

The Sandwich Water District, Public Water System Identification #4261000

The Sandwich Water District is committed to providing consumers with high quality drinking water. Analyses conducted by MA DEP certified laboratories are an integral part of ensuring that the water meets or surpasses the state and federal standards for quality and safety. The Water Quality Information Table below shows only the substances we detected when conducting over 750 water quality tests. The table includes water quality results from both the Sandwich Water District and the Upper Cape Regional Water Cooperative.

Terms and Abbreviations

- **MCLG** - Maximum Contaminant Level Goal - 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.
- **MCL** - Maximum Contaminant Level - 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.
- **AL** - Action Level - the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
- **ND** - Not Detectable at testing limit
 - **n/a** - not applicable
- **ppm** - parts per million or milligrams per liter
- **ppb** - parts per billion or micrograms per liter
- **pCi/l** - picocuries per liter (a measure of radioactivity)

**SANDWICH WATER DISTRICT
WATER QUALITY INFORMATION TABLE – 2009 DATA**

Contaminant	MCLG	MCL	Highest Level Detected	Range of Detections	Violation	Typical Source in Drinking Water
<i>Organics</i>						
Tetrachloroethylene (PCE)* (ppb)	0	5	2.0	ND – 2.0	No	Leaching from vinyl-lined transite water mains.
1,1,1-Trichloroethane (ppb)	200	200	0.8	ND – 0.8	No	Discharge from metal degreasing sites and other factories.
<i>Radionuclides</i>						
<i>The Massachusetts Department of Environmental Protection has reduced the monitoring requirements for radionuclides to less often than once per year because the source is not at risk of contamination. The last sample collected was in 2009 and results are reported in this table.</i>						
Alpha Emitters (pCi/l) (Data from 2003)	n/a	15	0.8 +/- 1.1	0.4 +/- 1.7 - 0.8 +/- 1.1	No	Erosion of natural deposits.
Radium-226 (pCi/l) (Data from 2003)	n/a	5	0.1 +/- 0.3	0.0 +/- 0.2 0.1 +/- 0.3	No	Erosion of natural deposit
Radium 228 (pCi/L) (Data from Cooperative 2009)	n/a	5	0.85 +/- 0.5	n/a	No	Erosion of natural deposit
<i>Unregulated</i>						
<i>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 their occurrence in drinking water and whether future regulation is warranted.</i>						
Chloroform (ppb)	n/a	n/a	3.0	ND – 3.0	No	Trihalomethane: By-product of chlorination (In non-chlorinated sources, Chloroform may be naturally occurring)
Methyl Tertiary Butyl Ether (MTBE) (ppb)	n/a	70****	0.9	0 - 1.0	No	Ingredient in gasoline.
Sulfate** (ppm)	n/a	250**	20	5.0 – 20.0	No	Natural sources.
Sodium*** (ppm)	n/a	20***	33	8 - 33	No	Erosion of natural deposits, road salt run-off
<i>Inorganics</i>						
Nitrate (ppm)	10	10	2.7	0.04 – 2.7	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
			90 th Percentile	Sampling sites above the AL		
Lead (data from 2008)	0	AL=15	2	1 out of 37	No	Corrosion of household plumbing systems.
Copper (data from 2008) (ppm)	1.3	AL=1.3	0.23	0 out of 37	No	Corrosion of household plumbing systems.
<i>Microbiological</i>						
			Highest # of Positives# of Samples Positives	# of Positives To Locations sampled		
Coliform (colonies present)	0	1Positive/mo	3	3 out of 25	YES	Naturally occurring in the environment

VIOLATION NOTE: Routine tank samples collected on 7/7/09 tested positive for total coliform at Tank 1. Repeat samples were collected from Tank 1 on 7/9/09 along with its designated downstream location. Tank 1 again tested positive for coliform and the downstream location was negative. An additional repeat sample was collected on 07/22/09 from 13 Harbor Street which tested positive for total coliform. Repeat samples were collected on 07/27/09 from 13 Harbor Street and its designated upstream and downstream location and each were negative. Tank 1 was isolated from the distribution system, drained and chlorinated. The area in the vicinity of 13 Harbor Street has been flushed thoroughly.

VIOLATION NOTE: Routine tank samples collected on 8/11/09 tested positive for total coliform at Tank 2. Routine samples collected on 8/12/09 from 97 Main Street and 72 Tupper Road both tested positive for Total Coliform. Repeat samples were collected from Tank 2, 97 Main Street and 72 Tupper Road on 8/16/09* along with their designated downstream location. The repeat samples collected from each location were all negative. Tank 2 was isolated from the distribution system, drained and chlorinated. The area in the vicinity of 97 Main Street and 72 Tupper Road has been flushed thoroughly. **In addition, the SWD is considering the feasibility of instituting temporary chlorination.**

*PCE was detected in the distribution system at an annual average of 0.53 parts per billion, which is below the limit set by the U.S. Environmental Protection Agency (EPA). This substance leaches into the water from vinyl lined transite water pipe. In order to address this problem, in 2002 approximately 8,500 feet of water mains were sealed with an epoxy coating resulting in a dramatic decrease in PCE levels.

**Sulfate is an unregulated contaminant. According to EPA Secondary Drinking Water Regulations the SMCL for sulfate is 250 ppm is based on taste of drinking water.

***A note about Sodium - Sodium is not a regulated parameter, but the EPA has a guidance level of 20 ppm. High levels of salt intake may be associated with hypertension in some individuals, however sodium levels in Sandwich's drinking water are low and unlikely to be a significant contributor to adverse health effects.

****MTBE is an unregulated contaminant with a Office of Research and Standards Goal (ORSG) of 70 ppb.