



2006 WATER QUALITY REPORT

Town of Hillsborough Remains in Compliance with Levels of Total Trihalomethanes (TTHMs)

We routinely monitor for the presence of drinking water contaminants. The standard for total trihalomethanes is 0.080 milligrams per liter (mg/L). The 2006 quarterly testing has been performed, and the results show the town has returned to compliance. The town has remained in compliance with an annual average of 0.066 mg/L.

Trihalomethanes are byproducts of the chlorination process. As soon as water is chlorinated and released from the plant, chemical byproducts called trihalomethanes (TTHMs) begin forming. This means that the longer the water is in the system before it reaches your house, the more TTHMs are produced. The town has significantly reduced the amount of time that water stays in the system by taking the Water Plant's 1-million-gallon clearwell off line, hence not giving water enough time to create too many trihalomethanes.

Special Concerns

Some people may be more vulnerable to contaminants in drinking water than the general population. Those who may be particularly at risk for infections are immune-compromised people such as those who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly people and infants. These people should seek advice about drinking water from their health providers.

EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* also are available from the Safe Drinking Water Hotline (800-426-4791).

What Is *Cryptosporidium*?

Cryptosporidium is a microscopic organism that can cause diarrhea, fever and other gastrointestinal symptoms. We have tested for *Cryptosporidium* in our reservoirs and in our treated water and have never detected its presence.

The organism comes from human and animal wastes and may occur in local streams and lakes. We control *Cryptosporidium* through a combination of source water protection and sophisticated treatment technology.

Contact us at 732-3621 if you would like more information about *Cryptosporidium*.

Citizen Input Welcome

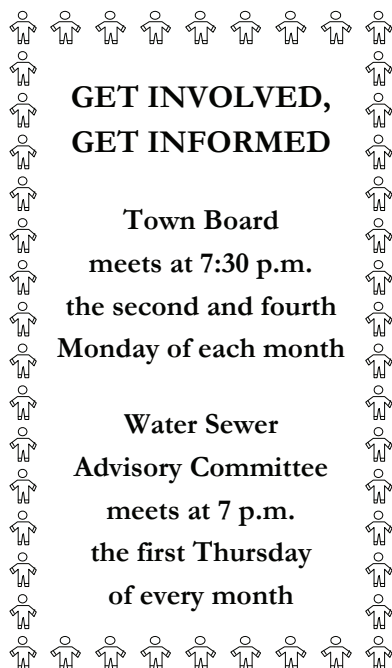
Are you interested in how decisions are made regarding the operation and upgrade of your water treatment plant?

Citizens are welcome to attend regular Town Board and Water Sewer Advisory Committee meetings. The board and committee meet in the Town Barn on the Town Hall campus, located at 101 E. Orange St.

If you have any questions about this report or a question in general about Hillsborough's water, please call the Water Plant at 732-3621. We encourage all Hillsborough water customers to be well informed about the quality of their water.

En español

Este documento está disponible en español en la oficina que factura y en el sitio web del Pueblo.


**GET INVOLVED,
GET INFORMED**

Town Board
 meets at 7:30 p.m.
 the second and fourth
Monday of each month

**Water Sewer
Advisory Committee**
 meets at 7 p.m.
 the first Thursday
 of every month

What Is a Source Water Assessment? (SWAP)

The Public Water Supply Section of the North Carolina Division of Environmental Health is responsible for implementing a source water assessment for the Town of Hillsborough and for completing assessments for all public drinking water supplies in the state. A source water assessment is a qualitative evaluation of the potential of a drinking water source to become contaminated by potential contaminant sources identified within a delineated area (watershed).

Amendments made to the Safe Drinking Water Act in 1996 provided federal support and required states to conduct assessments of all public water systems. The N.C. Public Water Supply Section has gathered information for each water supply in the state and has developed a process for completing the assessments. For a complete view of the report, visit the Web page at www.deh.enr.state.nc.us/pws/swap.

Hillsborough's SWAP information is:

Source Name: Eno River **Contaminant Rating:** Moderate
Inherent Vulnerability Rating: Higher **Susceptibility Rating:** Higher

A susceptibility rating of higher does not imply poor water quality. Susceptibility is an indication of a water supply's potential to become contaminated by the potential contaminant sources identified within the assessment area.

Glossary

MGD	million gallons per day
BDL	below detectable limits at the laboratory
MG	million gallons
ppm	parts per million
mg/L	milligrams per liter, or parts per million
ppb	parts per billion
ug/L	micrograms per liter, or parts per billion
AL	Action Level — The concentration of the contaminant that triggers treatment or other requirements that a water system must follow. Action levels are reported at the 90 th percentile for homes at greatest risk.
NTU	Nephelometric Turbidity Units — Turbidity is a measure of cloudiness in the water.
MCL	Maximum Contaminant Level — The highest level of a contaminant that is allowed in drinking water. The levels are set as close to the Maximum Contaminant Level Goals as feasible using the best available treatment technology.
MCLG	Maximum Contaminant Level Goal — The level of a contaminant in drinking water below which there is no known or expected risk to health. The goals allow for a margin of safety.
pCi/L	Picocuries per liter is a measure of radioactivity in water.

MINERAL AND PHYSICAL CHARACTERISTICS OF YOUR WATER For Calendar Year 2006

The following constituents analyzed in your water are indicators of the appearance, taste and mineral content of the drinking water delivered to your tap.

<u>Constituent, Unit of Measure</u>	<u>Annual Average</u>	<u>Limits</u>
Nitrate, mg/L	Not Detected	10
Arsenic, mg/L	Not Detected	0.05
Cadmium, mg/L	Not Detected	0.005
Chromium, mg/L	Not Detected	0.100
Cyanide, mg/L	Not Detected	0.2
Iron, mg/L	Not Detected	0.3
Manganese, mg/L	Not Detected	0.05
Mercury, mg/L	Not Detected	0.002
Nickel, mg/L	Not Detected	Not Regulated
Selenium, mg/L	Not Detected	0.05
Antimony, mg/L	Not Detected	0.006
Beryllium, mg/L	Not Detected	0.004
Thallium, mg/L	Not Detected	0.002
pH, standard units	8.4	6.5-8.5
Hardness, mg/L	27.8	Not Regulated
Alkalinity, mg/L	27.9	Not Regulated

A Survey on the Water from Your Tap — Drinking Water Quality: 2006 Test Results

Nearly 481 million gallons of water was treated at the Town of Hillsborough Water Treatment Plant in 2006. The treated water is tested for more than 100 substances to ensure that your drinking water is safe. Listed in the chart below are 17 constituents that are monitored in Hillsborough's treated water. All water delivered to your households and businesses met and surpassed state and federal requirements. To ensure that tap water is safe to drink, the Environmental Protection Agency prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. All tests were performed in 2006 unless otherwise noted.

Substance (Measuring Unit)	Highest Level Allowed [MCL]	Average Level Detected in Hillsborough	Potential Source(s) of Constituent
Regulated at the Treatment Plant			
Fluoride (ppm)	4.0	1.1	Water additive that promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories.
Turbidity (NTU)	1.0 and 95% of Samples Below 0.3	100% of Tests Below 0.3	Turbidity is a measure of cloudiness in water. It may be caused by inorganic soil particles or fragments of organic matter that can interfere with treatment.
Beta Emitters (pCi/L)	50.0	5.7	A class of natural and manmade radioactive materials. Last monitored in 2003.
Hexachlorocyclopentadiene (ppb)	50	.15	This organic chemical is used as an intermediate in the manufacture of pesticides and flame-retardants. Last monitored in 2003.
Measured in the Distribution System			
Total Organic Compounds (TOC) Raw Water (ppm)	Not Regulated	5.05	Naturally present in environment.
Total Organic Compounds (TOC) Finished Water (ppm)	Not Regulated	2.63	Byproduct of drinking water chlorination.
Total Trihalomethanes (ppb)	80	66	Byproduct of drinking water chlorination.
Total Haloacetic Acids (ppb)	60	52	Byproduct of drinking water chlorination.
Total Coliform Bacteria (percent)	Less Than 5% of Monthly Samples	Absent in 100% of Samples	Human and animal fecal waste, indigenous sources such as vegetation, bacterial re-growth.
Measured at Customer's Tap			
Lead (ppb)	15 (AL)	5 (90 th percentile)	Lead occurs naturally in soils, but its presence in drinking water is almost entirely due to corrosion of private household plumbing systems. Last monitored in 2004.
Copper (ppm)	1.3 (AL)	0.26 (90 th percentile)	Copper occurs naturally in soils, but its presence in drinking water is almost entirely due to corrosion of private household plumbing systems. Last monitored in 2004.
Unregulated Substances Measured at the Water Treatment Plant			
Bromodichloromethane (ppb)	Not Regulated	13	One component of total trihalomethanes; a byproduct of drinking water chlorination.
Chloroform (ppb)	Not Regulated	56	One component of total trihalomethanes; a byproduct of drinking water chlorination.
Chlorodibromomethane (ppb)	Not Regulated	2	One component of total trihalomethanes; a byproduct of drinking water chlorination.
Sodium (ppm)	Not Regulated	17.9	Element that occurs naturally in soils.
Sulfate (ppm)	Not Regulated	32.9	Mineral that occurs naturally in soils.

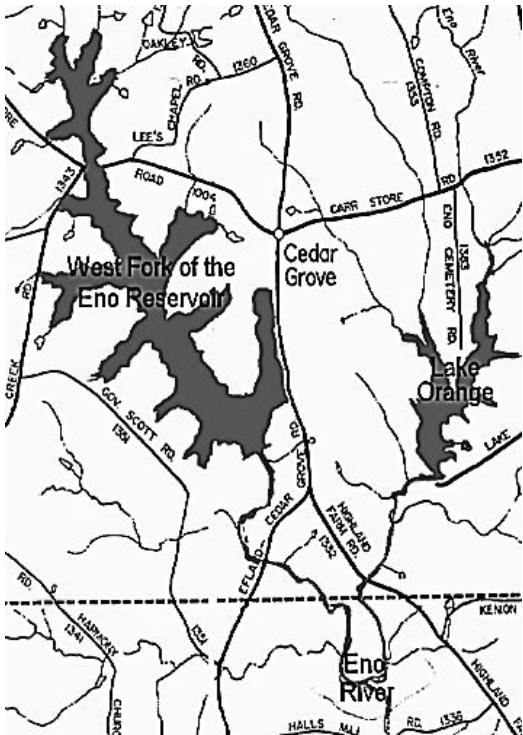
Town of Hillsborough

Water Treatment Plant
PO Box 429
711 Dimmocks Mill Road
Hillsborough, NC 27278

Phone: 919-732-3621
Fax: 919-732-3774



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This map illustrates the two water sources from which the Town of Hillsborough obtains its water to treat and distribute through the town's distribution system.

An Explanation of the Treatment Process

Ever wondered how your drinking water is treated? Here's a look:

Raw water is pumped from the Eno River into the treatment plant, where it is run through screens that remove large debris. Chemicals then are added to kill disease-causing organisms and to help control taste and odor-causing substances. Alum and polymers are added to aid in clumping — to help remove solids — before the water is passed through a flash mixer. In the mixer, fine particles gather. The water then goes through settling basins for larger particles to settle out.

Chlorine is added to disinfect the water after the filtration process, which filters out remaining suspended particles. The chlorine kills any remaining disease-causing organisms and provides a chlorine residual for the distribution system, which keeps the water fresh while it is stored for usage. After the filtration process, phosphate is added to decrease the corrosion of copper pipes and fluoride is added to help prevent tooth decay in children. The water then is stored in a tank at the treatment plant to allow the chlorine contact time for disinfection before it is distributed to our customers through four storage tanks. Ammonia is added immediately prior to distribution to form chloramines and to reduce the formation of disinfection byproducts.

Water users who need to pay particular attention to the use of chloramines and possibly consult their family physicians are those with weakened immune systems, dialysis patients and fish owners.