



# 2022 Consumer Confidence Report

**Water System Name:** PATTERSON, CITY OF **Report Date:** June 2023

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 – December 31, 2022.

**Type of water source(s) in use:** According to SWRCB records, this Source is Groundwater. This Assessment was done using the Default Groundwater System Method.

**Name and general location of source(s):** Your water comes from 7 source(s) located within the city limits: WELL NO. 02 (standby), WELL NO. 05, WELL NO. 06 (standby), WELL NO. 07, WELL, NO. 08, WELL NO. 09 and WELL NO. 11 (exact location is not provided due to security reasons).

**Drinking water source assessment information:** A source water assessment was completed in October 2000 for Wells 2, 5, 6, and 7, in August 2002 for Well 8, in May 2007 for Well 11 and April 2008 for Well 9.

**Public participation:** The public can participate in decisions that affect drinking water by attending City Council meetings on the 1st and 3rd Tuesday of every month at 7:00pm.

Members of the public may participate in the meeting in person or via teleconference by calling 1-669-900-9128, meeting ID: 693 538 4239, password: 20995363 and we will be given the opportunity to provide public comment. You can join from a PC, Mac, iPad, iPhone, or Android device by using this URL:

<https://us02web.zoom.us/j/6935384239?pwd=ZmZwMFdYajRsTjJKTnNTamZCWFXdz09>

The meeting will be televised or available for public viewing on Comcast Cable channel 7 on the following days: Wednesday at 3:00pm, Friday at 8:00pm and Saturday at 12:00pm. You can also watch on the internet VIMEO link: <https://vimeo.com/channels/patterson/>

**Contact information:** For more information about this report or any questions related to your drinking water, please call (209) 895-8060 and ask for Maria Encinas or visit our website at [www.ci.patterson.ca.us](http://www.ci.patterson.ca.us). **Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.**

**Tables 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 11** list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Water Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old. 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791). Some people may be more vulnerable to contaminants in drinking water than the general population. 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. USEPA/Centers for Disease Control (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 (1-800-426-4791).

**TERMS USED IN THIS REPORT**

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

**Maximum Contaminant Level Goal (MCLG):** 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. Environmental Protection Agency (USEPA).

**Public Health Goal (PHG):** 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 Environmental Protection Agency.

**Maximum Residual Disinfectant Level (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.

**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 contaminants.

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

**Secondary Drinking Water Standards (SDWS):** MCLs for the contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

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

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

**Level 1 Assessment:** Study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

**Level 2 Assessment:** Detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

**ND:** not detectable at testing limit

**mg/L:** milligrams per liter or parts per million (ppm) **ug/L:** micrograms per liter or parts per billion (ppb) **pCi/L:** picocuries per liter (a measure of radiation)

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**NTU:** Nephelometric Turbidity Units

**umhos/cm:** micro mhos per centimeter

**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.

**Contaminants that may be present in source water include:**

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can 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, agricultural application, 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 to drink,** the USEPA and the State Water Resource Control Board (State Water Board) prescribe regulations that limit the number of certain contaminants in water provided by public water systems. State Water Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Lead Specific Language for Community Water Systems: 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 the service lines and home plumbing.

The city of Patterson is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components.

**Table 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA**

Microbiological Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	MCL G	Typical sources of contaminant
Total Coliform Bacteria	5/year (2022)	2	No more than 1 positive monthly sample	0	Naturally present in the environment

**Table 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER**

Lead and Copper	Sample Date	No. of Samples	90th percentile level detected	No. Sites Exceeding AL	AL	PHG	Typical Sources of contaminant
Lead (ug/L)	(2021)	30	0	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufactures erosion of natural deposits
Copper (mg/L)	(2021)	30	0.07	0	1.3	.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

**Table 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS**

Constituent (Unit of Measure)	Sample Date	Average	Range	MCL	PHG (MCLG)	Typical sources of contaminant
Sodium (mg/L)	(2020 – 2022)	110	70-137	none	none	Salt present in the water is generally naturally occurring
Hardness (mg/L)	(2020 – 2022)	388	258-481	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

**Table 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD**

Constituent (Unit of Measure)	Sample Date	Average	Range	MCL (MRDL)	PHG(MCLG) (MRDLG)	Typical sources of contaminant
Arsenic (ug/L)	(2020 – 2022)	3	2 – 6	10	0.004	Erosion of natural deposits; runoff from orchards, glass and electronics production wastes
Chromium (ug/L)	(2020 – 2022)	24	17 – 37	50.0	n/a	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (mg/L)	(2020 – 2022)	0.1	ND – 0.4	2	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate as N (mg/L)	(2022)	5.4	1.4 – 8.6	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrate + Nitrite as N (mg/L)	(2020 – 2022)	3.2	1.4 – 7.9	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ug/L)	(2020 – 2022)	8	5 – 12	50	30	Discharge from petroleum, glass, metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock
Gross Alpha (pCi/L)	(2019 – 2022)	4.66	1.45 – 7.05	15	(0)	Erosion of natural deposits
Uranium (pCi/L)	(2019 – 2022)	2.89	1.85 – 4.78	20	0.43	Erosion of natural deposits
Tetrachloroethylene (PCE) (ug/L)	(2020 – 2022)	*2.8	ND – 8.2	5	0.06	Discharge from factories, dry cleaners, and auto shops (metal degreaser)

**Table 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD**

Constituent (Unit of Measure)	Sample Date	Average	Range	MCL	PHG (MCLG)	Typical sources of contaminant
Chloride (mg/L)	(2020 - 2022)	128	32 – 236	500	n/a	Runoff/leaching from natural deposits; seawater influence
Iron (ug/L)	(2020 – 2022)	*118	ND – 690	300	n/a	Leaching from natural deposits; industrial wastes
Color (Units)	(2022)	1	ND – 5	15	n/a	Naturally occurring organic materials
Manganese (ug/L)	(2022)	ND	ND – 20	50	n/a	Leaching from natural deposits
Copper (mg/L)	(2022)	ND	ND – 0.08	1.0	1.0	Internal corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives
Specific Conductance (umhos/cm)	(2020 – 2022)	*1482	866 – 1850	1600	n/a	Substances that form ions when in water; seawater influence
Sulfate (mg/L)	(2020 – 2022)	283	210 – 416	500	n/a	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (mg/L)	(2020 – 2022)	*966	560 – 1230	1000	n/a	Runoff/leaching from natural deposits
Turbidity (NTU)	(2020 – 2022)	0.7	ND – 3.4	5	n/a	Soil runoff

**Table 6 – DETECTION OF UNREGULATED CONTAMINANTS**

Constituent (and reporting units)	Sample Date	Average	Range	Notification Level	Typical Sources of Contaminant
Boron (mg/L)	(2020 – 2022)	0.4	0.3 – 0.6	1	Boron exposures resulted in decreased fetal weight (developmental effects) in newborn rats.
Vanadium (ug/L)	(2022)	10	8 – 15	50	Vanadium exposures resulted in developmental and reproductive effects in rats.
Manganese (ug/L)	(2022)	5	ND – 20	n/a	n/a
Hexavalent Chromium (ug/L)	(2022)	16.7	14 – 19.8		0.02 (voluntary sampling; not required for CY 2022)

**Table 7 – VIOLATION OF A MCL, AL, TT OR MONITORING REPORTING REQUIREMENT -N/A**

**Table 8 – SAMPLING RESULTS SHOWING FCAL INDICATOR-POSITIVE GROUNDWATER SOURCE SAMPLES -N/A**

**Table 9 – VIOLATION OF GROUNDWATER TT – N/A**

**Table 10 – SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER RESOURCES – N/A**

**Table 11 – VIOLATION OF SURFACE WATER TT – N/A**

**ADDITIONAL DETECTIONS**

Constituent (Unit of Measure)	Sample Date	Average	Range	Notification Level	Typical sources of contaminant
Calcium (mg/L)	(2020 – 2022)	68	44 – 89	n/a	n/a
Magnesium (mg/L)	(2020 – 2022)	53	35 – 63	n/a	n/a
pH (units)	(2020 – 2022)	7.2	6.8 – 7.7	n/a	n/a
Alkalinity (mg/L)	(2020 – 2022)	156	120 – 200	n/a	n/a
Aggressiveness Index	(2020 – 2022)	11.6	11.3 – 12.0	n/a	n/a
Langelier Index	(2020 – 2022)	-0.3	-0.6 – 1.0	n/a	n/a

**DETECTION OF DISINFECTANT/DISINFECTANT BYPRODUCT RULE**

Constituent (Unit of Measure)	Sample Date	Average	Range	MCL (MRDL)	PHG (MCLG)	Violation	Typical sources of contaminant
Total Trihalomethanes (TTHMs) (ug/L)	(2022)	17	ND -21	80	n/a	No	By-product of drinking water disinfectant added for treatment
Chloride (mg/L)	(2022)	0.00	n/a	4.0	4.0	No	Drinking water disinfectant added for treatment
Haloacetic Acids (5) (ug/L)	(2022)	5	ND – 10	60	n/a	No	By-product of drinking water disinfection

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 two 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 <http://www.epa.gov/lead>.

Any violation of MCL, AL, or MRDL is highlighted or contains an asterisk.

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