

Gwinnett County Sustainability Commission**Wednesday, April 17, 2024 at 5:30pm**

Gwinnett Justice and Administration Center, Second Floor,
Facilities Management Conference Room C,
75 Langley Drive, Lawrenceville, Georgia 30046

Present: Robert Blatecky, Krupesh Patel, Dr. Marshall Shepherd, Dr. Candace Timpfe

Absent: Daniel Hilton

Resident Attendees: In person: 0; Online: 2

Employee Attendees: In person: 7; Online: 1

1. Call to Order

Robert Blatecky, Chairperson, called the meeting to order and welcomed everyone at 5:40pm.

2. Approval of Agenda

{Action: Approved: Timpfe; Second: Shepherd; Vote: 4-0; Blatecky-Yes; Patel-Yes; Shepherd-Yes; Timpfe-Yes}

3. Approval of Minutes

The March 20, 2024 meeting minutes were approved.

{Action: Approved: Timpfe; Second: Patel; Vote: 4-0; Blatecky-Yes; Patel-Yes; Shepherd-Yes; Timpfe-Yes}

4. Sustainability Officer and GCSC member updates

Mendie White, Gwinnett County Sustainability Officer, mentioned that the Equity Officer started in the position on Monday, (4/15). In addition to, Mendie mentioned that the solid waste master plan is currently being worked on. Rob Blatecky, Chairperson, thanks Dr. Shepherd for providing updates to his assigned commissioner. Rob informed the GCSC members of the business practice policies pertaining to the county. Dave Mogge, Gwinnett County Support Services Deputy Director, responded to Rob's question regarding EV charging and mentioned that it will be advertised to bid in May. Rob thanks Dr. Shepherd for assisting with providing a speaker for the meeting in May.

5. Speaker Presentation - Charlie Roberts, Deputy Director, Facility Operations, Dept of Water Resources - Update on ways our Wastewater Treatment is a Sustainable practice. Presentation Topics included the mission statement and history of the Department of Water Resources, current and past challenges for the department, the strategies being implemented by the department, and the processes for wastewater treatment.

Discussion topics included the water usage split for residential and commercial sectors, the landscape of the F. Wayne Hill Water Resources Center, the impact of rain intensity and lightning on water treatment, discussion of the return on investment for water treatment, and the impact of server farms on water resources.

6. Public Comments

No public comments were made.

7. Adjournment

The meeting was adjourned at 6:56pm.

{Action: Approved: Patel; Second: Shepherd; Vote: 4-0; Blatecky-Yes; Patel-Yes; Shepherd-Yes; Timpfe-Yes}



Department of Water Resources

Charlie Roberts
Deputy Director

Department of Water Resources



Water and
Wastewater Utility



Stormwater Utility



Mission: Superior water service
at an excellent value

1 Million+
Residents
served by
600 Employees

**Protect
Public Health**

A brief history

- **1818** – Gwinnett County Founded
- **1890** – Wastewater treatment becomes a thing (but not in Georgia)
- **1908** – Chlorine used to disinfect drinking water
- **1948** – Federal Water Pollution Control Act



Buford Dam Groundbreaking, 1950



Governor Herman Talmadge at the groundbreaking ceremony for Buford Dam, Buford, Georgia, March 2, 1950.



(left to right) Gov. Herman Talmadge, H. Weldon Garner, E. L. Hart, Mayor W. B. Hartsfield, Larry Kleckley, Col. B. L. Robinson and Roy Otwell

A brief history

- **1956** – Gwinnett Drinking Water Treatment begins (pop. 32,000)
- **1969** – Cuyahoga River Fire Cleveland, Ohio
- **1972** – Clean Water Act passed. Crooked Creek WRF purchased (2MGD) (pop. 84,000)
- **1974** – Safe Drinking Water Act
- **1975** – Lanier Filter Plant (pop. 120,000)
- **1982** – Yellow River WRF built (pop. 167,000)



A brief history

G4 Saturday, Dec. 9, 2000 *****

METRO

Sewage permit challenged

Groups appeal decision by state that allows flow of waste water into Lake Lanier.

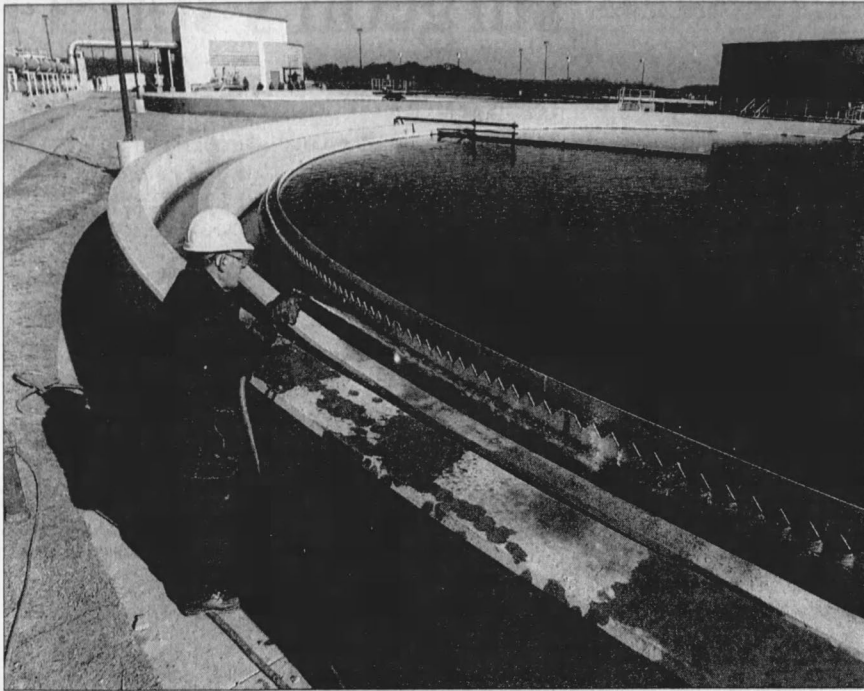
By Charles Seabrook
cseabrook@ajc.com

Warning that Lake Lanier shouldn't be tampered with, environmental and civic groups on Friday appealed a new state permit that allows Gwinnett County to discharge 40 million gallons per day of treated sewage into the lake.

"We are adamantly opposed to this permit," said Val Perry, a board member for the 6,000-member Lake Lanier Association. "We're convinced that this amount of treated sewage will degrade the lake and ruin a vital resource for the state of Georgia."

Joining the association in filing appeals on Friday were the Upper Chattahoochee Riverkeeper, the Sierra Club and Save Our Communities.

"We firmly believe that the permit, as it stands, will ultimately increase pollution loads in the lake, and as such, fails to protect the lake and the millions of people who swim, boat and fish in it every year," said Riverkeeper Director Sally Bethea. She is also



KENT D. JOHNSON / Staff

Harold Hayes, lead operator, sprays down a clarifying tank at the new treatment plant in Gwinnett.

in north Gwinnett, was dedicated earlier this week. It is considered a model of safeguards and technology and has drawn admirers from as far away as Paris. "This plant has to become the standard

North Georgia.

"The state has authorized Gwinnett to discharge a virtual river of treated sewage into the lake without studying the long-term impacts of the discharge on

Communities.

The groups challenged Gwinnett officials' claim that the treated waste water will be cleaner than drinking water. If that is the case, the county should

- **1988 thru 1998** – Numerous expansions to Facilities, planning efforts, and lots of construction.
- **2000** – F Wayne Hill WRC comes online (20MGD) (pop. 588,000)
- **2003** – Shoal Creek Filter Plant comes online (98 MGD) (pop. 663,000)
- **2010** – FWH begins discharging to Lake Lanier (pop. 805,000)



Gwinnett

Challenges



Drought

- 1954 – 1955
- 1986 – 1988
- 1999 – 2001
- **2006 – 2008**
- 2010 – 2012
- 2016 – 2017

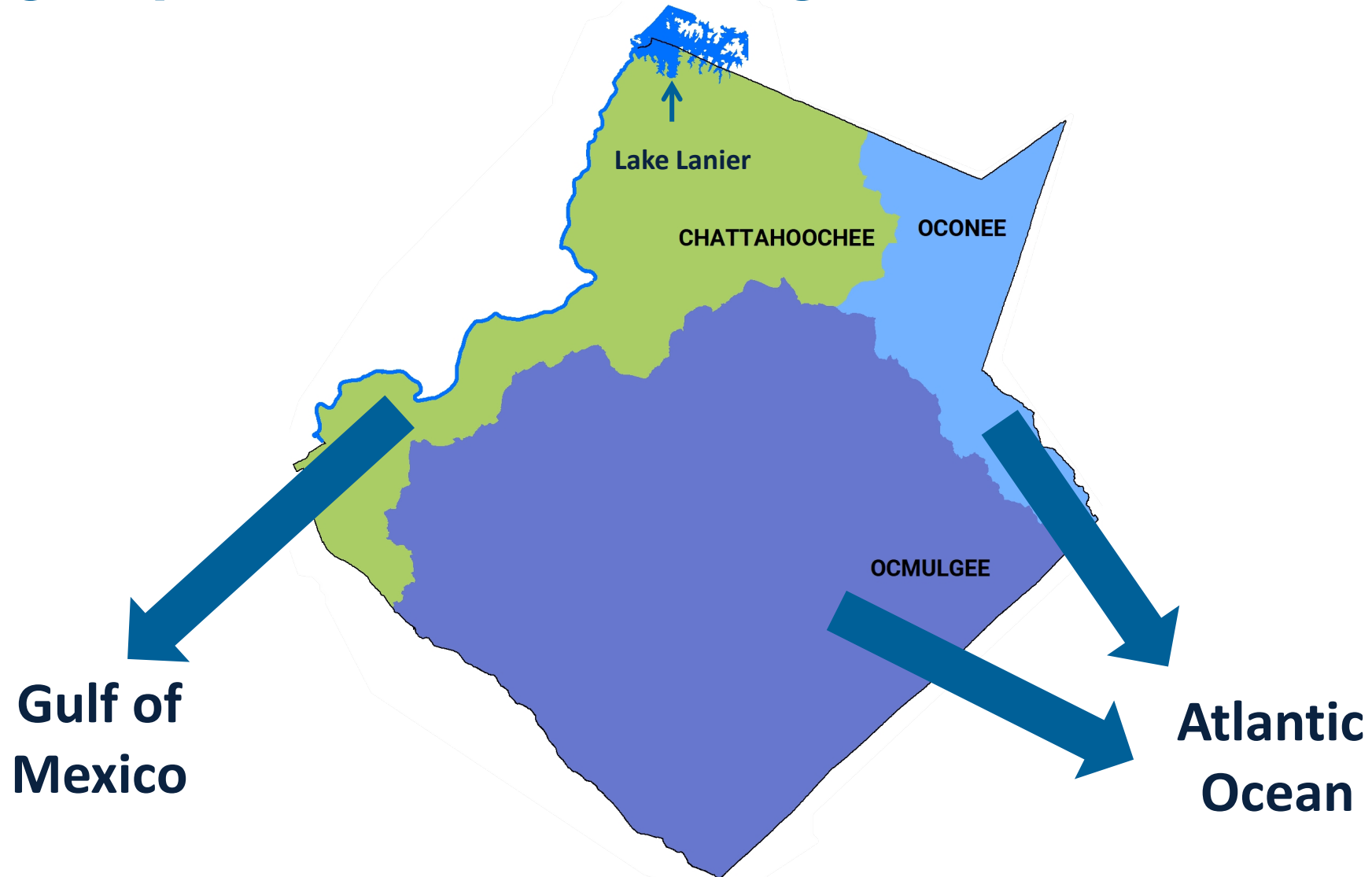


The Challenge of Competition for Water

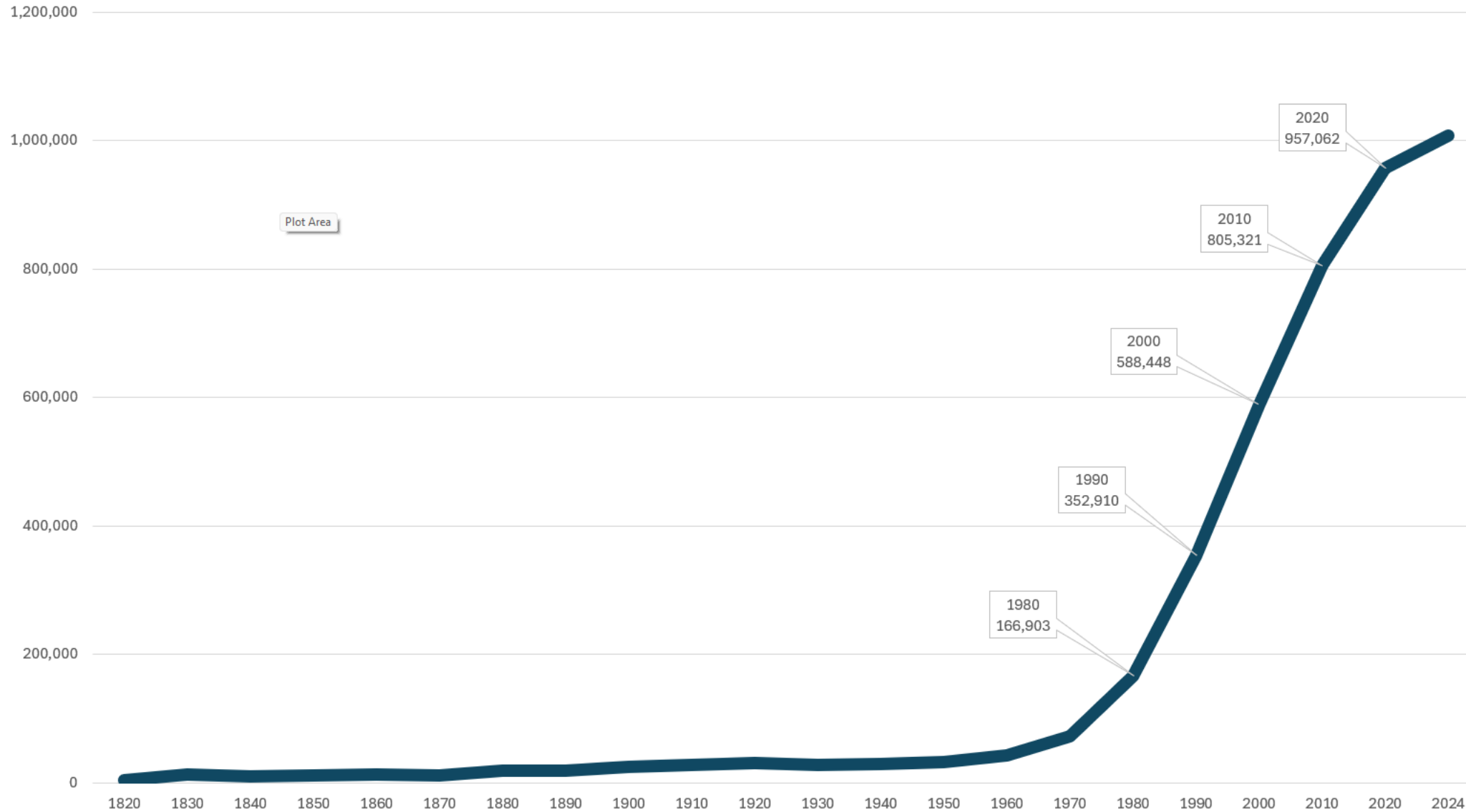
- ACF Basin goes through three states
- Lake Lanier has only 5% of the drainage basin but has 65% of the reservoir storage in the ACF
- Tri-state water wars ongoing since 1990
- On average Atlanta area uses 1% of the water that reaches Florida
- In 2022, Gwinnett signed Water Storage Sub-Contract with State of Georgia securing Gwinnett's water supply for the future in Lake Lanier



Geographical Challenges



Population Growth





Gwinnett

Strategies



Water Conservation

Low Flow Fixtures

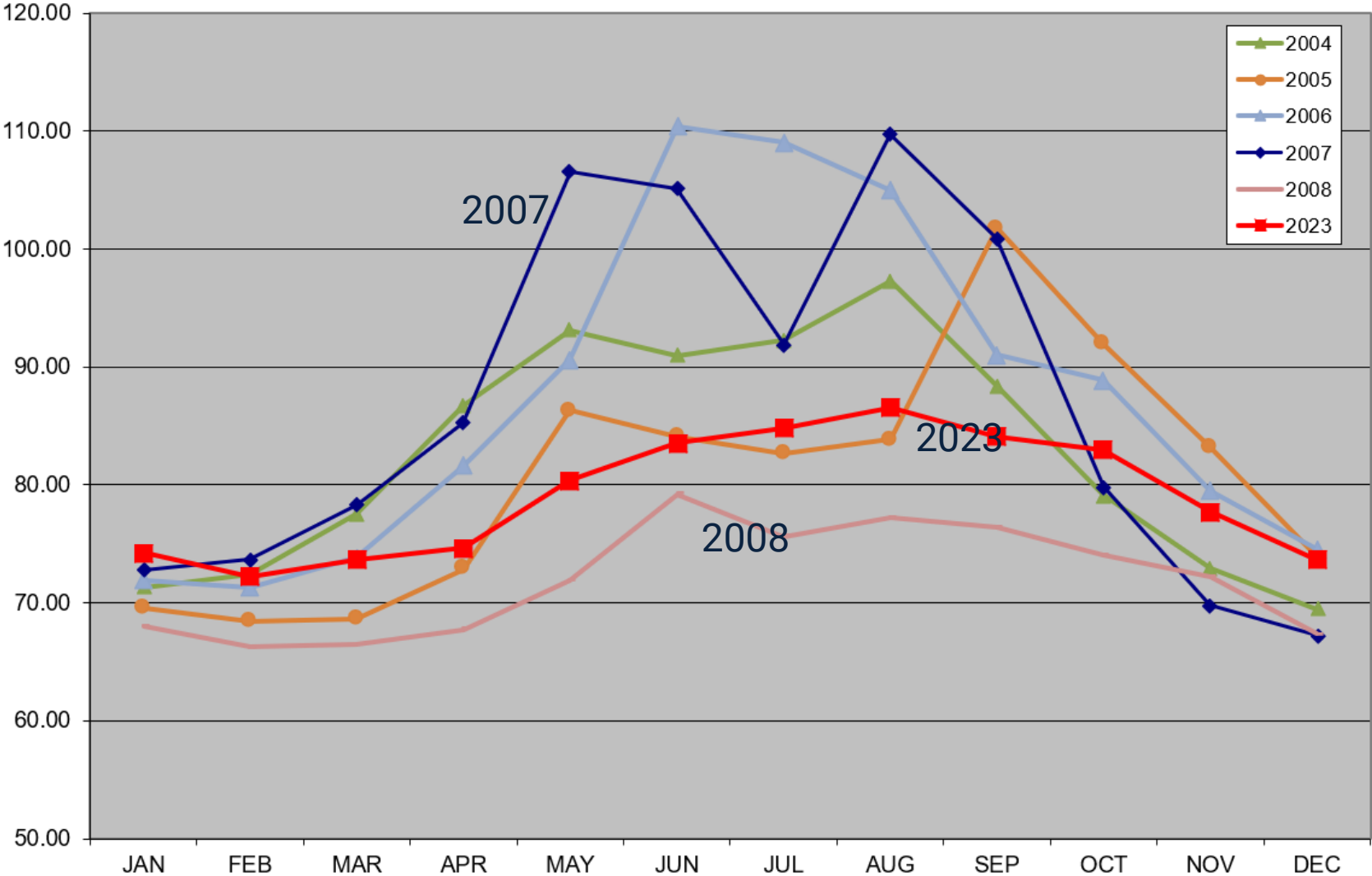
Toilet Replacement Rebate Program

Tiered Rate Structure

Drought Action Plan

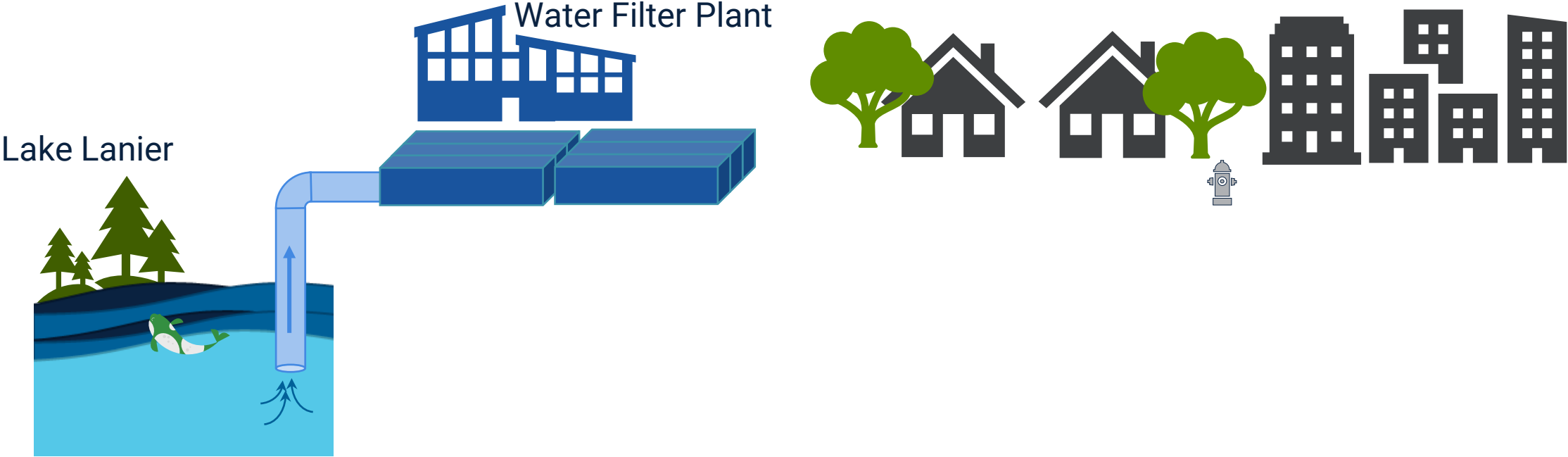
Water Conservation

Gwinnett County Water Production, Avg. MGD



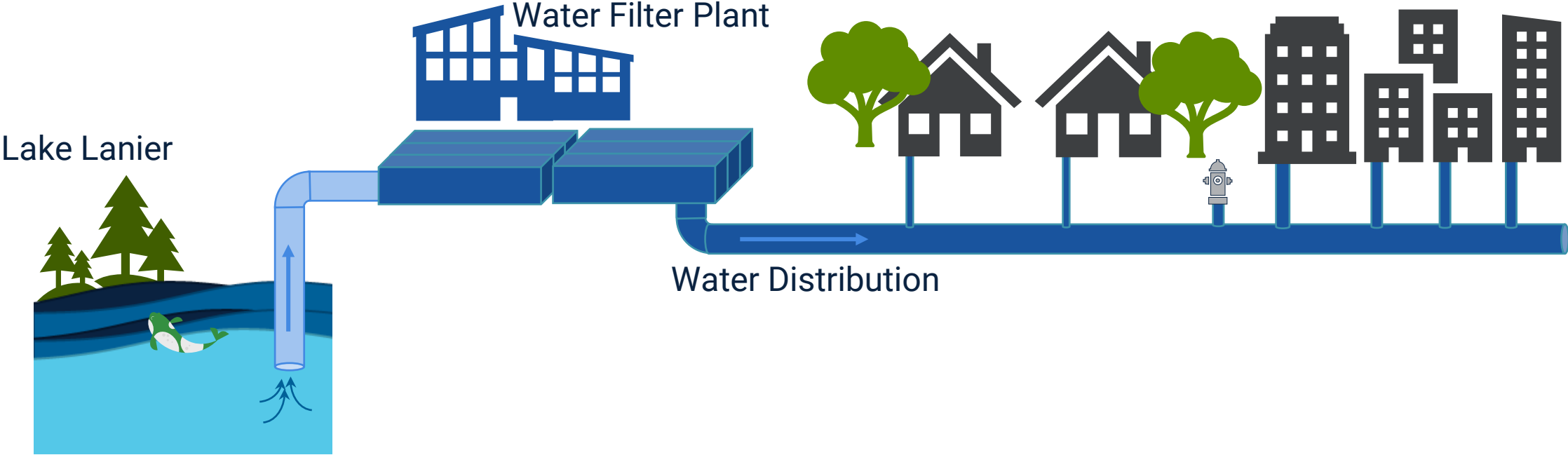


Gwinnett Water Cycle

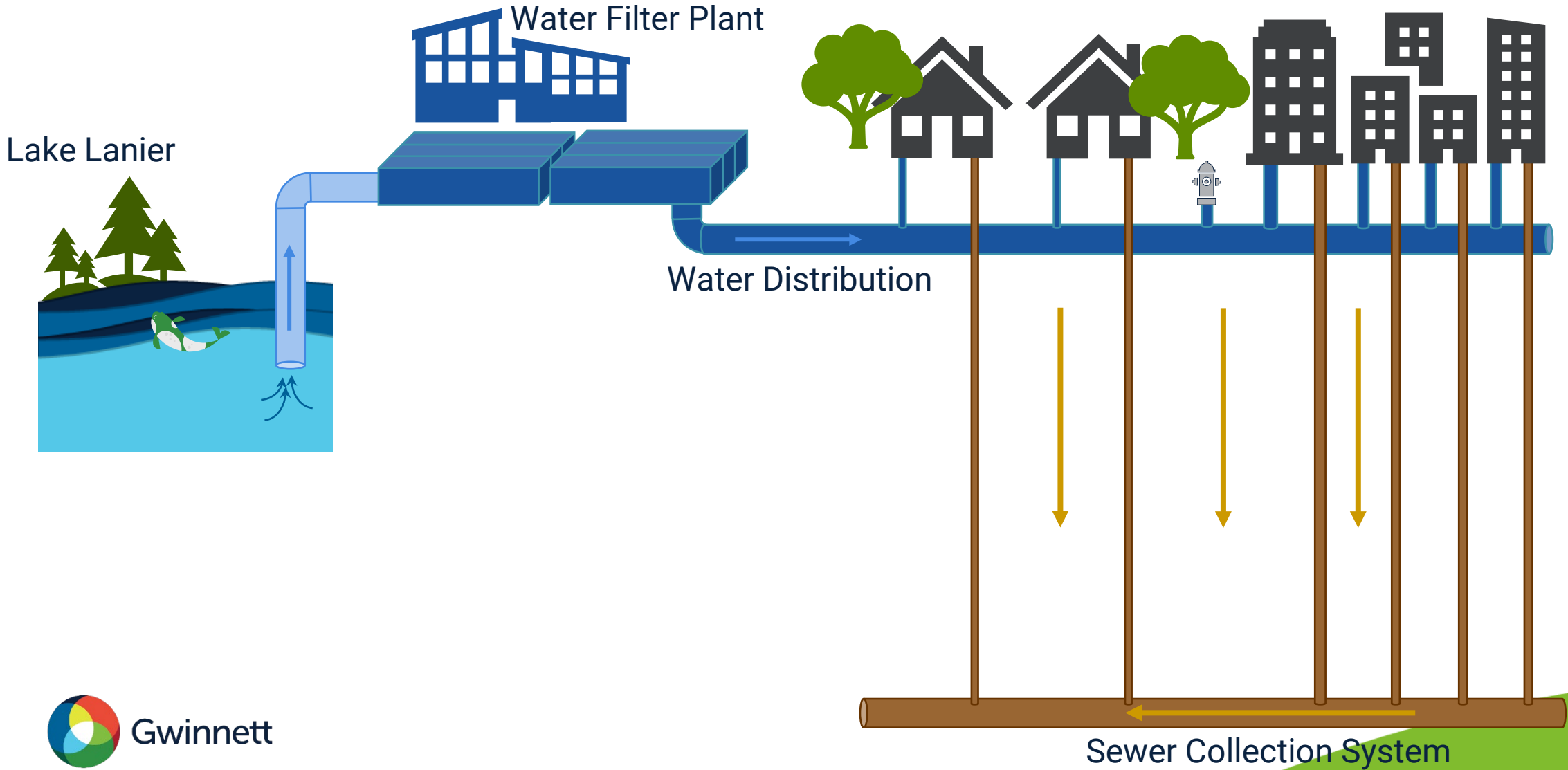




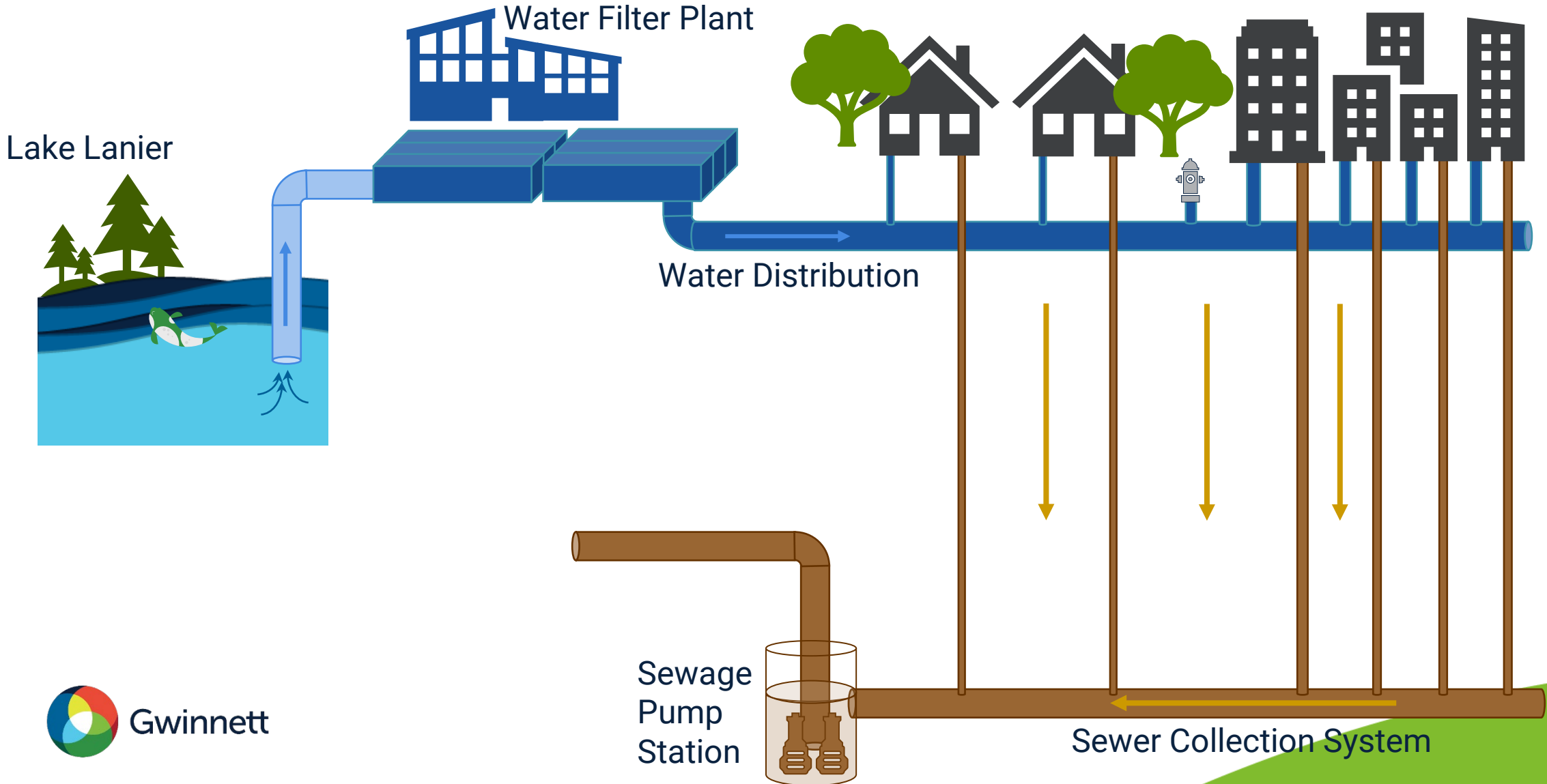
Gwinnett Water Cycle



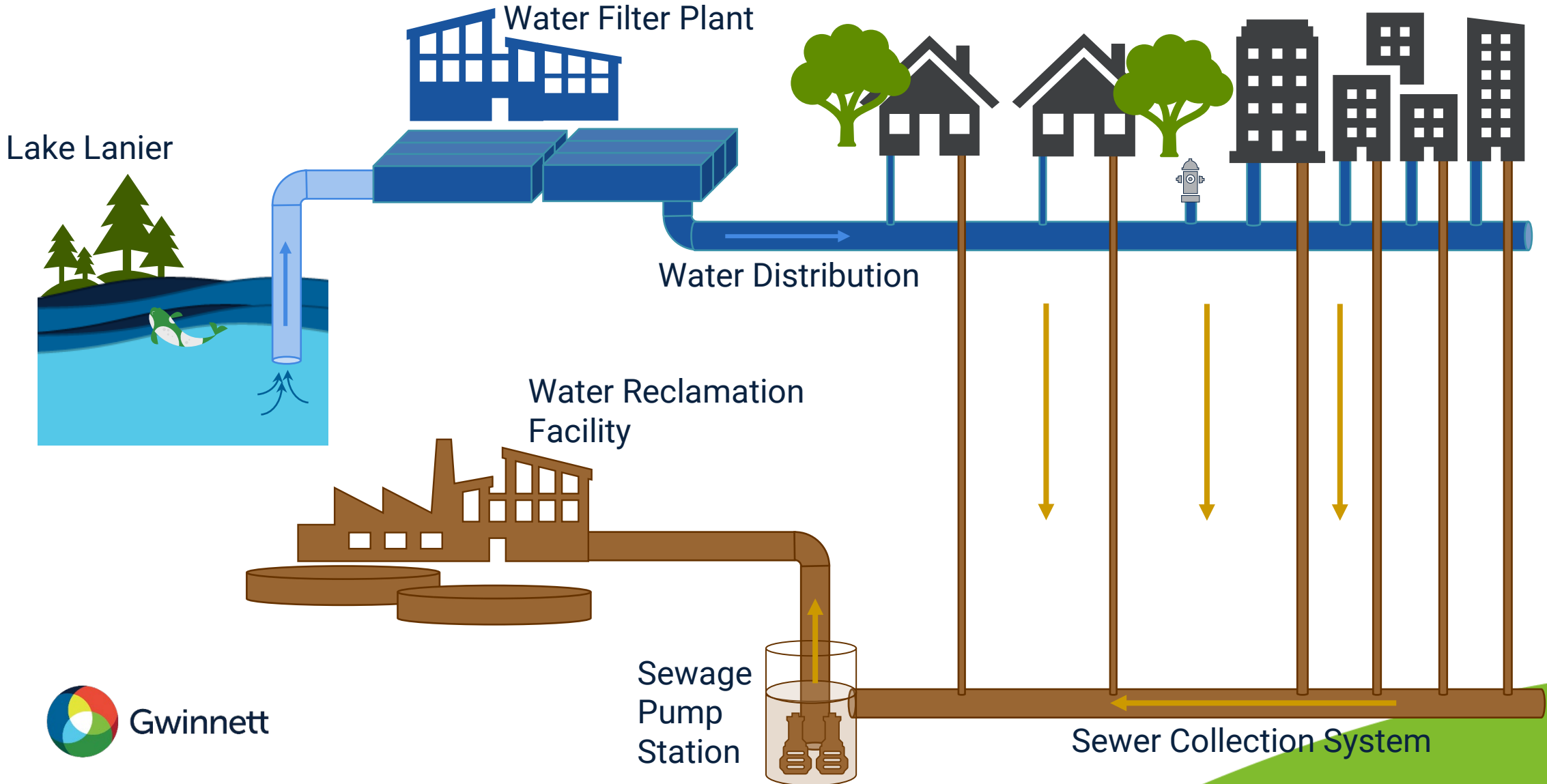
Gwinnett Water Cycle



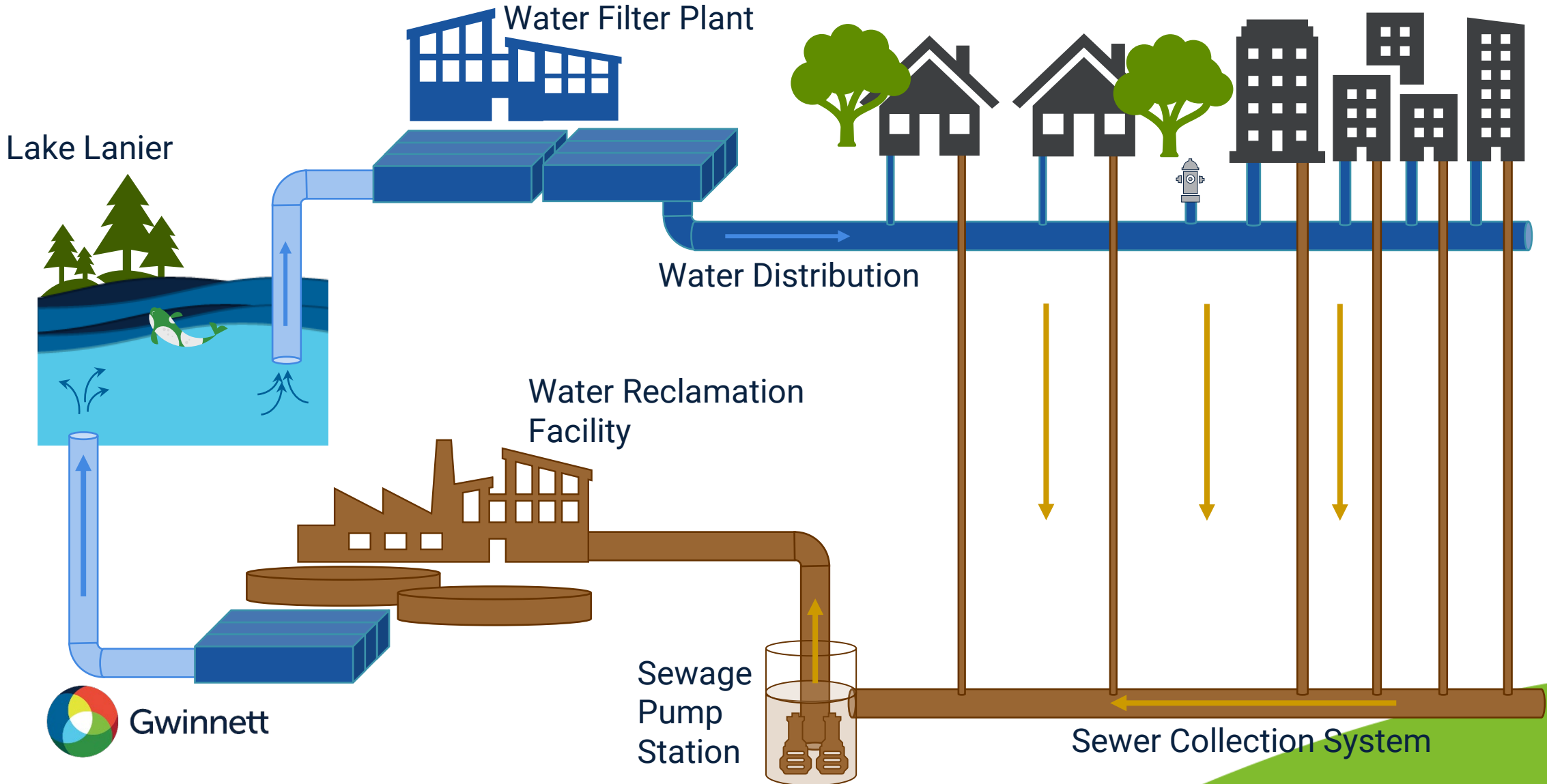
Gwinnett Water Cycle



Gwinnett Water Cycle



Gwinnett Water Cycle



F. Wayne Hill Water Resources Center



60 MGD Capacity

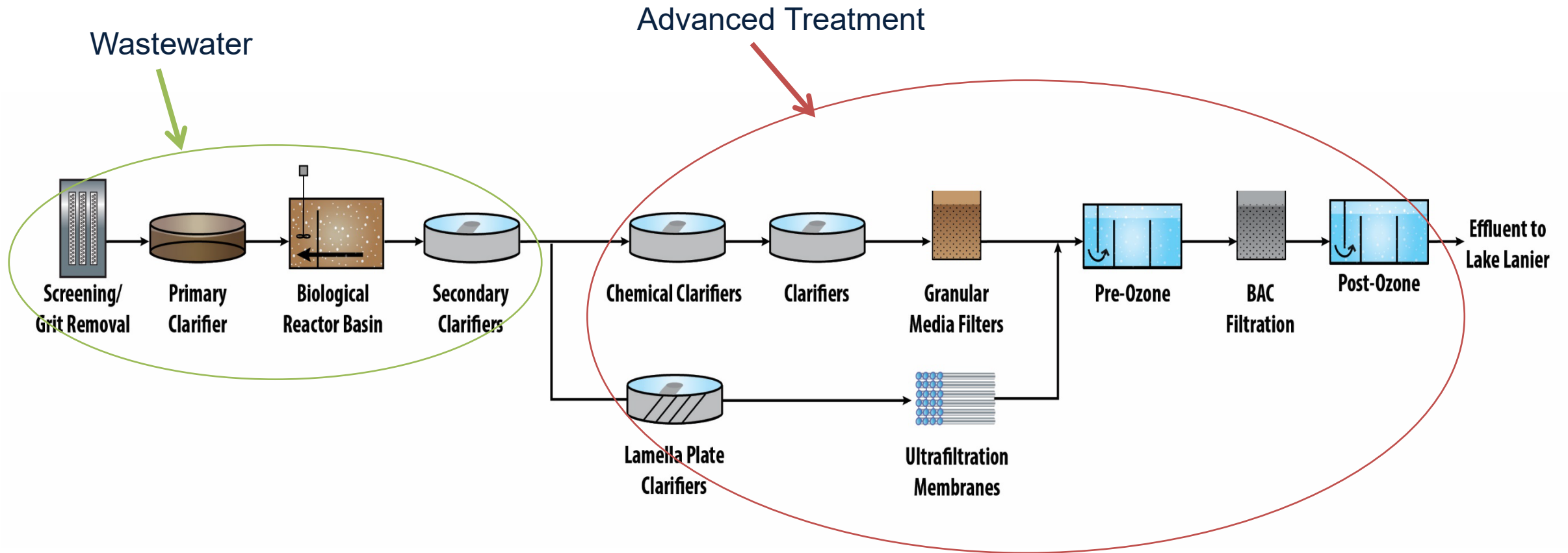
- Phase 1 completed in 2000
- Phase 2 completed in 2006

One of the World's Largest Membrane and Ozone Facilities

Produces High Quality Reuse Water for Return to Lake Lanier

Provides Wastewater Treatment for over 50% of Gwinnett County's Residents

F. Wayne Hill WRC Treatment Process





Gwinnett County Capital Investments to Return Flows to Lake Lanier

F. Wayne Hill WRC	\$617 Million
Line to Lake	\$ 72 Million
Wastewater Pump Stations and Force Mains to FWHWRC	\$315 Million
<hr/>	
Total Capital Investment	\$ 1.004 Billion

F. Wayne Hill Water Resources Center A Model for Environmental Stewardship



Producing
Power from
methane
generated from
biosolids and
FOG



Producing a slow-
release **Fertilizer**
from nutrients
removed from the
waste stream



Consistently
produces high
quality **Water**
that is returned
to the water
supply

Atlanta wastewater plant cited for polluting Chattahoochee River

Riverkeeper to visitors: Stay out of the river between the R.M. Clayton Water Reclamation Center and West Point Lake amid ongoing sewage treatment issues



F. Wayne Hill Water Resources ...

Credit: Natrice Miller

Parker Durance kayaks on the Chattahoochee River at Don White Memorial Park in Roswell on July 3, 2023. (Natrice Miller/ Natrice.miller@ajc.com)

By Drew Kann

April 12, 2024



City of Atlanta has been tagged by state environmental regulators for a litany of violations at its largest wastewater treatment plant, including discharging poorly treated effluent with high levels of E. coli, ammonia and phosphorus into the Chattahoochee River.

The notice of violations — and a related report from an inspection by Georgia Environmental Protection Division (EPD) regulators last month — reveal major issues at the facility, from broken equipment to plant growth and “solids” on the walls of some treatment basins. Local riverkeepers, meanwhile, say they are still finding alarming levels of bacteria where the plant empties into the Chattahoochee near Atlanta Road.

Chlorine spill may have caused E. coli leak into Chattahoochee



The plan called by COUNTY

LOCAL

Officials say it could take months to fix Chattahoochee water systems after high E. Coli levels



By WSBTV.com News Staff

April 15, 2024 at 2:21 am EDT



Officials say it could take a while to get Chattahoochee River back to normal after E. Coli exposure

ATLANTA — The Chattahoochee Riverkeeper is issuing a warning to swimmers, boaters, and kayakers who may be accessing a dangerous 70-mile stretch that continues testing positive for **high levels of E. Coli**.

Channel 2's Elizabeth Rawlins was at one of the at-risk areas in Mableton off of Riverview Road on WSB Tonight at 11 p.m.

State regulators said this isn't a typical accidental spill.

What else?

- Sustainability through:
 - Asset Management
 - Process Optimization
 - Resource Recovery
 - Innovative Problem Solving





Questions?

