-2005"

# Important to distinguish between total withdrawals and consumptive use



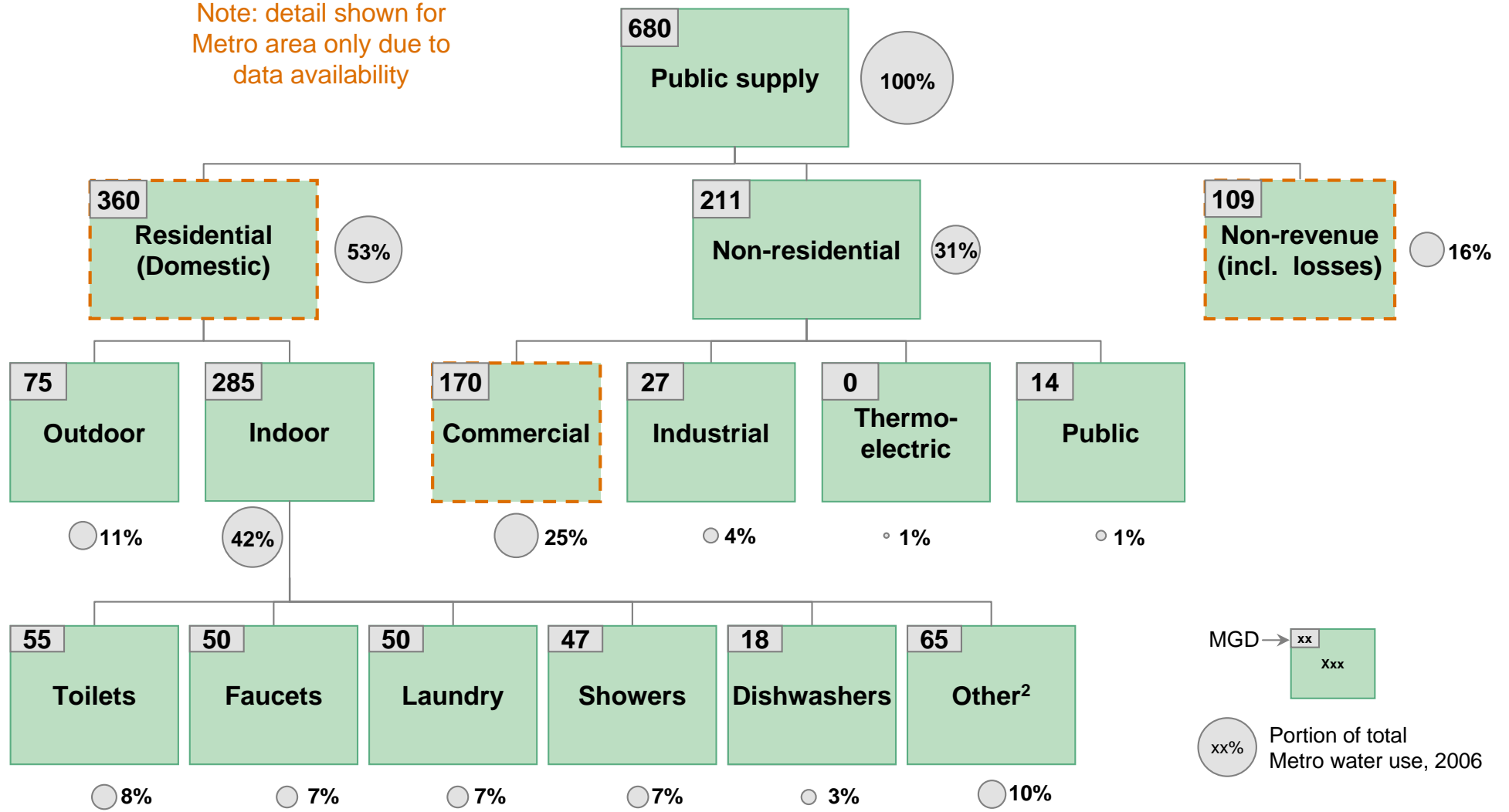
1. Includes Domestic and Commercial, and Livestock categories

Note: percentages may not sum to 100 due to rounding

Source: USGS "Water Use in Georgia by County for 2005; and Water-Use Trends, 1980-2005"

# Roughly 95% of Metro public supply water use occurs in residential / commercial uses, or system losses

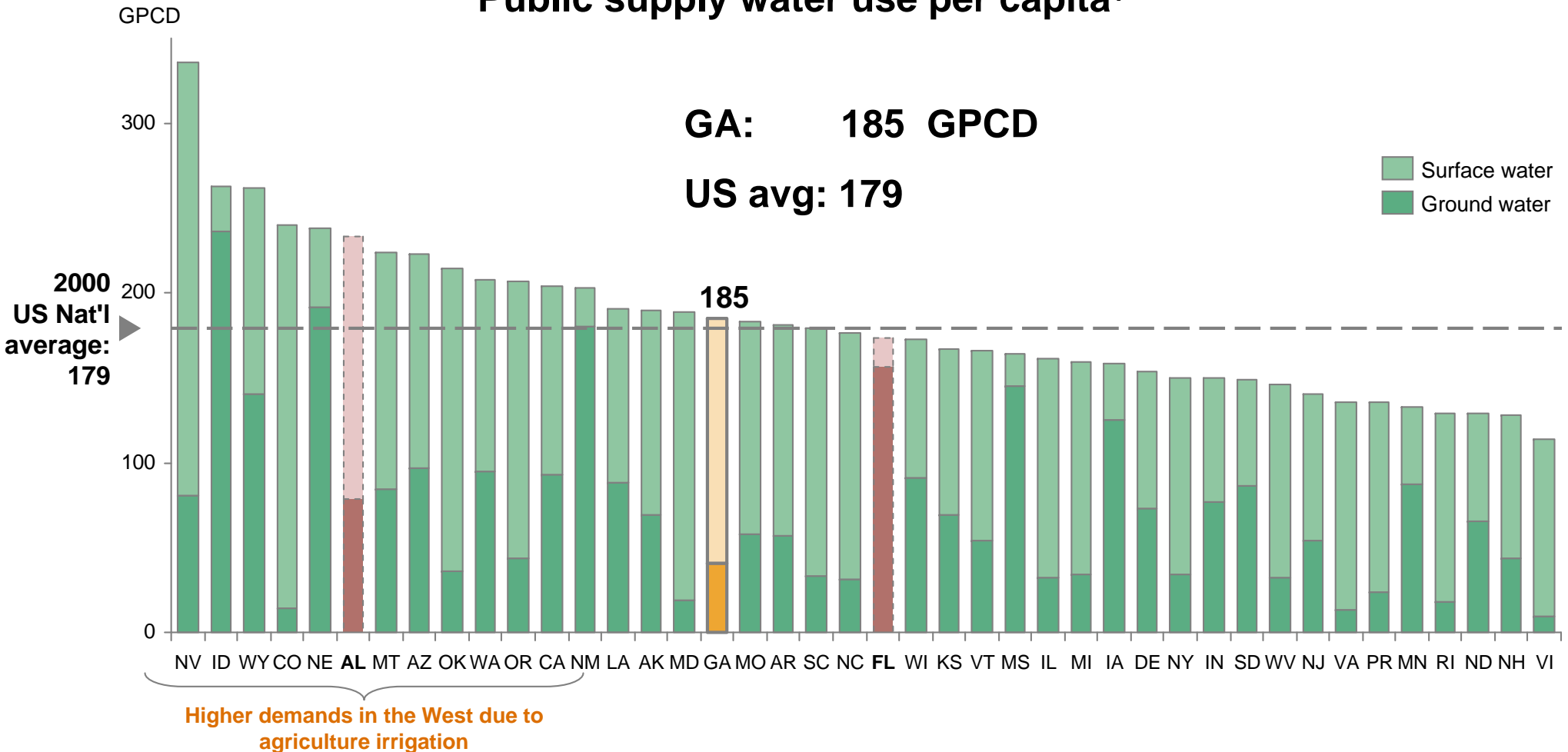
Note: detail shown for Metro area only due to data availability



1. Includes apparent losses (meter inaccuracies, data errors, etc) and real losses (leakage, breaks, overflows, etc) 2. "Other" category not defined in Metro plan  
 Source: Metro North GA Water Plan (May 2009)

# GA public supply use was slightly above average in 2000

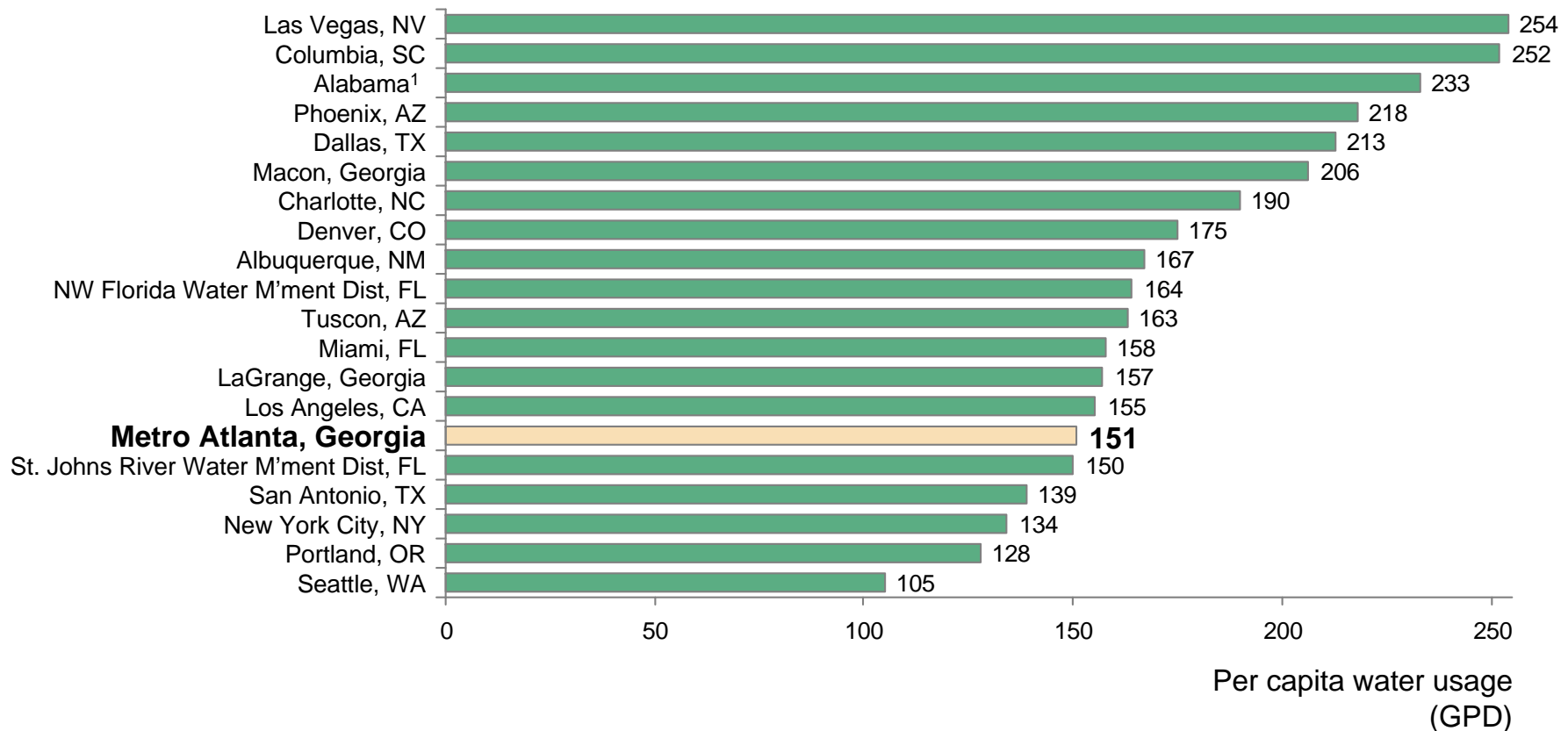
Public supply water use per capita<sup>1</sup>



1. Per capita water consumption = consumption of total public supply water divided by # of people served by public supply water in state  
 Note: Public supply refers to water withdrawn by public and private water suppliers for domestic, commercial, industrial, or thermoelectric-power purposes  
 Source: US Geological Survey 2000 data

# Water usage in Metro Atlanta lower than many metro cities across the US in study by Georgia EPD

## Georgia EPD report overall per capita public supply water use across metro cities in gallons per capita per day



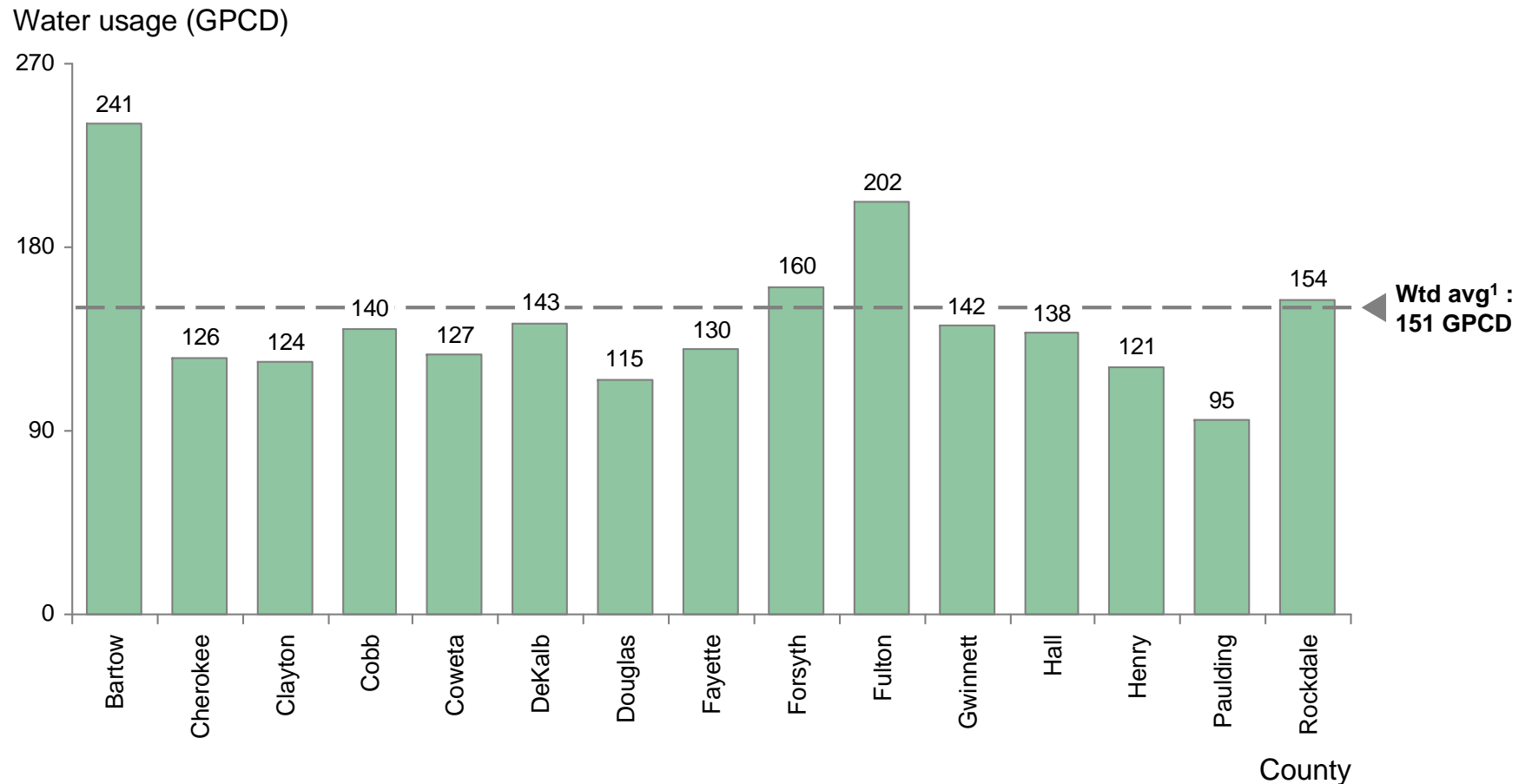
1. State average; data not available for individual cities in AL

Note: Overall per capita is calculated by dividing total gallons of water produced by water provider by the population served

Source: Georgia EPD analysis

# Total per capita public supply water use by county in 2006

Total per capita public supply water usage in 2006



1. Weighted average based on population

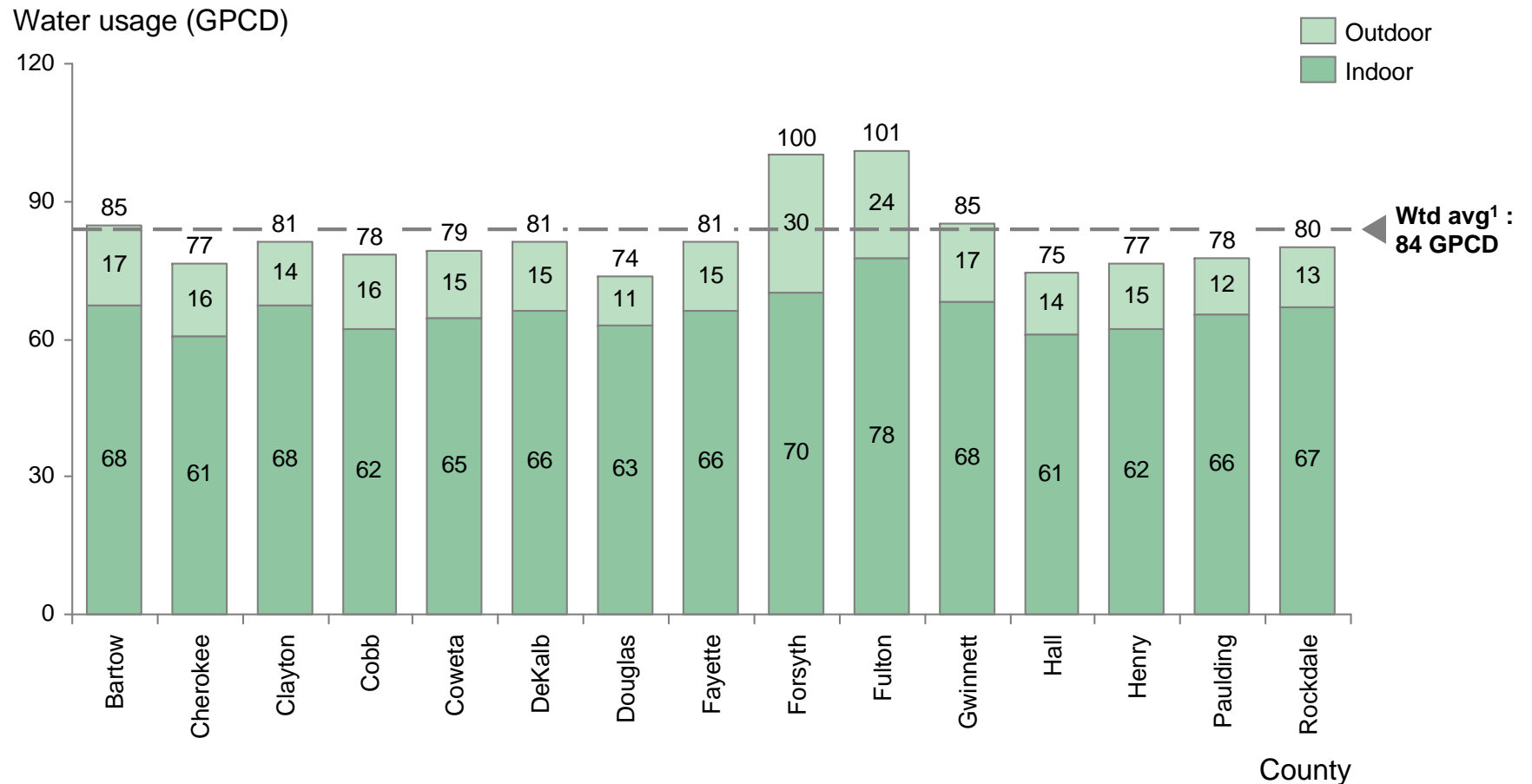
Note: Total adjusted per capita usage includes all public supply demand including residential, commercial, industrial, irrigation, and non-revenue water divided by total population

Source: Metro North Georgia District Plan (May 09)



# Residential per capita water usage by county in 2006

Residential per capita water usage by indoor vs outdoor use in 2006



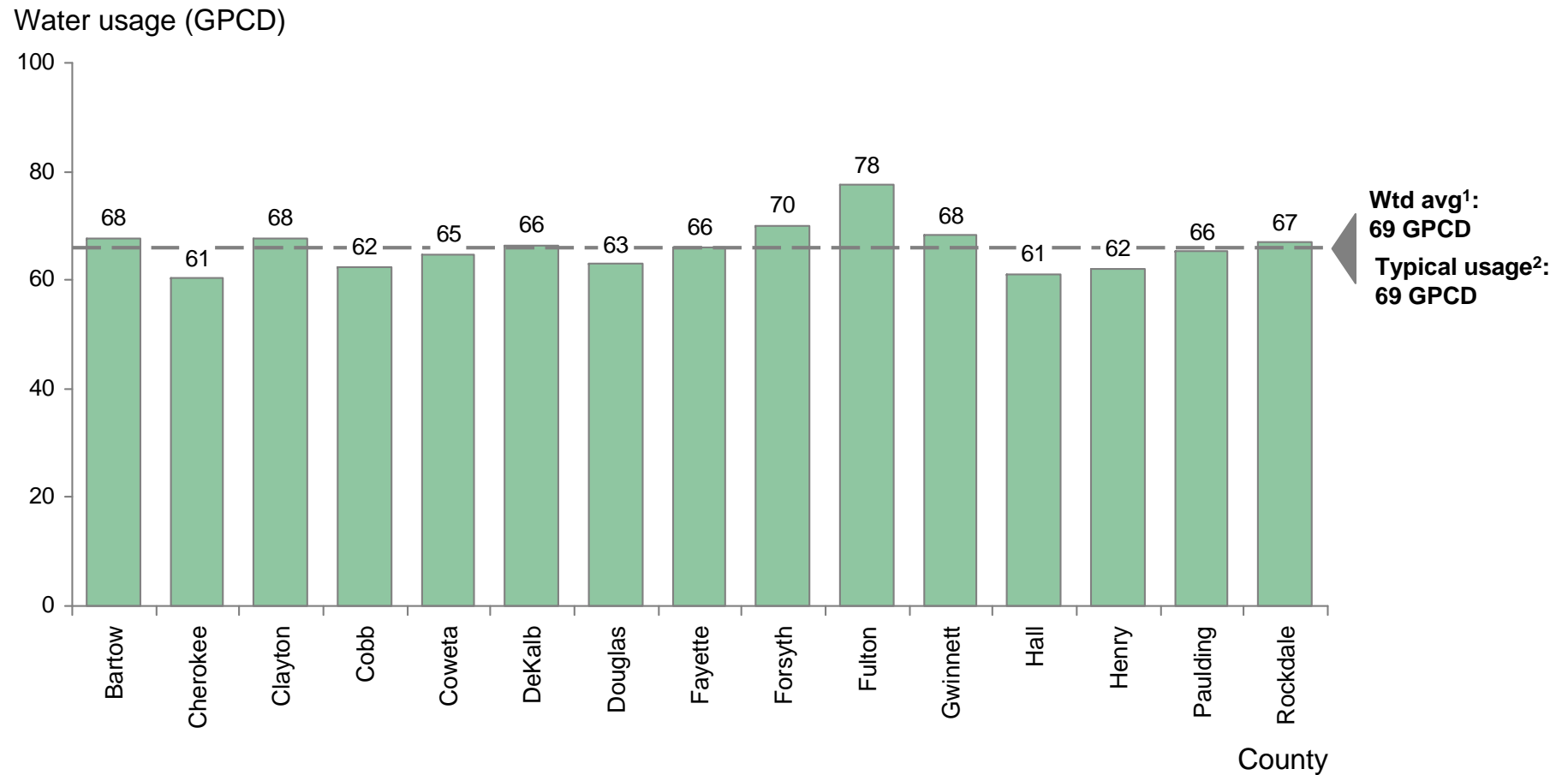
1. Weighted average based on population

Note: Residential usage for public supplied water and population only, with outdoor usage defined as all use above the winter minimum level

Source: Metro North Georgia District Plan (May 09)

# Residential indoor water usage by county in 2006

Residential indoor per capita water usage in 2006



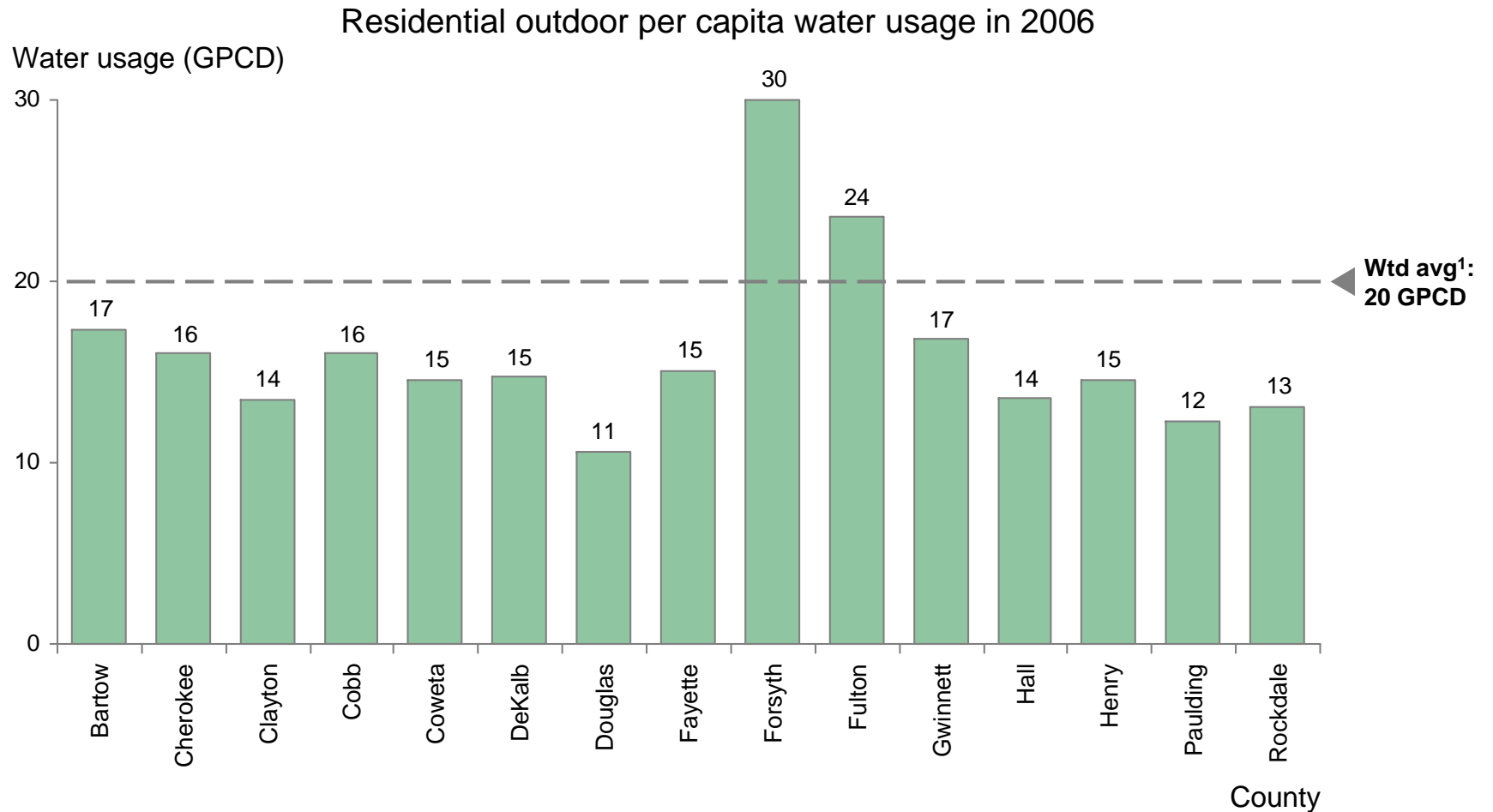
1. Weighted average based on population

2. Typical indoor residential usage reported by AWWA

Note: Residential usage for public supplied water and population only

Source: Metro North Georgia District Plan (May 09), American Water Works Association

# Residential outdoor water usage by county in 2006



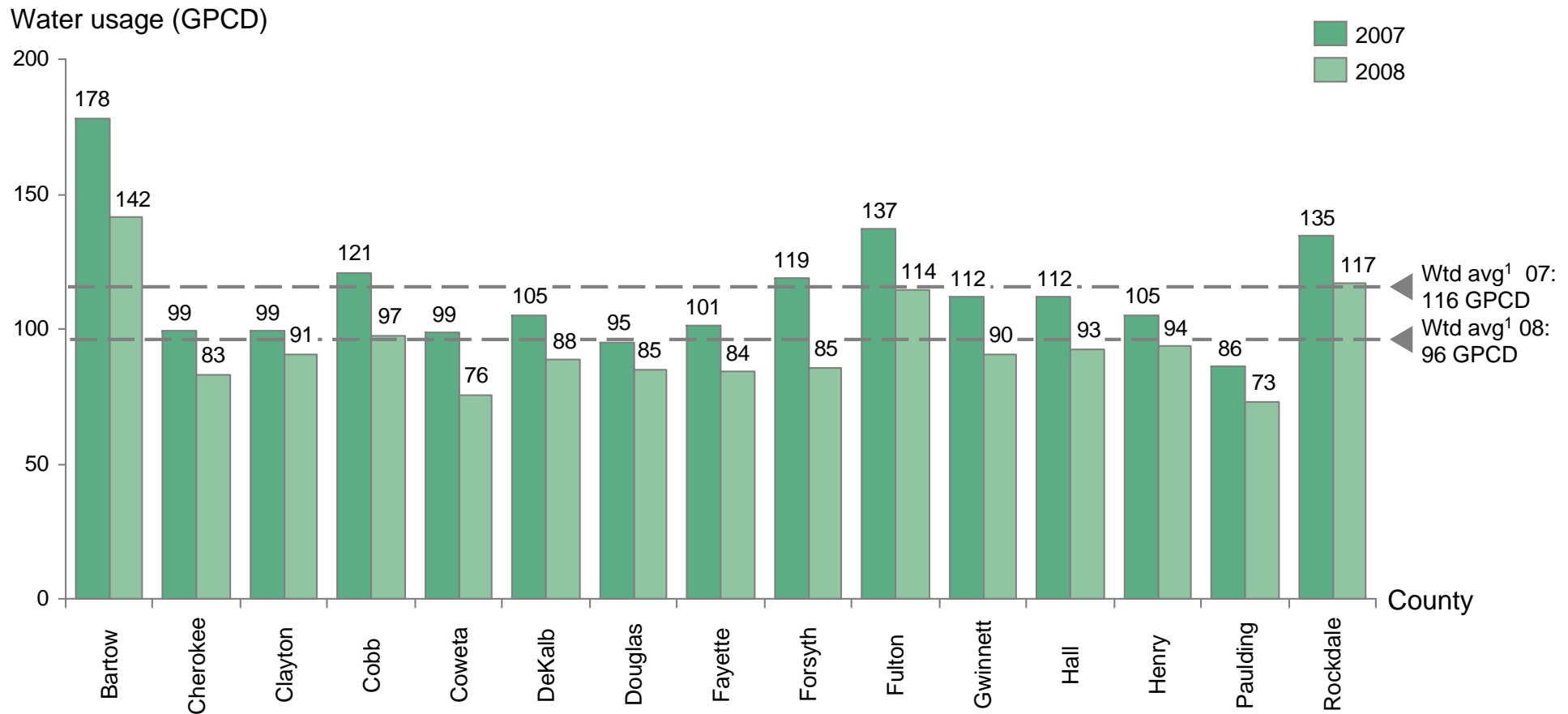
1. Weighted average based on population

Note: Residential usage for public supplied water and population only, with outdoor usage defined as all use above the winter minimum level

Source: Metro North Georgia District Plan (May 09)

# Total per capita public supply water usage in 2007 and 2008 recorded by EPD during Level IV drought restriction

Total per capita public supply water usage in 2007 and 2008



1. Weighted average based on population

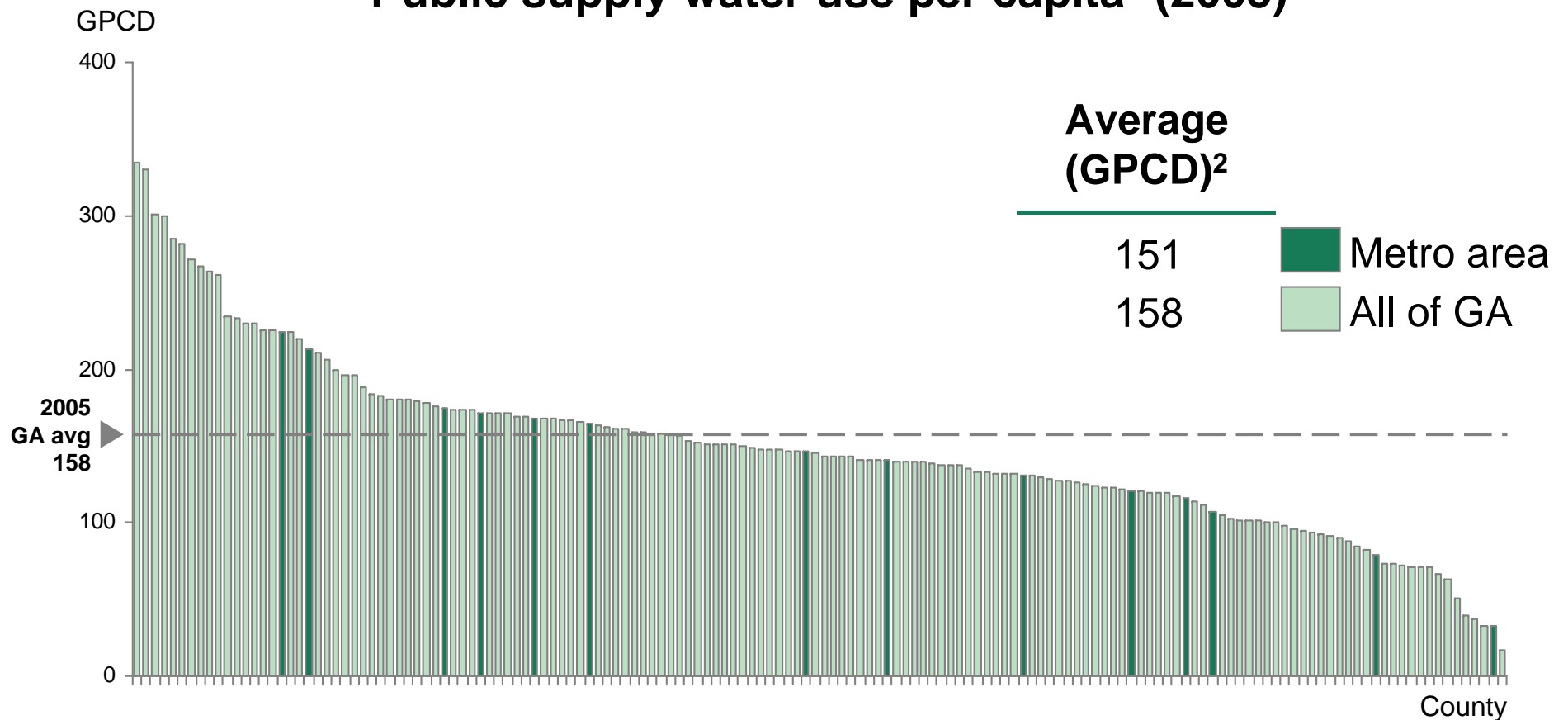
Note 1: Total adjusted per capita usage includes all public supply demand including residential, commercial, industrial, irrigation, and non-revenue water divided by total population

Note 2: 2007 and 2008 per capita usage not directly comparable to 2006 per capita usage as indicated in Metro North GA District Plan due to varying data sources for water usage data

Source: GA EPD

# Large variation in public supply use among GA counties

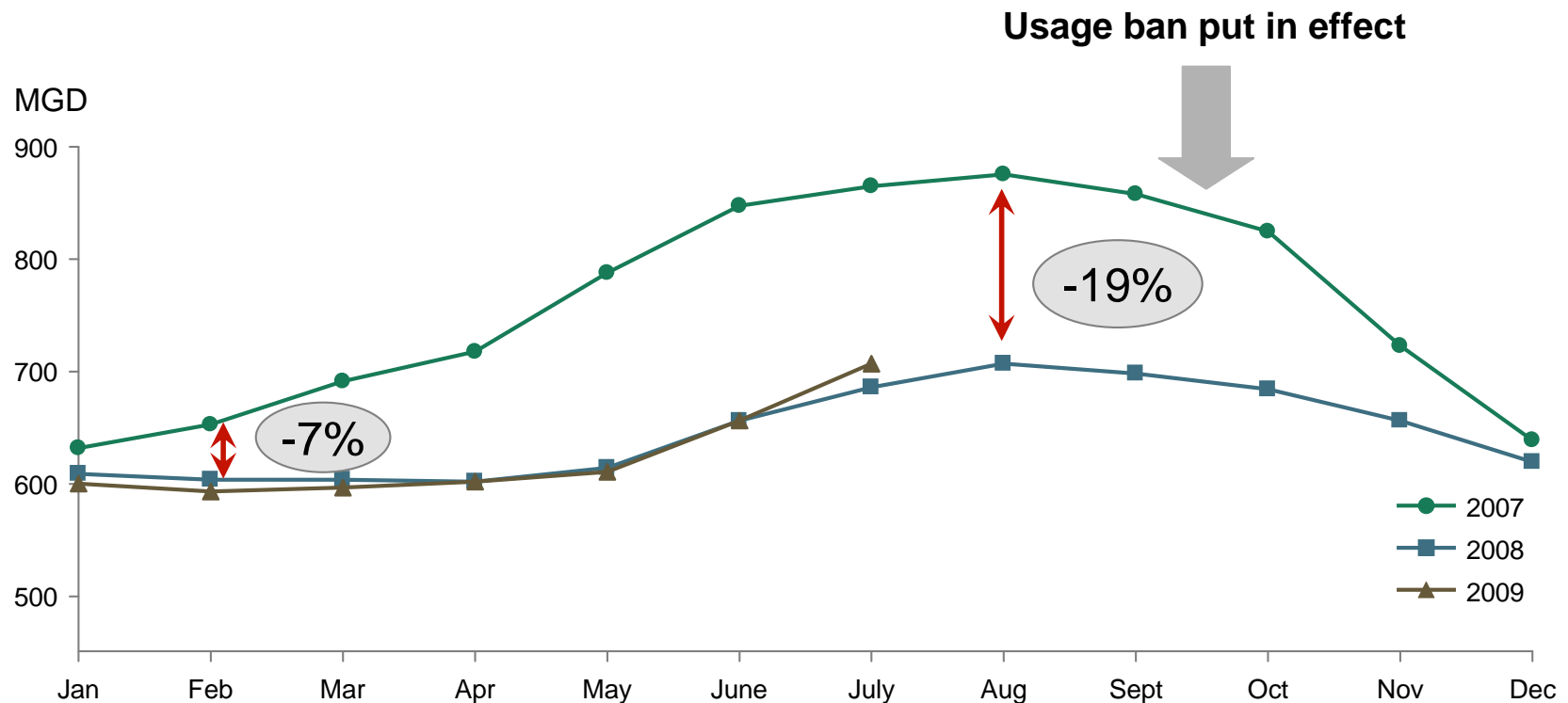
## Public supply water use per capita<sup>1</sup> (2005)



1. "Public supply" use divided by population served by public supply , by county 2. Metro average reported in Metro Water Plan, May 2009 and by EPD; GA average reported by USGS Source: USGS "Water Use in Georgia by County for 2005; and Water-Use Trends, 1980–2005"; Metro North GA Water Supply and Water Conservation Management Plan (May 2009)

# Substantial usage reduction achieved in 2008 and 2009

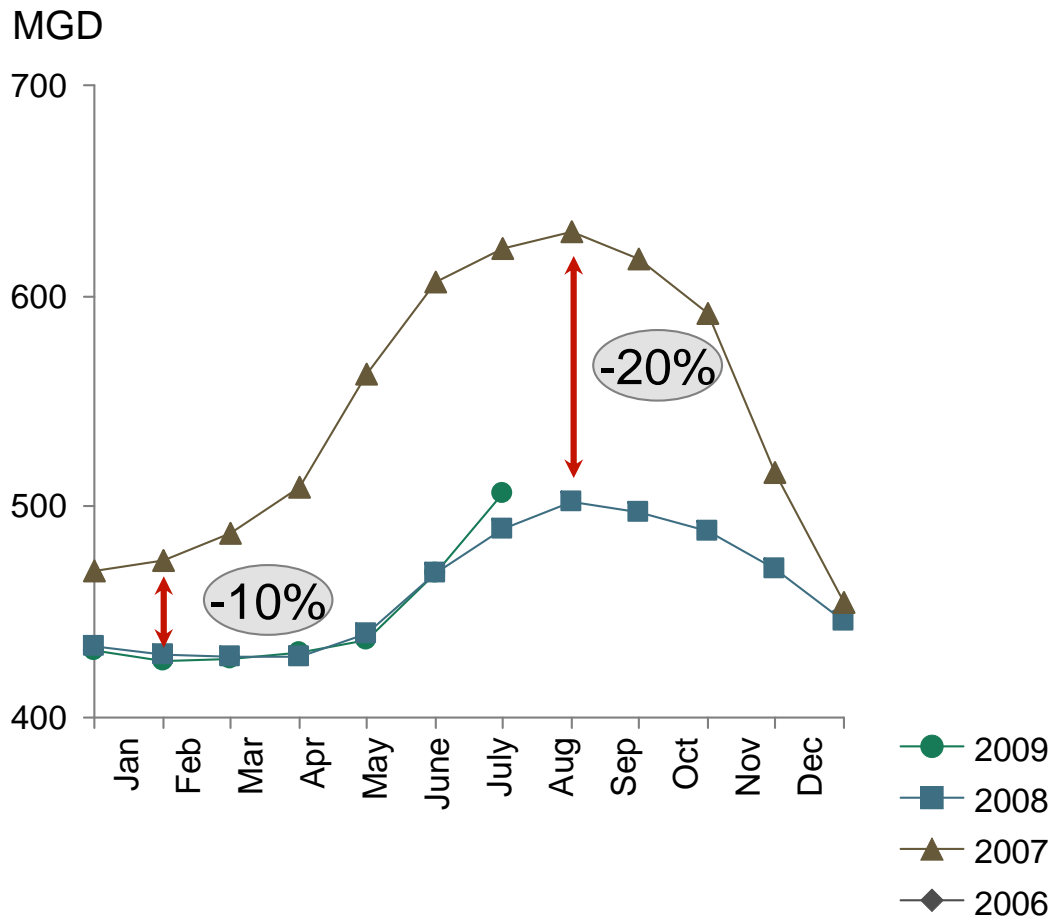
## GA EPD usage data from former 55 county Level 4 drought response area<sup>1</sup>



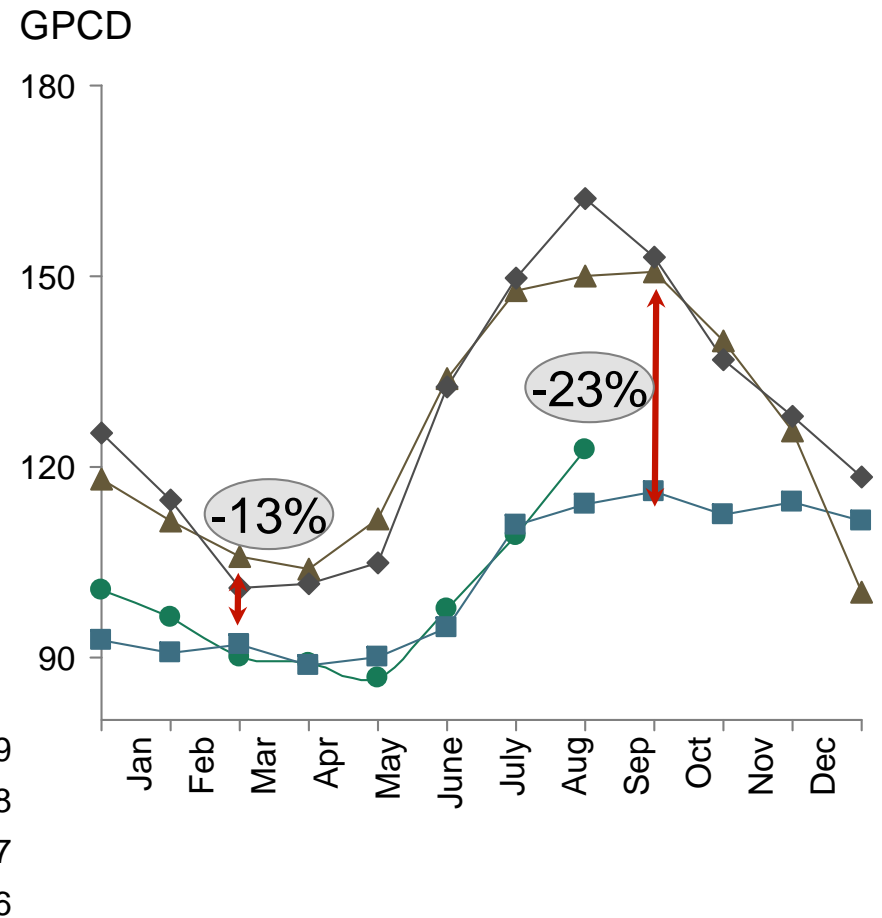
1. Values shown are 3-month rolling average withdrawals  
 Note: Data shows total withdrawals by county by month (to include all end uses); analysis shown for 55 county area due to data availability  
 Source: GA EPD data

# Slightly higher reductions achieved in Metro area counties

## GA EPD data for 15 Metro ATL counties



## Cobb County usage data (per capita)



Note: Analysis shown for 55 county area due to data availability; 3-month rolling average per capita use shown  
 Source: GA EPD data from former 55 county Level 4 drought response area; Cobb County Water System data