City of Dixon's Public Water System CA4810009
2021 Water Quality Report

What is a Consumer Confidence Report

A Consumer Confidence Report, or Water Quality Report, is an annual report with a focus on the quality of water provided by your water purveyor. The City of Dixon's Public Water System is pleased to announce that the water we serve to our customers continues to meet all standards set by U.S. Environmental Protection Agency and the State Water Resources Control Board, Division of Drinking Water. The City of Dixon monitors the drinking water from source to tap and uses a certified laboratory to analyze samples collected to ensure accurate results. The results and information provided in this report are specific to the City of Dixon's Public Water System from January 1 to December 31, 2021. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

Do you have questions, comments, concerns, thoughts or ideas related to your water system? We encourage customer participation! City council meetings are scheduled for the first and third Tuesday of each month.

Your Water Source and Supply Facilities

The source of all drinking water in the City of Dixon is groundwater, pumped from hundreds of feet below the ground surface. The City system operates and maintains five large production wells that pump water into the distribution system. The wells are located throughout the service area and have a total capacity of 8,000 gallons per minute. The water system uses booster pumps along with the source wells to pressurize the system between 52 and 62 pounds of pressure per square inch (psi).

The water distribution system includes over 45 miles of main line and four above ground steel storage tanks. These tanks can hold a combined 4.3 million gallons of water, ensuring adequate water supply during peak demand and the high flow demands of firefighting. Each distribution facility is equipped with an emergency backup generator that provides power in the event of an outage to avoid service interruption.

Distribution Disinfection and Water Quality

Small amounts of sodium hypochlorite (chlorine) is added at each active source to disinfect the water supply in the distribution system. The addition of chlorine reduces the possibility of microbiological contamination in your water supply. During 2021, weekly bacteriological samples were collected at representative points within the distribution system (Table 1). Bacteriological samples were also collected whenever a new main line was placed into service, or anytime pressure was reduced below 5 psi for a system repair.

Commitment to Service

The City of Dixon is committed to providing superior customer service. For water service or billing questions, you can reach our dedicated and knowledgeable staff at 707-678-7008. If you have questions related to water quality, please contact the Water Operations Supervisor Josh Hudson at 707-678-7050 Ext 5501. For after hour calls and emergencies, a City Operator is always available at 707-676-3005.

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse City of Dixon Utility Billing at 707-678-7008 para asistirlo en español.

Drinking Water Facts

In order to ensure that tap water is safe to drink, the U.S. EPA and the State Water Resources Control Board (State Water Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Water Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of contaminants. The presence of the 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 cancer 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).

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of 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 surface 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 and septic systems.
- ***Radioactive contaminants*** can be naturally occurring or be the result of oil and gas production and mining activities.

Source water Assessments

Drinking water source assessments for the City's wells were all completed by 2007. The wells are considered most vulnerable to sewer collection systems, auto repair shops, chemical and petroleum pipelines, ag wells, and gas stations. You may request a summary of the assessment at 707-678-7008.

Lead in Water

If present, elevated levels of lead can cause serious health problems, especially in pregnant woman and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Dixon Water Public Water System 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 (1-800-426-4791) or at http://epa.gov/safewater/lead.

In January 2017, the State Water Resource Control Board (SWRCB) issued a permit amendment, establishing requirements for water purveyors to provide assistance and complete lead monitoring and sampling for all Kindergarten to 12th grade schools. The City of Dixon has worked collaboratively with the school district within the water system service area. The City of Dixon provided assistance and completed testing for the Dixon Unified School District at three local schools (Tremont Elementary, Gretchen Elementary, and Dixon High School) during the spring of 2019. For information related to the testing of lead in schools including visit: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.html

Nitrate in Drinking Water

Nitrate in drinking water at levels above 10 mg/L is a health risk for infants of less than six months of age. Such Nitrate levels in the drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in serious illness; symptoms include shortness of breath, and blueness of skin. Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant woman and those with specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

Chromium-6 MCL Update

Effective July 1, 2014 the State Water Resources Control Board (SWRCB) lowered the maximum contaminant level (MCL) for chromium monitoring from 50 parts per billion (ppb) for total chromium to 10 ppb for hexavalent chromium, also known as Chromium-6. On July 30, 2015, the Division of Drinking Water issued a compliance order to the City of Dixon for exceeding the State's new MCL for chromium-6. The City was given a grace period to meet the new standard by January 1, 2020. In 2016, the City completed a chromium-6 Management Plan to review treatment options and the cost associated. On May 31, 2017, the Superior Court of Sacramento County issued a judgment invalidating the revised chromium-6 MCL for drinking water, and as of September 11, 2017, the maximum contaminant level for hexavalent chromium is no longer in effect. Current detection levels of Hexavalent chromium in the City's Water is between 15-19 ppb. The State recently released a proposed administrative draft of the hexavalent chromium maximum contaminant level, with notice of public workshops, giving opportunity for public comment. For the most recent info visit: https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Chromium6.html

Terms & Abbreviations Used in This Report

AL Regulatory Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

MCL Maximum Contaminant Level: 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.

MCLG Maximum Contaminant Level Goal: 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).

MFL Million fibers per liter: Unit measure of the presence of asbestos fibers that are longer than 10 micrometers.

MRDL Maximum Residual Disinfectant Level: 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.

MRDLG Maximum Residual Disinfectant Level Goal: 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.

ND Not detectable at testing limit.

NTU Nephelometric Turbidity Unit: A measurement of the clarity of water.

pCi/L picocuries per liter (a measure of radiation).

PDWS Primary Drinking Water Standards: MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

PHG Public Health Goal: 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.

ppb parts per billion or micrograms per liter (ug/L).

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

SDWS Secondary Drinking Water standards: 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.

SMCL Secondary Maximum Contaminant Level: The level of a secondary contaminant which when exceeded may adversely affect the aesthetic quality of the drinking water which thereby may deter public acceptance of drinking water provided by public water systems or may interfere with water treatment methods.

Unregulated Contaminants Unregulated contaminant monitoring helps U.S. EPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

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Primary Drinking Water Standards – Distribution System

Microbiological

Contaminant	Year Sampled	Highest No. of Detections	No. of months in violation	MCL	PHG (MCLG)	Typical Source of Bacteria	In Compliance
Total Coliform Bacteria (Fewer than 40 samples per-month)	2021	0	0	One (1) positive monthly sample	0	Naturally present in the environment	Yes
Fecal Coliform and *E. coli*	2021	0	0	0	0	Human and animal fecal waste	Yes

Lead and Copper

Lead and Copper	Units	Year Sampled	No. of samples collected	90th percentile level detected	AL	No. sites exceeding AL	PHG (MCLG)	Typical Source of Contaminant	In Compliance
Lead	ppb	2021	25	ND	15	0	.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits	Yes
Copper	ppm	2021	25	0.215	1.3	0	.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	Yes
Schools that requested lead sampling in 2021: 0									

Disinfectants and Disinfection Byproducts

Constituent	Units	Year Sampled	Range of Detection	Detections Average	MCL [MRDL]	PHG [MRDLG]	Typical Source of Contaminate	In Compliance
Free Chlorine	ppm	2021	0.82 - 0.93	0.87	[4]	[4]	Added to drinking water for disinfection	Yes
Total Trihalomethanes	ppb	2021	ND - 2.0	0.67	80	N/A	By-product of drinking water chlorination	Yes

* This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2021. These revisions add the requirements of the federal Revised Total Coliform Rule, effective since April 1, 2016, to the existing state Total Coliform Rule. The revised rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total coliform and E. coli bacteria). The U.S. EPA anticipates greater public health protection as the rule requires water systems that are vulnerable to microbial contamination to identify and fix problems. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system. The state Revised Total Coliform Rule became effective July 1, 2021.

Primary Drinking Water Standards – Source Water

Inorganic Chemicals								
Constituent	**Units**	**Year Sampled**	**Range of Detection**	**Detections Average**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminate**	**In Compliance**
Arsenic	ppb	2021	ND - 2.3	1.15	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes	Yes
Asbestos	MFL	2020	ND - 0.64	0.42	7	7	Internal corrosion of asbestos cement water mains; erosion of natural deposits	Yes
Barium	ppm	2021	0.10 - 0.27	0.18	1	2	Erosion of natural deposits, discharge from oil drilling wastes and from metal	Yes
Chromium (total)	ppb	2021	17 - 25	21.25	50	(100)	Erosion of natural deposits, discharge from steel and pulp mills and chrome plating	Yes
Fluoride	ppm	2021	ND - 0.11	0.03	2.0	1.0	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	Yes
Nickle	ppb	2021	15 - 19	16.5	100	12	Erosion of natural deposits; discharge from metal factories	Yes
Nitrate as N	ppm	2021	1.4 - 4.45	3.39	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits	Yes
Selenium	ppb	2021	ND - 11	2.75	50	30	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)	Yes
Radiological								
Gross Alpha	pCi/L	2020	0.77 - 2.54	1.74	15	0	Erosion of natural deposits	Yes
Uranium	pCi/L	2020	1.16 - 3.97	1.99	20	0.43	Erosion of natural deposits	Yes

*The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

Unregulated and Secondary Drinking Water Standards – Source Water

Secondary Standards (Regulations for Aesthetics)								
Constituent	**Units**	**Year Sampled**	**Range of Detection**	**Detections Average**	**SMCL**	**PHG (MCLG)**	**Typical Source of Contaminate**	**In Compliance**
Chloride	ppm	2021	12 - 22	15	500	N/A	Runoff/leaching from natural deposits: industrial wastes	Yes
Specific Conductance	us	2021	540 - 760	597.5	1600	N/A	Substance that form ions when in water: seawater influence	Yes
Sulfate	ppm	2021	27 - 36	32	500	N/A	Runoff/leaching from natural deposits: industrial wastes	Yes
Total Dissolved Solids	ppm	2021	300 - 400	332.5	1000	N/A	Runoff/leaching from natural deposits	Yes
Turbidity	NTU	2021	0.22 - 0.34	0.29	5	N/A	Turbidity in groundwater is mostly inorganic and caused by natural geological factors	Yes
Unregulated Contaminants								
Alkalinity	ppm	2021	210 - 310	255	N/A	N/A	No standardized "source of substance" language	N/A
Boron	ppb	2021	400 - 520	465	N/A	N/A	No standardized "source of substance" language	N/A
Calcium	ppm	2021	20 - 44	29.25	N/A	N/A	No standardized "source of substance" language	N/A
Hardness (total)	ppm	2021	120 - 330	207.5	N/A	N/A	No standardized "source of substance" language	N/A
Hexavalent Chromium	ppb	2021	15 - 19	16.5	N/A	N/A	No standardized "source of substance" language	N/A
Magnesium	ppm	2021	16 - 51	30.2	N/A	N/A	No standardized "source of substance" language	N/A
pH	Units	2021	7.85 – 8.10	7.96	N/A	N/A	No standardized "source of substance" language	N/A
Potassium	ppm	2021	2.3 - 3.5	2.725	N/A	N/A	No standardized "source of substance" language	N/A
Sodium	ppm	2021	38 - 67	52.75	N/A	N/A	No standardized "source of substance" language	N/A
Vanadium	ppb	2021	6 - 15	9.95	N/A	N/A	No standardized "source of substance" language	N/A

* There are no PHGs, MCLGs, or mandatory standard health effects language for these constituents because secondary MCLs are set on the basis of aesthetic concerns.
*"Hardness" is the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring.
*"Sodium" refers to the salt present in the water and is generally naturally occurring.