

**City of Newton Wastewater Treatment System
Performance Annual Report for 2011
February 26, 2012**

I. General Information

Facility Name: City of Newton Sanitary Sewer Collection System

Contact Person: Dennis D. Falder, Collection and Distribution
Superintendent
PO Box 550
Newton, NC 28658
(828) 695-4298

Applicable Permits: Wastewater Collection System Permit Number-WQCS00044

ALSO

Facility Name: City of Newton, Clark Creek Wastewater Treatment Plant

Contact Person: Danny Sigmon, WWTP Superintendent
PO Box 550
Newton, NC 28658
(828) 695-4346

Applicable Permits: National Pollutant Discharge Elimination System (NPDES)
Permit Number - NC0036196
Land Application (Non-Discharge) Permit Number -
WQ0003902

The City of Newton views environmental protection as one of our top priorities. For this reason, the City actively participates in the collection, treatment and disposition of sewage generated within its boundaries.

Description of system

Wastewater (sewage), discharged by customers, flows to the city owned and operated Clark Creek Wastewater Treatment Plant through a sanitary sewer system encompassing approximately 133.29 miles of sanitary sewer lines. Of these lines, approximately 9.25 miles are force mains with the remaining 124.04 being gravity lines. The force mains of piping ranging in size from 6" to 12" and the gravity lines consist of piping ranging in

size from 6" to 36". The City of Newton operates and maintains 8 sewer lift stations within the sewer collection system. During the year 2011, the sewer collection staff visited all lift stations at a minimum of once a week. The pump maintenance crew performed scheduled preventative maintenance and made all necessary repairs as needed to keep lift stations operating at peak performance.

Upon arrival at the treatment plant all wastewater is treated and discharged in an environmentally safe manner in accordance with National Pollutant Discharge Elimination System (NPDES) regulations.

Clark Creek Wastewater Treatment Plant, completed in 1979, upgraded in 1992, 2005 and 2010. The facility currently operates according to NPDES permit NC0036196 which includes the treatment of a maximum of 5.0 million gallons of wastewater per day (MGD). Homes, businesses, and industries discharge their wastewater (sewage) into the sanitary sewer system. Once the wastewater is discharged into the pipes it travels through the collection system until it reaches the Wastewater Treatment Plant. The system is composed of a complicated network of pumps, manholes, standby generators and over six hundred thousand (651,000) feet of pipe. The Wastewater Treatment Plant is staffed and operated 24 hours per day, 365 days a year. The City of Newton Wastewater Plant staff includes 11 State Certified Operators, including three employees that hold the highest certification obtainable in North Carolina for Wastewater Treatment Operators. The Environmental Protection Agency and the North Carolina AWWA-WEA has recognized the Clark Creek WWTP for Operation and Maintenance Excellence.

II. Performance

Yearly Performance:

During the past 12 months, we have cleaned 86,253 feet of sewer lines. This equals to 16.33 miles, which represents about 12.25 percent of our collection system. Other yearly performance that the wastewater collection department did was camera 1.25 miles of sewer main, which represents about 0.94 percent of our collection system. The aerial and high priority lines were inspected in February and March, then again in November. Lines not visible to the general public were bush-hogged and/or inspected in the spring and summer months. Smoke testing was done to find inflow and infiltration into the collection system. We smoked tested 7.72 miles of sewer main, which represents about 3.54 percent of our collection system.

City of Newton wastewater collection permit required a Capital Improvement Plan to designate funding for reinvestment into the wastewater collections system infrastructure. This was passed by council in February of 2011.

Capital Improvement Projects:

The City of Newton has replaced One-thousand, five hundred and ten feet of sewer main. Other capital improvement was replacement of thirteen manholes, and twenty-seven manhole rings and covers. Most of those replacements helped reduce inflow and infiltration of an outside water source.

Sanitary Sewer Overflows:

01/25/2011: 1004 Gaither Ave. Debris in the line was the cause. The estimated overflow into the water of the state was 675 gallons. (Town Creek)

02/02/2011: 1609 Northwest Blvd. Grease in the line was the cause. The estimated overflow into the water of the state was 450 gallons. (Hildebran Creek/Anthony Creek)

02/06/2011: 782 Radio Station Rd. Roots in the line were the cause. The estimated overflow was 1465 gallons, and of that 732 gallons went into the water of the state. (Hildebran Creek/Anthony Creek)

10/24/2011: 1774 Mount Olive Church Rd. A 12" force main pipe failed was the cause. The estimated overflow was 1,160 gallons, and of that 696 gallons went into the water of the state. (Mclin Creek)

11/14/2011: 1774 Mount Olive Church Rd. A 12" force main pipe failed was the cause. The estimated overflow was 1,160 gallons, and of that 696 gallons went into the water of the state. (Mclin Creek)

12/29/2011: 246 Oakland Cir. Roots in the line were the cause. The estimated overflow into the water of the state was 900 gallons.

2011 the City of Newton Collection System received four Notice of Violations for sanitary Sewer Overflows.

(1) NOV-2011-DV-0048 Oakland 1004 N. Gaither Ave. 01/25/2011. Debris in sewer main was the cause. NOV issued on 02/18/2011. NOV was answered.

(2) NOV-2011-DV-0061 1609 Northwest Blvd. 02/02/2011. Grease was the cause. NOV issued on 03/17/2011. NOV was answered.

(3) NOV-2011-DV-0061 782 Radio Station Rd. 02/06/2011. Roots were the cause. NOV issued on 03/17/2011. NOV was answered.

(4) NOV-2012-DV-0023 246 Oakland Cir. 12/29/2011. Roots were the cause. NOV issued on 01/20/2012. Just received NOV and is in process. NOV will be answered.

In 2011, the City of Newton WWTP effectively treated six hundred forty four million one hundred sixty thousand (644,160,000) gallons of wastewater. During this time the City of Newton wastewater collection system experienced six (6) overflows. The amount of these overflows to reach surface waters was less than 0.00064% of the amount of wastewater collected and treated for 2011. No overflows resulted in a fish kill or other negative environmental impact.

The Clark Creek WWTP average daily flow for 2011 was 1.8 MGD. To ensure compliance with all Federal and State laws regarding the safe treatment of wastewater, the City of Newton appropriated more than one million five hundred thousand dollars (\$1,500,000.00) towards operating and maintaining its wastewater treatment plant. The City of Newton Clark Creek Wastewater Treatment Plant was issued no violations for 2011.

A narrative report of the eight pump stations is as follows:

Burriss Road Pump Station (PS): This pump station is inspected three times a week by the staff to empty the bar screen cleaning debris basket and is remotely monitored via a telephonic alarm system. This system monitors and reports pump run condition; pump failure alarm, high level alarm, power failure alarm and generator failure alarm. There is an emergency power generator on site. This pump station received a major refitting in 2005 including new pumps, motors, and controls and bar screen. This pump station is scheduled to be replaced during 2012.

Walnut Creek PS: This pump station is inspected three times per week by the staff, and is monitored remotely via a telephonic alarm system. This system monitors and reports pump run condition; pump failure alarm, high level alarm, power failure alarm and generator failure alarm. There is an emergency power generator on site.

West Side PS: This pump station is inspected three times per week by the staff and is monitored remotely via a telephonic alarm system. This system monitors and reports pump run condition; pump failure alarm, high level alarm, power failure alarm and generator failure alarm. There is an emergency power generator on this site.

HWY#10/Southfork PS: This pump station is inspected one time per week by the staff and is monitored remotely via a telephonic alarm system. This system monitors and reports pump run condition; pump failure alarm, high level alarm, power failure alarm and generator failure alarm. There is an emergency power generator on site.

Startown School PS: This pump station is inspected once a week by the WWTP staff and is monitored remotely via a telephonic alarm system. This system monitors and reports pump run condition; pump failure, high level alarm and power failure alarm. The pumps at this location were upgraded in 2005 from 3.5 hp to 5.0 hp to reduce frequent clean out. A portable emergency power generator was purchased in 2006 for this location. It is stored at the Public Works building and is on a battery tender.

Balls Creek PS: This facility was added during 2007. This facility is inspected once a week by the staff and is monitored remotely via a telephonic alarm system. This system monitors and reports pump run condition; pump failure, high level alarm, power failure alarm and generator failure alarm. There is an emergency power generator on site.

Gregory Wood Products PS: This facility was added during 2007. This facility is inspected once per week by the staff and is monitored via a telephonic alarm system. This system monitors and reports pump run condition; pump failure alarm, high level alarm, power failure alarm and generator failure alarm. There is an emergency power generator on site.

Target Distribution Center PS: This facility began operation in 2008. This facility is inspected once a week by the staff and is monitored via a telephonic alarm system. This system monitors and reports pump run condition; pump failure alarm, high level alarm, power failure alarm and generator failure alarm. There is an emergency generator on site.

Aerial and High Priority Lines:

Location	Manhole	Size	Material	Footage	Type
2210 Little Coulters Church Rd	2338-2339	24	Steel	40	AERIAL
2210 Little Coulters Church	2334-2338	36	Steel	40	AERIAL
1775 Southwest Blvd	2322-2306	36	Steel	40	AERIAL
1775 Southwest Blvd	2320 -2318	24	STEEL	40	AERIAL
1346 McKay Rd.	2167-2328	12	CI	18	AERIAL
1346 McKay Rd.	2165-2166	12	CI	18	Under Creek
2393 W Hwy 10	1357-1356	12	CI	6	AERIAL
1390 Kensington	1349-1384	18	DI	30	Under Creek
1698 Kensington	1367-1368	12	CI	5	AERIAL
720 Westside Dr	2263	18	PVC	418	Parallel to creek
720 Westside	2264	18	PVC	418	Parallel to creek
846 Westside Dr	2215-2216	12	CI	15	AERIAL
235 N Gate	2280-2277	18	CI	40	Under Creek
530 Hamilton	1004-1006	8	DIP	10	AERIAL
41Cherry Ln	1177-1178	12	DIP	40	AERIAL
41 Cherry Ln	1505-1178	8	DIP	120	AERIAL
811 Ridge Dr	1871-1872	12	DIP	40	AERIAL
811 Ridge Dr	881-742	12	DIP	20	AERIAL
1522 W NC Hwy 10	2204-1730	12	DIP	40	AERIAL
1254 Long Dr	2205-1699	12	CI	8	AERIAL
1135 Long Dr	1698-1699	12	Steel	8	AERIAL
1011Quail	1695-1696	12	Steel	8	AERIAL
1432 Old Conover Startown Rd	1694-1693	12	Steel	8	AERIAL
1432 Old Conover Startown Rd	1690-1691	12	Steel	10	AERIAL
1306Beechwood	1306-1305	8	Steel	8	AERIAL
1180 Edgefield	1293-386	8	DIP	8	AERIAL
3336 Startown Rd	1666-1667	12	Steel	20	AERIAL
2055 Milton	1680-1681	12	Steel	5	AERIAL
1376 Old Conover Startown Rd	1685-1686	12	Steel	30	AERIAL
1991 Old Conover Startown Rd	1641-1642	12	Steel	5	AERIAL
2078 Settlemyre Bridge Rd	1635,1636,1637	18	PVC	175	Parallel to creek
2078 Settlemyer Bridge Rd	1743-1612	8	Steel	30	AERIAL
2078 Settlemyer Bridge Rd	1742-1612	15	Steel	30	AERIAL
2078 Settlemyer Bridge Rd	1634-1633	12	Steel	15	AERIAL

1928 Settlemyer Bridge Rd	1632-1631	12	Steel	2	AERIAL
100 Raido Station Rd	2251-2254	18	DIP	15	AERIAL
773 Raido Station Rd	1451-MH ?	12	Steel	50	AERIAL
1088 Raido Station Rd	855-MH ?	12	Steel	50	AERIAL
1019 W 1 st St	2246-2242	18	Steel	30	AERIAL
844 W 6 th St Circle	1977-820	8	Steel	140	AERIAL
Westlake & W 7 th St	795-796	8	DIP	30	AERIAL
Westbrook & Poplar	1712-1836	8	DIP	35	AERIAL
731 W 15 th St	2223-2225	12	DIP	10	AERIAL
1818 Northwest Blvd.	1188-646	12	DIP	40	AERIAL
802 W 15 th St	2222-2168	12	DIP	15	AERIAL
2202 Northwest Blvd.	1191-1190	12	CI	5	AERIAL
510 S Cline Ave	455-478	8	DI	40	AERIAL
639 W 1 st St	838-508	12	Clay	448	Parallel to creek
311 W 1 st St	549-839	12	PVC	30	Parallel to creek
1901 Northwest Blvd.	702-664	8	DI	10	AERIAL
301 W 20 th St	703-218	8	DI	30	Under creek
316 W 21 st St	613	8	Clay	25	MH near creek
302 W 24 th St	597-598	10	CI	20	AERIAL
2636 Northwest Blvd	567-849	12	CI	10	AERIAL
2726 N Ashe Ave	240-238	10	CI	25	AERIAL
2726 N Ashe Ave	1316-288	8	CI	20	AERIAL
425 E P St	1104-1103	12	CI	30	AERIAL
1814 US 321 South	1123-1124	15	CI	30	AERIAL
1931 Brookside	1106-2086	6	DIP	25	AERIAL
1058 Meadowbrook	2087-MH N/A	8	DIP	25	AERIAL
1235 Lakewood Dr	2089-1138	8	DIP	25	AERIAL
1235 Lakewood Dr	1139-1533	14	PVC	25	Under Creek
1545 St. James Church Rd.	2501-1530	8	DIP	25	AERIAL
425E N St	1121-1516	10	DIP	35	AERIAL
425 E N St	1515-1514	16	CI	4	AERIAL
400 E N St	1509-1508	8	CI	60	AERIAL
400 E N St	1509-1508	12	CI	60	AERIAL
428 E K St	1074-989	12	CI	40	AERIAL
428 E K St	1074-989	12	CI	40	AERIAL
518 E J St	1512	24	PVC	30	Parallel to creek
518 E J St	1050-1049	24	PVC	340	Parallel to creek
511 Burton St	914-961	8	DIP	8	AERIAL
612 St James Church Rd	1569-1570	10	CI	20	AERIAL
612 St James Church Rd.	288-1833	12	CI	20	AERIAL
152 S Caldwell Ave	326-1084	12	CI	10	AERIAL
112 McDaniels Circle	1774-439	12	CI	5	AERIAL
30 S Gaither Ave	1495-MH # ?	8	DI	40	AERIAL
108 N Gaither Ave	411-#?	8	CI	45	AERIAL
307 N Ervin Ave	1490-410	12	DIP	10	AERIAL
702 N Gaither Ave	434-433	8	DIP	40	AERIAL

1004 N Gaither Ave	213	12	PVC	50	Parallel to creek
1113 N Davis Ave	2021-2020	8	DIP	60	AERIAL
1113 McRee Heights	211-210	12	DIP	8	AERIAL
1116 MCree Heights	209-1381	8	DI	15	AERIAL
1119 McRee Heights	1550-1771	12	DIP	5	AERIAL
1672 Powerline Ave	721-1425	8	CI	170	AERIAL
2410 Brookwood	610-971	8	DIP	5	AERIAL
1212 E H St	938-939	8	DI	22	AERIAL
1202 E H St	1565	12	PVC	55	Parallel to creek
1633 Fisher Ct	2464-2465	12	DI	6	AERIAL
1800 St James Church Rd	2457-1457	15	CI	15	AERIAL
1666 Fisher Ct	2454-2451	12	CI	40	Parallel to creek
2014 S. Hwy 16	1444-1445	12	CI	15	AERIAL
1516 S. Hwy 16	1561-1560	12	Steel	15	AERIAL
1625 Berkshire	1795-1796	8	DIP	6	AERIAL
1450 Berkshire	1819-1820	12	PVC	8	Under Creek
1730 Nelson	2478-2477	12	PVC	8	Under Creek
1730 Nelson	1803-1808	8	DIP	30	AERIAL
1824 Mount Olive Church Rd	Force Main	8	DIP	10	AERIAL
1824 Mount Olive Church Rd	Force Main	12	DIP	10	AERIAL
1847 Burris RD	Force Main	8	DIP	10	AERIAL
1847 Burris Rd	Force Main	12	DIP	10	AERIAL
1702 New Hwy16	2415-2416	15	Steel	15	AERIAL
607 Thomas	2047-1386	8	Steel	10	AERIAL
1401 Burris Rd	2078-1392	12	DIP	20	AERIAL

III. Notification

The City will notify the users of the wastewater system of this Annual Report by way of the City Newsletter, the City Web-site, and by announcement at a City of Newton Council meeting on 02/07/2012.

IV. General Information

The City of Newton is responsible for maintaining unobstructed wastewater flow in the City owned sewer system. The line that connects a house or building to the City sewer system is called a service lateral. The property owner is responsible for maintaining the service lateral. If a blockage occurs causing a sewer backup, the city encourages residents to call the city so a crew can verify which part of the line is obstructed. A city crew will check the main line and clear the line if necessary. If the main line is clear, the property owner will be notified of the need to call a plumber to clear the service lateral. Occasionally there are blockages in service laterals that extend into the utility right-of-way. When this occurs the City will check and clean the line to the “clean out” if requested. However, the property owner is ultimately responsible for the entire length of the service lateral.

Why do sewer lines block?

Many things can become lodged in a sewer line causing a backup; e.g. sticks, rocks, bricks, pieces of broken pipe, string, rags, GREASE, paper towels, newspapers, sanitary napkins, plastics, etc. Many blockages occur as a result of tree roots growing into sewer pipes. Roots collect grease and animal fat poured down drains. Over time, this collection of debris can cause an obstruction. You can help prevent sewer backups in your home and protect the environment if you adhere to the following advice: (1) Never flush or put anything down a toilet or drain that would clog a sewer line, (2) do not wash grease down a drain and (3) report any sewer overflow immediately.

It is a good idea to collect grease in a can or jar and put it in the refrigerator. When the container is full, and it solidifies, dispose of it with the household garbage.

The City of Newton has a Grease Trap Policy and a Standard Operating Procedure for controlling grease discharge from commercial establishments.

What is a "Backwater Valve" and do I need one?

A backwater valve is a relatively inexpensive item that can be installed on your plumbing system that will help prevent sewer back-ups and overflows that could occur on your property or in your home. The N.C. Plumbing Code requires that a "backwater valve" be installed in all structures if they have a plumbing fixture that has a "flood rim elevation" below the next upstream city sewer manhole. City residents can avoid sewer back-ups by installing this backwater valve, which is designed to prevent a sewer back-up in the customer's plumbing caused by a blockage in the city's sewer system. The valve allows sewage to leave the residence or business, but does not allow sewage to flow back into the property. (The flood rim elevation is the level at which a fixture, such as a toilet or sink, will overflow) It is possible that some local homes or businesses that have fixtures with flood rim elevations below the next upstream sewer manhole may not have the backwater valve installed. Any structure with plumbing fixtures below the next upstream sewer manhole is at risk of sewage backing up into the structure. Structures with plumbing fixtures in basements are more likely to need the valve installed. Residents are advised that the city is not responsible for damages caused by a sewer back-up on private property if the required backwater valve has not been installed. For more information or to determine if your home needs a backwater valve, contact Dennis Falder at 695-4297.

Questions?

Should you have any questions regarding the treatment of wastewater in your community or need to report a sewer problem, please feel free to call the City of Newton Public Works and Utilities Department at 828 695-4310. To report a sewer problem after 5:00 PM or on weekends call 695-4306

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 will be made available to the users of the system as stated in the report. An announcement of the availability of the report is scheduled to be made at a regularly scheduled City Council Meeting held on February 7, 2012.

Danny Sigmon
City of Newton
WWTP Superintendent

Date