

TOWBRIDGE DEVELOPMENT

2009 Drinking Water Consumer Confidence Report

Introduction

The Towbridge Board of Trustees has prepared this report to inform you about the quality of our drinking water. This report includes general health information, analytical results for water quality contaminants that have been sampled, a susceptibility rating assigned to our water source (e.g. aquifer) that serves our system and contact information for consumers to obtain additional information.

During the 2009 operating period, we did not experience any interruption of service or water outage other than isolated low pressure during hydrant flushing in the last quarter of the year. However our contingency arrangements with the City of Hudson and Alexander Water Service remain in place should we need immediate backup supply during an outage. Our operating costs for the water plant only in 2009 continued at approximately \$3,700 / month or about \$45,000 per year. We anticipate making some needed repairs to the pump house structure and equipment in 2010, but at this time believe them to be limited in scope and do not expect operating cost to increase beyond 10% if any at all.

What is the Source of the Towbridge water supply?

The Towbridge Development receives its drinking water from two deep-drilled (e.g. 120-137 feet) ground water wells situated behind the water treatment plant, which is located at 5347 Towbridge Drive. The development of the water source and design of the treatment plant were initially approved by the Ohio EPA and the daily operation of the plant continues to be licensed by the agency on an annual basis. The raw water is treated by means of filtration to remove iron and then chlorinated for disinfections purposes. Our storage capacity for treated water is limited to 40,000 gallons, which is adequate based upon our annual average daily consumption of approximately 22,000 gallons per day (gpd). During summer periods we have on occasion experienced isolated peak usage as high as 66,000 gpd due to lawn watering. Continued demands at this level would ultimately overtax our plant and cause it to shut down. This situation has been avoided by observing our alternate lawn watering practice during extended dry periods. During 2009, we did not experience any outages due to excessive consumption and we wish to thank all owners for observing this policy. It should be noted that our plant is inspected daily by a third party Certified Class IV Operator, as required by our EPA license.

How susceptible is the Towbridge Water Source?

Within the past 5 years, the Ohio EPA performed a Drinking Water Source Assessment of the Towbridge water supply to identify potential contaminant concerns. The study has shown that the aquifer which supplies water to Towbridge Development has a high susceptibility to contamination. This high risk is based upon the following:

- The well fields lack a protective layer of clay/shale overlying the aquifer that would naturally provide a low permeability rate, relative to surface water and possible contaminants. Instead the overburden consists of peat material which has a high permeability rate. The impact of this characteristic was experienced in the past during floods events in Hudson when excessive amounts of contaminated surface water stagnated over our well fields for several days. After the water receded, it took over two months to restore our water supply to a safe operating level and the cost to remediate our plant was in excess of \$20,000.00.
- Potential contamination sources within the designate protection zone exist in the form of lawn chemicals used by neighboring residents and the existence of sanitary and storm sewers in the area. For this reason we do not permit the use of fertilizers and other lawn chemicals on the grounds of the pump house property.
- Arsenic contaminants were detected in samples collected in 1988, 1989, 2001, 2006 and 2007. Although these were presumed to be naturally occurring since no historical practices were identified in the area, they could present a health concern. During 2008 and 2009, Arsenic samples were taken each quarter and no measureable levels were detected.

TOWBRIDGE DEVELOPMENT

2009 Drinking Water Consumer Confidence Report

The risk of future contamination has been minimized by implementing appropriate protective measures, i.e. spill containment and storage practices. Following the 2003 flood, well casings were extended above the 500 year flood

plane elevation to eliminate the potential for infiltration of flood water. Manhole covers to our subsurface water storage tanks are scheduled for replacement in 2010 to reduce the potential for infiltration. For additional information regarding the source water assessment or what consumers can do to help protect the Towbridge aquifer, contact Dave Gura at 330-650-2383.

What are sources of contamination to drinking water?

The sources of drinking water both tap water and bottled water includes 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: (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; (B) 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; (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; (D) 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; (E) 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.

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 (1-800-426-4791).

Who needs to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 infection. 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 microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

What about Towbridge drinking water?

The EPA requires regular sampling and analytical analysis to ensure drinking water safety. During 2009 the Towbridge Water Monitoring program required sampling and laboratory analysis for ***arsenic, nitrate, and synthetic organic chemical (SOCs)***. Arsenic was sampled quarterly and all samples were non-detected (< 1 ppb), as were samples for nitrate (<0.04 ppm) and a series of synthetic organic compounds. Lead was not required to be sampled in 2009 but is scheduled for sampling in 2010. The last sample period for lead was in 2007 in which levels were detected at 50% below the MCL in some residence plumbing lines. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is

TOWBRIDGE DEVELOPMENT

2009 Drinking Water Consumer Confidence Report

primarily from materials and components associated with service lines and home plumbing.

Towbridge Development 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.

In addition to the above mentioned sampling, routine monthly analysis was performed for Coliform and E. Coli bacteria and weekly sampling for Iron and Manganese. All samples for Coliform and E. Coli bacteria were consistently negative and non-detectible levels of Iron (< .50 ppm) and Manganese (<.50 ppm) were consistently reported.

Aside from laboratory analysis, residual chlorine levels were monitored daily by our plant operator to ensure that levels are maintained in the required range per our license.

The history of all contaminate analyses are listed in the table 1. Since some contaminants are not required to be monitored each year, certain sample results displayed below could be more than one year old.

TOWBRIDGE DEVELOPMENT
2009 Drinking Water Consumer Confidence Report

Table 1 - Contaminant Analytical Results for Towbridge Development Drinking Water Supply

Contaminants (Units)	MCLG	MCL	Level Found	Range Detection	Violation	Sample Year	Typical Source of Contaminants
Bacteriological							
Total Coliform and E Coli	- -	0 0	Negative Negative	N/A NA	No No	2009	Human and animal fecal waste. Results for samples collected during normal operating period for 12 months.
Pesticides							
Alachlor, Atrazine, Simazine	-	-	ND	0.10	No	2009	
Radioactive Contaminants							
Gross Alpha (pCi/l)	50	15	ND	3.0	No	2004	
Radium 228 (pCi/l)	50	-	ND	1.0	No	2004	
Inorganic Compounds							
Antimony (ppb)	6	6	ND	1.0	No	2007	
Arsenic (ppb)		10	ND	1.0	No	2009	Erosion of natural deposits, runoff from orchards; glass / electronics wastes.
Nickel (ppb)		100	2.0	1.0	No	2007	Erosion from natural deposits; Discharge from electroplating, stainless steel, and alloy products operations.
Barium (ppb)		2000	ND	100		2007	
Beryllium (ppb)		4	ND	1.0		2007	
Cadmium (ppb)		5	ND	1.0	No	2007	
Chromium (ppb)		100	5.6	1.0	No	2007	
Cyanide (ppb)		200	ND	10	No	2007	
Fluoride (ppm)	4	0.16	ND	0.10	No	2007	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Mercury (ppb)		2.0	ND	0.2	No	2007	
Selenium (ppb)		50	ND	5.0	No	2007	
Thallium (ppb)	2	2	ND	1.0	No	2007	
Contaminants (Units)	MCLG	MCL	Level Found	Range	Violation	Sample	Typical Source of Contaminants

TOWBRIDGE DEVELOPMENT
2009 Drinking Water Consumer Confidence Report

				Detection		Year	
Nitrate (ppm)	10	10	ND	0.04	No	2009	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Lead (ppb) ¹	15.5	15.5	6.65	N/A	No	2007	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Copper (ppb) ¹	1350	1350	255	N/A	No	2007	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Volatile Organic Contaminants ²							
59 Specified compounds (ug/l)		2 to 1000	ND for 58; trace for Chlorform	0.5 to 10.	No	2007	
Haloacetic Acids (ppb)							
Dibromoacetic Acid			ND	1.0	No	2007	
Dichloroacetic Acid			3.36	1.0	No	2007	
Monobromoacetic Acid			ND	1.0	No	2007	
Monochloroacetic Acid			ND	2.0	No	2007	
Total Haloacetic Acids			ND	6.0	No	2007	
Trichloroacetic Acid			1.78	1.0	No	2007	
Trihalomethanes (ppb)							
Bromodichloromethane			ND	0.50	No	2007	
Bromoform			ND	0.50	No	2007	
Chloroform			6.42	0.50	No	2007	
Dibromochloromethane			ND	0.50	No	2007	
Water Quality Data							
Hardness (Calcium Carbonate) (ppm)	Na	Na	340 - 390	5	No	2004	
Iron (ppm)	Na	Na	< .050	.050	No	2009	
Manganese (ppm)	Na	Na	< .050	.050	No	2009	
Free Chlorine Residual (mg/l)	.2		.1 -.2	Na	No	2009	

TOWBRIDGE DEVELOPMENT

2009 Drinking Water Consumer Confidence Report

Footnotes:

1. 10 homes were randomly selected and tested for lead and copper in 1998. No significant levels of lead and or copper were detected. Accordingly in 2001 and in 2004, the number of homes tested was reduced to 5 and once again no significant levels of these contaminants were measured. In 2007 5 homes were randomly tested and none exceeded the 90 percentile for lead (15.5ppb) or Copper (1350ppb).
2. 59 Volatile Organic contaminants were screened during 2007. Nearly all compounds (58) were reported as “Non Detectable”, relative to their regulated quantitative limits. Only Chloroform was detected at 1.0 ppb.

Definitions of terms:

Maximum Contaminant Level Goal (MCLG): 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.

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

Parts per Million (ppm) or Milligrams per Liter (mg/L) are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

Parts per Billion (ppb) or Micrograms per Liter ($\mu\text{g/L}$) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

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

The “<” symbol: A symbol which means less than. A result of <5 means that the lowest level that could be detected was 5 and the contaminant in that sample was not detected.

Not Applicable (N/A). Picocuries per liter (pCi/L): a measure for radiation. Millions of fibers per liter (MFL): a measure for Asbestos.

VIOLATIONS: During 2009 the Towbridge Water Plant did not receive any Notice of Violations from the Ohio EPA.

For more information on your drinking water or copies of any reported data, contact Dave Gura, President of Towbridge Homeowners’ Association, at (330) 650-2383. Also the Towbridge Trustees meet monthly (usually the first Saturday of each month) and have also scheduled public meetings each quarter. Participation is always encouraged and welcomed. Please feel free to contact any of your trustees for meeting details.

*Towbridge Homeowners Association
Board of Trustees*