

# 2016 Annual Water Report

## **Is my water safe?**

The City of Dixon is pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. Dixon Public Works is committed to providing you with information because informed customers are our best allies.

## **Do I need to take special precautions?**

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. 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 Water Drinking Hotline (800-426-4791).

## **Where does my water come from?**

The City of Dixon Water Department supplies citizens with groundwater from seven wells ranging in drilled depth from 1,600 to 1,800 feet. These wells are located at various locations throughout the city. Two of the wells are located on the north side and the remaining five wells are located on the south side.

## **Source water assessment and its availability**

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel free to attend our regularly scheduled meetings. The source water assessment for our supply has been completed by the Illinois EPA. If you would like a copy of this information, please call our water operator at 815-288-4557. To view a summary version of the completed Source Water Assessments, including: Importance of Source Water; Susceptibility of Contamination Determination; and documentation/recommendation of Source Water Protection Efforts, you may access the Illinois EPA website at:

<http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>

Based on information obtained in a Well Site Survey published in 1990 by the Illinois EPA, several potential secondary sources are located within 1,000 feet of several of the wells. The Illinois EPA has determined that the Dixon Community Water Supply' source water is not susceptible to contamination. The determination is based on a number of criteria including: monitoring conducted at the well: monitoring conducted at the entry point to the distribution system: and available hydrogeologic data on the wells.

Furthermore, in anticipation of the U.S. EPA' purposed Ground Water Rule, the Illinois EPA has determined that the Dixon Community Water Supply is not vulnerable to viral contamination. This determination is based upon the evaluation of the following criteria during the Vulnerability Waiver Process: the community' wells are properly constructed with sound integrity and proper siting conditions: a hydraulic barrier exists which should prevent pathogen movement: all potential routes and sanitary defects have been mitigated such that the source water is adequately protected: monitoring data did not indicate a history of disease outbreak: and the sanitary survey of the water supply do not indicate a viral contamination threat. Because the community wells are constructed in a confined aquifer, which should prevent the movement of pathogens into the wells, well hydraulics were not consider to be a significant factor in susceptibility determination. Hence, well hydraulics were not evaluated for this system's water supply.

## **Why are there contaminants in my 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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

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: 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, which 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, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and radioactive contaminants, which 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, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

### **How can I get involved?**

We encourage public interest and participation in our community's decisions affecting drinking water. Dixon City Council meetings occur the first and third Mondays of each month at 5:30 pm in the council chambers at City Hall, located at 121 West Second Street. The public is welcome.

### **Description of Water Treatment Process**

Your water is treated by filtration and disinfection. Filtration removes particles suspended in the source water. Particles typically include clays and silts, natural organic matter, iron and manganese, and microorganisms.

Your water is also treated by disinfection. Disinfection involves the addition of chlorine or other disinfectants to kill bacteria and other microorganisms (viruses, cysts, etc.) that may be in the water. Disinfection is considered to be one of the major public health advances of the 20th century.

## Water Conservation Tips

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Take short showers - a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
- Visit [www.epa.gov/watersense](http://www.epa.gov/watersense) for more information.

## **Source Water Protection Tips**

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides - they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

## **Additional Information for Lead**

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. The City of Dixon 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 the following web address:

<https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water>

## 2016 Water Quality Table for the City of Dixon

Lead & Copper	Date Tested	Unit	MCLG	Action Level-AL	90th Percentile	# Sites over AL	Major Source	Violation
Copper	2014	ppm	1.3	1.3	1.1	0	Erosion of natural deposits; Leaching from wood; Corrosion of household plumbing systems.	NO
Contaminant	Date Tested	Unit	MCL	MCLG	Highest Level*	Range	Major Source	Violation
Inorganic Contaminants								
Arsenic	2016	ppb	10	0	1.4	0 - 1.4	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes	NO
Barium	2015	ppm	2	2	0.17	0.068-0.17	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	NO
Fluoride	2016	ppm	4	4	0.988	0.533 – 0.988	Erosion of Natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum	NO
Iron	2016	ppm	1	N/A	0.5	0.42 – 0.5	This Contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits	NO
Manganese	2015	ppb	150	150	46	9.7 - 46	This Contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits	NO
Sodium	2015	ppm	N/A	N/A	6.1	4.5 - 6.1	Erosion from naturally occurring deposits: Used in water softener regeneration.	NO
Radioactive Contaminants								
Uranium	2012	ug/l	30	0	0.2682	.13708 - .2682	Erosion of natural deposits	NO

Gross Alpha Emitters excluding Radon and Uranium	2016	pCi/L	15	0	3	0.096 - 2.93	Erosion of natural deposits	NO
Combined Radium	2016	pCi/L	5	0	4	0.907- 3.92	Erosion of natural deposits	NO
<b>Disinfectants and Disinfection By-Products</b>								
Chlorine	2016	ppm	MRDL = 4	MRDLG = 4	2.5	0.2 - 2.5	Water additive used to control microbes	NO
Haloacetic Acids (HAA5)*	2016	ppb	60	N/A	15	6.81- 14.92	By-product of drinking water disinfection	NO
TTHMs (Total)	2016	ppb	80	N/A	39	31.6-38.5	By-product of drinking water disinfection	NO
<b>Synthetic Organic Contaminants including Pesticides and Herbicides</b>								
Di (2-ethylhexyl) phtalate	2014	ppb	6	0	2.6	0 - 2.6	Discharge from rubber and chemical factories	NO

**Action Level Goal (ALG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

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

**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 allow for a margin of safety.

**Maximum Contaminant Level (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 treatment technology.

**Maximum Residual Disinfection 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.

**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.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

**Variations and Exemptions:**

State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

**MNR:** Monitored Not Regulated

**MPL:** State Assigned Maximum Permissible Level

<b>Unit</b>	<b>N/A:</b> Not Applicable	<b>N/D:</b> Not Detected	<b>N/R:</b> Monitoring Not Required, but recommended
<b>Description</b>	<b>pCi/L:</b> picocuries per liter (measure of radioactivity)	<b>ppb:</b> parts per billion (ug/l)	<b>ppm:</b> parts per million (mg/l)

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