



Georgia's  
**State Water Plan**

Industrial Water and Wastewater Demand Forecasts

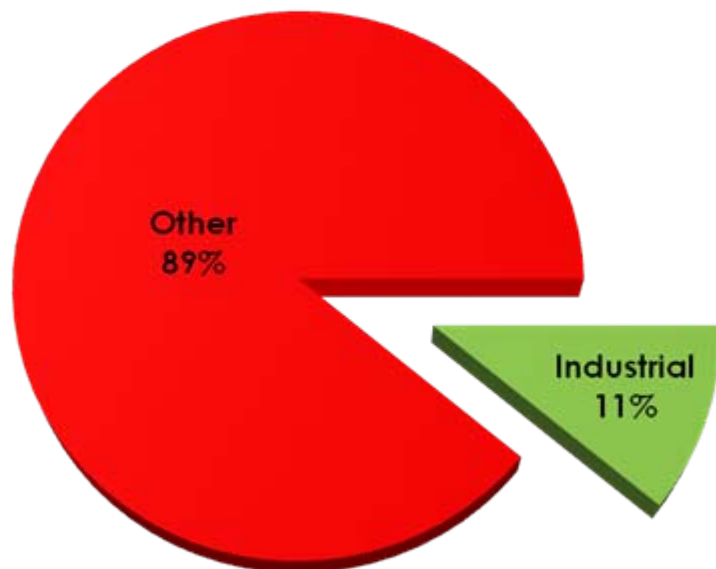
[www.georgiawaterplanning.org](http://www.georgiawaterplanning.org)

# Demand Forecasting Categories

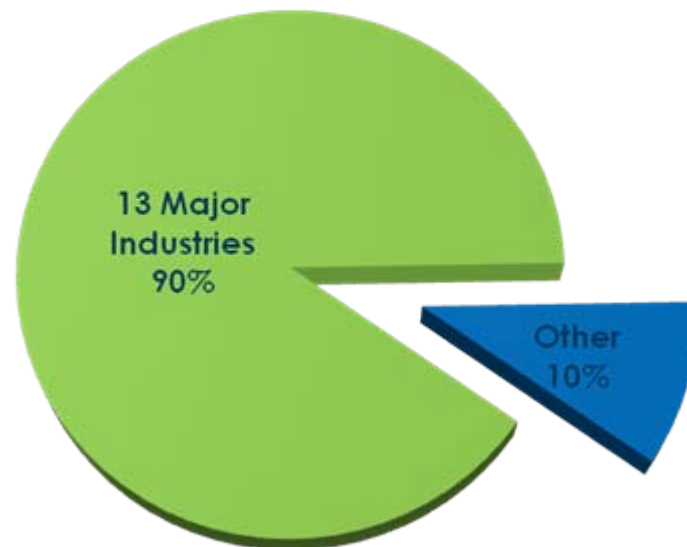
- **Agricultural** – Major forecasts complete; evaluating if/how to incorporate smaller use/unpermitted sectors
- **Energy** – Forecasts under development with assistance from power/energy companies
- **Municipal** – Includes residential, commercial, and light industrial water use
- **Industrial** – Major water using industries

# Industrial Water Withdrawal Percentages

Industrial Water Withdrawals  
as a Percent of Total  
Withdrawals in Georgia



Combined Withdrawals of 13  
Major Industries as a Percent  
of Total Industrial Withdrawal  
in Georgia



# Preliminary Forecasts

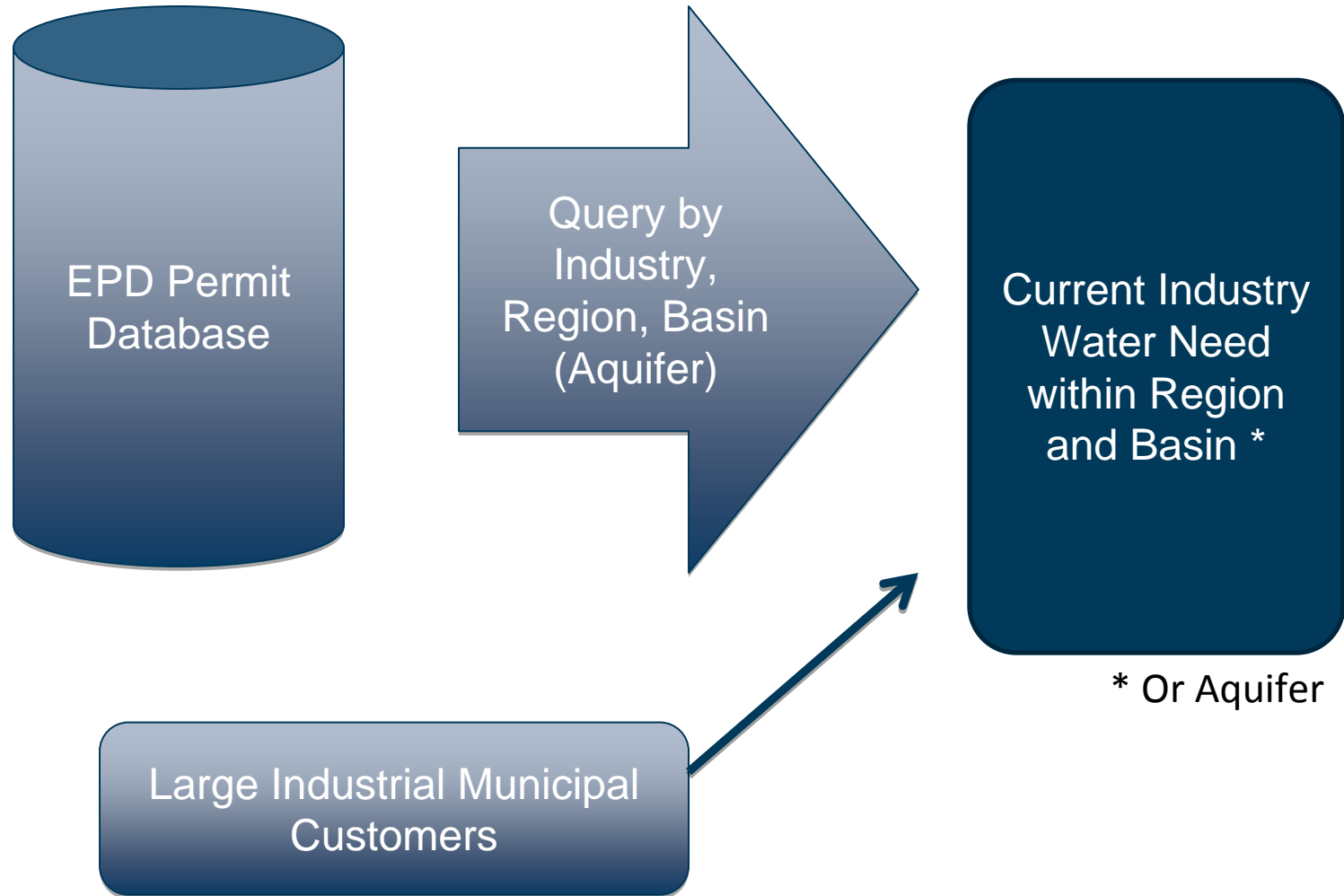
- Based on the continuation of current trends and practices into the future
- Excluding any new management practice that may alter demands
- To ensure confidentiality, specific industry data will not be presented
- Basis for regional water planning, not for making individual permit decisions

**To ensure confidentiality, specific industry data will not be presented**

# Major Water-Using Industries in Georgia

Industry	SIC Code	NAICS Code	Industry	SIC Code	NAICS Code
Mining	14	212	Petroleum	29	324
Food	20	311	Rubber	30	326
		312			
Textiles	22	313	Stone and Clay	32	327
		314			
Apparel	23	315	Primary Metals	33	331
Paper	26	322	Fabricated Metal Products	34	332
Chemicals	28	325	Electric Machinery	36	335

# Industrial Water Needs (Withdrawals) by Basin



# Water Need (Withdrawals) Increases at Employment Rate of Growth



\* Or Aquifer

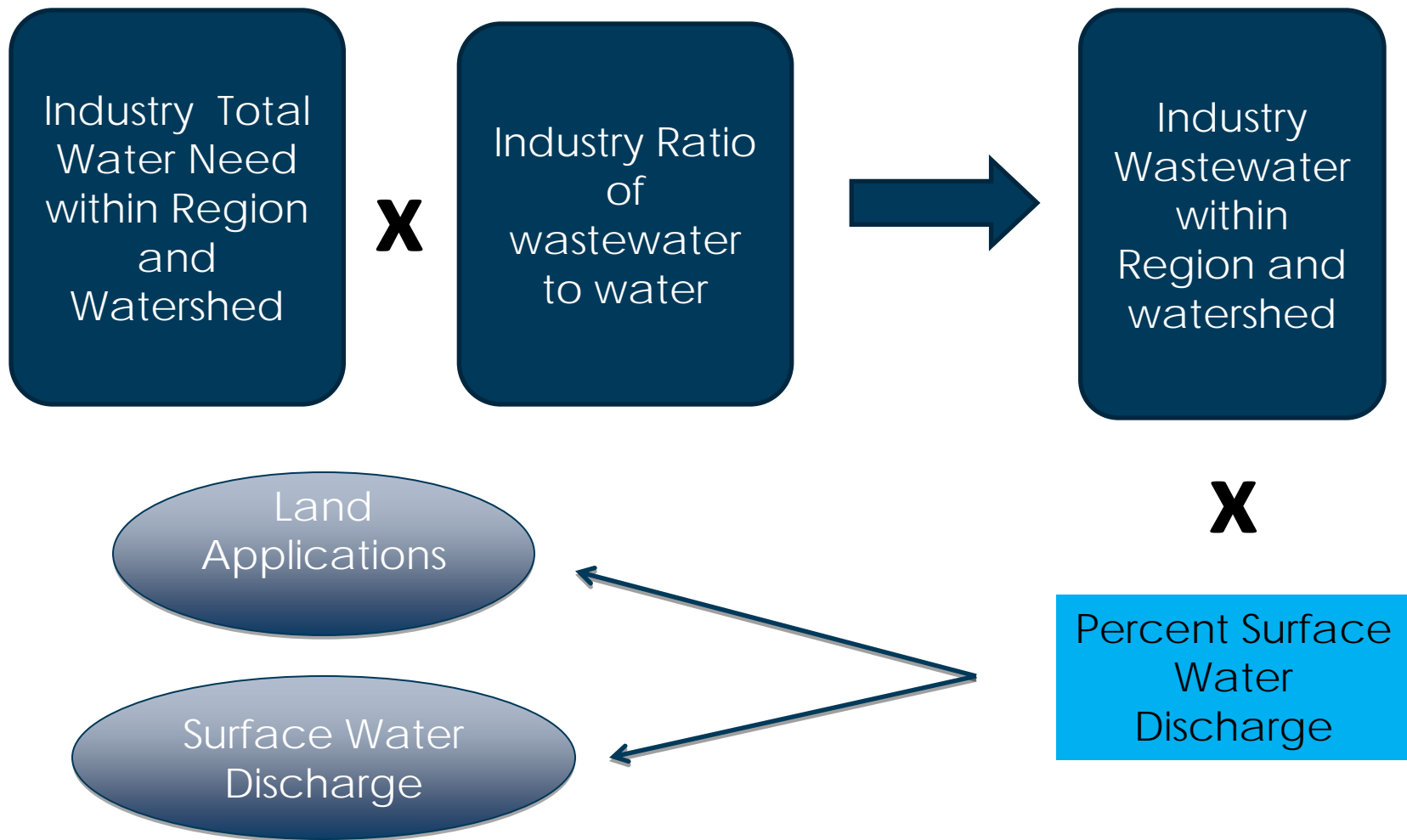
- Without production data, water need is a function of employment
- Except for efficiency improvements, water need will remain constant if employment does not grow (i.e., water need will not decrease)
- The projection of future water need may be adjusted for industry production if adequate, credible data are publicly available

# Region Industrial Water Demand Forecast

NAICS	Category	Surface Water		Groundwater		Municipal		Total	
		2010	2050	2010	2050	2010	2050	2010	2050
0	Other Industrial	-	-	-	-	-	-	-	-
212	Mining	PENDING							
311	Food- Food Manufacturing	PENDING							
312	Food- Beverage and Tobacco	PENDING							
313	Textiles- Textile Mills	2.2	2.2	-	-	-	-	2.2	2.2
314	Textiles- Textile Product Mills	PENDING							
315	Apparel	-	-	-	-	-	-	-	-
322	Paper	-	-	-	-	-	-	-	-
324	Petroleum	-	-	-	-	-	-	-	-
325	Chemicals	-	-	-	-	-	-	-	-
326	Rubber	-	-	-	-	-	-	-	-
327	Stone and Clay	PENDING							
331	Primary Metals	0.1	0.1	-	-	-	-	0.1	0.1
332	Fabricated Metal Products	-	-	-	-	-	-	-	-
335	Electrical Machinery	-	-	-	-	-	-	-	-
336	Automotive Manufacturing	-	-	-	-	-	-	-	-
	<b>Total</b>	2.3	2.3	0.1	0.1	-	-	2.4	2.4



# Regional Industrial Wastewater Demand



# Region Industrial Wastewater Forecast

NAICS	Category	Surface Discharge		Land Application		Total MGD	
		2010	2050	2010	2050	2010	2050
0	Other Industrial	-	-	-	-	-	-
212	Mining	<b>PENDING</b>					
311	Food - Food Manufacturing	<b>PENDING</b>					
312	Food - Beverage and Tobacco	<b>PENDING</b>					
313	Textiles - Textile Mills	1.9	1.9	-	-	1.9	1.9
314	Textiles - Textile Product Mills	<b>PENDING</b>					
315	Apparel	-	-	-	-	-	-
322	Paper	-	-	-	-	-	-
324	Petroleum	-	-	-	-	-	-
325	Chemicals	-	-	-	-	-	-
326	Rubber	-	-	-	-	-	-
327	Stone and Clay	<b>PENDING</b>					
331	Primary Metals	0.1	0.1	-	-	0.1	0.1
332	Fabricated Metal Products	-	-	-	-	-	-
335	Electrical Machinery	-	-	-	-	-	-
336	Automotive Manufacturing	-	-	-	-	-	-
	<b>Total</b>	<b>2.1</b>	<b>2.1</b>	<b>-</b>	<b>-</b>	<b>2.1</b>	<b>2.1</b>

# Industry Stakeholder Input

- EPD convened a meeting of industry representatives on August 18, 2009
- Representatives of the carpet, mining, pulp & paper, and food manufacturing industries provided information relative to future water use in the state for those industries
- Industry water forecasts will be compared with information provided by these industries
- Differences between the forecasts will be discussed with industry representatives

# Municipal Water Next Steps

- Re-convene 'expanded' regional ad hoc groups to further refine county and municipal gpcd's and transient population considerations (*early December, '09*)
- Develop preliminary municipal water forecasts (*January-February, '10*)
- Hold 'presentation of preliminary forecasts' meeting (*early February, '10*)
- Refine forecasts (*February, '10*)

County	Initial Per Capita	Preliminary Adjusted Per Capita
Baker	129	
Calhoun	151	
Colquitt	158	
Decatur	199	199
Dougherty	151	
Early	148	
Grady	143	
Lee	119	
Miller	282	192
Mitchell	300	154
Seminole	159	
Terrell	196	176
Worth	133	