

THE TOWN OF HILLSBOROUGH
Annual Wastewater Quality Report (Fiscal Year 2006)
Wastewater Treatment Plant Discharge Permit #NC0026433
Wastewater Collection System Permit #WQCS00077
August 4, 2006

The Town of Hillsborough owns and operates a wastewater treatment plant located at 355 Elizabeth Brady Road. The plant is permitted to process up to 3 million gallons of wastewater per day. The average flow through the plant is 0.679 million gallons per day and is discharging at less than 25% of its capacity. During fiscal year 2006 (July 2005 – June 2006) the Wastewater Treatment Plant had no limit violations.

The plant is currently undergoing a study by the engineering firm CH2M Hill. They are evaluating whether it would be more fiscally viable to upgrade the plant or to build a large pumpstation and pay the City of Durham to treat Hillsborough's wastewater. The results of the study should be finished by December 2006 and will be made public at that time.

The Operator in Responsible Charge is Alvin Bolick and his back-up is Gloria Whittaker-Driver. The phone number at the plant is 732-2681. The Town of Hillsborough WWTP operates under Permit #NC0026433 issued by the State. Hillsborough's Collection System operates under Permit #WQCS00077.

We currently have 27 pump stations pumping to the Wastewater Treatment Plant through the collection system. The flow passes through a grinder and is then pumped to the grit basin before it enters the primary aeration basin. The aeration basin mixes the wastewater and allows the bacteria to break down and consume the waste. Our system is aerobic, meaning the bacteria need oxygen to survive and stabilize the waste. The mixed waste goes into the primary clarifier where the sludge settles to the bottom and the water is skimmed off. The sludge is pumped out and re-circulated to the primary aerator to be processed again. The water goes into the secondary aeration basin where more bacteria continues to breakdown the waste. The particles in the water are settled out again in the secondary clarifiers. Once the wastewater has been through both aeration basins and clarifiers it is pumped through a filtering process. It is then put in a chlorine contact chamber where chlorine is added to the water for a minimum of 30 minutes. The chlorine is then removed from the water, and the water is discharged into the Eno River. After recirculation, the sludge collected from the waste is passed through the sludge thickener and stored in one of 3 digesters and treated with lime. It is then removed with a tanker truck to be spread on agricultural lands as fertilizer.

Pump Station Update:

- Lakeshore pumpstation has not yet been converted to a gravity outfall due to various delays. The permitting process should be complete this fall, which would place the completion of the outfall at the end of 2006. An EPA STAG grant was awarded to the Town to cover 55% of the cost of the installation, with Town funds being used to fund the remaining 45%. The addition of this outfall will decrease the annual number of Sanitary Sewer Overflows, since a significant number of them occur at Lakeshore.
- They have begun clearing the area where Cates Creek Outfall will be installed to serve the Waterstone Development. Weather permitting, they will begin laying pipe in the next couple of weeks. Once the outfall is operational, the pumpstations on Beckett's Ridge Drive and Pointe Place will no longer be necessary and be taken out of service. The Waterstone Development will be upgrading an existing pumpstation on Pheobe Drive to serve the Southeastern corner of the development. The Town is therefore getting an upgraded station with a generator that serves a much larger area.
- Orange High School pumpstation is being replaced with a new station south of US70 because of the Corbinton Commons development.
- Rencher Street pumpstation now has a permanent generator fueled by natural gas, and additional generators will be purchased later this year to help meet our goal of having one at every pumpstation.

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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.

Julie Ellington Vance, Utilities Analyst, Town of Hillsborough

Date

Reportable sewage spills that were over 1000 gallons and/or reached surface waters are listed on the chart below. All spills were cleaned up, solids removed and lime applied, when applicable, to neutralize the site. No adverse environmental impact was noted after each spill was removed.

Sanitary Sewer Overflows Over 1,000 gallons during FY06 (July 2005 – June 2006)

<u>Date</u>	<u>Location</u>	<u>Cause of Spill</u>	<u>Spill Volume (gallons)</u>	<u>Volume Reaching Surface Waters(gal)</u>
10/25/2005	Intersection of Oakdale Drive & Redbird Lane	Force Main cracked from laying on rock	21,000	0
11/4/2005	Manhole behind Central Elementary	Brick blocked line & caused backup in line	60,000	60,000
12/6/05	Manhole on Eno River behind Indian Village	Inflow & Infiltration caused by excessive rain in a short amount of time	10,000	10,000
3/16/2006	Lakeshore Pump Station	Force Main just outside of pump station split	8,820	8,820

How to Prevent Fats, Oils and Grease from Damaging Your Home and the Environment

Too often, grease is washed into the plumbing system, usually through the kitchen sink. Grease sticks to the insides of sewer pipes (both on your property and in the streets). Over time, the grease can build up and block the entire pipe.

Home garbage disposals add grease to the plumbing system. These units shred solid material into smaller pieces, and cause grease to go down the drain.

Commercial additives, including detergents, that claim to dissolve grease may pass grease down the line and cause problems in other areas.

The results can be:

- Raw sewage overflowing in your home or your neighbor’s home
- An expensive and unpleasant cleanup that often must be paid by **you, the homeowner**
- Raw sewage overflowing into parks, yards and street
- Potential human contact with disease-causing organisms
- An increase in operation and maintenance costs for local sewer departments, which causes **higher sewer bills** for customers

What we can do to help

The easiest way to solve the grease problem and help prevent overflows of raw sewage is to keep this material out of the sewer system in the first place.

There are several ways to do this.

- Never pour grease down sink drains or into toilets.
- Scrape grease and food scraps from trays, pots, pans, utensils, grills and cooking surfaces into a can or the trash for disposal (or recycling where available).
- Do not put grease down garbage disposals. Put baskets/strainers in sink drains to catch food scraps and other solids, and empty the drain baskets/strainers into the trash for disposal.

Speak with your friends and neighbors about the problem of grease in the sewer system and how to keep it out. Call your local sewer system authority if you have any questions.

This report is being made available to the customers at Town Hall and the Town Hall Annex. The customers were notified of this report in the two local papers, The News of Orange County and the Chapel Hill Herald. Users may also obtain a copy of the report from our web site at www.ci.hillsborough.nc.us.