SHOREWOOD HILLS WATER UTILITY

2013 Water Quality Report

In this report we provide information about the quality of your drinking water. The Village of Shorewood Hills purchases treated water from the City of Madison Water Utility. The drinking water provided by Madison has met or surpassed all Federal and State standards for health and safety (see the Water Quality Table on a subsequent page). To obtain a summary of the source water assessment or if you would like to know more about the information contained in this report, please contact Shorewood Hills Public Works water specialist John Mitmoen at (608) 267-2680. More information is also available on the City of Madison's website at: **MadisonWater.org**

WHERE DOES MY WATER COME FROM?

The Madison water system consists of 22 wells and over 840 miles of interconnected pipes. The source of the Village's water is groundwater well #14 that serves the near west side of Madison, Shorewood Hills and portions of the University of Wisconsin. We do get water from two other west side wells (#6 & #19) during higher demand times.

Quality & Reliability

WHAT IS THE SOURCE OF MY TAP WATER?

The drinking water Shorewood Hills purchases from Madison comes from a deep sandstone aquifer, an underground rock formation where water is stored in small spaces between and within rock. Groundwater in the Madison area originates as rain or snow that falls in Dane County, soaks into the ground, and is filtered through layers of soil and rock before replenishing the aquifer. Natural filtration produces high quality water for us to enjoy.

WHAT KEEPS OUR WATER SAFE?

The high quality aquifer supplying our drinking water requires little treatment. The Madison Water Utility disinfects the water with chlorine to reduce the risk of microbial contamination. A small amount of chlorine kills bacteria and viruses that can be present in groundwater. Chlorine also travels with the water and is ready to kill microbes that it might encounter in the system. Our goal is to maintain a chlorine residual above 0.1 milligrams per liter (mg/L) at all points in the distribution system. Typical concentrations range from 0.2 to 0.4 mg/L.

HOW ELSE IS THE WATER TREATED?

Fluoride is added to Madison drinking water to improve dental health and reduce tooth decay. The US Centers for Disease Control and Prevention (CDC) and Wisconsin Department of Health Services recommend maintaining an average fluoride level of 0.7 mg/L. Water from each well is tested daily to achieve this target level. In 2012, the system-wide average of 5,371 tests was 0.68 mg/L.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those 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 microbial contaminants are available from the Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791.

Cryptosporidium and *Giardia,* two organisms commonly linked to water-borne illness, are found primarily in surface waters such as lakes and rivers. Because Madison's drinking water comes from a deep groundwater aquifer, these organisms do not pose a significant health risk in Madison tap water.

Do Your Part To Protect Groundwater Quality

- Dispose of your household hazardous chemicals through Clean Sweep, **danecountycleansweep.com**
- Use non-toxic or biodegradable cleaning products that are gentler on the environment, **madsewer.org/documents.htm**
- Promote healthy lawns and gardens without the use of harmful chemicals, **clean-water.uwex.edu/pubs**

POTENTIAL CONTAMINANTS IN DRINKING WATER AND THEIR LIKELY SOURCES

Sources of drinking water, both tap water and bottled water, include rivers, lakes, springs, streams, ponds, reservoirs and wells. As water travels over the surface of the land and 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. Types of potential contaminants and their likely sources include:

- **Microbial contaminants**, such as viruses and bacteria, may come from leaky sewer pipes, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants**, including metals, minerals, nutrients, and salts, can occur naturally or they may result from urban stormwater runoff, industrial wastewater discharges, mining, or farming activities.
- Organic contaminants, including synthetic and volatile organic compounds, are by-products of industrial processes that can come from chemical spills, gas stations, urban stormwater runoff, and septic systems.
- **Pesticides** and herbicides may come from a variety of sources such as agriculture, urban stormwater runoff and residential use.
- **Radioactive substances** may occur naturally in rock formations and groundwater

In order to ensure that tap water is safe, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Routine monitoring helps to ensure that drinking water concentrations of any substance remain at safe levels.

MICROBIOLOGICAL TESTING

Bacteria – To ensure drinking water safety, routine bacteriological tests are conducted. On average, the Madison Water Utility collects over 200 distribution samples each month from representative locations including two per week from Shorewood Hills. The Village collects two separate sample each month and delivers them for testing. The samples are tested for coliform bacteria, indicators of potential contamination. In 2012, none of these required samples showed the presence of coliform bacteria. These results reflect good source water quality and adequate disinfection maintained in the distribution system.

THE EPA ON CONTAMINANTS

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 (EPA) Safe Drinking Water Hotline, 800-426-4791.

How to Read the Water Quality Data Table

The EPA and Wisconsin Department of Natural Resources (WDNR) establish the safe drinking water regulations that limit the amount of contaminants allowed in drinking water. The table shows the concentrations of detected substances in comparison to the regulatory limits. Substances not detected are not included in the table.

Maximum Contaminant Level (MCL)

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 technology.

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.

Action Level (AL)

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a public water system shall follow.

Units in the Table

- One milligram per liter (mg/L) equals one part per million (ppm)
- One microgram per liter (µg/L) equals one part per billion (ppb)
- One milligram per liter equals 1,000 micrograms per liter
- One ppb is analogous to one second in 32 years
- Picocurie per liter (pCi/L) is a measure of radioactivity
- nd = non-detect

IMPORTANT NOTE ABOUT THE TABLE: The table reports the maximum and minimum concentrations for each substance found in at least one local water sample. Contaminant levels reported in the table may not be representative of the water quality at your home. Visit madisonwater.org for more information about water quality in the Village purchases from the City of Madison.

Water Quality Table

Substance Detected (units)	Ideal Goal (MCLG)	Highest Level Allowed (MCL)	Medium Level Found	Range of Results	Sample Date (if prior to 2013)	Violation (Yes/No)	Typical Source of Substance
Inorganic Contaminates							
Copper (ppm)	AL=1.3	1.3	0.166	0 of 10 above action level	6/29/11	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	AL=15	0	2.40	0 of 10 above action level	6/23/11	No	Corrosion of household plumbing systems; Erosion of natural deposits
Disinfection By-Products							
Haloacetic Acids (ppb)	60	60	1	1-1	11/15/12	No	By-product of drinking water chlorination
Total Trihalomethanes (ppb)	80	0	2.5	1.3-2.5	11/15/12	No	By-product of drinking water chlorination

Additional Health Information

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. The Shorewood Hills Water Utility 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.

Information on Monitoring for Cryptosporidium and Radon

Our water system did not monitor our water for cryptosporidium or radon during 2013. We are not required by State or Federal drinking water regulations to do so.

Other Compliance – Monitoring and Reporting Violations

DBP Monitoring/Reporting – Distribution System Testing – Compliance period: 11/1/2013 to 11/30/2013

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During the compliance period noted in the above table, we did not complete all monitoring or testing for the contaminant(s) noted, and therefore cannot be sure of the quality of your drinking water during that time.

Actions Taken – Added tests to the annual testing schedule for staff.

Lead and Copper

The year 2012 marked the successful conclusion to the lead service line replacement program in the City of Madison. This initiative was undertaken to reduce the occurrence of lead at the customer tap. Water quality tests conducted in 2011 (see table) show that lead and copper corrosion have been minimized.

Unregulated Contaminants

Chromium (VI)

The Madison Water Utility tests each well twice annually for total and hexavalent chromium. Hexavalent chromium is not currently regulated by the EPA; however, the agency is evaluating nationwide occurrence of this contaminant in public water supplies and whether a meaningful public health risk reduction can be achieved by regulating the substance. Madison wells range from non-detect to 2 ppb. An investigation by the Wisconsin Geological and Natural History Survey concluded that hexavalent chromium occurs naturally in Madison area aquifers. The current MCL for total chromium, which includes chromium (VI), is 100 ppb.

UCMR3

Every five years, the EPA identifies substances that are suspected to be present in drinking water but do not have health-based standards set under the Safe Drinking Water Act. Testing for the third Unregulated Contaminant Monitoring Rule (UCMR3) will occur during 2013-2015. See **water.epa.gov/drink** for more information.

The Madison Water Utility conducted pre-screening sampling at some wells in December 2012. Twenty-two contaminants, including seven hormones, were not detected at any of the wells tested. Cobalt (#19); 1,1-dichloroethane (#9); 1,4-dioxane (#11 and #14); and strontium (six wells) were found at low levels at some wells. The Madison Water Utility is required to sample all of its wells twice during 2015.

Information You Can Use

Shorewood Hills Water Utility
810 Shorewood Boulevard
Madison, WI 53705-2115

Water Specialist: John Mitmoen
Water Specialist: Mark Moyer

Village Hall: 267-2680

Monthly Board of Trustees meeting (third Monday of each month)

Pay your bill on-line: https://client.pointandpay.net/web/VillageofShorewoodHillsWI