

Shangri-La Water District

The Water We Drink – 2022

(Summarizing our prior year water quality data)

Shangri-La Water District
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Shangri-La Water District is pleased to share this report with you. We are grateful for our water and we ask all customers to help us to protect the water sources which are the heart of our community, our way of life and our children's future.

This report shows that **Shangri-La's water meets or exceeds all federal and state guidelines for water quality**. The enclosed information is provided to inform and educate you about your water and your water utility.

The Oregon Health Authority inspects water systems every 3-5 years. Our last water system survey was conducted on August 25, 2021 and recognized us as an **Outstanding Performer!**

We have contracted with Rainbow Water District to support our operations and oversee our water system for us. If you have questions about this report, please call the Rainbow Superintendent, Jamie Porter, at 541-746-1676. If you want to learn more about your water utility, please attend any of our regularly scheduled meetings of the Board of Commissioners, your elected representatives, typically held on the second Tuesday of every month, beginning at 4:30 pm, at our water treatment building at 40258 Tonga Lane. You may also contact one of the individuals at the bottom of this page.

The source of our water is two groundwater wells near York Lane. Well 1 is classified as groundwater under the direct influence of surface water due to the close proximity to the river and the potential for the well to capture surface water pathogens. To provide an additional level of protection, Well 1 is filtered and has additional water quality monitoring requirements. Well 2 is groundwater only, but this well is also filtered as a precaution since it is closer to a nearby residence than allowed under current construction standards. Water is pumped from these two underground wells and stored in a hilltop reservoir. The reservoir provides emergency storage and maintains pressure in the piping system as water use fluctuates throughout the day. A pump station delivers water to homes that are higher up the hill, above the reservoir.

Your water utility practices multiple barrier public health protection, which can be summarized by these five steps:

1. Protect the drinking water source.
2. Practice effective water treatment.
3. Conduct regular monitoring for contaminants to assure safety.
4. Protect the distribution system piping and finished water storage from recontamination.
5. Practice competent water system operation, maintenance, and construction.

Source water protection is an important first step that helps lead to effective water treatment. A Source Water Assessment that evaluates risks to our water supply was originally completed by the Oregon Department of Environmental Quality in December 2003, and recently updated in July 2019. This assessment reports that the delineated drinking water protection area is primarily dominated by river recreation, residential and agricultural/forest land uses. Rural residential properties have the potential for erosion, pesticide and fertilizer use, and septic systems. River recreation can lead to erosion and increased turbidity. Inadequate disposal of human wastes may contribute nutrients and bacteria. Forest roads have the potential for erosion, and both forest and agricultural properties have potential for contaminating the source due to pesticide or herbicide use, with higher potential risk near stream crossings.

Copies of the source water assessment reports are available to provide more information about these risks.

Your water system was completely rebuilt in 2017. Upgrades included replacement of the storage tank and piping systems, and the addition of individual meters, an upper level pump station and a second supply well. A cartridge filter system was installed to treat the water for viruses and pathogens, and our water quality monitoring program was expanded.

For questions about your bill, or anything else concerning your water utility, please contact:

Any Board Member
Anthony Morales, Water Operator
Wendy Olejarczyk, Administrative Assistant/Bookkeeper

See our website for contact information
541-554-8040
Shangri-la67@hotmail.com

Shangri-La Water System Fast Facts

Average flow, gallons per day: 12,000 (winter) and 37,000 (summer)

System size: 93 connections serving about 200 people

Supply/Storage: 2 wells, with 170,000 gallons in 1 storage reservoir

A typical water bill is \$76 per month for an 8,500-gallon base allotment.

Additional tier charges apply for higher usage over the base allotment.

An additional amount is allowed for irrigation.

About 60% of our annual revenue comes from the monthly water bills, with the remaining 40% collected as property taxes.

Shangri-La Water District was voted into existence on January 26, 1971.

About our water source:

The aquifer supplying drinking water to the District's wells is alluvial sand and gravel from the McKenzie River. The time it takes for a contaminant to travel through the aquifer to reach Well 2 impacts the defined drinking water source area. Well 1 is considered to be surface water from the McKenzie River, so the Well 1 source area includes up to 8 hours travel time upstream.

A *Source Water Assessment* that evaluates risks to our water supply was originally completed in December 2003 and updated by the Oregon DEQ in July 2019. Copies of this report may be obtained from the district office.

Here is what the Environmental Protection Agency (EPA) says about drinking water contaminants:

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or manmade. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All 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.

Drinking water sources (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. Shangri-La Water District is supplied entirely by groundwater wells during normal operations.

To ensure safe drinking water, the EPA regulates the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration establishes limits for contaminants in bottled water to provide the same protection for public health.

Contaminants that may be present in source water may include:

Microbial contaminants, such as viruses and bacteria, may come from wildlife or septic systems. *Radioactive contaminants* can occur naturally. *Inorganic contaminants*, such as salts and metals, can occur naturally or result from urban stormwater runoff, industrial or domestic wastewater discharges or farming. *Organic chemical contaminants*, including synthetic and volatile organic chemicals, are byproducts of industrial processes, and can come from septic systems, gas stations, and urban stormwater runoff. *Pesticides and herbicides* may come from a variety of sources such as farming, urban stormwater runoff and home or business use.

Some people may be more vulnerable than others to contaminants in drinking water. Immuno-compromised persons such as organ transplant patients, persons undergoing chemotherapy for cancer, people with HIV/AIDS or other immune system disorders, infants and some elderly, can be particularly at risk from infections. These people should seek advice about drinking water from their personal health care providers. Call 1-800-426-4791 (the Safe Drinking Water Hotline) for EPA & Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants, and for more information about water contaminants and their potential health effects.

A note about lead in the water:

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is mainly from materials and components associated with service lines and home plumbing. Shangri-La Water District 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 are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and the steps you can take to minimize exposure is available by calling the Safe Drinking Water Hotline at 1-800-426-4791 or online at www.epa.gov/safewater/lead.

SHANGRI LA WATER DISTRICT CONSUMER CONFIDENCE REPORT DATA

TESTING AT WELLFIELD ENTRY POINTS TO THE DISTRIBUTION SYSTEM (2022 or most recent results)

Chemical	Category	Source AA (Well #1)	Source AB (Well #2)	Range Detected (Year Tested)	In Compliance?	Federal Limit*	Federal Goal*	Likely Source of Contamination
Nitrate (as Nitrogen)	Regulated Inorganic	0.113 ppm (9/13/22)		0.113 ppm (2022)	Yes	10 ppm	10 ppm	Fertilizer runoff, leaching from septic tanks, sewage, erosion of natural deposits
Arsenic	Regulated Inorganic	Not Detected (10/26/15)		Not Detected (2015)	Yes	10 ppb	0 ppb	Erosion of natural deposits
Synthetic Organics	Regulated SOCs	Not Detected (9/13/22)		Not Detected (2022)	Yes	varies	varies	Byproducts of industrial processes
Volatile Organics	Regulated VOCs	Not Detected (9/13/22)		Not Detected (2022)	Yes	varies, up to 10 ppm Xylenes	varies	Byproducts of industrial processes
Combined Radium	Regulated Radionuclides	Not Detected (10/26/15)		Not Detected (2015)	Yes	5 pCi/L	0 pCi/L	Erosion of natural deposits
Combined Uranium	Regulated Radionuclides	Not Detected (10/26/15)		Not Detected (2015)	Yes	30 ppb	0 ppb	Erosion of natural deposits
Gross Alpha** (excluding Ra, U)	Regulated Radionuclides	Not Detected (10/26/15)		Not Detected (2015)	Yes	15 pCi/L	0 pCi/L	Erosion of natural deposits
Sodium***	UNREGULATED Inorganic	10.5 ppm (10/26/15)		10.5 ppm (2015)	Yes	No MCL. 20 ppm is advisory only.	n/a	Fertilizer runoff, leaching from septic tanks, sewage, erosion of natural deposits

TESTING AT ROUTINE DISTRIBUTION SYSTEM LOCATIONS (2022 or most recent results)

Chemical	Contaminant Category	Distribution System Sample Results	Range Detected (Year Tested)	In Compliance?	Federal Limit*	Federal Goal*	Likely Source of Contamination
Total Coliform Bacteria	Regulated Microbiological	Not Detected in 12 samples	0 positive in 2022 (Out of 12 samples)	Yes	no more than 1 positive sample per month	0	Naturally present in the environment
Fecal Coliform & E.Coli Bacteria	Regulated Microbiological	Not Detected in 12 samples	0 positive in 2022 (Out of 12 samples)	Yes	0 positive samples	0	Human & animal fecal waste
Chlorine	Disinfectant	Residual measured with 12 monthly bacteria samples	0.45 - 0.69 ppm (2022) RAA = 0.60	Yes	4 ppm	4 ppm	Water additive used to control microbes
Copper	Regulated Inorganics	Range ND-0.166 ppm 5 samples (07/17/20)	90th percentiles 0.083 ppm (2020)	Yes 90% < AL	Action Level = 1.3 ppm	0	Corrosion of household plumbing systems
Lead	Regulated Inorganics	Not Detected 5 samples (08/17/20)	90th percentiles 0.0 ppm (2020)	Yes 90% < AL	Action Level = 15 ppb	0	Corrosion of household plumbing systems, erosion of natural deposits
Total Trihalomethanes	Disinfection Byproducts	One sample taken at 40168 York Lane	3.39 ppb (09/13/22)	Yes	80 ppb	0	Byproducts of the disinfection process
Total Haloacetic Acids	Disinfection Byproducts	One sample taken at 88152 Keola Lane	Not Detected (09/13/22)	Yes	60 ppb	0	Byproducts of the disinfection process

Definitions: Not Detected (ND) indicates the contaminant was not detected at levels above the laboratory's reporting capability.

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

Maximum Contaminant Level (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health.

MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL) is 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) is 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 contamination.

One Part Per Million (ppm) corresponds to one penny in \$10,000 or about one minute in 2 years. Measurements in ppm indicate only one milligram of contaminant per liter of water. One Part Per Billion (ppb) corresponds to one penny in \$10,000,000 or approximately one minute in 2,000 years. It takes 1,000 parts per billion to equal one part per million. Picocuries Per Liter (pCi/L) is a measurement of radioactivity, a trillion times smaller than one Curie.

Running Annual Average (RAA) is computed using monthly or quarterly results and is a value used to determine compliance.

Notes

* Federal Limits may be either the MCL or the MRDL. Federal Goals may be either the MCLG or MRDLG. Maximum contaminant levels (MCLs) are the highest levels of chemicals that the EPA has determined to be acceptable for life-long consumption. MCLs are set at very stringent levels. To understand the possible health effects described for many regulated chemicals, a person would have to drink 2 liters (about 8 glasses) of water every day at the MCL for a lifetime to have a one-in-a-million chance of having the undesirable health effects.

** Some contaminants are monitored less than once per year. Data shown are the most recent monitoring done in compliance with regulations.

*** Sodium is not a regulated contaminant, but we show the results of sodium testing for all water sources since some source water contains an amount of sodium which people with high blood pressure may wish to know about. This sample was also analyzed for other Inorganic Compounds but none were detected.

SHANGRI LA WATER DISTRICT CONSUMER CONFIDENCE REPORT DATA

SURFACE WATER TREATMENT RULE (SWTR) Well #1, Source-AA

Month	< CFE 95% Turbidity MCL (< 1 NTU)	< CFE Max Turbidity MCL (< 5 NTU)	Required CT's Met? (> 30 CT)	CL at Entry Point ? (> 0.20 mg/L)
Jan-22	Yes	Yes	Yes	Yes
Feb-22	Yes	Yes	Yes	Yes
Mar-22	Yes	Yes	Yes	Yes
Apr-22	Yes	Yes	Yes	Yes
May-22	Yes	Yes	Yes	Yes
Jun-22	Yes	Yes	Yes	Yes
Jul-22	Yes	Yes	Yes	Yes
Aug-22	Yes	Yes	Yes	Yes
Sep-22	Yes	Yes	Yes	Yes
Oct-22	Yes	Yes	Yes	Yes
Nov-22	Yes	Yes	Yes	Yes
Dec-22	Yes	Yes	Yes	Yes

TURBIDITY MONITORING (WTP-A) (2022 or most recent results)

Other Analyses	Treatment Technique (TT)	In Compliance?	% of Samples Meeting Standard	Range Detected	Likely Source of Contamination
Turbidity	TT less than or equal to 5 NTU at all times and TT requires 95% of the daily samples in any month are less than or equal to 1 NTU	Yes	100%	0.08-0.20 NTU	Soil erosion from runoff.

Definitions: NTU or Nephelometric Turbidity Unit is a unit of measure for turbidity.

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

GWUDI refers to GroundWater Under the Direct Influence of surface water, meaning water from a well that is treated as if it was surface water.

CYANOTOXINS (SOURCE-AA: WELL #1)

Chemical	Category	Sample Dates and Information	Range Detected (Year Tested)	In Compliance?	Vulnerable Population Limit	Age 6 and Above Limit	Likely Source of Contamination
Cylindrospermopsin	Cyanotoxins	Not Detected in 13 samples collected on: 5/9, 5/23, 6/6, 6/20, 7/5, 7/18, 8/1, 8/15, 8/29, 9/12, 9/26, 10/10, 10/24	Not Detected in 13 Samples (5/2022-10/2022)	Yes	0.7 ppb	3 ppb	Harmful algae blooms
Total Microcystins	Cyanotoxins	Not Detected in 13 samples collected on: 5/9, 5/23, 6/6, 6/20, 7/5, 7/18, 8/1, 8/15, 8/29, 9/12, 9/26, 10/10, 10/24	Not Detected in 13 Samples (5/2022-10/2022)	Yes	0.3 ppb	1.6 ppb	Harmful algae blooms

FAQs – Frequently Asked Questions about Shangri-La’s Water

- Q. *Can I track my water use? How do I know if I have a water leak?*
- A. You may read your water meter at any time. Your meter is near the road, housed in a meter box with a lid. If you lift the lid and look inside, you will see your meter. Flip the lid on your meter to see a digital display. A plus (“+”) symbol on your display indicates water is passing through the meter. The numbers on the display indicate water usage. To check for a leak, make sure you are not using any water and look at the display. Record the digits on the display, wait 15 minutes, then read the digits again. The difference between the two numbers is the quantity of water used in 15 minutes. Any leak on your side of the meter, between the meter and your house, is your responsibility to repair. If it appears there is a leak on the street side of the meter, please let us know so we can investigate and take care of any leaks that are our responsibility.
- Q. Where does my water come from? How is it treated?
- A. Shangri-La’s water comes from wells. We run the water through filters to remove pathogens. We add a small amount of chlorine as a disinfectant, and we add caustic soda and polyphosphate to raise the pH above 7.3 to help control corrosion in home plumbing. We do not add any fluoride.
- Q. What is a backflow device, and why do I need to get it tested?
- A. Water should flow from Shangri-La’s piping system to you, and never in the opposite direction. A backflow device is installed between the public and private systems to protect against reverse flow situations. Backflow devices are required for items such as irrigation (sprinkler) systems, boilers, swimming pools, and rooftop solar water heaters. To ensure that the device is functioning properly and only allowing flow in one direction, water providers work with property owners, plumbers and licensed contractors to install and test these devices.
- Q. Is my water hard or soft?
- A. Water is referred to as “hard” if it contains high mineral content. While the mineral content may vary slightly between our two wells, our water is considered “soft.” Mineral content, particularly sodium, may be slightly higher during the summer months when the aquifer level is lowered due to wells running longer to meet seasonal demands.