Land of the Medicine Buddha
Water Quality Report – 2019

California Water System (Santa Cruz County) I.D. No. 4400530

*****Este informe contiene informacion muy importante sobre su agua beber. Traduzcalo o hable con alguen que lo entienda bien.*****

The Land of the Medicine Buddha facilities has its' own water system. The water system is classified as a "non-transient, non-community water system." As such, we are required to provide this *Water Quality / Consumer Confidence Report* to you, the water user. In 2019, water from the system was tested and compared to the EPA and State drinking water health standards. **Water in the system met all EPA and State drinking water standards**. This brochure reviews 2019's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards.

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's Safe Drinking Water Hotline (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, person 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 (800-426-4791).

Your water comes from an on-site water production well sunk approximately 200-feet underground into a deep source of groundwater. The water is pumped to a 5,000-gallon raw water storage tank where chlorine is added, then iron and manganese, naturally-occurring minerals that can turn the water orange/brown, are filtered out. Treated water is pumped to a 5,000-gallon storage tank, then pumped to three (3) 5,000-gallon upper storage tanks – to supply potable water for domestic (drinking and washing) use on the property. Gravity provides pressure throughout the water system. The well is in the school yard, the treatment system is next to the school building, and the upper tanks are up the hill to the northeast. Please see the notes below regarding drinking water.

Sources of drinking water (both tap water and bottled water) include river, 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 before it is treated include:

*Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic system, agricultural livestock operations, and wildlife.

*Inorganic contaminants, such as salts and metals, that can be naturally occurring or result from urban storm water 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 storm water runoff, and residential uses.

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

*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 storm water runoff, agriculture application, and septic systems.

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

WATER QUALITY DATA

The following Table lists all the drinking water contaminants and compounds (analytes) that the source well was tested for, the date of the tests, the results of the tests, and the Maximum Contaminant Level (MCL) for that analyte established by the US EPA or the state of California in parts per million (ppm). For reference, the time equivalent of 1 ppm is 1 second in 11.5 days. The presence of any compound in the water does not necessarily indicate that the water poses a health risk. The State requires monitoring for certain compounds less than once per year because the concentrations of these compounds are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

Data prior to October 2016 was collected by others; it is presented solely for informational purposes.

About Iron and Manganese: In the summer to fall 2016, Rayne repaired and revised an oxidation and filtration system between the raw and finished water storage tanks to remove the Iron and Manganese. The repair was completed in October 2016, at which point Weber, Hayes was hired as the system operator. **Water in the distribution system contained less than the Secondary MCLs of Manganese (less than 0.05 ppm) and Iron (0.3 ppm) since the filtration system began operating**. Iron and Manganese are naturally occurring minerals and are present in groundwater due to leaching from natural deposits. They are required nutrients in every person's diet and a healthful diet provides adequate iron and manganese for good nutrition (US EPA, 2003). Iron and Manganese are regulated Secondary MCLs (see drinking water regulations) established to address issues of aesthetics (discoloration, taste, odor), not health concerns. At a concentration greater than 50 ppb, Manganese may make the water appear brown. At a concentration greater than 300 ppb, Iron may make the water appear a rust-color and may impart a metallic taste to it.

For more information on Iron and Manganese you may see the following references:

- WHO, 2004 (PDF), Iron in Drinking-water, Background document for development of WHO Guidelines for Drinking-water Quality, World Health Organization, 2004.
- WHO, 2004 (PDF), Manganese in Drinking-water, Background document for development of WHO Guidelines for Drinking-water Quality, World Health Organization, 2004.
    - See also: WHO, Chemical Hazards in Drinking Water - Manganese.
- US EPA, 2017, Secondary Drinking Water Standards Guidance for Nuisance Chemicals

About Chlorine Injection into Your Water: A chlorine injection system was installed as a pre-treatment process for the iron and manganese removal system. Due to the required dose of chlorine needed for optimal manganese removal, there was and continues to be, a small residual amount of chlorine in your water. The residual low concentration of chlorine in your water inhibits bacteria in the water system. The chlorine injection system provides a chlorine residual of approximately 0.5 to 1.0 ppm in the distribution system water. The MCL for chlorine is 4 ppm.

The following table summarizes the Source Well Laboratory Analytical Results. Terms and abbreviations used in the table include:

- **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 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.
- **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 (MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
- **Regulatory Action Level** (AL): The concentration of a contaminant which, when exceeded, triggers treatment or other requirements that a water system must follow.
- **ND**: Not Detected

Please direct any questions about the potable water system to:
Mer Stafford (Land of Medicine Buddha Executive Director) at 831.600.7350
OR
Sean Abbey (Certified Water Distribution Operator - Weber, Hayes and Associates) at 831.722.3580

Table 1: Summary of Source Well #1 Analytical Results 2019
Land of Medicine Buddha; Soquel, CA 95073
Water System I.D. # 4400530

Analyte	Date Sampled	RESULT *in ppm*	*LIMIT* *DW - MCL in ppm**
PRIMARY INORGANICS			
Aluminum (Al)	04/20/16	0.41	*1.0 (0.2 [2])*
Antimony (Sb)	04/20/16	ND	*0.006*
Arsenic (As)	04/20/16	ND	*0.01*
Barium (Ba)	04/20/16	ND	*1.0*
Beryllium (Be)	04/20/16	ND	*0.004*
Boron (B)	04/20/16	0.230	**NL: 1.0*
Cadmium (Cd)	04/20/16	ND	*0.005*
Chromium (Cr)	04/20/16	ND	*0.05*
Hexavalent Chromium (Cr^{+6})	12/31/14	ND	*0.01*
Copper (Cu)	04/20/16	ND	**AL: 1.3 (1.0 [2])*
Cyanide (CN)	04/20/16	ND	*0.15*
Fluoride (F)	04/20/16	0.24	*2.0*
Lead (Pb)	04/20/16	ND	**AL: 0.015*
Mercury (Hg)	04/20/16	ND	*0.002*
Nickel (Ni)	04/20/16	ND	*0.1*
Nitrite (as N)	06/05/19	ND	*1.0*
Nitrate-N + Nitrite-N	06/05/19	ND	*10*
Nitrate (as N)**	06/05/19	ND	*10*
Selenium (Se)	04/20/16	ND	*0.05*
Silver (Ag)	04/20/16	ND	*0.1 [2]*
Silica (SiO2)	04/20/16	49	--
Thallium (Tl)	04/20/16	ND	0.002
SECONDARY / GENERAL MINERAL & PHYSICAL			
Bicarbonate Alk. (as HCO_3)	04/20/16	370	–
Carbonate Alk. (as CO_3)	04/20/16	ND	–
Total Alkalinity (as $CaCO_3$)	04/20/16	310	–
Total Hardness (as $CaCO_3$)	04/20/16	300	–
Calcium (Ca)	04/20/16	77	–

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Analyte	Date Sampled	RESULT *in ppm*	*LIMIT* *DW - MCL in ppm**
SECONDARY / GENERAL MINERAL & PHYSICAL			
Chloride (Cl)	04/20/16	49	*500* [2]
MBAS (Surfactants)	04/20/16	ND	*0.5* [2]
Magnesium (Mg)	04/20/16	27	--
Manganese (Mn)	04/20/16	**0.21**	0.05 [2]
Potassium (K)	04/20/16	7.0	–
Sodium (Na)	04/20/16	70	–
Sulfate (SO_4)	04/20/16	110	*500* [2]
Total Iron (Fe)	04/20/16	**0.57**	*0.3* [2]
Total Dissolved Solids	04/20/16	550	*1,000* [2]
Zinc (Zn)	04/20/16	1.5	*5.0* [2]
OTHER			
pH value	04/20/16	7.3	*6.5 - 8.5*
Specific Conductivity (uohms/cm)	04/20/16	900	*1,600* [2]
Color (Co/Pt) (Units)	04/20/16	ND	*15* [2]
Odor (Threshold Number)	04/20/16	ND	*3* [2]
Turbidity (NTU)	04/20/16	4.2	*5* [2]
Perchlorate	02/23/17	ND	*0.006*
Synthetic Organic Compounds ***	02/23/17	All ND	*varies*
Volatile Organic Compounds ***	03/07/17	All ND	*varies*
1,2,3, TCP	11/14/18	ND	*0.000005* [c]
Gross Alpha	08/15/19	0.855	*15 pCi/L*

NOTES:

Maximum Contaminant Level (**MCL**) = United States Environmental Protection Agency, *National Primary Drinking Water Regulations,* revised July 1, 2014

[2] = Secondary MCLs are set to protect the odor, taste, and appearance of drinking water and DO NOT affect health at that established level.

ND = Not Detected at or above the laboratory's Reporting Limit X

-- = Not Analyzed or Not Applicable

LIMIT EXCEEDED

parts per million (ppm) = milligrams per liter (mg/L)

NTU= Nephetometric Tubidity Units

DW-MCL = MCLs for Title 22 Drinking Water

pCi/L = picocuries per liter

***** = EPA Action Levels (**AL**) and Notification Levels (**NL**) are shown for analytes which do not have an MCL, but require further attention including sampling and/or treatment

*** All compounds have not been detected (Non-Detect = ND). MCLs & PHGs are different for each compound.