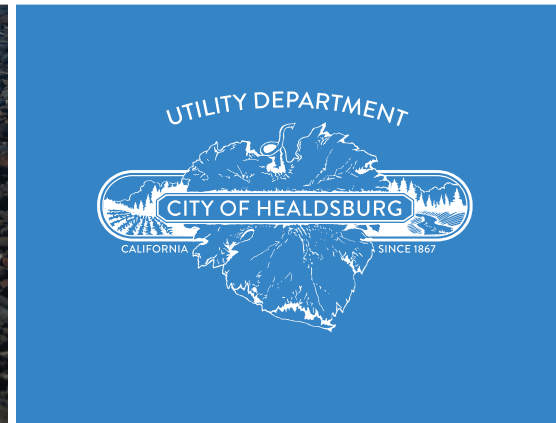
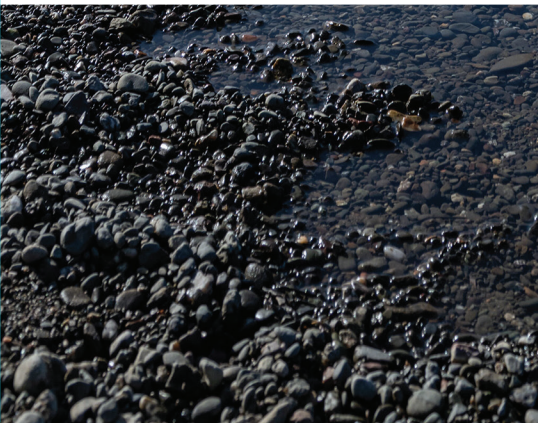
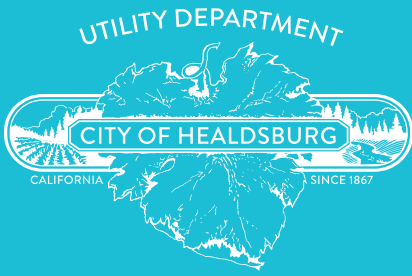


2019

WATER QUALITY REPORT

City of Healdsburg





2019 WATER QUALITY REPORT

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This report contains important information about your drinking-water. Please contact City of Healdsburg Water Utility Department at 401 Grove Street, or call 707-431-3346 for assistance in English.

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse Departamento de Agua de la Ciudad de Healdsburg en 401 Grove Street, o llame a 707-431-3346 para asistirlo en Español.

Cover photo: © Cynthia Glassell



WATER SYSTEM ID#: 4910005



MESSAGE FROM THE UTILITY DIRECTOR

Over the last year Healdsburg has seen more than its share of emergency events. From the February floods that inundated many of the City's facilities to the Kincadee fire that caused a citywide evacuation and power outage to the more recent COVID-19 pandemic, the need to provide safe and reliable drinking water has never been more important. Over the past year, City Staff worked many long and tireless hours to keep the City's supply of drinking water safe, clean and available. This herculean effort by our staff allows Healdsburg to wash, cook, clean, and drink whenever needed.

To provide this constant supply of water the City maintains over 50 miles of water piping under the City's streets, three water well fields to pull water from the Russian River and Dry Creek, water storage tanks for fire suppression, and sophisticated water treatment facilities to make sure your water is safe to drink. These facilities have been installed over many decades and collectively represent the City's continued investment to provide the community with water. To preserve and in some case gain value in these existing facilities requires a long-term commitment to their operation and planned replacement. In the coming years, the City has the need and a plan to replace and rebuild many of the City's water facilities. This ongoing effort toward planned replacement helps assure the City will be able to supply safe drinking water regardless of what mother nature throws back at us.

The information included in this report is just one part of the City's ongoing effort to supply safe and clean drinking water. Each year we publish the annual water quality report to inform our customers of the latest water quality monitoring results for calendar year 2019. The report answers some of the most common water quality questions asked by our customers. We hope the report provides you the facts and information you need to have confidence in your tap water and the City's stewardship of this vital infrastructure.

Sincerely,

Terry Crowley
UTILITY DIRECTOR



CLEAN WATER DESPITE NATURAL DISASTERS

Amidst wildfires and flooding, both the Public Works and Utility Departments made certain the water system remained functioning for domestic use and available for fire suppression. Wastewater treatment remained in operation and the safety of the water distributed was (and is continually) monitored. The City's water meets and often exceeds the regulatory requirements and guidelines for quality and safety.

While monitoring the Kincade Fire, our community members may have noticed planes dropping red material to halt the fire's advance; the red material is known as fire retardant. Some of our residents questioned how this material impacted the safety of our drinking-water. Fire retardant is comprised of water, ammonium phosphate (a fertilizer), as well as gum thickeners to help the retardant stick to the vegetation. This material does not contain toxic substances such as "per- and polyfluoroalkyl substances" (PFAS). PFAS and other potentially toxic materials that were historically used in firefighting aides, like foams, are generally not present or used by fire fighters in California any longer. The modern firefighting aides consist of non-toxic materials, in accordance with state and federal regulations.

The City's water system has remained in service and water quality has been maintained at a high level through the recent emergency events. We hope that we do not get challenged by events like them in the future. However, the Public Works Department, responsible for the distribution system, and Utility Department, responsible for supply and treatment, continue to train staff on emergency preparedness in order to maintain a resilient water system.

NOTICE FROM THE EPA

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 be 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 California 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.

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 (800.426.4791).

HOW TO READ THE WATER QUALITY TABLE

Highest amount of a contaminant EPA allows in drinking-water

The average amount of a constituent detected in the drinking-water

The lowest to highest amount of a constituent detected in the drinking-water.

Year tests were conducted

TABLE OF DETECTED SUBSTANCES OR CONTAMINANTS IN 2019

SUBSTANCE	HIGHEST LEVEL ALLOWED	AVERAGE LEVEL DETECTED	RANGE OF LEVELS DETECTED	TYPICAL SOURCES OF CONTAMINANT
PRIMARY SUBSTANCES Regulated contaminants with primary MCL, MCLG & MRDL				
<small>*Lead/Copper Rule 2017 Data, Next Round of Samples: 2020 *Regulated at the Customer's Tap</small>				
COPPER*	1.30 PPM (AL)	0.68 PPM (90th Percentile)	0.14 - 0.96 PPM (90th Percentile)	Internal corrosion of household plumbing systems

Last year, as in years past, your tap water met all U.S. EPA and State drinking-water health standards. The City of Healdsburg vigilantly safeguards its water supplies and once again, we are proud to report that in 2019 our system did not violate a maximum contaminant level or any other water quality standard.

This describes the most likely ways a constituent enters the drinking-water. Wording is provided by the EPA

DEFINITIONS:

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

MCL: Maximum Contaminant Level is 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.

MCLG: Maximum Contaminant Level Goal is the level of contaminant in drinking-water below which there is no known or expected risk to health. The U.S. EPA sets MCLGs.

MRDL: Maximum Residual Disinfectant Level is the level of disinfectant added for water treatment that may not be exceeded at the customer's tap.

MRDLG: Maximum Residual Disinfectant Level Goal is the level of disinfectant added for water treatment below which there is no known or expected risk to health. The U.S. EPA sets MRDLGs.

NA: Not Applicable.

ND: Not Detected. Constituent was below the detection level of the analytical method.

NS: No Standard. Officials have not developed a Public Health Goal or MCLG standard.

NTU: Nephelometric Turbidity Unit is a measure of the clarity of water. 5 NTU is when the average person can begin to detect turbidity.

pCi/L: Picocuries per Liter. Measures naturally occurring radioactivity from erosion of mineral deposits.

PDWS: Primary Drinking-water Standard. MCLs and MRDLs for contaminants and disinfectants that affect health along with their monitoring and reporting requirements and water treatment requirements.

pH: A measure of a solution's acidity.

PHG: Public Health Goal is the level of contaminant in drinking-water below which there is no known or expected risk to health. The U.S. EPA sets PHG's.

PPB: Parts per Billion (or micrograms per liter). One PPB is equal to 1 teaspoon in 1.3 million gallons.

PPM: Parts per Million (or milligrams per liter). One PPM is equal to 1 teaspoon in 1,300 gallons.

TT: Treatment Technique is a required process intended to reduce the level of contaminant in water.

umhos/cm: Micromhos per centimeter. A measure of substances that form ions when in water.

TABLE OF DETECTED SUBSTANCES OR CONTAMINANTS IN 2019

2019 TREATED WATER QUALITY SUMMARY - Listed below are 25 substances or water quality characteristics detected in Healdsburg's Drinking Water. There are nearly 100 organic and inorganic substances that the City tested for but did not detect. Only those substances with detectable amounts are required to be included in this report. For certain substances with concentrations that do not change frequently, the State allows the City to monitor less frequently than once a year. In these cases the most recent sample data are included. The City of Healdsburg collected and analyzed 252 samples for coliform during 2019 with no positive samples. The City of Healdsburg had no Water System violations in 2019.

SUBSTANCE	YEAR SAMPLED	HIGHEST LEVEL ALLOWED (AL)	90th PERCENTILE LEVEL DETECTED	RANGE OF LEVELS DETECTED	PUBLIC HEALTH GOALS (MCLG) or (MRDLG)	TYPICAL SOURCES OF CONTAMINANT	HIGHEST LEVEL DETECTED
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*Lead/Copper Rule 2017 Data, Next Round of Samples: 2020 *Regulated at the Customer's Tap

REGULATED AT THE CUSTOMERS TAP

COPPER*	2017 (31 samples taken)	1.30 PPM	0.69 PPM	0.14-0.96 PPM	0.3 PPM	Internal corrosion of household plumbing systems.	0.96 PPM
LEAD*	2017 (31 samples taken)	15 PPB	ND	ND	0.2 PPB	Internal corrosion of household plumbing systems.	ND

SUBSTANCE	YEAR SAMPLED	HIGHEST LEVEL ALLOWED (EPA'S MCL, MCLG & MRDL)	AVERAGE LEVEL DETECTED	RANGE OF LEVELS DETECTED	PUBLIC HEALTH GOALS (MCLG) or (MRDLG)	TYPICAL SOURCES OF CONTAMINANT	HIGHEST LEVEL DETECTED
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REGULATED SUBSTANCES

TOTAL HALOACETIC ACIDS	2019	60 PPB	7.31	< 1.0- 20.20 PPB	NS	Byproduct of drinking water disinfection.	20.20 PPB
TOTAL TRIHALOMETHANES	2019	80 PPB	15.8 PPB	1.09 - 43.24 PPB	NS	Byproduct of drinking water disinfection.	43.24 PPB
CHLORINE	2019	4 PPM	1.00 PPM	0.41 - 1.57 PPM	4 PPM	Disinfectant added for drinking water treatment.	1.57 PPM
FLUORIDE	2019	2 PPM	0.74 PPM	0.11- 1.0 PPM	1 PPM	Leaching from natural deposits. Our water system treats your water by adding fluoride in order to help prevent dental caries. The fluoride levels in the treated water are maintained within a range of 0.60 to 1.20 ppm as required by Department regulations.	1.00 PPM
NITRATE (as NO3)	2019	10 PPM	0.30 PPM	<0.40 - 1.80 PPM	10 PPM	Runoff and leaching from fertilizer use, septic tanks, and erosion of natural deposits.	1.80 PPM
GROSS ALPHA EMITTERS	2018	15 pCi/L	3.0 pCi/L	3.0 pCi/L	0 pCi/L	Erosion of natural deposits.	3.0 pCi/L
TURBIDITY-Dry Creek Well Field (Groundwater)	2019	TT =95% of samples <1.0 NTU	0.07 NTU	0.04 - 0.12 NTU	N/A	Turbidity is the measure of the cloudiness of the water. We monitor it because it is an indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.	0.12 NTU
TURBIDITY-Fitch Mtn. Well Field (Groundwater Under Surface Water Influence)	2019	TT =95% of samples <0.30 NTU	0.05 NTU	0.01 - 0.28 NTU	N/A	Turbidity is the measure of the cloudiness of the water. We monitor it because it is an indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.	0.28 NTU
TURBIDITY-Gauntlett/Fitch Micro-Filtration Facility	2019	TT =95% of samples <0.10 NTU	0.04 NTU	0.01 - 0.14 NTU	N/A	Turbidity is the measure of the cloudiness of the water. We monitor it because it is an indicator of the effectiveness of our filtration system.	0.14 NTU

SECONDARY SUBSTANCES AND OTHERS SAMPLED IN 2019

ALKALINITY (TOTAL)	2019	NS	160 PPM	140 - 180 PPM	Not regulated	Natural geology	180 PPM
ALUMINUM	2019	200 PPB	<50 PPB	<50 PPB	200 PPM	Erosion of natural deposits.	< 50 PPB
ARSENIC	2019	10 PPB	<2 PPB	<2 PPB	0.004 PPB	Erosion of natural deposits, runoff from orchards, and glass and electronics production wastes	<2 PPB
BARIUM	2019	1 PPM	<1.0 PPM	<0.12 - 0.14 PPM	2 PPM	Erosion of natural deposits.	0.14 PPM
BICARBONATE	2019	NS	193 PPM	170 - 220 PPM	Not regulated	Natural geology	220 PPM
CALCIUM	2019	NS	28 PPM	22 - 32 PPM	Not regulated	Natural geology	32 PPM
CHLORIDE	2019	500 PPM	7.44 PPM	8.5 - 11 PPM	500 PPM	Runoff / Leaching from natural deposits.	11 PPM
HARDNESS	2019	NS	193 PPM	178- 203 PPM	Not regulated	Natural geology	203 PPM
IRON	2019	300 PPB	<100 PPB	<100 PPB	300 PPB	Leaching from natural deposits	<100 PPB
MANGANESE	2019	50 PPB	<20 PPB	<20 PPB	50 PPB	Leaching from natural deposits	< 20 PPB
MAGNESIUM	2019	NS	28 PPM	24 - 31 PPM	Not regulated	Natural geology	31 PPM
pH units	2019	6.5 to 8.5 pH units	7.06 pH units	6.76 - 7.33 pH units	6.5 to 8.5 pH units	A measure of the acidity of water	7.33 pH Units
SODIUM	2019	NS	11 PPM	11 PPM	Not regulated	Natural geology	11 PPM
SPECIFIC CONDUCTANCE	2019	1600 umhos/cm	385 umhos/cm	360- 410 umhos/cm	1000 umhos/cm	A measure of substances that form ions when in water.	410 umhos/cm
SULFATE	2019	500 PPM	23 PPM	18- 38 PPM	500 PPM	Runoff / Leaching from natural deposits.	38 PPM
TOTAL DISSOLVED SOLIDS	2018	1000 PPM	245 PPM	240 - 250 PPM	1000 PPM	Runoff / Leaching from natural deposits.	250 PPM

MANGANESE: The concentration in some production wells exceeds the secondary MCL. Manganese in excess of the secondary MCL can chemically react with the chlorine added to disinfect the water and form a dark-colored precipitate. This precipitate can stain plumbing fixtures such as sinks and toilet bowls, and may cause staining of light-colored laundry. By blending water from a number of sources, the average manganese concentration was <20 PPB in 2019. The MCL for Manganese is 50 PPB.

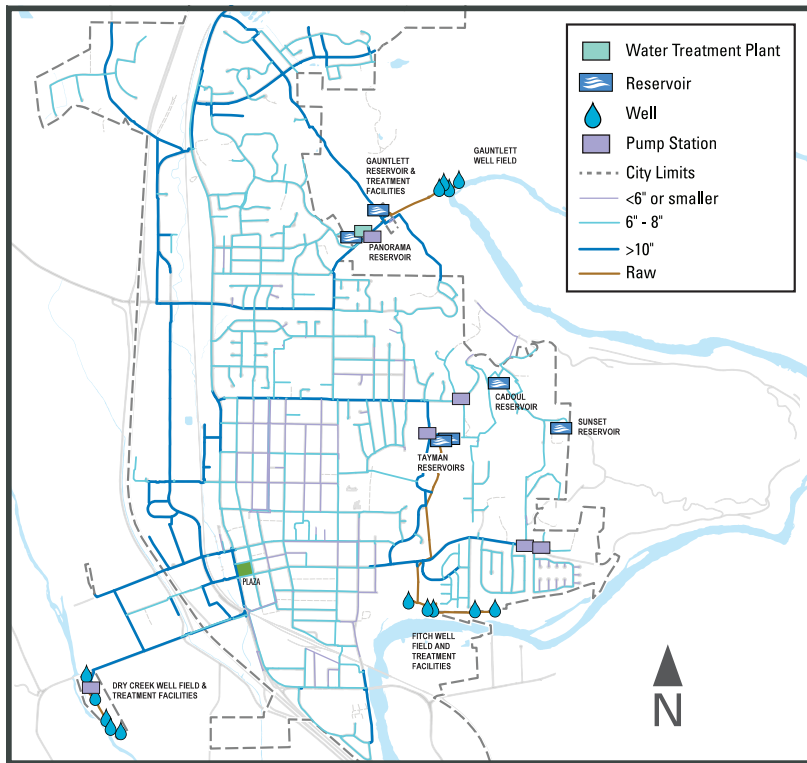
We add three substances directly to drinking-water following State guidelines:

CHLORINE: a highly effective disinfectant that prevents the spread of waterborne diseases, and kills any microbes or bacteria entering the water supply.

SODIUM FLUORIDE: added for the prevention of tooth decay and promotion of dental health.

CORROSION CONTROL INHIBITOR: an orthophosphate compound that reduces pipeline corrosion by laying a microfilm along interior surfaces of pipelines and plumbing fixtures to prevent corrosion and the leaching of copper and lead in residential plumbing.

WATER SYSTEM MAP



WATER SOURCES

The City of Healdsburg's drinking-water is sourced from three well fields: two located along the Russian River and one located on Dry Creek. Before entering the water distribution system, the water is chemically treated and ultra-filtered to improve its quality and remove most contaminants. The water is then stored at various locations throughout the City, ready to be delivered to our homes and businesses. Because the wells are influenced by the flows of both the Russian River and Dry Creek, it's very important for us to remain aware of the health of these watersheds and the impact we have on them.

Despite inconsistent and inadequate rain events this winter, both Lake Mendocino and Lake Sonoma storage levels are at moderate levels. While this is good news, we need to be keenly aware of our water usage since we do not know what next winter will bring. According to the U.S. Drought Monitor, Sonoma County is experiencing moderate drought-like conditions. With this in mind, there is never enough water to waste. We can all contribute to preserve this precious resource by being water-smart, such as repairing water leaks, installing drought-resistant plants, and reusing greywater.

CRYPTOSPORIDIUM

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease.

Ingestion of cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing a life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking-water.

PRECAUTIONS FOR VULNERABLE POPULATIONS

Some people may be more vulnerable to contaminants in drinking-water than the general population. Immuno-compromised persons such as those: undergoing chemotherapy; who have undergone organ transplants; with HIV/AIDS or other immune system disorders; as well as some elderly and infants, may have an increased risk of infections. These people should seek advice about drinking-water from their healthcare providers. The U.S. EPA/CDC (Environmental Protection Agency/Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available online at epa.gov/safewater or from the U.S. EPA's Safe Drinking-water Hotline at 800.426.4791.

FLUORIDE

Fluoride is added to Healdsburg's water for dental benefits pursuant to a 1952 City of Healdsburg voter initiative (Ordinance No. 1952-14) the 2014 voter initiative, and the 2016 ballot measure. State regulations require the fluoride levels in the treated water be maintained within a range of 0.6 to 1.20 PPM with an optimum level of 0.70 PPM. The City of Healdsburg's average level of fluoride in 2019 was .74 PPM. For info on fluoridation, oral health, and current issues visit: waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.html

COVID-19

Our highest priority is to provide safe and clean drinking water. In light of COVID-19, here is some key information about the virus as it relates to our water systems.

According to CDC, the virus that causes COVID-19 has not been detected in drinking water. Conventional water treatment methods use filtration and disinfection, such as those used by the City of Healdsburg, should remove or inactivate the virus that causes COVID-19.

The California State Water Board determined California's comprehensive safe drinking water standards include disinfection processes for drinking water which are extremely effective against viruses, including coronaviruses such as COVID-19. The City complies with these drinking water standards.

Buildings and businesses that were closed or experienced reduced water use have an increased risk of Legionella growth and leaching of lead and copper. Such water customers should contact the Utility Department for assistance in addressing these risks. At a minimum, the building or business should thoroughly flush stagnant water lines prior to restoring operations.

For more information on drinking water and COVID-19, visit waterboards.ca.gov

ORTHOPHOSPHATE BLEND

Orthophosphate is a proprietary liquid blend that is added to the water to reduce pipeline corrosion and plumbing fixture corrosion. This is added to the water to comply with the EPA's "Lead and Copper Rule" (LCR).

NOTICE FROM THE EPA: LEAD

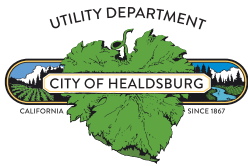
The "lead and copper rule" or LCR was introduced by the Environmental Protection Agency in 1991 to limit the concentration of lead and copper allowed in public drinking-water at the consumer's tap as well as limit the corrosivity of plumbing due to the water itself. Lead originates from the solder used to connect plumbing fittings inside the home, and copper is used widely in small diameter plumbing pipe. Lead and copper levels are consistently below the action level in Healdsburg.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking-water comes 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. If you are concerned about lead in your water, you may want to test the water in your home. Information on lead in drinking-water, testing methods, and steps you can take to minimize exposure is available online at epa.gov/safewater/lead or you may call the EPA's Safe Drinking-water Hotline at 800.426.4791.



Copper: The governing regulation to determine whether copper is present above or below the standard is based on the 90th percentile value for the most recent testing. The 90th percentile is the ninth highest value measured of 10 test results. The 90th percentile value for the 2017 testing performed in Healdsburg was 0.69 PPM. The MCL, or action level for copper, was 1.3 PPM. None of the 31 test sites exceeded the action level.

Lead: The governing regulation to determine whether lead is present above or below the standard is based on the 90th percentile value for the most recent testing. The 90th percentile is the ninth highest value measured of 10 test results. The 90th percentile value for the 2017 testing performed in Healdsburg was Non-Detect. The MCL, or action level for lead is 15 PPB. None of the 31 sites tested exceeded the action level.



2019 WATER QUALITY REPORT


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707.431.3346 | healdsburgutilities.org

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 /smartlivinghealdsburg



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PARTICIPATE!

If you are interested in learning more about your water utility or water quality, you can direct your questions, concerns or comments to the Utilities Department at 401 Grove Street, Healdsburg or by calling 707.431.3346.

You may also send comments directly to the Healdsburg City Council, by emailing citycouncil@ci.healdsburg.ca.us. City Council meetings are held virtually in light of COVID-19 and physical distancing policies, and can be live-streamed. For meeting dates and agendas, visit cityofhealdsburg.org.

VIEW AND PAY YOUR UTILITY BILL FROM HOME OR WHEREVER IS CONVENIENT

- Receive email notifications of new bills
- Make one-time payments or setup automatic payments with a credit/debit card or a bank account
- Save paper and the environment by going paperless with your utility bill

SIGN UP for online bill pay:

onlinebiller.com/healdsburg



24-HOUR UTILITY RESPONSE HOTLINE

707.431.7000 or

Toll-Free 855.755.6586

NEVER ENOUGH TO WASTE

GOOD WATER CONSERVATION PRACTICES

- Do not apply outdoor irrigation water any day between the hours of 7 am and 8 pm
- Routinely inspect irrigation systems for leaks & repair within 72 hours
- Replace shower heads with low flow showerheads

STATE PROHIBITED WATER USE

- Washing sidewalks or driveways with drinking-water
- Washing vehicles with a hose not fitted with a shut-off nozzle
- Watering landscapes during & within 48 hours to measurable rainfall