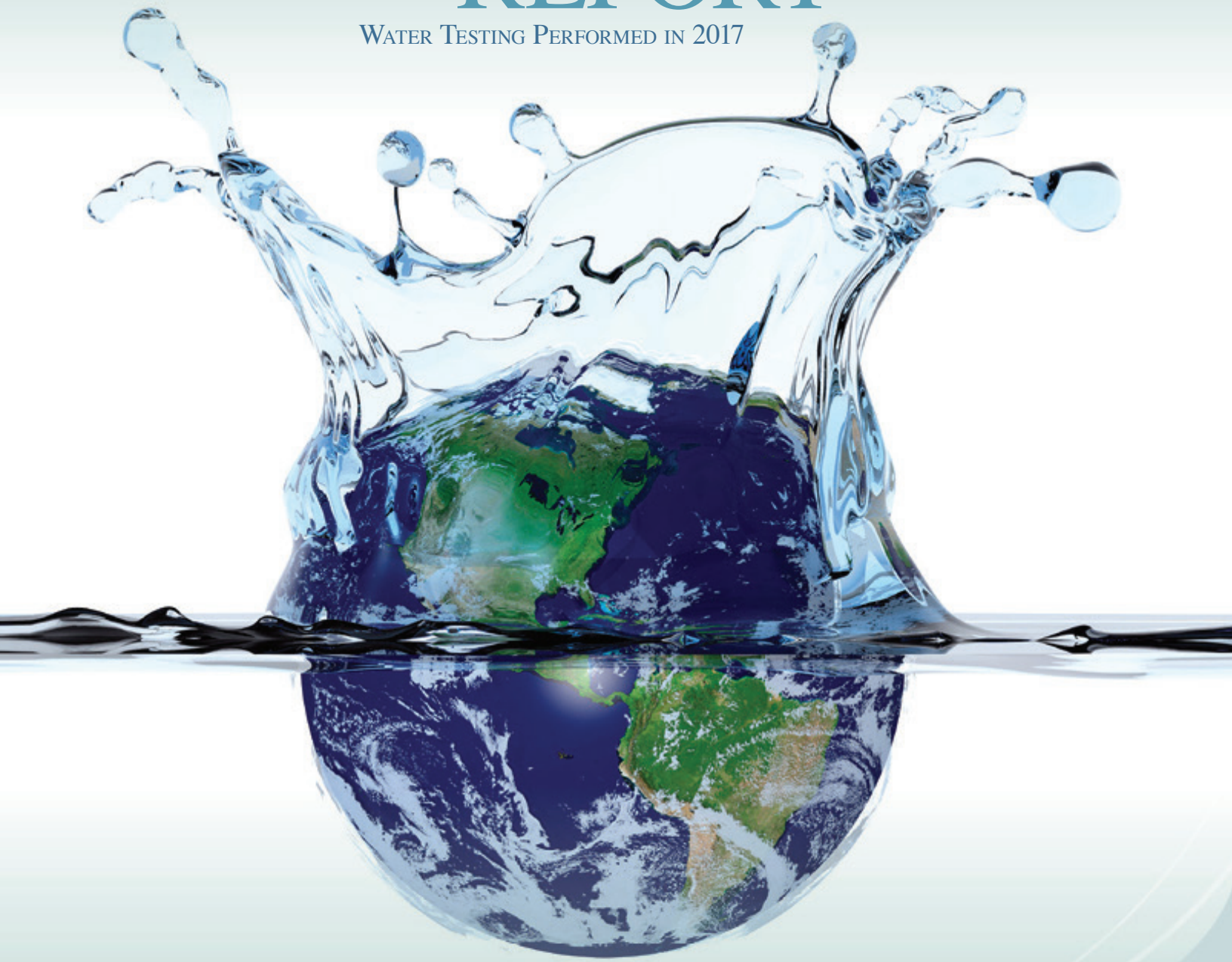
ANNUAL WATER QUALITY REPORT

WATER TESTING PERFORMED IN 2017



CITY OF EAST PEORIA
COMMUNITY PRIDE

Presented By

East Peoria Water Department

PWS ID#: IL1790200

Quality First

Once again, we are pleased to present our annual water quality report. 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 our water users. Thank you for allowing us the opportunity to serve you and your family.

We encourage you to share your thoughts with us on the information contained in this report. After all, well-informed customers are our best allies.

Source Water Description

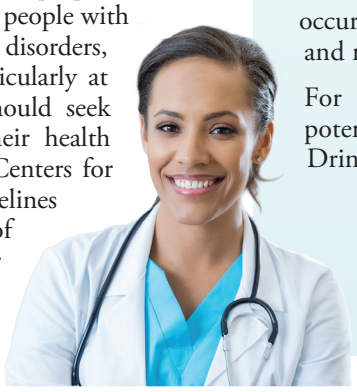
East Peoria's source of water is ground water from several wells throughout the city. Eleven wells and four water treatment facilities provide up to 7 million gallons of drinking water per day. Approximately 120 miles of water mains deliver the water to your tap.

Community Participation

The City Council meets on the 1st and 3rd Tuesdays of the month at Civic Plaza, 401 W. Washington Street, at 6:00 p.m. If you would like to hear more or discuss your thoughts, please attend any of the council meetings.

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/hotline.



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. The 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 dissolves 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;

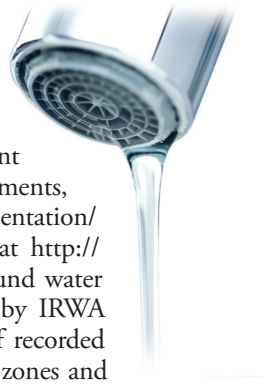
Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

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.

Source Water Assessment



We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of our regularly scheduled meetings. The source water assessment for our supply has been completed by the Illinois EPA. If you would like a copy of this information, please stop by Public Works or call Todd Ellis, Water Department Supervisor, at (309) 698-4716. To view a summarized version of the completed Source Water Assessments, including Importance of Source Water, Susceptibility to Contamination Determination, and documentation/recommendation of Source Water Protection Efforts, you may access the Illinois EPA website at http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl. To determine East Peoria's susceptibility to ground water contaminants, a Well Site Survey, published in 1988, and the recharge area survey performed by IRWA were reviewed. During the surveys of East Peoria's source water protection area, Illinois EPA staff recorded potential sources, routes, or possible problem sites within the 200- or 400-foot minimum setback zones and the 1,000-foot maximum setback zones, and IRWA recorded sites within the recharge areas. The Illinois EPA considers the source water of this facility to be susceptible to contamination, with the exception of wells #10, #11, and #12. These three wells use a confined aquifer that is not susceptible to contamination. This determination is based on a number of criteria, including monitoring conducted at the wells, monitoring conducted at the entry point to the distribution system, the available hydrogeologic data on the wells, and the land-use activities in the recharge area of the wells.

Water Main Flushing

Distribution mains (pipes) convey water to homes, businesses, and hydrants in your neighborhood. The water entering distribution mains is of very high quality; however, water quality can deteriorate in areas of the distribution mains over time. Water main flushing is the process of cleaning the interior of water distribution mains by sending a rapid flow of water through the mains.

Flushing maintains water quality in several ways. For example, flushing removes sediments like iron and manganese. Although iron and manganese do not pose health concerns, they can affect the taste, clarity, and color of the water. Additionally, sediments can shield microorganisms from the disinfecting power of chlorine, contributing to the growth of microorganisms within distribution mains. Flushing helps remove stale water and ensures the presence of fresh water with sufficient dissolved oxygen, disinfectant levels, and an acceptable taste and smell.

During flushing operations in your neighborhood, some short-term deterioration of water quality, though uncommon, is possible. You should avoid tap water for household uses at that time. If you do use the tap, allow your cold water to run for a few minutes at full velocity before use and avoid using hot water, to prevent sediment accumulation in your hot water tank.

Please contact us if you have any questions or if you would like more information on our water main flushing schedule.

> "Water treatment is a complex, time-consuming process."

Water Treatment Process

The treatment process consists of a series of steps. First, raw water is drawn from our water source and sent to an aeration tank, which allows for oxidation of the high iron levels that are present in the water. Chlorine is then added for disinfection. At this point, the water is filtered through layers of fine coal and silicate sand. As smaller, suspended particles are removed, turbidity disappears and clear water emerges.

Chlorine is added again as a precaution against any bacteria that may still be present. (We carefully monitor the amount of chlorine, adding the lowest quantity necessary to protect the safety of your water without compromising taste.) Finally, fluoride (used to prevent tooth decay) and a corrosion inhibitor (used to protect distribution system pipes) are added before the water is pumped to underground reservoirs, water towers, and into your home or business.

QUESTIONS?

If you have questions concerning this report, call Water Department Supervisor Todd Ellis at (309) 698-4716 (2232 E. Washington Street), Monday through Friday, 7:00 a.m. to 4:00 p.m.

What's Your Water Footprint?

You may have some understanding about your carbon footprint, but how much do you know about your water footprint? The water footprint of an individual, community, or business is defined as the total volume of freshwater that is used to produce the goods and services that are consumed by the individual or community or produced by the business. For example, 11 gallons of water are needed to irrigate and wash the fruit in one half-gallon container of orange juice. Thirty-seven gallons of water are used to grow, produce, package, and ship the beans in that morning cup of coffee. Two hundred and sixty-four gallons of water are required to produce one quart of milk, and 4,200 gallons of water are required to produce two pounds of beef.

According to the U.S. EPA, the average American uses more than 100 gallons of water daily. In fact, in the developed world, one flush of a toilet uses as much water as the average person in the developing world allocates for an entire day's cooking, washing, cleaning, and drinking. The annual American per capita water footprint is about 8,000 cubic feet, twice the global per capita average. With water use increasing six-fold in the past century, our demands for freshwater are rapidly outstripping what the planet can replenish.

To check out your own water footprint, go to http://goo.gl/QMoIXT.

Information on the Internet

The U.S. EPA (https://goo.gl/TFAMKc) 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. Also, the Illinois Environmental Protection Agency has a Web site (https://goo.gl/m7D4cm) that provides complete and current information on water issues in Illinois, including valuable information about our watershed.

How Long Can I Store Drinking Water?

The disinfectant in drinking water will eventually dissipate even in a closed container. If that container housed bacteria prior to filling up with the tap water the bacteria may continue to grow once the disinfectant has dissipated. Some experts believe that water could be stored up to six months before needing to be replaced. Refrigeration will help slow the bacterial growth.

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. 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/lead.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. The information in the data tables shows only those substances that were detected between January 1 and December 31, 2017. Remember that detecting a substance does not necessarily mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels. The State recommends monitoring 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.

We participated in the 3rd stage of the EPA's Unregulated Contaminant Monitoring Rule (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, to determine if EPA needs to introduce new regulatory standards to improve drinking water quality. Contact us for more information on this program.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2017	10	0	2.4	2.4–2.4	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2017	2	2	0.17	0.17–0.17	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2017	[4]	[4]	1	0.8–1	No	Water additive used to control microbes
Combined Radium (pCi/L)	2016	5	0	1.033	0.968–1.033	No	Erosion of natural deposits
Fluoride (ppm)	2017	4	4	0.745	0.745–0.745	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2017	60	NA	11	6.8–11.03	No	By-product of drinking water disinfection
Nitrate (ppm)	2017	10	10	3	0.49–3	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2017	80	NA	32	24.5–32.3	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)	2015	1.3	1.3	1.1	1/30	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2015	15	0	5.3	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits

STATE REGULATED SUBSTANCES [1]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Iron (ppb)	2015	1,000	NA	85	0–85	No	Erosion from naturally occurring deposits
Manganese (ppb)	2016	150	NA	14	0–14	No	Erosion of naturally occurring deposits
Sodium (ppm)	2017	NA	NA	35	35–35	No	Erosion of naturally occurring deposits; Used in water softener regeneration
Zinc (ppb)	2015	5,000	NA	7.7	0–7.7	No	Naturally occurring; Discharge from metal factories

UNREGULATED CONTAMINANT MONITORING RULE - PART 3 (UCMR3) [2]

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Chlorate [distributed water] (ppb)	2014	24	20–56	Agricultural defoliant or desiccant; Disinfection by-product; Used in production of chlorine dioxide
Chlorate [finished water] (ppb)	2014	26	20–56	Agricultural defoliant or desiccant; Disinfection by-product; Used in production of chlorine dioxide
Chromium [distributed water] (ppb)	2014	0.245	0.2–0.26	Naturally occurring element; Used in making steel and other alloys; Used for chrome plating, dyes, and pigments, leather tanning, and wood preservation
Chromium [finished water] (ppb)	2014	0.21	0.2–0.26	Naturally occurring element; Used in making steel and other alloys; Used for chrome plating, dyes, and pigments, leather tanning, and wood preservation
Chromium 6 [distributed water] (ppb)	2014	0.056	0.03–0.23	Naturally occurring element found in the earth's crust and at low concentrations in seawater, and in some surface and ground water; Cobaltous chloride was formerly used in medicine and as a germicide
Chromium 6 [finished water] (ppb)	2014	0.0713	0.03–0.23	Naturally occurring element found in the earth's crust and at low concentrations in seawater, and in some surface and ground water; Cobaltous chloride was formerly used in medicine and as a germicide
Molybdenum [distributed water] (ppb)	2014	2.55	1–5.2	Naturally occurring element found in ores and present in plants, animals, and bacteria; Commonly used form molybdenum trioxide used as a chemical reagent
Molybdenum [finished water] (ppb)	2014	2.85	1–5.2	Naturally occurring element found in ores and present in plants, animals, and bacteria; Commonly used form molybdenum trioxide used as a chemical reagent
Strontium [distributed water] (ppb)	2014	170	150–290	Naturally occurring element; Historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions
Strontium [finished water] (ppb)	2014	188.333	150–290	Naturally occurring element; Historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions
Vanadium [distributed water] (ppb)	2014	0.215	0.2–0.23	Naturally occurring elemental metal; Used as vanadium pentoxide, which is a chemical intermediate and a catalyst
Vanadium [finished water] (ppb)	2014	0.208	0.2–0.23	Naturally occurring elemental metal; Used as vanadium pentoxide, which is a chemical intermediate and a catalyst

[1] Iron, manganese, sodium, and zinc are not currently regulated by the U.S. EPA. However, the state has set an MCL for these contaminants for supplies serving a population of 1,000 or more.

[2] A maximum contaminant level (MCL) for this contaminant has not been established by either state or federal regulations, nor has mandatory health effects language. The purpose of unregulated contaminant monitoring is to assist the U.S. 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 that triggers treatment or other required actions by the water supply.

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as the highest LRAAs.

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

pCi/L (picocuries per liter): A measure of radioactivity.

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).