



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



2021 Water Quality Consumer Confidence Report

Public Water System AZ04-04-032

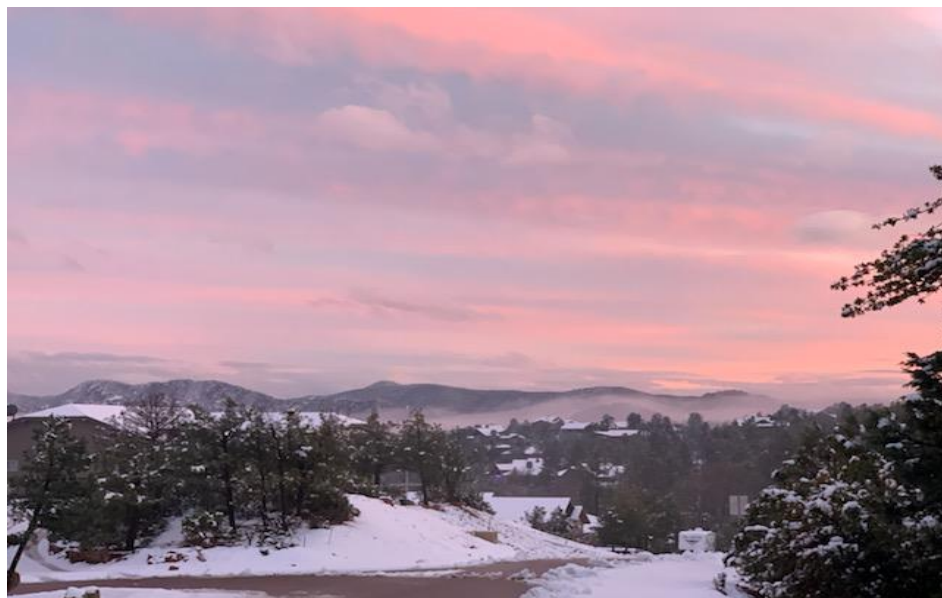


Each year, the Town of Payson produces an annual Consumer Confidence Report that contains information regarding the quality of the potable water provided. Information includes the origin of Payson's water supply, constituents in the water and how the concentration of those constituents in the potable water compares to the standards set by the Environmental Protection Agency (EPA) under the Safe Drinking Water Act (SDWA). The purpose of this report is to familiarize water customers with Payson's daily efforts to meet water quality standards, quantity demands and provide a comprehensive understanding of the water utilities

In 2021, the Town of Payson Water Department distributed 634 million gallons of potable water to Payson customers, averaging approximately 107 gallons daily per capita. In addition to required sampling and monitoring, the results of which are provided in this report, potable water is routinely monitored for additional constituents to ensure Payson's water is safe and of the highest quality.



Town of Payson Water Department is a public water utility that supplies drinking water to approximately 8626 active accounts within a 16 square mile area. Our system includes 1 treatment plant and 36 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 21 well trained and reliable 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.



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 96-310 ppm (5.6-18 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.

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
- ◆ **Nephelometric Turbidity Units (NTU)**
Measurement of the clarity or turbidity of water
- ◆ **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 2021 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, 2021 for PWS 04-04032, unless otherwise noted.

Microbiological Revised Total Coliform Rule (RTCR)	Unit	MCL	MCLG	Low Range	High Range	Running Annual Average	Violation	Likely Source of Contamination
Total Coliform/E.coli (240 Annual routine samples)	Present/ Absent	TT	0	Absent	Absent	Absent	No	Naturally present in the environment
Disinfection By-Products, Disinfectants and Surface Water Rule	Unit	MCL	MCLG	Low Range	High Range	Running Annual Average	Violation	Likely Source of Contamination
Total Trihalomethanes (TTHMs)	ppb	80	N/A	1.2	74	20.5	No	By-product of drinking water disinfection
Total Haloacetic Acids (HAAs)	ppb	60	N/A	1.3	2.2	1.8	No	By-product of drinking water disinfection
<i>Compliance is based on a system wide locational running annual average, not the highest detected amount.</i>								
	Unit	MCL	MCLG	Low Range	High Range	Running Annual Average	Violation	Likely Source of Contamination
Chlorine Residual	ppm	4	4	0.06	2.16	0.67	No	Water additive used to control microbes
				Low Range	High Range	Highest Detected	Violation	Likely Source of Contamination
Turbidity (Surface Water)	NTU	-	-	0.012	0.073	0.073	No	Soil runoff
Lead and Copper	Unit	AL	MCLG	90 th Percentile Value		Sites Exceeding Action Level		Likely Source of Contamination
Lead	ppm	0.015	0	0.0045		0		Corrosion of household plumbing
Copper	ppm	1.3	1.3	0.2200		0		Corrosion of household plumbing
<i>Lead and Copper Rule Standard: 90% of homes tested must have lead and copper levels below the action level.</i>								
Inorganic Contaminants	Unit	MCL	MCLG	Low Range	High Range	Avg. Detected	Violation	Likely Source of Contamination
Arsenic	ppb	10	0	N/D	3.2	1	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	1.2	0.47	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate as N	ppm	10	10	N/D	4.9	1.3	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium	ppm	N/A	N/A	8.5	56	20.77	No	Erosion of natural deposits
Radionuclides								
Gross Alpha (2020-2021)	pCi/L	15	0	N/D	2.5	0.6	No	Erosion of natural deposits
Radium 226 (2020-2021)	pCi/L	5	0	N/D	1.2	0.2	No	Erosion of natural deposits
Uranium (2020-2021)	pCi/L	30	0	N/D	12.3	6.6	No	Erosion of natural deposits
Secondary Standards Constituents of Frequent Interest to Customers	Unit	2 nd MCL	2 nd MCLG	Low Range	High Range	Avg. Detected	Violation	Noticeable Effects above Secondary MCL
Total Hardness	ppm	-	-	96	310	202.6	No	Mineral buildup on items;
	Grains	-	-	5.6	18.08	11.82	No	
Iron	ppm	0.3	-	N/D	0.25	0.08	No	Rusty Color; sediment; metallic taste; reddish or orange staining

2021 Statistics

1 acre foot = 325,851 gallons

CC Cragin Water Right = 550 acre feet
Town of Payson Claimed 20% = 523 acre feet
Recharge into Aquifer 5% = 150 acre feet

With natural recharge & injection there is 16 months of storage replaced in the ground for 2021

Total active connections = 8,626 accounts
Water delivered to customers = 1,948 acre feet
Average daily per capita usage = 107 gallons
Service Line repairs = 46
(Service connection from main pipe to meter)
Main Line repairs = 16
Total Line Repairs = 62

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
gdimbat@paysonaz.gov (928) 472-5109
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.