2015 Consumer Confidence Report

Water System Name: Cascadel Mutual Water Company Report Date: June 22, 2016

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2015 and may include earlier monitoring data.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.

Type of water source(s) in use: <u>Well water and Spring water</u>

Name & general location of source(s): (1)Wells #1 & #1A (Off-line – Emergency use only) - Cascadel Drive S., (2) Well #2 – Vista Drive, (3) Well #3 – Cascadel Dr. N., (4) Spring – Cascadel Dr. S. (Seasonal back-up source)

Drinking Water Source AssessmentInformation: Water is tested in compliance with county, state and federal rules and schedules for potable drinking water standards, and is monitored by county environmental health dept. staff

Time and place of regularly scheduled board meetings for public participation: <u>Board meets on the second Friday of</u> the even numbered months – 4:00pm at the Cascadel Clubhouse

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TERMS USED IN THIS REPORT

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 (USEPA).

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.

Variances and Exemptions: State Board permission to exceed an MCL or not comply with a treatment technique under certain conditions.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter ($\mu g/L$)

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)

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 by-products 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 USEPA and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1, 2, 3, 4, 5, 7, and 8 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.

TABLE 1 – Microbiological Contaminants (complete if bacteria detected)	SAMPLING Highest No. of Detections	No. of months in		MCL		NOF COLII MCLG	FORM BACTERIA Typical Source of Bacteria
Total Coliform Bacteria	(In a mo.) <u>-0-</u>	No Violations		More than 1 sample in a month with a detection		0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	(In the year) <u>-0-</u>	-0- No Violations		A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>		0	Human and animal fecal waste
TABLE 2	- SAMPLIN	IG RESUL	TS SHOW	ING THE D	ETECTIO	ON OF LEA	D AND COPPER
Lead and Copper (complete if lead or copper detected in the last sample set)	Sample Date	No. of samples collected	90 th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb) - "In home" testing results from five individual homes (which meet test profiles)	10/3/13 & 10/4/13	5	0.53 ND to 1.3	-0-	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) - "In home" testing results from five individual homes (which meet test profiles)	10/3/13 & 10/4/13	5	0.066 .032 to .090	-0-	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
	TABLE 3	- SAMPL	ING RESU	ULTS FOR S	ODIUM A	ND HARD	NESS
Chemical or Constituent (and reporting units)	Sample Date			Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	12/12/13	13.0 10.		0.0 to 17.0	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	12/12/13	57.0	2	2.0 to 76.0	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually

						naturally occurring
ny violation of an MCL or A		-			-	
TABLE 4 – DET	FECTION C	OF CONTAMIN	ANTS WITH A	PRIMARY	DRINKING	WATER STANDARD
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Arsenic (ppb)	12/12/13	1.93	0.0 to 5.8	10	0.004	Erosion of natural deposits: Runof from orchards: Glass & electronics production wastes
Barium (ppm)	12/12/13	0.026	0.025 to 0.028	1.0	2.0	Erosion of natural deposits: Discharge of oil drilling wastes an from metal refineries
Chlorine (ppm)	7/1/14	0.20	0.01 to 0.30	4.0	4.0	Drinking water disinfectant added for treatment
Fluoride (ppm) (*)	1/1/15 to 12/31/15	0.83	ND to 2.6 (*)	2.0	1.0	Erosion of natural deposits: Water additive which promotes strong teeth: Discharge from fertilizer an aluminum factories
Nickel (ppb)	12/12/13	2.90	ND to 8.70	100	12	Erosion of natural deposits: Discharge from metal factories
Hexavalent Chromium (ppb)	11/20/14	0.021	ND to 0.063	10.0	0.02	Erosion of natural deposits: Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, & textile manufacturing facilities
Magnesium (ppm)	12/12/13	4.4	0.80 to1.4			Erosion from natural deposits
Gross Alpha (pCi/L) (*) (Well #1 & Well #1A)	3/24/09	73.0* & 55.0*		15	(0)	Erosion of natural deposits (Note:#1 & #1A not in use)
Gross Alpha (pCi/L) (Well #2 & Spring)	2/27/07 to 11/4/07	2.75	<1.0 to 4.0	15	(0)	Erosion of natural deposits
Gross Alpha (pCi/L) (Well #3)	1/21/15	12.4		15	(0)	Erosion of natural deposits
Uranium (pCi/L) (*) (Well #1& Well #1A)	3/24/09	75.0* & 59.0*		20	(0.43)	Erosion of natural deposits (Note: #1 & #1A not in use
Uranium (pCi/L) (Well #2 & Spring)	2/27/07 to 11/4/07	2.61	1.4 to 3.86	20	(0.43)	Erosion of natural deposits
Uranium (pCi/L) (Well #3)	11/19/15	10.05		20	(0.43)	Erosion of natural deposits
		CONTAMINA		ECONDAR		G WATER STANDARD
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Aluminum (ppb)	12/12/13	5.73	ND to 13.0	200		Erosion of natural deposits; Residual from some surface water treatment processes

Zinc (ppm)	12/12/13	0.128	0.055 to 0.14	5.0		Runoff/leaching from natural deposits; industrial wastes	
Specific Conductance (uS/cm)	12/12/13	179	86 to 240	1600		Substances that form ions when in water; Seawater influence	
Total Dissolved Solids (ppm)	12/12/13	97	93.0 to 130	1000		Runoff/leaching from natural deposits	
Turbidity (Units - NTU)	12/12/13	0.24	0.11 to 0.47	5.0		Soil runoff	
	TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level		Health Effects Language	
				-			

*Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

Additional General Information on Drinking Water

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 USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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. 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 (1-800-426-4791).

Lead-Specific Language for Community Water Systems: 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. <u>Cascadel Mutual Water Company</u> 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 steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

-(*) **Fluoride**: Well # 3 fluoride levels range from acceptable to over the MCL. Under the operating plan approved by the county, all water sources are continuously blended, monitored and tested to keep fluoride levels below the MCL.

-(*) Wells #1 & #1A – Both wells are off-line and on stand-by status only. These sources can be used only during an extreme emergency condition, only for a maximum of 5 days per year, and all users would be pre-notified of the use. -Spring: Note: Spring is off-line in fall, winter & spring months. Put on line only when wells cannot meet usage

-Spring: Note: Spring is off-line in fall, winter & spring months. Put on line only when wells cannot meet usage demands (summer months), and water is chlorinated prior to introduction into system.

Summary Information for Violation of a MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement

VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT						
Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language		
Well #1 & Well #1A Gross Alpha	2007 tests results were above the MCL	Continues	-Both wells taken off line & remain off line	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.		
Well #1 & Well #1A Uranium	2007 test results were above the MCL	Continues	-Both wells taken off line & remain off line	Some people who drink water containing uranium in excess of the MCL over many years may have kidney problems or an increased risk of getting cancer		

For Water Systems Providing Ground Water as a Source of Drinking Water

TABLE 7 – SAMPLING RESULTS SHOWING FECAL INDICATOR-POSITIVE GROUND WATER SOURCE SAMPLES							
Microbiological Contaminants (complete if fecal-indicator detected) Total No. of Detections Detections Sample Dates MCL [MRDL] PHG (MCLG) [MRDL]							
E. coli	(In the year)) 0 (0) Human and animal fecal waste		Human and animal fecal waste			
Enterococci	(In the year)		TT	n/a	Human and animal fecal waste		
Coliphage (In the year) TT n/a Human and animal fecal waste							

Summary Information for Fecal Indicator-Positive Ground Water Source Samples, Uncorrected Significant Deficiencies, or Ground Water TT

SPECIAL	NOTICE OF FECAL INI	DICATOR-POSITIVE G	ROUND WATER SOURCE S	SAMPLE			
	SPECIAL NOTICE FOR	UNCORRECTED SIGN	NIFICANT DEFICIENCIES				
	VIOLA	TION OF GROUND W	ATER TT				
TT Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language			

For Systems Providing Surface Water as a Source of Drinking Water

TABLE 8 - SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES

Treatment Technique ^(a) (Type of approved filtration technology used)	
	Turbidity of the filtered water must:
Turbidity Performance Standards ^(b)	1 – Be less than or equal to NTU in 95% of measurements in a month.
(that must be met through the water treatment process)	2 – Not exceed NTU for more than eight consecutive hours.
	3 – Not exceed NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	
Highest single turbidity measurement during the year	
Number of violations of any surface water treatment requirements	

(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.

* Any violation of a TT is marked with an asterisk. Additional information regarding the violation is provided below.

Summary Information for Violation of a Surface Water TT

	VIOLATION OF A SURFACE WATER TT						
TT Violation	Explanation	Actions Taken to Correct the Violation	Health Effects Language				

Summary Information for Operating Under a Variance or Exemption