2020 Water Quality

Consumer Confidence Report

Public Water System AZ04-04-032

Town of Payson
303A N. Beeline Highway
Payson, AZ 85541

The Town of Payson Water Department is pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, its contents, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing information because informed customers are our best allies. Working closely with the U.S. Environmental Protection Agency (EPA), and the Arizona Department of Environmental Quality (ADEQ) to ensure we are meeting or surpassing all drinking water standards, assuring you receive safe, high quality, and reliable drinking water.

Payson's Water Source(s)

Town of Payson Water Department is a public water utility that supplies drinking water to approximately 17,000 customers within a 16 square mile area. Our system includes 1 treatment plant and 32 active production groundwater wells that draw water from an aquifer consisting of a series of complex random cracks and fractures in the granite rock beneath the town. The water distribution system has 8.6 million gallons storage capacity, 9 booster pumping stations, 1 water remediation facility, up to 8 recharge wells and more than 200 miles of pipe lines. A staff of 20 full-time employees provides a variety of services for our customers. The Town is treating surface water from the Cragin Reservoir to meet its municipal demand and storing excess treated surface water in the underlying fractured bedrock aquifer.

2020 Statistics

1 acre foot = 325,851 gallons

CC Cragin Water Right = 3,000 acre feet

Town of Payson Claimed 90% = 2,695 acre feet

Recharge into Aquifer 85% = 1,752 acre feet

With natural recharge & injection there is 22 months of storage replaced in the ground

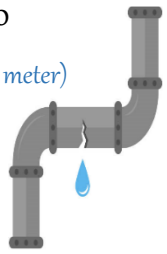
Total active connections = 8,630 accounts

Water delivered to customers = 2,055 acre feet

Average daily per capita usage = 90.3 gallons

Service Line repairs = 60

(Service connection from main pipe to meter)



Main Line repairs = 21

Total Line Repairs = 81

Payson's groundwater is considered hard. The hardness is due to dissolved minerals primarily calcium and magnesium in the water. These minerals are not harmful, but can leave white spots on glassware and plumbing fixtures. The most recent testing of our active wells showed hardness in the range of 62–230 ppm (3.6–13 gpg).

C.C. Cragin's surface water is considered soft, with a median hardness of 28 ppm (1.6 gpg). The town buffers the water by adding minerals to stabilize the water and prevent corrosion.

Groundwater is treated by adding a small amount of Sodium Hypochlorite also known as liquid bleach or Calcium Hypochlorite to disinfect the water and prevent bacterial growth.

Surface water from C.C. Cragin Reservoir is treated by microfiltration and granular activated carbon. Next, lime and carbon dioxide are added to buffer the water and prevent corrosion. The final process includes adding a small amount of Sodium Hypochlorite to disinfect and prevent bacterial growth.

The Town of Payson does not add fluoride to its drinking water. Fluoride is naturally occurring in our groundwater with an average concentration of 0.5 ppm. Testing of C.C. Cragin water showed levels of fluoride in the range of 0.042 ppm or less.

Reporting Deficiency Violation: During the 4th quarter 2020 compliance period, Disinfection By-Products were sampled and individual sites were reported to ADEQ, unfortunately the Quarter Report was not submitted in a timely manner which resulted in a violation. The late report was received and entered into the ADEQ database, making the Tow of Payson in full compliance.

General Information about Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of contaminants. In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations which limit the amount of contaminants in water provided by public water systems. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The EPA and the Arizona Department of Environmental Quality (ADEQ) require us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 can be particularly at risk for infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, other microbial contaminants, contaminants and potential health effects are available from the Safe Drinking Water Hotline (800) 426-4791.

The sources of drinking water (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. Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria 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, mining, or farming.
- **Pesticides and herbicides,** that 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, are byproducts of industrial processes and petroleum production, can also come from gas stations, urban storm water runoff, and septic systems.
- **Radioactive contaminants**, that can be naturally occurring or be the result of oil and gas production and mining activities.

On August 05, 2003, ADEQ staff published a Source Assessment document that provides detailed information on the Town of Payson's drinking water sources and the vulnerability of those sources to contamination. Based on currently available information, ADEQ determined that our source water is susceptible to possible future contamination. Source Water Assessments are on file with the Arizona Department of Environmental Quality and available for public review at: ADEQ, 1110 W. Washington Street, Phoenix, AZ 85007. The following lists examples of potential sources of contamination and their detected substances.

- **Barium**, Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
- **Copper**, Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
- **Fluoride**, Erosion of natural deposits; Discharge from fertilizer and aluminum factories.
- **Gross Alpha**, Erosion of natural deposits
- **Haloacetic Acids**, Byproduct of drinking water chlorination
- **Lead**, Corrosion of household plumbing systems; Erosion of natural deposits
- **Nitrate**, Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
- **Combined Radium**, Erosion of natural deposits
- **Tetrachloroethylene**, Discharge from dry cleaners
- **Total Trihalomethanes**, By-product of drinking water chlorination
- **Xylenes,** Byproduct of Storage Reservoir Coating

TERMS & ABBREVIATIONS

To help you understand the terms and abbreviations used in this report, we have provided the following definitions:

- **Action Level (AL)** - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Maximum Contaminant Level (MCL)** - The "Maximum Allowed" is 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.
- **Maximum Contaminant Level Goal (MCLG)** - The "Goal" is 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.
- **Maximum Residual Disinfectant Level (MRDL)** - 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.
- **Maximum Residual Disinfectant Level Goal (MRDLG)** - 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.
- **N/A** = not applicable; **N/D** = not detected
- **Parts per million (ppm) or Milligrams per liter (mg/L)** - one part per million corresponds to one minute in two years or a single penny in $10,000.
- **Parts per billion (ppb) or Micrograms per liter (µg/L)** - one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
- **Picocuries per liter (pCi/L)** - Picocuries per liter is a measure of the radioactivity in water.
- **Locational Running Annual Average (LRAA)** - An average of monitoring results for the previous 12 calendar months.

HEALTH EFFECT INFORMATION

About The Water Quality Data Table

ARSENIC

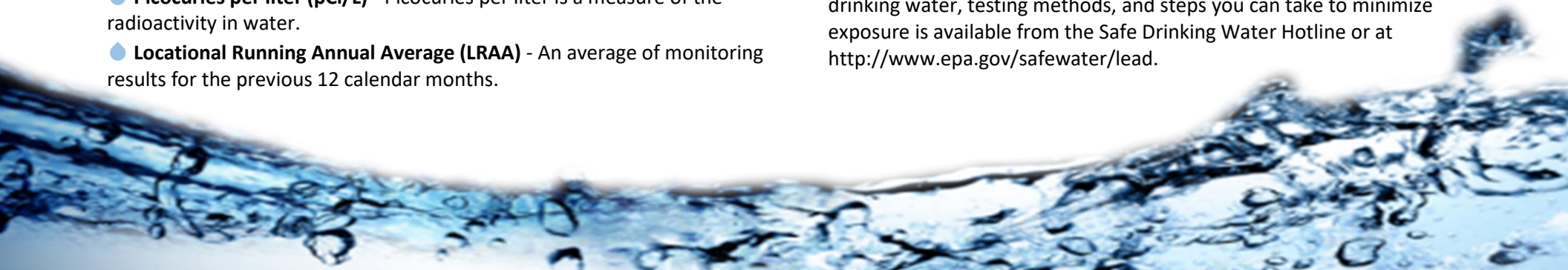
While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

NITRATE

In drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods-of-time because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider.

LEAD

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. The Town of Payson 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 http://www.epa.gov/safewater/lead.



Water Quality Analysis

The Water Quality Table lists all of the drinking water contaminants that were detected during the 2020 calendar year. As such, some of our data, though representative, may be more than one year old. Although many more contaminants were tested, only detected constituents of concern deemed by primary drinking water standards are listed.

The table show results of our monitoring for the period of January 1 to December 31, 2020 for PWS 04-04032, unless otherwise noted.

Microbiological Contaminants	Unit	MCL	MCLG	Low Range	High Range	Avg. Detected	Violation	Likely Source of Contamination
Revised Total Coliform Rule (RTCR) 240 Annual routine samples	Present/ Absent	TT	0	Absent	Absent	Absent	No	Naturally present in the environment

Disinfectants and Disinfection By-Products	Unit	MCL	MCLG	Low Range	High Range	Avg. Detected	Violation	Likely Source of Contamination
Total Trihalomethanes (TTHMs)	ppb	80	N/A	0.77	92	51.1	No	By-product of drinking water disinfection
Total Haloacetic Acids (HAAs)	ppb	60	N/A	<2	62	23.3	No	By-product of drinking water disinfection

Compliance is based on a system wide locational running annual average, not the highest detected amount.

Chlorine Residual	Unit	MCL	MCLG	Low Range	High Range	Avg. Detected	Violation	Likely Source of Contamination
	ppm	4	4	0.03	2.4	0.6	No	Water additive used to control microbes

Lead and Copper	Unit	AL	MCLG	90th Percentile Value	Sites Exceeding Action Level	Likely Source of Contamination
Lead	ppm	0.015	0	0.002	0	Corrosion of household plumbing
Copper (30 samples-Biannually)	ppm	1.3	1.3	0.053	0	Corrosion of household plumbing

Lead and Copper Rule Standard: 90% of homes tested must have lead and copper levels below the action level.

Inorganic Contaminants	Unit	MCL	MCLG	Low Range	High Range	Avg. Detected	Violation	Likely Source of Contamination
Arsenic	ppb	10	0	1	2.9	0.5	No	Erosion of natural deposits; runoff from orchards, glass and electronic production wastes
Barium	ppm	2	2	N/D	0.2	0.1	No	Discharge of drilling wastes; from metal refineries; erosion of natural deposits
Fluoride	ppm	4	4	N/D	1.8	0.5	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate as N	ppm	10	10	0.1	4.8	1.3	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	ppm	N/A	N/A	6.5	57	20.9	No	Erosion of natural deposits
Radionuclides								
Gross Alpha	pCi/L	15	0	0.2	2.5	0.6	No	Erosion of natural deposits
Radium 226	pCi/L	5	0	0.4	0.6	0.2	No	Erosion of natural deposits
Radium 228 (2019)	pCi/L	5	0	N/D	0.8	0.8	No	Erosion of natural deposits
Uranium	pCi/L	30	0	0.4	12.3	5.8	No	Erosion of natural deposits
Organic Contaminants								
Toluene	ppm	1	1	0.0005	0.0005	0.0005	No	Discharge from petroleum factories
Tetrachloroethylene (2017)	ppb	5	0	N/D	0.70	N/D	No	Discharge from metal degreasing sites and other factories

FOR MORE INFORMATION ABOUT YOUR DRINKING WATER

The Town of Payson is committed to providing a safe and sufficient supply of drinking water for our community both now and in the future. If you have any questions about your drinking water, please call:

Gordon Dimbat, Water Quality & Treatment Manager
(928) 472-5109
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Town of Payson's Web Site:
www.paysonaz.gov

This report is available online at:
Water Quality Report
EPA's Safe Drinking Water Hotline and website:
(800) 426-4791
EPA Ground and Drinking Water
Arizona Department of Environmental Quality
(602)771-4617
ADEQ Water Quality Program
A paper version of this report is available at
Town of Payson Water Department,
303 N. Beeline Highway, Bldg. A,
Or
The Payson Public Library.