



This report was prepared by:
Dover Water/Wastewater Department
390 West 17th Street
Dover, OH 44622

Continuing Our Commitment

Once again we are proud to present our annual water quality report. This report covers all testing performed between January 1 and December 31, 2010. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all of our water users. Thank you for allowing us to continue providing you and your family with quality drinking water.

For more information about this report, or for any questions relating to your drinking water, please call Bill Craigo, Dover Water/Wastewater Department Superintendent, at (330) 343-3443 or (330) 343-4116.

Community Participation

You are invited to attend the City of Dover council meetings to voice your concerns about your drinking water or just to see your government in action. Dover City Council meets on the first and third Monday of each month, beginning at 7:30 p.m., in the Council Chambers at City Hall, 110 East Third Street, Dover, Ohio.

Where Does My Water Come From?

City of Dover Water Department customers are fortunate because we enjoy an abundant water supply from a ground water source: the Sugar Creek Basin Aquifer. The rock type in this aquifer is primarily sandstone. We have five wells, located in the Dover Well Field, that are used to draw from this ground water supply. Raw water is pumped to our treatment plant, where it is treated and then pumped into the distribution system. Demand for good, safe drinking water is high. We provide to our customers approximately two million gallons of very high-quality drinking water every day.

Our water supply is part of the Tuscarawas Watershed, which covers an area of about 2,614 square miles. Most of our watershed is under forest cover (57 percent) or is used for agricultural purposes (38 percent). We are entrusted to maintain this watershed property, ensuring a safe and reliable water supply to our customers. To learn more about our watershed on the Internet, go to the U.S. EPA's Surf Your Watershed Web site at www.epa.gov/surf.

The aquifer that supplies drinking water to the City of Dover has a high susceptibility to contamination, which is indicated by the fact that nitrates have been detected in the city's water wells since 1993. Other factors are the sensitive nature of the aquifer in which the well field is located and the existing potential contaminant sources that have been identified. Future contamination may be avoided by implementing protective measures. More detailed information is available in the city's Wellhead Protection Plan and Susceptibility Analysis, which can be viewed by calling Bill Craigo, Water/Wastewater Superintendent, at (330) 343-3443 or (330) 343-4116.

Fact or Fiction

There is the same amount of water on Earth now as there was when the Earth was formed. (Fact: The water that comes from your faucet could contain molecules that dinosaurs drank!)

About half the water treated by public water systems is used for drinking and cooking. (Fiction: Actually, the amount used for cooking and drinking is less than 1 percent of the total water produced!)

A person can live about a month without food, but only about a week without water. (Fact: Dehydration symptoms generally become noticeable after only 2 percent of one's normal water volume has been lost.)

The first water pipes in the United States were made of cast iron. (Fiction: The first water pipes were actually made of fire-charred bored logs.)

The world's first municipal water filtration plant was opened in the United States. (Fiction: The first plant was actually opened in Paisley, Scotland, in 1832.)

A person must consume a half-gallon of water daily to live healthily. (Fact: A person should drink at least 64 ounces, or 8 cups, of water each day.)

One gallon of gasoline poured into a lake can contaminate approximately 750,000 gallons of water. (Fact)

What's a Cross-Connection?

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand), causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools, or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. The City of Dover has had a Backflow Prevention Program since 1982 and requires that all backflow prevention devices are inspected and tested annually by certified inspectors. This ensures the device is providing maximum protection for our water system.

For more information, review the Cross-Connection Control Manual from the U.S. EPA's Web site at <http://water.epa.gov/infrastructure/drinkingwater/pws/crossconnectioncontrol/index.cfm>. You can also call the Safe Drinking Water Hotline at (800) 426-4791.

Substances That Might Be in Drinking Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

The sources of drinking water (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 can acquire naturally occurring minerals, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife; Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial 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 stormwater runoff, and residential uses; Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater runoff, and septic systems; Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Naturally Occurring Bacteria

The simple fact is, bacteria and other microorganisms inhabit our world. They can be found all around us: in our food; on our skin; in our bodies; and, in the air, soil, and water. Some are harmful to us and some are not. Coliform bacteria are common in the environment and are generally not harmful themselves. The presence of this bacterial form in drinking water is a concern because it indicates that the water may be contaminated with other organisms that can cause disease. Throughout the year, we tested many water samples for coliform bacteria. In that time, none of the samples came back positive for the bacteria. Federal regulations now require that public water that tests positive for coliform bacteria must be further analyzed for fecal coliform bacteria. Fecal coliform are present only in human and animal waste. Because these bacteria can cause illness, it is unacceptable for fecal coliform to be present in water at any concentration. Our tests indicate no fecal coliform is present in our water.

Water Conservation

You can play a role in conserving water and save yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.

Turn off the tap when brushing your teeth.

Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.

Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.

Use your water meter to detect hidden leaks. Simply turn off all taps and water-using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

What Are PPCPs?

When cleaning out your medicine cabinet, what do you do with your expired pills? Many people flush them down the toilet or toss them into the trash. Although this seems convenient, these actions could threaten our water supply.

Recent studies are generating a growing concern over pharmaceuticals and personal care products (PPCPs) entering water supplies. PPCPs include human and veterinary drugs (prescription or over-the-counter) and consumer products, such as cosmetics, fragrances, lotions, sunscreens, and house cleaning products. Over the past five years, the number of U.S. prescriptions increased 12 percent to a record 3.7 billion, while nonprescription drug purchases held steady around 3.3 billion. Many of these drugs and personal care products do not biodegrade and may persist in the environment for years.

The best and most cost-effective way to ensure safe water at the tap is to keep our source waters clean. Never flush unused medications down the toilet or sink. Instead, check to see if the pharmacy where you made your purchase accepts medications for disposal, or contact your local health department for information on proper disposal methods and drop-off locations. You can also go on the Web at www.Earth911.com to find more information about disposal locations in your area.

Drinking Water Improvement Projects

The City of Dover Water Department, with the cooperation of the city administration, and the city council, is constantly working to upgrade, improve, and expand our water system. In 2010, there was 200 feet of 14-inch-diameter water main replaced with new 14-inch-diameter main on West Ohio Avenue; 300 feet of 14-inch-diameter water main replaced with new 14-inch-diameter main on the Tuscarawas Avenue bridge; and 200 feet of 12-inch-diameter water main replaced with new 12-inch-diameter main on East Second Street. During the year, the water department replaced or installed a total of 16 water main valves, repaired 15 water main and 11 water service line leaks, disconnected 6 water services, renewed 8 water services, and installed 13 new water services.

In order to ensure fire protection for the city, the water department replaced 11 fire hydrants with new hydrants, rebuilt 5 fire hydrants, flow tested 30 fire hydrants, winterized 617 fire hydrants before cold weather, and flushed 1,234 fire hydrants during the year.

As a way of protecting our water system from damage, the water department conducted 278 water line locates this year for various contractors digging within the City of Dover.

Information on the Internet

The U.S. EPA Office of Water (www.epa.gov/watrhome) and the Centers for Disease Control and Prevention (www.cdc.gov) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation and public health.

How Is My Water Treated?

The treatment process consists of a series of steps. Our ground water supply is not exposed to air and is not subject to direct pollution and contamination like a river or a reservoir. In fact, because ground water is the highest quality water available to meet the public health demand of water intended for human consumption, we are able to provide your water directly from the source. As an additional service to our customers and to meet U.S. EPA guidelines, chlorine is added as a precaution against any bacteria that may be present in the raw water, and we remove iron and manganese from the raw water. The water is filtered and chlorine levels are checked again (adjusted if necessary) before the water is pumped into our distribution system and into your home or business. We carefully monitor the amount of any and all additives, using the lowest quantity, to protect the safety of your water and to meet government regulations without compromising taste.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/>.

Lead and Drinking Water

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. We are 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 www.epa.gov/safewater/lead.

Sampling Results

We are pleased to report that during the past year, the water delivered to your home or business complied with, or exceeded, all state and federal drinking water requirements. During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. Although all of the substances listed here are below the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present in the water. The state allows us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

Note: We have a current, unconditioned license to operate our water system.

REGULATED SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2010	2	2	0.068	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2010	[4]	[4]	0.48	0.40–0.53	No	Water additive used to control microbes
Haloacetic Acids [HAA] (ppb)	2010	60	NA	2.5	NA	No	By-product of drinking water disinfection
Nitrate (ppm)	2010	10	10	0.60	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2010	80	NA	15.9	NA	No	By-product of drinking water disinfection
Thallium (ppb)	2010	2	0.5	1.8	NA	No	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories
Tap water samples were collected for lead and copper analyses from sample sites throughout the community (lead was not detected at the 90th percentile)							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2008	1.3	1.3	0.219	0/31	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
UNREGULATED SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE			
Hardness (ppm)	2010	448	NA	Naturally occurring			
Sulfate (ppm)	2010	231	NA	Runoff/leaching from natural deposits; Industrial waste			

Definitions

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

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.

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.

MRDL (Maximum Residual Disinfectant Level): 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.

MRDLG (Maximum Residual Disinfectant Level Goal): 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.

NA: Not applicable.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).