Bonny Doon Union Elementary School District Water Quality Report – 2021

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

Prepared on May 24, 2022

*** 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. It 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 2021, water from the system was tested for contaminants and compared to the EPA and State drinking water health standards.

> Source water supplied to and distributed in the system met all EPA and State drinking water standards.

This brochure reviews 2021'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 well and storage tanks are located on the east side of campus, adjacent to Ice Cream Grade.

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.

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 number 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.

No contaminant exceedances were found in the School's water in 2021.

WATER QUALITY DATA

The following tables lists all the drinking water contaminants and compounds that the source well and distribution system were 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.

In the fall of 2018, we secured a Technical Assistance grant from the State Water Board/Proposition 1 funds for the design of water system infrastructure upgrades, including storage tank replacement, and equipment / distribution system upgrades. This work is on-going with a goal of completing the design by the fall of 2022.

The following tables summarizes the Source Well (W-3) and distribution system laboratory analytical results. Terms and abbreviations used in the table include:

- **parts per million** (ppm): a unit of measurement describing the concentration of a contaminant in water. It is equivalent to milligrams per liter (mg/L).
  - The metaphorical time equivalent of 1 ppm is 1 second in 11.5 days
- **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.

  A complete list of terms is presented at the bottom of the table.

Please direct any questions about the potable water system to:

Mike Heffner (Bonny Doon School Superintendent/Principal) at 831.427.2300

or Craig Drizin (Certified Water Distribution Operator - Weber, Hayes and Associates) at 831.722.3580

Table 1 -- Summary of Source Well W-3 (-003) Analytical Results

Bonny Doon Union Elementary School District, Water System I.D. No. 4400751 (-003)

Analyte	Date Sampled	RESULT (ppm)	MCL (ppm)
PRIMARY INORGANICS			
Aluminum (Al)	4/8/14	ND	1 | 0.2 [2]
Antimony (Sb)	4/8/14	ND	0.006
Arsenic (As)	5/11/20	ND	0.01
Barium (Ba)	4/8/14	ND	1
Beryllium (Be)	4/8/14	ND	0.004
Boron (B)	4/8/14	ND	*CA-AL: 1
Cadmium (Cd)	4/8/14	ND	0.005
Chromium (Cr)	4/8/14	0.001	0.05
Cyanide (Cn)	4/8/14	ND	0.15
Fluoride (F)	4/8/14	ND	2.0
Lead (Pb)	4/8/14	ND	*AL: 0.015
Mercury (Hg)	11/12/14	ND	0.002
Nickel (Ni)	4/8/14	ND	0.1
Nitrate (as N)	5/26/21	1.3	10
	5/11/20	0.75	
Nitrite (as N)	5/11/20	ND	1
Nitrate-N + Nitrite-N	5/11/20	0.75	10
Selenium (Se)	4/8/14	ND	0.05
Silver (Ag)	4/8/14	ND	0.1 [2]
Thallium (Tl)	4/8/14	ND	0.002
GENERAL MINERAL			
pH value	12/10/19	6.7 pH units	6.5 - 8.5 [2]
Conductivity	12/10/19	300 µS/cm	1,600 µS/cm [2]
Bicarbonate Alkalinity (as HCO_3)	12/10/19	140	–
Carbonate Alkalinity (as CO_3)	12/10/19	ND	–
Calcium (Ca)	12/10/19	43	–
Chloride (Cl)	12/10/19	15	500 [2]
MBAS (Surfactants)	4/8/14	0.076	0.5 [2]
Magnesium (Mg)	12/10/19	4.4	–
Manganese (Mn)	12/10/19	ND	0.05 [2]
Potassium (K)	12/10/19	2.1	–
Sodium (Na)	12/10/19	14	–
Sulfate (SO_4)	12/10/19	24	500 [2]
Iron (Fe) - total	12/10/19	ND	0.3 [2]
Total Alkalinity (as $CaCO_3$)	12/10/19	110	–
Total Hardness (as $CaCO_3$)	12/10/19	130	–

Table 1 -- Summary of Source Well W-3 (-003) Analytical Results

Bonny Doon Union Elementary School District, Water System I.D. No. 4400751 (-003)

Analyte	Date Sampled	RESULT (ppm)	MCL (ppm)
Total Dissolved Solids	12/10/19	190	1,000 [2]
Copper (Cu)	4/8/14	ND	(AL: 1.3) 1.0 [2]
Zinc (Zn)	12/10/19	ND	5.0 [2]
GENERAL PHYSICAL			
Color (Co/Pt) (Units)	12/10/19	ND	15
Odor (Threshold Number)	12/10/19	ND	3 [2]
Turbidity (NTU)	12/10/19	ND	5 [2]
OTHER			
Hexavalent Chromium (Cr^{+6})	11/12/14	ND	0.01
Perchlorate	4/21/21	ND	0.006
Synthetic Organic Compounds	5/11/20	ND	varies
Volatile Organic Compounds**	3/20/18	All ND	Varies
		MTBE: ND [a]	MTBE: 0.013[a]
1,2,3 TCP	3/23/21	ND	0.000005[b]

All Data & MCLs QC'd on 5/24/22 by: S. Mixan (WHA)

NOTES:

Not all analytes are sampled every year. Most recent data is shown.

MCL = Maximum Contaminant Level. Primarily based on US Environmental Protection Agency (EPA) & California drinking water regulations

[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

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

1,2,3- TCP = 1,2,3-Trichloropropane

pCi/L = picocuries per liter

a = MTBE results and MCL/Action Level shown due to its detection in Well W-2 (properly destroyed).

b = MCL for 1,2,3-TCP was adopted by the State Water Board DDW January 2018 requiring initial sampling.

*California (CA-NL) and/or 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 present

Table 2: Summary of Distribution System Analytical Results

Bonny Doon Union Elementary School District, Water System I.D. No. 4400751 (-003)

Analyte	Date Sampled	RESULT (ppm)	MCL (ppm)
Bacteria			
Colliform	Jan - Dec 2021	Absent	---
E Coli	Jan - Dec 2021	Absent	---
Disinfection By-Products			
Total Trihalomethanes	7/7/20	ND	0.80
Total HAA	7/7/20	ND	0.60
Lead & Copper			
Lead	8/24/21	ND to 0.0057	AL: 0.015
Copper	8/24/21	0.21 to 0.46	AL: 1.3 | 1.0 [2]

All Data & MCLs QC'd on 5/24/22 by: S. Mixan (WHA)

NOTES:

ppm = parts per million; which is eqivalent to milligrams per liter (mg/L)

MCL = Maximum Contaminant Level. Primarily based on US Environmental Protection Agency (EPA) & California drinking water regulations

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

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

AL = California (CA-NL) and/or EPA Action Levels (AL) are shown for analytes which do not have an MCL