

Annual
WATER
QUALITY
REPORT

Reporting Year 2013



Presented By
City of Paso Robles

PWS ID#: 4010007

There When You Need Us

We are once again proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2013. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please remember that we are always available to assist you should you ever have any questions or concerns about your water.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Kelly Dunham at (805) 237-3866 or email us at water@prcity.com

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.

Substances That Could Be in Water

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.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the California Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. 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.

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, that can be naturally occurring or can 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, that are by-products of industrial processes and petroleum production and that can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

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

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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.

Source Water Assessment

The City of Paso Robles has completed an assessment of our drinking water sources. The assessment found our sources potentially vulnerable to agricultural drainage, auto repair shops, gas stations, home manufacturing, low-density septic systems, sewer collection systems, metal plating/finishing/fabricating, animal operations, agriculture and irrigation wells, and plastic and synthetics producers. This simply means that these activities take place in the general vicinity of some wells. It does not mean there are any problems resulting from these activities, only that a potential vulnerability exists. If you would like to view the completed assessments or have questions regarding them, please contact Kelly Dunham at the Paso Robles Water Division, at (805) 237-3866.

Community Participation

We welcome your comments, questions, and concerns regarding your drinking water. We encourage you to directly contact the city Utilities Department at (805) 237-3861, or you can voice your concerns at the City of Paso Robles city council meetings during the public comment portion. The meetings are held on the first and third Tuesdays of each month at 7:30 p.m. at the City Hall/Library Complex, 1000 Spring Street.

To view a copy of this report or get more information regarding the City of Paso Robles Water Division, visit us at www.pasowater.com.

Where Does My Water Come From?

The City of Paso Robles currently relies on groundwater as its only source of water. In 2013, we pumped approximately 7000 acre feet of water. This total was nearly 14 percent less than in 2007 due to an exemplary community-wide conservation effort. Twelve wells pump from the deeper portion of the Paso Robles Groundwater Basin. We also have seven wells located near the Salinas River that pump from the river underflow. Water that is not immediately used in the system fills water storage tanks with approximately 12 million gallons of capacity. These tanks provide for system emergencies, fire fighting, and maintaining system pressure.

Lake Nacimiento Water – Moving Forward

The Lake Nacimiento water treatment plant project is moving forward, providing improved water quality and water supply reliability. Currently, the city's wells cannot produce enough water to meet daily summer demands without implementation of periodic watering restrictions. Due in part to the recent drought, regional groundwater level declines have reduced the production capacity of the city's basin wells. The Nacimiento water supply will be significantly lower in hardness and total dissolved solids, so the use of water softeners can be reduced. The design of the water treatment plant is complete, and construction is scheduled to be completed by summer of 2015. The new treatment plant will provide an additional 2.4 million gallons per day of high-quality water to the community.

Water...Use It Wisely

Reduce Outdoor Water Use with Irrigation System Maintenance and Scheduling

With regular irrigation maintenance and attention to water scheduling, most homeowners and businesses can achieve significant water savings. That's good for your pocketbook, for the community, and for the environment. To make sure your irrigation system is working at peak efficiency this year, try these basic tune-up steps:

Irrigation Maintenance Basics

1. Turn on your system and look for geysers! Fix or replace broken spray heads and drip emitters.
2. Look for sunken and tilted heads that misdirect spray (a common problem). Dig out and straighten heads, or add an extension to raise the head to the proper height.
3. Trim plants that block spray from getting to the target area.
4. Dry spots on the lawn indicate poor sprinkler coverage or problems with heads. If you still have dry spots after you perform maintenance, water spots by hand instead of increasing sprinkler run times.
5. If heads are clogged, unscrew the top of the head and clean the plastic debris screen.
6. Turn on drip lines and walk each line to check and repair leaks. Make sure each emitter has flowing water. Unclog or replace clogged emitters.

Irrigation Scheduling Tips

When and how much water to apply are questions every homeowner faces. Many of us unknowingly use more water than our landscape needs. In setting your irrigation timers this year, follow a few basic rules-of-thumb to avoid over-watering.

1. Water 1-2 days per week in spring and fall, and 3 days per week during June to mid-September.
2. Water in the early morning hours 5 to 9 a.m. when winds and temperatures are low and you can see problems like stuck valves, or broken sprinklers and drip lines.
3. The number of minutes per station needed each water day depends on sprinkler head output, head spacing and coverage, soils, and the micro-climate of your yard. Start in the spring with 5-7 minutes per station on water days. Increase times from there as needed for your situation and as the summer weather heats up. (Note: Rotary heads require greater run times.)
4. To avoid water runoff on steep slopes, break the total minutes into 2 or 3 shorter sprinkler runs.
5. Learn the features of your timer to enable you to adjust watering schedules throughout the irrigation season. If you don't have a manual for your timer, try downloading a copy at www.sprinklerwarehouse.com/irrigation-Product-Manuals-s/779.htm.

For more information on customer rebate programs and ways to save water and money, visit www.pasowater.com or call (805) 227-7250.

Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables below show only those contaminants that were detected in the water. The state requires us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic ¹ (ppb)	2013	10	0.004	2.31	0–8	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2013	1	2	0.05859	0–0.18	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chlorine (ppm)	2013	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	1.4	1.3–1.6	No	Drinking water disinfectant added for treatment
Fluoride (ppm)	2013	2.0	1	0.33	0.2–0.47	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2013	15	(0)	2.97	0–7.6	No	Erosion of natural deposits
Haloacetic Acids–Stage 1 (ppb)	2013	60	NA	6.1	4.6–7.6	No	By-product of drinking water disinfection
Nickel (ppb)	2013	100	12	0.66	0–15	No	Erosion of natural deposits; discharge from metal factories
Nitrate [as nitrate] ² (ppm)	2013	45	45	5.33	0–31	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrate & Nitrite as Nitrogen (N) (ppb)	2013	10,000	10,000	1,498.77	0–7,100	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium ³ (ppb)	2013	50	30	6.99	0–28	No	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
TTHMs [Total Trihalomethanes]–Stage 1 (ppb)	2013	80	NA	15.45	13.6–17.3	No	By-product of drinking water disinfection
Turbidity ⁴ (NTU)	2013	TT	NA	0.086	0.007–0.086	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2013	TT=95% of samples <0.3 NTU	NA	100	NA	No	Soil runoff
Uranium (pCi/L)	2013	20	0.43	2.34	0–5.3	No	Erosion of natural deposits

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2013	1.3	0.3	0.3	1/30	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2013	500	NS	55.08	37–78	No	Runoff/leaching from natural deposits; seawater influence
Color (Units)	2013	15	NS	0.86	0–10	No	Naturally occurring organic materials
Foaming Agents [MBAS] (ppb)	2013	500	NS	80	0–350	No	Municipal and industrial waste discharges
Odor–Threshold (Units)	2013	3	NS	1.73	1–4	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2013	1,600	NS	815.44	620–1,030	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2013	500	NS	103.14	23–210	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2013	1,000	NS	491.4	350–690	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2013	5	NS	0.06	0–0.28	No	Soil runoff
Zinc (ppm)	2013	5.0	NS	0.00235	0–0.08	No	Runoff/leaching from natural deposits; industrial wastes

UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH
Bicarbonate [as HCO ₃] (ppm)	2013	298.72	240–385
Boron (ppb)	2013	235.57	0–870
Calcium (ppm)	2013	72.3	23–120
Magnesium (ppm)	2013	31.59	15–41
N-Nitrosodimethylamine ³ (ppb)	2009	0.0033	0.0029–0.0048
Potassium (ppm)	2013	1.83	1.1–3.1
Sodium (ppm)	2013	59.69	24–140
Total Alkalinity [as CaCO ₃] (ppm)	2013	244.51	200–315
Total Hardness (grains/gal)	2013	18.17	7.02–28.07
Vanadium (ppb)	2013	14.02	3.9–54

¹ TP effluent sampled at Sherwood wells 9 and 11.

² Butterfield Well 12 on quarterly monitoring schedule.

³ Thunderbird Wells 10 and 13 blended for compliance.

⁴ Ronconi TP only: Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

⁵ Sampled for under the EPA's Unregulated Contaminant Monitoring Regulation 2 (UCMR2) program.

Definitions

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

µS/cm (microsiemens per centimeter): A unit expressing the amount of electrical conductivity of a solution.

grains/gal (grains per gallon): Grains of compound per gallon of water.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs (SMCLs) are set to protect the odor, taste, and appearance of 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. MCLGs are set by the U.S. EPA.

MRDL (Maximum Residual Disinfectant Level): 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.

MRDLG (Maximum Residual Disinfectant Level Goal): 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.

NA: Not applicable

NS: No standard

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

PDWS (Primary Drinking Water Standard): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

PHG (Public Health Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California EPA.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

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