

DWCo. LTD

Dufferin Water Co. LTD
13 Rose Ridge Lane
Mono On
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Phone 519 942 5695 Fax 519 940 3956

28 February 2020

Town of Grand Valley
Box 249 – 5 Main S. N.
Grand Valley, ON
L0N 1G0

Attn: Jane Wilson, CAO

Re: Grand Valley Water System – Annual Summary Report for 2019

Dear Jane:


Attached is the 2019 Summary Report for the Grand Valley Water Supply System. This report was prepared by Dufferin Water Co. Ltd on behalf of the Town of Grand Valley in accordance with Schedule 22 of O. Reg 170/03 filed under the Safe Drinking Water Act (SDWA).

The summary report is required to be prepared, not later than March 31 of each year for the preceding calendar year and given to the members of the municipal council; please ensure this distribution.

Also attached to this letter is a copy of the 2019 Annual Report for the Grand Valley Water Supply System. This report should be made available to the public at the Municipal office and if possible on the municipal website.

If you have any questions regarding either report please call.

Regards,



Joe Miedema P. Eng.
General Manager

Grand Valley Water Supply System Large Municipal Residential Drinking Water System

Schedule 22 Summary Report

**For the Period:
January 01, 2019 to December 31, 2019**

**Prepared for the Town of Grand Valley
By Dufferin Water Co. Ltd**

Introduction

Schedule 22 of O. Reg 170/03 requires the preparation by the water system owner of a "Summary Report for Municipalities." This requirement only applies to large and small municipal residential systems. The Grand Valley Water Supply System is classified as a Large Municipal Residential Drinking Water System.

The Summary Report for the preceding year is to be issued by March 31 of the following year. This report was prepared by Dufferin Water Co. Ltd on behalf of the Town of Grand Valley.

Distribution of the Summary Report is the responsibility of the owner. For a municipality that owns the water supply, all members of council are to receive the report. If the water system is owned by a municipal service board established under Section 195 of the Municipal Act, 2001 then all members of that board are to receive the report. Finally, if a water supply provides water to another municipality under contract, then the water supply owner shall, give by March 31 a copy of the Summary Report to the Municipality being supplied.

The contents of the Summary Report for the municipality must include the following:

1. A list of the requirements of the Safe Drinking Water Act and its regulations that the water system failed to meet during the reporting period, including the duration of the failure.
2. A list of the requirements of the water system's license that the water system failed to meet during the report period, including the duration of the failure.
3. A list of any Orders that the water system failed to meet during the report time frame, including the duration of the failure.
4. For each of the above failures, a description of the measures taken to correct the failure.
5. A summary of the quantities and flow rates of water supplied "including monthly average, maximum daily flows, and daily instantaneous peak flow rates." (*Information is to enable the owner to assess the capability of the water system to meet existing and future demand*).
6. A statement that captures the comparison of the flow information to the rated capacity and flow rates stated in the water supply's approval.

Issues of Non-Compliance

The following table lists the requirements of the Act, Regulations, System Approval (s) and any order that the system failed to meet at any time during the reporting period and measures taken to correct each failure:

Drinking Water Legislation	Requirements the system failed to meet	Duration	Corrective Action(s)	Status
N/A				

Assessment of System Flows and Rates of Water Taking

The following table lists the quantities and flow rates of the water supplied during this reporting period, including monthly average and maximum daily flows, daily instantaneous peak flow rates and a comparison to the rated capacity and flow rates specified in the system approval:

Well Number One

Approved Daily Volume: 2290 cubic metres

Approved Flow Rate: 1590 litres/minute

Month	Average Daily Volume (m ³)	Percent Of Approved Volume	Maximum Daily Volume (m ³)	Percent Of Approved Volume
January	569	25%	785	34%
February	587	26%	661	29%
March	511	22%	612	27%
April	549	24%	677	30%
May	546	24%	649	28%
June	610	27%	778	34%
July	733	32%	944	41%
August	629	27%	1372	60%
September	511	22%	573	25%
October	506	22%	582	25%
November	615	27%	939	41%
December	565	25%	671	29%

Flow control is in the form of a pressure reducing valve that is equipped to open and close when the well pump is energized. The valve limits the flow of water from the well and prevents the pump from exceeding the permitted flow rates. The average pumping rate when the pump is running is 1428 Litres/minute.

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Well Number Two

Approved Daily Volume: 1308 cubic metres

Approved Flow Rate: 908 litres/minute

Month	Average Daily Volume (m ³)	Percent Of Approved Volume	Maximum Daily Volume (m ³)	Percent Of Approved Volume
January	1	0%	9	1%
February	0	0%	4	0%
March	0	0%	2	0%
April	1	0%	10	1%
May	1	0%	12	1%
June	1	0%	9	1%
July	1	0%	10	1%
August	2	0%	16	1%
September	0	0%	5	0%
October	0	0%	0	0%
November	0	0%	0	0%
December	0	0%	0	0%

Flow control is in the form of a pressure reducing valve that is equipped to open and close when the well pump is energized. The valve limits the flow of water from the well and prevents the pump from exceeding the permitted flow rates. The average pumping rate when the pump is running is 672 Litres/minute.

Well Number Three

Approved Daily Volume: 654 cubic metres

Approved Flow Rate: 454 litres/minute

Month	Average Daily Volume (m³)	Percent Of Approved Volume	Maximum Daily Volume (m³)	Percent Of Approved Volume
January	147	22%	356	54%
February	130	20%	147	22%
March	120	18%	252	39%
April	121	18%	150	23%
May	119	18%	142	22%
June	134	20%	207	32%
July	158	24%	204	31%
August	136	21%	233	36%
September	107	16%	121	19%
October	106	16%	122	19%
November	139	21%	252	39%
December	174	27%	208	32%

Flow control is in the form of a pressure reducing valve that is equipped to open and close when the well pump is energized. The valve limits the flow of water from the well and prevents the pump from exceeding the permitted flow rates. The average pumping rate when the pump is running is 402 Litres/minute.

**Part III Form 2
Section 11. ANNUAL REPORT.**

Drinking-Water System Number:	220007016
Drinking-Water System Name:	Grand Valley Water Supply System
Drinking-Water System Owner:	Town of Grand Valley
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 01, 2019 to December 31, 2019

<p><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></p> <p>Does your Drinking-Water System serve more than 10,000 people? Yes [] No [X]</p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [] No [X]</p> <p>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</p> <div style="border: 1px solid black; padding: 5px;"> Town of Grand Valley 5 Main Street North Grand Valley, ON L0N 1G0 </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <div style="border: 1px solid black; padding: 2px; width: 100px; text-align: center;">N/A</div> </p> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [] No [] </p> <p>Number of Interested Authorities you report to: <div style="border: 1px solid black; padding: 2px; width: 100px; text-align: center;">N/A</div> </p> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [] No [] </p>
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Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report

List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
N/A	

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water?
 Yes [] No [] – N/A

Indicate how you notified system users that your annual report is available, and is free of charge.

- Public access/notice via the web
- Public access/notice via Government Office
- Public access/notice via a newspaper
- Public access/notice via Public Request
- Public access/notice via a Public Library
- Public access/notice via other method: Notices are posted at the Post Office and the Municipal Office

Describe your Drinking-Water System

The Grand Valley Water Supply System consists of three (3) groundwater production wells, PW1 and PW2 at the Cooper St. pumphouse and PW3 at the Melody Lane pumphouse. The combined maximum flow rate from PW1 and PW2 is 1591 L/min, and from PW3 454 L/min. The water is chlorinated and pumped to an elevated storage tank of 1600 cubic metres. The area served is the community of Grand Valley which has a population of approximately 2300 people.

List all water treatment chemicals used over this reporting period

Sodium Hypochlorite (12% solution – NSF Foodgrade)

Were any significant expenses incurred to?

- Install required equipment
- Repair required equipment
- Replace required equipment

Please provide a brief description and a breakdown of monetary expenses incurred

Rehabilitation of Wells 2 and 3 +/- 30K

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.

	Number of Samples	Range of E.Coli Or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Raw	142	0	0 to 2	n.a.	n.a.
Treated	104	0	0	104	0 to 1
Distribution	156	0	0	52	0 to 1

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

	Number of Grab Samples	Range of Results (min #)-(max #)
Turbidity (raw)	33	0.10 to 0.68 NTU
Chlorine – Pumphouses	8760	1.27 - 2.27 mg/L
Chlorine Distribution	8760	0.89 - 2.20 mg/L
Chlorine Distribution Grab	156	1.27 to 2.10 mg/L
Fluoride (If the DWS provides fluoridation)	N/A	N/A

NOTE: For continuous monitors use 8760 as the number of samples.

*NOTE: Record the unit of measure if it is **not** milligrams per litre.*

Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument.

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure

Summary of Inorganic parameters tested during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	Oct 18/18	ND	mg/L	No
Arsenic	Oct 18/18	ND	mg/L	No
Barium	Oct 18/18	0.021 to 0.022	mg/L	No
Boron	Oct 18/18	0.069 to 0.087	mg/L	No
Cadmium	Oct 18/18	ND	mg/L	No
Chromium	Oct 18/18	ND	mg/L	No
Lead	Apr 15/19	ND	mg/L	No
Mercury	Oct 18/18	ND	mg/L	No
Selenium	Oct 18/18	ND	mg/L	No
Sodium	Oct 18/18	20 to 38	mg/L	Yes

Uranium	Oct 18/18	ND to 0.00018	mg/L	No
Fluoride	July 25/18	1.5 to 1.7	mg/L	Yes
Nitrite	Dec 12/19	ND	mg/L	No
Nitrate	Dec 12/19	0.13	mg/L	No

Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	Oct 18/18	ND	ug/L	No
Aldicarb	Oct 18/18	ND	ug/L	No
Aldrin + Dieldrin	Oct 18/18	ND	ug/L	No
Atrazine + N-dealkylated metabolites	Oct 18/18	ND	ug/L	No
Azinphos-methyl	Oct 18/18	ND	ug/L	No
Bendiocarb	Oct 18/18	ND	ug/L	No
Benzene	Oct 18/18	ND	ug/L	No
Benzo(a)pyrene	Oct 18/18	ND	ug/L	No
Bromoxynil	Oct 18/18	ND	ug/L	No
Carbaryl	Oct 18/18	ND	ug/L	No
Carbofuran	Oct 18/18	ND	ug/L	No
Carbon Tetrachloride	Oct 18/18	ND	ug/L	No
Chlordane (Total)	Oct 18/18	ND	ug/L	No
Chlorpyrifos	Oct 18/18	ND	ug/L	No
Cyanazine	Oct 18/18	ND	ug/L	No
Diazinon	Oct 18/18	ND	ug/L	No
Dicamba	Oct 18/18	ND	ug/L	No
1,2-Dichlorobenzene	Oct 18/18	ND	ug/L	No
1,4-Dichlorobenzene	Oct 18/18	ND	ug/L	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	Oct 18/18	ND	ug/L	No
1,2-Dichloroethane	Oct 18/18	ND	ug/L	No
1,1-Dichloroethylene (vinylidene chloride)	Oct 18/18	ND	ug/L	No
Dichloromethane	Oct 18/18	ND	ug/L	No
2,4 Dichlorophenol	Oct 18/18	ND	ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Oct 18/18	ND	ug/L	No
Diclofop-methyl	Oct 18/18	ND	ug/L	No
Dimethoate	Oct 18/18	ND	ug/L	No
Dinoseb	Oct 18/18	ND	ug/L	No
Diquat	Oct 18/18	ND	ug/L	No
Diuron	Oct 18/18	ND	ug/L	No
Glyphosate	Oct 18/18	ND	ug/L	No
HAAs	2019	ND	ug/L	No
Heptachlor + Heptachlor Epoxide	Oct 18/18	ND	ug/L	No
Lindane (Total)	Oct 18/18	ND	ug/L	No

Malathion	Oct 18/18	ND	ug/L	No
MCPA	Oct 18/18	ND	ug/L	No
Methoxychlor	Oct 18/18	ND	ug/L	No
Metolachlor	Oct 18/18	ND	ug/L	No
Metribuzin	Oct 18/18	ND	ug/L	No
Monochlorobenzene	Oct 18/18	ND	ug/L	No
Paraquat	Oct 18/18	ND	ug/L	No
Parathion	Oct 18/18	ND	ug/L	No
Pentachlorophenol	Oct 18/18	ND	ug/L	No
Phorate	Oct 18/18	ND	ug/L	No
Picloram	Oct 18/18	ND	ug/L	No
Polychlorinated Biphenyls(PCB)	Oct 18/18	ND	ug/L	No
Prometryne	Oct 18/18	ND	ug/L	No
Simazine	Oct 18/18	ND	ug/L	No
THM (NOTE: show latest annual average)	2019	5.2	ug/L	No
Temphos	Oct 18/18	ND	ug/L	No
Terbufos	Oct 18/18	ND	ug/L	No
Tetrachloroethylene	Oct 18/18	ND	ug/L	No
2,3,4,6-Tetrachlorophenol	Oct 18/18	ND	ug/L	No
Triallate	Oct 18/18	ND	ug/L	No
Trichloroethylene	Oct 18/18	ND	ug/L	No
2,4,6-Trichlorophenol	Oct 18/18	ND	ug/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	Oct 18/18	ND	ug/L	No
Trifluralin	Oct 18/18	ND	ug/L	No
Vinyl Chloride	Oct 18/18	ND	ug/L	No

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	Date of Sample
Sodium - naturally occurring	20 to 38	Mg/L	Oct 18/18
Flouride – naturally occurring	1.5-1.7	Mg/L	July 25/18

Medical Officer of Health is aware of concentrations and notifies family doctors accordingly.

(Only if DWS category is large municipal residential, small municipal residential, large municipal non residential, non municipal year round residential, large non municipal non residential)