City of Gainesville
Public Utilities Department
Annual Report
FY14

Proposed Riverside Drive Treatment Plant - Water Quality Building

FY14 Annual Report

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CITY OF GAINESVILLE
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PUBLIC UTILITIES DEPARTMENT
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757 Queen City Parkway, SW
Gainesville, Georgia 30501-4358
Telephone: 770.538.2466
Fax: 770.535.5634
Web Site: www.gainesville.org

To Our Customers:

After reflecting on the past fiscal year, I realize how smoothly the ship has sailed again thanks to an improving economy and efficient operations. We hope to continue down this road and see continued improvements in all aspects of our business.

We did have several notable events over the past year reflect positively on the Utility. First, let me recognize the awards won by our staff. The Georgia Association of Water Professionals (GAWP) presents awards for outstanding operations, efforts, and programs each year. This year our Distribution and Collection Group's Malcolm Wiley earned the GAWP District 2 Collection System Operator of the Year. Also within Distribution and Collection, Thomas East earned the GAWP District 2 Water Distribution Operator of the Year. Additionally, both Lakeside & Riverside Water Treatment Plants received the Platinum Award for five-plus years of 100% compliance. These awards continue to exemplify the commitment our staff has to provide you, the customer, with the best service possible.

Second, we continued to see a rise in water meter sales, a continued recovery within our local economy and an increase in our water sales that slightly exceeded expectations. We believe this is due to the improving economy and rebound in the housing market. We had budgeted $28.0 million in water revenues and received $28.4 million. We hope to continue to see these positive indicators while continuing to promote responsible use and conservation.

Lastly, this past November we renewed an intergovernmental agreement with Jackson County Water & Sewer Authority for a redundant emergency interconnect for each system. This will allow either party to share water in case that need arises, such as in the case of a main break or in extreme drought conditions. This is just another example of trying to provide the best service possible to our customers.

We again look forward to another year of service and continued growth. We continue to work for you in a more efficient, customer oriented fashion.

Kelly J. Randall, P.E.
Public Utilities Director

9/30/14

INTRODUCTION

The City of Gainesville's water system supplies potable water to a geographic area of approximately **400** square miles, including Braselton, Buford, Clermont, Flowery Branch, Gainesville, Gillsville, portions of the Lula and Oakwood areas, and unincorporated Hall County. The City maintains over **1,600** miles of underground water and sewer pipelines.

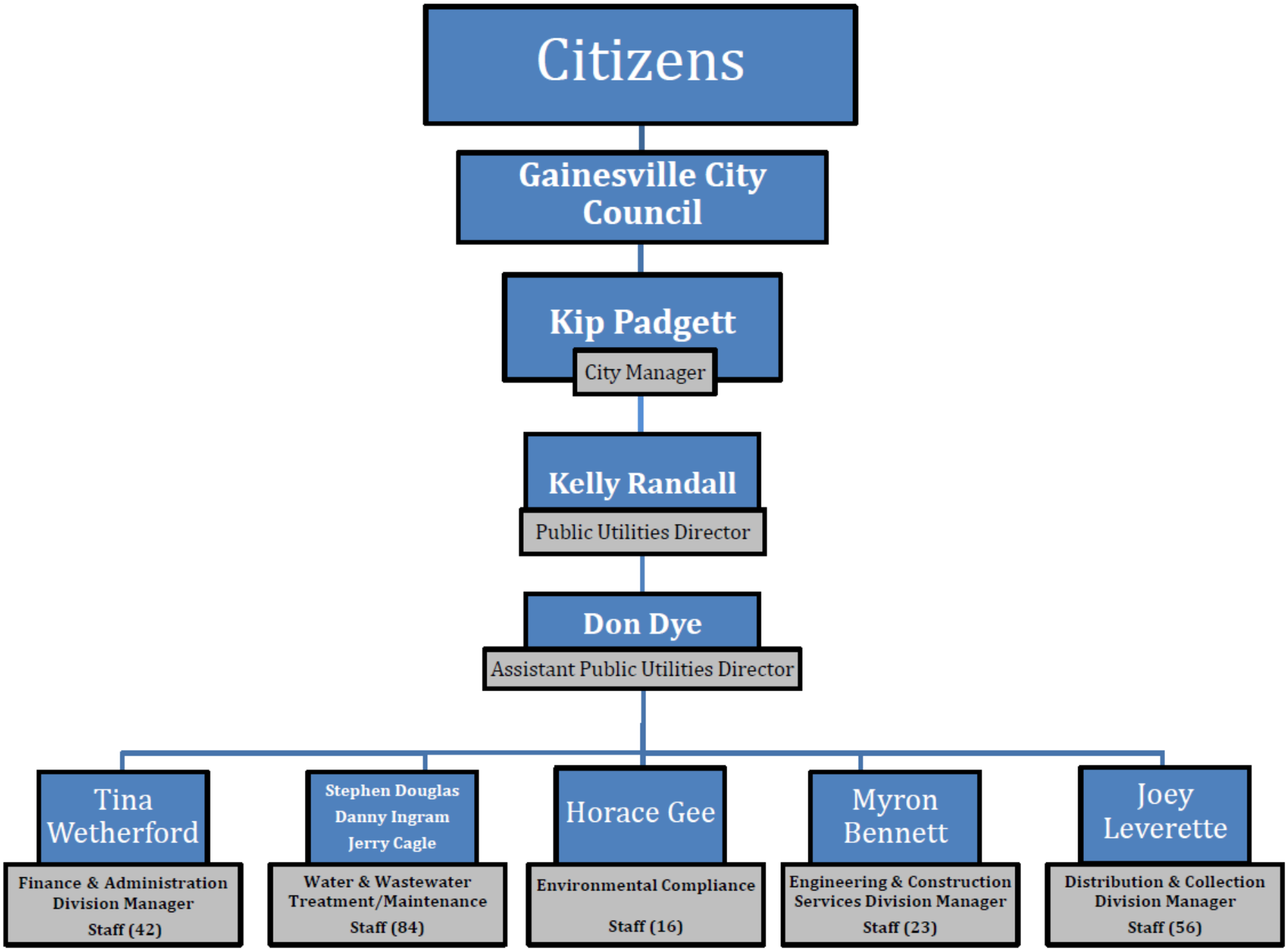
The source of supply of raw water for the System is Lake Lanier, an impoundment of the Chattahoochee River that is owned and operated by the U.S. Army Corps of Engineers. The Georgia Department of Natural Resources, Environmental Protection Division ("EPD") also governs water withdrawal from Lake Lanier through its water withdrawal permitting process. **It is the City of Gainesville Public Utilities Department's goal to provide the highest level of service to our customers and ensure that Gainesville and Hall County residents have a continuous supply of the best water in Georgia.**

It takes a dedicated and determined group of men and women to accomplish the tremendous task of managing the community's water resources. The City of Gainesville's Public Utilities Department is comprised of several different divisions working together to manage the water and sewer systems. Each division contributes to the comprehensive management of these systems.

The Divisions are:

- **Finance & Administration**
- **Environmental Compliance**
- **Water & Wastewater Treatment Services / Maintenance**
- **Engineering & Construction Services**
- **Distribution & Collection Services**

The Divisions and their functions are further detailed in the Departmental sections of this report.


Citizens
Gainesville City Council
Kip Padgett
City Manager
Kelly Randall
Public Utilities Director
Don Dye
Assistant Public Utilities Director
Tina Wetherford
Finance & Administration Division Manager
Staff (42)
Stephen Douglas
Danny Ingram
Jerry Cagle
Water & Wastewater Treatment/Maintenance
Staff (84)
Horace Gee
Environmental Compliance
Staff (16)
Myron Bennett
Engineering & Construction Services Division Manager
Staff (23)
Joey Leverette
Distribution & Collection Division Manager
Staff (56)

Lake Lanier Facts

- Constructed in the 1950s by the US Army Corps of Engineers
- **692** miles of shoreline
- **39,000** acres of water
- Its deepest point is about **160** feet deep
- Record high lake level = **1077.2** MSL (6 feet above full level) in **1964**
- Record low lake level = **1050.79** MSL (20 feet below full level) in **2007**

Source: **US Army Corps of Engineers**

http://www.sam.usace.army.mil/Missions/CivilWorks/Recreation/LakeSidneyLanier.aspx

Gainesville Public Utilities

FY14 at a Glance:

# of Authorized Positions	**230**
Miles of Water Mains	**1355**
Miles of Sanitary Sewer	**289**
Meters Served	**52,411**
# Active Water Accounts	**48,837**
# Active Sewer Accounts	**9,527**
# of Customers Served	**131,860**
New Water Connections (Water Meters Sold)	**748**
New Sewer Connections (Sewer Taps Sold)	**256**
Water Treatment Plants' Maximum Daily Capacity	**35 MGD**
Wastewater Treatment Plants' Maximum Daily Capacity	**17 MGD**

Fiscal Year 2014:

(July 1, 2013 through June 30, 2014)

This fiscal year has been another year filled with significant events and achievements for the City of Gainesville's Public Utilities Department. Our Department has received several awards this year in recognition of its dedication and excellence in conservation efforts, education, and public outreach. In addition, many important projects were begun, continued and completed by the Utility in FY 2014.

Water Drop Dash

The Metropolitan North GA Water Planning District held the Inaugural ***Water Drop Dash*** this past March to kick off Fix-A-Leak week. As Members of the District, the City of Gainesville participated. Conservation Crusader ran in the Mascot Race along with our running toilet. Conservation Crusader also ran the 5k! After the race, Conservation Crusader swore in mini crusaders at the education fair. The Dash and Fair were held in Roswell at the Chattahoochee Nature Center, along the banks of the Chattahoochee River. Next year's race will be March 22nd at the same location.

AWARDS

Mr. Malcolm Wiley earned the GAWP District 2 Collection System Operator of the Year. The award was presented in Columbus at the Spring conference. Mr. Wiley has worked for the City of Gainesville Distribution and Collection Services for 4 years.

Malcolm Wiley is presented with the GAWP District 2 Collection System Operator of the Year.

Mr. Thomas East earned the GAWP District 2 Water Distribution Operator of the Year The award was presented in Columbus at the Spring conference. Mr. East has worked for the City of Gainesville Distribution and Collection Services for 10 years.

Thomas East is presented with the GAWP District 2 Distribution System Operator of the Year.

Special Certificates

David Walker at the Bradford Street Fuel Pumps.

Mr. David Walker received his State Certified UST fuel certification this year. The course is an 8-hour class and the certificate is good for 7 years. The City is required by GA EPD to have someone on staff with this certification.

2014 Citizens' Government Academy

The City of Gainesville held its 12th Annual Citizens' Government Academy in FY14. The 9-week program delved into the inner workings of Gainesville's government. Different city departments were explored, including Public Utilities. In week 6, Public Utilities' Director Kelly Randall discussed the department's operations, achievements, and goals. Students were also given tours of the Lakeside Water Treatment Plant, as well as the Flat Creek Water Reclamation Facility.

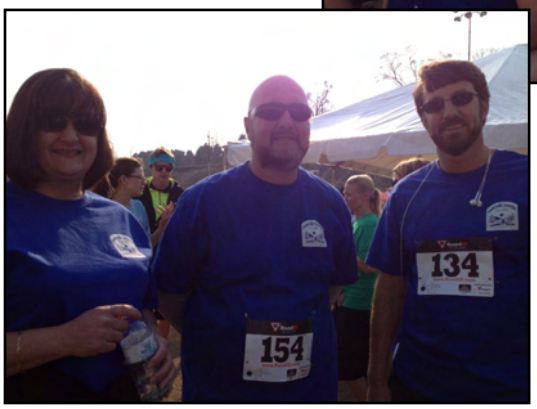
Members of the 2014 Citizens' Government Academy

Members of the 2014 Citizens' Government Academy touring Flat Creek Water Reclamation Facility and Lakeside Water Treatment Plant.

Chicken City Chasers

Chamber Chase 2014

The Greater Hall Chamber of Commerce's 7th Annual Chamber Chase 5K was held at Riverside Military Academy. The City of Gainesville's team, Chicken City Chasers, participated in the event.



PUD members at the 7th Annual Chamber Chase

FY14 Highlights

Annual Adopt-A-Stream Cleanup

Each year, the City of Gainesville hosts a stream cleanup, held at various locations throughout Hall County. Volunteers remove litter and other debris from our waterways. In FY14, **3,000** pounds of trash and debris were removed from Flat Creek Cove by **168** volunteers.

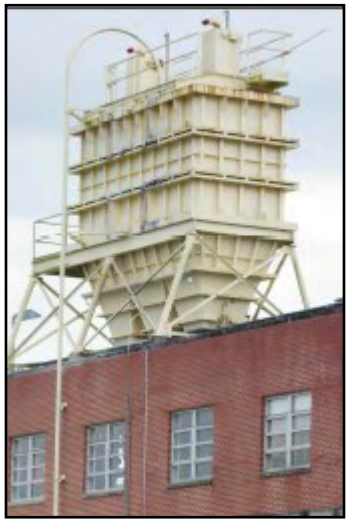
Rivers Alive

KEEP HALL BEAUTIFUL

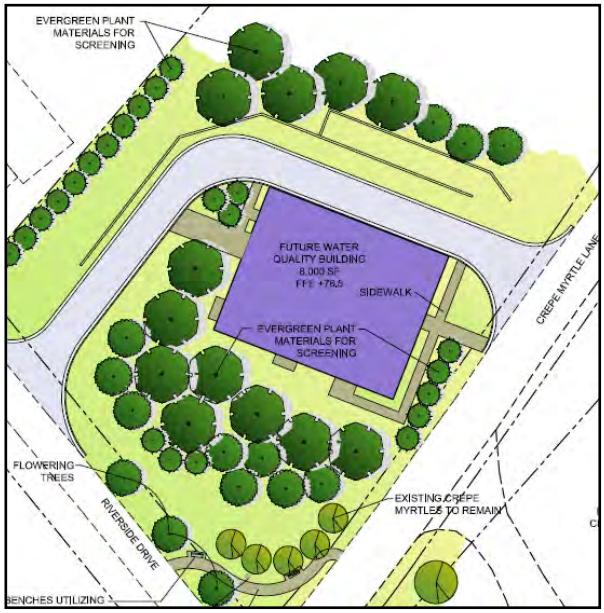
Riverside Drive WTP Chemical Systems Evaluation

This project performed a comprehensive evaluation of all existing chemical facilities at the Riverside Drive WTP. Some of these facilities are the originally-installed systems from the early 1950's which now have reached their useful life expectancy. Other portions may require upgrade or replacement due to technological advancement or regulatory changes in the water treatment field. A community public information meeting was held to answer questions and show proposed facilities.

Existing lime silo will be removed.



Architectural Drawings of the new Riverside Drive WTP Water Quality Building.



FINANCE AND ADMINISTRATION DIVISION

The Finance & Administration Division is comprised of two sections: **Customer Account Services** and **Finance & Administration**. The Division consists of **45** authorized positions which may be broadly categorized as **customer service representatives, customer advocates, billing staff, meter services/sales staff, warehouse staff, administrative and support personnel, financial and divisional management, Assistant Director and the Director's office.**

CUSTOMER ACCOUNT SERVICES

MISSION STATEMENT: *To provide our customers with professional, accurate and efficient services.*

SCOPE OF SERVICES

The Customer Account Services (CAS) group is responsible for providing customer service to over 52,400 water and sewer customers. The group is comprised of **31** authorized positions. Some services provided include, but are not limited to, answering customer calls, processing service applications, posting utility payments, billing, meter reading, meter sales, submitting and completing service requests, preparing adjustments and maintaining the billing software database.

FY14 Customer Account Services Statistical Indicators:

66,747 customer calls handled

7,517 applications for new service processed

263,443 transactions posted

62,744 payments made through our website

29,698 service orders completed

Public Utilities' Customer Account Services Employees

The 3rd year of the

H_20 Round up Program

Brought in $13,738.31

This is 57% increase from the previous year's

Contributions

Thank you

City of Gainesville

Utility Customers

-Tina Wetherford

Finance & Administration Division Manager

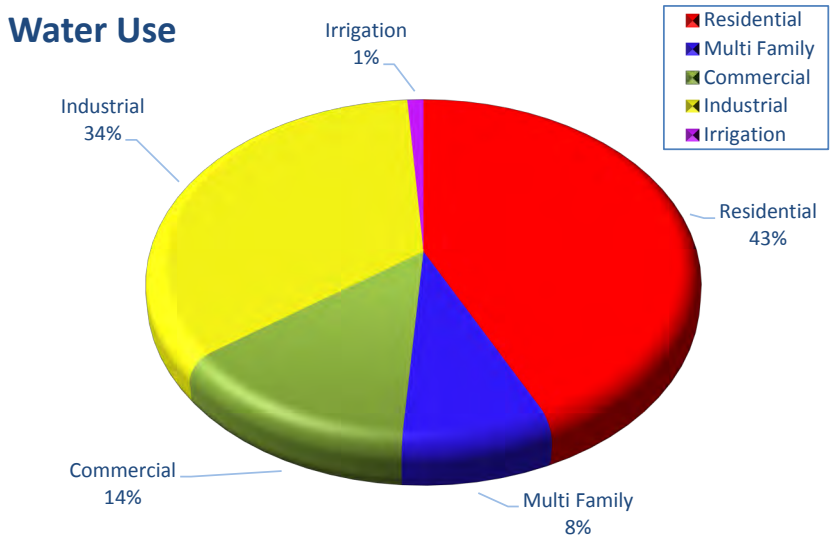
H_2O: Help 2 Others

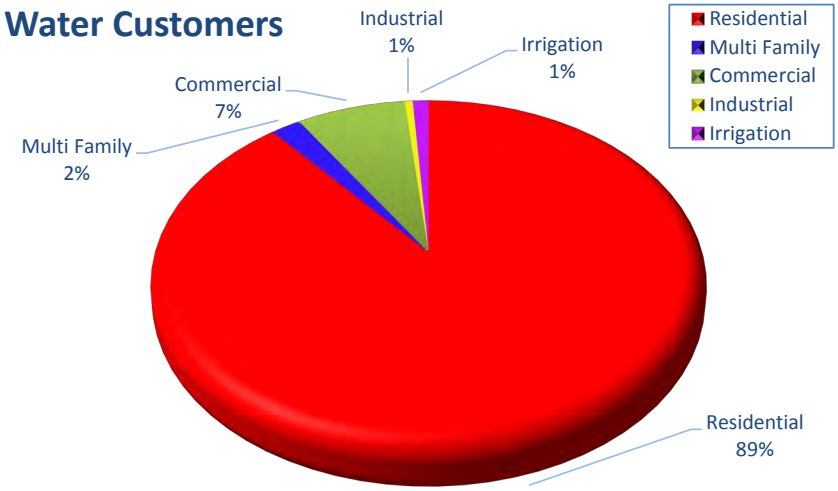
Project SHARE THE SALVATION ARMY DOING THE MOST GOOD

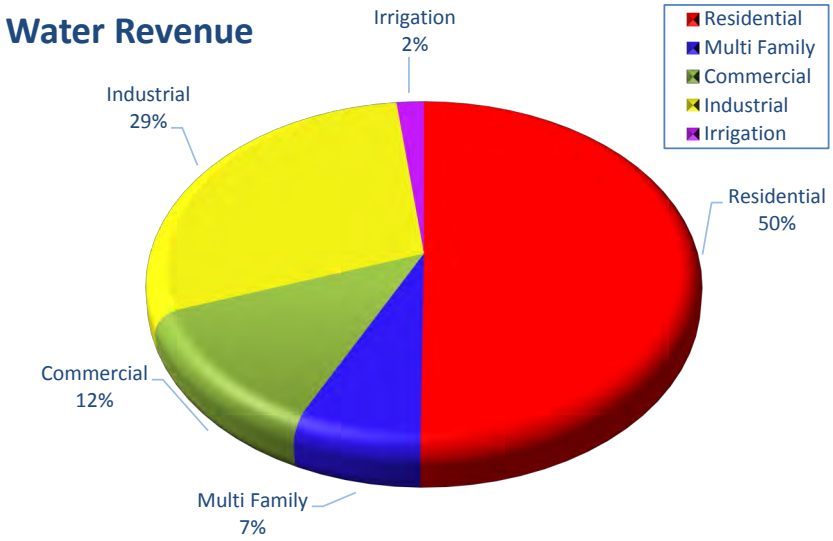
The City of Gainesville Public Utilities Department launched its **Help 2 Others (H2O)** Round Up program in early FY 2012. We partnered with the Salvation Army's **Project SHARE** in an effort to raise funds to assist those in need. City of Gainesville customers who choose to participate will have their utility bills rounded to the next whole dollar. These additional funds will be disbursed by the Salvation Army to fellow City of Gainesville utility customers facing financial hardship. The assistance will be used to help with water/sewer bills. All contributions are tax deductible.

Our Customers: Water

As of June 30,2014, **50%** of our water revenue comes from our residential customers, who comprise **89%** of our customer base. General Industry, though they make up **1%** of our water customers, continues to comprise **29%** of water revenue and **34%** of water

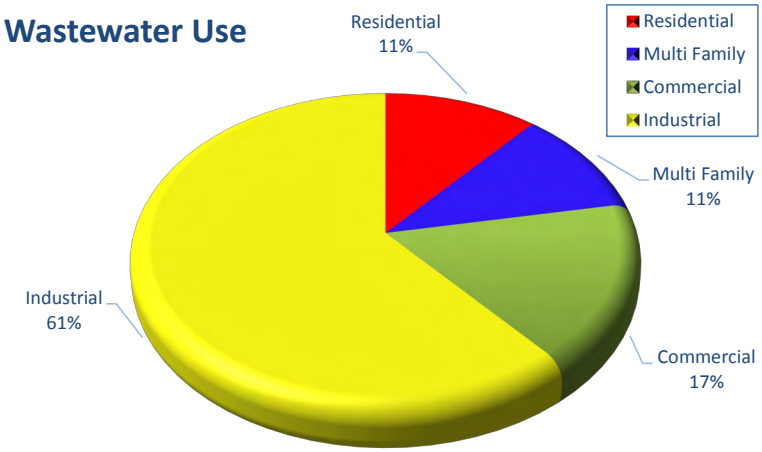


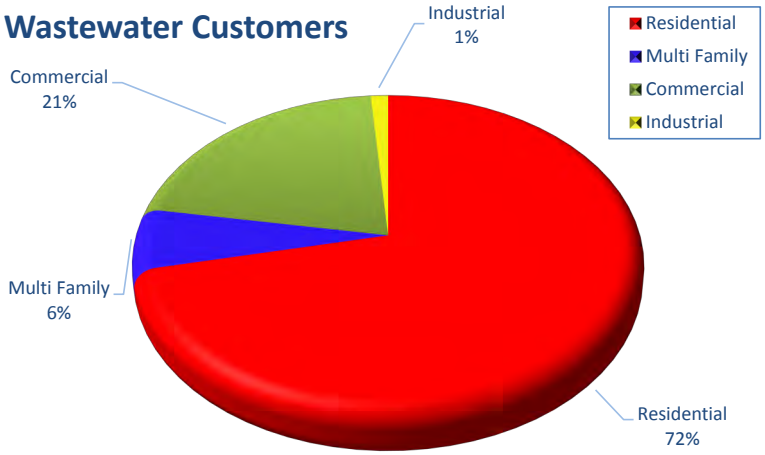


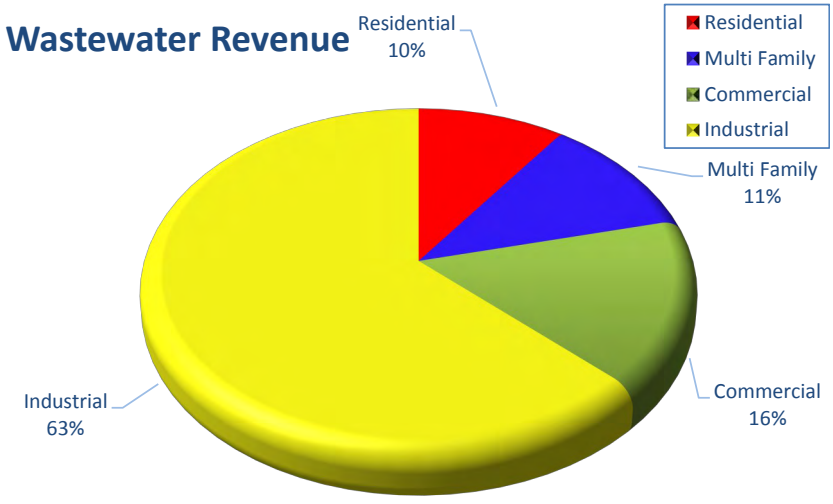


Our Customers: Wastewater

General Industry continues to be the largest user of wastewater with **61%** of total wastewater usage and **63%** of total wastewater revenue. Commercial is the next highest with **17%** and **16%** of wastewater use and revenue respectively. Seventy two percent of wastewater customers are residential, but their usage accounts for only **11%**. The revenue comparison is a slightly lower percentage at **10%** due to the fact that residential wastewater customers are billed for less than 100 % of water usage with a cap on the billable volume.







FINANCE & ADMINISTRATION

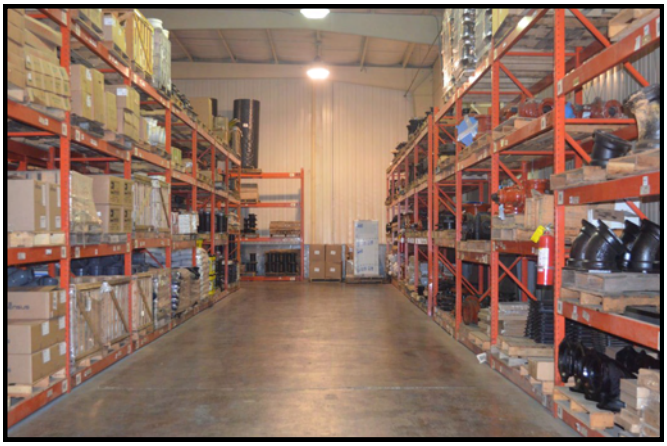
MISSION STATEMENT: *To provide a stable financial position and administrative support for daily operations.*

SCOPE OF SERVICES

The Finance and Administration section has fourteen **(14)** authorized positions which include the Director, Assistant Director, Finance & Administration Division Manager, Accounts Payable, Customer Advocates, Inventory Control, Payroll, Purchasing and Warehouse personnel.

The group is responsible for financial planning for the Five-Year Capital Improvements Program, preparation and management of the operating and capital equipment budgets, performing cost-of-services analysis, evaluation of customer service "best practices," payroll and personnel support, purchasing and inventory control, fleet and asset management, accounts payable, policy enforcement, utility debt collection, management of the 18,000 square foot administration building and the warehouse facility, and preparation of the annual report and other publications. This staff works closely with the Director in establishing long-term directions and goals for the Public Utilities Department, developing departmental policies and municipal codes, and providing essential support to all divisions.

- Accounts Payable staff processed **6,582** invoices and **367** requisitions in FY14.
- Purchasing staff processed **428** requests for bids and proposals in FY14.
- The Warehouse staff reworked **184** meters in FY14.

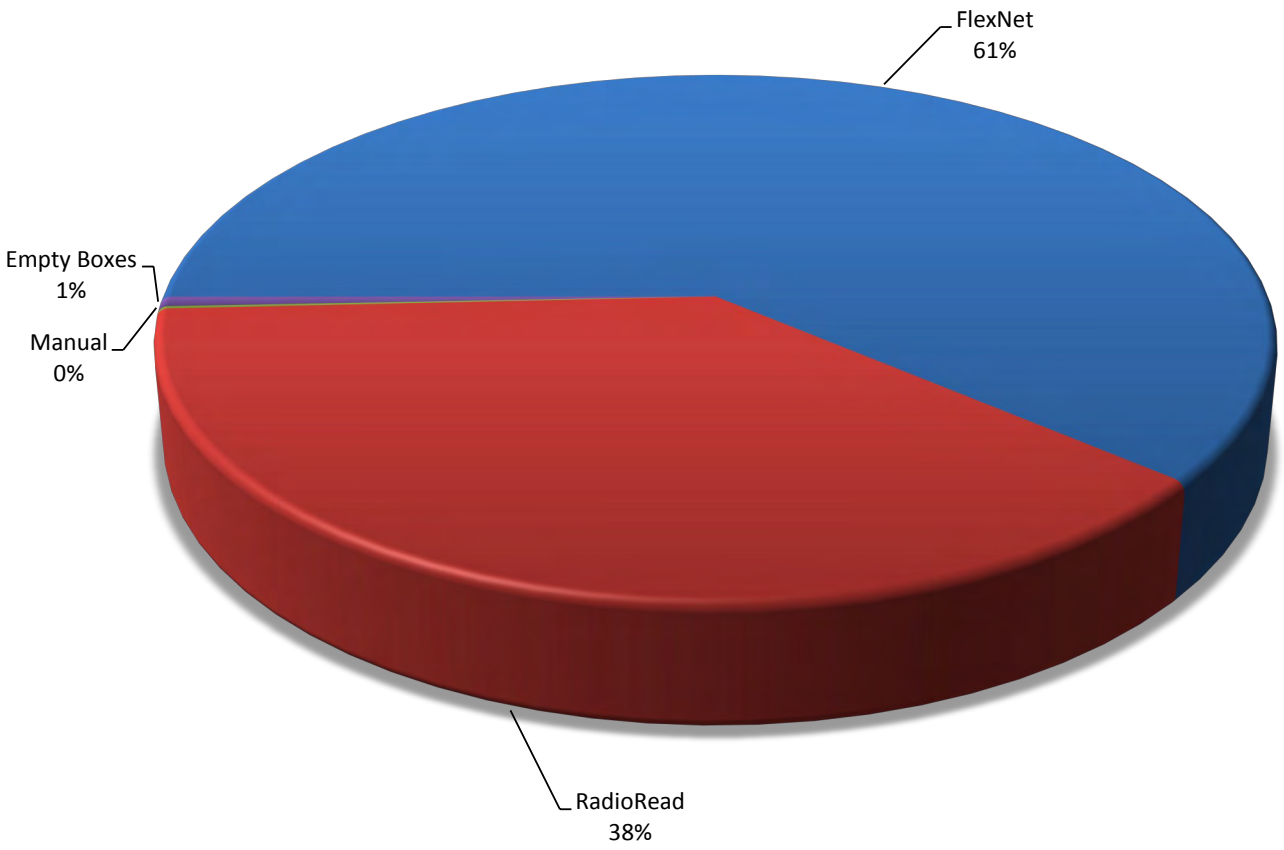


Meters and Supplies in the PUD warehouse

Automated Metering: The Smart Choice

The City of Gainesville currently has over 52,400 meters installed throughout its system. Over 99% of these meters are now automated in some form, whether it is FlexNet or RadioRead technology. Sixty one percent of these meters are equipped with FlexNet technology, the result of the Automated Meter Reading Project, which allows the meters to be read remotely through one of four Tower Gateway Base Stations and transmitted through a database server to the utility. This enables staff to continuously view meter activity to monitor usage patterns and provide proactive leak detection. Customers are notified of potential leaks, saving them money and protecting our system from unnecessary water loss. RadioRead, or drive-by automated reading system, reduces reading times and the Utility's costs by decreasing the amount spent on fuel to manually read meters.

Percentage of Meters by Technology



As of 6/30/2014

FY 14 Financial Highlights

CITY OF GAINESVILLE
PUBLIC UTILITIES FUND
SUMMARY FINANCIAL STATEMENT
For the twelve months ended June 30, 2014
UNAUDITED

Interim Statements

% of Year Remaining = 0.00%

	Revised Budget	Jun-14 YTD Actual	Remaining Balance	% Remaining
Revenues				
Intergovernmental	$ -	$ 1,330.00	$ (1,330.00)	
Charges for services	$ 58,089,969.00	$ 59,819,131.00	$ (1,729,162.00)	
Investment income	$ 20,000.00	$ 32,672.00	$ (12,672.00)	
Contributions			$ -	
Miscellaneous	$ 143,400.00	$ 224,740.00	$ (81,340.00)	
Other financing sources/transfers in	$ 1,000.00	$ 79,246.00	$ (78,246.00)	
Transfers from E&R (Connection Fees)	$ 915,162.00	$ 2,682,228.00	$ (1,767,066.00)	
Total Revenues	**$ 59,169,531.00**	**$ 62,839,347.00**	**$ (3,669,816.00)**	
Expenses				
Riverside Water Treatment Facility	$ 2,934,166.00	$ 2,212,896.00	$ 721,270.00	24.58%
Lakeside Water Treatment Facility	$ 2,102,219.00	$ 1,875,588.00	$ 226,631.00	10.78%
Water Distribution	$ 3,922,171.00	$ 3,341,243.00	$ 580,928.00	14.81%
Flat Creek Water Reclamation Facility	$ 3,826,208.00	$ 3,112,198.00	$ 714,010.00	18.66%
Linwood Water Reclamation Facility	$ 2,753,024.00	$ 2,251,892.00	$ 501,132.00	18.20%
Maintenance Services	$ 2,876,163.00	$ 2,464,730.00	$ 411,433.00	14.30%
Sanitary Sewer	$ 2,261,556.00	$ 1,828,938.00	$ 432,618.00	19.13%
Environmental Compliance and Permitting	$ 1,578,223.00	$ 1,279,719.00	$ 298,504.00	18.91%
Engineering and Construction Services	$ 2,521,299.00	$ 1,827,077.00	$ 694,222.00	27.53%
Customer Account Services	$ 2,941,908.00	$ 2,312,658.00	$ 629,250.00	21.39%
Finance and Administration	$ 2,274,546.00	$ 1,682,398.00	$ 592,148.00	26.03%
Subtotal - Expenses	$ 29,991,483.00	$ 24,189,337.00	$ 5,802,146.00	19.35%
Bad Debt Expense	$ -	$ 20,115.00	$ (20,115.00)	
Debt service	$ 21,439,497.00	$ 20,733,153.00	$ 706,344.00	3.29%
Transfer to E&R			$ -	
Other financing uses/transfers out	$ 8,373,600.00	$ 3,546,649.00	$ 4,826,951.00	57.64%
Total Expenses	$ 59,804,580.00	$ 48,489,254.00	$ 11,315,326.00	18.92%
Excess (Deficiency) Revenues over Expenses	$ (635,049.00)	$ 14,350,093.00		
Budgeted Fund Balance 6/30/14	$ 635,049.00			
	$ -			

WATER AND WASTEWATER TREATMENT SERVICES DIVISION

The Water and Wastewater Treatment Services Division is comprised of three (3) sectional groups, categorized as: **Water Treatment** (Riverside and Lakeside), **Water Reclamation** (Flat Creek and Linwood), and **Maintenance Services**.

The **Water Treatment** group is responsible for pumping raw water from Lake Lanier, the treatment of that water to national drinking water standards at the Riverside and Lakeside Water Treatment Plants (WTP), and the distribution of the finished treated water into the system's water storage facilities.

The **Water Reclamation** group treats all of the collected wastewater to environmentally safe discharge standards by utilizing the treatment capacity made available at the Flat Creek and Linwood Water Reclamation Facilities (WRF)s.

The **Maintenance Services** group is responsible for maintaining all equipment located within the treatment plants, the operation and maintenance of sewer pump stations and potable water booster pump stations, while also providing grounds keeping services to miscellaneous areas of the Public Utilities Department, along with sewer right-of-way maintenance and inspections.

WATER TREATMENT

MISSION STATEMENT: *To provide the highest quality drinking water in the most resourceful and economical way.*

SCOPE OF SERVICES

The **Water Treatment** group consists of the Water Operations Superintendent, two (2) Plant Managers, and twenty-eight (28) other staff members. This group is primarily responsible for the daily operations of the Riverside and Lakeside Water Treatment Plants (WTP)s and "finished" (i.e., treated) water storage facilities.

FACILITIES

The Riverside WTP has the capacity to produce and is permitted to process 25 Million Gallons per Day (MGD). The Lakeside WTP provides another 10 MGD of potable water for the community. Water is pumped from Lake Lanier to both treatment facilities and treated to be safe for residential, commercial, and industrial use. A high quality, uninterrupted supply of potable water free of objectionable turbidity, color, taste, and odor is produced.

Lakeside Water Treatment Plant

Riverside Water Treatment Plant

Treated water is stored in three clear wells at the Riverside WTP with a total combined on-site storage capacity of 12 MG. At the Lakeside WTP, there are two 5 MG clear wells for a total combined on-site storage capacity of 10 MG. In the distribution system, there is one 5 MG ground level storage reservoir (known as the High Street Tank). Six (6) elevated storage tanks provide additional storage capacity of 3.75 MG of finished water. The City has a total combined system storage capacity of 30.75 MG. This is enough stored water to serve customers for almost two days at current usage levels.

IMPROVING EFFICIENCY

Our staff members are always looking for ways to improve our operations. One such project during this year was the installation of a more accurate meter on our raw water supply line at our Lakeside Water Treatment Plant. The existing meters were only accurate to within 10%; the new meter is within 1%. As we move forward, our raw water flow data will be more accurate.

Setting the box for the new flow meter

Motor for the new mixer

Our Riverside Water Treatment Plant also completed a project that improves the operation of the facility, as process mixers were replaced. The new mixers provide more complete mixing and use less electricity.

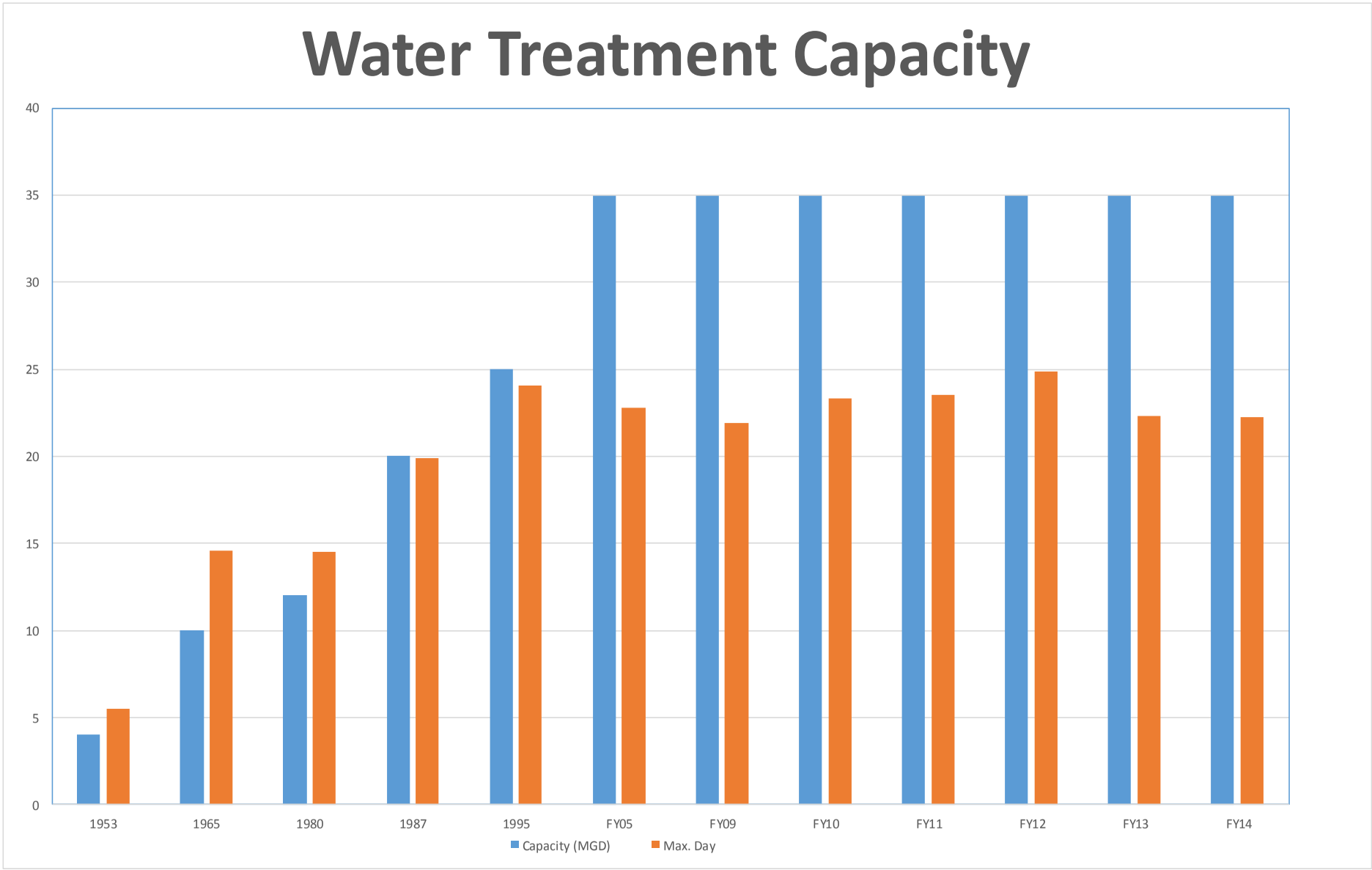
New Mixers

Riverside and Lakeside Statistical Indicators

	FY11	FY12	FY13	FY14
Filtering Capacity (MGD)	35	35	35	35
Filtering Permitted Capacity (MGD)	35	35	35	35
PERMITTED—Raw Water Withdrawal				
Maximum 24 Hour (MGD)	35	35	35	35
Monthly Average not to Exceed (MGD)	30	30	30	30
ACTUAL—Raw Water Withdrawal				
Maximum 24 Hour (MGD)				
Riverside	17.2	18.8	15.50	15.50
Lakeside	10.3	10.3	10.23	10.21
Monthly Average (MGD)	18.9	18.2	17.20	17.07
Total—Raw Water Withdrawal (MG)	6,906.0	6,629.0	6,262.3	6,231.0
Pumped To System				
Max Day (MG)	23.5	24.9	22.35	22.26
Average Day (MG)	17.6	17.7	16.73	16.68
TOTAL (MG)	6,437.0	6,461.0	6,106.5	6,086.4
Sludge Disposal (Tons)	801	953	945	941

MGD = Million Gallons Per Day MG = Million Gallons

The following is a chart indicating the annual average treatment plant capacities of the facilities and the maximum day water treated.



WATER RECLAMATION

MISSION STATEMENT: *To protect water quality by treating wastewater safely and effectively.*

SCOPE OF SERVICES

The Water Reclamation group consists of the Wastewater Operations Superintendent, two (2) Plant Managers, and twenty-eight (28) other staff members. This group is primarily responsible for the daily operations of the Flat Creek and Linwood WRF's. This group is also responsible for the monitoring and poling of sixty (60) wastewater pump stations, and responds to all after-hour emergency calls regarding water and wastewater.

FACILITIES:

The Flat Creek WRF with the capacity 12.0 MGD is the larger of two (2) WRF's in the system. Treatment at Flat Creek includes grit removal, primary treatment with dissolved air floatation, activated sludge biological treatment, clarification, and disinfection by ultraviolet radiation. Residual solids from the treatment process are thickened in settling tanks and de-watered using plate and frame type presses. The dewatered residuals are transported to ERTH Products, LLC, a privately owned composting facility in Plains, Georgia. At the ERTH facility, environmentally friendly composting of these residual solids and peanut hulls takes place. This compost is later sold as a soil conditioner.

Flat Creek WRF

The Linwood WRF is a new Advanced Tertiary Treatment facility, which includes membrane filtration. This 5.0 MGD treatment facility provides the additional treatment necessary to comply with new Lake Lanier discharge standards through the use of activated sludge biological treatment, and disinfection by ultraviolet radiation. Residual solids from the treatment process are thickened and de-watered using a belt press. The dewatered residuals are transported to ERTH Products, where it is composted and sold as a soil conditioner.

Linwood WRF

IMPROVING EFFICIENCY

The City of Gainesville's Public Utilities Department continually seeks ways to enhance operational and cost efficiency. The following are improvements implemented by the water reclamation group in FY 2014**:**

Flat Creek

Chemical usage cost overall was 4.25% higher in FY14 compared to FY13, but the annual treated flow was 5.3% higher as well. Even with higher flows, with our constant strategy of producing the best quality of water at the most economical price, we were still right in budget with only 0.8% of our chemical budget remaining at the end of the year. We would like to emphasize this is due to good management and the quality of the duties carried out by our team of professional operators.

Power consumption increased by 5.9% compared to FY13, but, as stated above, the annual treated flow was 5.3% higher as well. Georgia Power projected a price increase in January of 2014 of 5.6%; however, by taking advantage of Real Time Pricing from Georgia Power Direct online, we managed to keep our total power cost increase to only 6.1%, even with the extra flow. This was accomplished by dropping our flow through the facility down to 4 MGD or less when power pricing went up, in order to reduce costs during peak hours of the day.

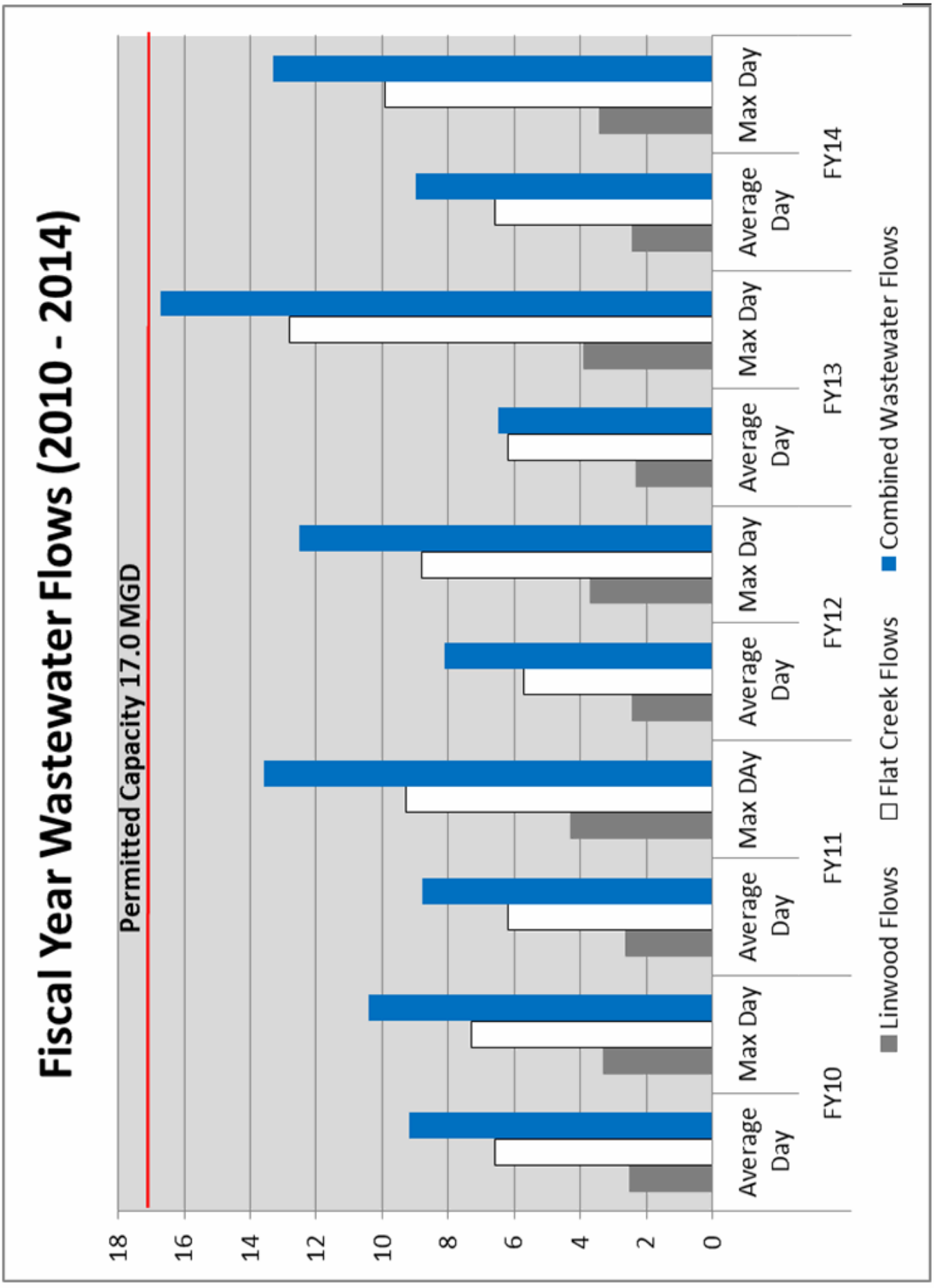
Linwood

Overall chemical usage cost was 5.5% higher in FY14 compared to FY13, but, as was the case at Flat Creek, the annual treated flow was higher as well, but by 2.5%. Even with higher flows, with our constant strategy of producing the best quality of water at the most economical price, we were still right in budget with an overage of only 0.009% or $55.00 on our chemical budget showing at the end of the year. Again, this demonstrates good management and keeping an eye on all expenses.

As was the case at Flat Creek, power consumption increased by 2.4% compared to FY13, but again, the annual treated flow was 2.5% higher. The price increase projected by Georgia Power in January of 2014 of was 5.6%; however, through Real Time Pricing from Georgia Power Direct online, we managed to keep our cost increase to only 3.7% even with that extra flow. This was accomplished by cutting back on any equipment possible during peak hours such as blowers for the equalization tank, and air circulation fans in dewatering when not occupied by staff.

Flat Creek and Linwood Statistical Indicators

Flat Creek Permitted Discharge Limits	FY11	FY12	FY13	FY14
Flat Creek Weekly Avg. not to exceed (MGD)	15	15	15	15
Flat Creek Monthly Avg. not to exceed (MGD)	12	12	12	12
Flat Creek – Max. Day Flow (MG)	9.3	8.8	12.8	9.9
Flat Creek – Avg. Day Flow (MG)	6.2	5.7	6.2	6.6
Flat Creek – Total Treated (MG)	2,263	2,080	2,269	2,390
Flat Creek – Biosolids Disposal (Dry Tons)	2,457	2,451	2,485	2,910
Linwood Permitted Discharge Limits				
Linwood Weekly Avg. not to exceed (MGD)	6.25	6.25	6.25	6.25
Linwood Monthly Avg. not to exceed (MGD)	5	5	5	5
Linwood – Max. Day Flow (MG)	4.3	3.7	3.9	3.4
Linwood – Avg. Day Flow (MG)	2.6	2.4	2.3	2.4
Linwood – Total Treated (MG)	949	876	836	857
Linwood – Biosolids Disposal (Dry Tons)	359	391	391	388
Combined Facility Total Treated (MG) ----------	3,212	2,956	3,105	3,247
Combined Total Biosolids Removal (Tons) -------	2,816	2,842	2,876	3,298


Fiscal Year Wastewater Flows (2010 - 2014)
Permitted Capacity 17.0 MGD
18
16
14
12
10
8
6
4
2
0
Average Day
Max Day
Average Day
Max DAy
Average Day
Max Day
Average Day
Max Day
Average Day
Max Day
FY10
FY11
FY12
FY13
FY14
Linwood Flows
Flat Creek Flows
Combined Wastewater Flows

MAINTENANCE SERVICES

MISSION STATEMENT: *To efficiently maintain all Public Utilities plants, pump stations, and buildings.*

SCOPE OF SERVICES

The Maintenance Services Division consists of a **Maintenance Manager** with three (**3**) sections: **Maintenance**, **Pump Stations**, and **Grounds Maintenance** - a total of twenty-five (**25**) positions. The **Maintenance** section consists of Maintenance crews that are responsible for preventive, routine and emergency repairs of fixed operating equipment at all PUD facilities. Pump mechanics and electricians are on standby duty at all times to handle after-hour situations. The **Pump Station** section monitors and maintains the 60+ water and sewer pump stations throughout the City of Gainesville and Hall County. The **Grounds Crew** section are responsible for grounds maintenance at the Public Utilities treatment plants, water tanks, pump stations, and water and sewer line right-of-ways. In addition, the grounds crew is responsible for general maintenance, which includes painting, cleaning, and other duties as needed at all PUD facilities.

FY 14 Statistical Indicators:

- **Total Repair Work Orders = 1,137**
- **Total PM Work Orders = 2,959**
- **After Hours Emergency Calls = 96**

Mr. Jerry Cagle retired in June 2014 after **33 years** of service with the Public Utilities Department. Mr. Cagle started his career as a meter reader and ended as the Maintenance Manager. Jerry leaves the City with a great deal of knowledge and experience that will be greatly missed by the Utility.

ENVIRONMENTAL COMPLIANCE

The **Environmental Compliance group** is responsible for the city's water quality laboratory, the industrial pretreatment program, commercial wastewater management, environmental monitoring program, forestry management, public education program, water conservation program and various other projects and programs as assigned. The Environmental Compliance offices and staff are located in the Environmental Services Laboratory at 2641 Old Flowery Branch Road, Gainesville, GA 30504.

MISSION STATEMENT: *Provide first rate quality assurance through management of water resources*

SCOPE OF SERVICES

The **Environmental Compliance** staff consists of a total of **17** authorized positions working in five major areas of quality control and quality assurance. These programs support the successful operation of the Department's water and wastewater treatment plants, help to ensure the quality of drinking water to the customers, and provide for the protection and improvement of the community's water resources. The staff also endeavors to efficiently assist and educate residential and commercial customers, as well as the general public.

The **Environmental Compliance** group manages the City's Water Quality Laboratory, Industrial Pretreatment Program, Environmental Monitoring Program, Water Conservation Program, and various other projects and programs as necessary to provide support for the PUD. **The Following is a summary of responsibilities for this group:**

- The **Laboratory** staff provides quality and legally defensible analytical services to the Environmental Compliances section, other divisions of the PUD, and other departments of the City of Gainesville. All tests are conducted in accordance with the United States Environmental Protection Agency (US EPA) and Georgia Environmental Protection Division (GA EPD) regulations by following Standard Methods for the Examination of Water and Wastewater and American Society for Testing Methods. Laboratory services help to ensure the high quality of Gainesville's drinking water and that wastewater operations are in compliance with all state and federal regulations. The laboratory staff also provides water testing services to the City of Gainesville, Hall County, and surrounding county residents.

A. Tina Whisnant measures BOD (Biochemical Oxygen Demand) on industrial and environmental samples to determine waste loads.

B. Josh Pass and Brooks Corley measure fecal bacteria levels in stream samples from around Hall County.

C. Paula Glasper measures total phosphorus levels in a sample that was brought into the lab.

- The **Industrial Pretreatment** section administers the Industrial Pretreatment Program as mandated by the Federal Clean Water Act. Local businesses and industries are regulated and educated concerning wastewater discharges and changing federal, state, and local wastewater discharge requirements. This group also inspects and monitors these discharges in order to protect the wastewater treatment plants, workers, sewer system, and receiving streams. Gainesville's Fats, Oils, and Grease (FOG) program also resides under the umbrella of the Industrial Pretreatment section. This program manages the maintenance of facilities and disposal of commercial waste from commercial users of the collection system. This program also coordinates with designers during the preconstruction process of commercial and industrial facilities.
- The **Environmental Monitoring** group conducts visual site inspections on various creeks, chemical and microbiological sampling of area waters, quarterly stream walks, biological monitoring, and public awareness, education and participation to help protect local water resources and the surrounding environment. Environmental Monitoring provides a quality assurance function for the wastewater facilities and collection system and conducts environmental monitoring and public outreach activities as prescribed in the City's Watershed Management Plan and Municipal Separate Storm Sewer System (MS4) Notice of Intent (NOI) to detect and eliminate local water quality problems.
- The **Water Conservation Program** actively provides literature, programs, education and workshops within the Gainesville/Hall County community on ways residents can conserve their drinking water supply. This section communicates the current regulations of the State of Georgia's outdoor water use plan within the community and ensures Gainesville is following the Metropolitan North Georgia Water Planning District's water conservation plan. The program has continued offering Gainesville's Plumbing Retrofit Program, informative programming on the local TV-18 network and water efficiency workshops.

Additionally, Environmental Compliance is actively involved in watershed protection through participation in the Community Watershed Assessment Project, the Metropolitan North Georgia Water Planning District (MNGWPD), the Upper Chattahoochee Basin Group, and the Georgia Adopt-A-Stream program.

A. Brian Wiley, the Environmental Monitoring Coordinator shows East Hall Middle School students how to test for the level of oxygen in the creek.

B. Steve Archer, Industrial Wastewater Inspector, collects a grab sample from one of the City's permitted industries.

C. Environmental Specialist, Tyler Sims, uses a D-frame net to collect various habitat samples on Flat Creek. This extensive sampling is done biennially.

Environmental Compliance FY14 Statistical Indicators	
# of Lab Samples Analyzed	**8,301**
Total Analyses Conducted by Lab Services	**31,111**
Drinking Water/New Line Samples	**1,924**
Pretreatment Program Compliance Inspections	**2,901**
Environmental Site Inspections	**2,893**
Environmental Samples	**837**
Public Presentations	**272**

* In addition to the formal annual inspections, an additional **2,901** visits were made to industrial and commercial facilities to inspect and sample for compliance with the pretreatment program. The total number of visits has decreased due to a change in our SOP to reduce our cost, while maintaining the same level of performance.

* The Fats Oils and Grease (FOG) program tracks **294** facilities, primarily restaurants, which use grease traps as their only pretreatment of wastewater prior to discharge to the City's collection system. Additional FOG accomplishments for FY14 included the inspection and permitting of **51** commercial waste transportation vehicles.

* The Environmental Monitoring Program centers on the requirements to support water resource protection as specified in the Watershed Assessment Project (with specific emphasis on the directives of the Watershed Management Plan). Other regulatory drivers for this program now include Gainesville's Municipal Separate Storm Sewer System (MS4) and the requirements for pollution prevention Best Management Procedures at municipal facilities involved in industrial activity such as transportation shops and the airport. The result has been more time spent in public outreach (such as employee pollution prevention education, the Adopt-A-Stream program and water conservation education). During FY14, staff inspected **2,893** sites for environmental issues and collected **837** samples.

* Public presentations are done as part of the division's public outreach program as recommended by the Watershed Management Plan, Phase II MS4 requirements, Phase II Municipal Facilities Permit coverage, and as part of the city's water conservation efforts. These are done to educate the community about protection of local water resources. In FY14, **272** presentations were conducted.

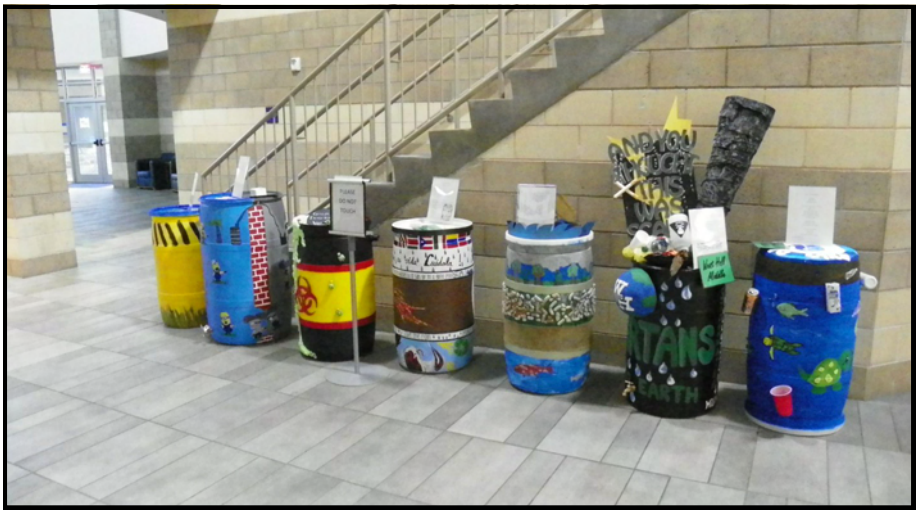
A. The Stormwater Program Civil Engineer inspects a stormwater catch basin for potential problems.

B. Conservation Crusader crosses the finish line at the Water Drop Dash.

WATER EFFICIENCY

The City of Gainesville continues to promote water efficiency throughout the community through public participation and involvement. Customers continue to take advantage of the plumbing retrofit program by removing inefficient fixtures and replacing them with a 1.28 gpf (gallon per flush) toilets. There were 244 Retrofit Rebates issued in FY14. This fiscal year, the program was expanded to include multi-family and commercial properties. Numerous properties have taken advantage of the new rebate program. Residents also attended the **Rain Collection Workshops** to construct water-saving rain barrels**. A total of** 40 rain barrels were distributed in FY14. Several City of Gainesville residents also participated in the free residential water assessments to help locate leaks and possibly save money by learning about water saving opportunities in their homes.

Classroom presentations for all ages are still the "backbone" for spreading the water efficiency message. Staff work at the request of teachers to present water conserving measures all can become involved in. The rain barrel decorating contest had approximately 120 students participate from 7 schools. In addition to being displayed at the Frances Meadows Center in April, they are shown off and the winners announced at the Spring Chicken Festival Parade.



The seven main barrels that were judged for the decorating contest. In total 30 barrels were decorated by over 100 students.

Conservation Crusader drives the decorated barrels through the Spring Chicken Festival Parade.

Aerators are replaced in a local establishment to save water.

The Water Conservation Specialist explains how to install a rain barrel.

COMMUNITY EDUCATION & INVOLVEMENT

Community education and involvement are an integral part of raising awareness and ensuring sustainability of our natural resources. In FY14, the City of Gainesville conducted **272** public presentations. These ranged from elementary schools to adult trainings for watershed protection and opportunities for volunteer involvement. Classes continue to enjoy Adopt-A-Stream training for chemical and biological monitoring. There were **212** individuals that participated in this years Rivers Alive! clean up. The event was very successful with **2,700** pounds of trash removed from Flat Creek. Environmental Fest was conducted with West Hall Middle School's 6th grade. Students rotated through 13 different hands-on stations to learn all about water, recycling and turning plastic into oil. Lola the Water Waster was introduced as a new character. She has a tendency to waste water because she loves it too much. Conservation Crusader is usually close by to try to set her straight. The Conservation Crusader participated in the Water Drop Dash and education fair held in Roswell along the Chattahoochee River.

A. Chestatee High School students participating in the Rivers Alive! Cleanup.

B. Conservation Crusader and Lola the Water Waster visit Gainesville Elementary School.

C. West Hall Middle School students participating in Environmental Fest.

D. Environmental Compliance staff accepting the 2013 Georgia Association of Water Professionals Education Program of the Year Award.

ENGINEERING AND CONSTRUCTION SERVICES DIVISION

The Engineering and Construction Services Division began the fiscal year with 23 full-time and 1 part-time authorized positions. These positions may be broadly categorized as engineers, technicians, inspectors, permitting staff, and support staff.

MISSION STATEMENT: *To effectively execute assigned projects to meet the defined needs of our community.*

SCOPE OF SERVICES

The Engineering and Construction Services Division not only represents the Public Utilities Department but also the City as a whole on all Capital Improvements Projects (CIP) throughout design and construction, review and permitting of private development projects, and administration of the Backflow Prevention Program. The services provided by the group may be summarized as follows:

- In-house design, bidding, and construction services associated with water mains and sanitary sewer system improvements
- Project management functions related to services provided by various consulting engineers
- Computerized water and wastewater systems mapping, graphical presentation, and geographic information system (GIS) management
- Archival functions associated with technical plans and documents for the PUD
- Hydraulic analysis and overall planning activities associated with water and wastewater systems
- Construction management and inspection on all private developments that propose to connect to the City's water and/or wastewater systems
- Project concept and design, contract administration, construction management services of CIP for Public Utilities, Public Works, Parks and Recreation, and other City departments as directed by the City Management from inception to completion of project. Project and construction management services are also provided for other local governments when required by intergovernmental agreement. These services are charged to the actual project to prevent Public Utilities from subsidizing them.
- Payment and reimbursement processing for all projects related to the CIP
- Maintenance of all financial records related to the CIP as well as construction contracts and records from project inception to completion.

Other functions consist of the following:

◊ Periodic updating and maintaining water main and sanitary sewer extension and/or Replacement lists

◊ Field surveying

◊ Five-year CIP development and tracking

◊ Coordination, preparation and updating of the Department Comprehensive Financial Model (CFM) as well as management of other relevant rate and financial studies.

◊ Preparation of the Department's presentation at the annual workshop with the City Council

◊ Evaluation of new water and wastewater products to determine if they meet PUD standards

◊ Coordination and preparation of annual updates of the Department's Standard Specifications

◊ Negotiation and purchasing of land and easements required to construct projects; processing and maintaining associated documents, databases and files.

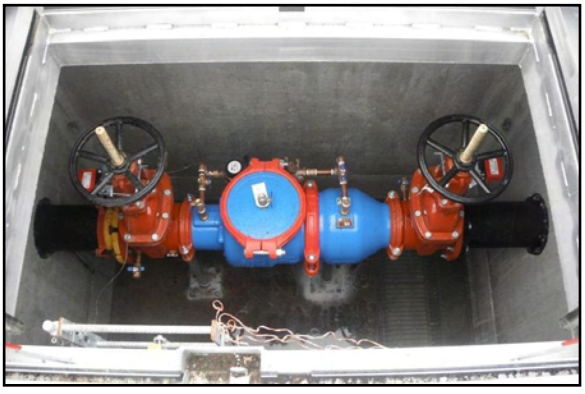
The **Permitting** group provides management of private development permitting and the **Backflow Prevention Program**. The Permitting group also provides assistance with in-house design and project management of sanitary sewer system replacement and extension projects. The following is a summary of responsibilities for this group:

Permitting:

- Review and permitting of all commercial, industrial, and residential developments which propose to connect to the City's water or wastewater systems to ensure compliance with the department's standards and specifications.
- Coordination activities with the Georgia Environmental Protection Division (GA EPD) associated with delegation of review compliance.
- Coordination activities with the Gainesville and Hall County Planning Departments for issuance of development permits through the City and the County plan review committees.
- Coordination activities associated with Gainesville and Hall County Building Inspections Departments and their issuance of Certificates of Occupancy (CO's) for projects that require PUD's inspections.
- Coordination activities with the Gainesville and Hall County Planning Departments concerning annexation requests for sanitary sewerage services, as well as rezoning and variance request activities.
- Preliminary investigation to determine water and/or wastewater systems connection feasibility for future private developments.
- Preparation of water and sanitary sewer availability letters.
- Easement acquisition associated with water and wastewater systems located within private development projects.
- Coordination of activities for inspection of approved private development projects.
- Review and approval of as-built drawings for newly constructed public water and wastewater systems.
- Review and approval of fire sprinkler system drawings and subsequent coordination with the billing office for applicable sprinkler system fees.
- Production and updating of development guidelines and associated plan review checklists.

Backflow:

- Inspection of new and existing backflow prevention device installations.
- Tracking of required annual backflow test reports.
- Tracking of City-approved backflow testers.
- Conduct monthly mail-out notifications to customers for outstanding backflow prevention requirements.
- Production and updating of backflow prevention specifications and installation guidelines.
- Conduct inspections of private wells and reclaimed water systems for illegal cross-connection with City's water distribution system.
- Testing, maintaining and repairing existing backflow preventers on City facilities.
- Fire hydrant flow testing.



STATISTICAL INDICATORS:

The following statistical indicators have been compiled to provide a more clear and quantifiable picture of the Engineering and Construction Services Division's accomplishments during FY14:

- Provided project management and construction management / resident engineering services on **19** capital improvement projects that were completed in FY14 and **30** on-going capital improvement projects for the Gainesville's Public Utilities Department, Public Works Department, Administrative Services, Parks and Recreation Agency, and Hall County Public Works and Utility Sanitary Sewer projects.

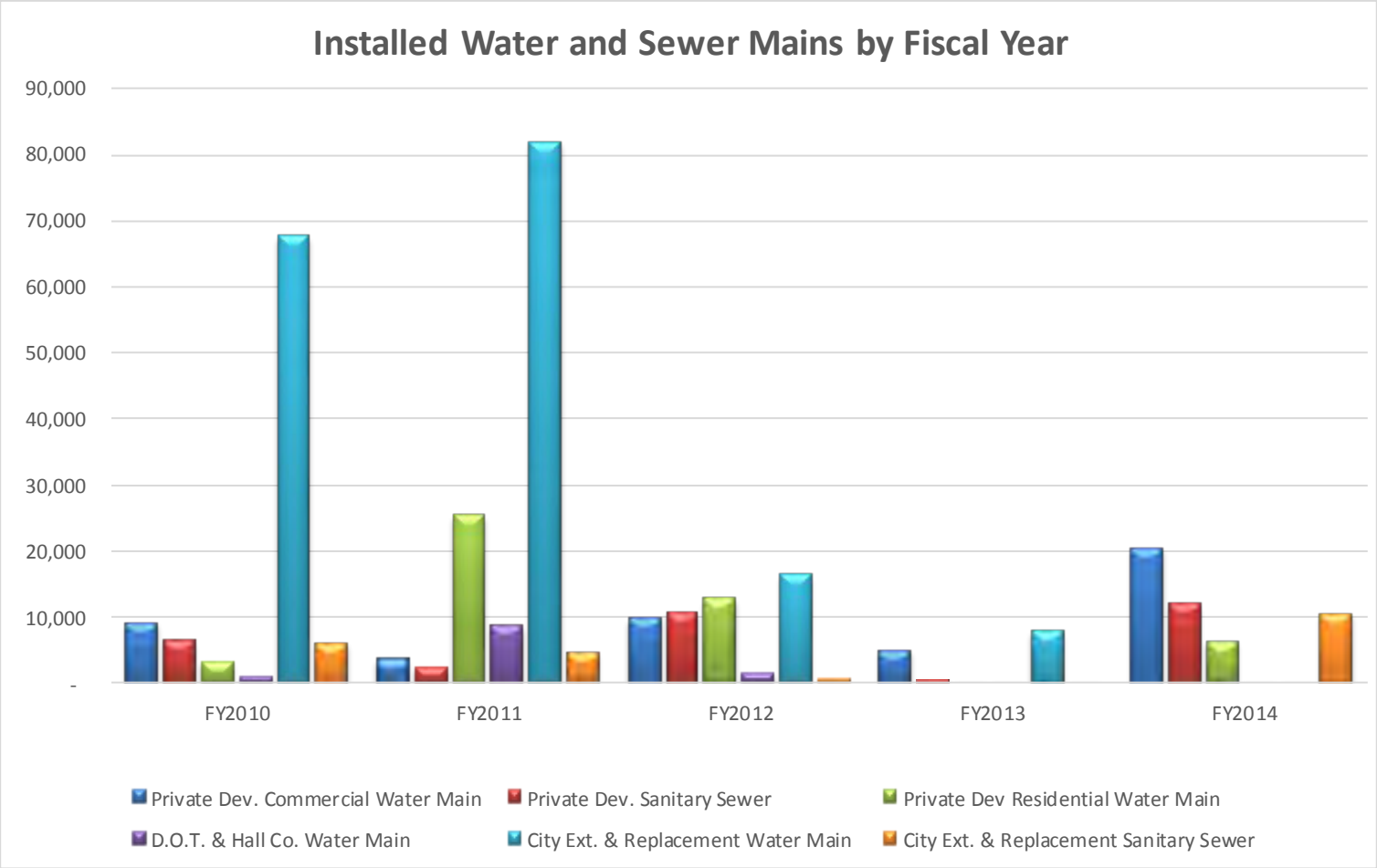
- Provided construction inspection and management for the following connections to the Public Utilities' water and wastewater system:
    1. Approximately **6.37** miles of water main and **73** fire hydrants. These figures include capital improvement projects, private development water mains, private fire mains and private fire hydrants.
    2. Approximately **3.25** miles of gravity sanitary sewer and **63** new manholes.
- Completed Scanning, drawing and linking **41** easements.
- Completed scanning of approximately **2,901** plan sheets and **8** valve cards.
- Created approximately **12** graphical exhibits including the PUD's presentation for the annual Citizen's Government Academy, Workshop with the City Council, and GAWP Level 2 Leadership Academy.
- Created maps to assist with transition into the Stormwater Maintenance Program.
- Analyzed/Edited impervious landcover data for development of Stormwater Utility Fees.

FY 2014 Water Main and Sanitary Sewer Construction and Abandonment History

SANITARY SEWER CONSTRUCTION/ABANDONMENT HISTORY						
YEAR	Gravity Sewers Constructed/ Rehabilitated (Miles)	Manholes Constructed	Force Main Constructed (Miles)	Gravity Sewers Abandoned (Miles)	Manholes Abandoned	Force Main Abandoned (Miles)
FY09	4.31	99	3.67	0.6	24	5.04
FY10	2.33	71	2.73	0.57	12	1.21
FY11	1.3	51	2.31	0.66	14	0.10
FY12	1.49	49	1.01	0	0	0.46
FY13	0.09	2	0	0	0	0
FY14	3.25	63	0.51	0.26	8	0

WATER LINE CONSTRUCTION/ABANDONMENT HISTORY (PUBLIC FACILITIES)			
YEAR	Water Lines Constructed (Miles)	Fire Hydrants Installed	Water Lines Abandoned (Miles)
FY09	7.8	79	0
FY10	15.28	111	3.9
FY11	22.62	165	0.54
FY12	7.61	73	2.77
FY13	2.41	30	0.51
FY14	5.04	62	0

TYPE OF INSTALLATION	FY 2010 TOTAL (FT.)	FY 2011 TOTAL (FT.)	FY 2012 TOTAL (FT.)	FY 2013 TOTAL (FT.)	FY 2014 TOTAL (FT.)
PRIVATE DEV. COMMERCIAL WATER MAIN	9,017	3,590	9,741	4,872	20,313
PRIVATE DEV. SANITARY SEWER	6,335	2,323	10,725	485	11,873
PRIVATE DEV. RESIDENTIAL WATER MAIN	3,165	25,405	12,720	0	6,275
D.O.T. & HALL CO. WATER MAIN	862	8,615	1,415	0	0
CITY EXT. & REPLACEMENT WATER MAIN	67,650	81,828	16,289	7,829	0
CITY EXT. & REPLACEMENT SANITARY SEWER	5,980	4,540	530	0	10,348



PERMITTING FY14 STATISTICAL INDICATORS

The following is the statistical indicator information for the **Permitting Group**:

- Reviewed **132** development plans and issued **95** development permits through City of Gainesville/ Hall County Planning & Zoning Department.
- Reviewed **160** architectural drawings and **18** fire sprinkler system drawings.
- Reviewed and approved **300** proposed water service connections through the plan review and permitting process.
- Reviewed and approved **8** City of Oakwood, **2** Town of Braselton, **0** Flowery Branch and **2** City of Buford developments through direct permitting coordination with these jurisdictions.
- Reviewed **933** commercial building permits (**916** in Hall County and Gainesville and **17** in Oakwood).
- Reviewed **22** applications for rezoning, variances, or annexations through the City of Gainesville's Planning and Appeals Board.
- Reviewed **61** applications for variances, conditional use, proposed amendments or rezonings through the Hall County Planning Commission.
- Forwarded **28** new construction projects to the Engineering and Construction Services Division. These projects required water and/or sanitary sewer construction inspections.
- Collected a total of **$88,121.45** in fees for water and sanitary sewer inspections that were performed by the Construction Management Division personnel and for fire hydrant flow testing.
- Conducted **49** backflow preventer inspections, of which **21** were approved through the Certificate of Occupancy (CO) issuance program and **28** were approved through mail-out program.
- Received and logged **6,600** backflow preventer test reports.
- Issued **1** variance for backflow preventer installation locations.
- Issued **5,460** first, second, and third notices to existing customers with overdue or failed annual backflow prevention device test reports, and issued **437** notices to device testers to provide up-to-date calibration and certifications.
- Conducted **7** fire hydrant flow tests for proposed private developments.
- **183** City backflow devices were tested, **2** new backflow devices were installed, and **12** existing devices were repaired.

PROJECTS COMPLETED DURING FY14:

1) FY14 Automated Meter Reading Project.
2) FY14 Water Service Connections.
3) Cedar Creek Water Treatment Plant (Design Phase).
4) Hancock Avenue Dry Storage Buildings.
5) Water Tank Maintenance Project (Initial 2 year contract).
6) Lakeside Water Treatment Plant Raw Water Metering Project
7) Year 23, Contract II Sanitary Sewer System Improvement Project.
8) City View Center Elevated Pedestrian Walkway Project.
9) Wessell Park/ Tennis/ Basketball Courts Renovation Project.
10) Green Street Pool Demolition Project.
11) Mulberry Creek Regional Sewerage Facilities Project.
12) FY14 Rate Differential/Study for City Customers vs. Outside City Customers.
13) Cedar Creek Reservoir Dam Inspection and Repairs.
14) State Route 365/ Hall County Sanitary Sewer Service Agreement.
15) Sanitary Sewer Relocation at Milliken/Limestone Parkway Property.
16) Sanitary Sewer Extension at Milton Martin Honda.
17) Roy Parks Road/Creek Crossing Water Main Relocation.
18) Organized, Managed and Completed all activities associated with the Department's Annual Workshop presentation for the City Council.
19) Riverside Drive Water Treatment Plant Chemical Systems Community Outreach.

Athens Hwy Tank Maintenance

ACTIVE PROJECTS MANAGED DURING FY14 BUT CARRIED FORWARD :

1) Cargill Sanitary Sewer Improvements Project-Phase II.
2) Pump Station No. 23 Improvements Project.
3) Water Distribution System Storage Tanks Maintenance Program.
4) Telemetry Systems Improvement Project.
5) FY13 Water Treatment and Water Reclamation Facilities Maintenance Project.
6) State Route 347/Friendship (Lanier Islands Parkway) and Thompsons Mill Road Utilities Relocation Project.
7) State Route 284/Clarks Bridge Replacement Utilities Relocation Project.
8) Flat Creek Stream Restoration/Cargill to Gainesville Mill Project-Phase I.
9) Linwood Water Reclamation Facility Discharge Pipe Easement from U.S. Army Corps of Engineers.
10) Riverside Drive Water Treatment Plant Chemical System Upgrade Project.
11) Cedar Creek Reservoir Dam Inspection and Repairs.
12) City of Gainesville Administration Building Renovations.
13) Flat Creek Water Reclamation Facility Sludge Digester Repair.
14) Corrugated Metal Sanitary Sewer Replacements Project.
15) Flat Creek Water Reclamation Facility Dissolved Air Flotation (DAF) Engineering Study.
16) FY13 Water Main Improvements Project.
17) FY14 Water Main Improvements Project.
18) FY14 Water Meter Replacement Project.
19) PUD Administration Building HVAC Replacement Project
20) Riverside Drive Water Treatment Plant Concrete Evaluation and Repair Project.
21) State Route 11/U.S. 129 Athens Highway Utilities Relocation Project.

SR 284/Clarks Bridge Road Utility Relocation

ACTIVE PROJECTS MANAGED DURING FY14 BUT CARRIED FORWARD (CONT'D):

22) Spout Springs Road Utilities Relocation Project.
23) S.R. 369/Browns Bridge Road Chattahoochee River Bridge Replacement Project.
24) S.R. 53/Dawsonville Highway Chestatee River Bridge Replacement Project.
25) Lanier Island Parkway Utilities Relocation Project (McEver Road to Lake Lanier Islands).
26) Stormwater Management Program.
27) Asset Management Program.
28) Parks and Recreation Frances Meadows Multi-Purpose Field Improvements Project.
29) Parks and Recreation Linwood Nature Preserve Trailhead Project.

DISTRIBUTION AND COLLECTION DIVISION

The Distribution and Collection Division is comprised of two sections: **Water Distribution** and **Wastewater Collection**. The major functions and tasks of these two groups are: the operation and maintenance of the water distribution and wastewater collection system, providing a safe environment to the public, and ensuring that quality and reliable water and sewer service are provided to our customers. These tasks include: repairing minor water leaks, inspection and maintenance of fire hydrants and valves, flushing water to improve water quality, locating or marking water and sewer lines, cleaning and inspecting sewer lines, and clearing easements to ensure ready access.

WATER DISTRIBUTION

MISSION STATEMENT: *To ensure the distribution of safe drinking water by maintaining the City's water system.*

SCOPE OF SERVICES

The Water Distribution staff, which includes the Division Manager, performs the following functions: provides utility locates, assists with water and sanitary sewer repairs, performs right–of-way maintenance, repairs and services fire hydrants, performs vehicle and equipment maintenance, performs water valve maintenance, and carries out all welding activities and tool fabrication. The Administrative and Managerial team of this Division provides administrative and management support. The Division's Manager and Superintendents represent the City of Gainesville on various committees and State professional organizations, as well as provide input on future system expansion planning.

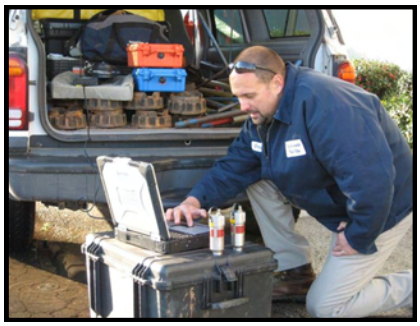
STATISTICAL INDICATORS

The Division maintains approximately **8,772** fire hydrants in the water distribution system. Each fire hydrant is inspected annually with the assistance of the local fire departments. In FY14, **319** fire hydrants were repaired, serviced, or replaced in order to ensure fire protection for our community. The group inspected **1,627** water valves in FY14 and **958** were repaired, raised, or serviced.

Determining the location of utilities is another function the Division performs related to water distribution. In FY14, a total of **20,830** locates were performed by the Division. All utility providers are required by state law to mark their utility locations prior to beginning work. This requirement prevents costly damages, reduces outages to customers, and provides for the general safety of those performing utility work.

WATER LOSS PREVENTION

Dry conditions and population growth place a strain on our water resources, creating the urgent need for water efficiency and conservation. Each year, utilities lose large volumes of treated water through inefficiencies in the supply process. Water loss control is vital in order to reduce the burden on existing water resources, increase the reliability of our water supply, and keep water rates low for customers. The City of Gainesville uses a hands-on, proactive approach to combat water loss in our system. The City's proactive leak detection efforts save the Utility thousands of dollars annually (see chart below). Since its implementation 4 years ago, a data logging system allows the City to locate hard-to-find leaks. The system uses sophisticated software to record and download sounds into files for analysis. The software evaluates the sounds for leaks and produces graphical and tabular results as to its location. Leaks are repaired quickly (most within 24 hours of notification) and proficiently (with use of standard repair methods and materials). The utility also continuously replaces pipes to improve the integrity of the distribution system and reduce leaks.



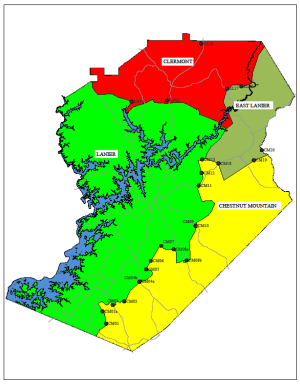
Public Utilities employee Chris Gravitt performs a leak detection survey with data logger equipment.

CALENDAR YEAR	#of Leaks Found	Gallons Record-ed/Recovered	Miles Surveyed/ Logged**	Production Costs Savings*
2010	7	1,260,160	16.5	$2,696.40
2011	27	16,910,000	28.0	$36,187.40
2012	26	20,626,061	200.0	$44,139.64
2013	27	9,659,080	N/A	$20,670.26

* $20,670.26 in production cost saved based on the cost of $2.14 for producing the "next thousand gallons" of treated water.

** Estimated numbers of miles.

Pressure management is another important tool in water loss control. The City of Gainesville's Water System has 4 pressure zones and over 20 Pressure Control Valves that help maintain desired pressures for fire protection while easing strain on water mains and reducing water loss from leaks.



The City of Gainesville's 4 Pressure Zones

Water theft is a source of water loss that also impacts our water supply. To combat unauthorized use, the City of Gainesville has over 500 fire hydrant locks in place to prevent theft. Weekly reports and investigations are also conducted to locate unauthorized consumption via water meters at locations in which no one is currently signed up to receive service. In addition, the City has developed policies to deter and identify meter tampering.

A locked fire hydrant

WATER LOSS AUDIT

In 2010, the ***Georgia Water Stewardship Act*** was established to encourage and improve water conservation to enhance Georgia's water supply. The Act requires that all Georgia public water systems serving 10,000 or more people complete an annual water loss audit, beginning in 2012. The City of Gainesville Public Utilities Department submitted its second Water Loss Audit to the GAEPD in FY 2013. The Distribution Division spearheaded the audit, with the assistance of a team of staff members from various divisions. The audit is an examination of records and financial accounts to check for accuracy and provide accountability. The assessment's purpose is to identify areas and causes of water loss, to improve water efficiency within the state's public water systems, and to serve as a catalyst for creating a culture of water conservation among water managers.

Gainesville Public Utilities scored a **80** out of **100** on the audit, which is considered a slightly above average score in the State of Georgia. The Utilities Infrastructure Leakage Index (ILI) is a very important benchmark for water system planning and can be used as a target-setting mechanism. It was established in FY13 at **1.75**. The ILI is unique to each water system, but is a very important leak reduction target number when considering water resource availability, financial goals, and other operational considerations of Gainesville's water system.

A copy of this year's Water Audit is available upon request.

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 80 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources

2: Master meter error adjustment

3: Unauthorized consumption

For more information, click here to see the Grading Matrix worksheet

HANCOCK AVENUE DRY STORAGE BUILDINGS

A new “Wash Bay” building at Marler Street Maintenance Facility and new “Dry Storage” buildings at Public Utilities Hancock Avenue were constructed during FY14. The new constructions will help protect, maintain, and prolong the life cycle of Utilities maintenance equipment and supplies.

Wash Bay

Dry Storage

WASTEWATER COLLECTION

MISSION STATEMENT: *To ensure the environmentally safe collection and transportation of sanitary sewage by maintaining the City's sewer system*.

SCOPE OF SERVICES

The Wastewater Collection staff is responsible for ensuring that the collection system is operating properly. One major preventative maintenance function of the Utility is cleaning sanitary sewer collection pipelines. These efforts greatly reduce the possibility of environmentally-damaging sewer overflows and prevent isolated sewer problems for our customers.

The Inflow and Infiltration (I&I) Team, which is a technical group responsible for identifying and eliminating groundwater and rainwater flows into the sanitary sewer collection system, is also part of the Collection Division. This team conducts flow monitoring, manhole inspections, CCTV inspections, and smoke testing within the sewer system.

FY14 Statistical Indicators:

- **Collection Crews cleaned over 656,379 feet of sewer pipeline and manholes**
- **95 sewer main defects were repaired**
- **Nearly 162,478 linear feet of sewer mains were TV inspected**
- **Over 1,156,879 gallons of infiltration and Inflow were identified and eliminated in the sanitary sewer system**
- **Over 127,975 linear feet of sewer line was smoke tested and 313 smoke test problems were located**
- **58 manholes were flex sealed**
- **21 "cured in place" spot repairs were completed**

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