2013 WATER QUALITY REPORT

The 2013 Water Quality Report provides important information about the source and quality of your drinking water. **In 2013, our test results showed once again that we are in full compliance with all federal and state drinking water standards.**

From a Well into Your Home or Business

The Town of Payson Water Department(Public Water System AZ04-04032) is a public water utility that supplies drinking water to approximately 17,000 customers within a 16 square mile area. The water system includes 41 active production wells, 8.1 million gallons storage capacity, nine booster pumping stations, one water remediation facility and more than 150 miles of pipe lines. A staff of 19 full-time employees provides a variety of services for our customers.

Payson obtains all its water supply from groundwater stored in a series of complex and random cracks and fractures in the granite rock beneath the town. The only substance that is added to the water is a small amount of chlorine to disinfect the water and prevent bacterial growth. To ensure that the water is microbiologically safe, the Town collects samples throughout the system at least once every month.

HOW IS OUR WATER TESTED?

In order to ensure that we not only have water of sufficient quantity, but also of sufficient quality, the U.S Environmental Protection Agency (EPA) and the Arizona Department of Environmental Quality require all public water systems to test the water they deliver on a frequent basis.

Water from each approved drinking water well is tested for several different types of contaminants, which include the following:

1) Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

2) 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 and farming.

3) Pesticides and Herbicides, which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.

4) Organic Chemicals, including synthetic and volatile organics which are by-products of industrial processes and petroleum production, and can come from gas stations, urban storm water runoff, and septic systems.

5) Radioactive contaminates, that can be naturally occurring or be the result of oil and gas production or mining activities.

The Water Quality Table on Page 5 lists the quantities of substances that were detected in our water. None of the substances found in Payson's water exceed the Maximum Contamination Levels established by EPA for healthful water.

PROTECTING OUR WATER QUALITY

The Town of Payson Water Department tests the quality of Payson's drinking water for over 100 different substances. Our rigorous testing program ensures that your water meets or surpasses all federal and state requirements.

Health standards for drinking water are designed to detect and eliminate any unwanted substances long before they pose a threat to public health. If an unwanted contaminant is detected, the Town of Payson Water Department implements a strict set of established procedures to correct any problems immediately.

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 Dan Utz, Water Quality Specialist at 474-5242 ext.235

Town of Payson's Web Site www.paysonaz.gov
This report is available online at:
http://www.paysonaz.gov/wqr-13.pdf

Environmental Protection Agency's Safe Drinking Water Hotline
(800) 426-4791 www.epa.gov/drink/

Arizona Department of Environmental Quality (800) 234-5677
www.adeq.state.az.us/environ/water/dw/health.html

The Town Council may make decisions that affect the quality of our water, and you are invited to participate.

Meeting notices are published in the local newspaper, and posted at Town Hall (303 North Beeline Highway).

Vulnerable Population

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of contaminants. The presence of these 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 EPA's Safe Drinking Water Hotline (1-800-426-4791).
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* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

The sources of drinking water (both tap 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.
The Town of Payson Water Department appreciates the time you are spending to learn more about the quality of the water we provide to you and your family. If you have any questions or comments about your drinking water, please call us at (928) 474-5242 ext. 235

Health and Safety Standards

Drinking water standards in Arizona are placed into two major categories: primary and secondary, with upper limits, known as maximum contaminant levels (MCLs) established for each primary, regulated contaminant.

Primary standards specifically relate to your health and are generally based on health effects which may occur if a person were to drink two liters (about two quarts) of water each day for 70 years. Secondary standards relate to the aesthetic qualities of your water, such as taste, odor, and color.

These standards are continually reviewed and revised, as laboratories develop new methods of analyzing samples. Many drinking water samples are tested for contaminants in quantities lower than one part per billion. This quantity is so small, that it's equivalent to taking a one second vacation in 35 years!
Water suppliers are challenged every day to meet dramatically increasing standards for the treatment and distribution of an often limited water supply. As technology improves, laboratories are able to detect lower concentrations of substances in water, and the water standards change in response. Currently, the Payson Water Department tests the town's drinking water for over 100 different contaminants.

Maximum Contaminant Levels (MCLs) and Action Levels (ALs) are used to evaluate water quality and protect public health. The standards are shown in the Water Quality Chart on Page 5 and explained in detail throughout the section below.

Understanding Water Quality Results

The Water Quality Table on Page 5 shows the results of our water testing. Every regulated substance that was detected in the water, even in the most minute quantities, is listed.

Results listed in the table are from 2010 -2013, which presents the most recent information acquired in accordance with drinking water regulations.

The sample results are organized into two major tables:

1) The Primary Drinking Water Standards, which are limits established for regulated substances (either a Maximum Contaminant Level or Action Level), and

2) The Secondary Drinking Water Standards, which contain unregulated substances that public water systems are required to monitor, but that have no established regulatory limits.

The tables contains the name of each substance tested (parameter), the unit of measurement used (parts per million, parts per billion, or PicoCuries per liter), the highest level of that substance allowed by regulation (MCL), and the ideal limit of that substance established as a public health goal by federal and state agencies (MCLG). Standards for drinking water are established to provide a wide margin of safety between the level at which a contaminant is first detected and the level where a potential threat to public health could occur. Health-related information and potential sources of detected substances are also listed below to assist you in interpreting the test results.

Maximum Contaminant Level (MCL)

The highest level of a substance that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available technologies for treatment.

Maximum Contaminant Level Goal (MCLG) The level of a substance in drinking water below which there is no known or anticipated adverse health effects. This level is a non-enforceable health goal which allows an adequate margin of safety.

Action Level (AL)
The concentration of a substance, which if exceeded, triggers treatment or other requirements which a water system must follow.

PARAMETER	MAJOR POTENTIAL SOURCES OF DETECTED SUBSTANCES
Arsenic	Erosion of natural deposits; Runoff from herbicide use
Barium	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	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.
Total Xylenes	Byproduct of Storage Reservoir Coating

IS MY WATER REALLY SAFE TO DRINK?

Since its inception in 1980, the goal of the Payson Water Department has been to produce a safe, dependable water supply for our customers. **We are proud to report that our drinking water is in full compliance with the stringent Drinking Water Standards established by the United States Environmental Protection Agency (USEPA) and the Arizona Department of Environmental Quality (ADEQ).**
In order for the public to make well-informed personal health decisions, EPA requires the Town of Payson and all other public water systems to provide the following information to our customers:

Information Statement about 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(1-800-426-4791)or at www.epa/safewater/lead.

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 caring for an infant, and detected nitrate levels are above 5 ppm, you should ask advice from your health care provider.

If **arsenic** is less than or equal to the MCL, your drinking water meets EPA standards. EPA's standard balances the current understanding of arsenic's possible health effects against the cost 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.

Payson
Water Department

303A N. Beeline Highway
Payson, AZ 85541

Source Water Assessment

On August 05, 2003, Arizona Department of Environmental Quality (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. For further information or to request a copy of the final source water assessment report, contact the Payson Water Department at (928) 474-5242, Ext 235.

What Can You Do To Help?

It's much easier and far less expensive to prevent a water pollution problem than it is to clean it up. You can help protect the quality of our drinking water by following these simple guidelines:

1) **Use herbicides, insecticides and fertilizers sparingly.**
2) **Recycle old car batteries, used motor oil and other fluids.**
3) **Take hazardous household products, including solvents, paints and chemicals to a proper disposal center.**
4) **Unused medicines and pharmaceutical/prescription products can be disposed of at the police department.**

Frequently Asked Questions

What is the Hardness of Payson Water?
The most recent testing of Payson's 41 active wells showed a hardness in the range of 62 – 370 ppm (3.6 – 21.6 gpg) with a median of 216 ppm (12.6 gpg), comparable to many Western cities' water supplies.

Does the Town of Payson add Fluoride to its Drinking Water?
No, the Town of Payson does not add fluoride to its drinking water. Fluoride is naturally occurring in Payson groundwater with an average concentration of 0.62 ppm

WATER QUALITY ANALYSIS

PARAMETER	DATE	UNIT	MCL	MCLG	Town of Payson Drinking Water Sources Payson Groundwater
PRIMARY DRINKING WATER STANDARDS - Mandatory Health-Related Levels Established by EPA and ADEQ.					
BIOLOGICAL MONITORING - 20 Samples required each month for the entire water distribution system.					
Total Coliform	2013		1	0	Highest Monthly Number of Positive Samples = 0
DISINFECTANT RESIDUALS – 20 Samples required each month for the entire water distribution system.			**MRDL**	**MRDLG**	Running Annual Average / Range
Chlorine (Free)	2013	ppm	4	4	0.46 / N.D. – 1.5
LEAD AND COPPER - Compliance with Action Levels based on samples collected at source wells and thirty (30) customer taps.					
Lead Results - Homes	2013	ppb	15	0	90th Percentile = 4.7 0 Households >Action Level
Copper Results- Homes		ppm	1.3	1.3	90th Percentile = 0.26 0 Households >Action Level
Lead Results- Sources		ppb	~	~	Town-wide Source Level Range =<1.0 – 5.4
Copper Results-Sources		ppm	~	~	Town-wide Source Level Range = 0.05 – 0.35
RADIOCHEMICAL MONITORING					Average / Range
Gross Alpha	2013	pCi/l	15	0	8.1 / 5.4 - 13.3
Combined Radium	2013	pCi/l	5	0	0.7 / N.D. – 1.8
REGULATED INORGANIC COMPOUNDS					Average / Range
Arsenic	2013	ppb	10	10	0.63 / N.D. – 2.7
Barium	2013	ppm	2	2	0.085 / 0.0045 -0.34
Chromium	2013	ppb	100	100	0.048 / N.D. – 1.4
Fluoride	2013	ppm	4	4	0.62 / 0.23 – 1.9
Nitrate (as N)	2013	ppm	10	10	1.4 / N.D. – 4.7
REGULATED ORGANIC COMPOUNDS					Average / Range
Tetrachloroethylene	2013	ppb	5	0	0.079 / N.D. – 0.85
Xylenes(total)	2013	ppb	10000	10000	0.05 / N.D. – 1.0
DISINFECTION BYPRODUCT MONITORING					Average / Range
Total Trihalomethane (TTHM)	2013	ppb	80	0	5.1 / N.D. – 8.3
Haloacetic Acids (HAA)	2013	ppb	60	N/A	0.8 / N.D. – 1.3
SECONDARY DRINKING WATER STANDARDS - Aesthetic Levels Established by EPA and ADEQ.					
UNREGULATED INORGANIC COMPOUNDS					Range
Alkalinity	2010	ppm	~	~	66 - 320
Calcium	2010	ppm	~	~	16 - 84
Chloride	2010	ppm	~	~	3.6 - 78
Hardness, Total	2010	ppm	~	~	62 - 370 (3.6 – 21.6 gpg)
Iron	2010	ppm	~	~	N.D. - 18
Magnesium	2010	ppm	~	~	5.6 - 32
Manganese	2010	ppm	~	~	N.D. - 0.52
Nickel	2010	ppm	~	~	N.D. - 0.009
pH	2010	SU	~	~	6.9 – 8.3
Sodium	2013	ppm	~	~	11-55
Sulfate	2010	ppm	~	~	4.4 - 53
Total Dissolved Solids	2010	ppm	~	~	140 - 450
Zinc	2010	ppm	~	~	N.D.- 0.98

KEY TO CHART

MCL	Maximum Contaminant Level	~	Limits are not set for these parameters	N.D.	Not Detected
MCLG	Maximum Contaminant Level Goal	Range	Low to high measurements reported during the year	N/A	Not Applicable
MFL	Million Fibers per liter	Pci/l	Pico Curies per liter, measurement for radiochemicals	ppm	Parts per million
(<)	Less than amount indicated	gpg	Grains per gallon (Water Softener Terminology)	ppb	Parts per billion
MRDL	Maximum Residual Disinfection Level	MRDLG	Maximum Residual Disinfection Level Goal	TT	Treatment Technique