

Annual
WATER
QUALITY
REPORT

Reporting Year 2013



Presented By
City of West University Place

PWS ID#: TX1010027

En Español Este reporte incluye informacion importante sobre el agua para tomar.
Si tiene preguntas o discusiones sobre este reporte, favor de llamar al tel. (713) 662-
5846 para hablar con una persona bilingue en español.

How to Get Involved

We encourage public interest and participation in our community's decisions affecting drinking water. The public is welcome at regular City Council Meetings, which occur the 2nd and 4th Mondays of each month at 6:30 p.m. at the Municipal Building, 3800 University Blvd., City of West University Place. Get more information about these meetings at www.westutx.gov or by calling (713) 668-4441.

Your Water Source

Your water in 2013 was a blend of ground and surface water, with an annual target of 50% of each. The groundwater comes from two water wells owned and operated by the City of West University Place. The Wells pump water from a depth of 560 feet, drawing from the Evangeline Aquifer located in the Gulf Coastal Sands.

The surface water is purchased from the City of Houston's East Water Purification Plant #3. Because the City of Houston draws the water it sells to our utility from surface sources (e.g., lakes or reservoirs), it tests regularly for *Cryptosporidium*, a pathogen that causes a diarrheal illness. No *Cryptosporidium* was found in the City of Houston's drinking water in 2013.

West U's water system continues to be rated "Superior" (the highest designation possible) by the Texas Commission on Environmental Quality. We have received this designation continuously since 1943.

Important Health Information

You may be more vulnerable than the general population to certain microbial contaminants, such as *Cryptosporidium*, in drinking water. Infants, some elderly, or immunocompromised persons such as those undergoing chemotherapy for cancer, those who have undergone organ transplants, those who are undergoing treatment with steroids, and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care provider. Additional guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline at (800) 426-4791.

Substances That Could Be in 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 which 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.

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on the taste, odor, or color of drinking water, please contact our business office. For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Exceeding Expectations

In 2013, your water quality surpassed all state and federal requirements for drinking water.

Testing frequency

The City of West University Place tests your water daily, weekly, monthly, quarterly, yearly, and at greater intervals for as many as 97 constituents. In 2013, we performed 3423 individual tests on your water. Testing intervals are determined by state and federal regulatory agencies. The purpose of testing is to make sure your water quality remains within safe levels as determined by the U.S. Environmental Protection Agency (EPA).

Who tests the water

Technicians who are licensed by the Texas Commission on Environmental Quality (TCEQ) collect water samples from wells, storage facilities, points in the distribution system, and residents' homes. Much of our testing is done in the field, although some samples are sent to a state-licensed laboratory for analysis.

What we test for

In general, we test for the following substances: biological (such as viruses and bacteria); inorganic (such as salts and metals); organic (such as chemicals from industrial or petroleum use); radioactive, which occur naturally or result from oil/gas production and mining activities; and pesticides and herbicides. The tests also check levels of inorganic ions (nitrate, nitrite, fluoride, phosphate, sulfate, chloride, and bromide) that are essential for human health in small quantities, but which in larger quantities can cause unpleasant taste and odor—or even illness.

How substances enter the water

As rain and other water travels over land and sinks through the ground into aquifers, the water dissolves certain naturally occurring minerals, and breaks down naturally occurring radioactive materials. This water may also pick up dissolved substances resulting from the presence of plants, animals, or human activity.

Who sets the regulations

To ensure that your water is safe to drink, the U.S. EPA regulates tap water, and the U.S. Food and Drug Administration (FDA) regulates bottled water. Drinking water—including bottled water—may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

You may get more information about drinking water standards and the potential health effects of water constituents by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

Lead in Home Plumbing

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. This water supply is responsible for providing high-quality drinking water, but we 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.

QUESTIONS?

You are welcome to contact Patrick Walters, Operations Superintendent for the City of West University Place, with questions about your water. He can be reached at (713) 662-5858 or PWalters@westutx.gov.

City of West University Place Drought Contingency Plan

How The City Will Handle A Water Shortage

Be prepared to conserve water should drought conditions create water shortages. Several years ago, the City implemented a four-step Drought Contingency Plan that remains in place today. We always follow the first step—reminding you to conserve water each summer—but you might want to familiarize yourself with all four steps:

1. Annual Conservation Reminder. Each Spring, the City reminds water customers to conserve water. Users are urged to re-set their water irrigation timers to water earlier in the day...to check faucets for leaks...to readjust sprinkler heads...and to run washing machines and dishwashers only when full. This is good water stewardship—an important step to avoiding water shortages during the summer.
2. Voluntary Use Restrictions. If the demand for water rises to a certain threshold (65 percent of pumping capacity for 3 consecutive days), the City will ask users to voluntarily conserve more water—including not watering outside between the hours of 5 a.m. and 10 p.m.
3. Moderate Water Use Restrictions. When water supplies drop significantly or when customer demand begins to require 70 percent pumping capacity for 3 consecutive days, users will be banned from outside watering (landscapes, washing cars) between 10 a.m. and 7 p.m. Pools will not be filled. Most fountains and ponds will not be filled. Hydrants will not be flushed unless needed for public health, safety and welfare. Parks and green zone watering will be restricted to between 8 p.m. and 5 a.m. Non-essential uses of water (hosing down sidewalks, using water for dust control, etc.) will be prohibited. Full restrictions are listed at the City's website at www.westutx.gov (click on City Departments: Public Works: Operations).
4. Critical Water Use Restrictions. If water supplies and/or demand reach certain critical thresholds or if water supplies become contaminated, then severe restrictions will occur, including a ban on all outdoor water use or irrigation, regardless of time of day. Police and other personnel will enforce the bans. This stage of the Plan will end when all conditions listed as “triggering events” have ceased to exist for five days.



You may not be aware of it, but every time you pour fat, oil, or grease (FOG) down your sink (e.g., bacon grease), you are contributing to a costly problem in the sewer collection system. FOG coats the inner walls of the plumbing in your house as well as the walls of underground piping throughout the community. Over time, these greasy materials build up and form blockages in pipes, which can lead to wastewater backing up into parks, yards, streets, and storm drains. These backups allow FOG to contaminate local waters, including drinking water. Exposure to untreated wastewater is a public health hazard.

Communities spend billions of dollars every year to unplug or replace grease-blocked pipes, repair pump stations, and clean up costly and illegal wastewater spills. Here are some tips that you and your family can follow to help maintain a well-run system now and in the future:

NEVER:

- Pour fats, oil, or grease down the house or storm drains.
- Dispose of food scraps by flushing them.
- Use the toilet as a waste basket.

ALWAYS:

- Scrape and collect fat, oil, and grease into a waste container such as an empty coffee can, and dispose of it with your garbage.
- Place food scraps in waste containers or garbage bags for disposal with solid wastes.
- Place a wastebasket in each bathroom for solid wastes like disposable diapers, creams and lotions, and personal hygiene products including nonbiodegradable wipes.

Source Water Assessment

According to West U's Source Water Assessment (2006 completion), "Our source waters' contamination opportunities are rare and protection levels are high." Additional information regarding the Source Water Assessment may be obtained by contacting the Public Works Department.

TipTopTap

The most common signs that your faucet or sink is affecting the quality of your drinking water are discolored water, sink or faucet stains, a buildup of particles, unusual odors or tastes, and a reduced flow of water. The solutions to these problems may be in your hands.

Kitchen sink and drain

Hand washing, soap scum buildup, and the handling of raw meats and vegetables can contaminate your sink. Clogged drains can lead to unclean sinks and backed up water in which bacteria (i.e., pink and black colored slime growth) can grow and contaminate the sink area and faucet, causing a rotten egg odor. Disinfect and clean the sink and drain area regularly. Also, flush regularly with hot water.

Faucets, screens, and aerators

Chemicals and bacteria can splash and accumulate on the faucet screen and aerator, which are located on the tip of faucets and can collect particles like sediment and minerals resulting in a decreased flow from the faucet. Clean and disinfect the aerators or screens on a regular basis.

Check with your plumber if you find particles in the faucet's screen as they could be pieces of plastic from the hot water heater's dip tube. Faucet gaskets can break down and cause black, oily slime. If you find this slime, replace the faucet's gasket with a higher-quality product. White scaling or hard deposits on faucets and shower heads may be caused by hard water or water with high levels of calcium carbonate. Clean these fixtures with vinegar or use water softening to reduce the calcium carbonate levels for the hot water system.

Water filtration/treatment devices

A smell of rotten eggs can be a sign of bacteria on the filters or in the treatment system. The system can also become clogged over time so regular filter replacement is important. (Remember to replace your refrigerator filters!)

Sampling Results

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 tables below show only those contaminants that were detected in the water. The state requires us to monitor for certain substances less often 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.

We participated in the 3rd stage of the EPA's Unregulated Contaminant Monitoring Regulation (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality.

REGULATED SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Atrazine (ppb)	2013	3	3	0.17	0.11–0.17	No	Runoff from herbicide used on row crops
Chloramines (ppm)	2013	[4]	[4]	2.90	0.50–2.90	No	Water additive used to control microbes
Haloacetic Acids [HAAs]–Stage 1 (ppb)	2013	60	NA	12.3	2.6–12.3	No	By-product of drinking water disinfection
Nitrate (ppm)	2013	10	10	0.14	0.13–0.14	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Simazine (ppb)	2013	4	4	0.08	0.08–0.08	No	Herbicide runoff
Total Trihalomethanes [TTHMs]–Stage 1 (ppb)	2013	80	NA	16.4	7.4–16.4	No	By-product of drinking water disinfection

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2013	1.3	1.3	0.26	1/30	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2013	15	0	1.29	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits

UNREGULATED SUBSTANCES¹

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bromodichloromethane (ppb)	2013	5.2	2.8–5.2	By-product of drinking water disinfection
Chloroform (ppb)	2013	9.6	3.4–9.6	By-product of drinking water disinfection
Dibromochloromethane (ppb)	2013	2.5	1.2–2.5	By-product of drinking water disinfection
Bromochloroacetic Acid (ppb)	2013	3.7	1.0–3.7	By-product of drinking water disinfection

¹ Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of monitoring unregulated contaminants is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Definitions

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that 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

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

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).