

# 2018 Annual Water Quality Report

Presented by



Este informe contiene información muy importante sobre su agua potable.  
Tradúzcalo o hable con alguien que lo entienda bien.

## Quality First

Once again we are pleased to present our annual water quality report. 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 the opportunity to serve you and your family.

We encourage you to share your thoughts with us on the information contained in this report. After all, well-informed customers are our best allies.

For more information about this report, or for any questions relating to your drinking water, please call the acting Chief Water Operator, at (805) 933-4282.

## Where Does My Water Come From?

The City of Santa Paula's source of water is 100% groundwater, pumped from the Santa Paula Basin. The basin is made up of hundreds of feet of sands and gravels deposited in the Santa Clara Valley and the mouth of the Santa Paula Canyon, which contains millions of gallons of water between sand and gravel particles. The Santa Paula Basin extends from the Hallock Drive area on the east to the Wells Road area on the west.

The City of Santa Paula owns and operates five deep wells: Well 1-B, Well 11, Well 12, Well 13, and Well 14. With these five wells, the water system can produce up to 10.6 million gallons of potable water per day.

The City operates two water conditioning facilities, the Well 12 Water Conditioning Facility and the Steckel Water Conditioning Facility. Both facilities remove iron and manganese from the water. Although neither iron nor manganese is a health concern, water containing high levels of iron will look rusty, stain fixtures and laundry. Similarly, water with high levels of manganese will contain black particles that may stain laundry and fixtures and plug appliance screens. The Well 12 Water Conditioning Facility treats water produced by Well 12. The Steckel Water Conditioning Facility treats water produced from Wells 11, 13, and 14.

## Community Participation

The City of Santa Paula Water System is managed as an enterprise function by the City of Santa Paula. The Water Operation and Water Distribution Divisions of the Public Works Department conduct operations. Comments about the water system can be forwarded to the City Council, which meets on the first and third Monday evenings of each month at 6:30 p.m., in the City Council Chambers, 970 Ventura Street, Santa Paula, California.

## UCMR4 Sampling

We participated in the 4th stage of the EPA's Unregulated Contaminant Monitoring Rule (UCMR4) program by performing additional tests on our drinking water. UCMR4 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if EPA needs to introduce new regulatory standards to improve drinking water quality. Contact us for more information on this program.

## 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 Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that 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 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 storm-water 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.

## 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>.



# Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. The information in the data tables show only those substances that were detected between January 1 and December 31, 2018. Remember that detecting a substance does not necessarily mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels. The State recommends monitoring 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.

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AVERAGE VALUE	RANGE LOW- HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2018	10	0.004	1.67	ND - 3.0	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Chlorine (ppm)	2018	[4.0 (as Cl <sub>2</sub> )]	[4.0 (as Cl <sub>2</sub> )]	0.78	0.31 - 01.51	No	Drinking water disinfectant added for treatment
Fluoride (ppm)	2018	2.0	1.0	0.43	0.4 - 0.5	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2016	15	(0)	5.6	4.5 - 6.1	No	Erosion of natural deposits
Haloacetic Acids - Stage 2 (ppb)	2018	60	NA	2.0	2.0 - 2.0	No	By-product of drinking water disinfection
Nitrate [as No <sub>3</sub> ] (ppm)	2018	45	45	17.05	7.6 - 23.0	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrate [as N] (ppm)	2018	10	10	3.8	1.7 - 5.2	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Radium 226 (pCi/L)	2010	5	0.05	0.1	0.1 - 0.3	No	Erosion of natural deposits
Selenium (ppb)	2018	50	30	10.0	7.0 - 15.0	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 2 (ppb)	2018	80	NA	9.5	9.0 - 10.0	No	By-product of drinking water disinfection
Total Coliform Bacteria [federal Revised Total Coliform Rule - after April 2016] (Positive samples)	2018	TT	NA	0	NA	No	Naturally present in the environment
Uranium (pCi/L)	2016	20	0.43	4.2	3.0 - 4.7	No	Erosion of natural deposits

## Secondary Substances

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AVERAGE VALUE	RANGE LOW-HIGH	EXCEEDANCE	TYPICAL SOURCE
Chloride (ppm)	2018	500	NS	48.0	46.0 - 53.0	No	Runoff/leaching from natural deposits; seawater influence
Manganese <sup>1</sup> (ppb)	2018	50	NS	90.0	ND - 190.0	Yes	Leaching from natural deposits
Sulfate (ppm)	2018	500	NS	450.5	436.0 - 471.0	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2017	1,000	NS	924.2	840 - 1080.0	Yes	Runoff/leaching from natural deposits
Turbidity (NTU)	2018	5	NS	0.23	0.1 - 0.4	No	Soil runoff

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

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTE (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2016	1.3	0.3	0.76	1/39	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2016	15	0.2	ND	0/39	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

## Table Definitions

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

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

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

**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.

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

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

**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.

**NS**: No standard.

**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.

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

**LRAA** (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as the highest LRAAs.

## Unregulated Substances

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AVERAGE VALUE	RANGE LOW-HIGH	TYPICAL SOURCE
Boron (ppb)	2018	525	500.0 - 600.0	NA
Sodium (ppm)	2018	87.75	81.0 - 92.0	NA
Hardness (ppm)	2018	554.75	518.0 - 591.0	NA
Hardness (grains/gal)	2018	32.44	30.29 - 34.56	NA

## EPA's Unregulated Contaminant Monitoring Rule (UCMR4)

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MLR	AVERAGE VALUE	RANGE LOW-HIGH
Germanium (µg/L)	2014	0.3	0.05	ND - .31
Manganese (µg/L)	2018	0.4	45.09	120
HAA <sup>5</sup>	2018	N/A	1.9	1.7 - 2.1
HAA6Br <sup>1</sup>	2018	N/A	5.45	4.9 - 6.0
HAA9 <sup>2</sup>	2018	N/A	5.45	4.9 - 6.1
Total Organic Carbon (TOC)	2018	N/A	0.43	.31 - 2.6
Bromide	2018	N/A	282	200-350

<sup>1</sup> HAA6Br: Bromochloroacetic acid, bromodichloroacetic acid, dibromoacetic acid, dibromochloroacetic acid, monobromoacetic acid, and tribromoacetic acid.

<sup>2</sup> HAA9: Bromochloroacetic acid, bromodichloroacetic acid, chlorodibromoacetic acid, dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, tribromoacetic acid, and trichloroacetic acid.

<sup>1</sup> Footnote for City of Santa Paula: Manganese and total dissolved solids were detected in Santa Paula's source water supply at levels exceeding the established state secondary MCLs (SMCLs), which are set to protect against unpleasant aesthetic effects such as color, taste, odor, and staining of plumbing fixtures (for example tubs or sinks) or clothing during laundering. There are no adverse health effects expected with these exceedances. In 2018, 99 percent of the water served was treated at our two iron and manganese removal facilities prior to delivery. The remaining 1 percent was from well 1-B and was used to meet peak demands during summer months.

Footnote for Unregulated Substances Header: Unregulated contaminant monitoring helps U.S. EPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

## Testing For Radon

Radon is a radioactive gas that you cannot see, taste, or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. You should pursue radon removal if the level of radon in your air is 4 pCi/L of air or higher. There are simple ways to fix a radon problem that are not too costly. For additional information, call California's radon program (1-800-745-7236), the U.S. EPA Safe Drinking Water Act Hotline (1-800-426-4791), or the National Safety Council Radon Hotline (1-800-767-7236).

## Count on Us

Delivering high-quality drinking water to our customers involves far more than just pushing water through pipes. Water treatment is a complex, time-consuming process. Because tap water is highly regulated by state and federal law, water treatment plant and system operators must be licensed and are required to commit to long-term, on-the-job training before becoming fully qualified. Our licensed water professionals have a basic understanding of a wide range of subjects including mathematics, biology, chemistry and physics. Some of the tasks they complete on a regular basis include:

- Operating and maintaining equipment to properly treat the water;
  - Monitoring and inspecting machinery, meters, gauges and operating conditions;
  - Conducting test and inspections on water to evaluate results;
  - Maintaining water chemistry;
  - Applying data to formulas that determine treatment requirements, flows levels and concentration levels;
  - Serving our community through customer service, education and outreach;
- So, the next time you turn on your faucet, think of the skilled professionals who provide you with clean potable drinking water.

## Source Water Assessment

The City of Santa Paula's source water assessment was completed in September 2002, with the assistance of the State Water Resources Control Board (SWRCB) Division of Drinking Water. Our source is considered most vulnerable to the following activities not associated with any detected contaminants: Sewer collection systems, wells-agricultural/irrigation, NPDES/WDR permitted discharges, automotive-body shops, machine shops, metal plating/finishing/fabricating, historic gas stations and underground storage tanks - confirmed leaking tanks.

A copy of the complete assessment may be viewed at either the State Water Resources Control Board (SWRCB) Division of Drinking Water, 1180 Eugenia Place, Suite 200, Carpinteria, CA 93013 or at the City of Santa Paula, Public Works Water Division, 180 South Palm Avenue, Santa Paula, CA 93060. You may request that a summary of the assessment be sent to you by contacting: Jeff Densmore, SWRCB District Engineer, (805) 566-1326.

## 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 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 do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.) 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/lead](http://www.epa.gov/lead).