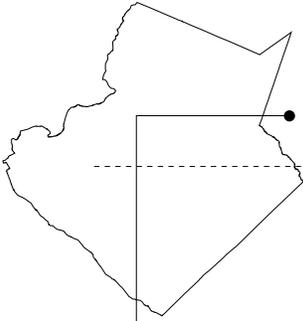




department of water resources annual report **2008**

• **gwinnett**county georgia





- department of
water resources

customers
building on our reliability:
water, wastewater, and stormwater services
environment

board of
commissioners



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introduction

This annual report provides an overview of the operation, condition, and growth of Gwinnett County's water, wastewater, and stormwater programs for 2008; a description of the Department of Water Resources (DWR) management and facilities; a general assessment of operations; and highlights of significant events in 2008.

The County's water and wastewater facilities were transferred to the Gwinnett County Water and Sewer Authority in 1985 and were then leased back to the County for operation.

staffing and organization

The DWR staff numbered 606 at the end of 2008—slightly down from 609 in 2007—and included 17 registered Professional Engineers. There were eight divisions in the department: Business Services, Planning and Permitting, Wastewater, Water Production, Field Operations, Stormwater Management, Infrastructure Systems, and Engineering and Construction.



Lower Big Haynes Creek Pump Station

2008 at a Glance	
Water customers	233,675
Sewer customers	146,267
Water meters connection permits sold	2,669
Miles of water main installed	45 miles
Water main totals*	3,399 miles
New sewer connections	2,168
Miles of sanitary sewer installed	46 miles
Total miles of sanitary sewer	2,640 miles
Fire hydrants installed*	576
Total fire hydrants	40,614
Water treatment capacity	225 mgd
Water use – average day	71.9 mgd
Water use – maximum day	87.9 mgd
Raw water storage (mg)	45
Wastewater treatment capacity**	71.62 million gallons
Wastewater treated – average day	49.50 million gallons

* Total number equals amount installed and subtracted amount abandoned

** Including contracted capacity in other jurisdictions



**water and
wastewater
infrastructure
development:**
ensuring a
sustainable future



*No Business Creek Tunnel
construction*



*Deep underground wetwell
storage tank under construc-
tion for the New Level Creek
pump station*

Providing fully sustainable water, wastewater, and stormwater infrastructure systems for customers is of paramount importance at DWR. As such, the department has incorporated sound asset management principles into all business practices over the past few years. This approach will enable the utility to plan, acquire, maintain, operate, rehabilitate, replace, and dispose of infrastructure assets in the most cost-effective manner, providing the required level of service for present and future generations.

Numerous programs and initiatives were developed during 2008 to help ensure that DWR continues to be recognized as an industry leader in its ability to make appropriate decisions based on risk, life-cycle costs, and value to our customers. Significant strides have been made in improving asset knowledge, aligning operating and maintenance activities with sound asset management principles, and improving the Capital Improvement Project delivery process by ensuring deliberative prioritization based on technical and fiscal criteria.

The Planning Division works closely with various planning entities in the county, region, and state to ensure that the long-term interests of the citizens of Gwinnett are fairly and accurately represented; to facilitate coordinated planning efforts; and to ensure continued compliance with required regulations. The division has recently solicited proposals from consultants to develop a new Gwinnett County Water and Wastewater Master Plan. Extensive work has been done internally this past year to improve the water and sewer hydraulic models and develop wastewater flow and water demand projections based on future population projections. The consultant team will work closely with an internal Technical Advisory Committee and an external Public Advisory Committee over the next year to develop plans and policies for the next 50 years. Completion is anticipated during 2010.

Gwinnett County is a member of the Metropolitan North Georgia Water Planning District (MNGWPD) which was established by the Georgia legislature in 2001 to develop comprehensive regional and watershed specific plans for the 16-county metro region. In 2003, the MNGWPD adopted the districtwide *Watershed Management Plan*, the *Long-term Wastewater Management Plan*, and the *Water Supply and Water Conservation Management Plan*. These plans contain a number of local implementation activities that will help protect water quality and public water supplies, as well as minimize potential adverse impacts of development on waters in and downstream of the district. Each local government within the district is responsible for implementing specific tasks and milestones contained in the plans. In order to obtain NPDES permits, a local government is required to undergo an extensive audit to provide evidence of compliance with all three plans. DWR underwent this audit process during 2008 and received certification of compliance and good faith effort from the Georgia Environmental Protection Division in early 2009. The Planning Division participated extensively in the update of those plans during 2008, which has recently been completed and approved by the Metropolitan North Georgia Water District Board.

The Engineering and Construction Division (E&C) is responsible for the delivery of DWR's Capital Improvement Program. Capital projects that receive funding based on the CIP prioritization process are assigned to E&C project managers for design, permitting, construction, and start-up management. Projects completed during 2008 were a combination of new infrastructure projects and infrastructure rehabilitation projects, as well as a number of utility relocations in support of DOT road projects.

water service:
providing drinking water
to our customers



Shoal Creek Water Filter Plant



Raw Water Supply

Gwinnett County's water source is Lake Sidney Lanier, a manmade lake created by Buford Dam on the Chattahoochee River. The Georgia Department of Natural Resources controls water withdrawals from Lake Lanier, with Gwinnett's monthly average withdrawal set at 150 million-gallons-per-day (mgd). This amount is also governed by a contract with the US Army Corps of Engineers, which operates Buford Dam and generates electricity there.

In 2008, Gwinnett County's average daily production was 71.9 million gallons (mg), down from 86.9 mg the previous year, due to outdoor water use restrictions put in place because of the extended drought. The population increased by an estimated 13,152 during the year. Maximum day-demand was 87.9 mgd compared to 126.3 mgd in 2007.

Interstate Water Conflicts

In 2003, negotiations towards an interstate compact between Georgia, Florida, and Alabama on use of the water in the Apalachicola, Chattahoochee, and Flint River basins (ACF) ended. However, the disagreements concerning the various uses of storage in the ACF, begun in 1990, continue. The ACF lawsuits, filed in multiple federal District Courts, have been consolidated into a single case in a neutral District Court venue. One of the key issues in the ACF litigation is whether Congress authorized the Corps to operate Buford Dam and Lake Lanier to accommodate water supply. The case is ongoing, and a District Court decision on the key issue of authorization is expected in 2009. Other contentious elements of ACF litigation include the operation of the federal reservoirs in the ACF for environmental and ecological purposes. Water supply for future development in Gwinnett County, and the cost of that water supply, thus remains uncertain. The Mobile COE has been ordered to prepare a new *Water Control Plan* and an *Environmental Impact Statement* for the plan over the next several years assuming federal funding is supplied.

Water Treatment

The Shoal Creek and Lanier Filter Plants operate in conjunction to meet production needs. For much of the year, demand was evenly split between the two treatment facilities. End of year records show the two facilities produced almost 32 billion gallons of water.

Treatment consists of the following: a coagulant; dual-media filtration; disinfection with ozone and chlorine; and the addition of fluoride for dental health, lime to adjust acidity, and phosphates for corrosion control. Chemicals used in the treatment process include ferric chloride, liquid cationic polymer, ozone, chlorine, fluoride, liquid lime, and ortho/polyphosphate. Also of note was that both the Shoal Creek and Lanier Filter Plants received Gold Awards from the Georgia Association of Water Professionals for no compliance violations during 2008.

Water Distribution and Storage

Pumps move finished water from reservoirs called clearwells through transmission mains to water-storage facilities in the distribution system. There are more than 3,300 miles of transmission mains and other pipes in the distribution system, ranging from two to 78 inches in diameter. Over 45 miles of new water lines were built in 2008. Up to 91.7 million gallons of stored water in the distribution system provide consistent line pressure, fire protection, and water availability during periods of high usage. With 576 new fire hydrants installed, Gwinnett County has again maintained a fire insurance rating of four.

The Shoal Creek Filter Plant 60-inch water transmission main was completed in 2008. This pipeline provides complete redundancy to supply finished water into the water transmission system from both water production facilities.



gwinnett county water system information • 2003 – 2008

Year	2003	2004	2005	2006	2007	2008
County population ⁽¹⁾	673,774	700,794	726,723	739,608	776,347	789,499
Water customers/meters	203,657	211,723	220,856	230,850	234,447	233,675
Water plant capacity (mgd)	150	150	225	225	225	225
Water customers added	8,226	8,066	9,133	9,994	3,597	(772)
Water use – average day (mgd)	76.4	82.7	80.7	87.4	86.8	71.9
Water use – maximum day (mgd)	106	112.8	113.3	129.8	126.3	87.9
Raw water storage capacity	37	45	45	45	45	45
Tanks and clearwell storage (mg)	91.7	120.7	120.7	120.7	120.7	120.7
Water mains – total miles*	3,025	3,091	3,185	3,269	3,346	3,399
Water meters connection permits sold	8,538	8,707	8,679	8,045	3,962	2,669
Water main miles installed	81.1	79.6	105.6	94.1	80.5	45
Customers per mile of water main	67.3	68.5	69.3	70.6	70.1	68.7
Permit withdrawal limits (mgd)	150	150	150	150	150	150
Fire hydrants – total	32,306	33,371	34,894	38,916	40,038	40,614
Fire hydrants installed	1,224	1,139	1,598	1,351	1,139	576
Fire insurance rating	4	4	4	4	4	4

⁽¹⁾ Source: Gwinnett County Department of Planning and Development

* Total water main miles equals miles installed minus miles abandoned

**wastewater
service:**
reclaiming water,
protecting the
environment



Yellow River Water Reclamation Facility Rehabilitation and expansion



Crooked Creek Water Reclamation Facility improvements

Wastewater

The County's five wastewater facilities (WRFs), plus one operated by DeKalb County, treated 18.0 billion gallons of Gwinnett's wastewater in 2008.

The total wastewater treatment capacity for Gwinnett County is currently 71.62 mgd. An additional 40 mgd of treatment capacity has been constructed at the F. Wayne Hill Water Resources Center. A 40-mgd discharge permit to Lake Lanier has been issued and construction of an effluent pipeline is expected to be complete at the end of 2009. At the end of 2008, the six wastewater facilities ranged in size from 0.62 mgd to 29 mgd of permitted capacity. Gwinnett County has a contractual agreement with DeKalb County for five mgd of treatment capacity at the Pole Bridge Wastewater Treatment Plant.

Construction continued during 2008 on the Yellow River Water Reclamation Facility Expansion and Improvements project. This project is in support of the continuing effort to consolidate treatment at the larger County facilities. Construction is expected to be completed in 2012.

Wastewater Collection System

More than 2,639 miles of sanitary sewers, ranging from eight to 72 inches in diameter, collect wastewater that flows by gravity to large-diameter interceptor sewers and then to the WRFs. Pump stations and force mains are used as necessary whenever topography does not permit gravity flow. The County has 221 active pump stations in service and more than 249 miles of force mains, ranging from 2.5 to 48 inches in diameter. There are 14 new pump stations under construction. Currently, 42 metering stations measure wastewater flow in the system and from certain large commercial and industrial customers and also from two wholesale wastewater customers, DeKalb County and the City of Norcross. In addition, there are 95 metering stations to monitor infiltration and inflow.

The completion of some major interceptor and pump station projects allowed the department to shut down several smaller outdated pump stations. This was in support of the continuing effort to consolidate treatment at the larger County facilities using fewer pump stations for conveyance. These projects also allowed for the County to reduce the wastewater flow sent to the wastewater facility owned by DeKalb County and instead treat those flows at the F. Wayne Hill Water Resources Center.

WRF Operation

Wastewater passes through various stages of screening, clarification, biological and chemical treatment, filtration, and disinfection before being discharged into streams and rivers. Dewatered biosolids are buried in municipal landfills. Each reclamation facility has a National Pollution Discharge Elimination System permit issued by the Georgia Environmental Protection Division.

The operation and compliance of Gwinnett County Wastewater Facilities has led to many state and national awards. In 2008, Gwinnett County was awarded two **Gold** and three **Platinum Awards** from the *Georgia Association of Water Professionals* and one **Gold** and four **Platinum Awards** from the *National Association of Clean Water Agencies* for 100 percent compliance with permit effluent requirements. Additionally, the F. Wayne Hill Water Resources Center received the **GAWP Plant of the Year Award for 2008**, the **2008 National Clean Water Act Recognition Award** from the US Environmental Protection Agency, and the **2008 Region IV National Clean Water Act Recognition Award** from the US Environmental Protection Agency.



Ensuring Water Quality

The Water Resources Laboratory at the F. Wayne Hill Water Resources Center analyzes drinking water and wastewater to ensure compliance with state and federal standards. The lab performs about 17,500 tests annually to comply with **Safe Drinking Water Act** regulations and approximately 35,300 tests annually to ensure that all six WRFs comply with the pollution control requirements of the **Clean Water Act**. Process Control Labs at each of the WRFs and at the Lanier and Shoal Creek Filter Plants also perform regular tests to monitor each facility.

The American Association for Laboratory Accreditation (A2LA) accredited the labs as meeting the requirements of the new *International Organization for Standardization Guide 17025 (ISO 17025)*.

wastewater system information • 2003 – 2008

Year	2003	2004	2005	2006	2007	2008
Sewer customers	120,967	128,212	135,311	138,289	141,807	146,267
Total sewer miles*	2,101	2,209	2,368	2,480	2,595	2,640
Sewer miles installed	91.8	95.4	105.6	111.5	115.5	46
Treatment capacity (mgd)	64.1	64.1	63.6	71.6	71.6	71.6
Maximum month daily average	55.8	56.6	55.3	53.8	52.8	45.9
Actual average day	50.4	50.7	52.1	51.2	50.8	45.1

* Total number equals amount installed and subtracted amount abandoned

wastewater treatment capacity at the end of 2008 (mgd)



F. Wayne Hill Water Resources Center

Facility	Permitted	Average Daily Flow in Maximum Month	Average Daily Flow
F. Wayne Hill	29.0	28.9	24.0
Crooked Creek	16.0	12.3	8.6
Yellow River	13.5	8.1	5.5
Pole Bridge*	5.0	4.6	3.9
Jackson Creek	3.0	2.9	2.8
Jacks Creek	0.6	0.4	0.4

Actual Maximum is Average Daily Flow During Maximum Month (ADMMF)

Average Daily Flow is Annual Average Daily Flow (AADF)

* DWR's portion of a facility operated by another utility

stormwater management:
flooding, drainage,
and water quality



Collins Hill Park stream restoration and storm pond retrofit

The Stormwater Management Division protects and promotes the health, safety, and welfare of the public by providing programs and services to prevent flooding through the provision of adequate drainage and protect and enhance water quality in the county's streams and lakes.

Stormwater Utility Planning and Implementation

Gwinnett County set up a stormwater utility in 2005 to improve drainage problems, fulfill regulatory requirements, and reduce pollution carried to waterways by stormwater.

Previously, there was no dedicated funding for the stormwater system so the County used general funds from taxes to maintain the system. Increasing costs demanded a more fair and equitable funding mechanism. A stormwater user fee provides revenue to maintain and improve existing stormwater infrastructure and to implement a comprehensive stormwater management plan as required by the Georgia Environmental Protection Division.

The terms of Gwinnett County's state-issued wastewater discharge permits require that Gwinnett's streams be brought into compliance with applicable water quality and habitat standards. The need to improve customer service and responsiveness also affects the need for increased funding. Prior to implementation of the utility some residents with drainage problems had been on a waiting list for over three years. Since the advent of the utility, the County has been able to substantially reduce the number of projects remaining on this waiting list.

The stormwater utility fee is based on impervious surface area, which is correlated to the quantity of stormwater runoff a site generates. Basing the fee on this measure is the most fair and equitable method of distributing the costs of maintaining and operating the stormwater system. A stormwater utility is a government-owned enterprise, producing separate revenues designated for stormwater programs exclusively.

The County determines the fee for each property based on the total square footage of impervious area and bills in units of 100 square feet. For 2008, the annual stormwater fee was \$2.01 per 100 square feet. In accordance with the rate resolution the annual unit charge will increase to \$2.46 per 100 square feet for the years 2009, 2010, and 2011.

To determine the impervious surface on a piece of developed property, the County uses computerized maps from its Geographic Information System (GIS) and digitized aerial photographs. In order to maintain as much accuracy as possible in the billing database, the areas of impervious surface on each parcel must be updated regularly. Aerial photography is collected annually to accomplish this.

The City of Lilburn joined the stormwater utility in 2007. Residents of Lilburn will now receive the same Stormwater Management services as those in unincorporated Gwinnett.

Additionally, the City of Grayson signed an agreement with the County in 2007 that provides the city with assistance in maintaining compliance with various federal, state, and regional stormwater management mandates. Residents of Grayson are not billed a stormwater utility fee. Instead, the city is charged an annual fee for services provided.

The Gwinnett County **Stormwater Authority Act** signed by Governor Sonny Perdue on May 18, 2007, established Gwinnett County's Stormwater Authority. This legislation provided that the Stormwater Authority consist of a seven-member board. Members one through five are selected at-large and appointed by the Gwinnett County Board of Commissioners.



Members six and seven are nominated by a majority vote of a committee composed of the mayor of each municipality that receives stormwater services from the County and shall be appointed to the Stormwater Authority by the Gwinnett County Board of Commissioners.

Public Education

Staff members have developed several programs to encourage environmentally-responsible behavior at home, school, and work. **Gwinnett Adopt-A-Stream** is an award-winning program that educates Georgians about water quality. This program won the Georgia Department of Natural Resources **Adopt-A-Stream Watershed Award** in 2008. Their public education programs play a key role in helping to protect our natural environment. Activities include river cleanups, facility tours, Adopt-A-Stream workshops, storm-drain stenciling, and water-quality monitoring. In addition, annual events such as **Rivers Alive**, **Clean Water Week**, and **Watershed Improvement Project Tours** contribute to public education about water quality.

The Gwinnett Environmental and Heritage Center plays a supporting role by partnering with the Stormwater Utility in these public education efforts.

Public Participation

Opportunities for citizen participation in processes that influence stormwater regulations include the Development Advisory Committee, Tree Advisory Committee, Growth Issues Steering Committee, and Revitalization Task Force.

Utility customers are also encouraged to assist in protecting the county's waterways by adopting or implementing various stormwater best management practices. These practices, which can be structural or operational, assist the utility in meeting established goals. For this assistance customers are offered credits on their stormwater utility fee. Staff also host free workshops on how to implement some of these practices, such as the Detention Pond Maintenance Workshop or the Septic System Maintenance Workshop. Full details are contained within the *Stormwater Utility Fee Credits Manual*, which is available online at www.gwinnettstormwater.com.

Water Quality Protection and Post-Construction Stormwater Management

Reducing nonpoint source pollution is one of the major goals of the stormwater program. This is accomplished through the implementation of various pollution source identification efforts, which include illicit-discharge investigations, dry weather discharge monitoring, stream walks, and inspections of industrial and municipal operations for compliance with the Gwinnett County *Illicit Discharge and Illegal Connection Ordinance*.

An inventory of stormwater pipes has been completed. Information collected during this effort is stored in the County's GIS and assists investigators in identifying illicit discharges. At the end of 2008, 2,129 miles of storm sewer pipes had been inventoried. Of this, a total of 1,321 miles of storm sewer pipes are maintained by the County.

To address pollution from new developments, the County requires the installation of water-quality best management practices (BMPs) and recorded maintenance agreements from the owners. Once accepted, these privately owned and operated stormwater ponds become part of the stormwater management system, and receive annual inspections to ensure proper operation and maintenance. In 2008, 599 BMP inspections and re-inspections were completed.



Construction Site Pollution Control

Erosion control during construction is vital to protect water quality. The Department of Planning and Development provides stormwater management roles such as plan review and construction inspection. Planning and Development staff review erosion control plans to mitigate impacts of new developments on streams. Planning and Development inspectors also perform construction site inspections as part of their duties, while the Department of Transportation ensures that County transportation projects address sediment and erosion control.

Watershed Improvement Program

Gwinnett County developed a comprehensive watershed improvement program to protect and improve water quality and stream conditions. An assessment and modeling project, completed in 2000, documented the condition of the watersheds and developed a model to predict pollutant levels based on land use. It identified the need to protect and improve stream health including habitat, biology, and water quality. Gwinnett County's *Watershed Protection Plan* was developed in response to this study.

The *Watershed Protection Plan* identified major stressors of streams and water quality:

- Changes in hydrology as a result of development
- Pollutants released to streams
- Loss of natural riparian buffers

The plan also outlined strategies to address these stressors and protect and improve conditions in streams and lakes including:

- Adoption of new regulations to address water quantity and quality
- Improving areas that have been adversely impacted by stormwater runoff (Watershed Improvement Planning)
- Activities to promote watershed stewardship

Watershed Improvement Planning

To begin implementing capital improvement plans, the County received a low-interest, State Revolving Fund loan from the Georgia Environmental Facilities Authority (GEFA) in the amount of \$5 million to construct nonpoint source pollution improvements. This was the first such loan in the state for stormwater improvements.

Construction of the first four projects under this GEFA loan (Collins Hill Park, Riverside Parkway, Martin Heights Stream and BMP Improvement, and Lake Haven) were completed in 2008.

With growth in Gwinnett County due to development and required infrastructure, there are often unavoidable losses of natural resources that require mitigation. Through watershed improvement planning and the resulting capital improvement plans, the County has identified many projects that can provide mitigation for both wetland and stream impacts. The US Army Corps of Engineers approved the Gwinnett County Umbrella Mitigation Bank in January 2006, thus allowing the County to provide stream and wetland mitigation credits resulting from the implementation of approved watershed improvement projects. Funds that would have been spent on mitigation banks outside the county can now stay in Gwinnett to facilitate the implementation of Gwinnett County watershed improvement plans. The first stream mitigation bank project, Martin Heights Stream Restoration and BMP Project, was substantially completed in 2008. This project ultimately will generate 10,326 stream mitigation credits; 3,098 of those were released by the Corps in early 2009.



Riverside Drive Watershed Improvement Project: *BEFORE*



Riverside Drive Watershed Improvement Project: *AFTER*



Gwinnett County has received three Section 319(h) grants through the Georgia Environmental Protection Division for projects in the Crooked Creek, Lower Yellow River, and the North Fork Peachtree Creek watersheds with engineering and construction budgets of \$600,000, \$1 million, and \$1 million, respectively. All of these projects will implement recommended BMPs to improve and protect water quality and stream conditions. The engineering for the Lower Yellow River project began in 2007 with construction scheduled to begin in summer of 2009, the Crooked Creek project construction is complete, and the North Fork Peachtree Creek project is scheduled to begin in the fall of 2009.

Operation and Maintenance

The Operation and Maintenance program provides a functional, reliable storm sewer system that provides adequate drainage, identifies facilities that need to be upgraded, and makes improvements to existing infrastructure to protect and improve water quality. Three main tasks involved in this effort are investigating drainage concerns, constructing system upgrades, and maintaining the system. In 2008, 41 pipe replacement projects and 44 pipe lining projects were completed for a total of approximately 10,000 linear feet of rehabilitated storm pipe. In addition, 1,110 maintenance service requests were completed during 2008.

Flood Study Program

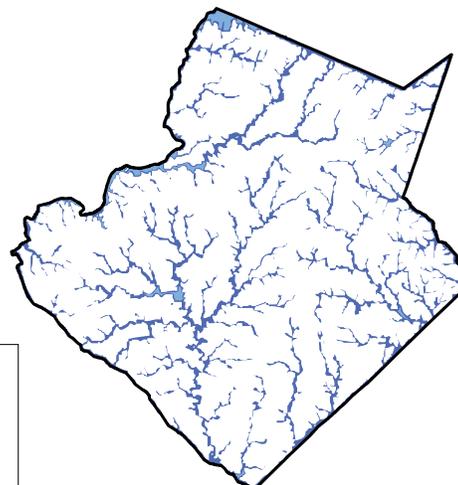
Water Resources began a six-year program in 1999 to study and identify existing and future floodplains in the county using modeling based on land use and topography. Each year, hundreds of citizens request floodplain information by telephone or in person.

Countywide Digital Flood Insurance Rate Maps (DFIRM) were issued in September 2006. The result is new, detailed studies for approximately 340 stream miles in the county, which is an increase over the 230 stream miles of study on the previous maps. In addition, the updated models include future floodplain modeling and detailed studies that extend to at least the one square mile drainage point. The floodplain mapping data is available in digital format accessible to the public on the County's GIS online data browser.

As a cooperating technical partner with FEMA, Gwinnett has access to federal digital maps. Combined with city flood maps, this has produced seamless countywide floodplain maps.



Stream bank restoration prevents erosion, maintains aquatic habitat for native species, and preserves the aesthetic integrity of Gwinnett's natural beauty



Legend

-  Mapped Flood Zone
-  County Boundary



financial stability:
a solid foundation
for future growth

Watershed Dam Upgrades

For 20 years beginning in the 1960s, Gwinnett County participated with the US Department of Agriculture to build 14 flood-control dams. Since then, regulations, watershed land use, and estimates of flooding magnitudes have changed. These dams need to be upgraded to meet stricter safety requirements. Construction was completed for two additional dams in 2008, bringing 10 of the 14 dams into compliance with state regulations. The final four projects are currently under design and will be constructed in 2009 and 2010.

Monitoring

Four different sampling programs monitor water quality in the county. Dry weather screening, performed at least 118 times a year, is intended to identify illicit discharges to streams. Fourteen long-term water quality trend-monitoring stations detect nonpoint source pollution. As part of the Total Maximum Daily Load Program (TMDL), quarterly fecal coliform sampling is performed to monitor streams that do not meet water quality standards for fecal coliform. Finally, the biological monitoring program involves monitoring of fish, macro invertebrate, and habitat conditions at 30 locations throughout the county.

TMDL Extended Revisions

For two impaired stream segments, Bromolow Creek and Shetley Creek, EPD has requested more extensive actions. This effort is intended to locate possible sources of the pollutant material that is impacting each stream. At present the County is reviewing in-house data and performing stream walks to locate potential areas where the sources could be located. Future actions will include targeted sampling and monitoring for the pollutant of concern and evaluation of the data. In the coming years Gwinnett County intends to perform similar activities on each of the impaired stream segments within the County.

Rates and Charges

Water

The Business Services Division handles all metering and billing of retail and wholesale water customers. Retail includes residential, commercial, and industrial customers. The division reads all meters monthly. As of December 2008, there were 233,675 water customers.

In the 1990 Bond Resolution, the County pledged to maintain rates, fees, and charges at levels that will produce net revenues equal to at least 1.2 times the Authority's debt-service requirement each year. County policy has been to maintain a 1.5 debt-service coverage.

In 2008, retail water users paid \$3.66 per 1,000 gallons.

Gwinnett County also supplies water at wholesale rates to eight customers including Walton County and the cities of Auburn, Braselton, Buford, Lawrenceville, Loganville, Norcross, and Suwanee.

Other charges, such as fire protection, connection charges, and water impact fees, may apply and vary based on pipe diameter or meter size. In 2008, these rates generated sufficient revenues for the County to meet bond resolution requirements.

Wastewater

The Business Services Division also services 146,267 wastewater customers, both retail and wholesale, metered at a monthly rate. Wastewater services are accessible throughout most of the county. The cities of Braselton, Loganville, and Buford provide wastewater services using their own facilities.



DWR receives approximately 1,200 telephone calls each day regarding water and sewer service



Water bills may be paid with automatic bank drafts, online, or in person

Retail wastewater customers in 2008 paid \$4.52 per 1,000 gallons of water use. Since sewer bills are based on water use, they usually increase during summer, which helps reduce discretionary outdoor water use. Customers can install irrigation meters, not subject to sewer charges, to measure outdoor water use.

Gwinnett provides wholesale wastewater service to two customers. DWR is the sole provider for the City of Norcross, while DeKalb County contracts with the department for supplemental treatment capacity. These customers shared initial capital costs and pay a percentage of operating and treatment costs.

Stormwater

The Business Services Division also services 197,478 stormwater customers, both residential and commercial, billed on an annual basis.

Rate payers in 2008 paid \$2.01 per 100 square feet of impervious area, with a 98 percent collection rate overall.

proprietary funds statement of net assets december 31, 2008 (in thousands of dollars)

	Enterprise Funds			Total Enterprise Funds
	Water and Sewerage	Storm Water	Other Enterprise Funds	
ASSETS:				
Current assets:				
Cash and cash equivalents	\$ 43,093	11,628	16,708	71,429
Investments	-	-	-	-
Receivables, net of allowance:				
Accounts	25,469	2,498	2,219	30,186
Due from other funds	-	-	-	-
Due from other governments	-	-	542	542
Inventories	3,848	-	-	3,848
Prepaid items	1,612	13	-	1,625
Total current assets	<u>74,022</u>	<u>14,139</u>	<u>19,469</u>	<u>107,630</u>
Noncurrent assets:				
Restricted assets:				
Cash and cash equivalents	8,176	-	-	8,176
Investments	98,474	-	-	98,474
Total restricted assets	<u>106,650</u>	<u>-</u>	<u>-</u>	<u>106,650</u>
Land and Construction in progress	364,529	4,308	16,731	385,568
Other capital assets, net of depreciation	2,658,575	415,163	28,363	3,102,101
Debt issuance costs	2,893	-	-	2,893
Other assets	861	-	-	861
Total noncurrent assets	<u>3,133,508</u>	<u>419,471</u>	<u>45,094</u>	<u>3,598,073</u>
Total assets	<u>3,207,530</u>	<u>433,610</u>	<u>64,563</u>	<u>3,705,703</u>
LIABILITIES:				
Current liabilities:				
Accounts payable	22,802	1,609	1,796	26,207
Payroll payable	1,908	254	32	2,194
Retainage payable	13,673	131	2	13,806
Other accrued	-	-	63	63
Estimated claims payable-current	-	-	-	-
Due to others	186	480	-	666
Notes payable-current	1,148	-	-	1,148
Lease payable-current	-	-	690	690
Accumulated leave benefits - current	1,453	214	28	1,695
Unearned revenue	163	-	128	291
Total current liabilities	<u>41,333</u>	<u>2,688</u>	<u>2,739</u>	<u>46,760</u>
Noncurrent liabilities:				
Payable from restricted assets:				
Customer deposits	3,534	-	-	3,534
Accrued interest	14,214	-	-	14,214
Revenue bonds payable-current	28,970	-	-	28,970
Total payable from restricted assets	<u>46,718</u>	<u>-</u>	<u>-</u>	<u>46,718</u>
Lease payable-noncurrent	-	-	627	627
Notes payable-noncurrent	24,325	3,721	-	28,046
Revenue bonds payable-noncurrent	922,881	-	-	922,881
Estimated claims payable-noncurrent	-	-	-	-
Accumulated leave benefits-noncurrent	175	-	-	175
Arbitrage payable	1,650	-	-	1,650
Total noncurrent liabilities	<u>949,031</u>	<u>3,721</u>	<u>627</u>	<u>953,379</u>
Total liabilities	<u>1,037,082</u>	<u>6,409</u>	<u>3,366</u>	<u>1,046,857</u>
NET ASSETS:				
Invested in capital assets, net of related debt	2,115,087	415,750	43,777	2,574,614
Restricted for debt service	27,388	-	-	27,388
Unrestricted	27,973	11,451	17,420	56,844
Total net assets	<u>\$ 2,170,448</u>	<u>427,201</u>	<u>61,197</u>	<u>2,658,846</u>
Adjustment to reflect consolidation of internal service fund activities related to enterprise funds.				1,022
Net assets of business type activities				<u>\$ 2,659,868</u>

The notes to the financial statements are an integral part of this statement.



**proprietary funds statement of revenues, expenses, and changes in fund net assets
december 31, 2008 (in thousands of dollars)**

	Enterprise Funds			Total
	Water and Sewerage	Storm Water	Other Enterprise Funds	
OPERATING REVENUES:				
Residential and commercial service	\$ 183,110	-	-	183,110
Wholesale service	5,789	-	-	5,789
Public fire protection charges	464	-	-	464
Connection charges	596	-	-	596
Operating lease income and rental income from individual hangars	-	-	850	850
Charges to other funds	-	-	-	-
Employee contributions	-	-	-	-
Intergovernmental	-	1,190	9,624	10,814
User fees and charges	-	25,095	5,677	30,772
Miscellaneous	4,327	39	477	4,843
Total operating revenues	194,286	26,324	16,628	237,238
OPERATING EXPENSES:				
Water production	15,806	-	-	15,806
Distribution and collection	26,036	-	-	26,036
Engineering	6,100	-	-	6,100
Reclamation	27,963	-	-	27,963
Vehicle maintenance and repair	-	-	-	-
Benefit claims	-	-	-	-
Insurance premiums	-	-	-	-
Depreciation and amortization	69,126	18,458	3,393	90,977
Transit operations	-	-	13,506	13,506
General and administrative	22,358	10,811	3,205	36,374
Total operating expenses	167,389	29,269	20,104	216,762
Operating income (loss)	26,897	(2,945)	(3,476)	20,476
NONOPERATING REVENUES (EXPENSES):				
Interest income	2,006	123	289	2,418
Investment income	48	-	-	48
Interest expense	(33,269)	-	-	(33,269)
Loss on disposal of capital assets	(4,159)	-	-	(4,159)
Total nonoperating revenues (expenses)	(35,374)	123	289	(34,962)
Income (loss) before transfers, contributions and extraordinary items	(8,477)	(2,822)	(3,187)	(14,486)
Extraordinary item - gain from insurance on destroyed property	-	-	4,112	4,112
Capital contributions	59,128	5,487	-	64,615
Transfers in	-	-	3,977	3,977
Transfers out	-	-	-	-
Change in net assets	50,651	2,665	4,902	58,218
Net Assets - January 1	2,119,797	424,536	56,295	
Net Assets - December 31	\$ 2,170,448	427,201	61,197	
Adjustment to reflect consolidation of internal service fund activities related to enterprise funds				(1,643)
Change in net assets of business type activities				\$ 56,575

The notes to the financial statements are an integral part of this statement.

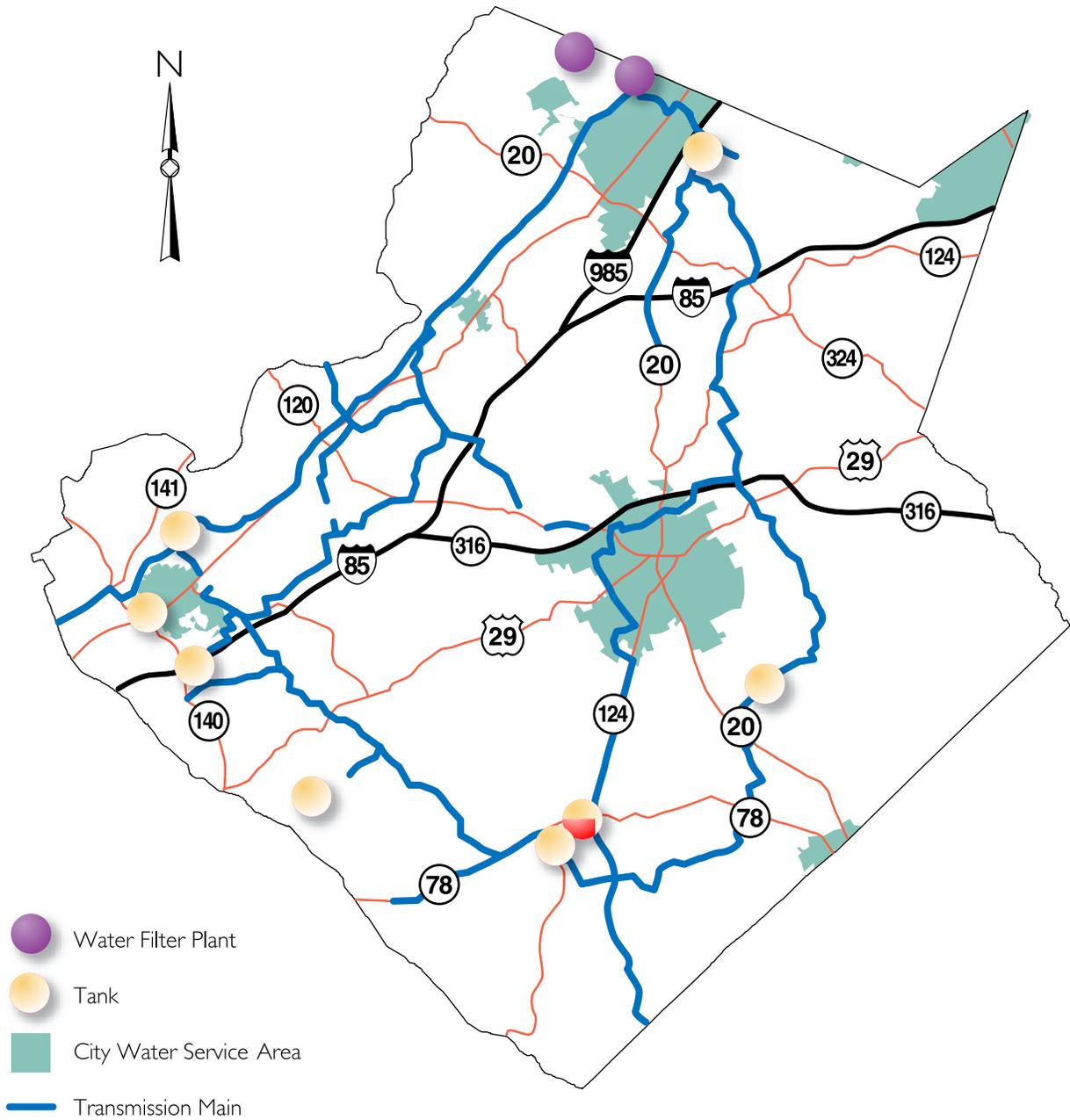
proprietary funds statement of cash flows year ended december 31, 2008 (in thousands of dollars)

	Enterprise Funds			
	Water and Sewerage	Storm Water	Other Enterprise Funds	Total Enterprise Funds
Cash flows from operating activities:				
Cash received from customers	\$ 188,356	26,443	16,235	231,034
Cash payments to suppliers for goods and services	(59,705)	(6,238)	(16,049)	(81,992)
Cash payments to employees for services	(37,929)	(4,944)	(752)	(43,625)
Claims and premiums paid	-	-	-	-
Net cash flows provided/(required) by operating activities	<u>90,722</u>	<u>15,261</u>	<u>(566)</u>	<u>105,417</u>
Cash flows from noncapital financial activities:				
Transfers from other funds	-	-	3,977	3,977
Transfers (to) other funds	-	-	-	-
Net cash provided/(required) by noncapital activities	<u>-</u>	<u>-</u>	<u>3,977</u>	<u>3,977</u>
Cash flows from capital and related financing activities:				
Proceeds from insurance on destroyed property	-	-	4,182	4,182
Acquisition and construction of capital assets	(236,145)	(13,165)	(9,279)	(258,589)
Proceeds from bond offering	196,005	-	-	196,005
Proceeds from notes payable	17,974	-	-	17,974
Principal payments - revenue bonds	(30,935)	-	-	(30,935)
Principal payments - notes payable	(438)	-	-	(438)
Payment of bond issuance costs	(505)	-	-	(505)
Interest paid	(29,413)	-	-	(29,413)
Capital contributed by others	8,737	-	-	8,737
Net cash provided/(required) by capital and related financing activities	<u>(74,720)</u>	<u>(13,165)</u>	<u>(5,097)</u>	<u>(92,982)</u>
Cash flows from investing activities:				
Net change in investments in pools	(43,846)	-	-	(43,846)
Interest on investments	2,054	123	289	2,466
Net cash provided/(required) by investing activities	<u>(41,792)</u>	<u>123</u>	<u>289</u>	<u>(41,380)</u>
Net increase (decrease) in cash and cash equivalents	(25,790)	2,219	(1,397)	(24,968)
Cash and cash equivalents at beginning of year	77,059	9,409	18,105	104,573
Cash and cash equivalents at end of year	\$ <u>51,269</u>	<u>11,628</u>	<u>16,708</u>	<u>79,605</u>
Reconciliation of operating income to net cash provided by operating activities:				
Cash flows from operating activities:				
Operating income (loss)	\$ 26,897	(2,945)	(3,476)	20,476
Adjustments to reconcile operating income (loss) to net cash provided/(required) by operating activities				
Depreciation and amortization	69,126	18,458	3,393	90,977
Change in assets and liabilities:				
(Increase) decrease in receivables	(3,061)	851	(522)	(2,732)
(Increase) decrease in inventories	105	-	-	105
(Increase) decrease in prepaid items	10,091	(10)	-	10,081
Increase (decrease) in payables	(9,528)	(1,815)	(784)	(12,127)
Increase (decrease) in other liabilities	(108)	722	823	1,437
Increase (decrease) in due to other funds	-	-	-	-
Increase (decrease) in due to others	(28)	-	-	(28)
Increase (decrease) in deferred revenue	63	-	-	63
Increase (decrease) in customer deposits	(2,932)	-	-	(2,932)
Increase (decrease) in accumulated leave benefits	97	-	-	97
Net cash provided/(required) by operating activities	\$ <u>90,722</u>	<u>15,261</u>	<u>(566)</u>	<u>105,417</u>
Non cash capital contributed by others	\$ <u>50,391</u>	<u>5,487</u>	<u>-</u>	<u>55,878</u>
Non cash accretion on capital appreciation bonds	<u>3,734</u>	<u>-</u>	<u>-</u>	<u>3,734</u>

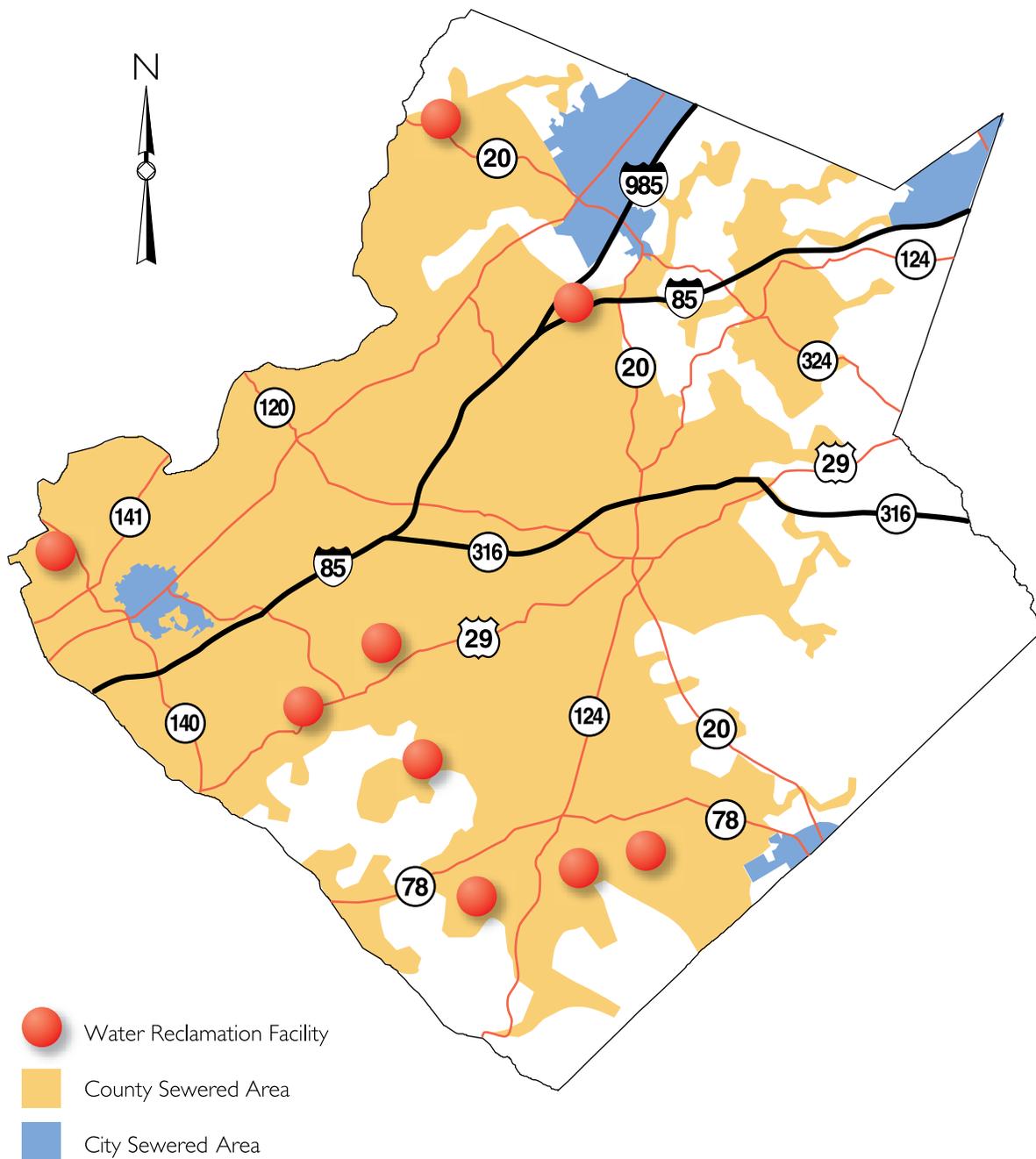
The notes to the financial statements are an integral part of this statement.

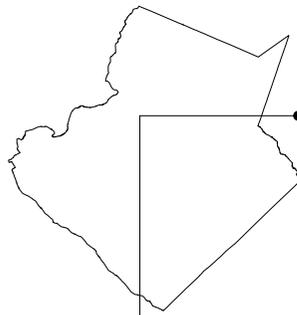


area served by gwinnett county water



area served by
gwinnett county sewer





prepared by:
The Department of
Water Resources

data compilation:
Division Directors
Water Resources

editing:
Communications Division

layout and design:
Shannon E. **Coffey**
Communications Division



Cover Photo:
James **Corn**
Communications Division

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gwinnettcounty
75 Langley Drive
Lawrenceville, GA 30046-6935

www.gwinnettcounty.com