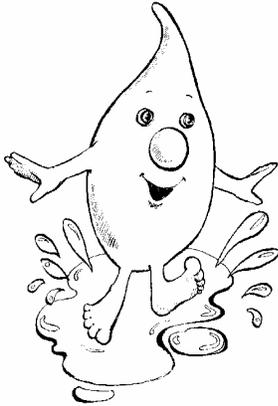


WATER FACTS & MYTHS

Groundwater, Bottled Water and Public Supplied Water



Information from the Village of Paw Paw

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A lot of things many people believe just don't hold water. Here, for example, are a few ideas about water that the experts say are all wet:

MYTH: THERE IS UNLIMITED WATER AVAILABLE IN MICHIGAN.

Fact: The truth is that water availability is not unlimited due to increasingly competitive uses. Water is used both for waste disposal and drinking water. As population and development pressures increase, there is a greater demand on our water resources.

In addition, basic stream flows need to be maintained for aquatic habitat health. Wetlands need to be maintained for plant diversity. Wells developed too close together or in low yielding groundwater areas can have adverse interference with each other, diminishing the well yields and affecting the water table.

MYTH: GROUNDWATER IS OUT OF SIGHT, OUT OF MIND.

Fact: Not so. Most people in Michigan get their drinking water from groundwater. The majority of bottled water companies use groundwater sources. It is groundwater that maintains the base flows to streams and rivers and is critical to the health of many wetlands in the state.

It is also not out of mind when groundwater clean-up efforts cost thousands to millions of dollars to remove contaminants that have entered the aquifers.

MYTH: SURFACE WATER AND GROUNDWATER ARE TWO SEPARATE WATERS.

Fact: That is just plain not so. Groundwater and surface water need to be seen as a whole entity in constant interaction, not as independent, separated resources. Groundwater and surface water mingle and interchange, perhaps several times in the water's journey.

MYTH: DRINKING WATER SHOULD BE FREE.

Fact: The water is free; however, being assured of safe, adequate quantities of drinking water is costly. Operators know better than anyone the amount of work involved in running the financial, managerial, and technical aspects of a system to keep the water flowing.

MYTH: BOTTLED WATER IS SAFER THAN TAP WATER.

Fact: The safety of bottled and tap water depend on the source. Monitoring and source protection, treatment and testing ultimately determine the quality of the finished product. In the United States, municipally supplied tap water is monitored and tested rigorously. See below.

MYTH: USING A HOME WATER TREATMENT DEVICE WILL MAKE TAP WATER SAFER AND MORE HEALTHFUL TO DRINK.

Fact: Filters may change the taste, smell or appearance of tap water, but will not necessarily make the water safer to drink. All home treatment devices require regular maintenance or water quality problems may result.

MYTH: ANY LEAD IN THE WATER IS THE UTILITY'S FAULT.

Fact: The most common source of lead in drinking water is the plumbing in the home. If you think there may be lead in your pipes or in the solder in the connections, have your water tested by a certified laboratory.

BOTTLED WATER: MYTHS AND FACTS

Fact: Whether bought in bulk or as individual servings, bottled water has replaced tap water for a growing number of people. Bottled water is marketed—and marketed very well—as clean and pure. Words such as “premium,” “mountain water,” and “natural” influence consumers.

Bottled water advertisements are commonplace. They show happy, healthy people in pristine outdoor settings where water flows from clear, mountain springs. These images help form the impression that water sold in plastic bottles comes from fresh, fantastic sources—no bugs, sticks, or animal dung soiling the drink. Advertising is helping make bottled water one of the fastest-growing industries in the country.

To be fair, some bottled waters do come from mountain springs. Some come from mountain wells. But others may come from the same source as your community tap water, whatever that may be. And what might be more surprising is that local bottled water could be drawn directly from a municipal water treatment facility. In fact, about a fourth of all bottled water actually does come from municipal suppliers.

When this is the case, the bottle might state “from a community water source” or “from a community water system” on the label.

Since so many people are substituting bottled water for their tap water, critics say the industry should have to follow strict rules.

Fact: Regulations Differ for Tap and Bottled Water

- Bottled water and publicly supplied drinking water are controlled under different government offices. The EPA regulates water distributed by a community water treatment plant.

- EPA's Office of Ground Water and Drinking Water sets regulations on production, distribution, and drinking water quality, plus controls for source water protection and treatment processes.
- Public water supplies are tested for about 95 different contaminants. All states have similar EPA-mandated requirements. Health concerns are addressed through primary drinking water standards, which set maximum contaminant levels (MCLs) to limit biological and chemical contaminants that may be present. Secondary drinking water standards control aesthetic factors, such as taste and odor.
- If a contaminant standard is exceeded or discovered in a drinking water facility, the public must be notified within a set time via television, radio, posting, or hand delivery to customers, depending on the severity of the violation.
- The Food and Drug Administration (FDA) is the federal agency that regulates the quality of bottled water sold across state lines. In other words, bottled water is considered a food product, and the FDA's rules only come into play when that product is sold outside of the state where it is produced. Similar standards to EPA's govern limits of biological and chemical contaminants that may be present in bottled water, and the FDA ordinarily accepts new MCLs set forth by EPA. But the fact remains that FDA's jurisdiction only applies with a food's, in this case bottled water's, interstate trade.
- EPA's standards are stricter for some microorganisms, such as Giardia, Legionella, and viruses, and for some 22 metals and trace organic chemicals. FDA is stricter than EPA for copper, fluoride, and lead. They have established limits for more than 75 contaminants. States can set their own standards, which may be higher or lower than FDA's, and IBWA-member bottlers may have further standards they set for themselves.
- Regulations always can be updated and amended. The FDA is in the process of establishing a contaminant level for uranium, a previously unregulated element. Also, in 2001, FDA set a limit for bromate, a potentially carcinogenic byproduct created when ozone is added to drinking water containing bromide.

Fact: FDA also has what are called “current good manufacturing practice” regulations for processing and bottling drinking water. These regulations stipulate that the water must be processed, bottled, stored, and transported under sanitary conditions. The bottlers have to keep records for government inspectors. No one, meaning the general public, is entitled to see these records, and the records can be discarded after a couple of years. Contrast that to the scrutiny public water facilities are under. FDA requires that bottled water plants be subject to random, yearly inspections. When it comes to safety concerns, FDA inspects bottled water plants and their products the same way it does other foods.

Fact: Now here's where things can get a bit tricky. FDA rules don't apply to a manufacturer who produces bottled water packaged and sold within the same state. Did you get that? FDA's rules do not apply to in-state sales. States may have their own regulatory systems and standards for production and sales. Or, the bottled water may have no government oversight whatsoever. Bottled water sold in roughly one of five states comes under this category.

Fact: Consumer Confidence Reports on Municipal Water Systems Provide Water Snapshot

Part of a water system's obligation to its community is to create a consumer confidence report (CCR). The Village of Paw publishes its report and places it on its Website – www.pawpaw.net. These yearly reports outline, among other things, the following...

- the water's source and its susceptibility to contamination;
- the level of any contaminant found in the water;
- potential health effects of a contaminant detected in violation of an EPA health standard, plus an accounting of the system's actions to restore the water's safety;
- the system's compliance with other drinking water rules;
- an educational statement for vulnerable people about avoiding *Cryptosporidium*, a disinfection-resistant microorganism;
- educational information about nitrate, arsenic, or lead where these contaminants are detected above 50 percent of EPA's standard; and
- phone numbers for more information, including the water system and EPA's Safe Drinking Water Hotline at (800) 426-4791.

EPA says this information "provides customers with a snapshot of their drinking water supply."

Fact: In 2000, the FDA recommended that water bottlers provide consumers with water quality information, suggesting that some of the data could be listed on the label and further details could be outlined on a company Web site. FDA is considering future regulation requiring source water, treatment process, and water quality information be available to consumers—something much more helpful than listing water's nutritional value.

Fact: Why Not Have Expiration Dates for Bottled Water?

Dr. Suffet of UCLA proposes that if soft drinks and beer have bottling and expiration dates, why shouldn't bottled water?

"Many people would not drink an out-of-date beverage," he says. "Why should they drink an aged bottle of water? All beverages that reach the market are subject to potential storage problems, (e.g., hot warehouses). Dates are needed on the shelf life of bottled water to indicate safety." (The IBWA says that if bottled water is stored unopened in a cool place, it should last indefinitely.)

Suffet says some bottlers do include expiration dates voluntarily. He also suggests putting a statement like "refrigerate after opening" on labels to protect consumers. "Do you leave bottled water in the car after taking a sip, and in the following days drink more of that water?" Suffet asks. "Do you realize that under these conditions in a hot Southern California car, the plastic container can leach chemicals, or bacteria can grow in the bottled water?"

FOR MORE INFORMATION

- If you want to delve deeper into FDA's rules for bottled water, read more on their Web site at www.cfsan.fda.gov/~dms/botwatr.html.

- The IBWA also offers an overview of bottled water regulations on their Web site at www.bottledwater.org/public/BWFactsHome_main.htm
- The National Rural Water Association offers 101 PR Tips, Ideas & Pointers for Small & Rural Water Systems to Get Your Wheels Turning, a book to help convey the “commitment and professionalism of rural water in America.” State rural water organizations can also help put together a public relations plan. Contact the NRWA in Duncan, Oklahoma, at (580) 252-0629 or visit their Web site www.nrwa.org.
- To read the Natural Resources Defense Council’s report Bottled Water Pure Drink or Pure Hype? visit www.nrdc.org/water/drinking/bw/bwinx.asp.