2017 Consumer Confidence Report

Water System Name: City of Huron   Report Date: May 29, 2018

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, 2017 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

Name & general location of source(s):   Water treatment plant receives water from the California Aqueduct

Drinking Water Source Assessment information: The San Luis Canal has a capacity of 13,000 cfm and is a branch of the California Aqueduct runs through the Central Valley (approximately from O'Neil Forebay to the end of the Westlands Water District area). The San Luis Canal receives water from the O'Neil Forebay, which is filled via the California Aqueduct from the American, Sacramento, and San Joaquin rivers through the Sacramento Delta. Water is pumped from the O'Neil Forebay into the San Luis Reservoir for storage. Delta-Mendota canal water and storm water runoff from the watersheds around Forebay and the San Luis Reservoir also enters the Forebay. The Forebay is fully Recreational and is heavily used during the summer months. The Aqueduct is exposed to significant storm drainage.

Time and place of regularly scheduled board meetings for public participation: City Council meetings are held on the first and third Wednesdays at City Hall, located at 36311 S. Lassen Ave., Huron CA.

For more information, contact: Dennis Longhofer   Phone: (775) 781-6758

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 (U.S. EPA).

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

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.

ND: not detectable at testing limit

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

health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.	**ppb**: parts per billion or micrograms per liter (μg/L)
	ppt: parts per trillion or nanograms per liter (ng/L)
Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.	**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 byproducts 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 U.S. EPA 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.) 3	1	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)	(In the year) 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	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead (ppb)	8/17/2016	20	ND (0.005)	0	15	0.2	3	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	8/17/2016	20	0.330	0	1.3	0.3	Not applicable N/A	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)	3/14/2017	20	N/A	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	3/14/2017	63	N/A	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 <u>PRIMARY</u> 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)	3/3/2015	1.4	N/A	10	(0)	Erosion of natural deposits; runoff from orchards, glass & electronic production waste.
Barium (ppb)	3/14/17	35	N/A	2000	(2000)	Discharge from drilling waste and metal refineries and erosion of natural deposits.
Copper (ppb)	3/3/2015	1.3	N/A	1300	(1300)	Corrosion of household plumbing systems, erosion of natural deposits.
Mercury (ppb)	3/3/2015	1.2	N/A	2	(2)	Erosion of natural deposits; discharge from refineries & factories; runoff from landfills & croplands.
Nitrate (ppm)	3/14/2017	0.53	N/A	10	(10)	Runoff from fertilizer use; leaching from septic tanks; and erosion of natural deposits.

TABLE 5 – DETECTION OF CONTAMINANTS WITH A <u>SECONDARY</u> DRINKING WATER STANDARD

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Aluminum (ppb)	3/14/2017	***500**	N/A	50-200	N/A	Erosion of natural deposits; drainage from mines.
Chloride (ppm)	3/14/2017	19	N/A	250	N/A	Erosion of natural deposits; seawater influence.
Color (cu)	3/14/2017	***20**	N/A	15	N/A	Caused by decaying leaves, plants, organic matter, copper, iron and manganese.
Fluoride (ppm)	3/14/2017	0.065	N/A	2.0	N/A	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories

Iron (ppb)	3/14/2017	***700**	N/A	300	N/A	Occurs naturally as a mineral in rivers, lakes and running water, release to water from natural deposits, sediment and rocks, or from mining and industrial wastes.
Manganese (ppb)	3/14/2017	21	N/A	50	N/A	Occurs naturally as a mineral from sediment and rocks or from mining and industrial wastes.
Odor (ou)	3/14/2017	1.0	N/A	3	N/A	Caused by organic or non-organic contaminants that originate from municipal or industrial wastes discharges or natural sources.
pH (su)	3/14/2017	7.93	N/A	6.5-8.5	N/A	pH value is an approximate number between 0 and 14 that indicates whether a solution is acidic (pH < 7), basic (pH > 7) or neither (pH = 7) [neutral].
Sulfate (ppm)	3/14/2017	20	N/A	250	N/A	Elevated concentrations may result from saltwater intrusion, mineral dissolution, and domestic or industrial wastes.
Total Dissolved Solids (ppm)	3/14/2017	160	N/A	500	N/A	Erosion from natural deposits and 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**
None					

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 U.S. EPA'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. U.S. EPA/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. [INSERT NAME OF UTILITY] 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**
Levels of coliform bacteria above the drinking water standard	Although this is not an emergency, as our customers, you have a right to know what you should do, what happened, and what we are doing to correct this situation. Our water system recently violated a drinking water standard. We routinely monitor for the presence of drinking water contaminants. During the month of March, we took 12 samples to test for the presence of coliform. One of those samples showed the presence of total coliform bacteria. No repeat sample were collected as required by the Total Coliform Rule. The contract lab did not notify the City of the positive coliform result. However, the City is responsible to take repeat samples as required. During May 2017, we took 24 samples to test for the presence of coliform bacteria. Three of those samples showed the presence of total coliform bacteria. The standard is that no more than 1 sample per month/5.0 percent of our samples may do so. All repeat sample showed absence for total coliform.	30 Days	Contamination can easily occur with collection and analytical testing of coliform samples. Outside sources such as wind could blow containments into the sample bottle resulting in a false positive. Proper collection procedures must be maintained regardless of the environment. Steps the City has taken include the City's water operators completed proper sampling technique training. Each sample site has been evaluated for possible outside contamination. Staff has restarted flushing lines on a regular scheduled basis. Line flushing was previously reduced due to the drought.	Inadequate treated water may contain disease-causing organisms. These organisms include bacteria, viruses and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Disinfection Byproduct Precursors above drinking water standards.	Our water system recently failed a drinking water standard. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we are doing to correct this situation. We routinely monitor for the presence of drinking water contaminants. Compliance with the total trihalomethanes (TTHM) maximum contaminant level (MCL) is based on the average concentration of four consecutive quarterly samples (or the running annual average). The standard for TTHMs is 0.080 milligrams per liter (mg/L). Testing results we received on December 2017 show that our system exceeds the TTHM MCL. The average level of TTHMs over the last year was 0.085 mg/L.	Ongoing until new water treatment plant is constructed which is anticipated for 2019.	The City has approved the funding and is undergoing the necessary engineering study and upgrading of the water treatment plant for the disinfections treatment process, which will remove DBP precursors.	This is not an immediate risk. If it had been, you would have been notified immediately. However, some people who use water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.
Levels of aluminum above the drinking water secondary standard in untreated California Aqueduct water.	Our water system recently exceeded a drinking water secondary standard. Secondary standards are non-enforceable guidelines regarding contaminates and the MCL is set for odor, taste and appearance control only. Testing results we received on March 2017 show that our system exceeds the aluminum MCL. The average level of aluminum, over the last year was 500 ug/L.	Due to the high seasonal rainfall we experienced during the winter and spring of 2017, the California Aqueduct received excessive levels of contaminants from runoff. As the rainy season ended California Aqueduct water quality increased.	The water treatment plant increased the amount for filter backwashes, and water operators have continued to flush water lines on a regular basis.	Secondary drinking water regulations which are non-enforceable guidelines for water quality. These guidelines are related to taste, smell, and appearance rather than health. These contaminants have very low toxicity but can give the water an unpleasant taste or color.
Levels of color above the drinking water secondary standard in untreated California Aqueduct water.	Our water system recently exceeded a drinking water secondary standard. Secondary standards are non-enforceable guidelines regarding contaminates and the MCL is set for odor, taste and appearance control only. Testing results we received on March 2017 show that our system exceeds the color MCL. The average	Due to the high seasonal rainfall we experienced during the winter and spring of 2017, the California Aqueduct received excessive levels of contaminants from runoff. As the rainy season ended California Aqueduct water quality increased.	The water treatment plant increased the amount for filter backwashes, and water operators have continued to flush water lines on a regular basis.	Secondary drinking water regulations which are non-enforceable guidelines for water quality. These guidelines are related to taste, smell, and appearance rather than health. These contaminants have very low toxicity but can give the water an unpleasant taste or color.

	level of color, over the last year was 20 cu.			
Levels of iron above the drinking water secondary standard in untreated California Aqueduct water.	Our water system recently exceeded a drinking water secondary standard.

Secondary standards are non-enforceable guidelines regarding contaminates and the MCL is set for odor, taste and appearance control only.

Testing results we received on March 2017 show that our system exceeds the iron MCL. The average level of iron, over the last year was 700 ppb. | Due to the high seasonal rainfall we experienced during the winter and spring of 2017, the California Aqueduct received excessive levels of contaminants from runoff.

As the rainy season ended California Aqueduct water quality increased. | The water treatment plant increased the amount for filter backwashes, and water operators have continued to flush water lines on a regular basis. | Secondary drinking water regulations which are non-enforceable guidelines for water quality. These guidelines are related to taste, smell, and appearance rather than health. These contaminants have very low toxicity but can give the water an unpleasant taste or color. |

For Water Systems Providing Groundwater as a Source of Drinking Water

TABLE 7 – SAMPLING RESULTS SHOWING FECAL INDICATOR-POSITIVE GROUNDWATER 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 Groundwater Source Samples, Uncorrected Significant Deficiencies, or Groundwater TT

SPECIAL NOTICE OF FECAL INDICATOR-POSITIVE GROUNDWATER SOURCE SAMPLE

SPECIAL NOTICE FOR UNCORRECTED SIGNIFICANT DEFICIENCIES

VIOLATION OF GROUNDWATER TT

TT Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language
N/A				

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)	Gravity filters
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 <u>≤0.3</u> NTU in 95% of measurements in a month. 2 – Not exceed <u>1.0</u> NTU for more than eight consecutive hours. 3 – Not exceed <u>3.0</u> NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	100%
Highest single turbidity measurement during the year	0.120
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
None				

Summary Information for Operating Under a Variance or Exemption

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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 [1] Level 1 assessment(s). [1] Level 1 assessment(s) were completed. In addition, we were required to take [3] corrective actions and we completed [3] 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.

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.