



**2010 Annual Water Quality Report
(for period January through December 2009)**

THE CITY OF
NORTHPORT
ALABAMA

AL PWSID# AL0001307
11405 Lary Lake Rd
Northport, AL 35475
Phone 205-333-3017

We are pleased to present this year's Annual Water Quality Report which is designed to inform you about the quality of your water. Our goal is to continually improve the water treatment process, protect our water resources and provide you with a safe, dependable supply of drinking water.

Water Source:	Surface water from Lake Tuscaloosa
Storage Capacity:	Four (4) tanks with a total capacity of 6 million gallons
Additional Connections:	Sand Springs Water Authority Coker Water Authority for emergency purposes only
Water Treatment:	Chlorination, multi-media filtration, corrosion control, and fluoridation
Population Served:	Approximately 32,575
Council Members:	Bobby Herndon, Mayor Steve Webb, District 1 Jay Logan, District 2 William Tunnell, District 3, Council President Steve Acker, District 4 Bart Harper, District 5

Source Water Assessment

In compliance with the Alabama Department of Environmental Management (ADEM), **Northport Water Works** has developed a Source Water Assessment Plan that assists in protecting our water sources. This plan provides information regarding potential sources of contamination and includes a "susceptibility analysis" which classifies potential contaminants as: high, moderate, or non-susceptible (low) to contaminating our water source. The assessment and the required public notification have been completed. The Plan has been approved by ADEM and a copy of the report is available for review at the Northport Water Treatment Plant. To help protect our source water, carefully follow instructions on the use of herbicides and pesticides and properly dispose of household chemicals, paints and waste oils.

General Information

All 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. Maximum Contaminant Levels (MCLs - defined in the List of Definitions in this report) 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.

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 radioactive material, and it 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 run-off, 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, storm water run-off, 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.
- 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. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water.

Northport Water Works tests our source water for pathogens, such as *Cryptosporidium* and *Giardia*. These pathogens can enter the water from animal or human waste. All test results were well within state and federal standards. For people who may be immunocompromised, a guidance document developed jointly by the Environmental Protection Agency and the Center for Disease Control is available online at www.epa.gov/safewater/crypto.html or from the Safe Drinking Water Hotline at 800-426-4791. This language does not indicate the presence of cryptosporidium in our drinking water.

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Tips on Becoming Water-Wise

- Verify that your home is leak free. Read your water meter before and after a two hour period when no water is being used. If the meter does not read exactly the same, there is a leak.
- Repair dripping faucets by replacing washers. A drip at the rate of one drop per second could waste 2,700 gallons per year.
- Check for toilet leaks by adding food coloring to the tank. If there is a leak, color will appear in the bowl within 30 minutes. Replace worn out, corroded, or bent parts.
- Replace the toilet handle if it frequently sticks in the flush position.
- Operate dishwashers and clothes washers only when they are fully loaded and set the water level appropriate to the size of the load.
- Store drinking water in the refrigerator instead of running the water until it is cool.
- Don't allow water to run needlessly while you are shaving or brushing your teeth.
- Adjust sprinklers so that you are not watering sidewalks and driveways as well as your lawn.
- Only water your lawn during the cool part of the day to minimize evaporation.

Questions?

If you have any questions regarding this report, please contact Chris Pickens at the Northport Water Treatment Plant, 205-333-3017, or via email at cpickens@cityofnorthport.org. You are welcome to attend the regularly scheduled city council meetings held on the first and third Monday's of each month at 6:00 p.m. in the council chambers of Northport City Hall located at 3500 McFarland Boulevard.

Important Telephone Numbers			
Fire or Police - Emergency Only	911	Public Works	333-3003
City Hall	339-7000	Water Works Office	339-7024
Fire Department	333-3020	Water Treatment Plant	333-3017
Police Department	339-6600	To report sewer spills	752-5907

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If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Your water system is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water hotline or at www.epa.gov/safewater/lead.

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. People at risk should seek advice about drinking water from their health care providers.

Monitoring Schedule

Northport Water Works routinely monitors for constituents in your drinking water in accordance with Federal and State laws. This report contains results from the most recent monitoring as required by the regulatory schedule.

Contaminants Monitored	Date Monitored
Inorganic Contaminants	2009
Lead/Copper	2007
Microbiological Contaminants	Monthly
Nitrates	2009
Radioactive Contaminants	2003
Synthetic Organic Contaminants (including pesticides & herbicides)	2008
Volatile Organic Contaminants	2009
Disinfection By-products	2009
Cryptosporidium	2008
I.D.S.E. Disinfection By-products	2009
Unregulated Contaminant Monitoring Rule 2 contaminants	2009

DEFINITIONS

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

Coliform Absent (ca) - Laboratory analysis indicates that the contaminant is not present.

Disinfection byproducts (DBPs)– are formed when disinfectants used in water treatment plants react with bromide and/or natural organic matter (i.e., decaying vegetation) present in the source water. Different disinfectants produce different types or amounts of disinfection byproducts. Disinfection byproducts for which regulations have been established include trihalomethanes (TTHM), haloacetic acids (HAA5), bromate, and chlorite. Some people drinking water containing DBPs in excess of the MCL over many years may experience problems with their liver, kidney, or central nervous system, and may have an increased risk of getting cancer.

Initial Distribution System Evaluation (IDSE) - a one-time study conducted by water systems to identify distribution system locations with high concentrations of trihalomethanes (THMs) and haloacetic acids (HAAs). Water systems will use results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select compliance monitoring locations for the Stage 2 DBPR.

Maximum Contaminant Level - (mandatory language) 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 - (mandatory language) 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.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

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

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

Not Available or Not Applicable (N/A) – data is not available for the report or is not required because the water is not in the distribution of this system.

Not Required (NR) - laboratory analysis not required due to waiver granted by the Environmental Protection Agency for the State of Alabama.

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

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.

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

Running Annual Average (RAA) – used to report average levels of disinfection by-products (TTHM and HAA5) system-wide.

Standard Units (S.U.) - pH of water measures the water's balances of acids and bases and is affected by temperature and carbon dioxide gas. Water with less than 6.5 could be acidic, soft, and corrosive. A pH greater than 8.5 could indicate that the water is hard.

Treatment Technique (TT) - (mandatory language) a required process intended to reduce the level of a contaminant in drinking water.

Turbidity – a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

As indicated by the Table of Detected Drinking Water Contaminants, our system had no violations. During the past year we have taken hundreds of water samples in order to determine the presence of contaminants in your drinking water. The table below shows only those contaminants that were detected. We are pleased to report that our drinking water meets federal and state requirements.

TABLE OF DETECTED DRINKING WATER CONTAMINANTS						
Contaminants	Violation Y/N	Level Detected	Unit Msmt	MCLG	MCL	Likely Source of Contamination
Chlorine	NO	Range 1.5-3.3	ppm	MRDLG =4	MRDL =4	Water additive used to control microbes
Turbidity	Not Required	Highest 0.31 100%<0.5	NTU	n/a	TT	Soil runoff
Total Organic Carbon	NO	range 1.4-2.7	ppm			Soil runoff
Copper	NO	0.240* 0 > AL	ppm	1.3	AL=1.3	Household plumbing corrosion; erosion of natural deposits; leaching from wood preservatives
Fluoride	NO	0.78	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (as Nitrogen)	NO	0.30	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion
TTHM [Total trihalomethanes]	NO	Avg. 49.1 17.1-105	ppb	0	80	By-product of drinking water chlorination
HAA5 [Total haloacetic acids]	NO	Avg. 34.7 6.66-91.3	ppb	0	60	By-product of drinking water chlorination
Unregulated Contaminants						
Chloroform	NO	11.6	ppb	n/a	n/a	Naturally occurring in the environment or as a result of runoff
Bromodichloromethane	NO	2.17	ppb	n/a	n/a	Naturally occurring in the environment or as a result of runoff
Secondary Contaminants						
Aluminum	NO	0.05	ppm	n/a	0.2	Erosion of natural deposits or as a result of treatment with water additives
Chloride	NO	7.86	ppm	n/a	250	Naturally occurring in the environment or as a result of runoff
Hardness	NO	47.2	ppm	n/a	n/a	Naturally occurring in the environment or as a result of treatment
pH	NO	6.73	S.U.	n/a	n/a	Naturally occurring in the environment or as a result of treatment
Sulfate	NO	31.4	ppm	n/a	250	Naturally occurring in the environment or as a result of runoff
Total Dissolved Solids	NO	96.0	ppm	n/a	500	Naturally occurring in the environment or as a result of runoff

*Figure shown is 90th percentile, and # of sites above action level (1.3 ppm) = 0

Initial Distribution System Evaluation: 2008-2009						
Contaminants	Violation Yes/No	Level Detected	Unit Msmt	MCLG	MCL	Likely Source of Contamination
TTHM [Total trihalomethanes]	NO	Range 24.8-120	ppb	0	80	By-product of drinking water chlorination
HAA5 [Total haloacetic acids]	NO	Range 11.0-43.0	ppb	0	60	By-product of drinking water chlorination

Primary Drinking Water Contaminants					Unregulated Contaminants
Contaminant	MCL	Unit of Msmt	Contaminant	MCL	Unit of Msmt
Bacteriological Contaminants			o-Dichlorobenzene	600	ppb
Total Coliform Bacteria	<5%	present/absent	p-Dichlorobenzene	75	ppb
Fecal Coliform and E. coli	0	present/absent	1,2-Dichloroethane	5	ppb
Turbidity	TT	NTU	Nitrite	1	ppm
Radiological Contaminants			Total Nitrate and Nitrite	10	ppm
Beta/Photon emitters	4	mrem/yr	Selenium	50	ppb
Alpha emitters	15	pCi/l	Thallium	2	ppb
Combined radium	5	pCi/l	Organic Contaminants		
Uranium	30	pCi/l	2,4-D	70	ppb
Inorganic Chemicals			2,4,5-TP(Silvex)	50	ppb
Antimony	6	ppb	Acrylamide	TT	
Arsenic	10	ppb	Alachlor	2	ppb
Asbestos	7	MFL	Benzo(a)pyrene [PAHs]	200	ppt
Barium	2	ppm	Carbofuran	40	ppb
Beryllium	4	ppb	Chlordane	2	ppb
Cadmium	5	ppb	Dalapon	200	ppb
Chromium	100	ppb	Di (2-ethylhexyl)adipate	400	ppb
Copper	AL=1.3	ppm	Di (2-ethylhexyl)phthalate	6	ppb
Cyanide	200	ppb	Dinoseb	7	ppb
Fluoride	4	ppm	Diquat	20	ppb
Lead	AL=15.0	ppb	Dioxin [2,3,7,8-TCDD]	30	Picograms/l
Mercury	2	ppb	Chloramines	4	ppm
Nitrate	10	ppm	Chlorite	1	ppm
Endothall	100	ppb	HAA5 [Total haloacetic acids]	60	ppb
Endrin	2	ppb	1,1-Dichloroethylene	7	ppb
Epichlorohydrin	TT		cis-1,2-Dichloroethylene	70	ppb
Glyphosate	700	ppb	trans-1,2-Dichloroethylene	100	ppb
Heptachlor	400	Nanograms/l	Dichloromethane	5	ppb
Heptachlor epoxide	200	Nanograms/l	1,2-Dichloropropane	5	ppb
Hexachlorobenzene	1	ppb	Ethylbenzene	700	ppb
Hexachlorocyclopentadiene	50	ppb	Ethylene dibromide	50	ppt
Lindane	200	Nanograms/l	Styrene	100	ppb
Methoxychlor	40	ppb	Tetrachloroethylene	5	ppb
Oxamyl [Vydate]	200	ppb	1,1,1-Trichloroethane	200	ppb
Oxamyl [Vydate]	200	PCBs	1,1,2-Trichloroethane	5	ppb
Pentachlorophenol	1	ppb	Trichloroethylene	5	ppb
Picloram	500	ppb	TTHM [Total trihalomethanes]	80	ppb
Simazine	4	ppb	Toluene	1	ppm
Toxaphene	3	ppb	Vinyl Chloride	2	ppb
Benzene	5	ppb	Xylenes	10	ppm
Carbon tetrachloride	5	ppb	Chlorine	4	ppm
Chlorobenzene	100	ppb	Chlorine Dioxide	800	ppb
Dibromochloropropane	200	ppt	Bromate	10	ppb
					1,3,5 - Trimethylbenzene
					2,2 - Dichloropropane
					Sec - Butylbenzene
					Tert - Butylbenzene
					Trichlorofluoromethane