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2010

City of Safford

Consumer Confidence Report



BULK RATE
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SAFFORD, AZ
PERMIT NO 85

CONSUMER CONFIDENCE REPORT

Report Covers Calendar Year: January 1 – December 31, 2010

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

We are pleased to present to you this years wáter quality report. Our constant goal is to provide you with a safe and dependable supply of drinking wáter. We are also pleased to inform you we are in total compliance with ADEQ

I. Public Water System (PWS) Information

PWS Name:	CITY OF SAFFORD				
PWS ID #	AZ04- 05-005				
Owner / Operator Name:	CITY OF SAFFORD/HARRY WILLIAMS				
Telephone #	928-432-4243	Fax #	928-348-3150	E-mail	hwilliams@ci.safford.az.us
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 ERIC BUCKLEY at 928-432-4201 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):	BONITA SPRINGS/BONITA ARTESIAN WELLS WELL #15 KEMPTON WELLS A,B,& C MORRIS WELLS 1,2 & 3 CARRASCO WELL ALDER WELL SMITH WELL CLONTS WELL
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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. PWS ID # AZ04 - N/A provides a consecutive connection source of water.

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

Source Water Assessments on file with the Arizona Department of Environmental Quality are available for public review. If a Source Water Assessment is available, you may obtain a copy of it by contacting the Arizona Source Water Coordinator at (602) 771-4641.

Based on the information currently available on the hydrogeologic settings 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 (ADEQ) has given 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 hydrogeologic conditions exist that make the source water susceptible to possible future contamination. Specific water quality data has not been included in this report, however that information can be obtained from the Consumer Confidence Report that is compiled and distributed by your local water provider or municipality. A summary of this Source Water Assessment Program Report will also be included in the Consumer Confidence Report.

This Source Water Assessment Report provides a one-time evaluation of your source water. All regulated water systems are required to test their water regularly and to ensure the quality of water meets the requirements of State and Federal water quality standards for over 90 contaminants.

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.

Some people who use water containing **chlorine** well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.

Some people who drink water containing **haloacetic acids** in excess of the MCL over many years may have an increased risk of getting cancer.

Some people who drink water containing **trihalomethanes** in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

Copper is an essential nutrient, but some people who drink copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

Some people who drink water containing **barium** in excess of the MCL over many years could experience an increase in their blood pressure.

Some people who drink water containing **fluoride** in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth.

Some people who drink water containing **radium 226 or 228** in excess of the MCL over many years may have an increased risk of getting cancer.

Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

Some people who drink water containing **Di(2-ethylhexyl)adipate** well in excess of the MCL over many years could experience general toxic effects or reproductive difficulties.

EPA and FDA Regulations:

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.

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 Coliform Bacteria (System takes ≥ 40 monthly samples) 5% of monthly samples are positive; (System takes ≤ 40 monthly samples)	NO	0	(A)	0	0	WEEKLY 2010	Naturally Present in Environment

Contaminant (units)	Violation Y / N	Highest Level Detected	Range Detected Absent (A) or Present (P)	MCL	MCLG	Sample Month Year	Likely Source of Contamination
1 positive monthly sample							
Fecal coliform and E. Coli (TC Rule)	N/A	N/A	N/A	0	0	N/A	Human and animal fecal waste
Fecal Indicators (E. coli, enterococci or coliphage) (GW Rule)	N/A	N/A	N/A	TT	n/a	N/A	Human and animal fecal waste
Total Organic Carbon (ppm)	N/A	N/A	N/A	TT	n/a	N/A	Naturally present in the environment
Turbidity (NTU), surface water only	N/A	N/A	N/A	TT	n/a	N/A	Soil Runoff
Disinfectants							
Chloramines (ppm)	N/A	N/A	N/A	MRDL = 4	MRDLG = 4	N/A	Water additive used to control microbes
Chlorine (ppm)	NO	0.47	0.34 - 0.47	MRDL = 4	MRDLG = 4	RAA - 2010	Water additive used to control microbes
Chloride dioxide (ppb)	N/A	N/A	N/A	MRDL = 800	MRDLG = 800	N/A	Water additive used to control microbes
Disinfection By-Products							
Haloacetic Acids (ppb) (HAA5)	NO	40	4 - 40	60	n/a	JULY - 2010	Byproduct of drinking water disinfection
Total Trihalomethanes (ppb) (TTHM)	NO	10	1 - 10	80	n/a	JULY - 2010	Byproduct of drinking water disinfection
Bromate (ppb)	N/A	N/A	N/A	10	0	N/A	Byproduct of drinking water disinfection
Chlorite (ppm)	N/A	N/A	N/A	1	0.8	N/A	Byproduct of drinking water disinfection
Lead & Copper							
Copper (ppm)	NO	90 th Percentile = 0.31	0.020 - 0.67	AL = 1.3	ALG = 1.3	AUGUST - 2010	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb)	NO	90 th Percentile = 4.8	1 - 4.8	AL = 15	0	AUGUST - 2010	Corrosion of household plumbing systems; erosion of natural deposits
Radionuclides							
Beta / photon emitters (mrem/yr)	N/A	N/A	N/A	4	0	N/A	Decay of natural and man-made deposits
Alpha emitters (pCi/L)	NO	1.0	<1.0 - 1.0	15	0	AUGUST - 2009	Erosion of natural deposits
Combined Radium 226 & 228 (pCi/L)	NO	7.3	2.1 - 7.3	5	0	AUGUST - 2009	Erosion of natural deposits
Uranium (pCi/L)	NO	<0.4	<0.4	30	0	AUGUST - 2009	Erosion of natural deposits
Inorganics							
Antimony (ppb)	NO	<3	<3	6	6	JUNE - 2008	Discharge from petroleum refineries; fire retardants; ceramics, electronics and solder
Arsenic (ppb)	NO	7.2	2.4 - 7.2	10	0	OCTOBER - 2009	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
Asbestos (MFL)	NO	<0.20	<0.20	7	7	JUNE - 2008	Decay of asbestos cement water mains; Erosion of natural deposits
Barium (ppm)	NO	0.027	<0.01 - 0.027	2	2	JUNE - 2008	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits
Beryllium (ppb)	NO	<1.0	<1.0	4	4	JUNE - 2008	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium (ppb)	NO	<1.0	<1.0	5	5	JUNE - 2008	Corrosion of galvanized pipes; natural deposits; metal refineries; runoff from waste batteries and paints
Chromium (ppb)	NO	<10	<10	100	100	JUNE - 2008	Discharge from steel and pulp mills; Erosion of natural deposits

Contaminant (units)	Violation Y / N	Highest Level Detected	Range Detected Absent (A) or Present (P)	MCL	MCLG	Sample Month Year	Likely Source of Contamination
Cyanide (ppb)	NO	<20	<20	200	200	JUNE - 2008	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories
Fluoride (ppm)	NO	1.8	0.60 – 1.8	4	4	OCTOBER – 2009	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Mercury (ppb)	NO	<0.2	<0.2	2	2	JUNE - 2008	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills and cropland.
Nitrate (ppm)	NO	2.5	0.38 – 2.5	10	10	JUNE - 2008	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (ppm)	NO	<0.1	<0.1	1	1	JUNE - 2008	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (ppb)	NO	<2.0	<2.0	50	50	JUNE - 2008	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Thallium (ppb)	NO	<1.0	<1.0	2	0.5	JUNE - 2008	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
Synthetic Organic Contaminants							
2,4-D (ppb)	NO	<0.5	<0.5	70	70	2008	Runoff from herbicide used on row crops
2,4,5-TP (Silvex) (ppb)	NO	<0.2	<0.2	50	50	2008	Residue of banned herbicide
Acrylamide	NO	0	0	TT	0	2008	Added to water during sewage / wastewater treatment
Alachlor (ppb)	NO	<0.2	<0.2	2	0	2008	Runoff from herbicide used on row crops
Atrazine (ppb)	NO	<0.1	<0.1	3	3	2008	Runoff from herbicide used on row crops
Benzo (a) pyrene (PAH) (ppt)	NO	<0.2	<0.2	200	0	2008	Leaching from linings of water storage tanks and distribution lines
Carbofuran (ppb)	NO	<0.9	<0.9	40	40	2008	Leaching of soil fumigant used on rice and alfalfa
Chlordane (ppb)	NO	<0.2	<0.2	2	0	2008	Residue of banned termiticide
Dalapon (ppb)	NO	<1.0	<1.0	200	200	2008	Runoff from herbicide used on rights of way
Di (2-ethylhexyl) adipate (ppb)	NO	0.020	<0.6-0.020	400	400	2009	Discharge from chemical factories
Di (2-ethylhexyl) phthalate (ppb)	NO	<0.6	<0.6	6	0	2008	Discharge from rubber and chemical factories

Contaminant (units)	Violation Y / N	Highest Level Detected	Range Detected Absent (A) or Present (P)	MCL	MCLG	Sample Month Year	Likely Source of Contamination
Dibromochloropropane (ppt)	NO	<0.21	<0.21	200	0	2008	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
Dinoseb (ppb)	NO	<0.2	<0.2	7	7	2008	Runoff from herbicide used on soybeans and vegetables
Diquat (ppb)	NO	<0.4	<0.4	20	20	2008	Runoff from herbicide use
Dioxin [2,3,7,8-TCDD] (ppq)	NO	<5x10 ⁻⁹	<5x10 ⁻⁹	30	0	2008	Emissions from waste incineration and other combustion; discharge from chemical factories
Endothall (ppb)	NO	<9.0	<9.0	100	100	2008	Runoff from herbicide use
Endrin (ppb)	NO	<0.01	<0.01	2	2	2008	Residue of banned insecticide
Epichlorohydrin	NO	0	0	TT	0	2008	Discharge from industrial chemical factories; an impurity of some water treatment chemicals
Ethylene dibromide (ppt)	NO	<0.1	<0.1	50	0	2008	Discharge from petroleum refineries
Glyphosate (ppb)	NO	<6.0	<6.0	700	700	2008	Runoff from herbicide use
Heptachlor (ppt)	NO	<0.4	<0.4	400	0	2008	Residue of banned temiticide
Heptachlor epoxide (ppt)	NO	<0.2	<0.2	200	0	2008	Breakdown of heptachlor
Hexachlorobenzene (ppb)	NO	<0.1	<0.1	1	0	2008	Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclo pentadiene (ppb)	NO	<0.1	<0.1	50	50	2008	Discharge from chemical factories
Lindane (ppt)	NO	<0.2	<0.2	200	200	2008	Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor (ppb)	NO	<0.1	<0.1	40	40	2008	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
Oxamyl [Vydate] (ppb)	NO	<2.0	<2.0	200	200	2008	Runoff/leaching from insecticide used on apples, potatoes and tomatoes
PCBs [Polychlorinated biphenyls] (ppt)	NO	<5.0	<5.0	500	0	2008	Runoff from landfills; discharge of waste chemicals
Pentachlorophenol (ppb)	NO	0	0	1	0	2008	Discharge from wood preserving factories
Picloram (ppb)	NO	<0.1	<0.1	500	500	2008	Herbicide runoff
Simazine (ppb)	NO	<0.07	<0.07	4	4	2008	Herbicide runoff
Toxaphene (ppb)	NO	<1.0	<1.0	3	0	2008	Runoff/leaching from insecticide used on cotton and cattle

Contaminant (units)	Violation Y / N	Highest Level Detected	Range Detected Absent (A) or Present (P)	MCL	MCLG	Sample Month Year	Likely Source of Contamination
Volatile Organics							
Benzene (ppb)	NO	<0.5	<0.5	5	0	2008	Discharge from factories; leaching from gas storage tanks and landfills
Carbon tetrachloride (ppb)	NO	<0.5	<0.5	5	0	2008	Discharge from chemical plants and other industrial activities
Chlorobenzene (ppb)	NO	<0.5	<0.5	100	100	2008	Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene (ppb)	NO	<0.5	<0.5	600	600	2008	Discharge from industrial chemical factories
p-Dichlorobenzene (ppb)	NO	<0.5	<0.5	75	75	2008	Discharge from industrial chemical factories
1,2-Dichloroethane (ppb)	NO	<0.5	<0.5	5	0	2008	Discharge from industrial chemical factories
1,1-Dichloroethylene (ppb)	NO	<0.5	<0.5	7	7	2008	Discharge from industrial chemical factories
cis-1,2-Dichloroethylene (ppb)	NO	<0.5	<0.5	70	70	2008	Discharge from industrial chemical factories
trans-1,2-Dichloroethylene (ppb)	NO	<0.5	<0.5	100	100	2008	Discharge from industrial chemical factories
Dichloromethane (ppb)	NO	<0.5	<0.5	5	0	2008	Discharge from pharmaceutical and chemical factories
1,2-Dichloropropane (ppb)	NO	<0.5	<0.5	5	0	2008	Discharge from industrial chemical factories
Ethylbenzene (ppb)	NO	<0.5	<0.5	700	700	2008	Discharge from petroleum refineries
Styrene (ppb)	NO	<0.5	<0.5	100	100	2008	Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene (ppb)	NO	<0.5	<0.5	5	0	2008	Discharge from factories and dry cleaners
1,2,4-Trichlorobenzene (ppb)	NO	<0.5	<0.5	70	70	2008	Discharge from textile-finishing factories
1,1,1-Trichloroethane (ppb)	NO	<0.5	<0.5	200	200	2008	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane (ppb)	NO	<0.5	<0.5	5	3	2008	Discharge from industrial chemical factories
Trichloroethylene (ppb)	NO	<0.5	<0.5	5	0	2008	Discharge from metal degreasing sites and other factories
Toluene (ppm)	NO	<0.0005	<0.0005	1	1	2008	Discharge from petroleum factories
Vinyl Chloride (ppb)	NO	<0.5	<0.5	2	0	2008	Leaching from PVC piping; discharge from chemical factories
Xylenes (ppm)	NO	<0.0015	<0.0015	10	10	2008	Discharge from petroleum or chemical factories

SECTION X IS NOT APPLICABLE THE CITY OF SAFFORD IS A GROUND WATER SYSTEM

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

We detected *Cryptosporidium* in the finished water or source water. We detected *Cryptosporidium* in N/A of our N/A samples tested.

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

The PWS received a 40/30 Certification Waiver, and therefore was not required to sample for the IDSE.

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. The following table summarizes the individual sample results for the IDSE monitoring in 2009:

Contaminant	Number of Analyses	Minimum Level Detected	Highest Level Detected
Haloacetic Acids (HAA5) (ppb)	NA	NA	NA
Total Trihalomethanes (TTHM) (ppb)	NA	NA	NA

XII. Violations

Type / Description	Compliance Period	Corrective Actions taken by PWS
NONE	January 1 st 2010 - December 31 st 2010	

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.)