Pleasant Point Drinking Water System

Waterworks # 220006525 System Category – Large Municipal Residential

Annual Water Report

Prepared For: The City of Kawartha Lakes

Reporting Period of January 1st – December 31st, 2023

Issued: February 21, 2024

Revision: 0

Operating Authorities:





This report has been prepared to satisfy the annual reporting requirements in O. Reg. 170/03 Section 11 and Schedule 22

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Report Availability

This system does <u>not</u> serve more than 10,000 residences. The annual reports will be available to residents at the City of Kawartha Lakes Public Works Administration Office and on the City's website at: <u>www.kawarthalakes.ca</u>. Notification that reports are available free of charge will be made on the City of Kawartha Lakes website. The City of Kawartha Lakes Public Works Administration Office is located at 322 Kent Street West in Lindsay, Ontario.

Compliance Report Card

Drinking Water System Number: 220006525 Drinking Water System Name: Pleasant Point DWS Drinking Water System Owner: City of Kawartha Lakes Drinking Water System Category: Large Municipal Residential Period Being Reported: January 1, 2023 - December 31, 2023

| | # of Events | Date | Details |
|---|-------------|----------------------|--|
| Health & Safety | | | |
| Number of Incidents | 0 | | |
| Drinking Water | | | |
| MECP Inspections | 1 | December 22, 2022 | Unannounced - Focused Drinking Water Inspection. Inspection finished on March 30, 2023 with a final inspection rating of 100%. |
| | | November 16, 2023 | Announced – Detailed Drinking Water Inspection. Final inspection rating was 100%. |
| AWQI's | 0 | | |
| Number of Non-Compliances identified during Ministry Inspection | 0 | | |
| Number of Boil Water Advisories | 0 | | |

System Process Description

Raw Source

The water supply for the DWS comes from two (2) groundwater wells that are designated as GUDI (groundwater under direct influence).

<u>Treatment</u>

The treatment system consists of the following:

- Two (2) cartridge filtration systems,
- One (1) 600 mm diameter chlorine contact pipe,
- Two (2) ultraviolet disinfection systems operating in parallel,
- Three (3) pre-charged pressure tanks,
- A sodium hypochlorite feed system for secondary disinfection and monitoring equipment,
- Stand-by diesel generator on-site.

Treatment Chemicals used during the reporting year:

| Chemical Name | Use | Supplier |
|---------------------|--------------|--------------------------|
| Sodium Hypochlorite | Disinfection | Jutzi Water Technologies |

Summary of Non-Compliance

Adverse Water Quality Incidents

There were no adverse water quality incidents reported during the reporting period.

Non-Compliance(s)

There were no non-compliance issues reported during the reporting period.

Non-Compliance(s) Identified in a Ministry Inspection

There were no non-compliances identified in a Ministry Inspection for the 2023/2024 inspection report.

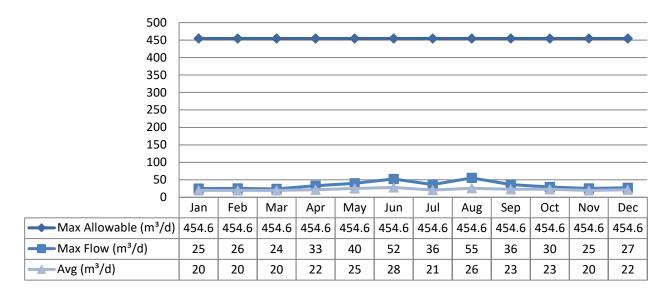
Flows

The Pleasant Point Drinking Water System is operating on average under half the rated capacity.

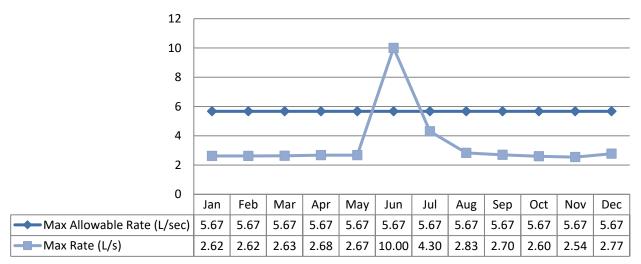
Raw Water Flows

The Raw Water flows are regulated under the Permit to Take Water. 2023 Raw Flow Data was submitted to the Ministry electronically under permit #5087-9ZQJJU. A copy of the confirmation is included in Appendix A. The Permit to Take Water compliance criteria is in litres per minute (L/min) but for the purposes of this report the flow rate is reported in litres per second (L/sec) based on industry standard for flow monitoring recording.

<u>Total Monthly Flows (m³/d)</u> Max Allowable PTTW – Well #1

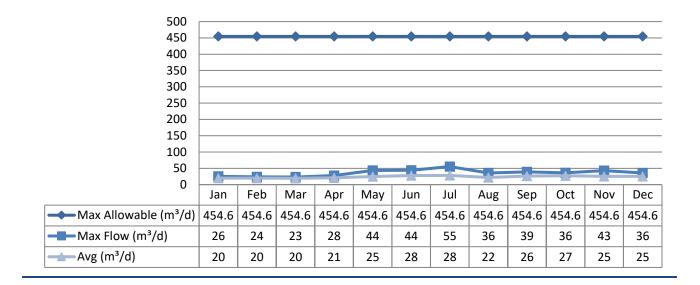


<u>Monthly Rated Flows (L/s)</u> Max Allowable Rate – PTTW – Well #1

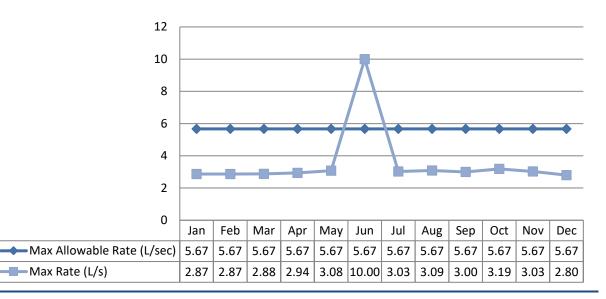


Note: Certain operational circumstances could cause results to be temporarily outside of the allowable rates. In June 2023, the allowable rate was momentarily surpassed as a result of annual calibration of the flow meter and did not indicate a true exceedance. A true exceedance would be documented within this report.

<u>Total Monthly Flows (m³/d)</u> Max Allowable PTTW – Well #2R



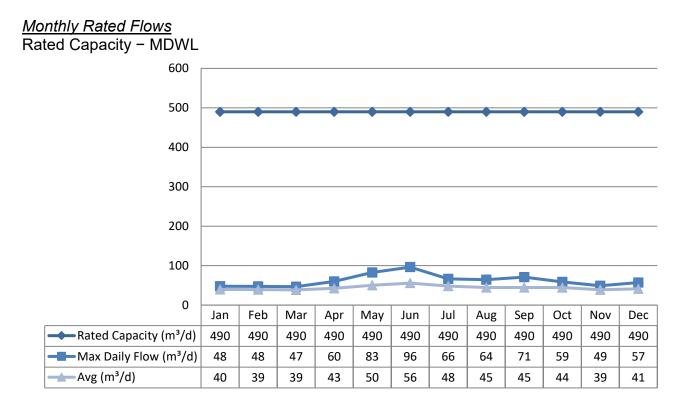
<u>Monthly Rated Flows (L/s)</u> Max Allowable Rate – PTTW – Well #2R



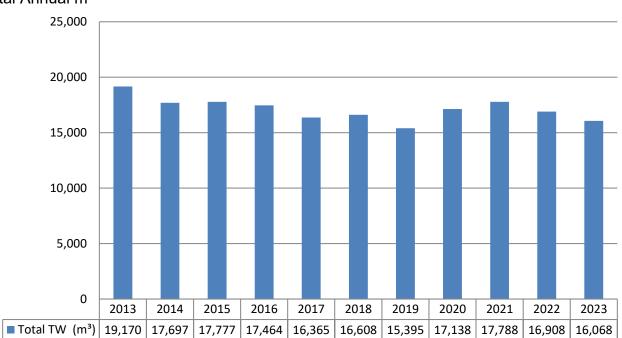
Note: Certain operational circumstances could cause results to be temporarily outside of the allowable rates. In June 2023, the allowable rate was momentarily surpassed as a result of annual calibration of the flow meter and did not indicate a true exceedance. A true exceedance would be documented within this report.

Treated Water Flows

The Treated Water flows are regulated under the Municipal Drinking Water Licence #141-113.



Annual Total Flow Comparison



Total Annual m³

Regulatory Sample Results Summary

Microbiological Testing

(completed under Schedule 10, 11 or 12 of Ontario Regulation 170/03, during the reporting period).

| | No. of Samples Collected | Range of E. Coli Results | Range of E. Coli Results | Range of Total Coliform Results | Range of Total Coliform Results | Range of HPC Results | Range of HPC Results |
|--------------|--------------------------------|-----------------------------------|-----------------------------------|--|--|----------------------------|----------------------------|
| | | Min | Max | Min | Max | Min | Max |
| Raw Well 1 | 54 | 0 | 0 | 0 | 1 | | |
| Raw Well 2R | 54 | 0 | 0 | 0 | 0 | | |
| Treated | 52 | 0 | 0 | 0 | 0 | 0 | 3 |
| Distribution | 156 | 0 | 0 | 0 | 0 | 0 | 6 |

Operational Testing

(completed under Schedule 7, 8 or 9 of Ontario Regulation 170/03, during the reporting period).

| Parameter | Number of Samples Collected | Range of Results Minimum | Range of Results Maximum |
|-------------------------|--------------------------------|--------------------------------|--------------------------------|
| Turbidity Well 1 (NTU) | 12 | 0.12 | 0.59 |
| Turbidity Well 2R (NTU) | 12 | 0.08 | 0.45 |
| Turbidity – TW (NTU) | 8760 | 0 | 2 |
| Chlorine | 8760 | 0.38 | 4.98 |
| Fluoride (If the DWS | | | |
| provides fluoridation) | N/A | N/A | N/A |

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

Note: For continuous monitors 8760 is used as the number of samples. Spikes recorded by on-line instrumentation were a result of air bubbles and various maintenance/calibration activities. All spikes are reviewed for compliance with O. Reg. 170/03, did not indicate a true exceedance. A true exceedance would be documented within this report.

Inorganic Parameters

These parameters are tested as a requirement under O. Reg. 170/03. Sodium and Fluoride are required to be tested every five years. Nitrate and Nitrite are tested quarterly and the metals are tested every three years as required under O. Reg. 170/03. In the event any of the parameters exceed half of the maximum allowable concentration the parameter is required to be sampled quarterly.

- MAC = Maximum Allowable Concentration as per O. Reg. 169/03
- MDL = Method Detection Limit

| Treated Water Parameter | Sample Date (yyyy/mm/dd) | Sample Result | MAC | Exceedance MAC | Exceedance ¹ / ₂ MAC |
|-----------------------------|-----------------------------|------------------------|--------|-------------------|---|
| Antimony: Sb (ug/L) - TW | 2023/01/03 | <mdl 0.06</mdl | 6.0 | No | No |
| Arsenic: As (ug/L) - TW | 2023/01/03 | <mdl 0.2</mdl | 10.0 | No | No |
| Barium: Ba (ug/L) - TW | 2023/01/03 | 175.0 | 1000.0 | No | No |
| Boron: B (ug/L) - TW | 2023/01/03 | 32.0 | 5000.0 | No | No |
| Cadmium: Cd (ug/L) - TW | 2023/01/03 | <mdl 0.003</mdl | 5.0 | No | No |
| Chromium: Cr (ug/L) - TW | 2023/01/03 | 0.24 | 50.0 | No | No |
| Mercury: Hg (ug/L) - TW | 2023/01/03 | <mdl 0.01</mdl | 1.0 | No | No |
| Selenium: Se (ug/L) - TW | 2023/01/03 | <mdl 0.04</mdl | 50.0 | No | No |
| Uranium: U (ug/L) - TW | 2023/01/03 | 0.034 | 20.0 | No | No |
| Additional Inorganics | | | | | |
| Fluoride (mg/L) - TW | 2023/01/03 | <mdl 0.06</mdl | 1.5 | No | No |
| Nitrite (mg/L) - TW | 2023/01/03 | <mdl 0.003</mdl | 1.0 | No | No |
| Nitrite (mg/L) - TW | 2023/04/03 | <mdl 0.003</mdl | 1.0 | No | No |
| Nitrite (mg/L) - TW | 2023/07/04 | <mdl 0.003</mdl | 1.0 | No | No |
| Nitrite (mg/L) - TW | 2023/10/03 | <mdl 0.003</mdl | 1.0 | No | No |
| Nitrate (mg/L) - TW | 2023/01/03 | 1.52 | 10.0 | No | No |
| Nitrate (mg/L) - TW | 2023/04/03 | 1.48 | 10.0 | No | No |
| Nitrate (mg/L) - TW | 2023/07/04 | 1.81 | 10.0 | No | No |
| Nitrate (mg/L) - TW | 2023/10/03 | 2.12 | 10.0 | No | No |
| Sodium: Na (mg/L) - TW | 2023/01/03 | 16.2 | 20* | No | Yes |

*There is no "MAC" for Sodium. The aesthetic objective for sodium in drinking water is 200 mg/L. The local Medical Officer of Health should be notified when the sodium concentration exceeds 20 mg/L so that this information may be communicated to local physicians for their use with patients on sodium restricted diets.

Schedule 15 Sampling

The Schedule 15 Sampling is required under O. Reg. 170/03. This system is under reduced sampling. No plumbing samples were collected.

| System | | Samples | Results | - | (ug/L) | Number of Exceedances |
|-------------------|---|---------|---------|------|--------|--------------------------|
| Alkalinity (mg/L) | 1 | 2 | 249 | 254 | N/A | N/A |
| рН | 1 | 2 | 7.27 | 7.51 | N/A | N/A |
| Lead (ug/l) | 1 | 2 | 0.06 | 0.13 | 10 | 0 |

Organic Parameters

These parameters are tested as a requirement under O. Reg. 170/03. In the event any of the parameters exceed half of the maximum allowable concentration the parameter is required to be sampled quarterly.

| Treated Water Parameter | Sample Date (yyyy/mm/dd) | Sample Result | MAC | Exceedance MAC | Exceedance ¹ / ₂ MAC |
|--|-----------------------------|---|--------|-------------------|---|
| Alachlor (ug/L) - TW | 2023/01/03 | <mdl 0.02<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl> | 5.00 | No | No |
| Atrazine + N-dealkylated | 2023/01/03 | 0.02 | 5.00 | No | No |
| metabolites (ug/L) - TW | | | | | |
| Azinphos-methyl (ug/L) - TW | 2023/01/03 | <mdl 0.05<="" td=""><td>20.00</td><td>No</td><td>No</td></mdl> | 20.00 | No | No |
| Benzene (ug/L) - TW | 2023/01/03 | <mdl 0.32<="" td=""><td>1.00</td><td>No</td><td>No</td></mdl> | 1.00 | No | No |
| Benzo(a)pyrene (ug/L) - TW | 2023/01/03 | <mdl 0.004<="" td=""><td>0.01</td><td>No</td><td>No</td></mdl> | 0.01 | No | No |
| Bromoxynil (ug/L) - TW | 2023/01/03 | <mdl 0.33<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl> | 5.00 | No | No |
| Carbaryl (ug/L) - TW | 2023/01/03 | <mdl 0.05<="" td=""><td>90.00</td><td>No</td><td>No</td></mdl> | 90.00 | No | No |
| Carbofuran (ug/L) - TW | 2023/01/03 | <mdl 0.01<="" td=""><td>90.00</td><td>No</td><td>No</td></mdl> | 90.00 | No | No |
| Carbon Tetrachloride (ug/L) - TW | 2023/01/03 | <mdl 0.17<="" td=""><td>2.00</td><td>No</td><td>No</td></mdl> | 2.00 | No | No |
| Chlorpyrifos (ug/L) - TW | 2023/01/03 | <mdl 0.02<="" td=""><td>90.00</td><td>No</td><td>No</td></mdl> | 90.00 | No | No |
| Diazinon (ug/L) - TW | 2023/01/03 | <mdl 0.02<="" td=""><td>20.00</td><td>No</td><td>No</td></mdl> | 20.00 | No | No |
| Dicamba (ug/L) - TW | 2023/01/03 | <mdl 0.2<="" td=""><td>120.00</td><td>No</td><td>No</td></mdl> | 120.00 | No | No |
| 1,2-Dichlorobenzene (ug/L) - TW | 2023/01/03 | <mdl 0.41<="" td=""><td>200.00</td><td>No</td><td>No</td></mdl> | 200.00 | No | No |
| 1,4-Dichlorobenzene (ug/L) - TW | 2023/01/03 | <mdl 0.36<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl> | 5.00 | No | No |
| 1,2-Dichloroethane (ug/L) - TW | 2023/01/03 | <mdl 0.35<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl> | 5.00 | No | No |
| 1,1-Dichloroethylene (ug/L) - TW | 2023/01/03 | <mdl 0.33<="" td=""><td>14.00</td><td>No</td><td>No</td></mdl> | 14.00 | No | No |
| Dichloromethane (Methylene Chloride) (ug/L) - TW | 2023/01/03 | <mdl 0.35<="" td=""><td>50.00</td><td>No</td><td>No</td></mdl> | 50.00 | No | No |
| 2,4-Dichlorophenol (ug/L) - TW | 2023/01/03 | <mdl 0.15<="" td=""><td>900.00</td><td>No</td><td>No</td></mdl> | 900.00 | No | No |
| 2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW | 2023/01/03 | <mdl 0.19<="" td=""><td>100.00</td><td>No</td><td>No</td></mdl> | 100.00 | No | No |
| Diclofop-methyl (ug/L) - TW | 2023/01/03 | <mdl 0.4<="" td=""><td>9.00</td><td>No</td><td>No</td></mdl> | 9.00 | No | No |
| Dimethoate (ug/L) - TW | 2023/01/03 | <mdl 0.06<="" td=""><td>20.00</td><td>No</td><td>No</td></mdl> | 20.00 | No | No |
| Diquat (ug/L) - TW | 2023/01/03 | <mdl 1.0<="" td=""><td>70.00</td><td>No</td><td>No</td></mdl> | 70.00 | No | No |
| Diuron (ug/L) - TW | 2023/01/03 | <mdl 0.03<="" td=""><td>150.00</td><td>No</td><td>No</td></mdl> | 150.00 | No | No |
| Glyphosate (ug/L) - TW | 2023/01/03 | <mdl 1.0<="" td=""><td>280.00</td><td>No</td><td>No</td></mdl> | 280.00 | No | No |
| Malathion (ug/L) - TW | 2023/01/03 | <mdl 0.02<="" td=""><td>190.00</td><td>No</td><td>No</td></mdl> | 190.00 | No | No |
| 2-Methyl-4chlorophenoxyacetic Acid (MCPA) | 2023/01/03 | <mdl 0.12<="" td=""><td>100.00</td><td>No</td><td>No</td></mdl> | 100.00 | No | No |

| Treated Water Parameter | Sample Date (yyyy/mm/dd) | Sample Result | MAC | Exceedance MAC | Exceedance 1/2 MAC |
|---|-----------------------------|---|--------|-------------------|-----------------------|
| Metolachlor (ug/L) - TW | 2023/01/03 | <mdl 0.01<="" td=""><td>50.00</td><td>No</td><td>No</td></mdl> | 50.00 | No | No |
| Metribuzin (ug/L) - TW | 2023/01/03 | <mdl 0.02<="" td=""><td>80.00</td><td>No</td><td>No</td></mdl> | 80.00 | No | No |
| Monochlorobenzene | 2023/01/03 | <mdl 0.3<="" td=""><td>80.00</td><td>No</td><td>No</td></mdl> | 80.00 | No | No |
| (Chlorobenzene) (ug/L) – TW | | | | | |
| Paraquat (ug/L) - TW | 2023/01/03 | <mdl 1.0<="" td=""><td>10.00</td><td>No</td><td>No</td></mdl> | 10.00 | No | No |
| PCB (ug/L) - TW | 2023/01/03 | <mdl 0.04<="" td=""><td>3.00</td><td>No</td><td>No</td></mdl> | 3.00 | No | No |
| Pentachlorophenol (ug/L) - TW | 2023/01/03 | <mdl 0.15<="" td=""><td>60.00</td><td>No</td><td>No</td></mdl> | 60.00 | No | No |
| Phorate (ug/L) - TW | 2023/01/03 | <mdl 0.01<="" td=""><td>2.00</td><td>No</td><td>No</td></mdl> | 2.00 | No | No |
| Picloram (ug/L) - TW | 2023/01/03 | <mdl 1.0<="" td=""><td>190.00</td><td>No</td><td>No</td></mdl> | 190.00 | No | No |
| Prometryne (ug/L) - TW | 2023/01/03 | <mdl 0.03<="" td=""><td>1.00</td><td>No</td><td>No</td></mdl> | 1.00 | No | No |
| Simazine (ug/L) - TW | 2023/01/03 | <mdl 0.01<="" td=""><td>10.00</td><td>No</td><td>No</td></mdl> | 10.00 | No | No |
| Terbufos (ug/L) - TW | 2023/01/03 | <mdl 0.01<="" td=""><td>1.00</td><td>No</td><td>No</td></mdl> | 1.00 | No | No |
| Tetrachloroethylene (ug/L) - TW | 2023/01/03 | <mdl 0.35<="" td=""><td>10.00</td><td>No</td><td>No</td></mdl> | 10.00 | No | No |
| 2,3,4,6-Tetrachlorophenol (ug/L) - TW | 2023/01/03 | <mdl 0.2<="" td=""><td>100.00</td><td>No</td><td>No</td></mdl> | 100.00 | No | No |
| Triallate (ug/L) - TW | 2023/01/03 | <mdl 0.01<="" td=""><td>230.00</td><td>No</td><td>No</td></mdl> | 230.00 | No | No |
| Trichloroethylene (ug/L) - TW | 2023/01/03 | <mdl 0.44<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl> | 5.00 | No | No |
| 2,4,6-Trichlorophenol (ug/L) - TW | 2023/01/03 | <mdl 0.25<="" td=""><td>5.00</td><td>No</td><td>No</td></mdl> | 5.00 | No | No |
| Trifluralin (ug/L) - TW | 2023/01/03 | <mdl 0.02<="" td=""><td>45.00</td><td>No</td><td>No</td></mdl> | 45.00 | No | No |
| Vinyl Chloride (ug/L) - TW | 2023/01/03 | <mdl 0.17<="" td=""><td>1.00</td><td>No</td><td>No</td></mdl> | 1.00 | No | No |
| Distribution Water | | | | | |
| Trihalomethane: Total (ug/L) Annual Average - DW | 2023 | 9.65 | 100 | No | No |
| · · · · · | 2023 | 5.30 | 80 | No | No |

MAC = Maximum Allowable Concentration as per O. Reg. 169/03 MDL = Method Detection Limit

Additional Legislated Samples

There were no additional legislated samples required to report during this reporting period.

Major Maintenance Summary incurred to install, repair or replace required equipment

| WO # | Description |
|---------|--|
| 3338668 | UV 2 Fail Lamp 2 Replacement |
| 3433893 | Ballast Fail (Follow up) |
| 3527866 | UV Light Reactor 01, Low Intensity |
| 3575074 | Injector Back Pressure Valve Failure and Replacement |

| WO # | Description |
|---------|--|
| 3661623 | UV 2 Wiper/All Lamps Failure – Broken in Reactor |

Appendix A

WTRS Submission Confirmation

| Ontario 😵 | environet | TRS | Ministry of the Environment, Conservation and Parks | | | | | | |
|--|--|--------------------------------|--|--|--|--|--|--|--|
| WT DATA USER PROFILE CONTA | WT DATA USER PROFILE CONTACT US HELP HOME LOGOUT | | | | | | | | |
| Location: WTRS / WT DATA / Input WT | Record | | WTRS-WT-008 | | | | | | |
| | Water Taking Data sub | mitted successfully. | | | | | | | |
| Confirmation: | | | | | | | | | |
| Thank you for submitting your water taking | g data online. | | | | | | | | |
| Permit Number: 5087-92QJJU Permit Holder: THE CORPORATION OF THE Received on:Jan 31, 2024 11:01 AM | CITY OF KAWARTHA LAKES. | | | | | | | | |
| This confirmation indicates that your data specified on the Permit Number, assigned t | | t should not be construed as a | acceptance of this data if it differs from that | | | | | | |
| | Print Confirmation | Return to Main Page | | | | | | | |
| | | | CITY OF KAWARTHA LAKES 2024/01/31 | | | | | | |
| | | | version: v4.5.0.21 (build#: 22) | | | | | | |
| | | | Last modified: 2018/09/18 | | | | | | |
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