# SOUTH GRANVILLE WATER and SEWER AUTHORITY
## 2017-2018 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- Wastewater Chief Operator- (919-575-3111)
Greg Adcock- Collection System ORC - (919-575-3112)

**Applicable Permit(s):** NPDES Permit No. NC0026824/ WQCS00068

**Description of Treatment Process and Collection System:**

A. The design capacity of the wastewater treatment plant is 5.5 mgd. This facility consists of dual bar screening, extended aeration, biological nutrient removal, clarification, denitrification filtration, chlorination, dechlorination, two-stage digestion, sludge dewatering and disposal of sludge by land application.

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 was constructed in the 1940's.

## II. Performance

**Summary of System Performance for Fiscal Year July 1, 2017 thru June 30, 2018**

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

| Parameter | Permitted Level |
|---|---|
| Flow | 5.5 MGD |
| Biological Oxygen Demand | 5 mg/L summer, 10mg/L winter Monthly avg |
| 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 Avg, 2,486 lbs/year |
| Total Nitrogen | 22,420 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 |

A review of the discharge monitoring reports for the period of July 2017 through June 2018 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 the wastewater treatment facilities and sanitary sewer overflows.

| | | | Illegal Bypass | | Sanitary Sewer Overflows | |
|---|---|---|---|---|---|---|
| | Permit Limit Violations | | of Treatment Facilities | | Estimated Total | |
| Month | Type | Qty | Type | Qty | Volume/Gallons | Location |
| July | | 0 | | 0 | 0 | |
| August | | 0 | | 0 | 3000 gallons | Manhole 5737, Creedmoor, NC |
| September | | 0 | | 0 | 10,800 gallons | East D St and 29th St Butner, NC |
| October | | 0 | | 0 | 0 | |
| November | | 0 | | 0 | 0 | |
| December | | 0 | | 0 | 0 | |
| January | Bod weekly Limit: 15.0 mg/L Bod violation: 17.25 mg/L | 1 | | 0 | 0 | |
| February | | 0 | | 0 | 0 | |
| March | | 0 | | 0 | 0 | |
| April | | | | 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 August 2018.

**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.

Jerry Ayscue, Interim Executive Director
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