

## **2008 Annual Drinking Water Quality Report** **“PINE ISLAND UTILITIES”**

PWS ID# “04-27-015”

We are pleased to present to you the 2008 Annual Drinking Water Quality Report. This report is a snapshot of last year’s water quality. Included are details about where your water comes from, what it contains, and how it compares to the standards set by NC regulatory agencies. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water and to providing you with this information, because informed customers are our best allies.

### **If You Have a Question About This Report...**

Should you have a question or wish additional information about this annual report, please feel free to contact me at your convenience.

-Daniel Terry, Administrative Manager  
Phone: 252-491-5277, ext. 201  
Email: dterry@envirotechnic.com

### **What the EPA Wants You to Know**

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems; and radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

### **When You Turn on Your Tap, Consider the Source**

The water that is used by this system is groundwater supplied by a series of wells located near the Pine Island community on the west side of NC 12. The water source is an unnamed sub-surface aquifer.

### **Source Water Assessment Program (SWAP) Results**

The North Carolina Department of Environment and Natural Resources (DENR), Public Water Supply (PWS) Section, Source Water Assessment Program (SWAP) conducted assessments for all drinking water sources across North Carolina. The purpose of the assessments was to determine the susceptibility of each drinking water source (well or surface water intake) to Potential Contaminant Sources (PCSs). The results of the assessment are available in SWAP Assessment Reports that include maps, background information and a relative susceptibility rating of Higher, Moderate or Lower.

The relative susceptibility rating of each source for **Pine Island Utilities** was determined by combining the contaminant rating (number and location of PCSs within the assessment area) and the inherent vulnerability rating (i.e., characteristics or existing conditions of the well or watershed and its delineated assessment area.). The assessment findings are summarized in the table below:

Susceptibility of Sources to Potential Contaminant Sources (PCSs)

Source Name	Susceptibility Rating
Well # 6	Moderate
Well #7	Moderate
Well #8B	Moderate
Well #9A	Moderate
Well E	Moderate
Well C	Moderate
Well B	Moderate
Well A	Moderate
Well G	Moderate
Well H	Moderate
Well J	Moderate
Well D	Moderate
Well #1	Moderate
Well #2	Moderate
Well #3	Moderate
Well #4	Moderate
Well #5	Moderate

The complete SWAP Assessment report for **Pine Island Utilities** may be viewed on the Web at: <http://www.deh.enr.state.nc.us/pws/swap> To obtain a printed copy of this report, please mail a written request to: Source Water Assessment Program – Report Request, 1634 Mail Service Center, Raleigh NC 27699-1634, or email request to [swap@ncmail.net](mailto:swap@ncmail.net). Please indicate your system name, PWSID, and provide your name, mailing address and phone number. If you have any questions about the SWAP report please contact the Source Water Assessment staff by phone at 919-715-2633.

#### Violations that Your Water System Received for the Report Year

We did not receive any violations for the 2008 report year.

#### Water Quality Data Table of Detected Contaminants

We routinely monitor for over 150 contaminants in your drinking water according to Federal and State laws. The table below lists all the drinking water contaminants that we detected in the last round of sampling for the particular contaminant group. The presence of contaminants does not necessarily indicate that water poses a health risk. **Unless otherwise noted, the data presented in this table is from testing done January 1, 2008 through December 31, 2008. The EPA and/or the State require us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.**

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

#### Important Drinking Water Definitions:

*Not-Applicable (N/A)* – Information not applicable/not required for that particular water system or for that particular Rule.

*Non-Detects (ND)* - laboratory analysis indicates that the contaminant is not present at the level of detection set for the particular methodology used.

*Parts per million (ppm) or Milligrams per liter (mg/l)* - one part per million corresponds to one minute in two years or a single penny in \$10,000.

*Parts per billion (ppb) or Micrograms per liter* - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

*Parts per trillion (ppt) or Nanograms per liter (nanograms/l)* - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

*Parts per quadrillion (ppq) or Picograms per liter (picograms/l)* - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

*Picocuries per liter (pCi/L)* - picocuries per liter is a measure of the radioactivity in water.

*Million Fibers per Liter (MFL)* - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

*Nephelometric Turbidity Unit (NTU)* - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

*Action Level (AL)* - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

*Treatment Technique (TT)* - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

*Maximum Residual Disinfection Level Goal* – The “Level” (MRDLG) of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

*Maximum Residual Disinfection Level* – The “Highest Level” (MRDL) of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

*Maximum Contaminant Level* - The “Maximum Allowed” (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology

*Maximum Contaminant Level Goal* - The “Goal”(MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Extra Note: MCL’s are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

**Microbiological Contaminants**

Contaminant (units)	MCL Violation Y/N	Your Water	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (presence or absence)	N	Negative	0	one monthly positive	Naturally present in the environment
Fecal Coliform or E. coli (presence or absence)	N	Negative	0	a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive	Human and animal fecal waste

**Synthetic Organic Chemical Contaminants including pesticides and herbicides**

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
2,4-D (ppb)	5/22/07	N	None Detected			70	70	Runoff from herbicide used on row crops
2,4,5-TP (Silvex) (ppb)	5/22/07	N	None Detected			50	50	Residue of banned herbicide

Alachlor (ppb)	5/22/07	N	None Detected		0	2	Runoff from herbicide used on row crops
Atrazine (ppb)	5/22/07	N	None Detected		3	3	Runoff from herbicide used on row crops
Benzo(a)pyrene (PAH) (nanograms/l)	5/22/07	N	None Detected		0	200	Leaching from linings of water storage tanks and distribution lines
Carbofuran (ppb)	5/22/07	N	None Detected		40	40	Leaching of soil fumigant used on rice and alfalfa
Chlordane (ppb)	5/22/07	N	None Detected		0	2	Residue of banned termiticide
Dalapon (ppb)	5/22/07	N	None Detected		200	200	Runoff from herbicide used on rights of way
Di(2-ethylhexyl) adipate (ppb)	5/22/07	N	None Detected		400	400	Discharge from chemical factories
Di(2-ethylhexyl) phthalate (ppb)	5/22/07	N	None Detected		0	6	Discharge from rubber and chemical factories
DBCP [Dibromochloropropane] (nanograms/l)	5/22/07	N	None Detected		0	200	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
Dinoseb (ppb)	5/22/07	N	None Detected		7	7	Runoff from herbicide used on soybeans and vegetables
Endrin (ppb)	5/22/07	N	None Detected		2	2	Residue of banned insecticide
EDB [Ethylene dibromide] (nanograms/l)		N	<.0001		0	50	Discharge from petroleum refineries
Heptachlor (nanograms/l)	5/22/07	N	None Detected		0	400	Residue of banned termiticide
Heptachlor epoxide (nanograms/l)	5/22/07	N	None Detected		0	200	Breakdown of heptachlor
Hexachlorobenzene (ppb)	5/22/07	N	None Detected		0	1	Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclopentadiene (ppb)	5/22/07	N	None Detected		50	50	Discharge from chemical factories
Lindane (nanograms/l)	5/22/07	N	None Detected		200	200	Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor (ppb)	5/22/07	N	None Detected				
Oxamyl (Vydate) (ppb)	5/22/07	N	None Detected		200	200	Runoff/leaching from insecticide used on apples, potatoes and tomatoes
PCBs [Polychlorinated biphenyls] (nanograms/l)	5/22/07	N	None Detected		0	500	Runoff from landfills; discharge of waste chemicals
Pentachlorophenol (ppb)	5/22/07	N	None Detected		0	1	Discharge from wood preserving factories
Picloram (ppb)	5/22/07	N	None Detected		500	500	Herbicide runoff
Simazine (ppb)	5/22/07	N	None Detected		4	4	Herbicide runoff
Toxaphene (ppb)	5/22/07	N	None Detected		0	3	Runoff/leaching from insecticide used on cotton and cattle

**Nitrate/Nitrite Contaminants**

Contaminant (units)	MCL Violation Y/N	Your Water (AVG)	Range		MCLG	MCL	Likely Source of Contamination
			Low	High			
Nitrate (as Nitrogen) (ppm)	N	1.00	N/A		10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen) (ppm)	N	0.00	N/A		1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

**Unregulated SOC Contaminants including pesticides and herbicides**

Contaminant (units)	Sample Date	Your Water	Range	
			Low	High
Aldicard (ppb)	5/22/07	None Detected		
Aldicard Sulfone (ppb)	5/22/07	None Detected		
Aldicard Sulfoxide (ppb)	5/22/07	None Detected		
Aldrin (ppb)	5/22/07	None Detected		
Butachlor (ppb)	5/22/07	None Detected		
Carbaryl (ppb)	5/22/07	None Detected		
Dicamba (ppb)	5/22/07	None Detected		
Dieldrin (ppb)	5/22/07	None Detected		
3-Hydroxycarbofuran (ppb)	5/22/07	None Detected		
Methomyl (ppb)	5/22/07	None Detected		
Metolachlor (ppb)	5/22/07	None Detected		
Metribuzin (ppb)	5/22/07	None Detected		
Propachlor (ppb)	5/22/07	None Detected		

**Volatile Organic Chemical Contaminants**

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	Range		MCLG	MCL	Likely Source of Contamination
				Low	High			
Benzene (ppb)	5/22/07	N	None Detected			0	5	Discharge from factories; leaching from gas storage tanks and landfills
Carbon tetrachloride (ppb)	5/22/07	N	None Detected			0	5	Discharge from chemical plants and other industrial activities
Chlorobenzene (ppb)	5/22/07	N	None Detected			100	100	Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene (ppb)	5/22/07	N	None Detected			600	600	Discharge from industrial chemical factories
p-Dichlorobenzene (ppb)	5/22/07	N	None Detected			75	75	Discharge from industrial chemical factories
1,2 – Dichloroethane (ppb)	5/22/07	N	None Detected			0	5	Discharge from industrial chemical factories

1,1 – Dichloroethylene (ppb)	5/22/07	N	None Detected		7	7	Discharge from industrial chemical factories
cis-1,2-Dichloroethylene (ppb)	5/22/07	N	None Detected		70	70	Discharge from industrial chemical factories
trans-1,2-Dichloroethylene (ppb)	5/22/07	N	None Detected		100	100	Discharge from industrial chemical factories
Dichloromethane (ppb)	5/22/07	N	None Detected		0	5	Discharge from pharmaceutical and chemical factories
1,2-Dichloropropane (ppb)	5/22/07	N	None Detected		0	5	Discharge from industrial chemical factories
Ethylbenzene (ppb)	5/22/07	N	None Detected		700	700	Discharge from petroleum refineries
Styrene (ppb)	5/22/07	N	None Detected		100	100	Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene (ppb)	5/22/07	N	None Detected		0	5	Discharge from factories and dry cleaners
1,2,4 –Trichlorobenzene (ppb)	5/22/07	N	None Detected		70	70	Discharge from textile-finishing factories
1,1,1 – Trichloroethane (ppb)	5/22/07	N	None Detected		200	200	Discharge from metal degreasing sites and other factories
1,1,2 –Trichloroethane (ppb)	5/22/07	N	None Detected		3	5	Discharge from industrial chemical factories
Trichloroethylene (ppb)	5/22/07	N	None Detected		0	5	Discharge from metal degreasing sites and other factories
Toluene (ppm)	5/22/07	N	None Detected		1	1	Discharge from petroleum factories
Vinyl Chloride (ppb)	5/22/07	N	None Detected		0	2	Leaching from PVC piping; discharge from plastics factories
Xylenes (Total) (ppm)	5/22/07	N	None Detected		10	10	Discharge from petroleum factories; discharge from chemical factories

### Unregulated VOC Contaminants

Contaminant (units)	Sample Date	Your Water	Range	
			Low	High
Bromodichloromethane (ppb)	5/22/07	None Detected		
Chlorodibromomethane (ppb)	5/22/07	None Detected		
Bromobenzene (ppb)	5/22/07	None Detected		
Bromobenzene (ppb)	5/22/07	None Detected		
Bromomethane (ppb)	5/22/07	None Detected		
n-Butylbenzene (ppb)	5/22/07	None Detected		
sec-Butylbenzene (ppb)	5/22/07	None Detected		
tert-Butylbenzene (ppb)	5/22/07	None Detected		
Chloroethane (ppb)	5/22/07	None Detected		
Chloromethane (ppb)	5/22/07	None Detected		
o-Chlorotoluene (ppb)	5/22/07	None Detected		
p-Chlorotoluene (ppb)	5/22/07	None Detected		
Dibromomethane (ppb)	5/22/07	None Detected		
m-Dichlorobenzene (ppb)	5/22/07	None Detected		
Dichlorodifluoromethane (ppb)	5/22/07	None Detected		
1,1-Dichloroethane (ppb)	5/22/07	None Detected		

1,3-Dichloropropane (ppb)	5/22/07	None Detected	
2,2-Dichloropropane (ppb)	5/22/07	None Detected	
1,1-Dichloropropene (ppb)	5/22/07	None Detected	
1,3-Dichloropropene (ppb)	5/22/07	None Detected	
Fluorotrichloromethane (ppb)	5/22/07	None Detected	
Hexachlorobutadiene (ppb)	5/22/07	None Detected	
Isopropylbenzene (ppb)	5/22/07	None Detected	
Bromomethane (ppb)	5/22/07	None Detected	
n-Butylbenzene (ppb)	5/22/07	None Detected	
p-Isopropyltoluene (ppb)	5/22/07	None Detected	
Naphthalene (ppb)	5/22/07	None Detected	
n-Propylbenzene (ppb)	5/22/07	None Detected	
1,1,1,2-Tetrachloroethane (ppb)	5/22/07	None Detected	
1,1,2,2-Tetrachloroethane (ppb)	5/22/07	None Detected	
1,2,3-Trichlorobenzene (ppb)	5/22/07	None Detected	
1,2,3-Trichloropropane (ppb)	5/22/07	None Detected	
1,2,4-Trimethylbenzene (ppb)	5/22/07	None Detected	
1,3,5-Trimethylbenzene (ppb)	5/22/07	None Detected	

### Inorganics

Contaminant (units)	Sample Date	Your Water	Allowable Limit
Arsenic	5/6/08	None Detected	
Barium	5/6/08	None Detected	
Cadmium	5/6/08	None Detected	
Chromium	5/6/08	None Detected	
Cyanide	5/6/08	None Detected	
Fluoride	5/6/08	0.1 MG/L	4.0 mg/l
Iron	5/6/08	None Detected	
Manganese	5/6/08	.019 MG/L	.050 mg/l
Mercury	5/6/08	None Detected	
Nickel	5/6/08	None Detected	
Selenium	5/6/08	None Detected	

Sodium	5/6/08	None Detected	
Sulfate	5/6/08	32 MG/L	250 mg/l
Antimony	5/6/08	None Detected	
Beryllium	5/6/08	None Detected	
Thallium	5/6/08	None Detected	

**Radioactive Contaminants**

Contaminant (units)	Sample Date	MCL Violation Y/N	Your Water	MCLG	MCL	Likely Source of Contamination
Alpha emitters (pCi/L)	**see below	N	None Detected	0	15	Erosion of natural deposits
Beta/photon emitters (pCi/L)	** see below	N	None Detected	0	50 *	Decay of natural and man-made deposits
Combined radium (pCi/L)	** see below	N	None Detected	0	5	Erosion of natural deposits
Uranium (pCi/L)	** see below	N	None Detected	0	20.1	Erosion of natural deposits

\* Note: The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles.

\*\* Samples were taken on 2/8/07 and 6/21/07 and were the same results listed in Detection Limit.

**Disinfection By-Product Contaminants**

Contaminant (units)	MCL/MRDL Violation Y/N	Your Water (AVG)	Range Low High	MC LG	MCL	Likely Source of Contamination
TTHM (ppb) [Total Trihalomethanes]	N	.043 mg/L	.03 mg/L .05 mg/L	N/A	80 or 100	By-product of drinking water chlorination
HAA5 (ppb) [Total Haloacetic Acids]	N	.0237 mg/L	.02 mg/L .03 mg/L	N/A	60	By-product of drinking water disinfection

*Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.*

# Consumer Confidence Report Certification Form

Water System Name: Pine Island Utilities

PWS ID#: 0 4 - 2 7 - 0 1 5 Report Year: 2008 Population Served: 284

The community water system named above hereby confirms that all provisions under 40 CFR parts 141 and 142 requiring the development of, distribution of, and notification of a consumer confidence report have been executed. Further, the CWS certifies the information contained in the report is correct and consistent with the compliance monitoring data previously submitted to the primary agency by their NC certified laboratory.

Certified by: Name: William G. Freed Title: President, Enviro-Tech, contract operator , B well operator

Signature: \_\_\_\_\_

Phone #: 252-491-5277 Date: \_\_\_\_\_

Check methods used and complete:

\_\_\_ Systems serving 100,000 or more persons must post the CCR on a publicly-accessible Internet site which is www. \_\_\_\_\_

\_\_\_ Systems serving 10,000 or more persons must distribute the CCR by mail or direct delivery. Date Delivered: \_\_\_\_\_ and specify direct delivery methods: \_\_\_\_\_

x Systems serving less than 10,000 persons but more than 500 persons must either distribute the CCR by mail or direct delivery. Date Delivered: \_\_\_\_\_ and specify direct delivery method: **postcard dedicated to the CCR**

**OR** (mailing waiver option of the CCR itself) (*Voided if using CCR for Tier III Public Notification!*)  
\_\_\_ notify by "direct means" that the CCR is not being mailed, but it will be published in what newspaper(s) and when (attach copy of notice)  
Date Delivered: \_\_\_\_\_ and specify "direct means" of delivery of the notice: \_\_\_\_\_

\_\_\_ and the complete CCR was printed in the local newspaper(s)  
\_\_\_ and a copy of the CCR was made available upon request

\_\_\_ Systems serving 500 or fewer persons must either distribute the CCR by mail or direct delivery. Date Delivered: \_\_\_\_\_ and specify direct delivery methods: \_\_\_\_\_

**OR** (mailing waiver option of the CCR itself) (*Voided if using CCR for Tier III Public Notification!*)  
\_\_\_ notify by "direct means" that the CCR is not being mailed, but how a copy may be obtained (attach copy of notice)  
Date Delivered: \_\_\_\_\_ and specify "direct means" of delivery of the notice:  
and a copy of the CCR was made available upon request

\_\_\_ "Good faith" efforts (in addition to the above required methods) were used to reach non-bill paying consumers such as industry employees, apartment tenants, etc. Those extra efforts included the following methods:

- \_\_\_ posting the CCR on the Internet at www. \_\_\_\_\_
- \_\_\_ mailing the CCR to postal patrons within the service area
- \_\_\_ advertising the availability of the CCR in news media (attach copy of announcement)
- \_\_\_ publication of the CCR in local newspaper (attach copy)
- \_\_\_ posting the CCR in public places such as:(attach list if needed) \_\_\_\_\_

\_\_\_ delivery of multiple copies to single bill addresses serving several persons such as: apartments, businesses, and large private employers

\_\_\_ delivery to community organizations such as: (attach list if needed) \_\_\_\_\_