

ZO10 WATER QUALITY REPORT

"Working together for safe, dependable drinking water."

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"PAYSON

DRINKING WATER IS IN FULL COMPLIANCE WITH ALL DRINKING WATER STANDARDS ESTABLISHED BY FEDERAL AND STATE REGULATIONS."

FROM A WELL INTO YOUR Home or Business

The Town of Payson Water Department is a public water utility that supplies drinking water to approximately 18,650 customers within a 16 square mile area. The water system includes 42 active production wells, 8.6 million gallons storage capacity, nine booster pumping stations, two groundwater recharge projects, one water remediation facility and more than 150 miles of pipe lines. A staff of 20 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.

FOR MORE INFORMATION ABOUT YOUR DRINKING WATER

For specific information about this report, contact Karen Probert, Water Quality Specialist at (928) 474-5242, Ext. 235

Town of Payson's Web Site: www.paysonaz.gov

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

Arizona Department of Environmental Quality: (800) 234-5677 or 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). "SUPPLYING YOU AND YOUR FAMILY WITH A DEPENDABLE SUPPLY OF HIGH QUALITY DRINKING WATER IS OUR NUMBER ONE PRIORITY."



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 3 and explained in detail throughout the section below.

ADDITIONAL HEALTH AND MONITORING INFORMATION

Nitrate information

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 for advice from your health care provider.

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. Although nitrate has been detected in the town's drinking water wells, the level is well below the limits established by federal and state agencies.

What is UCMR2 and how does it affect you?

Beginning in 2008, public water systems were required to begin monitoring drinking water for a new series of unregulated contaminants for which the EPA has not developed standards. The purpose of the Unregulated Contaminant Monitoring Rule (UCMR2) is to assist the EPA in determining if these contaminants exist in drinking water, and whether future regulation is needed.

The Town of Payson Water Department tested all active water sources during 2010, for the following contaminants:

Dimethoate EPA 527 Terbufos sulfone EPA 527 2,2',4,4'-tetrabromodiphenyl ether (BDE-47) EPA 527 2,2',4,4',5-pentabromodiphenyl ether (BDE-99) EPA 527 2,2',4,4',5,5'-hexabromodiphenyl ether (BDE-153) EPA 527 2,2',4,4',5,5'-hexabromodiphenyl ether (BDE-153) EPA 527 2,2',4,4',6-pentabromodiphenyl ether (BDE-100) EPA 527 1,3-dinitrobenzene EPA 529 2,4,6-trinitrotoluene (TNT) EPA 529 Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)

2) The Secondary Drinking Water Standards, which contain unregulated substances that public water systems are required to monitor, but that have

Level).

The tables contain 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).

UNDERSTANDING WATER QUALITY

The Water Quality Table on Page 3 shows the results of our water testing.

Every regulated substance that was detected in the water, even in the most

Results listed in the table are from 2010, which is the most recent

information acquired in accordance with drinking water regulations. The

1) The Primary Drinking Water Standards, which are limits established

for regulated substances (either a Maximum Contaminant Level or Action

sample results are organized into two major tables:

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)

no established regulatory limits.

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)

RESULTS

minute quantities, is listed.

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 natural deposits; Leaching from wood preservatives				
1,2 Dichloroethane	Fluid From Damaged Pump Casing				
Dichloromethane	Fluid From Damaged Pump Casing				
Ethylbenzene	By-product of storage reservoir coating				
Fluoride	Erosion of natural deposits; Water additive which promotes strong teeth; 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				
Toluene	Discharge from drilling tape				
Total Trihalomethanes	By-product of drinking water chlorination				
Total Xylenes	By-product of storage reservoir coating				

We are pleased to report that none of these contaminants were detected in our drinking water.

WATER QUALITY ANALYSIS

PARAMETER	DATE	Unit	MGL	MCLG	TOWN OF PAYSON DRINKING WATER SOURCES				
					PAYSO	N 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	2010		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)	2010	ppm	4	4	0.47	N.D 1.97			
LEAD AND COPPER - Compliance with Action Levels based on samples collected at source wells and thirty (30) customer taps.									
Lead Results - Homes Copper Results- Homes Lead Results- Sources Copper Results-Sources	2010	ppb ppm ppb ppm	15 1.3 ~	0 1.3 ~ ~	90 th Percentile = 7 0 Households >Action Level 90 th Percentile = 0.37 0 Households >Action Level Town-wide Source Level Range = 0.5 - 8.4 Town-wide Source Level Range = <0.002 - 0.04				
RADIOCHEMICAL MONITORI	NG				Average	Range			
Gross Alpha Combined Radium	2010 2010	pCi/l pCi/l	15 5	0 0	6.6 0.6	2.5 - 13.0 N.D 0.6			
REGULATED INDRGANIC COMPOUNDS Average Range						Range			
Arsenic Barium Chromium Fluoride Nitrate (as N)	2010 2010 2010 2010 2010	ppb ppb ppb ppm ppm	$ \begin{array}{r} 10 \\ 2,000 \\ 100 \\ 4 \\ 10 \end{array} $	$0 \\ 2,000 \\ 100 \\ 4 \\ 10$	0.62 61 0.048 0.61 1.3	N.D2.6 6.4 - 340 N.D 1.4 0.23 - 1.7 N.D 4.4			
REGULATED ORGANIC COMPOUNDS Average Range									
1,2 Dichloroethane Dichloromethane Ethylbenzene Tetrachloroethylene Total Xylenes	2010 2010 2010 2010 2010 2010	ppb ppb ppb ppb ppb	5 5 700 5 10,000	0 0 700 0 10,000	0.19* 0.21* 0.05 0.15 0.19	N.D 12* N.D 13* N.D 1.0 N.D 1.3 N.D 4.3			
DISINFECTION BYPRODUCT	моніто	RING	1		Average	Range			
Total Trihalomethane (TTHM) Haloacetic Acids (HAA)	2010 2010	ppb ppb	80 60	0 N/A	7.1 1.3	3.0 - 11.2 N.D 2.6			
SECONDARY DRINKING WATER STANDARDS - AESTHETIC LEVELS ESTABLISHED BY EPA AND ADEQ.									
UNREGULATED INDRGANIC COMPOUNDS RANGE						Range			
Alkalinity Calcium Chloride Hardness, Total Iron Magnesium Manganese Nickel pH Sodium Sulfate Total Dissolved Solids Zinc	2010	ppm ppm ppm ppm ppm ppm SU ppm ppm ppm ppm				66 - 320 16 - 84 3.6 - 78 62 - 370 (3.6 - 21.6 gpg) N.D 18 5.6 - 32 N.D 0.52 N.D 0.009 6.9 - 8.3 11-55 4.4 - 53 140 - 450 N.D 0.98			

*Refer To The Additional Reporting Requirements Section On Page 4 For Further Information

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KEY TO CHART

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

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 infomation on the final source water assessment report, contact the Payson Water Department at (928) 474-5242, Ext 235.

REVISED MONITORING TO PROTECT YOUR HEALTH

Beginning in December, 2003, public water systems were required to revise their monitoring procedures for radiochemicals. Before the new regulation became effective, the Payson Water Department tested our groundwater wells for Radium-228 to prepare for the new requirements and qualify for future reductions in monitoring.

We are pleased to report that our drinking water wells are in compliance with the EPA standard for Radium-228.

NOTICE FOR 1,2 DICHLORDETHANE AND DICHLOROMETHANE

In October 2010, the Town of Payson detected levels of 1,2 Dichloroethane and Dichloromethane at 12ug/l and 13 ug/l, respectively in a sample collected from Granite Drive Well in the Payson North subdivision. The well was immediately re-sampled to confirm the initial test results, and then shut down to determine the source of contamination and implement corrective action.

The pump was removed from the well and examined. Inspection revealed a crack in the casing that allowed a small amount of lubricant to leak out into the water. The faulty pump was replaced and the well water was analyzed again in December, 2010. No further contaminants were detected and the well was returned to service.

Town staff will collect quarterly samples from the well to verify that the water continues to comply with all Federal and State health standards for drinking water. The Running Annual Average (RAA) for the fourth quarter of 2010 was 6.0 ug/l for 1,2 dichlorethane and 6.5 ug/l for dichloromethane. The fourth quarter RAA results will be averaged with additional sample results collected in the first, second and third quarters of 2011. The Town of Payson drinking water standards and has not violated the Maximum Contaminant Level (MCL) of 5 ug/l for Volatile Organic Chemicals (VOCs).

For more information, please call Karen Probert, Water Quality Specialist for the Town of Payson Water Department at (928) 474-5242, Ext 235.



TOWN OF PAYSON RESOLUTION NO. 1742 Water Conservation Level I Restrictions Now in Effect

- Water conservation resolution applies to public water system customers and users of private wells.
- 2. No NEW grass or EXPANSION of existing grass areas from seed or sod.
- Outside watering for even numbered addresses on Wednesdays, Fridays and Sundays and for odd numbered addresses on Tuesdays, Thursdays and Saturdays.
- 4. No watering between 9:00 AM and 6:00 PM.
- 5. No hosing sidewalks, driveways or parking lots.
- 6. No water waste allowed.
- 7. No water leaks allowed.
- 8. No water running off property.
- 9. No watering native pine trees or native plants.
- 10. No water running down street.
- No washing house or building unless with high pressure washer prior to painting.
- **12.** Car washing at commercial car wash, or on allowed days with a bucket and hose equipped with a positive cutoff nozzle.
- 13. Fill or refill pools, spas or wading pools only on odd-even address schedule.
- 14. No new outdoor swimming pools (built-in or above ground.)
- **15.** No water features larger than fifty (50) gallons capacity (must be equipped with a recirculating pump).
- **16.** Penalties for violation = \$20.00 \$200.00 and possible discontinuance of water service.



TOWN OF PAYSON WATER DEPT. 303 A NORTH BEELINE HWY. PAYSON, AZ 85541 Presort Std U.S. Postage PAID Payson, Arizona Permit No. 31

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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:

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.

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 naturallyoccurring 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.

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) Biological Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, and feedlots.

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) Radiochemicals, which may be naturally-occurring or result from man-made activities, such as nuclear power plants or uranium mining.

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.

The Payson Water Department has developed a new web site with additional information about your drinking water. For a current update, visit us at **www.paysonaz.gov.**

WHAT IS RADON?

Radon is a naturally-occurring radioactive gas found in soil and outdoor air that may also be found in drinking water and indoor air. Radon is formed from the normal radioactive decay of uranium. It is colorless, odorless and chemically inert.

The Payson Water Department has tested our groundwater wells for radon to prepare for future drinking water regulations. The amount of radon measured in our wells and reservoirs ranges from 315 to 7,710 pCi/L. If the proposed radon rule is finalized and implemented by the EPA, water systems in Arizona will probably be required to comply with an alternative maximum level for radon of 4,000 pCi/L. If this standard is utilized, the Town of Payson will be required to install treatment devices at several well sites to reduce the amount of naturally-occurring radon in the water.

Although the reduction of radon in drinking water may help to reduce the levels of radon in homes, this reduction is usually only about 1-2% of the total radon exposure from indoor air. In most cases, the main health risk is lung cancer from radon gas entering indoor air from soil under homes. The best way to reduce the overall risk from radon exposure is to test your home for radon gas and reduce radon levels if necessary. Testing your home for radon is simple and inexpensive. Fix your home if the level of radon in your air is 4 pCi/L or higher. To obtain more information, call the **Radon Hotline (1-800-767-7236)** or visit their website at www.epa.gov/radon.

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, fertilizers and other chemicals sparingly

2) Recycle old car batteries, used motor oil and other fluids

3) Take unwanted hazardous household products, including solvents, paints, chemicals, unused medicines and pharmaceutical/prescription products to a proper disposal center.