

Madden Estates

PWS ID: 2323002

Location: West Brookfield

Consumer Confidence Report 2011

2011 DRINKING WATER QUALITY REPORT

This report is a snapshot of the drinking water quality that we provided during the last calendar years. Included are details about where your water came from, what it contained, and how it compared to state and federal standards.

Community Drinking Water Sources

Madden Estates' water comes from one ground water dug well, "Well # 2", 2323002-02G. Well #2 is located near Mill Brook off of Madden Road.

Water Quality

Madden Estates continuously strives to produce the highest quality water possible to meet or surpass every water quality standard. We monitor both our sources and distribution system very closely. The standards we operate under were enacted by the U.S. Congress as the Safe Drinking Water Act in 1974 and were amended in 1986 and 1996.

In order to ensure tap water is safe to drink, the MassDEP and EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) and Massachusetts Department of Public Health regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Should Some People Take Special Precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing 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 infections by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Is My Water Treated?

To ensure we provide the highest quality of water available, certified operators and MassDEP regularly monitor water quality. When standards are exceeded, MassDEP requires treatment. Some groundwater sources contain numerous microorganisms, some of which can cause people to become sick. To eliminate disease-carrying organisms, it is necessary to disinfect the water.

We add a disinfectant to protect you against microbial contaminants. Madden Estates uses liquid sodium hypochlorite as its primary disinfectant. Disinfection with chlorine has been proven effective at ensuring that water is free of harmful organisms and safe to drink.

Contamination in Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contamination. 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: Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

MADDEN ESTATES

The water system at Madden Estates is operated and maintained by Madden Estates and McClure Engineering. If you have any questions about this report, please contact McClure Engineering at 508-248-2005.

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Additional copies of this report are available upon request.

DISTRIBUTION SYSTEM WATER QUALITY

The following results were from sampling completed in 2011, or during the most recent monitoring period for each contaminant group.

Bacteria 2011	Highest # Positive Samples in a Month	MCL	MCLG	Violation (Y/N)	Possible Sources
Total Coliform	1	1	0	N	Naturally present in the environment
E. Coli	0	*	0	N	Human and animal fecal waste

* Compliance with the fecal coliform/E. coli MCL is determined upon additional repeat testing.

In order to ensure that tap water is safe to drink, MassDEP and US EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Coliform are bacteria that are naturally present in the environment and are used as an indicator that potentially harmful bacteria may be present.

Total Coliform: Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present.

Fecal coliforms and E.coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely-compromised immune systems.

Lead and Copper	Date Collected	90th Percentile	Action Level	MCLG	# of sites sampled	# of sites above Action Level	Exceeds Action Level (Y/N)	Possible Sources of Contamination
Lead (ppb)	8/12/10*	24	15	0	5	2	Y	Corrosion of household plumbing
Copper (ppm)	8/12/10*	0.5	1.3	1.3	5	0	N	Corrosion of household plumbing

**Infants and children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. Flush your tap for 30 seconds to 2 minutes before using tap water to reduce lead content. Additional information is available from the Safe Drinking Water Hotline, 1-800-426-4791.*

Testing For Lead

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. Madden Estates 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 <http://www.epa.gov/safewater/lead>.

WATER SYSTEM IMPROVEMENTS

As part of our ongoing commitment to you, last year we made the following improvements to our system:

Received MassDEP approval for proposed upgrades to the distribution system and to construct pump house and treatment system.

We continue to maintain the chlorine injection system.

To ensure that we provide the highest quality of water available, your water system is operated by a Massachusetts certified operator Grade T1 who oversees the routine operations of our system.

WATER CHARACTERISTICS

The sources of drinking water in the United States (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 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. These contaminants can also come from gasoline storage, 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.

IMPORTANT DEFINITIONS

- **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 treatment 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.
- **Secondary Maximum Contaminant Level (SMCL)** – These standards are developed to protect the aesthetic qualities of drinking water and are not health based.
- **Massachusetts Office of Research and Standards Guideline (ORSG)** – This is the concentration of a chemical in drinking water, at or below which, adverse health effects are unlikely to occur after chronic (lifetime) exposure. If exceeded, it serves as an indicator of the potential need for further action.
- **Action Level (AL)** – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- **90th Percentile** – Out of every 10 homes sampled, 9 were at or below this level.
- **Maximum Residual disinfectant Level (MRDL)**: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **Maximum Residual disinfectant Level Goal (MRDLG)**: The level 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.
- **Treatment Technique (TT)** – A required process intended to reduce the level of a contaminant in drinking water.
- **ppm** = parts per million, or milligrams per liter (mg/l)
- **ppb** = parts per billion, or micrograms per liter (ug/l)
- **ND** = Not Detected

Compliance in 2011

Our water system is routinely inspected by the Department of Environmental Protection (DEP). The DEP inspects our system for its technical, financial and managerial capacity to provide safe drinking water to you. MassDEP has issued an Administrative Consent Order, ACOP-CE-09-5D003-Amend 1 that required the system to permit and construct a new public water supply source to serve the community and to abandon and decommission existing water sources. To ensure that we provide the highest quality of water available, your water system is operated by a Massachusetts certified operator Grade T1 who oversees the routine operations of our system.

Monitoring Waivers

The MassDEP has reduced the monitoring requirements for Gross Alpha Particle Activity, Radium 226 & 228 because the system is not at risk of contamination. Gross Alpha Particle Activity, Radium 226 & Radium 228 will be sampled in 2013. Madden Estates has also been granted a waiver from sampling Arsenic, and Inorganic (IOC). Testing for Synthetic Organic Compounds (SOC) was conducted in 2nd Quarter of 2010. MassDEP recommends the annual sampling for Secondary Contaminants at Madden Estates.

SUMMARY OF FINISHED WATER CHARACTERISTICS

Regulated Contaminants	Date Collected	Highest Level or Average Detected	Range	MCL	MCLG	Violation (Y/N)	Possible Sources
Volatile Organic Contaminants							
Free Chlorine (ppm)	Monthly 2011	0.73	0.18 - 0.73	4	4	N	Water additive used to control microbes
Total Trihalomethane (TTHM) (ppb)	August 2011	3.1	.68 – 1.3	80		N	Disinfection byproduct
Total Haloacetic Acids (HAA5) (ppb)	August 2011	2.3	.71 - 1.6	60		N	Disinfection byproduct
Inorganic Contaminants	Date Collected	Highest Level Detected	Range	MCL	MCLG	Violation (Y/N)	Possible Sources
Nitrate (ppm)	June 2011	1.0	1.0	10	10	N	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits
Perchlorate (ppb)	August 2011	0.083	0.083	2.0	-	N	Rocket propellants, fireworks, munitions, flares, blasting agents

Unregulated Contaminants	Date Collected	Range Detected	Avg.	SMCL	ORSG	Possible Sources
Sodium (ppm)	2009	2.8 - 5.0	3.9	--	20	Natural sources; runoff from road salt
Iron (ppb)	June 2011	87	87	300	--	Naturally occurring
Manganese (ppb)	June 2011	30	30	50	Health advisory of 300 ppb	Erosion of natural deposits

*Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminants monitoring is to assist regulatory agencies in determining their occurrences in drinking water and whether future regulation is warranted. EPA has established a lifetime health advisory (HA) of 300 ppb for manganese to protect against concerns of potential neurological effects, and a one-day and 10-day HA of 1,000 ppb for acute exposure.

Cross Connection Control and Prevention

A cross connection is a connection between a drinking water pipe and a polluted source. The pollution can come from your own home. For instance, you're to spray fertilizer on your lawn. You hook up your hose to the sprayer that contains the fertilizer. If the water pressure drops when the hose is connected to the fertilizer, the fertilizer may be sucked back into the drinking water pipes through the hose. Using an attachment on your hose called a backflow prevention device can prevent this problem.

Madden Estates recommends the installation of such backflow prevention devices, such as a low cost hose bibb vacuum breaker, for all inside and outside hoses. You can purchase this at a hardware store or plumbing supply store. This is a great way to help protect the water system that serves your home and community.

SWAP (Source Water Assessment and Protection)

MassDEP has prepared a Source Water Assessment and Protection (SWAP) report for Madden Estates." The report assesses the susceptibility of public water supplies to contamination and makes recommendations. This report is available at the office of McClure Engineering at 5 Masonic Home Road, Charlton, MA and the DEP website: <http://www.mass.gov/dep/water/drinking/2323002.pdf>

MassDEP assigned a susceptibility ranking of moderate to the wells in our system based on the presence of low and moderate land use threats within the water supply protection area.

Be assured that Madden Estates, in concert with its certified operators at McClure Engineering, is addressing the concerns stated in the SWAP Report and welcomes your input to our planning.

If you have any questions, please contact McClure Engineering, at 508-248-2005 or Arthur Maskell at 508-867-7972.

Opportunities to Participate

Any matters that concern your drinking water supply or issues you would like to see addressed can be presented at the regularly scheduled meeting of the trustees, association or board. If your concerns need immediate attention please contact System Owner, Arthur Maskell at 508-867-7972.



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