

OPTIONAL ANNUAL REPORT TEMPLATE

Drinking Water System Number:	260063661
Drinking Water System Name:	Mansfield Well Supply
Drinking Water System Owner:	Township of Mulmur
Drinking Water System Category:	Large Municipal Residential
Period being reported:	January 01, 2021 to December 31, 2021

<u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u>	<u>Complete for all other Categories</u>
<p>Does your Drinking Water System serve more than 10,000 people? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></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; margin-top: 10px;"> <p>Report is available for inspection at the municipal office in Terra Nova</p> </div>	<p>Number of Designated Facilities served:</p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>N/A</p> </div> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Number of Interested Authorities you report to:</p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>N/A</p> </div> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes <input type="checkbox"/> No <input type="checkbox"/></p>

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 153 service connections. The system is owned by the Township of Mulmur and operated by Dufferin Water Co. Ltd. Water is supplied via three municipal wells, a standpipe and a pumphouse. 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

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
July 23, 2021	Total Coliform – dist.	1	CFU	Resample	July 23,25, 2021

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		112	0 to 0	0 to 2	0	n.a.
Treated		52	0 to 0	0 to 0	52	0 to 2
Distribution		122	0 to 0	0 to 1	58	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	0.11 to 0.89	NTU
Chlorine	8760	1.28 – 2.18	Mg/L
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	June 29/21	ND	ug/L	No
Arsenic	June 29/21	ND	ug/L	No
Barium	June 29/21	55	ug/L	No
Boron	June 29/21	13	ug/L	No
Cadmium	June 29/21	ND	ug/L	No
Chromium	June 29/21	ND	ug/L	No
*Lead	N/A	N/A	N/A	N/A
Mercury	June 29/21	ND	ug/L	No
Selenium	June 29/21	ND	ug/L	No
Sodium	June 29/21	5.6	mg/L	No
Uranium	June 29/21	0.32	ug/L	No
Fluoride	May 23/18	0.1	mg/L	No
Nitrite	Dec 02/21	ND	mg/L	No
Nitrate	Dec 02/21	2.01	mg/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	N/A	N/A	N/A	N/A
Distribution	2	ND	Ug/L	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	June 29/21	ND	ug/L	No
Atrazine + N-dealkylated metabolites	June 29/21	ND	ug/L	No
Azinphos-methyl	June 29/21	ND	ug/L	No
Benzene	June 29/21	ND	ug/L	No
Benzo(a)pyrene	June 29/21	ND	ug/L	No
Bromoxynil	June 29/21	ND	ug/L	No
Carbaryl	June 29/21	ND	ug/L	No
Carbofuran	June 29/21	ND	ug/L	No
CarbonTetrachloride	June 29/21	ND	ug/L	No
Chlorpyrifos	June 29/21	ND	ug/L	No
Diazinon	June 29/21	ND	ug/L	No
Dicamba	June 29/21	ND	ug/L	No
1,2-Dichlorobenzene	June 29/21	ND	ug/L	No
1,4-Dichlorobenzene	June 29/21	ND	ug/L	No
1,2-Dichloroethane	June 29/21	ND	ug/L	No
1,1-Dichloroethylene(vinylidenechloride)	June 29/21	ND	ug/L	No
Dichloromethane	June 29/21	ND	ug/L	No
2,4-Dichlorophenol	June 29/21	ND	ug/L	No
2,4-Dichlorophenoxyacetic acid(2,4-D)	June 29/21	ND	ug/L	No
Diclofop-methyl	June 29/21	ND	ug/L	No
Dimethoate	June 29/21	ND	ug/L	No
Diquat	June 29/21	ND	ug/L	No
Diuron	June 29/21	ND	ug/L	No
Glyphosate	June 29/21	ND	ug/L	No
HAAs(Note: show latest running annual average)	2021	ND	ug/L	NO
Lindane(Total)	June 29/21	ND	ug/L	No
Malathion	June 29/21	ND	ug/L	No
Metolachlor	June 29/21	ND	ug/L	No
Metribuzin	June 29/21	ND	ug/L	No
Monochlorobenzene	June 29/21	ND	ug/L	No

Paraquat	June 29/21	ND	ug/L	No
Pentachlorophenol	June 29/21	ND	ug/L	No
Phorate	June 29/21	ND	ug/L	No
Picloram	June 29/21	ND	ug/L	No
Polychlorinated Biphenyls (PCB)	June 29/21	ND	ug/L	No
Prometryne	June 29/21	ND	ug/L	No
Simazine	June 29/21	ND	ug/L	No
Terbufos	June 29/21	ND	ug/L	No
Tetrachloroethylene (perchloroethylene)	June 29/21	ND	ug/L	No
2,3,4,6-Tetrachlorophenol	June 29/21	ND	ug/L	No
THMs (Note: show latest running annual average)	2021	9.83	ug/L	NO
Triallate	June 29/21	ND	ug/L	No
Trichloroethylene	June 29/21	ND	ug/L	No
2,4,6-Trichlorophenol	June 29/21	ND	ug/L	No
Trifluralin	June 29/21	ND	ug/L	No
Vinyl Chloride	June 29/21	ND	ug/L	No
MCPA	June 29/21	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

DWCo. LTD

Dufferin Water Co. LTD
13 Rose Ridge Lane
Mono On
L9W 5Y3
Phone 519 942 5695 Fax 519 940
3956

20 February 2022

Township of Mulmur
RR #2
Lisle, ON
L0M 1M0

Attn: John Wimetts, Director of Public Works

Re: Mansfield Water System – Annual Summary Report for 2021

Dear John:

Attached is the 2021 Summary Report for the Mansfield Water System. This report was prepared by Dufferin Water Co. Ltd on behalf of the Township of Mulmur 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 2021 Annual Report for the Mansfield Water Supply System. This report should be made available to the public at the Municipal office and if possible on the township website.

If you have any questions regarding either report please call.

Regards,

Joe Miedema P. Eng.
General Manager

Mansfield Water System Large Municipal Residential Drinking Water System

Schedule 22 Summary Report

**For the Period:
January 01, 2021 to December 31, 2021**

**Prepared for the Township of Mulmur
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 Mansfield Water 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 Township of Mulmur.

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 Certificate of Approval 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
Not Applicable				

Assessment of System Flows and Rates of Water Taking

The following tables list 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: 326.88 cubic metres

Approved Flow Rate: 227 litres/minute

Month	Average Daily Volume (m ³)	Percent Of Approved Volume	Maximum Daily Volume (m ³)	Percent Of Approved Volume
January	86	26%	208	64%
February	55	17%	82	25%
March	55	17%	90	28%
April	59	18%	101	31%
May	83	25%	146	45%
June	108	33%	190	58%
July	87	27%	142	43%
August	96	29%	158	48%
September	88	27%	127	39%
October	89	27%	141	43%
November	59	18%	110	34%
December	60	18%	110	34%

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. Average flow rate when this well is operating is 204 litres per minute.

DWCo. LTD

Dufferin Water Co. LTD
13 Rose Ridge Lane
Mono On
L9W 5Y3
Phone 519 942 5695 Fax 519 940
3956

Well Number Two

Approved Daily Volume: 262.08 cubic metres

Approved Flow Rate: 182 litres/minute

Month	Average Daily Volume (m ³)	Percent Of Approved Volume	Maximum Daily Volume (m ³)	Percent Of Approved Volume
January	27	10%	65	25%
February	17	7%	27	10%
March	17	7%	36	14%
April	19	7%	28	11%
May	27	10%	47	18%
June	35	13%	56	21%
July	24	9%	48	18%
August	30	11%	49	19%
September	27	10%	40	15%
October	28	11%	44	17%
November	17	7%	32	12%
December	17	6%	30	11%

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. Average flow rate when this well is operating is 108 litres per minute

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13 Rose Ridge Lane
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3956

Well Number Three

Approved Daily Volume: 362.88 cubic metres

Approved Flow Rate: 252 litres/minute

Month	Average Daily Volume (m ³)	Percent Of Approved Volume	Maximum Daily Volume (m ³)	Percent Of Approved Volume
January	1	0%	7	2%
February	1	0%	7	2%
March	1	0%	7	2%
April	1	0%	8	2%
May	1	0%	9	2%
June	1	0%	10	3%
July	1	0%	4	1%
August	1	0%	8	2%
September	2	0%	18	5%
October	1	0%	7	2%
November	1	0%	5	1%
December	1	0%	9	2%

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. Average flow rate when this well is operating is 246 litres per minute

DWCo. LTD

Dufferin Water Co. LTD
13 Rose Ridge Lane
Mono On
L9W 5Y3
Phone 519 942 5695 Fax 519 940
3956

Distributed Water

Approved Daily Volume: 951.8 cubic metres
Approved Flow Rate: 661 Litres per minute

Month	Average Daily Volume (m ³)	Percent Of Approved Volume	Maximum Daily Volume (m ³)	Percent Of Approved Volume
January	114	12%	267	28%
February	72	8%	110	12%
March	72	8%	114	12%
April	79	8%	135	14%
May	110	12%	210	22%
June	143	15%	206	22%
July	111	12%	201	21%
August	126	13%	201	21%
September	115	12%	180	19%
October	117	12%	188	20%
November	76	8%	142	15%
December	76	8%	125	13%

Flow control is in the form of a pressure reducing valve located on the discharge side of each pressure pump. These valves limit the flow of treated water and prevents the distribution flow rate from exceeding the permitted flow rates. Average flow rate when pumps are operating is 330 litres per minute.