



# It's a Toilet, Not a Trash Can

*Some Things  
Just Don't Belong in the Toilet*

**CITY OF WILSON**  
Wastewater Collection  
and Treatment System Report  
Fiscal Year 2021-2022



# “Some Things Just **DON’T** Belong in the Toilet”

Toilets are meant for one activity, and you know what we are talking about! When the wrong thing is flushed, results can include costly backups on your own property or problems in the City’s sewer collection system and at the wastewater treatment plant. That’s why it is so important to treat toilets properly and flush only your personal contributions to the City’s wastewater system.

## “Disposable Does Not Mean Flushable”

Flushing paper towels and other garbage down the toilet wastes water and can create sewer backups and sanitary sewer overflows (SSOs). The related costs associated with these SSOs can be passed on to ratepayers. Even if the label reads “flushable”, you are still safer and more environmentally correct to place the item in a trashcan.

## “It’s a Toilet, **NOT** a Trash Can”



**The following is a partial list of items that should not be flushed:**

- ✘ Baby wipes, diapers
- ✘ Cigarette butts
- ✘ Egg shells, nutshells, coffee grounds
- ✘ Food scraps
- ✘ Oil
- ✘ Grease
- ✘ Tissues (nose tissues, all brands)
- ✘ Sanitary napkins
- ✘ Rags and towels
- ✘ Cotton swabs, medicated wipes (all brands)
- ✘ Syringes
- ✘ Candy and other food wrappers
- ✘ Rubber items such as latex gloves
- ✘ Clothing labels
- ✘ Cleaning sponges
- ✘ Toys
- ✘ Plastic items
- ✘ Aquarium gravel or kitty litter
- ✘ Hair
- ✘ Underwear
- ✘ Disposable toilet brushes
- ✘ Medicines



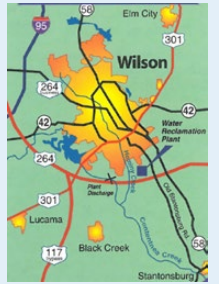
# MISSION STATEMENT

*“Protecting our Environment and Water Quality, through Teamwork and Excellent Service, now and for future generations.”*

## HOMINY CREEK WATER RECLAMATION FACILITY (WRF)

The WRF is located in Wilson at 3100 Stantonsburg Road. It is a state-of-the-art regional treatment plant that processes wastewater for approximately 20,300 metered customers and a service population of approximately 52,000. The City of Wilson also treats wastewater from the Town of Black Creek, the Town of Lucama, the Town of Saratoga, and the Town of Sims.

The term water reclamation defines the treatment or processing of wastewater to make it reusable with specific treatment reliability. Reclaimed water must also comply with very stringent water quality criteria. The term water reuse defines the use of treated wastewater for beneficial uses, such as agricultural irrigation and industrial cooling. The City of Wilson is committed to reusing reclaimed water in areas that drinking water is not needed such as irrigation water for Wedgewood Golf Course, the Burt Gillette Athletic Complex and industrial process/cooling water. The reclaimed water system is part of the City's water conservation plan.



This report provides information concerning the City of Wilson's wastewater collection and treatment system performance for July 1, 2021 to June 30, 2022 as required in the North Carolina Clean Water Act of 1999 (House Bill 1160). If you have any questions about the information contained in this report, or would like to learn more about your wastewater collection system or the Hominy Creek Water Reclamation Facility, please call (252) 399-2492.

### TABLE DEFINITIONS & KEY

< - less than

> - greater than

**MGD (Million Gallons per Day)** - a unit of measurement for flow volume.

**NTU (Nephelometric Turbidity Units)** - a unit of measurement for Turbidity. The lower the value, the clearer the water.

**PPM (Parts per Million)** - a unit of measurement. Parts per million compares to 1 minute in 2 years.

**PPB (Parts per Billion)** - a unit of measurement. Parts per billion compares to 1 minute in 2,000 years.

**SU (Standard Units)** - a unit of measurement for pH.

**Ammonia** - one of several forms of nitrogen that exist in aquatic environments. Excessive ammonia can cause toxic effects to aquatic life. Ammonia is measured in PPM.

**BOD (Biochemical Oxygen Demand)** - a required test that determines the amount of oxygen required by microorganisms to consume pollutants. BOD is measured in PPM.

**Chronic Toxicity** - a required test used to determine the potential effects of treated wastewater discharged into the receiving stream. The test ensures that treated wastewater discharged into surface waters does not negatively impact aquatic ecosystems.

**DO (Dissolved Oxygen)** - a required test used to determine the amount of oxygen that is present in water. It is a direct indicator of an aquatic resource's ability to support aquatic life. DO is measured in PPM.

**FC (Fecal Coliform)** - a required test used to determine the presence of disease causing organisms. FC are harmless but are used as indicators of other organisms (if FC are present others may be present). FC is measured as number of colonies per 100 milliliters of sample.

**pH** - a required test used to determine the hydrogen ion concentration in water. It is used to indicate basicity or acidity of a solution on a scale of 0 to 14, with pH 7 being neutral.

**TN (Total Nitrogen)** - a required test used to determine the sum of the different forms of nitrogen found in water, including nitrate, nitrite and ammonia. Nitrogen is a critical nutrient required for all life but elevated concentrations can result in excessive growth of algae and aquatic plants. TN is measured in PPM.

**TP (Total Phosphorus)** - a required test used to determine all the different forms of phosphorus found in water. Phosphorus is a critical nutrient required for all life but elevated concentrations can result in excessive growth of algae and aquatic plants. TP is measured in PPM.

**TRC (Total Residual Chlorine)** - a required test used to determine the total amount of remaining chlorine present in water. Chlorine is added to destroy or deactivate disease-producing microorganisms. Excess residual chlorine may cause adverse effects to aquatic life. TRC is measured in PPB.

**TSS (Total Suspended Solids)** - a required test that measures the amount of suspended solids in a sample. TSS are measured in PPM.

**Turbidity** - a required test that measures clarity of water. It is used to indicate water quality and filtration effectiveness. Turbidity is measured in NTU.

### NPDES PERMIT COMPLIANCE (NC0023906)

The WRF was compliant with all NPDES permit limits this year.

#### PLANT PERFORMANCE

Pollutant	Concentration	Pollutant	Concentration
<b>Ammonia Nitrogen</b>	<b>PPM</b>	<b>Flow</b>	<b>MGD</b>
Average	0.03	Average	7.79
Permit Limit	1.0/3.0 (summer - monthly/weekly) 2.0/6.0 (winter - monthly/weekly)	Permit Limit	14.00 (monthly)
<b>Biochemical Oxygen Demand</b>	<b>PPM</b>	<b>pH</b>	<b>SU</b>
Average	0.1	Minimum - Maximum	6.7 - 8.0
Permit Limit	5.0/7.5 (summer - monthly/weekly) 10.0/15.0 (winter - monthly/weekly)	Permit Limit	Within 6.0 - 9.0 (daily)
<b>Chronic Toxicity</b>		<b>Total Nitrogen</b>	<b>Lbs/Yr</b>
Test Performed Quarterly	Passed all	Pounds Discharged	57,604
Permit Limit	Pass or Fail	Permit Limit	157,886
<b>Dissolved Oxygen</b>	<b>PPM</b>	<b>Total Phosphorus</b>	<b>PPM</b>
Average	9.3	Average	0.50
Permit Limit	>7.0 (daily)	Permit Limit	2.00 (quarterly)
<b>Fecal Coliform</b>	<b>Colonies/100 ml of sample</b>	<b>Total Residual Chlorine</b>	<b>PPB</b>
Average	3	Average	<0.01
Permit Limit	200/400 (monthly/weekly)	Permit Limit	18.0 (daily)
		<b>Total Suspended Solids</b>	<b>PPM</b>
		Average	0.05
		Permit Limit	30.0/45.0 (monthly/weekly)

### REUSE PERMIT COMPLIANCE (WQ0018709)

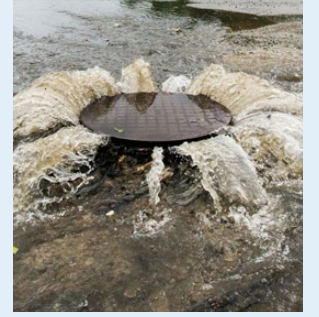
The WRF was compliant with all Reuse permit limits this year.

#### PLANT PERFORMANCE

Pollutant	Concentration	Pollutant	Concentration
<b>Ammonia Nitrogen</b>	<b>PPM</b>	<b>Total Suspended Solids</b>	<b>PPM</b>
Average	0.04	Average	<0.01
Permit Limit	4.0/6.0 (monthly/daily)	Permit Limit	5.0/10.0 (monthly/daily)
<b>Biochemical Oxygen Demand</b>	<b>PPM</b>	<b>Turbidity</b>	<b>NTU</b>
Average	2.0	Average	0.42
Permit Limit	10.0/15.0 (monthly/daily)	Permit Limit	10.0 (daily)
<b>Fecal Coliform</b>	<b>Colonies/100 ml of sample</b>		
Average	1		
Permit Limit	14/25 (monthly/daily)		

## SANITARY SEWER OVERFLOWS (SSOs)

Sanitary sewer overflows (SSOs) occur when untreated sewage is discharged into the environment prior to reaching the sewer treatment facilities. These typically occur at manholes, pump stations, or broken sewer pipes. Infiltration/inflow (I/I) is unwanted water that enters the sewer collection system through deteriorating older pipes, leaking manholes, or illegal connections such as roof drains, etc. During heavy rains, pipes can become overloaded from I/I and cause SSOs. Pipe stoppages caused by fats, oils, grease, debris, and non-flushable items can also lead to SSOs. Replacing and rehabilitating these lines and manholes reduces I/I into the sanitary sewer system, thus protecting the public health, improving treatment plant efficiency and reducing system maintenance. Generators provide emergency back-up power for pump stations and help prevent SSOs.



During fiscal year 2021-2022, the City of Wilson experienced sixteen (16) reportable SSOs. The WRF treated 2.8 billion gallons of wastewater during this period.

#### August 11, 2021

3500 Block of NC Highway 42 W  
**Total:** 13,500 gallons  
**Cause:** Pipe failure

#### September 16, 2021

403 Brentwood Drive  
**Total:** 180 gallons  
**Cause:** Pipe blockage due to grease, debris, & non-flushable wipes

#### October 12, 2021

1303 Crawford Street S  
**Total:** 20 gallons  
**Cause:** Pipe blockage due to grease, debris, & non-flushable wipes

#### October 27, 2021

1303 Crawford Street S  
**Total:** 100 gallons  
**Cause:** Pipe blockage due to grease

#### November 14, 2021

1716 Meadowbrook Lane W  
**Total:** 600 gallons  
**Cause:** Pipe blockage due to grease, debris, & non-flushable wipes

#### December 28, 2021

1901-C Lipscomb Road E  
**Total:** 150 gallons  
**Cause:** Pipe blockage due to grease & debris.

#### January 6, 2022

Near Intersection of Tilghman Road N & Deerfield Lane N  
**Total:** 300 gallons  
**Cause:** Infiltration/Inflow during heavy rain event

#### January 11, 2022

313 Hackney Street E  
**Total:** 150 gallons  
**Cause:** Pipe blockage due to debris, & non-flushable wipes

#### January 12, 2022

3100 Stantonsburg Road SE  
**Total:** 600 gallons  
**Cause:** Pipe failure

#### January 18, 2022

2658 Tilghman Road N  
**Total:** 215 gallons  
**Cause:** Infiltration/Inflow during heavy rain event

#### January 19, 2022

3500 Block of NC Highway 42 W  
**Total:** 3,000 gallons  
**Cause:** Pipe Failure

#### January 20, 2022

3500 Block of NC Highway 42 W  
**Total:** 9,000 gallons  
**Cause:** Pipe Failure

#### February 6, 2022

4308 Cam Strader Road  
**Total:** 196 gallons  
**Cause:** Pipe blockage due to grease

#### March 19, 2022

1703 Woodside Drive W  
**Total:** 412 gallons  
**Cause:** Pipe blockage due to grease

#### June 1, 2022

3100 Stantonsburg Road SE  
**Total:** 8,600 gallons  
**Cause:** Pipe failure

#### June 8, 2022

3351 NC Highway 42 W  
**Total:** 750 gallons  
**Cause:** Pipe Failure

Customers who observe a sanitary sewer overflow should report these as emergencies to the City of Wilson's Unified Communications Center at (252) 399-2424.

Clientes que observan un desbordamiento del drenaje sanitario, deben reportar estas situaciones de emergencia al centro de comunicaciones unificadas de la Ciudad de Wilson, al telefono (252) 399-2424.

## HELP STOP THE CLOG!

The majority of sewer backups and overflows caused by fats, oils, and grease (FOG) originate in residential areas. You can help prevent clogs by learning about FOG and how to dispose of it.

By following three simple steps, you can make sure your pipes keep flowing properly:

**CAN IT!** Once cooled, pour leftover oils and grease into a sturdy container, like an empty coffee can or glass jar and discard it in a trash can.

**SCRAPE IT!** Before washing, scrape out fats, oils and grease residuals from pots, pans and dishes into the trash can.

**TRASH IT!** Put fatty and greasy food scraps in the garbage, not the drain.

## FOR MORE WATER QUALITY INFORMATION

**City of Wilson – Water Resources**  
(252) 399-2492  
[www.wilsonnc.org/water-resources](http://www.wilsonnc.org/water-resources)

**U.S. Geological Survey**  
[www.usgs.gov](http://www.usgs.gov)

**N.C. Environmental Education**  
[www.eenorthcarolina.org](http://www.eenorthcarolina.org)

**Water's Worth It**  
[www.watersworthit.org](http://www.watersworthit.org)

**North Carolina Department of Environmental Quality**  
(919) 733-2321  
[www.deq.nc.gov](http://www.deq.nc.gov)

**Lower Neuse Basin Association**  
[www.lnba.net](http://www.lnba.net)

**River Guardian Foundation, Inc.**  
[www.riverguardfdn.org](http://www.riverguardfdn.org)

**U.S. Environmental Protection Agency**  
[www.epa.gov](http://www.epa.gov)

**Sound Rivers**  
[www.soundrivers.org](http://www.soundrivers.org)

**Love a Sea Turtle**  
[www.loveaseaturtle.com](http://www.loveaseaturtle.com)

## AFFILIATIONS

The City of Wilson Water Reclamation Division is affiliated with the following organizations:

- Water Environment Federation
- American Water Works Association
- N.C. Water Quality Association
- N.C. One Water
- N.C. Pretreatment Consortium
- N.C. Rural Water Association

## PROTECTING THE NEUSE RIVER

The Lower Neuse River Basin Association, Inc. (LNBA) and the Neuse River Compliance Association, Inc., (NRCA) are 501(c) (3) non-profit corporations comprised of municipalities and industries located in the Neuse River Basin. The mission of these organizations is to monitor and preserve the waters of the Neuse River and Neuse River estuary through innovative and cost-effective wastewater treatment and reduction strategies. The NRCA group is composed of 28 wastewater treatment facilities located in the Neuse River Basin. NRCA was issued North Carolina's first basin-wide NPDES permit for nitrogen control January 1, 2003 and was reissued in 2008, 2013, and 2018. The group was given a mandate to reduce their Total Nitrogen discharge by 30%. Through the combined efforts of its entire membership, the NRCA exceeded the mandated 30% nitrogen reduction by removing over 55% of their nitrogen loading to the Neuse River estuary since 1995.

The City of Wilson is proud to be a charter member of both the LNBA and NRCA.