

**City of Raleigh 2017—2018**

**Annual Wastewater Collection System Report**





The City of Raleigh is pleased to present the Annual Wastewater Collection and Treatment System Report for fiscal year 2018. As a requirement of the Collection System Permit issued by the State of North Carolina, the City of Raleigh Public Utilities Department (Department) is required to report the system performance to all of its customers on an annual basis. This report provides information about the performance of the three (3) wastewater treatment plants: Neuse River Resource Recovery Facility (NRRRF), Smith Creek Wastewater Treatment Plant (SCWWTP), and Little Creek Wastewater Treatment Plant (LCWWTP) in addition to the performance of the wastewater collection system for the period of July 1, 2017 through June 30, 2018. All of the information contained in this report is accurate and complete.

Wastewater systems have evolved considerably from early systems in the 1800's. Although the purpose has always been to collect human waste and transport it away from urban areas to protect human health, early systems merely transported the wastewater to a nearby stream, where it was discharged. Today, wastewater systems are not only expected to protect public health, but to protect the environment as well. In 1972, the U.S. Congress passed landmark legislation entitled the "Clean Water Act" which ensured environmental protection as a performance benchmark for all wastewater systems. Long before the passage of this act, and every day since, the protection of public health and the environment have been the operating standard of the City of Raleigh's wastewater system.

To learn more about the wastewater collection system or the treatment facilities, please contact the City of Raleigh Public Utilities Department at 919-996-3245 or visit the City's web site at: [www.raleighnc.gov](http://www.raleighnc.gov).

Ruffin Hall  
City Manager

En Español

Éste folleto contiene información importante acerca del sistema de alcantarillado sanitario de la Ciudad de Raleigh. Si tiene preguntas acerca del sistema, llame al Departamento de Servicios Públicos al 919-996-4540 durante las horas de trabajo.

## WASTEWATER COLLECTION SYSTEM

The City of Raleigh provides wastewater collection and treatment services for areas within the City's corporate limits and many areas in the City's Extraterritorial Jurisdictional area (ETJ). Raleigh also provides wastewater collection and treatment services for Garner, Rolesville, Wake Forest, Knightdale, Wendell and Zebulon. Temporary contracts are also in place to treat specific amounts of wastewater from the Towns of Clayton and Middlesex as well as Johnston County.

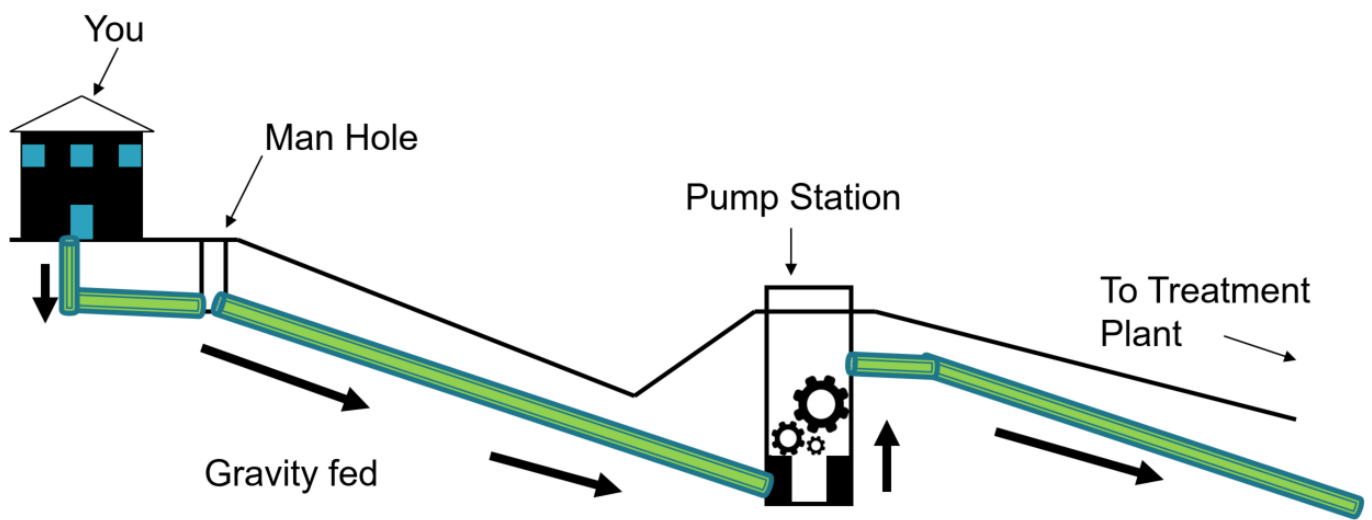
The wastewater collection system functions primarily by gravity flow and it consists of approximately 2,500 miles of pipeline ranging in diameter from six inches to six feet. Every day an average of 49 million gallons per day (MGD) of wastewater for this reporting period travels through the sanitary sewer collection system to the wastewater treatment plants.

The sewer pipes of the collection system are connected by a series of sewer manholes needed for maintenance of the collection system. Manholes in the street are flush with the pavement, while manholes near streams are built higher due to flood plain conditions. Some pipes are located above ground as well (aerial mains), particularly across streams. Ventilation is necessary at most manholes and is provided through vent holes in the lids or separate vent stacks. Although the collection system functions primarily by gravity, 120 public pump stations are necessary to keep the wastewater flowing to the wastewater treatment plants. The Department also uses odor control systems on many large volume pump stations and on manhole vents near public greenways to improve air quality in these areas.

In an effort to continually improve its program the Sewer Maintenance Division fully implemented an ISO 14001:2004 Environmental Management System (EMS). The Sewer Maintenance Division's EMS is a commitment to prevent pollution through continual improvements in environmental performance and compliance with all regulatory requirements, by identifying aspects of activities having significant environmental impacts, setting performance objectives and targets and establishing standards and training for staff, including metrics for measuring performance. These processes allow the Sewer Maintenance Division to operate the collection system in a sustainable manner while contributing to the economic, social and environmental vitality of the communities it serves.

Some of the highlights of the EMS in the 2017-2018 reporting period include:

- ◆ Maintained 1.07 sanitary sewer overflows (SSOs) per 100 miles of pipe (National SSO average is 4.5)
- ◆ Cleaned 426.3 miles (16.3%) of sewer line, which exceeded the Collection System Permit's annual system flushing requirement of 10%
- ◆ Completed 100% of annual easement inspections as required in the Collection System Permit
- ◆ Cleared 174.9 miles of high priority sewer main easements



## SANITARY SEWER OVERFLOWS (SSOs)

Sanitary sewer overflows (SSOs) occur when blockages in the collection system cause sewage to come out of the sewer collection system.

During the fiscal year from July 1, 2017 through June 30, 2018, the collection system experienced 27 SSOs that were 1,000 gallons or greater or that reached surface waters of the State. This represents a substantial decrease compared to the SSOs experienced during the previous reporting period, which was higher than average due to 2 exceptionally heavy rainfall events. The Department continues to pursue its goal of reducing the number of SSO's that occur each year and invests millions of dollars to replace sewer lines in poor condition, operation of a fleet of sewer flush trucks and predictive maintenance on sewer pump stations.

Debris was the leading cause of SSOs this year at 30%, with grease accounting for 22% and the combination of grease and debris representing 15%. This means that 67% of the SSO's could have been prevented if inappropriate materials were not discharged to the sewer system. Debris can be such items as rags, paper towels, "flushable" wipes, feminine hygiene products, etc., all of which are illegal to discharge into the sanitary sewer system. Cooking grease is also not appropriate to pour down the drain as it quickly congeals underground and creates blockages. The Department has an ongoing education program to educate residents and business owners regarding the need to keep grease and other inappropriate materials out of the sewer system as well as a comprehensive preventive maintenance program.

Cause of SSO	Percentage of Total SSOs
<b>Debris</b>	<b>30%</b>
<b>Grease</b>	<b>22%</b>
<b>Structural Failure</b>	<b>18%</b>
<b>Debris &amp; Grease</b>	<b>15%</b>
<b>Roots</b>	<b>15%</b>

**July 2017: Total: 360,625 gallons**

Location	Cause
3201 Walnut Creek Parkway South, Raleigh	Debris (Rags)
5014 Sedgewick Drive, Raleigh	Grease, Debris (Flushed Wipes)

**August 2017: Total: 13,500 gallons**

Location	Cause
8015 Spiderlily Court, Zebulon	Contractor Negligence and Severe

## SANITARY SEWER OVERFLOWS (Cont)

**September 2017: Total: 253,650 gallons**

1330 St. Mary's Street, Raleigh	Debris (Flushed wipes)
6411 Farm Gate Road, Raleigh	Contractor Negligence

**October 2017: Total: 64,800 gallons**

**Location Cause**

3712 Bryn Mawk Court, Raleigh	Roots
3900 Barrett Drive, Raleigh	Grease

**November 2017: Total: 1,880 gallons**

**Location Cause**

1800 Coltrane Court, Raleigh	Grease
3931 Macaw Street, Raleigh	Debris (Paper Towels)
732 Illeagnes Road, Raleigh	Grease, Debris (Paper Towels)
2505 Finley Ridge Lane, Raleigh	Grease

**December 2017: Total: 5,621 gallons**

**Location Cause**

325 Wingate Street, Wake Forest	Roots
147 Carriage House Trail, Garner	Grease
Intersection of Fountain Drive and Curtis	Grease

**January 2018: Total: 12,250 gallons**

**Location Cause**

1141 Crab Orchard Drive, Raleigh	Roots
4001 Deep Hollow Drive, Raleigh	Flushed Wipes

**March 2018: Total: 33,275 gallons**

**Location Cause**

6024 Beardsley Court, Raleigh	Roots
508 Curtiss Drive, Garner	Grease and Debris (Rags)
1516 Dixie Trail, Raleigh	Debris (Rags)

## SANITARY SEWER OVERFLOWS (Cont)

**April 2018: Total: 13,650 gallons**

Location	Cause
1001 North Bend Drive, Raleigh	Debris (rags)
941 Palace Garden Way, Raleigh	Debris (Flushed Wipes)
2906 McNeil St, Raleigh	Grease

**May 2018: Total: 367,400 gallons**

Location	Cause
2906 McNeil Street, Raleigh	Grease
8121 Old Nowell Road, Wendell	Pipe Failure (Force Main)
643 Virginia Water Drive, Rolesville	Debris
6201 Shanda Drive, Raleigh	Grease; Debris (Flushed Wipes)
3311 Grove Crabtree Crescent, Raleigh	Pipe Failure (Stream Bank Erosion)
4829 Rembert Drive, Raleigh	Pipe Failure (Uprooted tree)



While an important part of avoiding sanitary sewer overflows is reducing the introduction of inappropriate materials into the sewer collection system, the Department also operates a fleet of flusher trucks which help keep the sewer lines clear of blockages. With over 2,500 miles of sewer lines to maintain, you've probably seen one of our 15 flush trucks driving in our service area, which includes the surrounding communities of Wake Forest, Zebulon, Wendell, Rolesville, Garner, and Knightdale.

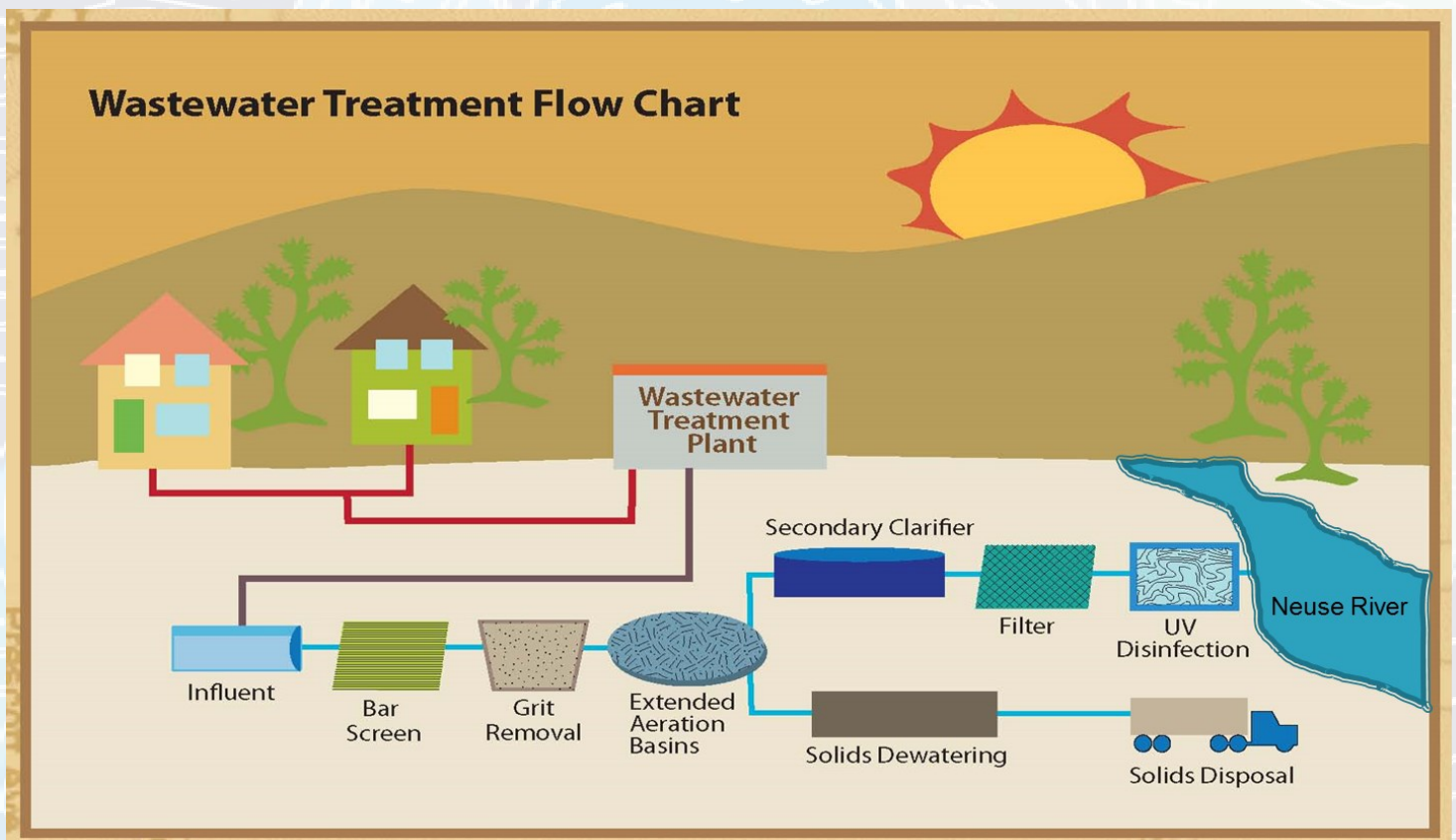
So how does it work? There are essentially 2 elements: a water jet hose and a vacuum hose. The water jet hose spool is usually visible on front of the vehicle and the vacuum equipment is located on the back of the vehicle and attached to a swinging boom. The first step entails deploying the water jet hose through a manhole and washing buildup off the sides of the sewer pipe with over 1,000 psi of water pressure. The vacuum equipment is then used to collect the loose detritus in the downstream manhole. Additionally, cutter heads can be fitted to the water jet hose which are used to remove harder buildups and root intrusion. Again, the vacuum equipment is used to collect this material, where it is pumped into the large tank on the back of the truck.

## TREATMENT FROM START TO FINISH

The Neuse River Resource Recovery Facility, Smith Creek Wastewater Treatment Plant, and the Little Creek Wastewater Treatment Plant process wastewater for approximately 195,000 metered customers and a service area population of approximately 580,000.

For our National Pollutant Discharge Elimination System (NPDES) permitted wastewater treatment facilities (Neuse River RRF, Smith Creek WWTP and Little Creek WWTP), wastewater is treated both physically and biologically. As the wastewater enters the plant it goes through the area called preliminary treatment which is a physical process to remove debris, sand, and other inorganics that can't be biologically treated. The first stage of treatment is referred to as primary treatment and is a physical process to remove the settleable and floatable organics.

The second stage of treatment is a biological process referred to as "activated sludge" in which microorganisms consume organic matter (suspended and dissolved) and convert ammonia-nitrogen to nitrogen gas through the process of nitrification/denitrification. The microorganisms are separated from the treated water by secondary clarification and returned to the biological process. In the final stage, the clarified water is filtered by sand filters and disinfected by UV disinfection before it is metered and returned to the receiving stream.



# TREATMENT FACILITIES

**Resource Recovery**  
Neuse River Resource Recovery Facility

Wastewater Contains Useful Resources For Multiple Applications

NRRRF Provides Clean Water For The Environment And Returns Resources To The Economy

**CLEAN WATER**

**BIOFUEL**

**SAFE BIOSOLIDS**

[www.raleighnc.gov/sustainableraleigh](http://www.raleighnc.gov/sustainableraleigh)

## Neuse River Resource Recovery Facility (NRRRF)

The NRRRF was designed to serve the City of Raleigh and surrounding communities. The facility is located in Wake County, approximately 12 miles southeast of Raleigh, near the Johnston County line and currently can treat up to 60 MGD.

The City of Raleigh's NRRRF did not experience any NPDES permit (NC0029033) performance violations during the past fiscal year, while treating approximately 16.9 billion gallons of wastewater. Through improvements and continued excellent operation of the facility, the NRRRF has accomplished 15 consecutive years of 100% compliance, resulting in the facility's Platinum 15 Award issued by the National Association of Clean Water Agencies. The Department is proceeding with a project to expand the facility's capacity from 60 million gallons per day to 75 million gallons per day, which is expected to be completed in the Fall of 2018. In addition, the treatment process will be converted from aerobic digestion to anaerobic which provide a fuel source for natural gas powered vehicles in the City's bus fleet and reduce overall biosolids volume. This project will result in a net positive energy yield of 2.12 Megawatts and is expected to be completed in 2022.





## TREATMENT FACILITIES (Cont)

### Smith Creek Wastewater Treatment Plant (SCWWTP)

The SCWWTP was designed to serve the Town of Wake Forest and was transferred to the City of Raleigh on July 1, 2005. The plant is located in Wake Forest, approximately 14 miles north of Raleigh and operates with a capacity of 3.0 MGD.

The SCWWTP did not experience any NPDES permit (NC0030759) performance violations during the past fiscal year, while treating 728 million gallons of wastewater. As a result of the SCWWTP experiencing 100% compliance, it received the Platinum 13 Award, which is issued by the National Association of Clean Water Agencies for 13 consecutive years of such compliance.

### Little Creek Wastewater Treatment Plant (LCWWTP)

The LCWWTP was designed to serve the Town of Zebulon and was transferred to the City of Raleigh on October 1, 2006. The plant is located in Zebulon, approximately 24 miles east of Raleigh and operates with a capacity of 2.20 MGD.

The LCWWTP did not experience any NPDES permit (NC0079316) violations during the past fiscal year while treating 274 million gallons of wastewater. The Little Creek WWTP has earned a third consecutive Gold Award as no discharge violations occurred during the reporting period. The facility has been in 100% compliance 10 out of the past 11 years.

The following table shows the permit limits and performance history of the wastewater treatment plants for this past fiscal year.

### 2017 - 2018 Annual Report Data for Plants

Paramater	Permit Limit	NRRRF	LCWWTP	SCWWTP
Ammonia-Nitrogen (mg/L)	2.00/1.00/1.00	0.13	0.00	0.14
Fecal Coliform (col/100mls)	200	52	1.6	1.13
Biological Oxygen Demand (mg/l)	5.00	1.45	0.00	0.84
Total Suspended Solids (mg/l)	30.00	0.36	0.03	1.03
Total Phosphorous (mg/l)	2.00/1.00/2.00	1.42	0.34	0.75
Total Nitrogen (annual pounds)		Permit Limit 687,373 pounds	Permit Limit 26,660 pounds	Permit Limit 70,814 pounds
		Actual Pounds 294,984	Actual Pounds 24,647	Actual Pounds 4,040
Average Daily Flow (MGD)	60.0/2.20/3.0	46.247	0.750	1.996

## REUSE WATER PROGRAM

Reuse or reclaimed water [used interchangeably] is defined in North Carolina as effluent from a wastewater treatment plant that is treated to an exceptional high level. Traditionally, reuse or reclaimed water has been utilized primarily to replace potable water in applications where non-potable water is sufficient such golf course irrigation and industrial cooling towers. Following the severe droughts of 2002, 2005 and 2007, the construction of a reuse water system was an important part of the City's overall strategy to reduce potable water demand and improve drought resilience. This benefit remains a critical element of the City's future drinking water supply plans, as there is potential to use direct potable reuse water at the Dempsey E. Benton Water Treatment Plant to augment current water resources.

However, due to a Federally promulgated nutrient management strategy adopted in 2003 for the Neuse River basin, reuse water has increasingly become a highly valuable tool to help municipal waste water treatment facilities comply with these rules. The Neuse River nutrient management strategy strictly limits nutrient (total nitrogen) discharges from wastewater point sources such as the Neuse River Resource Recovery Facility. The City of Raleigh was allotted a total nitrogen allocation, or total maximum daily limit (TMDL), which translates to a total nitrogen poundage limit on an annual basis. In response, the City upgraded its treatment facilities to comply with the requirements and has been a national leader in nitrogen removal performance.

The ongoing expansion of the reuse system is also a crucial part of this effort, as it diverts treated wastewater and the associated nitrogen poundage from being discharged to the Neuse River. This is especially significant considering that one pound of nitrogen costs ~\$500 to purchase, which also assumes that other dischargers are even willing to sell their nitrogen allocation.

To put the cost of nitrogen into perspective, the Neuse River Resource Recovery Facility discharges on average almost 900 pounds per day of nitrogen. In terms of nitrogen value, this equates to roughly \$450,000 per day. Below is a summary of operations costs for the reuse system compared to the revenues generated and valuation of the nitrogen diverted from the Neuse River.

Fiscal Year	Operations Costs	Revenues	Value of Nitrogen Diverted
2015	\$242,365	\$200,237	\$2,098,495
2016	\$248,788	\$272,631	\$4,759,935
2017	\$252,360	\$339,731	\$3,151,010

## REUSE WATER PROGRAM (Cont.)

### Reuse Distribution System

The NRRRF uses reuse water for irrigation of the agricultural land that serves the facility. From July 1, 2017 to June 30, 2018, approximately 33 million gallons of reuse water was used to irrigate cropland.

The reuse system has bulk reuse water loading stations at the Neuse River Resource Recovery Facility and Little Creek wastewater treatment plant. "Bulk" distribution of reuse water allows certified landscape contractors or citizens to obtain reclaimed water at no cost if that person will transport and responsibly use the reclaimed water for approved purposes. The location of the bulk reuse facilities are as follows:

*Neuse River RRF - 8500 Battle Bridge Road, Raleigh, NC*

*Little Creek WWTP - HWY 39 (behind the Mudcats Stadium), Zebulon, NC*

The Raleigh service area system also includes a reuse pipeline distribution system and an elevated storage tank. The construction of the fourth pipeline phase to North Carolina State University's Centennial Campus has been completed.

The Department also operates the Zebulon service area reclaimed water distribution system, which takes treated effluent from the Little Creek WWTP and provides the product to seven permitted customers through 21,400 linear feet of distribution pipe and a 250,000 gallon elevated storage tank.

The following chart shows the total amount of reuse water distributed by the various reuse systems for the reporting period of July 1, 2017 through June 30, 2018.

<b>Neuse River WWTP Bulk Reuse Flow</b>	<b>Little Creek WWTP Reuse Distribution (includes bulk) Flow</b>	<b>Neuse River WWTP Reuse Irrigation Flow</b>	<b>Neuse River WWTP Reuse Distribution (off-site)</b>
163,501 gal	34,200,200 gal	33,687,000 gal	309,578,400 gal

No permit violations were experienced during the 2017-2018 reporting period.

Further information concerning the reuse program can be obtained by calling 919-996-3700 or by email at [Water.reuse@raleighnc.gov](mailto:Water.reuse@raleighnc.gov).

## BIOSOLIDS PROGRAM

Sludge is a by-product of all wastewater treatment plants. Biosolids are defined as treated, stabilized sludge and are produced at two of the City's wastewater treatment plants. The city chooses to beneficially reuse these biosolids by processing them into products that can be utilized by local farmers, landscapers and homeowners on both public and privately owned land. Close monitoring of these biosolids product constituents, environmental conditions and the utilization of extensive pretreatment methodologies allow the city to ensure that these products are safe for their intended use.

### Putting Biosolids to Work

The sludge from the Smith Creek WWTP is discharged into the city's sewer collection system and is recovered and processed into biosolids at the Neuse River RRF. The Little Creek WWTP solids, and a portion of the solids produced at the Neuse River facility, are processed into a Class B biosolids product. This product is then beneficially reused on the City's farm and by local farmers as a fertilizer on agricultural crops. The nutrients in the biosolids are taken up by the crops, which are then harvested and sold for non-human uses such as animal feed.

The Neuse River facility also processes a large percentage of its biosolids into lime stabilized Class A biosolids. In this process, sludge is dewatered with belt presses and blended with lime kiln dust to produce Class A biosolids by raising the product pH and temperature. This material is marketed under the name "Raleigh Plus" and is distributed as a soil amendment to agricultural and institutional properties in the region. Interested customers should call 919-996-3700 Monday through Friday, 8 a.m. to 4 p.m.

The final process utilized at the Neuse River facility is to ready its sludge for beneficial reuse through additional processing. A private firm receives a portion of the dewatered primary sludge and produces a Class A biosolids product in the form of compost. Once regulatory requirements are met, the compost is distributed to the public as a soil amendment and growing media.

Further information concerning the biosolids program can be obtained by calling 919-996-3700 or by email at [Biosolids@raleighnc.gov](mailto:Biosolids@raleighnc.gov).

### Environmental Management Systems

The biosolids Environmental Management System (EMS) at the NRRRF was first verified through the independent third party process in December of 2006 to become a National Biosolids Partnership (NBP) certified agency, making the biosolids program at the plant an accredited model program. The following year the biosolids EMS earned the designation of Platinum Level Certification. The Platinum Level designation represents the highest achievement of biosolids management and environmental stewardship. Subsequent audits continue to verify that the system meets NBP expectations and requirements for maintaining certification.



## **BIOSOLIDS PROGRAM (Cont.)**

To coincide with its biosolids EMS, the NRRRF implemented an ISO 14001 EMS for the wastewater treatment operations at the plant. In February of 2014, the NRRRF received ISO 14001:2004 certification for its wastewater EMS.

The results of the third party audits are available by contacting Emily Fentress, Process Control Training Officer at [Emily.Fentress@raleighnc.gov](mailto:Emily.Fentress@raleighnc.gov) or calling 919-996-3680.

### **2016 Biosolids Program Annual Report**

The biosolids program at the Neuse River Resource Recovery Facility (NRRRF) is continuing to improve through the use of an Environmental Management System (EMS) approach to managing the program. Some of the highlights of this year's program include:

#### **Regulatory Compliance:**

- 100% regulatory compliance by NRRRF, LCWWTP, & SCWWTP
- No NPDES permit violations by NRRRF, LCWWTP, & SCWWTP
- All biosolids produced and distributed met all EPA 40 CFR 503 compliance requirements
- NRRRF and SCWWTP received a Platinum award and LCWWTP received a Gold award from the National Associations of Clean Water Agencies (NACWA) for 100% regulatory compliance
- Received continuation of ISO 14001 and National Biosolids Partnership (NBP) EMS certification

#### **2017 Objectives and Targets:**

- Completed 63% of established objectives and targets
- Continued to 2018
  - Obtain ISO 17025 certification
  - Eliminate potential pollutant sources on NRRRF plant site

#### **2018 Objectives and Targets**

- Educate and communicate with identified mercury stakeholders to increase mercury awareness/reduce risk
- Develop and implement interested party/stakeholder communication plan for Bioenergy project
- Eliminate potential pollutant sources on NRRRF plant site
- Reduce energy usage
- Obtain ISO 17025 certification
- Expand usage of alternative energy systems
- Decrease nitrogen contribution to Neuse River
- Prioritize SCADA alarms for all 3 treatment plants based on criticality
- Implement a Resource Recovery Division arc flash program
- Maintain 100% regulatory compliance for all Resource Recovery Division facilities

## HOW YOU CAN HELP!

The City of Raleigh is committed to protecting the quality of the Neuse River and the environment. The water returned to the Neuse River from the NPDES permitted wastewater treatment plants is higher quality water by most parameters than when it was removed for drinking water treatment from Falls Lake.

While grease continues to be a significant cause of sanitary sewer overflows in the sewer collection system, you can help the City of Raleigh Public Utilities Department reduce the number of overflows by following these simple steps.

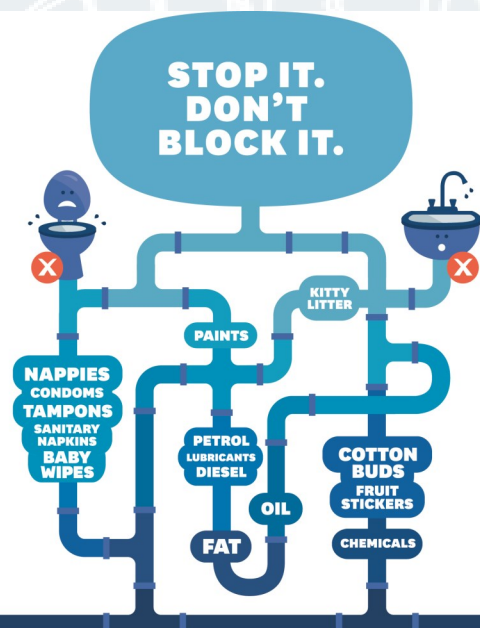
- ◆ *Collect grease, fats and oils from cooking in a container and dispose of it in the garbage instead of pouring it down the drain.*
- ◆ *Place a wastebasket in each bathroom for the disposal of solid waste, disposable diapers, baby wipes, disinfecting wipes, condoms and personal hygiene products. These products **DO NOT** belong in the sewer system.*

Wastewater collection systems are designed to handle only three things – used water, human body waste and toilet paper. It is very important to keep all foreign materials, such as grease and other household debris from entering the system, as these can cause blockages. Most sewer backups occur between the house and the City's sewer main. The property owner is responsible for correcting this problem.

Many disinfecting wipes and baby wipes are touted as disposable, and some are even labeled as flushable, but both contribute to sanitary sewer overflows (SSOs) throughout the sanitary sewer system. Their cloth-like material doesn't break down in the sanitary sewer system like toilet paper but rather blocks sewer lines and clogs pumps throughout the system, which increases maintenance and repair costs. Please help the city reduce costs and protect the environment by disposing of these items in the trash rather than in the sewer system.

Property owners are responsible for the care and maintenance of service lines from their homes or businesses to the sanitary sewer mains in the street. The Raleigh City Code also prohibits property owners from planting trees, shrubs and other vegetation on sewer lines and easements, covering manholes, erecting fences or permanent structures on sewer lines and easements, or damaging sewer lines in any manner.

**— IS IT —  
DRAIN  
SAFE?**



## HOW YOU CAN HELP! (cont.)

Managing unused or expired medications is a safety as well as an environmental concern. Proper disposal will prevent medications from entering soil and groundwater. Where available, take unwanted or expired medications to a local collection site. The following link includes medication drop locations:

<http://www.wakegov.com/humanservices/publichealth/Pages/dropbox.aspx>



### REPORT SANITARY SEWER OVERFLOWS (SSOs) AND WATER MAIN BREAKS:

To report a sanitary sewer backup, overflow or a water main break please call the City of Raleigh Public Utilities Department at **919-996-3245** (24/7). Thanks for your help!

### \$50 SSO REWARD PROGRAM

The City of Raleigh has a Sanitary Sewer Overflow (SSO) Reporting Reward Program. In this program, concerned citizens who are the first to notify the City of an SSO that they observe are rewarded monetarily with a **\$50** check. By promptly reporting the overflow, the City is able to minimize the impact of the overflow to the environment. Although the City has staff that inspects the sanitary sewer collection system every day, with 2,500 miles of sewer mains in the City's service area to maintain, the City certainly needs the help of customers and citizens to find and report these problems when they occur.

### Illegal Dumping Reward Program - \$5,000 Reward

Raleigh's service area currently has approximately 2,000 Food Service Establishments (FSEs) that generate grease and that are required to install grease interceptors. The Department is concerned that some of this wastewater from these grease interceptors is being illegally dumped into the sanitary sewer system. Grease and other materials illegally dumped can lead to sanitary sewer overflows (SSOs), which are a public health, environmental and regulatory concern.

Reporting a problem or an illegal dumping incident could earn you a \$5,000 reward if you are the first to notify the Public Utilities Department of a confirmed illegal dumping incident.