

**SOUTH GRANVILLE WATER and SEWER AUTHORITY
2015-2016 SYSTEM PERFORMANCE
ANNUAL REPORT**

I. General Information

Facility/System Name: South Granville Water and Sewer Authority Wastewater Treatment Plant
Responsible Entity: South Granville Water and Sewer Authority
Person in Charge/Contact: Wilmer Lawson
 South Granville Water and Sewer Authority
 415-B Central Avenue
 Butner, NC 27509
 (919) 575-3111
Applicable Permit(s): NPDES Permit No. NC0026824

Description of Treatment Process and Collection System:

- A. The design capacity of the wastewater treatment plant is 5.5 mgd. This facility consists of fine screening, extended aeration, biological nutrient removal, clarification, denitrification filtration, chlorination, and dechlorination. The sludge is digested in two-stages, dewatered using a screw press, and the sludge is land applied through Granville Farms.
- B. The South Granville Water and Sewer Authority wastewater collection system consists of approximately 154 miles of force mains and gravity flow pipe ranging from 8 to 30 inches in diameter. There are 48 pumping stations in the system, which lift wastewater from lower areas up to the main outfall lines to the wastewater treatment plant. Each pumping station is equipped with a standby generator for emergency power and a SCADA system to monitor pumping station conditions and standby generator status. The wastewater collection system for the South Granville Water and Sewer Authority has original construction dates ranging from the 1940's to present day.

II. Performance

Summary of System Performance for Fiscal Year July 1, 2015 thru June 30, 2016

The South Granville Water and Sewer Authority Wastewater Treatment Plant operates under NPDES Permit No. NC0026824 with the following permit limitations:

<u>Parameter</u>	<u>Permitted Level</u>
Flow	5.5 MGD
Biological Oxygen Demand	5 mg/L summer, 10mg/L winter
Total Suspended Residue	30 mg/L
Ammonia	2 mg/L summer, 4 mg/L winter
Dissolved Oxygen	6 mg/L minimum
Fecal Coliform	200/100 ml
Total Phosphorus	2 mg/L Quarterly Average
Total Nitrogen	58,599 lbs/year
Total Antimony	6.0 ug/L monthly
Total Mercury	0.012 ug/L Quarterly average
PH	6 minimum 9 maximum Standard Unit
Chronic Toxicity	Pass/Fail 90% Chronic (Ceriodaphnia)
Total Residual Chlorine	17.0 ug/L

Starting on January 1st, 2016 mandated by NC DEQ, the Total Nitrogen pounds per year was reduced from 58,599 to 22,420 per year. Total Phosphorus's 2 mg/L Quarterly Average remains intact, but a pounds limit of 2,486 a year was added.

A review of the discharge monitoring reports for the period of July 2015 through June 2016 was conducted. The next page is a monthly list of the number and type of all violations of permit limits, monitoring and reporting violations, illegal bypass of treatment facilities and sanitary sewer overflows.

Month	Wastewater Treatment Plant				Sanitary Sewer Overflows	
	Permit Limit		Illegal Bypass		Estimated Total	
	Type	Qty	Type	Qty	Volume/Gallons	Location
July		0		0	0	
August		0		0	0	
September	BOD Violation 9.505 mg/L weekly	1		0	0	
October		0		0	0	
November		0		0	0	
December	Total Nitrogen Violation 58,619.36 pounds	1	Wastewater spill	12,600 gallons	1,200 13,500 800	East F st, Butner NC Joe Peed rd, Creedmoor, NC East Middleton dr Creedmoor, NC
January		0		0	390	Cozart st, Creedmoor, NC
February		0		0	0	
March		0		0	0	
April		0		0	0	
May		0		0	0	
June		0		0	0	

III. Industrial Pretreatment/ FOG Program

Industrial Pretreatment Program staff surveys facilities discharging into the sewer system and issue permits to facilities in certain categories, determined either by the type of business activity they conduct or the type(s) of wastewater discharged from their facility. Permit limits are established based on the ability of the receiving SGWASA Wastewater Treatment Plant. SGWASA currently monitors (1) industrial user.

FOG (fats, oil and grease) refers to all fats, oils and grease generated during food preparation, food service, and/ or kitchen cleanup. Residents can help prevent pipe blockages and sewer overflows by keeping grease out of the sewer system. Sewer backups can cause damage to homes, health hazards and threaten the environment. Sewer pipes blocked by grease have become an increasing cause of SGWASA Sewer System's overflows. Working together, we can prevent sewer overflows and keep the environment clean.

What can residents do?

- Never pour grease down the sink or into the toilet.
- Scrape grease and food scraps into a waste container after it cools.
- Do not put food scraps down the garbage disposal. Garbage disposal units do not prevent grease from going down the drain.
- Use a strainer in the sink to catch food scraps and other solids.

IV. Notification

A list was developed from customer billing records and each customer was directed to the SGWASA website where they could view a copy of the Performance Annual Report as part of the monthly bill in September 2016.

V. Certification

I certify under penalty of law that this report is complete and accurate to the best of my knowledge. I further certify that this report has been made available to the users or customers of the named system and that those users have been notified of its availability.

A handwritten signature in blue ink that reads "Lindsay L. Mize". The signature is written in a cursive, flowing style.

Lindsay L. Mize, Executive Director
415-B Central Avenue
Butner, NC 27509