

**SOUTH GRANVILLE WATER and SEWER AUTHORITY
2009 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: Fred Dancy – Utilities Director
 South Granville Water and Sewer Authority
 211 West C Street
 Butner, NC 27509
 (919) 575-4068

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, tertiary filtration, chlorination, dechlorination, sludge thickening, two-stage digestion and disposal of sludge by land application.
- B. The South Granville Water and Sewer Authority wastewater collection system consists of approximately 25-miles of force main and 50 miles of gravity flow pipe ranging from 8 to 30 inches in diameter. There are 33 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, 2009 thru June 30, 2010

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 | 58,600 lbs/year |
| Chloride | 253 mg/L |
| Total Mercury | 0.012 ug/L weekly average |
| PH | 6 minimum 9 maximum Standard Unit |
| Chronic Toxicity | Pass/Fail 90% Chronic (Ceriodaphnia) |
| Total Residual Chlorine | 17.0 ug/L |
| Total Cadmium | 2.0 ug/L weekly average |
| Total Antimony | 6.0 ug/L weekly average |

A review of the discharge monitoring reports for the period of July 2009 through June 2010 was conducted. The South Granville Waste Water Treatment Plant received no violations from the Division of Water Quality for the treatment of over 786 million gallons of water during the past fiscal year. 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.

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 | Permit Limit | | Illegal Bypass of Treatment Facilities | | Sanitary Sewer Overflows Estimated Total | |
|-----------|--------------|-----|---|-----|---|-------------------------------|
| | Type | Qty | Type | Qty | Volume/Gallons | Location |
| July | | 0 | | 0 | 0 | |
| August | | 0 | | 0 | 0 | |
| September | | 0 | | 0 | 0 | |
| October | | 0 | | 0 | 0 | |
| November | | 0 | | 0 | 0 | |
| December | | 0 | | 0 | 0 | |
| January | | 0 | | 0 | 0 | |
| February | | 0 | | 0 | 0 | |
| March | | 0 | | 0 | 0 | |
| April | | 0 | | 0 | 0 | |
| May | | 0 | | 0 | 0 | |
| June | | | | | 1,875 | Middle Drive PS |
| | | 0 | | 0 | 1,650 | Lift Station #2 West B Street |

III. Notification

A mailing list was developed from customer billing records and each customer was mailed a copy of the Performance Annual Report as part of the monthly bill in August 2010.

IV. 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.



Lindsay L. Mize, Executive Director
 211 West C Street
 Butner, NC 27509