Consumer Confidence Report
For Calendar Year 2016

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

I. Public Water System (PWS) Information

PWS ID Number	PWS Name	
AZ04 - 09026	City of Show Low	
Contact Person and Title	**Phone Number**	**E-Mail Address**
Cort Carpenter/Water Department Supervisor	928 532-4064	ccarpenter@showlowaz.gov

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 Tamra Reidhead at 928 532-4060 for additional opportunity and meeting 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.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

City of Show Low Water Sources;	Well 4 (55-620772), Well 5 (55-620773), Well 7 (55-620775), Well 8 (55-570999), Well 9 (55-574775). Well 10 (55-579465), Well 11 (55-205825), Well 13 (55-904169), Well 3A (55-608846), Well 3B (55-565467), Well 6A (55-509306), Well 6C (55-208626), Well 6D (55- 208625). The City of Show low's water source comes from the Coconino Aquifer.

III. Consecutive Connection Sources

Section Does Not Apply to City of Show Low Water System, No Consecutive Sources

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 by-products 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 from 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 of Show Low has completed a Source Water Assessment (SWA). CCR High Risk.

Based on the information available on the hydrogeological 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 us a high risk designation for the degree to which this public water system drinking water source(s) are protected. A designation of high risk indicates there may be additional source water protection measures which can be implemented on the local level. This does not imply that the source water is contaminated nor does it mean that contamination is imminent. Rather, it simply states that land use activities or hydrogeological conditions exist that make the source water susceptible to possible future contamination.

Source water assessment documentation can be obtained by contacting ADEQ, 602-771-4641 or on file at the City of Show low's Public Works Office.

VII. Definitions

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

MCL = Maximum Contaminant Level – The highest level of a contaminant that is allowed in drinking water.

MCLG = Maximum Contaminant Level Goal - 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. The level of disinfectant added for water treatment that may not be exceeded at the consumer's tap.

MRDLG = Maximum Residual Disinfectant Level Goal. The level of disinfectant added for treatment at which no known or anticipated adverse effect on health of persons would occur.

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.

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

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

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.

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 City of Show low** 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 www.epa.gov/safewater/lead.

IX. Water Quality Data

Microbiological	**Violation Y or N**	**Number of Samples Present OR Highest Level Detected**	**Absent (A) or Present (P) OR Range of All Samples (L-H)**	**MCL**	**MCLG**	**Sample Month & Year**	**Likely Source of Contamination**
Total Coliform Bacteria (System takes ≥ 40 monthly samples) 5% of monthly samples are positive; (System takes ≤ 40 monthly samples) 1 positive monthly sample	N	0	A	0	0	Twice month 15 samples	Naturally Present in Environment
Fecal coliform and E. Coli (TC Rule)	N	0		0	0	Twice/ month	Human and animal fecal waste
Fecal Indicators (E. coli, enterococci or coliphage) (GW Rule)				TT	n/a		Human and animal fecal waste
Total Organic Carbon (ppm)		n/a		TT	n/a		Naturally present in the environment
Turbidity (NTU), surface water only		n/a		TT	n/a		Soil Runoff
Disinfectants	**Violation Y or N**	**Running Annual Average (RAA)**	**Range of All Samples (L-H)**	**MCL**	**MCLG**	**Sample Month & Year**	**Likely Source of Contamination**
Chloramines (ppm)	n/a			MRDL = 4	MRDLG = 4		Water additive used to control microbes
Chlorine (ppb)	N	0.22	0.11 – 0.25	MRDL = 4	MRDLG = 4	Twice/ Month	Water additive used to control microbes
Chloride dioxide (ppb)	n/a			MRDL = 800	MRDLG = 800		Water additive used to control microbes
Disinfection By-Products	**Violation Y or N**	**Running Annual Average (RAA) OR Highest Level Detected**	**Range of All Samples (L-H)**	**MCL**	**MCLG**	**Sample Month & Year**	**Likely Source of Contamination**
Haloacetic Acids (ppb) (HAA5)	N	< 0.0020	0.0	60	n/a	Aug 16	Byproduct of drinking water disinfection
Total Trihalomethanes (ppb) (TTHM)	N	0.0015	0.0 – 1.2	80	n/a	Aug 16	Byproduct of drinking water disinfection
Bromate (ppb)	n/a			10	0		Byproduct of drinking water disinfection
Chlorite (ppb)	n/a			1	0.8		Byproduct of drinking water disinfection
Lead & Copper	**Violation Y or N**	**90th Percentile AND Number of Samples Over the AL**	**Range of All Samples (L-H)**	**AL**	**ALG**	**Sample Month & Year**	**Likely Source of Contamination**
Copper (ppb)	N	90th Percentile = 0.029 30 samples		AL = 1.3	ALG = 1.3	Aug 16	Corrosion of household plumbing systems; erosion of natural deposits

Lead (ppb)	N	90th Percentile = 4.0 30 samples		AL = 15	0	Aug 16	Corrosion of household plumbing systems; erosion of natural deposits
Radionuclides	**Violation Y or N**	**Running Annual Average (RAA) OR Highest Level Detected**	**Range of All Samples (L-H)**	**MCL**	**MCLG**	**Sample Month & Year**	**Likely Source of Contamination**
Beta / photon emitters (mrem/yr.)				4	0		Decay of natural and man-made deposits
Alpha emitters (pCi/L) ***(this is Gross Alpha 4002)***	N	9.0		15	0	Jun 14	Erosion of natural deposits
Combined Radium 226 & 228 (pCi/L)	N	0.7		5	0	Jun 14	Erosion of natural deposits
Uranium (ug/L)				30	0		Erosion of natural deposits
Inorganic Chemicals (IOC)	**Violation Y or N**	**Running Annual Average (RAA) OR Highest Level Detected**	**Range of All Samples (L-H)**	**MCL**	**MCLG**	**Sample Month & Year**	**Likely Source of Contamination**
Antimony (ppb)	N	< 5		6	6	May 16	Discharge from petroleum refineries; fire retardants; ceramics, electronics and solder
Arsenic (ppb)	N blended	0.010.5	2.1 – 10.5.	10	0	July16	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
Asbestos (MFL)	N	<0.2		7	7	Mar 16	Decay of asbestos cement water mains; Erosion of natural deposits
Barium (ppb)	N	0.04		2	2	Mar 16	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits
Beryllium (ppb)	N	< 2.0		4	4	Mar 16	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium (ppb)	N	< 0.1		5	5	Mar 16	Corrosion of galvanized pipes; natural deposits; metal refineries; runoff from waste batteries and paints
Chromium (ppb)	N	< 5.0		100	100	Mar 16	Discharge from steel and pulp mills; Erosion of natural deposits
Cyanide (ppb)	N	< 10.0		200	200	Mar 16	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories
Fluoride (ppb)	N	0.18		4	4	Mar 16	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Mercury (ppb)	N	< 0.2		2	2	Mar 16	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills and cropland.
Nitrate (ppb)	N	< 0.20		10	10	Sep 16	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (ppb)	N	< 0.10		1	1	Mar 16	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural

							deposits
Selenium (ppb)	N	0.0060		50	50	Mar 16	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppb)	N	8.0		N/A	N/A		N/A
Thallium (ppb)	N	<0.5		2	0.5	Mar 16	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
Synthetic Organic Chemicals (SOC)	**Violation Y or N**	**Running Annual Average (RAA) OR Highest Level Detected**	**Range of All Samples (L-H)**	**MCL**	**MCLG**	**Sample Month & Year**	**Likely Source of Contamination**
2,4-D (ppb)	N	<0.1		70	70	Mar 16	Runoff from herbicide used on row crops
2,4,5-TP (a.k.a. Silvex) (ppb)	N	<0.2		50	50	Mar 16	Residue of banned herbicide
Acrylamide				TT	0	Mar 16	Added to water during sewage / wastewater treatment
Alachlor (ppb)	N	<0.1		2	0	Mar 16	Runoff from herbicide used on row crops
Atrazine (ppb)	N	<0.1		3	3	Mar 16	Runoff from herbicide used on row crops
Benzo (a) pyrene (PAH) (ppt)	N	<0.02		200	0	Mar 16	Leaching from linings of water storage tanks and distribution lines
Carbofuran (ppb)	N	<0.9		40	40	Mar 16	Leaching of soil fumigant used on rice and alfalfa
Chlordane (ppb)	N	<0.2		2	0	Mar 16	Residue of banned termiticide
Dalapon (ppb)	N	<1.0		200	200	Mar 16	Runoff from herbicide used on rights of way
Di (2-ethylhexyl) adipate (ppb)	N	<0.6		400	400	Mar 16	Discharge from chemical factories
Di (2-ethylhexyl) phthalate (ppb)	N	<0.6		6	0	Mar 16	Discharge from rubber and chemical factories
Dibromochloropropane (ppt)	N	<0.02		200	0	Mar 16	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
Dinoseb (ppb)	N	<0.2		7	7	Mar 16	Runoff from herbicide used on soybeans and vegetables
Diquat (ppb)	N	<0.4		20	20	Mar 16	Runoff from herbicide use
Dioxin [a.k.a. 2,3,7,8-TCDD] (ppq)	N	<0.048		30	0	Mar 16	Emissions from waste incineration and other combustion; discharge from chemical factories
Endothall (ppb)	N	<9.0		100	100	Mar 16	Runoff from herbicide use
Endrin (ppb)	N	<0.01		2	2	Mar 16	Residue of banned insecticide
Epichlorohydrin				TT	0	Mar 16	Discharge from industrial chemical factories; an impurity of some water treatment chemicals
Ethylene dibromide (ppt)	N	<0.01		50	0	Mar 16	Discharge from petroleum refineries

Glyphosate (ppb)	N	<6.0		700	700	Mar 16	Runoff from herbicide use
Heptachlor (ppt)		<0.04		400	0	Mar 16	Residue of banned termiticide
Heptachlor epoxide (ppt)	N	<0.02		200	0	Mar 16	Breakdown of heptachlor
Hexachlorobenzene (ppb)	N	<0.1		1	0	Mar 16	Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclo pentadiene (ppb)	N	<0.1		50	50	Mar 16	Discharge from chemical factories
Lindane (ppt)	N	<0.002		200	200	Mar 16	Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor (ppb)	N	<0.1		40	40	Mar 16	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa,
Oxamyl (a.k.a. Vydate) (ppb)	N	<2.0		200	200	Mar 16	Runoff/leaching from insecticide used on apples, potatoes and tomatoes
PCBs [Polychlorinated biphenyls] (ppt)				500	0	Mar 16	Runoff from landfills; discharge of waste chemicals
Pentachlorophenol (ppb)	N	<0.04		1	0	Mar 16	Discharge from wood preserving factories
Picloram (ppb)	N	<0.1		500	500	Mar 16	Herbicide runoff
Simazine (ppb)	N	<0.07		4	4	Mar 16	Herbicide runoff
Toxaphene (ppb)	N	<1.0		3	0	Jun 14	Runoff/leaching from insecticide used on cotton and cattle
Volatile Organic Chemicals (VOC)	**Violation Y or N**	**Running Annual Average (RAA) OR Highest Level Detected**	**Range of All Samples (L-H)**	**MCL**	**MCLG**	**Sample Month & Year**	**Likely Source of Contamination**
Benzene (ppb)	N	<0.5		5	0	Mar 16	Discharge from factories; leaching from gas storage tanks and landfills
Carbon tetrachloride (ppb)	N	<0.5		5	0	Mar 16	Discharge from chemical plants and other industrial activities
Chlorobenzene (ppb)	N	<0.5		100	100	Mar 16	Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene (ppb)	N	<0.5		600	600	Mar 16	Discharge from industrial chemical factories
p-Dichlorobenzene (ppb)	N	<0.5		75	75	Mar 16	Discharge from industrial chemical factories
1,2-Dichloroethane (ppb)	N	<0.5		5	0	Mar 16	Discharge from industrial chemical factories
1,1-Dichloroethylene (ppb)	N	<0.5		7	7	Mar 16	Discharge from industrial chemical factories
cis-1,2-Dichloroethylene (ppb)	N	<0.5		70	70	Mar 16	Discharge from industrial chemical

							factories
trans-1,2-Dichloroethylene (ppb)	N	<0.5		100	100	Mar 16	Discharge from industrial chemical factories
Dichloromethane (ppb)	N	<0.5		5	0	Mar 16	Discharge from pharmaceutical and chemical factories
1,2-Dichloropropane (ppb)	N	<0.5		5	0	Mar 16	Discharge from industrial chemical factories
Ethylbenzene (ppb)		<0.5		700	700	Mar 16	Discharge from petroleum refineries
Styrene (ppb)	N	<0.5		100	100	Mar 16	Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene (ppb)	N	<0.5		5	0	Mar 16	Discharge from factories and dry cleaners
1,2,4-Trichlorobenzene (ppb)	N	<0.5		70	70	Mar 16	Discharge from textile-finishing factories
1,1,1-Trichloroethane (ppb)	N	<0.5		200	200	Mar 16	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane (ppb)	N	<0.5		5	3	Mar 16	Discharge from industrial chemical factories
Trichloroethylene (ppb)	N	<0.5		5	0	Mar 16	Discharge from metal degreasing sites and other factories
Toluene (ppb)	N	<0.5		1	1	Mar 16	Discharge from petroleum factories
Vinyl Chloride (ppb)	N	<0.5		2	0	Mar 16	Leaching from PVC piping; discharge from chemical factories
Xylenes (ppm)	N	<0.5		10	10	Mar 16	Discharge from petroleum or chemical factories

XI. Violations

Type / Description	Compliance Period	Corrective Actions taken by PWS
Arsenic Missed Monitoring EPDS 007	1St Quarter 2016	See below
Arsenic Late Reporting EPDS 007	2nd Quarter 2016	See below
Arsenic Late Reporting EPDS 007	3rd Quarter 2016	See below
Arsenic late reporting EPDS 008	2nd Quarter 2016	See below
Well # 14 EPDS #14	2016	See Below

An explanation of the violation(s) in the above table, the steps taken to resolve the violation(s) and any required health effects information are required to be included with this report. (Attach copy of Public Notice if available.)

The City of Show Low has a blending program which mixes water from Well 7 and Well 14 which may exceed the MCL of 10 but it is blended with water from the other wells so that in the distribution system the MCL is not exceeded.

Arsenic reporting was missed at EPDS 007 in the 1st quarter of 2016.

Arsenic reporting was late at EPDS 007in the second and third quarters of 2016.

Arsenic reporting was late at EPDS #8 in the second quarter of 2016.

Well #14 EPDS #14 was off line in the calendar year of 2016. ADEQ was sent a letter in December of 2016.