

## MY WATER SMELLS LIKE SWAMP OR BOG WATER

POSSIBLE PROBLEM	HEALTH CONCERN?	OTHER CLUES & CONSIDERATIONS	CONFIRM IT	POSSIBLE FIXES	LICENSE REQUIRED FOR FIX?	STATE FUNDS?	MORE INFO
<b>Sulfur Bacteria</b> See <a href="#">Sulfur Bacteria</a> brochure.	No, sulfur bacteria are not a threat to human health and there is no drinking water standard. <a href="#">Hydrogen Sulfide Gas</a> can be harmful to humans, but not at the levels produced by bacteria in wells.	Sometimes odors are more noticeable after a period of low water use. There are two types of bacteria that cause odors: sulfur-oxidizing and sulfur-reducing. Hydrogen sulfide gas (produced by sulfur-reducing bacteria) is highly corrosive and can damage plumbing connections, metal piping and well casing. Some sulfur bacteria form deposits that can clog a well screen and pump piping.	Sulfur bacteria samples are difficult to collect and take a long time to analyze. You may wish to have your water tested for iron bacteria instead. <a href="#">Laboratories certified to test for coliform bacteria</a> may also test for iron bacteria. Ask the lab.	<b>Periodic shock chlorination</b>	No, but licensed <a href="#">Well Drillers</a> or <a href="#">Pump Installers</a> have the knowledge and equipment.	No	See <a href="#">Bacteriological Contamination of Drinking Water Wells</a> brochure.
				<b>Increase water heater temperature temporarily and drain tank</b>	No, but do not attempt unless water heater has a pressure relief valve.	No	This will reduce, but not eliminate sulfur bacteria.
				<b>Replace magnesium anode rods in heater with zinc or aluminum rods if the problem appears to be only with the hot water</b>	No, but recommend a <a href="#">licensed plumber</a> .	No	This will reduce, but not eliminate sulfur bacteria.
				<b>Continuous pellet chlorination</b>	Licensed <a href="#">Pump Installers</a> or well owners must install. DNR recommends that license holders install.	No	Requires advance DNR approval. See <a href="#">Pellet Chlorination application</a> .

## MY WATER SMELLS LIKE SWAMP OR BOG WATER, CONTINUED

POSSIBLE PROBLEM	HEALTH CONCERN?	OTHER CLUES & CONSIDERATIONS	CONFIRM IT	POSSIBLE FIXES	LICENSE REQUIRED FOR FIX?	STATE FUNDS?	MORE INFO
<p><b>Hydrogen sulfide (naturally-occurring)</b></p> <p>See the <a href="#">Michigan Dept. of Environmental Quality</a> brochure on hydrogen sulfide</p>	<p>Not likely at the levels found in groundwater.</p>	<p>Does the water stink when it is drawn directly from the well?</p>	<p>There is no water test for hydrogen sulfide.</p>	<p><b>Install a Dept. of Safety and Professional Services <a href="#">approved water treatment device</a></b> - from the search dropdown, select products; then from the type of product dropdown, choose plumbing products and from the select product description dropdown, choose water treatment device.</p>	<p>Yes, treatment devices must be installed by <a href="#">licensed plumbers</a>; or in some cases may be installed by the owner/occupant of a single family private residence. See <a href="#">plumbing license laws</a>.</p>	<p>No</p>	<p><a href="#">United States Geological Survey</a></p> <p><a href="#">National Ground Water Association</a></p> <p><a href="#">Water Systems Council</a></p> <p><a href="#">National Sanitation Foundation</a></p> <p><a href="#">Center for Watershed Science and Education, UW-Stevens Point</a></p>