

ANNUAL  
**WATER REPORT**

*Water testing  
performed in 2010*

QUALITY



*Presented By*  
City of Paso Robles

## Quality First Quality

Once again we are proud to present our annual water quality report covering all testing performed between January 1 and December 31, 2010. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all of our water users. Thank you for allowing us to continue providing you and your family with quality drinking water.

We encourage you to share your thoughts with us on the information contained in this report. Should you ever have any questions or concerns, we are always available to assist you.

### Where Does My Water Come From?

The City of Paso Robles currently relies on groundwater as its only source of water. In 2010, we pumped more than 2 billion gallons of water. This total was 20 percent less than in 2008 due to an exemplary community-wide conservation effort in response to summer-time water shortages. 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.

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. 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.

“THOUSANDS HAVE LIVED WITHOUT LOVE, NOT ONE WITHOUT WATER.”

-W.H. Auden

### 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 State 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, which are by-products of industrial processes and petroleum production and which 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.

## Lake Nacimiento Water – Improved Water Quality and Water Supply Reliability

Once new water rates are in place, the much-needed Lake Nacimiento water treatment plant project will move forward to provide improved water quality and water supply reliability. Currently, the city's wells cannot produce enough water to meet daily summer demands without watering restrictions in place. This is because regional groundwater level declines have reduced the production capacity of the city's basin wells to approximately 60 percent of their original capacity. The Nacimiento water supply will be significantly lower in hardness and total dissolved solids, so the use of water softeners can be greatly reduced or eliminated.

## Lead and Drinking Water

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 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](http://www.epa.gov/safewater/lead).

## Community Participation

We welcome your comments 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 an online copy of this report or to get more information regarding the Water Division and/or city council activities, visit the City of Paso Robles Web site at [www.prcity.com](http://www.prcity.com).

## Fact or Fiction

There is the same amount of water on Earth now as there was when the Earth was formed. *(Fact: The water that comes from your faucet could contain molecules that dinosaurs drank!)*

About half the water treated by public water systems is used for drinking and cooking. *(Fiction: Actually, the amount used for cooking and drinking is less than 1 percent of the total water produced!)*

A person can live about a month without food, but only about a week without water. *(Fact: Dehydration symptoms generally become noticeable after only 2 percent of one's normal water volume has been lost.)*

## 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/>.



## Questions?

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

## Water Conservation – Now More than Ever

To prevent water shortages this summer, please cut back on outdoor watering and water only on the three assigned days for your area. To help you reduce your water use, the city provides rebates for toilet replacements and converting turf to Waterwise landscaping. For information, call (805) 227-7250 or visit [pasowater.com](http://pasowater.com).

### Outdoor Water Conservation Tips:

- Water during the early morning, when winds and temperatures are lowest.
- Limit spray irrigation run times to 12 minutes on assigned days (this is a guideline and may be adjusted depending on your site).
- Adjust sprinkler heads to minimize spray onto sidewalks and driveways.
- When brown spots occur in your lawn, check first for coverage problems before increasing run times.
- Water brown spots by hand instead of increasing run times.
- Regularly inspect irrigation equipment in operation and repair drip-line leaks and broken sprinkler heads.
- Trim plants that prevent spray from reaching its target.
- Use a higher setting to mow lawns. Longer lawns need less water.
- Aerate your lawn to increase air and water transfer to the root zone.

For more information, visit [pasowater.com](http://pasowater.com).



### Why does my water sometimes look “milky”?

The milky look is caused by tiny air bubbles in the water. The water in the pipes coming into your home or business might be under a bit of pressure, and gasses (the air) are dissolved and trapped in the pressurized water as it flows into your glass. As the air bubbles rise in the glass, they break free at the surface, thus clearing up the water. Although the milky appearance might be disconcerting, the air bubbles won't affect the quality or taste of the water.

### Save Money and Protect the Environment by Turning Down Your Water Softener

Did you know the salt you use in your water softener is discharged to the Salinas River in the city's treated wastewater? That's because the wastewater treatment process does not remove salt. Over 6 tons of salt go into the river each day. Even before Lake Nacimiento water becomes available, there are steps you can take to save money and reduce the amount of salt discharged to the environment. How? Simply adjust your softener to a lower hardness setting. Although the total hardness of the city's water averages about 20–25 grains/gallon, many people are satisfied with the quality of water produced with a water softener setting in the range of 10–15 grains/gallon. Try this easy fix and cut the amount of salt you buy each month by up to half.

## 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 table below shows only those contaminants that were detected in the water. The state requires us to monitor for certain substances less 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
Aluminum (ppm)	2010	1	0.6	0.00375	ND-0.06	No	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	2010	10	0.004	2.75	ND-7.7	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2010	1	2	0.07063	ND-0.26	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chlorine (ppm)	2010	[4.0 (as Cl <sub>2</sub> )]	[4 (as Cl <sub>2</sub> )]	1.2	0.9-1.3	No	Drinking water disinfectant added for treatment
Fluoride (ppm)	2010	2.0	1	0.38	ND-0.48	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2010	15	(0)	2.2	ND-8.1	No	Erosion of natural deposits
Haloacetic Acids (ppb)	2010	60	NA	5.95	4.5-7.4	No	By-product of drinking water disinfection
Nitrate [as nitrate] <sup>1</sup> (ppm)	2010	45	45	8.53	ND-25.75	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium <sup>2</sup> (ppb)	2010	50	(50)	4.39	ND-20.6	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] (ppb)	2010	80	NA	24	18.8-29.2	No	By-product of drinking water disinfection
Turbidity <sup>3</sup> (NTU)	2010	TT	NA	0.090	0.008-0.090	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2010	TT	NA	100	NA	No	Soil runoff
Uranium (pCi/L)	2010	20	0.43	2.81	ND-5.3	No	Erosion of natural deposits

## 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.

**ND (Not detected):** Indicates that the substance was not found by laboratory analysis.

Tap water samples were collected for lead and copper analyses from sample sites throughout the community (lead was not detected at the 90th percentile)

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2010	1.3	0.3	0.29	0/30	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)	2010	500	NS	66.75	35–190	No	Runoff/leaching from natural deposits; seawater influence
Iron (ppb)	2010	300	NS	12.50	ND–200	No	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2010	50	NS	2.88	ND–24	No	Leaching from natural deposits
Specific Conductance (µS/cm)	2010	1,600	NS	821.25	420–1,100	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2010	500	NS	89.19	26–240	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2010	1,000	NS	530.63	390–720	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2010	5	NS	0.12	ND–1.22	No	Soil runoff

### OTHER UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH
Bicarbonate (ppm)	2010	317.5	250–420
Boron (ppb)	2010	290	ND–720
Calcium (ppm)	2010	68.75	24–130
Magnesium (ppm)	2010	30.75	13–46
N-Nitrosodimethylamine (ppb)	2008	0.003	0.002–0.0048
Nitrate and Nitrite as Nitrogen [N] (ppb)	2010	1,673.13	ND–3,600
pH [Laboratory] (Units)	2010	7.9	7.6–8.2
Potassium (ppm)	2010	1.86	ND–3.1
Sodium (ppm)	2010	75.25	33–150
Total Alkalinity [as CaCO <sub>3</sub> ] (ppm)	2010	260.63	210–340
Total Hardness [as CaCO <sub>3</sub> ] (grains/gal)	2010	17.2	7.6–32.7
Vanadium (ppb)	2010	18.68	4.3–53

- <sup>1</sup> Butterfield 12 Well is on a quarterly sampling schedule for Nitrate.  
<sup>2</sup> TBird wells 10 and 13 blended to ensure compliance.  
<sup>3</sup> 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. Ronconi Wells only.

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.