



# 2011 Water Quality Report

Pine-Strawberry Water  
Improvement District

## Is my water safe?

Last year, as in previous years, your tap water met all U.S. Environmental Protection Agency (EPA) and Arizona drinking water health standards. Your water district vigilantly safeguards its water supplies and once again we are proud to report that our system has not violated any maximum contaminant levels or any other water quality standard.

## Do I need to take special precautions?

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly or immuno-compromised persons such as those undergoing chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care provider. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline at 800-426-4791.

## Where does my water come from?

The Pine-Strawberry Water Improvement District (PSWID) is supplied exclusively by ground water pumped from the district's 33 wells, which draw from the Lower Verde watershed. The water is treated with a small amount of chlorine as a preventative disinfectant, stored in a series of storage tanks and then pumped through a complex delivery system by use of booster pumps and pressure tanks through main transmission lines and service connections.

## Source water assessment

The Arizona Department of Environmental Quality (ADEQ) evaluates all water sources that provide to the public. The ADEQ issued PSWID sources a low risk designation indicating "most source water protection measures are already in place or the hydrogeology is such that the source water protection will have little impact on protection." You can obtain a Source Water Assessment Report from the ADEQ at 1110 W. Washington St. Phoenix, AZ 85007 or visit [www.azdeq.gov](http://www.azdeq.gov) for more information.

## Why are there contaminants in my drinking water?

When drinking water meets federal standards there may not be any health based benefits to purchasing bottled water or point of use devices. 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. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap and bottled) 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 before treatment 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 may be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming
- Pesticides and herbicides, which 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 can also come from gas stations, urban stormwater runoff, and septic systems
- Radioactive contaminants, which 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, the EPA regulates the amounts of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water.

## Additional information about 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. PSWID 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 the water for cooking or drinking. 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 (800-426-4791) or [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

## Additional information about nitrate

Nitrate in drinking water at levels above 10 parts per million is a health risk for infants of less than six months. 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 your health care provider for advice.

## Espanol

Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre este informe en español, favor de llamar al tel. 928-476-4222 para hablar con una persona bilingüe en español.

## About The Following Page

The pages that follow list all of the federally and state regulated or monitored contaminants which have been found in your drinking water. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. In some cases, the EPA or ADEQ requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

### How can I get involved or learn more?

Your comments and suggestions are always welcome. Please contact PSWID with any questions, suggestions or comments at 928-476-4222 or [www.pswid.org](http://www.pswid.org). For our public meetings schedule, please visit the website.

## Water Conservation Tips

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference. Try one of the following suggestions today and soon it will become a water-saving habit.

- Take short showers – a 5-minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair, and shaving to save up to 500 gallons per month.
- Use a water-efficient showerhead. They're inexpensive, easy to install and can save you up to 750 gallons per month.
- Run your clothes washer and dishwasher only when full. You'll save up to 1,000 gallons per month.
- Water plants only when necessary and use water saved from rinsing dishes.
- Fix leaky faucets. Faucet washers are inexpensive and take only a few minutes to replace and solve most leaks.
- Fix leaky toilets. To check your toilet for a leak, place a few drops of food coloring in the tank and wait 30 minutes. If it seeps into the toilet bowl without flushing, you have a leak. Fixing the leak, or replacing your toilet with a new more efficient model, can save up to 1,000 gallons per month.
- Adjust sprinklers so they water your lawn only; not the sidewalk or street. Apply water slowly so the soil can absorb it. Water during the cooler parts of the day to avoid evaporation and try to avoid watering when it is windy.
- Teach your kids about water conservation. Make it a family effort to reduce the next month's water bill!
- Visit [www.epa.gov/watersense](http://www.epa.gov/watersense) for more tips.

## Source Water Protection Tips

Protection of the sources of drinking water – ponds, streams, lakes and oceans – is everyone's responsibility. You can help protect Pine-Strawberry's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides. They contain hazardous chemicals that can runoff and pollute drinking water sources.
- Pick up after your pets.
- If you have your own septic system, properly maintain the system to reduce leaching to water sources. Or consider connecting to a public wastewater system.
- Dispose of chemicals properly. For instance, take motor oil to a recycling center.
- Do not flush unused medications. Take them to an approved disposal facility.
- Volunteer in your community. Find a watershed of wellhead protection organization. If there are no active groups, consider starting one. Use the EPA's website to locate groups in your community ([http://www.epa.gov/owow\\_keep/adopt/index.html](http://www.epa.gov/owow_keep/adopt/index.html)) or get tips on how to start a group (<http://water.epa.gov/type/watersheds/index.cfm>).
- Organize a storm drain stenciling project with your local government or water supplier. Stenciling cautions on neighborhood drains to remind people to not dump waste.



## Water quality data table

Date	Contaminants	MCLG or MRDLG	MCL, TT or MRDL	Your Water	Range Low	Range High	Violation	Source of Contaminant
<b>Disinfectant and disinfectant by-products</b>								
2011	TTHM (total trihalomethanes) (ppb)	NA	80	13.2	ND	13.2	No	By-product of drinking water disinfection
2011	Chlorine (as Cl <sub>2</sub> ) (ppm)	4	4	0.56	0.47	0.70	No	Water additive used to control microbes

Date	Contaminants	MCLG or MRDLG	MCL, TT or MRDL	Your Water	Range Low	Range High	Violation	Source of Contaminant
<b>Inorganic contaminants</b>								
2011	Nitrate (measured as nitrogen) (ppm)	10	10	3.7	ND	3.7	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
2011	Arsenic (ppb)	0	10	2	ND	2	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
2011	Barium (ppb)	2	2	0.46	0.12	0.46	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
2011	Flouride	4	4	0.12	0.089	0.12	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
2011	Sodium (optional) (ppm)	NA	MPL	12	3.7	12	No	Erosion of natural deposits; leaching

Date	Contaminants	MCLG or MRDLG	MCL, TT or MRDL	Your Water	Range Low	Range High	Violation	Source of Contaminant
<b>Microbiological contaminants</b>								
2011	Total coliform (positive samples/month)	0	1	0	NA	NA	No	Naturally present in the environment

Date	Contaminants	MCLG or MRDLG	MCL, TT or MRDL	Your Water	Range Low	Range High	Violation	Source of Contaminant
<b>Radioactive contaminants</b>								
2011	Alpha emitters (pCi/L)	0	15	6.3	2	6.3	No	Erosion of natural deposits

Date	Contaminants	MCLG or MRDLG	MCL, TT or MRDL	Your Water	Range Low	Range High	Violation	Source of Contaminant
<b>Volatile organic contaminants</b>								
2011	Carbon Tetrachloride (ppd)	0	5	1.4	ND	1.4	No	Discharge from chemical plants and other industrial activities
2011	Toluene (ppm)	1	1	0.00086	ND	0.00086	No	Discharge from petroleum factories

Date	Contaminants	MCLG	AL	Your Water	# Samples exceeding AL	Exceeds AL	Source of Contaminant
<b>Inorganic contaminants</b>							
2011	Copper – action level at consumer taps (ppm)	1.3	1.3	0.28	0	No	Corrosion of household plumbing systems; erosion of natural deposits
2011	Lead – action level at consumer taps (ppb)	0	15	5	0	No	Corrosion of household plumbing systems; erosion of natural deposits

## Undetected contaminants

The following contaminants were monitored but not detected in your water.

Contaminants	MCLG or MRDLG	MCL or MRDL	Your Water	Violation	Source of Contaminant
Haloacetic acids (HAA5) (ppb)	NA	80	ND	No	By-product of drinking water disinfection
Radium (combined 226/228) (pCi/L)	0	5	ND	No	Erosion of natural deposits





## Monitoring and reporting of compliance data violations

Our water system violated drinking water standards over the past year. Even though these were not emergencies, as our customers, you have a right to know what happened and what we did to correct these situations.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the second quarter of 2011, we did not monitor or test for Nitrates from our production well EPDS 002 as required by ADEQ and therefore cannot be sure of the quality of our drinking water during that time.

In addition, during the year 2011 we did not conduct quarterly monitoring for volatile organic compounds at one of our production wells EPDS013 as required by ADEQ.

## What should I do?

There is nothing you need to do at this time.

## What is being done?

Although we did not perform quarterly monitoring, the annual monitoring was conducted. The results from the annual monitoring were under the MCL for both Nitrate and VOC. We have satisfied all quarterly monitoring schedule. The PSWID has been working with the ADEQ to clarify monitoring requirements for the PSWID Water System and following that consultation we have been in compliance with all monitoring requirements.

For more information, please contact Brad Cole at 928.476.4222

## Definitions

**Maximum Contaminant Level (MCL)** — The highest permissible level of a contaminant in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal (MCLG)** — The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

**Maximum Residual Disinfectant Level (MRDL)** — The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**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 contamination.

**Treatment Technique (TT)** — A required process intended to reduce the level of a contaminant in drinking water.

**Action Level (AL)** — The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

### Variations and Exemptions

State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

**MNR** — Monitored, not regulated

**MPL** — State assigned maximum permissible level



## Abbreviations

**ppm** – parts per million, or milligrams per liter (mg/L)

**ppb** – parts per billion, or micrograms per liter (µg/L)

**pCi/L** – picocuries per liter (a measure of radioactivity)

positive samples/month – number of samples taken monthly with positive results

**N/A** – not applicable

**ND** – not detected

**NR** – monitoring not required, but recommended  
Microbiological contaminants