Substances That Could Be in Water

To ensure that tap water is safe to drink, Arizona Department of Environmental Quality 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. 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 materials, and substances resulting from the presence of animals or from human activity.

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, 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;
- **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.

More information about contaminants in tap water and potential health effects can be obtained by calling the Environmental Protection Agency’s Safe Drinking Water Hotline at (800) 426-4791 or visit online at www.epa.gov/safewater/. Additional information is available from the Safe Drinking Water Hotline at (800) 426-4791 or visit online at www.epa.gov/safewater/hotline. Information on bottled water can be obtained from the U.S. Food and Drug Administration.

**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/safewater/lead.

**UCMR3 Sampling**

We participated in the 3rd stage of the EPA’s Unregulated Contaminant Monitoring Program (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, any UCMR3 detections are shown in the data tables in this report. Contact us for more information on this program.

City of Yuma Utilities, your water services department

The City of Yuma is committed to providing the highest quality tap water and reliable services to our residents. This Consumer Confidence Report, also known as Water Quality Report, summarizes the results of thousands of tests and measurements performed at the City of Yuma’s water treatment plants and throughout the water distribution system. In 2016, the tap water delivered to over 110,000 customers by the City of Yuma Utilities Department met or surpassed all federal and state drinking water standards.

**Community Participation**

Your input on water quality is always welcome. The City of Yuma’s Water and Sewer Commission is a group of citizens developing ideas and providing advice to the Utilities Director on a range of water and wastewater issues. Our Water and Sewer Commission meets on call at 5:00 p.m. in the Department of Public Works Administrative Conference Room. The public is invited. You can contact the Utilities Department at (928) 373-4500 for more information regarding meeting dates.
Substances That Could Be in Water
To ensure that tap water is safe to drink, Arizona Department of Environmental Quality 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. 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.

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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, 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.

More information about contaminants in tap water and potential health effects can be obtained by calling the Environmental Protection Agency’s Safe Drinking Water Hotline at (800) 426-4791 or visit online at www.epa.gov/safewater/hotline. Information on bottled water can be obtained from the U.S. Food and Drug Administration.

**Message from the EPA**

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.

**Lead in Home Plumbing**

Lead is a toxic metal found in water, including bottled water, that may be introduced into the water as it travels through the home plumbing. Lead levels can be reduced 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.

**UCMR3 Sampling**

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 EPA needs to introduce new regulatory standards to improve drinking water quality. Any UCMR3 detections are shown in the data tables in this report. Contact us for more information on this program.
Where does our water come from? And how is it treated?

The main source of Yuma’s drinking water is surface water from the Colorado River, which is delivered to the Treatment Facilities via the canal system. Our water is treated by two distinct water treatment plants with different technologies. The Main Street Treatment Facility treats conventional surface water treatment plant. The Agua Viva Water Treatment Facility treats surface water and ground water. The treatment process for both plants is depicted in the graphic below.

The Agua Viva Water Treatment Facility uses a series of ground water wells. Ground water is pumped from the wells. Chlorine is added, followed by treatment for iron and manganese removal. The treated groundwater enters into storage tanks prior to disinfection and being distributed in the water system.

The surface water treatment process uses an advanced membrane treatment technology. Raw water is sent through a 500 micron screen, adding alum to coagulate particles, then sent to the membrane ultra-filtration system. After the water passes through the membranes, treated water will receive a dose of fluoride to prevent tooth decay. Finally the water will enter into storage tanks prior to disinfection and being distributed in the water system.

The Agua Viva Water Treatment Facility may use surface water, ground water, or a blend of both prior to distribution in the water system.

Additional Filtration

More information about our water

In 2004, the Arizona Department of Environmental Quality completed a source water assessment for the Yuma Main Canal, “A” Main Canal, and ground water wells used in the City of Yuma. The assessment reviewed the associated land uses that may pose a potential risk to the source. The result of this assessment was an emphasis on use with low risk to surface water. For a complete copy of the assessment contact Betsy Bowman at (520) 373-7140 or visit the AZDEQ’s Source Water Assessment and Protection Unit website: www.azgfd.gov/water/water/swap.htm.

Q:
A: Is there any regulation for the quality of our drinking water? Yes. The EPA sets National Primary Drinking Water Regulations (NPDWRs) to protect public health by ensuring that all community water systems provide water that is safe to drink. The standards aim to protect against health effects from contaminants in drinking water. The standards set maximum contaminant levels (MCLs) for contaminants in drinking water. The maximum contaminant level goal (MCLG) is the maximum level of a contaminant in drinking water below which there is no known or anticipated risk to health. MCLGs allow for a margin of safety.

Q:

Regulated Substances

<table>
<thead>
<tr>
<th>Substance</th>
<th>Unit of Measure</th>
<th>5% Detected</th>
<th>Amount Detected</th>
<th>Low-High</th>
<th>Source</th>
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<td>Nitrite</td>
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<td>0.05 N/A</td>
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</table>

SAMPING RESULTS: During 2016 the City of Yuma conducted all water quality testing required by state and federal regulations plus many more tests than regulations required. Testing revealed the city’s drinking water quality met all regulatory standards set to safeguard public health. The data tables present 2016 test results and corresponding water quality standards. The table below shows only those contaminants that were detected in the water.

The state requires us to monitor for certain substances less than once per year because the concentrations of substances do not change frequently. In those cases the most recent sample data are included, along with the year in which the sample was taken.

More information about our water

In 2004, the Arizona Department of Environmental Quality completed a source water assessment for the Yuma Main Canal, “A” Main Canal, and ground water wells used in the City of Yuma. The assessment reviewed the associated land uses that may pose a potential risk to the source. The result of this assessment was an emphasis on use with low risk to surface water. For a complete copy of the assessment contact Betsy Bowman, Laboratory Director, at the Utilities Treatment Laboratory, 520-373-7140.

E-mail address:
Betsy.Bowman@yumaaz.gov

City of Yuma Home Page:
http://www.cityofyuma.gov

Laboratory Direct Web Page:

EPA Safe Water Hotline:
(800) 426-4781
Arizona Department of Environmental Quality:
520-314-5077

TABLE DEFINITIONS

pH (parts per million): Total part per billion for all parts water.
Fluoridation: The process of fluoridating water. It is one of the most effective ways to control dental fluorides.
Fluoride (ppb): The number of parts of fluoride per liter. A measure of toxicity.
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 and reflect 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 anticipated risk to health. MCLGs allow for a margin of safety.
MRDL (Maximum Residual Disinfection Level): The highest level of a disinfectant allowed in drinking water. There is evidence that addition of the disinfectant is necessary for control of microbial contaminants.
MRDLG (Maximum Residual Disinfection Level Goal): The level of a disinfectant in drinking water below which there is no known or anticipated risk to health. MRDLGs do not reflect the benefits of the use of a disinfectant to control microbial contaminants.
MRV (Maximum Residual Violation): The highest level at which a concentration is allowed in drinking water.
ND (Not detected): Indicates that the substance was not found by laboratory analysis.
NTU (Nephelometric Turbidity Units): Measurement of turbidity in water. Turbidity in excess of 1 NTU is not suitable for most household treatment technologies.
MR (MCLG): The maximum contaminant level goal. For biologics, the MR is the maximum amount of a contaminant that, if exceeded, triggers treatment or other corrective measures.
MRV (Maximum Residual Violation): The highest level at which a concentration is allowed in drinking water.
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More information about our water

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The level of a contaminant in drinking water is the concentration that is necessary for disinfection. The concentration of a contaminant in drinking water that is not reflective of the benefits of the use of disinfectants; therefore, the disinfection process or the disinfection by-products are not reflective of the benefits.

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 and available through 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 do not reflect the benefits of the use of disinfection or disinfection by-products.

MRDL (Maximum Residual Discharge Level): The level of a potential or residual chemical in drinking water. There is convincing evidence that addition of this chemical to drinking water could cause or contribute to cancer in humans.

MRDLG (Maximum Residual Discharge Level Goal): The level of a potential or residual chemical in drinking water below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfection or disinfection by-products.

The concentration of a contaminant that, if consumed, triggers other requirements or that a community water system shall follow.