

City of Dixon
Drinking Water Quality Report 2014
PWSID #4810009, Permit #02-04-14P-4810009

What is Drinking Water Quality Report?

A Drinking Water Quality Report (or Consumer Confidence Report) is an annual report mandated by the State and the U.S. Environmental Protection Agency (EPA). The purpose of this report is to raise your awareness of the quality of the water served to you by the City of Dixon. There were multiple tests performed on the water served to you in calendar year 2014. This report is a summary of samples taken. Samples were analyzed by a certified laboratory, using proper techniques, assuring good, quality results. It should be noted that this report does not document the quality of water provided by California Water Service Company.

Your Water Source and Supply Facilities

The source of drinking water for the City of Dixon is groundwater, located hundreds of feet below the surface. The system operates, and maintains five wells that pump water into the distribution system. The wells are located throughout the system. On average, each well can produce approximately 1500 gallons per minute. Booster pumps pressurize the system to between 57 and 61 pounds per square (psi) of pressure.

The water distribution system has four storage tanks to store water. Collectively, these tanks can store up to 4.3 million gallons of water. They provide a buffer for peak demand or other high flow situations such as firefighting. All well and booster pumps stations have diesel generators to provide electricity in case of power interruptions.

The ground water meets all federal and state standards, except the newest standard: Hexavalent Chromium (aka Chrom 6). This new standard is exceeded and the State has given the City time to devise and build a treatment system for Chrom 6 removal. Pilot tests of Chrom 6 removal systems are being done currently. Source assessments of the groundwater were completed in 2003.

Under the Dixon-Solano Water Authority, a Joint Powers Authority between Solano Irrigation District and the City of Dixon, the system was operated by Solano Irrigation District through mid-August 2014. Then, Severn Trent Services (STS) was hired as the contract operator. Both firms have the goal of seamless operations presenting quality drinking water. This report will compile data on samples taken by both operators.

Small amounts of chlorine are added to the water from the wells before it enters the distribution system. The addition of chlorine minimizes the possibility of microbial contamination in your drinking water. During 2014, weekly bacteriological samples were drawn at representative points in the distribution system and whenever new lines were placed into service or if maintenance requires a shutting off of pressure. All samples met bacteriological standards set up by the State.

Commitment to Service

The City of Dixon is committed to providing great customer service. The most visible aspect of service is the billing cycle. Billing is handled by the Administrative Services staff at the City of Dixon City Hall. For billing questions contact (707) 678-7000. If there are service related questions, STS operations staff may be reached at (844) 856-8242.

A Message from the EPA

The water cycle for sources of all drinking water (tap and bottled water) may include rivers, streams, ponds, lakes, reservoirs, springs and wells. As water falls on the surface of the land as rain or snow, it travels through water courses and soaks into the ground. It dissolves naturally occurring minerals and, at times, can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in water include:

Microbial contaminants - such as bacteria and viruses that may come from sewage treatment plants, septic systems or agricultural livestock operations and wildlife.

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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 - which 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 - 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 CA Drinking Water Program prescribe regulations that limit the amount of certain contaminants in water provided by a public water service like the City of Dixon. Department regulations also establish limits for contaminants in bottled water that must 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.

Some people may be more vulnerable to some contaminants than the general population. Immuno-compromised persons such as persons 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.

More information about contaminants and potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline at 1 (800) 426-4791, or by accessing the website at www.epa.gov/safewater. If you have any further questions about this report or the quality of the water, please contact STS Plant Manager Frank Mora at (209) 597-9707.

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 service lines and internal house plumbing. The City of Dixon is responsible to provide high quality drinking water but cannot control the material used in plumbing components. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in your drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 1 (800) 426-4791 or at <http://epa.gov/safewater/lead>.

Nitrate in Drinking Water

The following information must be provided to customers in any water source which has nitrate level of over 50 percent of the MCL. "The MCL for nitrate is 45 ppm, and Well 52 (Valley Glen) had a level of 34 ppm and Well 44 (Industrial Well) had a maximum level of 22 ppm. The average level in the system was 22 ppm. Nitrate above levels of **45 ppm** is a health risk for infants of less than six months of age. Elevated 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. Nitrates above 45 ppm may also affect the ability of the blood to carry oxygen for other individuals such as pregnant woman and with specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

Common Abbreviations and Terms Used in the Report

In the table below, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following definitions:

Detected Not Quantified (DNQ) - an analytical result that is below detection limit, but shows that there may be some presence of the analyte in the water too small to quantify.

Maximum Contaminant Level or MCL - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

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Maximum Contaminant Level Goal or MCLG - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

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

Maximum residual disinfectant level or 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 or 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.

"ND" - means Not Detected and indicates that the substance was not found by laboratory analysis.

Parts per billion (ppb) or Micrograms per liter (µg/l) - one part by weight of analyte to 1 billion parts by weight of the water sample.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part by weight of analyte to 1 million parts by weight of the water sample.

Picocurie per liter (pCi/L) - measure of the radioactivity in water.

Microbiological Constituents	Highest # of detections	# of months in violation	MCL	MCLG	Typical Source of Bacteria
Total coliform bacteria	1	0	< 1 sample collected per month		Naturally present in the environment
<i>E. coli</i>	0	0	0	0	Human and animal fecal waste

While there was one positive Total coliform bacteria sample in calendar year 2014, all subsequent tests including repeat samples were bacteriologically negative.

Constituent	Sample Date	level detected	MCL	MCLG	Source of constituent
Gross Alpha Particle Activity, pCi/L	03/05/14	DNQ	15	0	Erosion of natural deposits

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Table 3 - Disinfection By-Products						
Constituents	date	Average Level Detected	Range of Detection	MCL	MCLG	Typical Source of Constituent
Total Trihalomethanes (ppb)	07/23/14	0.55	ND-6.6	80	NA	By-product of drinking water disinfection
Haloacetic Acids(ppb)	07/23/14	ND	ND	60	NA	By-product of drinking water disinfection
Chlorine (ppm)	weekly 2014	0.90	ND - 1.7	< 4.0 ppm	< 4.0 ppm	added for disinfectant

Table 4 - Nitrate						
Constituent	date	Average Level Detected	Range of Detection	MCL	MCLG	Typical Source of Constituent
Nitrate (NO3), ppm	Quarterly	22	4.3-34	45	45	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Table 5 - Chromium 6						
Constituent	date	Average Level Detected	Range of Detection	MCL	MCLG	Typical Source of Constituent
Chromium 6 (ppb)	quarterly, starting in the fourth quarter	14	7.8 - 24	10	10	Discharge from steel and pulp mills; erosion of natural deposits