2016 Consumer Confidence Report

Water System Name: **North Yuba Water District** Report Date: 2/13/2017

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, 2016 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: Surface water (streams/reservoirs)

Name & general location of source(s): South Fork of Feather River, Lost Lake, Sly Creek, Slate Creek and Oro Leva Creek Tributaries. Upper Forbestown Canal (transverse flow). Little Grass Valley Reservoir.

Drinking Water Source Assessment information: The source serving North Yuba Water District is the Forbestown Treatment Plant intake. Active and historic mining operations, high density septic systems. Assessment may be reviewed at NYWD's office at 8691 La Porte rd. Brownsville Ca. 95919. Attn: Jeff Maupin, General Manager (530)675-2567.

Time and place of regularly scheduled board meetings for public participation: Fourth Thursday of each month at 5:00 p.m. at the district office – 8691 La Porte Rd. Brownsville Ca. 95919.

For more information, contact: North Yuba Water District Phone: (530)675-2567

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

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.

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

(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.	**ND**: not detectable at testing limit **ppm**: parts per million or milligrams per liter (mg/L) **ppb**: parts per billion or micrograms per liter (µg/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, and 6 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. Any violation of an AL, MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria (state Total Coliform Rule)	(In a mo.) 0	0	1 positive monthly sample	0	Naturally present in the environment
Fecal Coliform or *E. coli* (state Total Coliform Rule)	(In the year) 0	0	A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or *E. coli* positive	0	Human and animal fecal waste

E. coli (federal Revised Total Coliform Rule)	(from 4/1/16-12/31/16) 0	0	(a)	0	Human and animal fecal waste

(a) Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper (complete if lead or copper detected in the last sample set)	**Sample Date**	**No. of samples collected**	**90th percentile level detected**	**No. sites exceeding AL**	**AL**	**PHG**	**Typical Source of Contaminant**
Lead (ppb)	2015	10	8.7	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	2015	10	.101	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (and reporting units)	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Sodium (ppm)	2015	1.7		none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2016	24		none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

TABLE 4 – DETECTION OF CONTAMINANTS 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**
Alkalinity (ppm)	2016	19.8		n/a		Naturally occurring in all waters.
Aluminum (ppm)	2015	.0244		1	0.6	Erosion of natural deposits, residue from some water treatment processes.
Arsenic (ppb)	2011	0		10	.004	Erosion of natural deposits, runoff from orchards, glass and electronics wastes.
Antimony(ppb)	2015	0		6	20	Discharge from petroleum refineries, fire retardants, ceramics, electronics and solder.
Barium(ppm)	2012	0		1	2	Discharge of oil drilling, wastes from metal refineries, erosion of natural deposits.
Beryllium(ppb)	2016	3.9		4	1	Discharge from metal refineries, coal burning factories, and electrical , aerospace, and defense industries
Asbestos (mfl)	2016	0		7	7	Internal corrosion of Asbestos cement water mains, erosion of natural deposits.
Bicarbonate as HCO3(ppm)	2016	24.1		n/a		
Cadmium	2013	4.2		50	100	Internal corrosion of galvanized pipes, erosion of natural deposits, discharge from electroplating and industrial chemical factories, and metal refineries, run off from waste, batteries and paints.

Chlorine (ppm)	2016	1.00	.42-1.56	4	4	Drinking water disinfection added for treatment.
Carbonate as CO3 (ppm)	2016	0		n/a		
Calcium (ppm)	2016	4.5		n/a		
Chromium (ppb)	2013	0		50	100	Discharge from steel and pulp mills and chrome plating, erosion of natural deposits.
Fluoride (ppm)	2015	0		2	1	Erosion of natural deposits, water additive which promotes strong teeth, discharge from fertilizer and aluminum factories.
Halo acetic Acids (HAA5) (ppb)	2016	18.7	14-21	60	N/A	By-Product of drinking water disinfection.
Hardness as CaCO3 (ppm)	2016	24		n/a		
Hexavalent Chromium (ppb)	2016	0		10	.02	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities, erosion of natural deposits
Hydroxide as OH (ppm)	2016	0				
MBAS (foaming agents) (ppb)	2015	0		500		Municipal and industrial waste discharges.
Gross Alpha (pCi/l)	2016	1.76		15	0	Erosion of natural deposits.
Magnesium (ppm)	2016	3.1				
Mercury (ppb)	2015	0		2	1.2	Erosion of natural deposits, discharge from refineries and factories, run off from landfills and cropland.
Nickel (ppb)	2014	0		100	12	Erosion of natural deposits. Discharge from metal factories.
Nitrate as N (ppm)	2016	0		10	10	Run off and leaching from fertilizer use, leaching from septic tanks and sewage, erosion of natural deposits.
Nitrate as NO3 (ppm)	2014	0		45	45	Run off and leaching from fertilizer use, leaching from septic tanks and sewage, erosion of natural deposits.
Nitrite as N (ppm)	2012	.05		1	1	Run off and leaching from fertilizer use, leaching from septic tanks and sewage, erosion of natural deposits.
Perchlorate (ppb)	2016	0		6	1	By-product of the production of rocket fuel.
Radium 228 (pCi/l)	2016	1.1		5	.019	Erosion of natural deposits.

Selenium (ppb)	2013	0		50	30	Erosion of natural deposits, run off from mines, discharge from petroleum and metal production.
Silver (ppb)	2015	0		100		Industrial discharges.
Thallium (ppb)	2015	0		2	1	Leaching from ore processing sites, discharge from glass, electronics and drug factories.
Total Trihalomethanes (TTHM) (ppb)	2016	33.7	29-36	80	n/a	By-product of drinking water disinfection.
Turbidity (ntu)	2016	.294	.036-.294	TT		Soil run off.
Zinc (ppm)	2015	0		5		Run /leaching from natural deposits, industrial wastes.

TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Chloride (ppm)	2012	1.3		500		Run off/leaching from natural deposits, sea water influence.
Color (color units)	2015	17		15		Naturally occurring organic materials.
Iron (ppb)	2013	131		500		Erosion of natural deposits.
Manganese (ppb)	2013	53		50		Leaching from natural deposits.
Sulfate (ppm)	2012	.7		500		Run off/leaching from natural deposits, industrial wastes.
Total Dissolved Solids (ppm)	2013	26		1000		Run off/leaching from natural deposits.

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects Language

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. Immuno-compromised 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. North Yuba 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. [Optional: If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.] 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 (1-800-426-4701) or at http://www.epa.gov/lead.

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**

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**	**Sample Dates**	**MCL [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Source of Contaminant**
E. coli	(In the year) 0		0	(0)	Human and animal fecal waste
Enterococci	(In the year) 0		TT	n/a	Human and animal fecal waste
Coliphage	(In the year) 0		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 INDICATOR-POSITIVE GROUND WATER SOURCE SAMPLE

SPECIAL NOTICE FOR UNCORRECTED SIGNIFICANT DEFICIENCIES

VIOLATION OF GROUND WATER TT				
TT Violation	**Explanation**	**Duration**	**Actions Taken to Correct the Violation**	**Health Effects Language**
0	**0**	**0**	**0**	**0**

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)	Alternative
Turbidity Performance Standards [b] (that must be met through the water treatment process)	*Turbidity of the filtered water must:* 1 – Be less than or equal to ___.3__ NTU in 95% of measurements in a month. 2 – Not exceed __1.0___ NTU for more than eight consecutive hours. 3 – Not exceed _5.0___ NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	96.4
Highest single turbidity measurement during the year	.294
Number of violations of any surface water treatment requirements	0

(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.

Summary Information for Violation of a Surface Water TT

VIOLATION OF A SURFACE WATER TT				
TT Violation	**Explanation**	**Duration**	**Actions Taken to Correct the Violation**	**Health Effects Language**
0	**0**	**0**	**0**	**0**

Summary Information for Operating Under a Variance or Exemption

Summary Information for Federal Revised Total Coliform Rule Level 1 and Level 2 Assessment Requirements

Level 1 or Level 2 Assessment Requirement not Due to an *E. coli* MCL Violation

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

During the past year we were required to conduct 0 Level 1 assessment(s). 0 Level 1 assessment(s) were completed. In addition, we were required to take 0 corrective actions and we completed 0 of these actions.

During the past year 0 Level 2 assessments were required to be completed for our water system. 0 Level 2 assessments were completed. In addition, we were required to take 0 corrective actions and we completed 0 of these actions.

There were no level 1 or 2 assessments or corrective action needed due to no coliform was found to be present.

Level 2 Assessment Requirement Due to an *E. coli* MCL Violation

E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems. We found *E. coli* bacteria, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) identify problems and to correct any problems that were found during these assessments.

We were required to complete a Level 2 assessment because we found *E. coli* in our water system. In addition, we were required to take 0 corrective actions and we completed 0 of these actions.

There were no level 2 assessments or corrective actions taken due to no E. coli MCL violations.