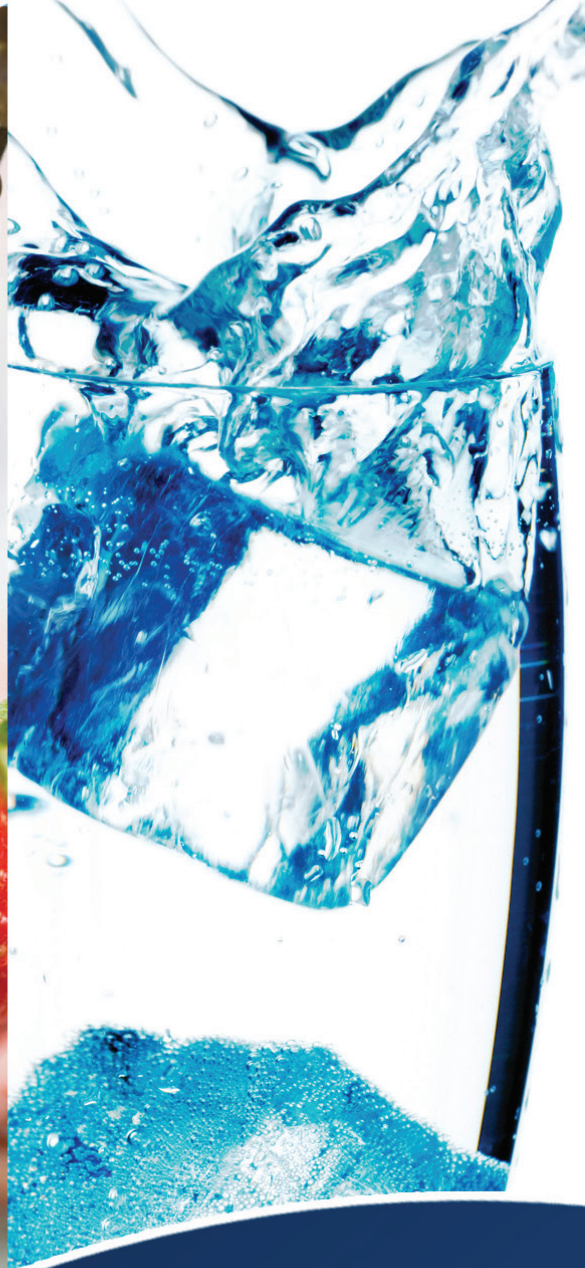
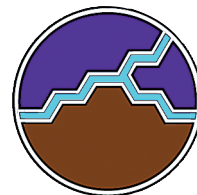


ANNUAL WATER QUALITY REPORT

WATER TESTING
PERFORMED
IN 2014



Presented By



City of YUMA
"Making Yuma Better!"

Our Mission Continues

We are proud to present once again our annual water quality report covering all testing performed between January 1 and December 31, 2014. Most notably, last year marked the 40th anniversary of the Safe Drinking Water Act (SDWA). This rule was created to protect public health by regulating the nation's drinking water supply. We celebrate this milestone as we continue to manage our water system with a mission to deliver the best-quality drinking water. By striving to meet the requirements of SDWA, we are ensuring a future of healthy, clean drinking water for years to come. We are pleased to report that we continue to produce high-quality water that meets or exceeds all Federal and State drinking water standards.

The Utilities Department instituted monthly billing in June 2014 and completed the Automatic Meter Reading (AMR) project in January 2015.

Please let us know if you ever have any questions or concerns about your water.

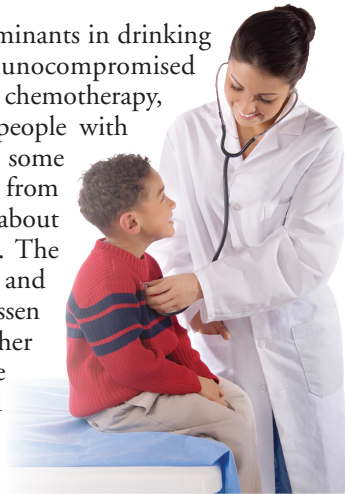
Sincerely,
Jay Simonton, M.P.A.
Utilities Director

Where Does My Water Come From?

The main source of Yuma's drinking water is surface water from the Colorado River. It is delivered to the treatment facilities via the canal systems. The Main Street Treatment Facility is a conventional surface water treatment plant. The Agua Viva Water Treatment Facility treats surface water and groundwater. Water drawn from a well is groundwater.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those 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>.



You're Invited to Participate in Yuma's Water Quality Future

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 Department of Public Works at (928) 373-4500 for more information regarding meeting dates.

Source Water Assessment

In 2004, the Arizona Department of Environmental Quality completed a source water assessment for the Yuma Main Canal, the "A" Main Canal, and groundwater wells used by the City of Yuma. The Assessment reviewed the adjacent land uses that may pose a potential risk to the sources. The result of the Assessment was that adjacent land use posed a low risk to all source water. For a complete copy of the Assessment, contact dml@azdeq.gov, call (602) 771-4641, or visit the ADEQ's Source Water Assessment and Protection Unit Web site at www.azdeq.gov/environ/water/dw/swap.html.

Variences and Exemptions

ADEQ or EPA can give permission for a utility not to meet an MCL or a treatment technique under certain conditions.

The City of Yuma was granted a waiver from the Enhanced Coagulation and Enhanced Softening rules on July 2, 2002, by the Arizona Department of Environmental Quality. The waiver was based on two years of research performed on City of Yuma water. The data confirmed that the Colorado River water at Yuma is not amenable to the requirements of the rule. The waiver remains in effect as long as the running annual average (RAA) for total trihalomethanes (TTHMs) remains below 0.064 ppm, and the RAA for haloacetic acids (HAA5) remains below 0.048 ppm.

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 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?

If you have any questions about this report or the quality of our drinking water, please contact Betsy Bowman, Laboratory Director, at the Utility Treatment Laboratory, (928) 329-2893.

- E-mail address: Betsy.Bowman@yumaaz.gov
- City of Yuma Home Page: www.yumaaz.gov
- Laboratory Direct Web Page: www.yumaaz.gov/7666.htm
- Environmental Protection Agency: (800) 426-4791
- Arizona Department of Environmental Quality: (800) 234-5677

The AMR Project Has Been Completed!

The City of Yuma Utilities Department reached a significant milestone in January 2015 with the completion of an Automated Meter Reading (AMR) Retrofitting project. In the early years, reads were visually taken by meter readers and handwritten in record books. In 1987, the process was upgraded to manually entering the visual reads into a handheld computer. With AMR, the read is sent by a radio signal from a transmitter attached to the meter to a receiver that the meter reader carries in the vehicle, resulting in reading in drive-by mode. The project began in September 2006 with an aggressive five-year roll out plan. However, due to the economic decline and budget constraints, the project continued but at a much slower pace. Now, after 8 1/2 years, all 29,648 customer water meters have been outfitted with AMR.

AMR provides reading speed to support a demanding reading schedule that changed from bi-monthly to monthly in June 2014. The radio-transmitted reads improve accuracy while enhancing meter reader safety. AMR includes customized reports for examining usage data and prompting meter repairs. It reduces the number of can't-read situations and works in all weather conditions. AMR provides hourly usage data that can be provided to customers. This information assists customers with identifying water leaks and gives a means to point out overwatering, promoting both voluntary leak repairs and water conservation. Finally, AMR is a lasting product that will grow as the City grows, allowing for additional accounts within the existing software configuration.

AMR IS EFFICIENCY, and the City of Yuma Utilities Department is proud to provide AMR as the meter-reading method for all of our customers.

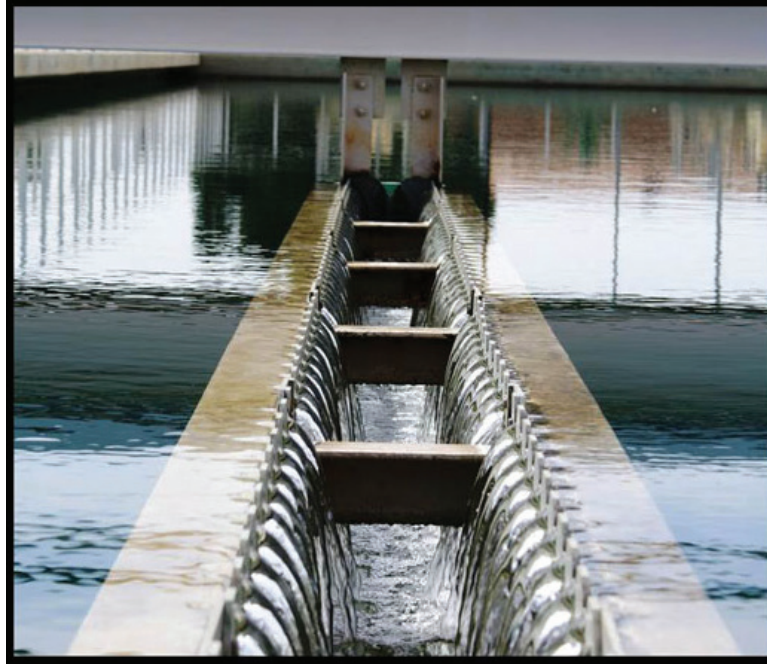
If you have any questions about your water usage and history, contact Customer Service at (928) 373-5076.



A water meter is fitted with a transmitter to send consumption reading to the meter reader's computer.

Treatment Train Description

The City of Yuma Main Street Water Treatment Facility uses conventional water treatment methods. Raw water is pretreated with either chlorine gas or chlorine dioxide. Treatment chemicals (alum and polymer) are added, which cause small particles in the water to adhere to one another (called floc), making them heavy enough to settle to the bottom of the basin. The treated water then flows from the sedimentation basins to the filters. As smaller, suspended particles are removed, turbidity disappears and clear water emerges. Fluoride is added to prevent tooth decay, and chlorine is added for disinfection before the water is distributed in the water system.



Water from the sedimentation basin flows over a weir

The Agua Viva Water Treatment Facility treats both groundwater and surface water.

The Agua Viva Water Treatment Facility uses water from a series of groundwater wells. Groundwater is extracted from the wells, and iron and manganese are removed. The treated groundwater enters into storage tanks before disinfection and being distributed in the water system.

The surface water treatment process uses an advance membrane treatment technology. Raw water is sent through a 500-micron screen, adding alum to coagulate particles, and then sent to the membrane filtration system. After the water passes through the membranes, treated water receives a dose of fluoride to prevent tooth decay. Finally, the water enters storage tanks being disinfected and distributed in the water system.

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



Membrane Filter Display

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 material, 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;

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.

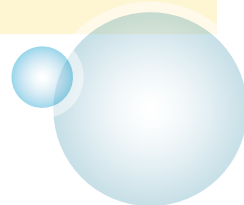
Sampling Results

In 2014, the City of Yuma conducted all water quality testing required by State and Federal regulations plus many more tests than regulations required. Testing revealed that the City's drinking water quality met all regulatory standards set to safeguard public health. The data tables below present 2014 test results and corresponding water quality standards. The tables show only those contaminants that were detected in the water.

The State requires us to monitor for certain substance less often than once per year because the concentrations of 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. Contact us for more information on this program

REGULATED SUBSTANCES											
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	Main Street Treatment Facility		City of Yuma Distribution System		Agua Viva Treatment Facility		VIOLATION	TYPICAL SOURCE
				AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
Alpha Emitters (pCi/L)	2011	15	0	1.3	NA	NA	NA	NA	NA	No	Erosion of natural deposits
Arsenic (ppb)	2014	10	0	2.7	NA	NA	NA	2.4	NA	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2014	2	2	0.096	NA	NA	NA	0.090	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2014	[4]	[4]	NA	NA	1.12	0.11–1.12	NA	NA	No	Water additive used to control microbes
Fluoride (ppm)	2014	4	4	0.49	NA	NA	NA	0.38	NA	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs]–Stage 2 (ppb)	2014	60	NA	NA	NA	10	5.5–16	NA	NA	No	By-product of drinking water disinfection
Nitrate (ppm)	2014	10	10	0.28	NA	NA	NA	0.25	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes]–Stage 2 (ppb)	2014	80	NA	NA	NA	47	28–71	NA	NA	No	By-product of drinking water disinfection
Total Coliform Bacteria (% positive samples)	2014	5% of monthly samples are positive	0	NA	NA	0.16	NA	NA	NA	No	Naturally present in the environment
Turbidity ¹ (NTU)	2014	TT	NA	0.111	0.030–0.111	NA	NA	0.145	0.010–0.145	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2014	TT	NA	100	NA	NA	NA	100	NA	No	Soil runoff
Uranium (ppb)	2011	30	0	2.8	NA	NA	NA	5.8	NA	No	Erosion of natural deposits



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)	2012	1.3	1.3	0.068	0/100	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2012	15	0	0.62	0/100	No	Corrosion of household plumbing systems; Erosion of natural deposits

UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Main Street Treatment Facility		Agua Viva Treatment Facility		TYPICAL SOURCE
		AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	
Sodium (ppm)	2014	120	NA	120	NA	Naturally present in the environment

UNREGULATED CONTAMINANT MONITORING REGULATION (UCMR3)

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Main Street Treatment Facility		Agua Viva Treatment Facility		Main Street Maximum Resident Sample Site		Agua Viva Maximum Resident Sample Site	
		AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH
Bromomethane (ppb)	2014	0.066	NA	NA	NA	NA	NA	NA	NA
Chlorate ² (ppb)	2014	82	NA	240	NA	110	NA	230	NA
Chromium [Total] ² (ppb)	2013	NA	NA	0.23	NA	NA	NA	NA	NA
Chromium-6 (ppb)	2013	NA	NA	0.032	NA	NA	NA	NA	NA
Molybdenum ² (ppb)	2014	5.4	NA	5	NA	5.2	NA	4.9	NA
Strontium ² (ppb)	2014	1,100	NA	1,000	NA	1,100	NA	1,000	NA
Vanadium ² (ppb)	2014	1.8	NA	1.6	NA	1.7	NA	1.6	NA

¹ Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

² This substance was part of our UCMR3 sampling schedule.

Definitions

AL (Action level): The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a community water system shall 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

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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).

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.