

# Portales Water System Drinking Water Quality Report for 2013, Published in 2014

## Your Drinking Water Is Safe!

PORTALES WATER SYSTEM

NM3528522

Annual Water Quality Report for the period of January 1 to December 31, 2013

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

The source of drinking water used by PORTALES WATER SYSTEM is Ground Water

For more information regarding this report contact:

Name John DeSha

Phone (575) 356-6662

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

YOUR WATER COMES FROM THE OGALLALA AQUIFER

Source of Drinking Water
<p>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.</p>
<p>Contaminants that may be present in source water include:</p> <ul style="list-style-type: none"> <li>- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.</li> <li>- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.</li> <li>- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.</li> <li>- 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 storm water runoff, and septic systems.</li> <li>- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.</li> </ul>

<p>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 at (800) 426-4791.</p>
<p>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. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.</p>
<p>Some people may be more vulnerable to contaminants in drinking water than the general population.</p>
<p>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 from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).</p>
<p>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 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 <a href="http://www.epa.gov/safewater/lead">http://www.epa.gov/safewater/lead</a>.</p>

2013 Regulated Contaminants Detected

Lead and Copper

Definitions:  
 Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.  
 Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	09/22/2011	1.3	1.3	0.2091357	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	09/22/2011	0	15	1.61576	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Water Quality Test Results

Maximum Contaminant Level Goal or MCLG: 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 or MCL: 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 or 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 or 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.

Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.

ppm: milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

ppb: micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.

na: not applicable.

Definitions: The following tables contain scientific terms and measures, some of which may require explanation.

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	2013	1	0.9 - 1	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
<p>Arsenic - While your drinking water meets EPA standards for arsenic, it does contain low levels of arsenic. EPAs standard balances the current understanding of arsenics 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.</p>	2013	5.8	5.8 - 5.8	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
	Barium	2013	0.058	0.058 - 0.058	2	2	ppm	N
Fluoride	2013	2.4	2.4 - 2.4	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2013	2	1.7 - 2.4	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	2013	8.9	8.9 - 8.9	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination

Beta/photon emitters	2013	7	7 - 7	0	4	mrem/yr	N	Decay of natural and man-made deposits.
Combined Radium 226/228	2013	0.1	0.1 - 0.1	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	2013	4.3	0 - 4.3	0	15	pCi/L	N	Erosion of natural deposits.
Uranium	2013	6	6 - 6	0	30	ug/l	N	Erosion of natural deposits.

Source	Well #	Type	Status	Location
Blackwater	2	GW	active	Blackwater Draw Well Field
Blackwater	3	GW	active	Blackwater Draw Well Field
Blackwater	4	GW	active	Blackwater Draw Well Field
Blackwater	5	GW	active	Blackwater Draw Well Field
Blackwater	6	GW	active	Blackwater Draw Well Field
Blackwater	7	GW	active	Blackwater Draw Well Field
Blackwater	8	GW	active	Blackwater Draw Well Field
Blackwater	9	GW	active	Blackwater Draw Well Field
Blackwater	10	GW	active	Blackwater Draw Well Field
Blackwater	11	GW	active	Blackwater Draw Well Field
Blackwater	12	GW	active	Blackwater Draw Well Field
Blackwater	13	GW	active	Blackwater Draw Well Field
Blackwater	14	GW	active	Blackwater Draw Well Field
Blackwater	15	GW	active	Blackwater Draw Well Field
Blackwater	16	GW	active	Blackwater Draw Well Field
Blackwater	17	GW	active	Blackwater Draw Well Field
Blackwater	18	GW	active	Blackwater Draw Well Field
Blackwater	19	GW	active	Blackwater Draw Well Field
Blackwater	20	GW	active	Blackwater Draw Well Field
Blackwater	21	GW	active	Blackwater Draw Well Field
Blackwater	22	GW	active	Blackwater Draw Well Field
Blackwater	23	GW	active	Blackwater Draw Well Field
Blackwater	24	GW	active	Blackwater Draw Well Field
Blackwater	25	GW	active	Blackwater Draw Well Field
Blackwater	26	GW	active	Blackwater Draw Well Field
Blackwater	27	GW	active	Blackwater Draw Well Field
Blackwater	28	GW	active	Blackwater Draw Well Field
Blackwater	29	GW	active	Blackwater Draw Well Field
Blackwater	30	GW	active	Blackwater Draw Well Field
Blackwater	31	GW	active	Blackwater Draw Well Field
Blackwater	32	GW	active	Blackwater Draw Well Field
Blackwater	41	GW	active	Blackwater Draw Well Field
Blackwater	42	GW	active	Blackwater Draw Well Field
Las Lomas	33	GW	active	Las Lomas Section/ Blackwater Draw
Las Lomas	34	GW	active	Las Lomas Section/ Blackwater Draw
Las Lomas	35	GW	active	Las Lomas Section/ Blackwater Draw
Las Lomas	36	GW	active	Las Lomas Section/ Blackwater Draw
Las Lomas	37	GW	active	Las Lomas Section/ Blackwater Draw
Las Lomas	38	GW	active	Las Lomas Section/ Blackwater Draw
Las Lomas	39	GW	active	Las Lomas Section/ Blackwater Draw
Las Lomas	40	GW	active	Las Lomas Section/ Blackwater Draw
Sandhill	1	GW	active	Sandhill Well Field
Sandhill	3	GW	active	Sandhill Well Field
Sandhill	4	GW	active	Sandhill Well Field
Sandhill	5	GW	active	Sandhill Well Field
Sandhill	6	GW	active	Sandhill Well Field
Sandhill	7	GW	active	Sandhill Well Field

## **IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER – ELEVATED FLUORIDE LEVELS DETECTED**

This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/l) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by the Portales Water System has a fluoride concentration ranging from 1.8 to 2.8 mg/L. We are required to notify you when we discover that the fluoride levels in your drinking water exceed 2 mg/l because of this cosmetic dental problem.

Dental fluorosis, in its moderate or severe forms, may result in a brown staining and/or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under the age of nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water.

Drinking water containing more than 4 mg/L of fluoride (the U.S. EPA's drinking water standard) can increase your risk of developing bone disease. Your drinking water does not contain more than 4 mg/l of fluoride. For more information, please call John Desha of the Portales Water System at 575-356-6662. Home water treatment units are available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1-877-8-NSF-HELP.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

Fluoride contamination is rarely due to human activity. Fluoride occurs naturally in some areas and is found in elevated concentrations in our source water. We are continuing to monitor fluoride levels. We will inform you if they exceed the level of 4 mg/L.

### **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 today and soon it will become second nature.

- 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 and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
- Visit [www.epa.gov/watersense](http://www.epa.gov/watersense) for more information.

EVERY  
DROP  
COUNTS  
CONSERVE  
YOUR WATER

**PLEASE USE THE WATERING SCHEDULE**

Odd Number Addresses:  
Tuesday, Thursday & Saturday

Even Number Addresses:  
Wednesday, Friday & Sunday

NO WATERING ON MONDAY  
OR BETWEEN 10AM-6PM DAILY



AYUDE  
LA CIUDAD  
DE PORTALES  
CONSERVAR  
EL AGUA

**FAVOR DE USAR EL HORARIO PARA REGAR**

Direcciones numeradas impares:  
martes, jueves, y sábado

Direcciones aun numeradas:  
miércoles, viernes, y domingos

NO RIEGUE LOS LUNES O ENTRE LAS HORAS  
DE 10 DE LA MAÑANA A 6 DE LA TARDE





City of Portales Citizens:

The City's sole source of water supply is groundwater pumped through two wellfields from the Ogallala/High Plains Aquifer. As reported in 2014 by Charles R. Wilson, the City's hydrology consultant, the aquifer is being pumped at a rate that exceeds natural recharge. Continuing aquifer depletion has made it increasingly difficult for the City's well system to meet water demands. The City will continue to add new wells to help meet water supply needs; however, maintaining adequate production capacity requires action beyond the addition of new wells as the aquifer continues to deplete. Therefore, the City of Portales is constructing a new wastewater treatment plant and installing a reuse system for landscape irrigation of the City parks as one alternative to reduce pressure on the potable water supply and prolong the life of the water supply in the existing wellfields.

In 2013, the New Mexico Environment Department (NMED) approved an application by the City of Portales for a twenty-year, zero percent interest Clean Water State Revolving Loan Fund for \$26,580,000 and an Environmental Protection Agency (EPA) Grant for \$420,000. The funds are being used to plan, engineer, construct, install and equip a wastewater treatment plant capable of producing high quality effluent (reuse water) and a distribution system for the purpose of reusing the water for irrigation. Construction on the new wastewater treatment plant and the reuse system will begin in summer of 2014 and construction is anticipated to be completed in the summer of 2015.

The wastewater treatment plant will treat the current average flow of about 0.8 MGD to 1 MGD (million gallons per day) and the reclaimed water will be used for landscape irrigation demands at the City parks and, possibly, watering grounds at the local golf course and schools. These projects are a substantial investment in infrastructure that will significantly influence the City's ability to meet current and future water needs of the community. The City is currently reviewing the water and wastewater rates charged to customers and increases in rates will be necessary in the near future to continue operating, maintaining, and improving water and wastewater system infrastructure critical to the continued vitality of the community.

Building the new wastewater treatment plant and reuse system are critical conservation steps toward moving away from using potable water for landscape irrigation and is anticipated to support approximately a 25% reduction in wellfield demand. The new wastewater treatment plant and effluent reuse system will produce Class 1A reclaimed wastewater so that it can be used to irrigate the City's public parks. Class 1A reclaimed wastewater has no human access or residential setback limitations and may be used for any purpose except direct consumption, food handling and processing, and spray irrigation of food crops (NMED 2007).

Water is a precious commodity and the City of Portales, as responsible stewards of the community, understands the value of this resource. The projects are vital components in an overall strategy for meeting current and future water demands.

Sharon L. King  
Mayor

**City of Portales  
100 West First Street  
Portales, New Mexico 88130**

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**MISSION STATEMENT  
The City of Portales  
is dedicated to enhancing  
the quality of life for all  
Citizens while exercising  
Fiscal responsibility.**