

**OPTIONAL ANNUAL REPORT TEMPLATE**

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, 2022 to December 31, 2022

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></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 [X] No [ ]</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;"> <p>Town of Grand Valley 5 Main Street North Grand Valley, ON L9W 5S6</p> </div>	<p><b><u>Complete for all other Categories</u></b></p> <p>Number of Designated Facilities served:  <div style="border: 1px solid black; padding: 5px; 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: 5px; 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 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 drinking water? Yes [ ] No [ ]

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 \_\_\_\_\_

**Describe your Drinking Water System**

Water System is classified as a Large Municipal Residential Water System that currently serves approximately 900 service connections. The system is owned by the Town of Grand Valley and operated by Dufferin Water Co. Ltd. Water is supplied via three municipal wells, a water tower and 2 pumphouses. Inspection, maintenance and sampling are conducted on a regular basis in accordance with Ontario Regulation 170/03 to ensure the safety of the water supply

**List all water treatment chemicals used over this reporting period**

12 % Sodium Hypochlorite

**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**

Communications antennas +/- \$10,000.

**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
N/A					
N/A					

**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 Results (min#)-(max#)	Range of Total Coliform Results (min#)-(max#)	Number of HPC Samples	Range of HPC Results (min#)-(max#)
Raw	156	0 to 0	0 to 0	0	N/A
Treated	104	0 to 0	0 to 0	104	0 to 2
Distribution	156	0 to 0	0 to 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#)	Unit of Measure
Turbidity	36	0.17 to 0.88	NTU
Chlorine	8760	0.44 to 2.49	ppm
Fluoride (If the DWS provides fluoridation)	N/A	N/A	N/A

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

**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
N/A				
N/A				

**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	Nov 18/21	ND	ug/L	NO
Arsenic	Nov 18/21	ND	ug/L	NO
Barium	Nov 18/21	20 to 23	ug/L	NO
Boron	Nov 18/21	77 to 91	ug/L	NO
Cadmium	Nov 18/21	ND	ug/L	NO
Chromium	Nov 18/21	ND	ug/L	NO
*Lead	N/A	N/A	N/A	N/A
Mercury	Nov 18/21	ND	ug/L	NO
Selenium	Nov 18/21	ND	ug/L	NO
Sodium	Oct 18/18	20 to 38	mg/L	NO/YES
Uranium	Nov 18/21	ND to 0.19	ug/L	NO
Fluoride	July 25/18	1.5 to 1.7	mg/L	NO/YES
Nitrite	Dec 08/22	ND	ug/L	NO
Nitrate	Dec 08/22	ND	ug/L	NO

**\*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems**

**Summary of lead testing under Schedule 15.1 during this reporting**

**period**(applicable to the following drinking water systems; large municipal residential systems, small municipal residential systems, and non-municipal year-round residential systems)

Location Type	Number of Samples	Range of Lead Results (min#)–(max #)	Unit of Measure	Number of Exceedances
Plumbing	0	N/A	N/A	N/A
Distribution	2	ND	ND	0

**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	Nov 18/21	ND	ug/L	NO
Atrazine + N-dealkylated metabolites	Nov 18/21	ND	ug/L	NO
Azinphos-methyl	Nov 18/21	ND	ug/L	NO
Benzene	Nov 18/21	ND	ug/L	NO
Benzo(a)pyrene	Nov 18/21	ND	ug/L	NO
Bromoxynil	Nov 18/21	ND	ug/L	NO
Carbaryl	Nov 18/21	ND	ug/L	NO
Carbofuran	Nov 18/21	ND	ug/L	NO
CarbonTetrachloride	Nov 18/21	ND	ug/L	NO
Chlorpyrifos	Nov 18/21	ND	ug/L	NO
Diazinon	Nov 18/21	ND	ug/L	NO
Dicamba	Nov 18/21	ND	ug/L	NO
1,2-Dichlorobenzene	Nov 18/21	ND	ug/L	NO
1,4-Dichlorobenzene	Nov 18/21	ND	ug/L	NO
1,2-Dichloroethane	Nov 18/21	ND	ug/L	NO
1,1-Dichloroethylene(vinylidenechloride)	Nov 18/21	ND	ug/L	NO
Dichloromethane	Nov 18/21	ND	ug/L	NO
2,4-Dichlorophenol	Nov 18/21	ND	ug/L	NO
2,4-Dichlorophenoxyaceticacid(2,4-D)	Nov 18/21	ND	ug/L	NO
Diclofop-methyl	Nov 18/21	ND	ug/L	NO
Dimethoate	Nov 18/21	ND	ug/L	NO
Diquat	Nov 18/21	ND	ug/L	NO
Diuron	Nov 18/21	ND	ug/L	NO
Glyphosate	Nov 18/21	ND	ug/L	NO
HAA's(Note: show latest running annual average)	2022	ND	ug/L	NO
Lindane(Total)	Nov 18/21	ND	ug/L	NO
Malathion	Nov 18/21	ND	ug/L	NO
Metolachlor	Nov 18/21	ND	ug/L	NO
Metribuzin	Nov 18/21	ND	ug/L	NO
Monochlorobenzene	Nov 18/21	ND	ug/L	NO

Paraquat	Nov 18/21	ND	ug/L	NO
Pentachlorophenol	Nov 18/21	ND	ug/L	NO
Phorate	Nov 18/21	ND	ug/L	NO
Picloram	Nov 18/21	ND	ug/L	NO
Polychlorinated Biphenyls (PCB)	Nov 18/21	ND	ug/L	NO
Prometryne	Nov 18/21	ND	ug/L	NO
Simazine	Nov 18/21	ND	ug/L	NO
Terbufos	Nov 18/21	ND	ug/L	NO
Tetrachloroethylene (perchloroethylene)	Nov 18/21	ND	ug/L	NO
2,3,4,6-Tetrachlorophenol	Nov 18/21	ND	ug/L	NO
THMs (Note: show latest running annual average)	2022	5.755	ug/L	NO
Triallate	Nov 18/21	ND	ug/L	NO
Trichloroethylene	Nov 18/21	ND	ug/L	NO
2,4,6-Trichlorophenol	Nov 18/21	ND	ug/L	NO
Trifluralin	Nov 18/21	ND	ug/L	NO
Vinyl Chloride	Nov 18/21	ND	ug/L	NO
MCPA	Nov 18/21	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	20 to 38	ppm	Oct 18/18
Fluoride	1.5 to 1.7	ppm	July 25/18

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Dufferin Water Co. LTD  
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22 February 2023

Town of Grand Valley  
5 Main S. N.  
Grand Valley, ON  
L9W 5S6

**Attn: Meghan Townsend, CAO/Clerk-Treasurer**

Re: Grand Valley Water System – Annual Summary Report for 2022

Dear Meghan:

Attached is the 2022 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.

If you have any questions regarding the 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, 2022 to December 31, 2022**

**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.



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## 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:

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

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## 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 <sup>3</sup> )	Percent Of Approved Volume	Maximum Daily Volume (m <sup>3</sup> )	Percent Of Approved Volume	Mega Litres Pumped During Month
January	230	10%	519	23%	7.1
February	187	8%	385	17%	5.2
March	253	11%	559	24%	7.8
April	238	10%	374	16%	7.1
May	296	13%	744	32%	9.2
June	409	18%	1572	69%	12.3
July	757	33%	1234	54%	23.5
August	636	28%	815	36%	19.7
September	587	26%	743	32%	17.6
October	466	20%	674	29%	14.5
November	458	20%	885	39%	13.8
December	553	24%	793	35%	17.2
<b>Total Annual Mega Litres</b>					154.9

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 <sup>3</sup> )	Percent Of Approved Volume	Maximum Daily Volume (m <sup>3</sup> )	Percent Of Approved Volume	Mega Litres Pumped During Month
January	289	22%	576	44%	9.0
February	256	20%	492	38%	7.2
March	234	18%	643	49%	7.3
April	281	22%	507	39%	8.4
May	265	20%	666	51%	8.0
June	324	25%	694	53%	9.7
July	1	0%	11	1%	0.0
August	1	0%	5	0%	0.0
September	0	0%	3	0%	0.0
October	73	6%	446	34%	2.3
November	131	10%	480	37%	3.9
December	48	4%	494	38%	1.5
<b>Total Annual Mega Litres</b>					<b>57.2</b>

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.

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## **Well Number Three**

**Approved Daily Volume: 654 cubic metres**  
**Approved Flow Rate: 454 litres/minute**

<b>Month</b>	<b>Average Daily Volume (m<sup>3</sup>)</b>	<b>Percent Of Approved Volume</b>	<b>Maximum Daily Volume (m<sup>3</sup>)</b>	<b>Percent Of Approved Volume</b>	<b>Mega Litres Pumped During Month</b>
<b>January</b>	99	15%	150	23%	3.1
<b>February</b>	128	20%	182	28%	3.6
<b>March</b>	123	19%	168	26%	3.8
<b>April</b>	115	18%	160	25%	3.5
<b>May</b>	118	18%	146	22%	3.7
<b>June</b>	127	19%	212	32%	3.8
<b>July</b>	92	14%	120	18%	2.9
<b>August</b>	86	13%	148	23%	2.7
<b>September</b>	87	13%	117	18%	2.6
<b>October</b>	94	14%	215	33%	2.9
<b>November</b>	47	7%	136	21%	1.4
<b>December</b>	62	9%	217	33%	1.9
<b>Total Annual Mega Litres</b>					<b>35.7</b>

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.

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*All three wells combined*

*Approved Daily Volume: 2944 cubic Metres*

Month	Average Daily Volume (m <sup>3</sup> )	Percent Of Approved Volume	Maximum Daily Volume (m <sup>3</sup> )	Percent Of Approved Volume	Mega Litres Pumped During Month
January	618	27%	770	34%	19.2
February	571	25%	768	34%	16.0
March	609	27%	745	33%	18.9
April	634	28%	785	34%	19.0
May	683	30%	874	38%	21.2
June	860	38%	1573	69%	25.8
July	850	37%	1340	59%	26.3
August	722	32%	909	40%	22.4
September	674	29%	846	37%	20.2
October	633	28%	889	39%	19.6
November	636	28%	920	40%	19.1
December	663	29%	930	41%	20.6
<b>Total Annual Mega Litres All Wells</b>					<b>248.3</b>