

## Handout 2-5 Lack of Potable Water

**This handout provides four good sources of potable water information. Virginia Department of Health, USEPA, Virginia Public Media and the Environmental Working Group (EWG).**

Virginia Primary Source: Virginia Department of Health, Department of Drinking Water ([Drinking Water Home Page - Drinking Water \(virginia.gov\)](#))

As early as 1916, the Department of Health has been protecting the purity of drinking water to Virginia citizens. The statutes as stated in the Code of Virginia are periodically amended to:

- Ensure that all Virginians have safe drinking water;
- Provide a simple and effective regulatory program for waterworks;
- Adapt to new health concerns in drinking water treatment and distribution systems; and
- Provide a means to improve inadequate waterworks.

[Code of Virginia – Virginia Public Water Supply Law \(PDF\)](#)

§32.1-167 through §32.1-176 —Last Amended July 1, 2014

§32.1-170 authorizes the Department of Health, Office of Drinking Water to adopt Administrative Codes to ensure safe drinking water.

National Primary Source: U.S. EPA, Department of Ground Water and Drinking Water (<https://www.epa.gov/ground-water-and-drinking-water>)

The United States enjoys one of the world's most reliable and safest supplies of drinking water. Congress passed the [Safe Drinking Water Act \(SDWA\)](#) in 1974 to protect public health, including by regulating public water systems.

The Safe Drinking Water Act (SDWA) requires EPA to [establish and enforce standards](#) that public drinking water systems must follow. EPA delegates [primary enforcement responsibility](#) (also called primacy) for public water systems to states and Indian Tribes if they meet certain requirements.

Approximately 150,000 [public water systems](#) provide drinking water to most Americans. Customers that are served by a public water system can contact their local water supplier and ask for information on contaminants in their drinking water, and are encouraged to request a copy of their [Consumer Confidence Report](#). This report lists the levels of contaminants that have been detected in the water, including those by EPA, and whether the system meets state and EPA drinking water standards.

About 10 percent of people in the United States rely on water from private wells. Private wells are not regulated under the SDWA. People who use private wells need to take precautions to ensure their drinking water is safe. [Learn more about private wells](#)

The USEPA Department of Ground-Water and Drinking Water reports violations at individual water supply systems. To see Williamsburg's go to [Water System Violation Report \(epa.gov\)](https://www.epa.gov/report-environment/drinking-water)

### **Drinking Water Quality (<https://www.epa.gov/report-environment/drinking-water> )**

Surface waters and aquifers can be contaminated by various chemicals, microbes, and radionuclides. Disinfection of drinking water has dramatically reduced the prevalence of waterborne diseases (such as typhoid, cholera, and hepatitis) in the United States. Other processes may also be used to treat drinking water depending on the characteristics of and contaminants in the source water.

Common sources of drinking water contaminants include:

- **Industry and agriculture.** Organic solvents, petroleum products, and heavy metals from disposal sites or storage facilities can migrate into aquifers. Pesticides and fertilizers can be carried into lakes and streams by rainfall runoff or snowmelt, or can percolate into aquifers.
- **Human and animal waste.** Human wastes from sewage and septic systems can carry harmful microbes into drinking water sources, as can wastes from animal feedlots and wildlife. Major contaminants include Giardia, Cryptosporidium, and E. coli.
- **Treatment and distribution.** While treatment can remove many contaminants, it can also leave behind byproducts (such as trihalomethanes) that may themselves be harmful. Water can also become contaminated after it enters the distribution system, from a breach in the piping system or from corrosion of plumbing materials made from lead or copper.
- **Natural sources.** Some ground water is unsuitable for drinking because the local underground conditions include high levels of certain contaminants. For example, as ground water travels through rock and soil, it can pick up naturally occurring arsenic, other heavy metals, or radionuclides.

### [Audit Finds Inconsistent Oversight of Virginia Drinking Water | VPM](#)

*A state audit of Virginia's oversight of drinking water found the state's decentralized approach led to "inconsistencies throughout the state and lessened opportunities to improve overall monitoring processes." (Photo: [Fourteenzerozero](#)/Creative Commons)*

The state office charged with overseeing drinking water in Virginia uses inconsistent standards to document and enforce potential problems, according to an audit released last month.

[The report by the Office of the State Inspector General](#) says that the state's decentralized approach to oversight sometimes allowed lax penalties for rule-breakers. Regional offices of Virginia Department of Health's Office of Drinking Water (ODW) differed in how they documented violations and how much time they allowed violators to correct course.

Source: Environmental Working Group ([Environmental Working Group – Know your choices | Environmental Working Group \(ewg.org\)](#))

“The Environmental Working Group is a community 30 million strong, working to protect our environmental health by changing industry standards.”

“We’re not just another nonprofit environmental group – we’re a nationwide community. We're advocates who won't quit. We're scientists that find solutions. We're people trying to make the safest choices for our health. At the Environmental Working Group, we believe that you should have easy access to the information you need to make smart, healthy choices. It's this belief that inspired our president and co-founder, Ken Cook, to create EWG”.

“Since 1993, we've worked tirelessly to protect public health. Whether it's spotlighting harmful industry standards, speaking out against outdated government legislation or empowering consumers with breakthrough education and research, we're in this fight.”

The EWG’s Tap Water Database (<https://www.ewg.org/tapwater/>) is a good resource for finding your local water utility and information about the utility. All you need to know is your zip code. You will also find a number of educational videos at this site.



American Chemical Soc (<https://www.acs.org/>)

An excellent lecture by Dr. David Sedlak, Editor-in-Chief of Environmental Science & Technology and Environmental Science & Technology Letters, explores the chemistry of drinking water can be found on YouTube at <https://youtu.be/oRo--35oDxM>

*A state audit of Virginia's oversight of drinking water found the state's decentralized approach led to "inconsistencies throughout the state and lessened opportunities to improve overall monitoring processes." (Photo: [Fourteenzerozero](#)/Creative Commons)*

The state office charged with overseeing drinking water in Virginia uses inconsistent standards to document and enforce potential problems, according to an audit released last month.

The report by the Office of the State Inspector General ([Audit Report Template \(virginia.gov\)](#)) says that the state’s decentralized approach to oversight sometimes allowed lax penalties for rule-breakers. Regional offices of Virginia Department of Health’s Office of Drinking Water (ODW) differed in how they documented violations and how much time they allowed violators to correct course.

#### MEDIA RELEASES

MARCH 22, 2012

Environment Virginia (<https://environmentamerica.org/virginia/resources/wasting-our-waterways-3/>)

Industrial facilities dumped over 18 million pounds of toxic chemicals into Virginia’s waterways, the second-most in the nation, according to a new report released today by Environment Virginia. Wasting Our Waterways: Industrial Toxic Pollution and the Unfulfilled Promise of the Clean Water Act also reports that 226 million pounds of toxic chemicals were discharged into 1,400 waterways across the country.

“Virginia’s waterways are a polluter’s paradise right now. Polluters dump 18 million pounds of toxic chemicals into Virginia’s lakes, rivers and streams every year,” said Laura Anderson, field organizer with Environment Virginia. “We must turn the tide of toxic pollution by restoring Clean Water Act protections to our waterways.” The New River saw the most toxic pollution in the state, with over 12 million pounds dumped into its waters. More than 1.1 million pounds were discharged into the James River, and over 370,000 pounds were dumped into the Shenandoah River. “The James river is vital to the history and culture of Richmond and Virginia,” said Caroline Kory, state associate with Environment Virginia. “We shouldn’t be tarnishing our legacy with toxic pollution.”

- Richmond’s James River saw over 1.1 million pounds of toxic pollution in 2010.