Sources of Drinking Water

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 and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

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. More information about contaminants and potential health effects can be obtained by calling the EPAs Safe Drinking Water Hotline at (800) 426-4791.

Contaminants 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, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mineral 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 can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 the system’s business office.

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; persons 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 providers. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).

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 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.
Information about Source Water Assessments

The TCEQ completed an assessment of your source water and results indicate that some of your sources are susceptible to certain contaminants. The sampling requirements for your water system are based on this susceptibility and previous sample data. Any detections of these contaminants may be found in this Consumer Confident Report. For more information on source water assessments and protection efforts at our system, contact Steve Kenney, Public Works Director at 713-668-2341.

For more information about your sources of water, please refer to the Source Water Assessment Viewer available at the following URL: www.tceq.texas.gov/gis/swaview

Further details about sources and source-water assessments are available in Drinking Water Watch at the following URL: http://dww2.tceq.texas.gov/DWWW

Water Sources: Major Aquifer—Gulf Coast Aquifer | River—Trinity River, San Jacinto River

<table>
<thead>
<tr>
<th>Source Water Name</th>
<th>Type of Water</th>
<th>Report Status</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-3760 Bellaire Blvd</td>
<td>GW</td>
<td>A</td>
<td>Southside Place Well</td>
</tr>
<tr>
<td>SW and GW from City of Houston</td>
<td>SW</td>
<td>A</td>
<td>San Jacinto and Trinity Rivers</td>
</tr>
</tbody>
</table>

City of Houston East and Southeast Water Purification Plant—for regulated, Unregulated, and Secondary Contaminants—please call (713) 837-0311.

DEFINITIONS and ABBREVIATIONS

Avg:

Regulatory compliance with some MCLs is based on running annual average of monthly samples.

Maximum Contaminant Level (MCL)

The highest permissible level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Level 1 Assessment

A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Maximum Contaminant Level Goal (MCLG)

The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

Level 2 Assessment

A Level 1 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

Maximum Residual Disinfectant Level (MRDL)

The highest level of disinfectant allowed in drinking water.

Maximum Residual Disinfectant Level Goal (MRDLG)

The level of a drinking water disinfectant below which there is no known or expected risk to health.

Treatment Technique (TT)

A required process intended to reduce the level of a contaminant in drinking water.

Action Level (AL)

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

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.

NTU - Nephelometric Turbidity Units

MFL - million fibers per liter (a measure of asbestos)

MPN - most probable number per 100 milliters

pCi/l - picocuries per liter (a measure of radioactivity)

ppm - parts per million, or milligrams per liter (mg/L)

ppb - parts per billion, or micrograms per liter (µg/L)

ppt - parts per trillion, or nanograms per liter

ppq - parts per quadrillion, or picograms per liter

n/a - not applicable
## Lead and Copper

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Date Sampled</th>
<th>MCLG</th>
<th>AL</th>
<th>90th percentile</th>
<th># sites over AL</th>
<th>Units</th>
<th>Violation</th>
<th>Likely Source of Contaminant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper</td>
<td>2017</td>
<td>1.3</td>
<td>1.3</td>
<td>0.198</td>
<td>0</td>
<td>ppm</td>
<td>N</td>
<td>Erosion of natural deposits; Leaching from wood preservation; Corrosion of household plumbing systems.</td>
</tr>
<tr>
<td>Lead</td>
<td>2017</td>
<td>0</td>
<td>15</td>
<td>4</td>
<td>0</td>
<td>ppb</td>
<td>N</td>
<td>Corrosion of household plumbing systems; Erosion of natural deposits.</td>
</tr>
</tbody>
</table>

## Regulated Contaminants

### Disinfectants and Disinfection By-products

<table>
<thead>
<tr>
<th>Collection Date</th>
<th>Highest Level Detected</th>
<th>Range of Levels Detected</th>
<th>MCLG</th>
<th>MCL</th>
<th>Units</th>
<th>Violation</th>
<th>Likely Source of Contaminant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haloacetic Acids (HAAS)</td>
<td>2018</td>
<td>22</td>
<td>4.7 - 41.9</td>
<td>No goal for the total</td>
<td>60</td>
<td>ppb</td>
<td>N</td>
</tr>
<tr>
<td>Total Trihalomethanes (TTHM)</td>
<td>2018</td>
<td>29</td>
<td>2.3 - 43.5</td>
<td>No goal for the total</td>
<td>80</td>
<td>ppb</td>
<td>N</td>
</tr>
</tbody>
</table>

## Inorganic Contaminants

<table>
<thead>
<tr>
<th>Contaminants</th>
<th>Collection Date</th>
<th>Highest Level Detected</th>
<th>Range of Levels Detected</th>
<th>MCLG</th>
<th>MCL</th>
<th>Units</th>
<th>Violation</th>
<th>Likely Source of Contaminant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barium</td>
<td>2018</td>
<td>0.0958</td>
<td>0.0958 - 0.0958</td>
<td>2</td>
<td>2</td>
<td>ppm</td>
<td>N</td>
<td>Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.</td>
</tr>
<tr>
<td>Fluoride</td>
<td>2017</td>
<td>0.4</td>
<td>0.4 - 0.4</td>
<td>4</td>
<td>4.0</td>
<td>ppm</td>
<td>N</td>
<td>Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.</td>
</tr>
<tr>
<td>Nitrate [measured as Nitrogen]</td>
<td>2018</td>
<td>0.25</td>
<td>0.25 - 0.25</td>
<td>10</td>
<td>10</td>
<td>ppm</td>
<td>N</td>
<td>Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.</td>
</tr>
<tr>
<td>Nitrite [measured as Nitrogen]</td>
<td>01/15/2015</td>
<td>0.01</td>
<td>0.01 - 0.01</td>
<td>1</td>
<td>1</td>
<td>ppm</td>
<td>N</td>
<td>Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.</td>
</tr>
</tbody>
</table>

## Radioactive Contaminants

<table>
<thead>
<tr>
<th>Contaminants</th>
<th>Collection Date</th>
<th>Highest Level Detected</th>
<th>Range of Levels Detected</th>
<th>MCLG</th>
<th>MCL</th>
<th>Units</th>
<th>Violation</th>
<th>Likely Source of Contaminant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross alpha excluding radon and uranium</td>
<td>2016</td>
<td>4</td>
<td>4 - 4</td>
<td>0</td>
<td>15</td>
<td>pCi/L</td>
<td>N</td>
<td>Erosion of natural deposits.</td>
</tr>
<tr>
<td>Uranium</td>
<td>2018</td>
<td>3</td>
<td>3 - 3</td>
<td>0</td>
<td>30</td>
<td>ug/L</td>
<td>N</td>
<td>Erosion of natural deposits.</td>
</tr>
</tbody>
</table>

## Synthetic Organic Contaminants Including Pesticides and Herbicides

<table>
<thead>
<tr>
<th>Contaminants</th>
<th>Collection Date</th>
<th>Highest Level Detected</th>
<th>Range of Levels Detected</th>
<th>MCLG</th>
<th>MCL</th>
<th>Units</th>
<th>Violation</th>
<th>Likely Source of Contaminant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atrazine</td>
<td>2018</td>
<td>0.17</td>
<td>0.17 - 0.17</td>
<td>3</td>
<td>3</td>
<td>ppb</td>
<td>N</td>
<td>Runoff from herbicide used on row crops.</td>
</tr>
</tbody>
</table>
Disinfectant Residual

<table>
<thead>
<tr>
<th>Disinfectant Residual</th>
<th>Year</th>
<th>Average Level</th>
<th>Range of Levels Detected</th>
<th>MRDL</th>
<th>MRDLG</th>
<th>Unit of Measure</th>
<th>Violation (Y/N)</th>
<th>Likely Source of Contaminant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloramines (Total)</td>
<td>2018</td>
<td>1.96</td>
<td>0.5 - 3.9</td>
<td>4</td>
<td>4</td>
<td>mg/L</td>
<td>N</td>
<td>Water additive used to control microbes.</td>
</tr>
</tbody>
</table>

Water Wise FAQs and Conservation Tips

How can I tell if I have leaks in my home plumbing system?

A. Check your water meter before and after a two hour period when no water is being used. If the meter changes at all, you probably have a leak.

B. Identify toilet leaks by placing a drop of food coloring in the toilet tank. If any color shows up in the bowl before you flush, you have a leak.

C. Examine faucet gaskets and pipe fittings for any water on the outside of the pipe to check for surface leaks.

How concerned should I be about a leaky toilet?

A leaky toilet can waste as much as 200 gallons of water a day. A common reason toilets leak is that the toilet flapper has become worn and no longer seals closed once the toilet has filled.

Almost 40% of total residential water consumption is from water used for landscape irrigation and swimming pools.

Water lawns during the early morning hours or evening when temperatures and wind speed are the lowest. This reduces losses from evaporation.

Water your lawn only when it needs it. If you step on the grass and it springs back up when you move, it doesn't need water. If it stays flat, it does need water.

What indoor home activity uses the most water?

Inside the home, water use is fairly evenly distributed among appliances, but nearly 30 percent is flushed down the toilet. A typical household of four uses 400 gallons of water per day. Clothes washing generally accounts for about 25 to 30 percent, followed by showers around 20 to 25 percent and faucet use (washing dishes, brushing teeth, etc.) is approximately 20 percent.

How can I conserve water with my swimming pool?

If you have a pool, keep the water level a bit lower to minimize splashing, and use a cover if possible to slow evaporation. An average-sized pool can lose about 1,000 gallons of water per month if left uncovered.

If you water your grass and trees more heavily, but less often, this saves water while building stronger roots and making your lawn and landscaping more drought-tolerant. Agronomists recommend watering lawns so that they receive 1 to 1.5 inches of water per week.

One of the easiest and most efficient ways to conserve water used for landscape irrigation is by replacing traditional sprinkler system controllers with a controller that has a rain sensor or a weather-based controller. You will save water (and money!) by not watering when it rains!