Bonny Doon Union Elementary School District
Water Quality Report – 2016

Santa Cruz County Water System I.D. No. 4400751

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

The Bonny Doon Union Elementary School District has its' own water system. The water system is classified as a "non-community, non-transient water system". As such, we are required to provide this *Water Quality / Consumer Confidence Report* to you, the water user. In 2016, water from the system was tested and compared to the EPA and State drinking water health standards. **Source water supplied to the system met all EPA and State drinking water standards**. This brochure reviews 2016'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 that may be present in water are available from the Safe Drinking Water Hotline (800-426-4791).

Your water comes from an on-site water production well sunk approximately 300-feet into a fractured bedrock aquifer beneath the School. Water from the well is pumped into two storage tanks – a 10,000-gallon concrete tank and a 5,000-gallon polyethylene (plastic) tank – that supply potable water for domestic (drinking and hand washing) use at the school. Please see the notes below regarding drinking water. The storage tanks are located on the east side of campus, west of Ice Cream Grade, at a high point on the site to provide pressure throughout the distribution system. The well is located on the northeast side of campus, adjacent to Ice Cream Grade and connected to the storage tanks via underground piping.

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 – Division of Drinking Water (DDW) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. DDW 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 that the source well was tested for. 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.

Note on bacteria in the water system: Although total coliforms, an "indicator" bacterium that poses no health risk, were detected in a routine water distribution system sample collected in August 2016, inspection/cleaning and resampling indicated this detection was likely a "false positive" due to stucco from nearby repairs in the end of the dedicated sample tap. The stucco likely provided a place for the naturally occurring total coliform bacteria in the surrounding environment to live, and then contaminated the water being sampled at that time, versus bacteria being present in the water system infrastructure (piping, tanks, etc.) itself.

Subsequent sampling indicated the water system remained free of bacteria through the remainder of 2016. At no time was bacteria detected in the source water, which supplies the water system. The Santa Cruz County Health Services Agency – Department of Water Programs was informed of and monitored the situation and our response to it.

Additionally, we are continuing an ongoing cleaning program of the outside of the concrete tank to limit the growth of algae to eliminate this possible bacteria source.

We are working on securing funding for a permanent solution of replacing the concrete tank.

The following table summarizes the Source Well (W-3) 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.

Please direct any questions about the potable water system to Stephanie Siddens (Bonny Doon School Superintendent/Principal) at 831.427.2300 or Josh Hannaleck (Certified Water Distribution Operator - Weber, Hayes and Associates) at 831.722.3580

Table 1: Summary of Source Well W-3 Analytical Results

Bonny Doon Union Elementary School District, Water System I.D. No. 4400751

1492 Pine Flat Road, Santa Cruz, California

Analyte	Date	Results in ppb *(unless otherwise noted)*	*MCL in ppb**	Results in ppm *(unless otherwise noted)*	*MCL in ppm**
Arsenic (As)	04/08/14	< 2.0	*10*	< 0.002	*0.01*
Barium (Ba)	04/08/14	< 100	*1,000*	< 0.1	*1.0*
Boron (B)	04/08/14	< 100	**NL: 1,000*	< 0.1	**NL: 1.0*
Cadmium (Cd)	04/08/14	< 1.0	*5.0*	< 0.001	*0.005*
Chromium (Cr)	04/08/14	1.0	*50*	0.001	*0.05*
Hexavalent Chromium (Cr^{+6})	11/12/14	< 0.20	*10*	< 0.00020	*0.01*
Copper (Cu)	04/08/14	< 50	**AL: 1,300 (1,000 [2])*	< 0.050	**AL: 1.3 (1.0 [2])*
Cyanide (Cn)	04/08/14	< 100	*150*	< 0.1	*0.15*
Lead (Pb)	04/08/14	< 5.0	**AL: 15*	< 0.005	**AL: 0.015*
Mercury (Hg)	04/24/14	< 1.0	*2.0*	< 0.0010	*0.002*
Selenium (Se)	04/08/14	< 5.0	*50*	< 0.005	*0.05*
Silver (Ag)	04/08/14	< 10	*100 [2]*	< 0.010	*0.1 [2]*
Zinc (Zn)	04/08/14	< 50	*5,000 [2]*	< 0.050	*5.0 [2]*
MBAS (Surfactants)	04/08/14	76	*500 [2]*	0.076	*0.5 [2]*
Aluminum (Al)	04/08/14	< 50	*1,000 (200 [2])*	< 0.05	*1.0 (0.2 [2])*
Antimony (Sb)	04/08/14	< 6.0	*6.0*	< 0.006	*0.006*
Beryllium (Be)	04/08/14	< 1.0	*4.0*	< 0.001	*0.004*
Nickel (Ni)	04/08/14	< 10	*100*	< 0.01	*0.1*
Thallium (Tl)	04/08/14	< 1.0	*2.0*	< 0.001	*0.002*
Nitrite (as N)	04/08/14	< 100	*1,000*	< 0.10	*1.0*
Nitrate-N + Nitrite-N	04/08/14	1,100	*10,000*	1.1	*10*
Carbonate Alk. (as CO_3)	04/08/14	< 2,000	*120,000*	< 2.0	*120*
Bicarbonate Alk. (as HCO_3)	04/08/14	120,000	–	120	–
Total Alkalinity (as $CaCO_3$)	04/08/14	100,000	–	100	–
Total Hardness (as $CaCO_3$)	04/08/14	120,000	–	120	–
Total Dissolved Solids	04/08/14	170,000	*1,000,000 [2]*	170	*1,000 [2]*
Nitrate (as Nitrogen)[a]	04/13/16	970	*10,000*	0.97	*10*
Nitrate (as NO_3)	06/29/15 04/08/14	4,400 4,900	*45,000*	4.9 4.4	*45*
Chloride (Cl)	04/08/14	15,000	*500,000 [2]*	15	*500 [2]*
Sulfate (SO_4)	04/08/14	21,000	*500,000 [2]*	21	*500 [2]*
Fluoride (F)	04/08/14	< 100	*2,000*	< 0.10	*2.0*
Calcium (Ca)	04/08/14	40,000	–	40	–
Magnesium (Mg)	04/08/14	4,100	50 [2]	4.1	0.05 [2]
Potassium (K)	04/08/14	3,300	–	3.3	–
Sodium (Na)	04/08/14	13,000	–	13	–
Total Iron (Fe)	04/08/14	< 50	*300 [2]*	< 0.050	*0.3 [2]*
Manganese (Mn)	04/08/14	< 20	*50 [2]*	< 0.020	*0.05 [2]*

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Perchlorate	10/12/15 03/03/15	< 4.0 < 4.0	*6.0*	< 0.004 < 0.004	*0.006*
Volatile Organic Compounds**	03/01/16 01/07/15 11/12/14 08/06/14 04/24/14	MTBE: < 0.50 MTBE: < 0.50 MTBE: < 0.50 MTBE: < 0.50 MTBE: < 0.50	*MTBE: 13***	MTBE: < 0.00050 MTBE: < 0.00050 MTBE: < 0.00050 MTBE: < 0.00050 MTBE: < 0.00050	*MTBE: 0.013***
Gross Alpha	07/16/15 03/03/15	1.53 < 3.0	*15 pCi/L*	-- --	-- --
Combined Radium -226 & -228	07/16/15 03/03/15	0.171 0.822	*5 pCi/L*	-- --	-- --
Total Recoverable Uranium	07/16/15 03/03/15	< 0.34 < 0.67	*20 pCi/L*	-- --	-- --
pH value	04/08/14	6.8	*6.5 - 8.5*	--	--
Conductivity (micromhos/cm)	04/08/14	300	*1,600* [2]	--	--
Color (Co/Pt) (Units)	04/08/14	< 3.0	*15*	--	--
Odor (Threshold Number)	04/08/14	< 1.0	*3* [2]	--	--
Turbidity (NTU)	04/08/14	0.91	*5* [2]	--	--

NOTES:

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

Maximum Contaminant Level (MCL) = United States Environmental Protection Agency, *National Primary Drinking Water Regulations,* May 2009

ND = Not Detected at or above the laboratory's Reporting Limit -- = Not Analyzed or Not Applicable

parts per billion (ppb) = micrograms per liter (ug/L) parts per million (ppm) = milligrams per liter (mg/L) pCi/L = picocuries per liter

*EPA Action Levels (AL) are shown for analytes which do not have an MCL

** By EPA Method 8260B in 2014. By EPA Method 524.2 since. All compounds have not been detected (Non-Detect = ND). MCLs & PHGs are different for each compound. MCL/Action Level for MTBE shown due to its' detection in Well W-2 (properly destroyed).

Source water for the Potable Water System is from well W-3 only from May 13, 2014 to date.

a = Reporting units for Nitrates were modified by the State Water Resources Control Board's Division of Drinking Water from Nitrate (as NO_3) to Nitrate (as Nitrogen), effective by no later than January 1, 2016. **Note:** the change applies merely to reporting units. The MCL was not made more stringent.