

CONSUMER CONFIDENCE REPORT (Annual Water Quality Report)

Report Covers Calendar Year: January 1 – December 31, 2011

Este informe contiene información muy importante sobre el agua usted bebe. Tradúscalo ó hable con alguien que lo entienda bien.

I. Public Water System (PWS) Information

PWS Name:	City of Williams				
PWS ID #	AZ04- 03026				
Owner / Operator Name:	City of Williams				
Telephone #	(928) 635-4451				
We want our valued customers to be informed about their water quality. If you would like to learn more about public participation or to attend any of our regularly scheduled meetings, please contact <u>City of Williams</u> at above _____ for additional opportunity and meetings dates and times.					

II. Drinking Water Sources

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 pickup substances resulting from the presence of animals or from human activity.

Our water source(s):	The City provides essential municipal services for its residents. Among these are water treatment/supply and wastewater treatment. The drinking water (potable) in Williams is produced at the City's Water Treatment Plant located on south 6 th Street. The City has two source water systems which include Surface water (lakes) and Groundwater (wells). Surface water is the City's major source and the system consists of 5 reservoirs: City Dam, Santa Fe Dam, Cataract Lake, Dogtown Lake and Kaibab Lake. Groundwater also may be blended with lake water in raw water lines, treated at the Water Plant and delivered to our customers.
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III. Consecutive Connection Sources

A public water system that receives some or all of its finished water from one or more wholesale systems by means of a direct connection or through the distribution system of one or more consecutive systems. Systems that purchase water from another system report regulated contaminants detected from the source water supply in a separate table. City of Williams does not buy or sell water to any other public water system.

IV. Drinking Water Contaminants

Microbial contaminants, such as viruses and bacteria that 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 stormwater 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 stormwater runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and also may come from gas stations, urban stormwater runoff, and septic systems.

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

V. Vulnerable Population

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. 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 of infections. These people should seek advice about drinking water from their health care providers. For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and microbiological contaminants call the EPA *Safe Drinking Water Hotline* at 1-800-426-4791.

VI. Source Water Assessment

The City's public water system received a Source Water Assessment (SWA) as follows: Based on the information currently available on the hydrogeologic settings of and the adjacent land uses that are in the specified proximity of the drinking water source(s) of this public water system, the Arizona Department of Environmental Quality has given a low risk designation for the degree to which this public water system drinking water source(s) are protected. A low risk designation indicates that most source water protection measures are either already implemented, or the hydrogeology is such that the source water protection measures will have little impact on protection. Specific water quality data has not been included in this report however, that information can be obtained by contacting ADEQ, 602-771-4641.

VII. Definitions

AL = Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements.

MCL = Maximum Contaminant Level - The "Maximum Allowed" is the highest level of a contaminant that is allowed in drinking water.

MCLG = Maximum Contaminant Level Goal - The "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to health.

MFL = Million fibers per liter.

MRDL = Maximum Residual Disinfectant Level.

MRDLG = Maximum Residual Disinfectant Level Goal.

MREM = Millirems per year - a measure of radiation absorbed by the body.

NA = Not Applicable, sampling was not completed by regulation or was not required.

NTU = Nephelometric Turbidity Units, a measure of water clarity.

PCi/L = Picocuries per liter - picocuries per liter is a measure of the radioactivity in water.

PPM = Parts per million or Milligrams per liter (mg/L).

PPB = Parts per billion or Micrograms per liter (µg/L).

PPT = Parts per trillion or Nanograms per liter.

PPQ = Parts per quadrillion or Picograms per liter.

TT = Treatment Technique - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

ppm x 1000 = ppb
ppb x 1000 = ppt
ppt x 1000 = ppq

VIII. Health Effects Language

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, 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's standards. 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.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. Flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the EPA Safe Drinking Water Hotline at 1-800-426-4791.

IX. Water Quality Data

Contaminant (units)	Violation Y / N	Highest Level Detected	Range Detected Absent (A) or Present (P)	MCL	MCLG	Sample Month Year	Likely Source of Contamination
Microbiological							
Total Organic Carbon (ppm)	N	5	1-5	TT	n/a	2011	Naturally present in the environment
Turbidity (NTU), surface water only	N	.60	.60	TT	n/a	Dec. 2011	Soil Runoff
Disinfectants							
Chlorine (ppm)	N	1.35	0.69-1.35	MRDL = 4	MRDLG = 4	2011	Water additive used to control microbes
Disinfection By-Products							
Chlorite (ppm)	N	0.3	0.1 - 0.3	1	0.8	2011	Byproduct of drinking water disinfection
Haloacetic Acids (ppb) (HAA5)	N	40	10 - 40	60	n/a	2011	Byproduct of drinking water disinfection
Total Trihalomethanes (ppb) (TTHM)	N	60	10 - 60	80	n/a	2011	Byproduct of drinking water disinfection
Radionuclides							
Alpha emitters (pCi/L)	N	1.1	1.1	15	0	Sept. 2008	Erosion of natural deposits
Inorganics							
Alkalinity (ppm)	N	103	103	N/A	N/A	Sept. 2011	
Barium (ppm)	N	0.05	0.05	2	2	May 2011	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Calcium (ppm)	N	18	18	N/A	N/A	July 2010	Corrosion of galvanized pipes; natural deposits; metal refineries; runoff from waste batteries and paint
Sodium (ppm)	N	20	20	N/A	N/A	May 2011	

X. *Cryptosporidium* Monitoring (surface water systems only)

We sampled for and did not detect *Cryptosporidium* in any finished water or source water.

We have to provide additional treatment if *Cryptosporidium* is found at greater than 0.075 oocyst per liter.

We believe it is important for you to know that *Cryptosporidium* may cause serious illness in 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. These people should seek advice from their health care providers.

XI. Stage 2 Disinfectants and Disinfection By-products Rule

Stage 2 DBP Rule requires some systems to complete an Initial Distribution System Evaluation (IDSE) to characterize DBP levels in their distribution systems and identify locations to monitor DBPs for Stage 2 DBP Rule compliance. Based on historic results, the City of Williams was not required to perform this additional sampling.

XII. Violations

Chlorite, the above named Disinfection By-Product (DBP), was being monitored while in use for the control of Manganese. For a period of approximately 4 weeks, a problem occurred with the test equipment and lab results were unable to be obtained and reported. The lack of information, and reporting, is considered a violation. While able to test these results, all levels fell below the MCL, as noted above. Since the occurrence, it has not been necessary to use the system, and the problem with the laboratory equipment has been corrected for any future use and reporting requirements.