



# 2022 Water Quality Report

Issued July 2023



## A Message from the General Manager

Helendale Community Services District is proud to announce that your tap water met all United States Environmental Protection Agency (U.S. EPA) and State drinking water health standards. Helendale CSD is committed to providing our customers with high-quality safe drinking water.

The Consumer Confident Report (CCR), is an annual drinking water quality report required by the 1974 Safe Drinking Water Act. The purpose of the CCR is to inform customers about the quality of their drinking water, where their drinking water comes from, what it takes to deliver water to businesses and homes and the importance of protecting drinking water sources.

Through our trained and certified water professionals, citizens have the security of knowing their drinking water has proper monitoring and oversight. We are committed to providing our customers with high-quality and safe drinking water.

This report includes results from several water quality tests for various constituents found in water. Helendale CSD routinely monitors the constituents in the District's drinking water in accordance with Federal and State laws. Substances that are not detected are not listed.

Sincerely,  
**Dr. Kimberly Cox**  
General Manager

### For more information

If you have questions about this report or concerning the water system, please contact **Craig Carlson**, Water Operations Manager, at 760-951-0006 during our regular office hours: Monday - Friday 8:00 am to 5:30 pm. Closed on Holidays.

### En Español

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien, 760-951-0006.



Follow us and stay up to date with everything going on at the District.

### BOARD OF DIRECTORS

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Board meetings are held at 6:00 pm on the first and third Thursday of each month. Meetings are open to the public and agenda materials may be found on the District website at [www.helendalecsd.org](http://www.helendalecsd.org)

# How we Protect Your Water Quality

## Extensive Testing

Our certified water operators test the water at four locations weekly for bacteriological activity. We also perform bacteriological tests on each active well site monthly and quarterly to ensure that the water you receive at your tap meets stringent state and federal standards. The samples are tested by an independent state certified lab.

## Flush to Keep the System Clean

Staff periodically flushes water out of fire hydrants at a high velocity to remove small amounts of natural sand and minerals that can slowly build up in pipelines. This happens because our water comes from deep groundwater wells.

## Disinfect for Safety

A small amount of chlorine is added at each well on a continuous basis to ensure the water remains free of any bacteria.

**In 2022, we tested over 303 water quality samples in order to determine the presence of any contaminants.**

## Source Water Assessment

As required under the 1996 Safe Drinking Water Act amendments, a source water assessment must be completed for all active drinking water sources.

The drinking water produced by the Helendale Community Services District originates from groundwater. Source water assessments have been conducted for the District's two active wells. Well 1A was assessed in June 2010 and Well 4A was assessed in June 2011. No contaminants were detected above the Maximum Contaminant Levels (MCL) set by the State Water Resources Control Board.

To view completed source water assessments, you may visit our District office located at: Helendale Community Services District at 26540 Vista Rd., Suite B, Helendale, CA. 92342.

## What you can do to protect sources of water

Protecting source water reduces risks to public health from exposures to contaminated water. Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water sources in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides. They contain hazardous chemicals that can reach your drinking water source.
- Properly dispose of pharmaceutical products.
- Pick up after your pets.
- Dispose of chemicals properly. Read the product label to learn how to use and dispose of the products safely. Do not dump these products in toilets, on the ground or in the garbage can. Take these products to your local household hazardous waste drop off center.

## Vulnerable Populations

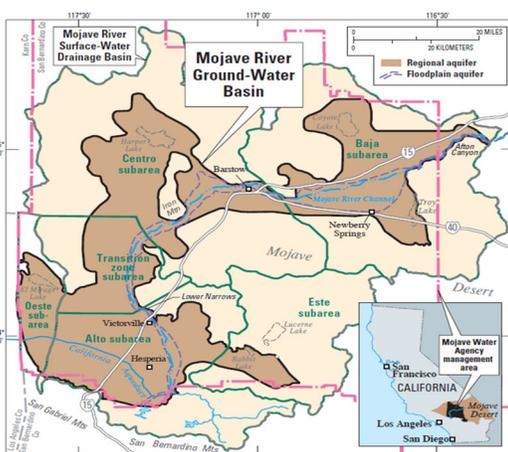


Some people may be more vulnerable to contaminants in drinking water than the general population. People with compromised immune systems such as those with cancer undergoing chemotherapy, who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. Immunocompromised 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).

# Drinking Water Sources

Helendale gets all its water from the Upper Basin area, known as the Alto Subarea of the Mojave River Basin. The District's water supply is one hundred percent groundwater.

In 2022, the District delivered 1,533 acre-feet of water to our approximately 2,840 service connections from Well 1A and 4A. The District has a total of seven wells, however, five are on emergency standby. Helendale CSD's distribution system includes 758 valves, 300 hydrants, and 37 miles of pipe.



*Map of ground water basin – Helendale CSD's source of water*

## SCADA

To help monitor and keep your water safe, our highly trained and certified Staff use a state-of-the-art Supervisory Control and Data Acquisition (SCADA) system to monitor tank levels, chlorine levels, and well status. The SCADA system provides remote operation and monitoring capabilities, increased security, and advanced notification.

## New Well

The District began drilling a new well in August 2021 to augment current pumping and create redundancy for the wells already in service. The new well is nearly complete, and it is anticipated to be in service by October 2022.

## New Meters

The Helendale CSD has received several grants that have enabled us to replace old water meters with new state-of-the-art technology. Staff will continue to exchange the District's old meters, with new Advanced Metering Infrastructure (AMI) "Smart Meters." These new meters will allow our Staff to detect leaks and unusual water usage more quickly and in turn help customers identify leaks and repair them right away. This program will help the District with our water conservation goals and continue our dedication to excellent customer service.

# Water in the Environment



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, 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 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 can also come from gas stations, urban stormwater runoff, agricultural application and septic systems.

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

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) and the State Water Resources Control Board (SWRCB) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

# WATER QUALITY RESULTS

## Contaminants Expected in Drinking Water

Drinking water sources (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As the water travels over the surface of the land or through the ground, the water dissolves naturally occurring minerals - sometimes including radioactive material - and can also pick up substances resulting from the presence of animals and human activity. In order to ensure that tap water is safe to drink, the US EPA and the State Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations 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. **More information about contaminants and potential health effects can be obtained by calling the USEPA Safe Drinking Water Hotline at 1-800-426-4791.**

You may also visit the following websites for more information:

USEPA - [www.epa.gov/safewater](http://www.epa.gov/safewater)

CA State Water Resources Control Board [www.waterboards.ca.gov/drinking\\_water/programs/index.shtml](http://www.waterboards.ca.gov/drinking_water/programs/index.shtml)

The tables in this report indicate which minerals and substances have been detected in the water provided by Helendale CSD.

## Regulated Primary Health Standards

Inorganic Contaminants							
Contaminant	Average	Sample Range	MCL	PHG (MCLG)	Sample Date	Violation	Major Sources in Drinking Water
Fluoride (mg/L) (Naturally Occurring)	0.27	0.23 - 0.31	2	1	2020/21	NO	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate as N (NO <sub>3</sub> -N) (mg/L)	0.61	0.51 - 0.72	10	10	2022	NO	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrate + Nitrite (as N) (mg/L)	0.61	0.51 - 0.72	10	10	2022	NO	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits

## Unregulated Contaminants

Unregulated Contaminants						
Constituent	Average	Sample Range	NL	MCL	PHG (MCLG)	Date
Boron (ug/L)	250	190 - 310	1,000	None	None	2018/20
Vanadium (ug/L)	4.7	4.4 - 5.0	50	None	None	2018/20



# WATER QUALITY RESULTS

## Lead and Copper

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. Helendale CSD is 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 tap for 30 seconds to 2 minutes before using water for drinking or cooking. Optional: 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 <http://www.epa.gov/lead>.

Contaminant	Sample Date	No. of samples collected	90th percentile level detected	No. sites exceeding AL	AL	PHG (MCLG)	Typical Source of Contaminant
Lead (µg/L)	Sept. 2021	20	0	0	15	0.015	Internal corrosion of household water plumbing systems discharges from industrial manufacturers; erosion of natural deposits
Copper (µg/L)	Sept. 2021	20	.16	0	1,300	300	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives

Samples were taken at 20 various taps throughout the District.

## Other Constituents

Constituent	Average	Range	Date
Bicarbonate (mg/L)	220	210 - 230	2020/21
Calcium (mg/L)	70	68 - 72	2020/21
Magnesium (mg/L)	8.8	7.7 - 10	220/21
pH (Lab)	7.8	7.7 – 8.0	2020/21
Potassium (mg/L)	2.35	2.1 – 2.6	2018/20
Sodium (mg/L)	73.5	63 – 84	2020/21
Total Alkalinity (as CaCO <sub>3</sub> ) (mg/L)	175	160 – 190	2018/20
Total Hardness (as CaCO <sub>3</sub> ) (mg/L)	210	200 - 220	2020/21

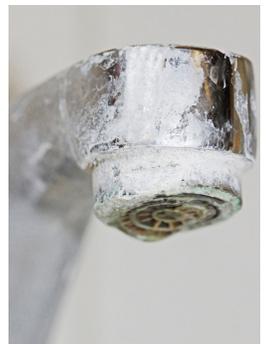
No PHG or MCL's available

## Water Hardness

The simple definition of water hardness is the amount of dissolved calcium and magnesium in the water. Hard water is high in dissolved minerals, largely calcium and magnesium.

Many industrial and domestic water users are concerned about the hardness of their water.

When hard water is heated, such as in a home water heater, solid deposits of calcium carbonate can form. This scale can reduce the life of equipment, raise the costs of heating the water, lower the efficiency of electric water heaters, and clog pipes. And, yes, mineral buildup will occur in your home coffee maker too, which is why some people occasionally run vinegar (an acid) through the pot. The acidity of vinegar helps to dissolve mineral particles by making them charged. These newly charged particles become attracted to the positive and negative charges in water and can be washed away easily.





## Regulated Contaminants with Secondary Maximum Contaminant Levels

Contaminant	Average	Sample Range	Secondary MCL	Sample Date	Violation	Major Sources in Drinking Water
Chloride (mg/L)	63	60 - 66	500	2020/21	NO	Runoff/leaching from natural deposits; seawater influence
Odor (units)	1	1	3	2020/21	NO	Naturally occurring organic materials
Specific Conductance (µS/cm)	725	720 - 730	1600	2020/21	NO	Substances that form ions when in water; seawater influence
Sulfate (mg/L)	120	120	500	2020/21	NO	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (mg/L)	445	430 - 460	1000	2020/21	NO	Runoff/leaching from natural deposits

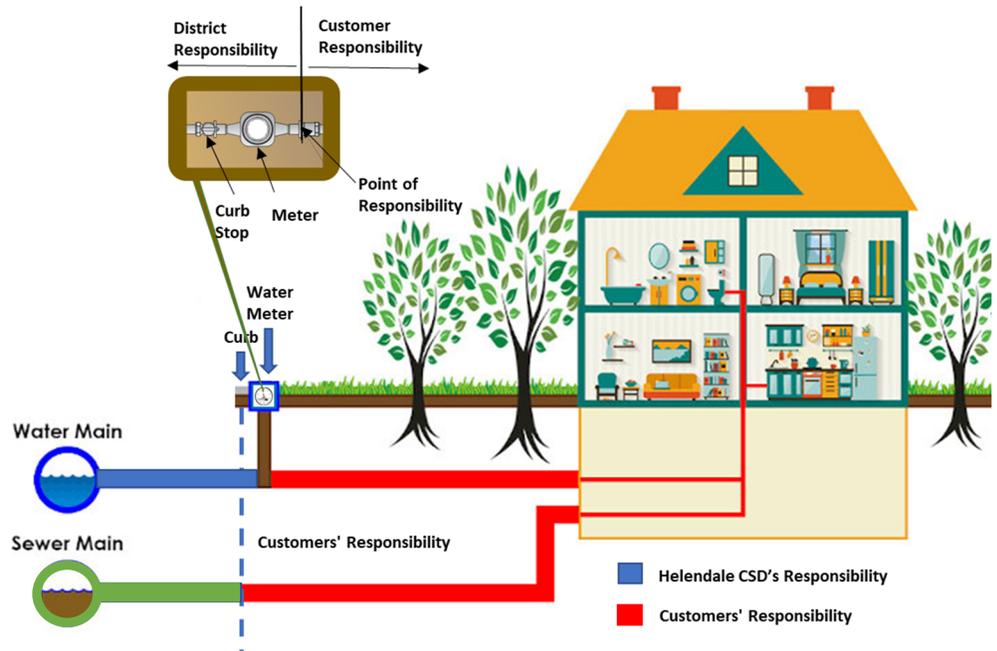
Contaminant	Required Sampling Frequency	Number of Samples Taken	North Tank	South Tank
Trihalomethanes TTHM	2 samples Annually	2	9.0 mg/L	3.1 mg/L
Haloacetic Acids HAA5	2 Samples Annually	2	2.3 mg/L	1.0 mg/L

### Customers are responsible for maintaining:

- The water service line after the meter
- The courtesy valve on the customer side of the meter (open and close the valve once a month)
- All plumbing and irrigation attached to the water service line
- The sewer service line up to the property line

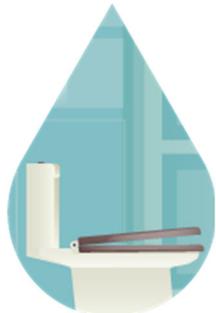
### Helendale CSD owns and maintains:

- The water main
- The water service line running to the meter
- The meter and radio
- The sewer main
- The sewer service line from the sewer main to the property line



# Your Partner in Conservation

Helendale residents have made great strides in conserving water and embracing conservation as a way of life. From the smallest everyday changes like taking shorter showers to transforming landscapes with California friendly plants, the community has shown that conservation matters and that even the smallest changes can have a big impact.



## INSTALL A HIGH-EFFICIENCY TOILET

Can save 19 gallons per person/day.



## WASH FULL LOADS

Washer: saves 15–45 gallons/load.  
Dishwasher: saves 5–15 gallons /load.



## SHOWER FOR ONLY 5 MINUTES

Saves 12.5 gallons with a water efficient showerhead.



## SET MOWERBLADES TO 3"

Encourages deep roots & saves 16–50 gallons per day.



## USE MULCH

Saves 20–30 gallons per 1000 sq. ft. each time you water.



## FIX LEAKY SPRINKLERS

Saves 12–15 gallons each time you water & a leak about as small as the tip of a pen can waste about 6,300 gallons of water per month!

# Definitions

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCL's are set as close to the PHG's (or MCLG's) as is economically and technologically feasible.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's are set by the U.S. Environmental Protection Agency (USEPA).

**Maximum Residual Disinfectant Level (MRDL):** 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. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**Notification Level (NL):** The concentration of a contaminant which, if exceeded, triggers notification to local political jurisdictions and customers.

**Primary Drinking Water Standard (PDWS):** MCL's and MRDL's for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.

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

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

**Secondary Drinking Water Standard:** Requirements that ensure appearance, taste and smell of drinking water are acceptable.

**Secondary MCL's (SMCL):** Regulated contaminant levels based on aesthetics such as color and odor, which do not pose a risk to health. These secondary maximum contaminant levels (SMCLs) are guidelines, not enforceable limits.

**Unregulated Contaminants:** Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. For additional information call the Safe Drinking Water Hotline at (800) 426-4791.

**NA:** Not applicable

**ND:** Not detected.

**NTU:** Nephelometric Turbidity Units.

**µS/cm:** a measure of conductance.

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

**mg/L:** milligrams per liter or parts per million (ppm).

**ug/L:** micrograms per liter or parts per billion (ppb).

**< :** Less than the detection limit.

**1 mg/L:** is equivalent to one second of time in approx. 11 1/2 days

**1 ug/L:** is equivalent to one second of time in approx. 31.7 years

# Residential Water Audits

The Helendale CSD is here to help you reduce your water usage. If you think your water usage is high or would like to find out what you can do to save more, our trained water conservation staff can visit your home and review your water usage, evaluate your indoor fixtures, and your irrigation system. Our staff will also look for leaks and provide suggestions on ways you can save water each month. If you would like to schedule a complimentary water audit, please contact the office at (760) 951-0006 ext. 230.