

Drinking Water Consumer Confidence Quarterly Report

Dwyer Hill R.V. Resort

The Dwyer Hill R.V. Resort water system is pleased to present to the residents of the Dwyer Hill R.V. and Adult Community its first quarterly report. The province's Drinking Water Protection Regulation requires that we publish this report for your information. Here you will find the water quality data and other information that we were required to collect for the period July through September 2001.

If you have a question about the Dwyer Hill water system or this report, call the Water Quality Analysis James Henderson at 253-1816. Or you can contact us using email at contact@dwyerhillrv.com. Also our web site at www.dwyerhillrv.com may provide further information. Our water system is operated by a licensed operator (mentioned above) and he is a member of the Ontario Water Works Association, a section of the American Water Works Association. Our weekly and quarterly sample requirements are analyzed by Caduceon Enterprises Inc. Environmental Laboratory located at 2378 Holly Lane, Ottawa.

The water system is located within the Park at 1229 Dwyer Hill Road. The Dwyer Hill water system was upgraded and completed in July 2001, replacing an old system that did not meet all of the new specifications of the Ministry of the Environment. The new system consists of two holding tanks (settling tanks), three filters, a string of three Ultra Violet filters and a post-treatment chlorinator. Chlorine is added to the water before delivery to the holding tanks where the chlorine is allowed to react to any microbiological matter over time. The water is then pumped to the first two filters to help clear the water of any sediment, then the third filter removes smaller particles and chemicals (including any chlorine) and the Ultra Violet filters kill other bacteria and viruses that may have lasted through the earlier treatment. A minimum amount of post chlorine is used to help maintain microbiological quality in the system.

The recent upgrade means that we comply with Ministry of the Environment treatment guidelines for waterworks using a ground water source.

Where your water comes from

Have you ever really thought about where your water comes from? In Dwyer Hill R.V. and Adult Community Park we are blessed with a supply of ground water of very good quality. Our well source is located within the Park grounds and is of sufficient depth as to draw water from a sandstone bed. Because of the location and depth of the well, the water quality does not change quickly. This makes it easier for the water system to produce consistently safe water. The environmental factors have little or no impact on our water supply. Also parameters indicate that there is no influence from surface water. The old well had signs of being influenced from surface water. Because of that the old well has been abandoned and is no longer connected to the system.

Terms you need to know

Here are some terms you should know about before reading the information below.

DEFINITIONS

MAC

Maximum Acceptable Concentration. This is a health-related Ontario drinking water standard established for contaminants that have known or suspected adverse health effects when above a certain concentration. The length of time the MAC can be exceeded without injury to health will depend on the nature and concentration of the parameter.

IMAC

Interim Maximum Acceptable Concentration. This is a health-related Ontario drinking water standard established for contaminants when there are insufficient toxicological data to establish a MAC with reasonable certainty, or when it is not practical to establish a MAC at the desired level.

Ground water

A water source under the surface of the ground and located in the saturated zone of the earth's crust.

Parameter

This is a substance that we sample and analyze for in the water.

mg/L

milligrams per litre. This is a measure of the concentration of a parameter in water, sometimes called parts per million (ppm).

NTU=Nephelometric Turbidity Units

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

ppb=parts per billion, or micrograms per liter (µg/l)

ppt=parts per trillion, or nanograms per liter

ppq=parts per quadrillion, or picograms per liter

TT=Treatment Technique

What is in your water?

Some parameters may be present in source water before we treat it. Here is a description of the various groups of parameters.

Microbiological parameters such as bacteria may come from sewage plants, livestock operations, septic systems and wildlife. Microbiological quality is the most important aspect of drinking water quality because of its association with dangerous water-borne diseases, which can strike quickly.

Inorganic parameters such as salts and metals can be naturally occurring or a result of urban storm runoff, industrial or domestic wastewater discharge, mining or agriculture. Some may be a result of treatment and distribution of water (for example, lead from old solder in pipes).

Organic parameters can be naturally occurring, but most organics of concern are synthetic. They originate from industrial discharges, urban storm runoff and other sources. Included in this group are pesticides that originate from both rural and urban areas. Some may originate from treatment of drinking water (for example, chlorination byproducts such as trihalomethanes).

The certificate of approval from the Ministry of the Environment sets monitoring requirements. The table below summarizes all the detectable results from monitoring we were required to do from July through September 2001. The presence of these substances in drinking water does not necessarily mean that the water poses a health risk.

We are required to monitor only once a year for some parameters, so some of the data in the table are several months old. They are still representative of the water quality.

Did we exceed the standards?

We did not exceed any health-related Ontario Drinking Water Standard over the reporting period.

Educational Information

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.

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.

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

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 byproducts 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, the Ministry of the Environment prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Ministry of the Environment also regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The Ministry of the Environment requires us to inform the persons using the water of any exceedance of Ontario Drinking Water Standards. Below you will find listed the parameters, dates, an explanation for the exceedance and a description of the action taken to remedy it.

The following list may include parameters that do not exceed the standards but we are taking action on them in our effort to supply the quality of water that you deserve:

Parameter	Sampling Date	MAC	Reading	Action
Sodium	7/4/01	200 mg/L	100 mg/L	We have notified the local Medical Officer of Health so that this information may be passed on to local physicians.

Water Quality Data

Microbiological Parameters	MAC or IMAC	Number of Samples	Number of Detectable Results	Sampling Date	Range	Exceedence?	Typical Source of Contaminant	Health Effects Language
Total Coliforms (counts/100 ml)	*	36	0	7/01 - 9/30	n/a	NO	Naturally present in the environment.	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present.
E. coli (counts/100ml)		36	0	7/01 - 9/30	n/a	NO	Human and animal fecal waste.	Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely-compromised immune systems.
HPC (heterotrophic plate count)	500	36	10	7/01 - 9/30	0 - 440	NO	Naturally present in the environment.	Measures aerobic bacterial content in the water. Can be used to monitor disinfection efficiency at water treatment plants and to measure water quality deterioration in distribution system.

* indicator of adverse water quality if detected in treated water

Water Quality Data

Related to Microbiological Quality	MAC or IMAC	Number of Samples	Sampling Date	Average	Range	Exceedence?	Typical Source of Contaminant	Health Effects Language
Turbidity (NTU) Before and within the Distribution System	1 - 5 ntu	115	7/01 - 9/30	0.26	.06 - .82	NO	Soil Runoff	Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.
Free Chlorine - System (mg/L)	-	32	7/01 - 9/30	0.34	.23 - .42	NO	Treatment	Recommended level of at least .2 mg/l in system to maintain microbiological quality in system.

Inorganic Parameters	MAC in mg/L	Number of Samples	Number of Detectable Results	Sampling Date	Range	Exceedence?	Typical Source of Contaminant	Health Effects Language
Copper (ppm)	1 mg/L	3	2	7/01 - 9/30	.01 - .26	NO	Copper occurs naturally in the environment but is rarely present in raw water. Corrosion of household plumbing systems; Erosion of natural deposits.	Copper is an essential nutrient, but some people who drink water containing copper in excess of the MAC over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
Lead	.01 mg/L	1	1	7/01 - 9/30	0.0014	NO	Corrosion of household plumbing systems; Erosion of natural deposits	Infants and children who drink water containing lead in excess of the MAC could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Water Quality Data

Volatile Organics

TTHMs [Total trihalomethanes] (ppb)	.1 mg/L	2	0	7/01 - 9/30	n/a	NO	By-product of drinking water chlorination	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.
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Pesticides and PCBs

No measurable contaminants