Only Tap Water Delivers℠

There is no shortage of news stories these days on the merits of tap water and bottled water from a variety of different perspectives. The truth is, while tap water and bottled water are regulated differently, both are generally safe, healthy choices. But only tap water delivers public health protection, fire protection, support for the economy and the overall quality of life we enjoy.

The Value of Water Service:

We are all beneficiaries a magnificent network of treatment plants, pump stations and pipes that was handed down to us by generations before. Our water infrastructure has lasted long, but upgrades and replacements are always necessary. These upgrades are reflected in the cost of tap water service. When you consider the critical needs addressed by water service, tap water will always be a tremendous value. In fact, it will be a bargain. You simply cannot put a price on a service that delivers public health, fire protection, economic development and quality of life.

A Liquid Asset

In a world of sky-rocketing prices on everything from food to fuel, your tap water remains one of the best bargains around.

- At a fraction of a penny per gallon, tap water provides safety, convenience and freedom.
- An 8-oz. glass of water can be refilled approximately 15,000 times for the same price as a six-pack of soda.
- Your water bill pays for a lot more than simply water. You get sophisticated water treatment, frequent testing and monitoring, and a vast underground infrastructure that delivers safe, plentiful water right to your tap.
- Studies show that bottled water is no purer than tap water, yet bottled water costs about 1,900% more.

A little comparative shopping….

On average, a gallon of tap water in the United States costs a fraction of a penny. You simply can't find a better deal for a commodity that means so much to your daily life. Compare that with the cost of some other liquids you might use on a daily basis.

ONE GALLON of tap water = less than 1/10 of 1 cent

ONE GALLON of milk = $3.79 to $4.24

ONE GALLON of bottled water = $1.43 to $8.00

ONE GALLON of gasoline = $2.75 to $3.50

ONE GALLON of soda = $2.80 to $4.60

ONE GALLON of table wine = $18.50 to $37.95

Payment of Water Bills

Water rates are set by the Public Service Commission. With the adjustments that Fond du Lac customers have seen over the past three years, paying a full quarterly water bill can be difficult for some folks. Customers are reminded that they may pay down on their bill monthly, or anytime, if they so choose.

Various payment methods are available:

1. By Mail
2. Pay at the Central Services department located in the main lobby of the City-County Building
3. Place payment in the drop box located in the small parking lot at the corner of Macy Street and Western Avenue. Checks or money orders only please.
4. Automatic Draft from your savings or checking account

Contact the Water Utility at 322-3680 with questions

Hydrant Flushing

Periodically, you will see Water Utility personnel releasing water from hydrants. Hydrant flushing is necessary to test the hydrants to make sure adequate flow and pressure is available in the event of a fire. Flushing is also done to remove sediment from the pipes in order to maintain water clarity and quality in the distribution system. Occasionally, water becomes discolored after hydrant flushing. If this happens, run your cold water tap for a few minutes until the water clears.

Rusty Water

Water main breaks, construction activities and hydrant flushing cause built up rust particles to become dislodged from the interior walls of older pipes due to higher flow rates or reversed flows. Even though water is discolored, it is safe to drink. The problem corrects itself when the pressure is equalized in the system and flow is stabilized.

Take the Water Quiz! (answers at right)

1. How many gallons of water did Fond du Lac residents use last year?
2. How many miles of water main are in Fond du Lac?
3. How much water can be stored in Fond du Lac's reservoirs & towers?
4. What is the depth of the deepest well in Fond du Lac?
5. What year did the City of Fond du Lac begin chlorinating the water supply?
6. What was declared one of the ten greatest public health advances of the 20th century by the Center of Disease Control?
7. Tap water is a tremendous value. How much does water cost a family of four per day?

Answers

1. 1.85 billion gallons
2. 220 miles
3. 9.75 million gallons
4. 1,140 feet
5. 1930
6. Fluoridation
7. $1.60

"WATER IS THE ONLY DRINK FOR A WISE MAN"
- Henry David Thoreau -

CITY OF FOND DU LAC WATER UTILITY

PWS ID#: 42004699

ANNUAL WATER QUALITY REPORT

WATER TESTING PERFORMED IN 2009

WHAT DOES THIS REPORT MEAN

This report is designed to inform you about the water quality and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

We want our valued customers to be informed about their water utility. If you have any questions about this report or concerning your water utility, please contact Kathryn S. Scharf, Manager of Operations for the Fond du Lac Water Utility, at (920) 322-3682.

WHERE DOES MY WATER COME FROM?

The Fond du Lac Water Utility is supplied by groundwater pumped from 15 wells within and near the City of Fond du Lac. These 15 wells range in depth from 683 feet to 1,140 feet. In 2009, the Fond du Lac Water Utility distributed 1.85 billion gallons of water to 15,821 Fond du Lac water customers. The distribution system consists of six supply and distribution booster pump stations, five ground storage reservoirs, three elevated storage tanks, 220 miles of water main, and 1,817 fire hydrants.

HEALTH INFORMATION:

All 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. Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791) or visit the website at http://www.epa.gov.

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 healthcare providers. U.S. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the U.S. Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791) or visit the website at http://www.epa.gov.

Maximum Contaminant Levels (MCL's) are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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 Fond du Lac Water 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. 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 http://www.epa.gov/safewater/lead.

EDUCATIONAL INFORMATION:

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, which 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.
- 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. FDA regulations establish limits for contaminants in bottled water, which shall provide the same protection for public health.

WATER QUALITY:

The Fond du Lac Water Utility routinely monitors for constituents in your drinking water according to Federal and State regulations. The table at right shows the results of our monitoring for constituents between January 1st and December 31st, 2009. The Fond du Lac Water Utility performed testing of 17 inorganic contaminants, 2 microbiological contaminants, 2 disinfection by-product contaminants, 4 radioactive contaminants, 20 volatile organic contaminants, 27 synthetic organic contaminants including pesticides and herbicides, and 34 unregulated contaminants.

RESULTS OF LABORATORY TESTING

2009 Reporting Year

Contaminant	Violation	Level Detected	Range	Unit	MCLG	MCL	Typical Source of Contamination
DISINFECTION BYPRODUCTS							
Haloacetic Acids (HAA5)	No	6	2 - 6	ppb	60	60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	No	29.8	10.9 - 29.8	ppb	0	80	By-product of drinking water chlorination
INORGANIC CONTAMINANTS							
Antimony Total	No	0.2	ND - 0.2	ppb	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic	No*	2	1 - 3	ppb	n/a	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronic production wastes
Barium	No	0.057	.034 - .057	ppb	2	2	Discharge from drilling wastes; discharge from metal refineries; erosion of natural deposits
Cadmium	No	0.3	ND - 0.3	ppb	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium	No	1	ND - 1	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Copper	No	0.39	0 of 30 results above action level	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	No	0.2	0.1 - 0.2	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead	No	5.40	0 of 30 results above the action level	ppb	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits
Nickel	No	7.3000	1.4000 -7.3000	ppb		100	Nickel occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products
Nitrate (as Nitrogen)	No	0.15	0.04 - 0.15	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	No	5	3 - 5	ppb	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	No	41.00	19.00 – 41.00	ppm	n/a	n/a	n/a
* Monitoring & reporting violations occur when a water system fails to collect and/or report results for State required drinking water sampling. The Fond du Lac Waterworks missed an Arsenic inorganic sample from entry point 200 location that was required between 1/1/2009 and 3/31/2009.							
RADIOACTIVE CONTAMINANTS							
Gross Alpha Excluding R & U	No	5.8	ND - 7.3	pCi/L	0	15	Erosion of natural deposits
Gross Alpha Including R & U	No	5.8	ND - 7.3	pCi/L	n/a	n/a	Erosion of natural deposits
Gross Beta Particle Activity	No	3.7	2.0 - 3.7	pCi/L	n/a	n/a	Decay of natural and man-made deposits. MCL units are in millirem/yr. Calculation for compliance with MCL is not possible unless level found is > 50
Radium (226 + 228)	No	1.3	ND - 2.9	pCi/L	0	5	Erosion of natural deposits
UNREGULATED CONTAMINANTS							
Bromodichloro-methane	No	1.40	0.16– 1.40	ppb	n/a	n/a	n/a
Bromoform	No	22.00	10.00 – 22.00	ppb	n/a	n/a	n/a
Chloroform	No	0.24	ND - 0.24	ppb	n/a	n/a	n/a
Dibromochloro-methane	No	6.20	0.75 – 6.20	ppb	n/a	n/a	n/a
Dibromomethane	No	0.05	ND – 0.15	ppb	n/a	n/a	n/a
Sulfate	No	180.00	57.00– 180.00	ppm	n/a	n/a	n/a
VOLATILE ORGANIC CONTAMINANTS							
Xylenes, Total	No	0.0005	ND - .0008	ppm	10	10	Discharge from petroleum and chemical factories

CONTAMINANT TESTING:

The table at left displays contaminants that were required to be tested in the last five years. The report may contain up to five years worth of water quality results. All contaminants listed were tested in 2009 with the exception of Antimony, Barium, Cadmium, Chromium, Fluoride, Nickel, Selenium, Sodium and Sulfate, which were last tested on April, 2, 2008.

DEFINITION OF TERMS:

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

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLGs as feasible using the best available treatment technology.

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 allow for a margin of safety.

ND (Non-detects): Laboratory analysis indicates that the constituent was not detectable.

pCi/L (Picocuries per Liter): A measurement of radioactivity.

ppm (Parts per million, or milligrams per liter mg/l)

ppb (Parts per billion, or micrograms per liter ug/l)

Explanation of Units: Since one gallon of water weighs 8.34 pounds, one million gallons weighs 8,340,000 pounds. When 8.34 pounds of a pure substance is added to one million gallons of water, the concentration would be one part per million.

(ppm) parts per million = milligrams per liter (mg/l) = 1 in 1,000,000 gallons

When comparing 1 part per million to other units of measure, we see just how small it is.

In Units	1 part per million
In Length	1 inch in 16 miles
In Time	1 minute in 2 years
In Money	1 cent in $10,000

THE TREATMENT PROCESS:

The City of Fond du Lac adds three chemicals to the water supply.

Chlorine as a disinfectant: The City of Fond du Lac began chlorinating water in 1930. This disinfection kills or inactivates harmful microorganisms which can cause illness such as typhoid, cholera, hepatitis and giardiasis. Chlorine is also added for its "residual" properties which means the chlorine remaining in the water supply, or added after disinfection is first accomplished, is available to fight against potential contamination in water distribution and storage systems that might enter through leaks and pipe breakages. Chlorine can be added as a gas or in the form of hypochlorite either liquid or solid. Fond du Lac Water Utility switched from gas to liquid chlorine in 2009. Adding chlorine as a hypochlorite is much simpler, requires less training and is much safer for employees and the public.

Sodium Phosphate as an iron sequestering agent and corrosion inhibitor: Iron removal is a common municipal water treatment in central Wisconsin when groundwater is the drinking water source. This element does not cause adverse health effects, but in fact, are essential to the human diet. However, water containing excessive amounts of iron can stain clothes, discolor plumbing fixtures and sometimes add a "rusty" taste and look to the water. When sodium phosphate is added the soluble iron is sequestered and not allowed to precipitate out and cause discoloration. It has an additional benefit in that it reduces the corrosiveness of the water and thus reduces the amount of lead which leaches into the water. This chemical has been added since 1972.

Hydrofluosilicic acid to reduce tooth decay: This chemical is added to augment the natural fluoride found in our water supply and bring the residual up to the Department of Natural Resource's recommended level of 1.1 mg per liter. The Fond du Lac Water Utility closely monitors the level of fluoride in our system to assure proper concentrations. The Center for Disease Control has declared fluoridation one of the ten greatest public health advances of the 20th century. The City of Fond du Lac began fluoridation in July of 1950.