



*Presented By*  
**City of Hidalgo**

A large, clear glass is the central focus of the image. Water is being poured from the top into the glass, creating a dynamic splash with many bubbles and ripples. The background is a soft, out-of-focus green, suggesting an outdoor setting with foliage. The overall lighting is bright and natural, highlighting the clarity of the water.

# ANNUAL WATER QUALITY REPORT

WATER TESTING PERFORMED IN 2016

En Español Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe, favor de llamar al tel. (956) 843-2286 – para hablar con una persona bilingüe.

## We've Come a Long Way

Once again we are proud to present our annual water quality report covering the period between January 1 and December 31, 2016. In a matter of only a few decades, drinking water has become exponentially safer and more reliable than at any other point in human history. Our exceptional staff continues to work hard every day—at any hour—to deliver the highest quality drinking water without interruption. Although the challenges ahead are many, we feel that by relentlessly investing in customer outreach and education, new treatment technologies, system upgrades, and training, the payoff will be reliable, high-quality tap water delivered to you and your family.

## Emergency/Supplemental Water Sources

From January 1 to December 31, 2016, we had to purchase water from the City of McAllen for emergency use. For any questions about the City of McAllen's water quality, please contact the City of McAllen Public Works at (956) 681-4000.

## 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 storm-water 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 storm-water 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 storm-water 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 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.

## 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 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](http://www.epa.gov/safewater/lead).



## 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. The water then goes to a mixing tank where polyaluminum chloride and soda ash are added. The addition of these substances cause small particles to adhere to one another (called “floc”), making them heavy enough to settle into a basin from which sediment is removed. 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, soda ash (used to adjust the final pH and alkalinity), fluoride (used to prevent tooth decay), and a corrosion inhibitor (used to protect distribution system pipes) are added before the water is pumped to sanitized, underground reservoirs, water towers and into your home or business.

## Water Loss Audit

In the water loss audit submitted to the Texas Water Development Board during the year covered by this report, our system lost an estimated 3,400,656 gallons of water. If you have any questions about the water loss audit, please call the PWS phone number.

## Where do we get our drinking water?

The source of drinking water used by City of Hidalgo is Ground Water.

A Source Water Susceptibility Assessment for your drinking water source(s) is currently being updated by the Texas Commission on Environmental Quality. This information describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions.

The information contained in the assessment allows us to focus source water protection strategies. Some of this source water assessment information is available on Texas Drinking Water Watch at <http://dww2.tceq.texas.gov/DWW/>.

For more information on source water assessments and protection efforts at our system, please contact us.



## QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Ruben Puente, Public Works Director, at (956) 843-2286.

**Date:** July 1 – 31, 2017

**Time:** 8:00 am – 5:00 pm

**Location:** Hidalgo City Hall, 704 East Ramon Ayala Dr. Hidalgo, TX 78557

**Phone:** (956) 843-2286; **Fax:** (956) 843-2317

**Website:** [www.cityofhidalgo.net](http://www.cityofhidalgo.net)

To learn about future public meetings (concerning your drinking water), or to schedule one, please call (956) 843-2286.

## Fixtures With Green Stains

A green or blue-green stain on kitchen or bathroom fixtures is caused by tiny amounts of copper that dissolve in your home's copper plumbing system when the water sits unused overnight. Copper staining may be the result of a leaky faucet or a faulty toilet flush valve, so be sure your plumbing is in good working order.

Copper stains may also be caused by overly hot tap water. Generally speaking, you should maintain your water temperature at a maximum of 120 degrees Fahrenheit. You should consult the owner's manual for your heater or check with your plumber to determine your current heat setting. Lowering your water temperature will reduce the staining problem and save you money on your energy bill.

Also keep in mind that a tap that is used often throughout the day usually will not produce copper stains, so if you flush the tap for a minute or so before using the water for cooking or drinking, copper levels will be reduced.



## What type of container is best for storing water?

Consumer Reports has consistently advised that glass or BPA-free plastics such as polyethylene are the safest choices. To be on the safe side, do not use any container with markings on the recycle symbol showing "7 PC" (code for BPA). You could also consider using stainless steel or aluminum with BPA-free liners.

## How much emergency water should I keep?

Typically, 1 gallon per person per day is recommended. For a family of four, that would be 12 gallons for 3 days. Humans can survive without food for 1 month, but can only survive 1 week without water.

## 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.

## How long does it take a water supplier to produce one glass of drinking water?

It could take up to 45 minutes to produce a single glass of drinking water.

## How many community water systems are there in the U.S.?

About 53,000 public water systems across the United States process 34 billion gallons of water per day for home and commercial use. Eighty-five percent of the population is served by these systems.

## Which household activity wastes the most water?

Most people would say the majority of water use comes from showering or washing dishes; however, toilet flushing is by far the largest single use of water in a home (accounting for 40% of total water use). Toilets use about 4 to 6 gallons per flush, so consider an ultra-low-flow (ULF) toilet, which requires only 1.5 gallons.



## Test Results

Our water is monitored for many different kinds of contaminants on a very strict sampling schedule. The information below represents only those substances that were detected; 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, in order 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<sup>1</sup>

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
<b>Alpha Emitters</b> (pCi/L)	2014	15	0	8.6	2–8.6	No	Erosion of natural deposits
<b>Arsenic</b> (ppb)	2011	10	NA	1.63	1.59–1.63	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
<b>Barium</b> (ppm)	2016	2	2	0.0241	0.0207–0.0241	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
<b>Beta/Photon Emitters<sup>2</sup></b> (pCi/L)	2014	50	0	8.6	7.7–8.6	No	Decay of natural and man-made deposits
<b>Chlorine</b> (ppm)	2015	[4]	[4]	0.79	0.28–1.85	No	Water additive used to control microbes
<b>Chromium</b> (ppb)	2011	100	100	4.03	3.82–4.03	No	Discharge from steel and pulp mills; Erosion of natural deposits
<b>Fluoride</b> (ppm)	2014	4	4	0.95	0.93–0.95	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
<b>Haloacetic Acids [HAA]</b> (ppb)	2014	60	NA	1	0–1.3	No	By-product of drinking water disinfection
<b>Nitrate</b> (ppm)	2016	10	10	0.08	0.01–0.08	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
<b>Selenium</b> (ppb)	2011	50	50	1.81	1.41–1.81	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
<b>TTHMs [Total Trihalomethanes]</b> (ppb)	2014	80	NA	3	2–4.6	No	By-product of drinking water disinfection
<b>Thallium</b> (ppb)	2011	2	0.5	0.753	0.75–0.753	No	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories
<b>Uranium</b> (ppb)	2014	30	0	9.3	7.4–9.3	No	Erosion of natural deposits

<sup>1</sup>Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

<sup>2</sup>The MCL for beta particles is 4 mrem/year. U.S. EPA considers 50 pCi/L to be the level of concern for beta particles.

## 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.

**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).

## Lead and Copper

Definitions:

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

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

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2016	1.3	1.3	0.17	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2016	0	15	2.1	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.