2023 Water Quality Report

Redwood Glen

Since inception in 1958, Redwood Glen has been committed to providing you - our staff, campers, and guests - clean, high-quality water. This Water Quality Report (also known as a Consumer Confidence Report) is a part of that commitment. It contains important information about the quality of your water from last year. Please read through it carefully and be sure to contact us if you have any questions or concerns. Thank you for giving us the opportunity to serve you!

- **Your Water Quality Team**

Andrew Gonsalves & Chad Plantenberg

100 Wright Drive, Loma Mar, CA 94021 water.redwoodglen.com water@redwoodglen.com

What's Inside

Introduction

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 byproducts 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. 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. 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.

Redwood Glen uses two sources: the primary source is Hoffman Creek and the secondary source is Piney Creek, both tributaries to Pescadero Creek.

Drinking Water Source Assessments were completed in March of 2017 by Balance Hydrologics, Inc on behalf of Redwood Glen for both of our typical sources. Balance Hydrologics concluded for both sources, "No Possible Contaminating Activities (PCA) were identified within the watershed." More complete summaries of their assessments are located on our blog at: https://water.redwoodglen.com/p/documents.html.

Some Words from the USEPA and SWRCB

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 U.S. EPA'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. U.S. EPA/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).

Lead-Specific Language: 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. Redwood Glen 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 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 (1-800-426-4791) or at http://www.epa.gov/lead.

Key Definitions

Maximum Contaminant Level (MCL): 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 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 (U.S. EPA).

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 contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements

Secondary Drinking Water Standards (SDWS): MCLs for 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.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)
ppb: parts per billion or micrograms per liter (µg/L)

ppt: parts per trillion or nanograms per liter (ng/L)

ppq: parts per quadrillion or picogram per liter (pg/L)
pCi/L: picocuries per liter (a measure of radiation)

NTU: nephelometric turbidity unit

Variances and Exemptions: Permissions from the State Water Resources Control Board (State Board) to exceed an MCL or not comply with a treatment technique under certain conditions.

Water Quality Information

The tables below 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 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 (year of last sample will be given in this instance). Any violation of an AL, MCL, MRDL, or TT is asterisked and bolded. Additional information regarding the violation is provided later in this report.

LEAD AND COPPER SAMPLING RESULTS					
Lead and Copper	**90th Percentile Level Detected**	**No. Sites Exceeding AL**	**AL**	**PHG**	**Typical Source of Contaminant**
Lead (ppb): 5 sites were sampled in July of 2022	Not Detected	None	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm): 5 sites were sampled in July of 2022	0.18	None	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

SODIUM AND HARDNESS SAMPLING RESULTS					
Chemical or Constituent (and reporting units)	**Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Sodium (ppm)	28.5	26 - 31	None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	197.5	148 – 247	None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD					
Chemical or Constituent (and reporting units)	**Level Detected**	**Range of Detections**	**MCL [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Source of Contaminant**
Chlorine (ppm)	0.67	0.41 – 0.95	[MRDL =4.0 (as Cl_2)]	[MRDLG = 4 (as Cl_2)	Drinking water disinfectant added for treatment
Fluoride (ppm)	0.18	0.11 – 0.25	2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
HAA5 (Sum of 5 Haloacetic Acids) (ppb)	26.3	16.9– 33.2	60	N/A	Byproduct of drinking water disinfection
TTHMs (Total Trihalomethanes) (ppb)	23.9	12.7 – 33.5	80	N/A	Byproduct of drinking water disinfection

Water Quality Information (Cont.)

DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD					
Chemical or Constituent (and reporting units)	**Level Detected**	**Range of Detections**	**SMCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Chloride (ppm)	41	41 - 41	500	NA	Runoff/leaching from natural deposits; seawater influence
Color	**20***	15-20	15		Naturally-occurring organic materials
Iron (ppb)	**510***	Not Detected – 510	300	NA	Leaching from natural deposits; industrial wastes
Manganese (ppb)	25	Not Detected - 25	50	NA	Leaching from natural deposits
Specific Conductance (µS/cm)	495	410 - 580	1,600	NA	Substances that form ions when in water; seawater influence
Sulfate (ppm)	54.5	38 - 71	500	NA	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS) (ppm)	290	220 - 360	1,000	NA	Runoff/leaching from natural deposits
Turbidity (NTU)	0.3	0.3-0.3	5		Soil runoff

SUMMARY INFORMATION FOR VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT				
Violation	**Explanation**	**Duration**	**Actions Taken**	**Potential Effects**
Exceeded SMCL for Color	Annual sampling of Piney Creek source exceeded SMCL.	Sampling occurred July 2023 and source was taken offline by September of 2023.	Source taken offline.	Secondary MCLs are set to protect you against unpleasant aesthetic effects (e.g., color, taste, and odor) and the staining of plumbing fixtures (e.g., tubs and sinks) and clothing while washing. Color is due to naturally-occurring organic materials and iron is due to leaching of natural deposits.
Exceeded SMCL for Iron	Water from Piney Creek is treated for Iron. The exceedance was due to a failure of the treatment process.	The first week of January 2023 before usage was discontinued until problem was solved.	Failure of the treatment process was corrected and put back into service in July 2023.	

Water Quality Information (Cont.)

SURFACE WATER TREATMENT SAMPLING RESULTS	
Treatment Technique [a] (Type of approved filtration technology used)	Microfiltration (Membrane treatment)
Turbidity Performance Standards [b] (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 – Be less than or equal to 0.1 NTU in 95% of measurements in a month. 2 – Not exceed 1 NTU for more than eight consecutive hours. 3 – Not exceed 1 NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	100%
Highest single turbidity measurement during the year	0.09 NTU
Number of violations of any surface water treatment requirements	None

(a) A required process intended to reduce the level of a contaminant in drinking water.

(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

More Information

Generally, most questions or concerns can be addressed to our Water Team at water@redwoodglen.com or by calling (650) 879-0320. You may ask to speak to either Andrew Gonsalves or Chad Plantenberg who will gladly help you. If we are unable to adequately address your concerns, we will facilitate communication directly with Redwood Glen's Executive Director or a member of the Redwood Glen Board.

Additional Resources

Below is a small list of online resources you may find helpful.

water.redwoodglen.com	Blog style website with occasional system updates and other documents related to your water.
Safe Drinking Water Information System	A website maintained by the SWRCB that provides detailed information to the public about their water systems. The link here takes you directly to information about Redwood Glen's water system.
State Water Resources Control Board Website	Another site maintained by the SWRCB with useful information about water and water quality issues in California.
United States Environmental Protection Agency	Section of the US EPA's site dedication to information on drinking water.
Center for Disease Control	Section of the CDC's website dedicated to providing information on health and water.