

# TOWN OF FUQUAY-VARINA 2006-2007 WASTEWATER TREATMENT AND COLLECTION SYSTEM ANNUAL REPORT

This Report covers the fiscal year from July 1, 2006 to June 30, 2007

Historically, the purpose of collecting and treating wastewater has been to remove unsightly human waste from public view and more importantly to reduce the spread of disease.

Throughout the 1960's, public awareness regarding the quality of our nation's water resources intensified as a result of highly volatile environmental issues. With a high demand for a more effective means to protect and clean the nation's water resources, Congress in 1972 passed the Federal Water Pollution Control Act Amendments. (Better known as the Clean Water Act)

The Town of Fuquay-Varina began providing its customers with a "System Performance Report" in 1999. The purpose of the report is to keep the towns customers informed of the performance of their collection system and wastewater treatment facilities. The intent of this report is not only to inform the customer of compliance issues the town faced for the reporting period, but also to educate the towns customers as to how they themselves can contribute to protecting public health and the environment.

The Town of Fuquay-Varina wants its customers to know that it is committed to the control and prevention of pollution to the environment. Town personnel work hard to insure that the collection and treatment of wastewater meet state and federal standards.

## COLLECTION SYSTEM

### PERMIT # WQCS00193

The Town of Fuquay-Varina's collection system consist of approximately 103 miles of gravity sewer, approximately 14 miles of force main, and 14 duplex pump stations. Currently the Town has approximately 6,500 residential sewer customers, 466 commercial, 8 industrial, and 38 institutional customers. There are currently 2 Significant Industrial Users (SIU) that require pre-treatment permits.

## INFLOW/INFILTRATION

During excessive rainfall events, the sewer system is unable to carry the excess water and flooding can occur. This problem is called inflow/infiltration or "I/I". Overall, groundwater seeping into the collection system raises the volume of wastewater in the collection system. Diluted and untreated sewage can then backup and overflow from a manhole onto the ground and sometimes into creeks, or streams.

The majority of the I/I within the collection system occurs in the portion that flows to the Kenneth Creek WWTP. Many of these lines are terra-cotta lines that may be 50-60 years old.

The Town Board approved the funds to clean and inspect the portion of sewer collection system in the Kenneth Creek basin. During this project approximately 94,000 linear feet of sewer line was cleaned and inspected. The Town Board approved funds to begin repairing these sections, in-turn reducing the amount of I&I within our collection system.

The following table list the sanitary sewer overflows which occurred during the reporting period.

DATE	APPROX. VOLUME (gallons)	CAUSE
11/22/06	500	Roots/grease

The sewer overflows were reported to NCDENR as required, and proper public notification was performed. No detrimental environmental impacts have been observed.

The Town has contracted to have manholes in poor condition within the collection system rehabilitated. This project is a part of the Towns continued efforts to eliminate infiltration and inflow into its sewer collection system.



**TERRIBLE CREEK WASTEWATER TREATMENT PLANT  
PERMIT # NC0066516**

A 1.0 MGD average design capacity tertiary filter wastewater treatment plant which was originally put into service in July 1997 with a capacity of .5 MGD, and expanded to 1.0 MGD in 2001. This facility discharges into the Neuse River Basin. The performance of the Terrible Creek facility has been poor.

During the reporting period the Terrible Creek facility experienced the following violations.

MONTH	NUMBER OF VIOLATIONS	TYPE OF VIOLATION
November - 06	11	Limit
December - 06	2	Limit

The Terrible Creek facility experienced an unusual amount of violations during this reporting period. This was a result of our cycling the air going to our treatment plant on and off in order to prevent the loss of solids from our clarifiers to the receiving stream.

**KENNETH CREEK WASTEWATER TREATMENT PLANT  
PERMIT # NC0028118**

A 1.2 MGD (million gallons per day) average design capacity trickling filter wastewater treatment plant located in the Cape Fear River Basin. The performance of the aging Kenneth Creek facility has been good.

During the reporting period the Kenneth Creek facility experienced the following violations.

MONTH	NUMBER OF VIOLATIONS	TYPE OF VIOLATION
Sep - 06	1	Limit
Dec - 06	3	Limit
Jan - 07	1	Limit

**REGIONAL WASTEWATER TREATMENT FACILITY**

The Town has partnered with Harnett County to construct a new regional facility to replace the Kenneth Creek WWTP. The Kenneth Creek WWTP was originally constructed in approximately 1960. The facility was upgraded in approximately 1980. While having served the Town approximately 46 years the Kenneth Creek facility was taken offline July 5, 2007. Wastewater that was once treated at the Kenneth Creek facility is now flowing through a series of 36, 42, and 48 inch pipes as it makes its way to the Harnett County/Fuquay-Varina Regional Wastewater Treatment Facility.

**Questions or comments visit the Town of Fuquay-Varina  
Website at [www.fuquay-varina.org](http://www.fuquay-varina.org)**

**How YOU Can Help  
Prevent Sanitary Sewer Overflows**

Sanitary sewer systems are designed to handle three things: **used water, human body waste, and toilet paper**. You can do some simple things that will help the Town protect water quality and prevent sanitary sewer overflows (SSOs) in Fuquay-Varina.

**DO NOT:** Pour grease, fats and oils down the drain.

DO: Collect grease in a container and dispose of it in the garbage

**DO NOT:** Use the toilet as a wastebasket. Disposable diapers, condoms and personal hygiene products do not belong in the sewer system.

DO: Place a wastebasket in the bathroom to dispose of solid waste.

**DO NOT:** Use the sewer as a means to dispose of food scraps

DO: Place food scraps in waste containers or garbage bags for disposal with solid waste, or start a compost pile.

These suggestions can save you money too! Most sewer back-ups occur between the house and the City's sewer main, where the property owner is responsible for correcting the problem. Avoiding blockages means avoiding plumbing bills. When the blockage occurs in the Town's sewer main, the Town will correct the problem.

Please call the Public Utilities Wastewater Department at 552-1408, to report a sewer back-up or overflow. After hours, call the after-hours emergency number - 552-3178.

Los sistemas de drenaje sanitario están diseñados para manejar tres tipos de cosas: **agua de desecho, residuos corporales y papel desechable**. Puedes hacer algunas cosas sencillas que nos ayudarán a proteger la calidad del agua y prevenir los sobreflujos en el drenaje sanitario de Fuquay Varina.

**NO:** deseche grasas y aceites de cocina en el dren.

SI: Deposite la grasa en un recipiente y deséchelo en la basura.

**NO:** Utilice el inodoro como bote de basura.

SI: Coloque un bote de basura en el baño para depositar en él los desechos sólidos. Pañales

desechables, condones, y productos de higiene personal no son apropiados en el sistema de drenaje.

**NO:** Utilice el drenaje como si fuera para desechar restos de comida.

SI: Coloque los restos de comida en contenedores o bolsas de basura para su disposición junto a los desechos sólidos o inicie una composta.

Estas sugerencias pueden también ahorrarle dinero! La mayoría de los reflujos causados por obstrucción ocurren entre la casa y la línea principal de la ciudad, donde el propietario es responsable de la corrección de este problema. Evitar bloqueos significa evitar gastos de plomería. Cuando el bloqueo ocurra en la línea principal de drenaje del pueblo, él mismo lo corregirá. Por favor llame al departamento de servicios públicos al 552-1408, para reportar un reflujo por obstrucción o sobreflujo. En horas no hábiles, llame al teléfono de emergencia 552-3178.