2011 Drinking Water Quality Report For

Public Water System Name: FARMERS WATER CO.

Public Water System Numbers: 10048, 10049, 10213, 10414

We are pleased to present to you this year's water quality report. Our constant goal is to provide you with a safe and dependable supply of drinking water.

General Information About Drinking Water

All 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 the 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.

The sources of drinking water (both tap water 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. Contaminants that may be present in source water include:

- ***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.

In order to ensure that tap water is safe to drink, the Arizona Department of Environmental Quality prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water.

Our Water Source

Farmers Water Co. pumps groundwater for its distribution of potable water. Four public water systems (PWS) comprise Farmers Water Co: PWS 10048 – Sahuarita, primarily east of the Santa Cruz River; PWS 10049 – Continental, Madera Highlands; PWS 10213 – a portion of southeastern Green Valley; and PWS 10414 – Sahuarita Highlands.

Each PWS has at least one well, storage tank, pressure tank, and distribution system. Because Farmers Water Co. pumps from the aquifer, minimal treatment is required. Farmers Water Co., however, takes seriously the potential for contamination and regularly monitors its systems.

Periodically, mechanical systems will fail, ranging from blown fuses to power outages to line breaks. Interruptions in service will occur. Farmers Water Co. will respond immediately upon notification and address the problem(s) only when it is safe to proceed.

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

Potential sources of contamination in our source water area come from leaching that occurs during the earth's natural filtering process or possible direct infiltration.

The Source Water Assessment Report provides a screening-level evaluation of potential contamination that could occur. It does not mean that the contamination has or will occur. We can use this information to evaluate the need to improve our current water treatment capabilities and prepare for future contamination threats. This can help us ensure that quality water is delivered to your homes. In addition, the source water assessment results provide a starting point for developing a source water protection plan.

Please contact Matt Bailey at 520-879-7474 to learn more about what you can do to help protect your drinking water sources, any questions about the annual drinking water quality report, to learn more about our system, or to attend scheduled public meetings. We want you, our valued customers, to be informed about the services we provide and the quality water we deliver to you every day.

Terms and Abbreviations

To help you understand the terms and abbreviations used in this report, we have provided the following definitions:

- ***Parts per million (ppm) or Milligrams per liter (mg/L)*** - one part per million corresponds to one minute in two years or a single penny in $10,000.
- ***Parts per billion (ppb) or Micrograms per liter (µg/L)***- one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
- ***Parts per trillion (ppt) or Nanograms per liter (nanograms/L)*** - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in $10,000,000,000.
- ***Parts per quadrillion (ppq) or Picograms per liter (picograms/L)*** - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in $10,000,000,000,000.
- ***Picocuries per liter (pCi/L)*** - picocuries per liter is a measure of the radioactivity in water.
- ***Action Level* (AL) -** the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- ***Action Level Goal (ALG)* -** The "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to health. The ALG allows for a margin of safety.
- ***Treatment Technique (TT)* -** A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- ***Maximum Contaminant Level Goal* (MCLG) -** The "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- ***Maximum Contaminant Level* (MCL)-** The "Maximum Allowed" is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- ***Maximum Residual Disinfectant Level Goal* (MRDLG):** The level of a drinking water disinfectant, below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- ***Maximum Residual Disinfectant Level* (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- ***Entry Point to Distribution System (EPDS)*** – The location where potable water enters the distribution system.

Water Quality Data

Farmers Water Co. routinely monitors for contaminants in your drinking water according to Federal and State laws. The State of Arizona requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. Some of our data, though representative, may be more than one year old.

Table 1. Water Quality Monitoring: Most Recent Detects

PWS 10048						
Contaminant	**Units**	**MCL**	**MCLG**	**Date**	**Result**	**Major Source in Drinking Water**
Arsenic (IOC)	ppb	10	N/A	4/16/2009	3.3	Erosion of natural deposits
Copper	ppm	AL=1.3 (90th Percentile)	1.3	12/29/2011	0.017	Corrosion of household plumbing systems; erosion of natural deposits
Lead	ppb	AL=15.0 (90th Percentile)	15.0	12/29/2011	0.71	Corrosion of household plumbing systems; erosion of natural deposits
Nitrates	ppm	10	10	3/14/2011	7.5	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits
TTHM	ppb	80	N/A	7/14/2011	4.61	By-product of drinking water chlorination
Uranium	*ug*/L	30	N/A	2/3/2009	26.6 +/-2.2	Erosion of natural deposits
PWS 10049						
Contaminant	**Units**	**MCL**	**MCLG**	**Date**	**Result**	**Major Source in Drinking Water**
Arsenic (IOC)						Erosion of natural deposits
EPDS #1	ppb	10	N/A	4/16/2009	4.9	
EPDS #2	ppb	10	N/A	4/16/2009	5.1	
Copper	ppm	AL=1.3 (90th Percentile)	1.3	12/29/2011	0.05	Corrosion of household plumbing systems; erosion of natural deposits
Lead	ppb	AL=15.0 (90th Percentile)	15.0	12/29/2011	0.5	Corrosion of household plumbing systems; erosion of natural deposits
Nitrates						Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits
EPDS #1	ppm	10	10	12/6/2011	7.7	
EPDS #2	ppm	10	10	3/14/2011	3.9	
TTHM						By-product of drinking water chlorination
EPDS #1	ppb	80	N/A	7/14/2011	1.18	
EPDS #2	ppb	80	N/A	7/14/2011	1.76	
Uranium						Erosion of natural deposits
EPDS #1	*ug*/L	30	N/A	2/3/2009	12.0 +/-1.8	
EPDS #2	*ug*/L	30	N/A	7/29/2009	10.9 +/-1.6	

PWS 10213						
Contaminant	**Units**	**MCL**	**MCLG**	**Date**	**Result**	**Major Source in Drinking Water**
Arsenic (IOC)	ppb	10	N/A	4/16/2009	9.3	Erosion of natural deposits
Copper	ppm	AL=1.3 (90th Percentile)	1.3	12/29/2011	0.16	Corrosion of household plumbing systems; erosion of natural deposits
Lead	ppb	AL=15.0 (90th Percentile)	15.0	12/29/2011	1.5	Corrosion of household plumbing systems; erosion of natural deposits
Nitrates	ppm	10	10	3/14/2011	5.3	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits
TTHM	ppb	80	N/A	7/14/2011	5.81	By-product of drinking water chlorination
Uranium	*ug*/L	30	N/A	10/3/2008	8.1 +/-1.2	Erosion of natural deposits
PWS 10414						
Contaminant	**Units**	**MCL**	**MCLG**	**Date**	**Result**	**Major Source in Drinking Water**
Barium	ppb	2000	2000	2/11/2010	70	Erosion of natural deposits
Copper	ppm	AL=1.3 (90th Percentile)	1.3	12/29/2011	0.23	Corrosion of household plumbing systems; erosion of natural deposits
Fluoride	ppb	4000	4000	2/11/2010	170	Erosion of natural deposits
Lead	ppb	AL=15.0 (90th Percentile)	15.0	12/29/2011	9.1	Corrosion of household plumbing systems; erosion of natural deposits
Nitrates	ppm	10	10	6/16/2011	1.1	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits
TTHM	ppb	80	N/A	6/28/2010	4.55	By-product of drinking water chlorination
Uranium	*ug*/L	30	N/A	8/19/2010	4.2 +/-1.1	Erosion of natural deposits