

Nairn Centre Water Treatment

Large Municipal Residential Drinking Water System

January 1, 2021 – December 31, 2021

***Reg 170/03 Schedule 22 Summary Report
Reg 170/03 Section 11 Annual Report
&
Reg 387/04 Annual Record of Water Taking***

Prepared by the Ontario Clean Water Agency
For The Corporation of the Township of Nairn and Hyman



Drinking-Water System Number: 210002138
Drinking-Water System Name: Nairn Centre Drinking Water System
Drinking-Water System Owner: The Corp. of the Township of Nairn and Hyman
Drinking-Water System Category: Large Municipal Residential

SECTION 1: INTRODUCTION

This document is prepared in accordance with Section 11 and Schedule 22 of O.Reg.170/03 under the Safe Drinking Water Act and with Section 9 of O.Reg.387/04 under the Ontario Water Resources Act. The reports are prepared by the Ontario Clean Water Agency. Acronyms and definitions can be found at the end of the report.

A copy of the Summary Report must be provided to the members of the municipal council by March 31, [2022](#).

SECTION 2: REQUIREMENTS OF THE REPORTS

Schedule 22 Report

The report must list the requirements of the Act, the regulations, the system's approval and any order that the system **failed to meet** at any time during the period covered by the report. It must also specify the duration of the failure, and for each failure referred to, describe the measures that were taken to correct the failure.

For the purpose of enabling the owner of the system to assess the rated capability of their system to meet existing and future planned water uses, the following information is required to be included in this report:

- A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows.
- A comparison of the summary to the rated capacity and flow rates approved in the systems approval.

Section 11 Report

The annual report must contain the following:

- A brief description of the drinking water system and a list of chemicals used by the system.
- A description of any major expenses incurred during the period covered by the report to install, repair or replace required equipment.
- A summary of all adverse water quality incidents (AWQI) reported to the Ministry
- A summary of corrective actions taken in response all AWQIs
- A summary of all test results required under the regulation, under an approval, municipal drinking water licence or order, including an OWRA order.
- A statement of where a Schedule 22 report will be available for inspection.

The report must be prepared not later than February 28 of the following year.

Regulation 387 Report

On or before March 31 in every year, every holder of a permit to take water (PTTW) shall submit to a Director the data collected and recorded for the previous year.

A record of annual water taking can be found in [Appendix A](#).



SECTION 3: SCHEDULE 22 REPORT

Flows - Treated

In accordance with the Municipal Drinking Water License (MDWL), the Nairn Centre WTP shall not be operated to exceed a maximum flow of 818 m³/d to the distribution system.

The daily treated water maximum flow was 320.8 m³/d in June and represents 39% of capacity. In 2021, the total volume of water sent to the distribution system was 47,103.7 m³

The quantity of treated water supplied during the reporting period **did not** exceed the rated maximum capacity.

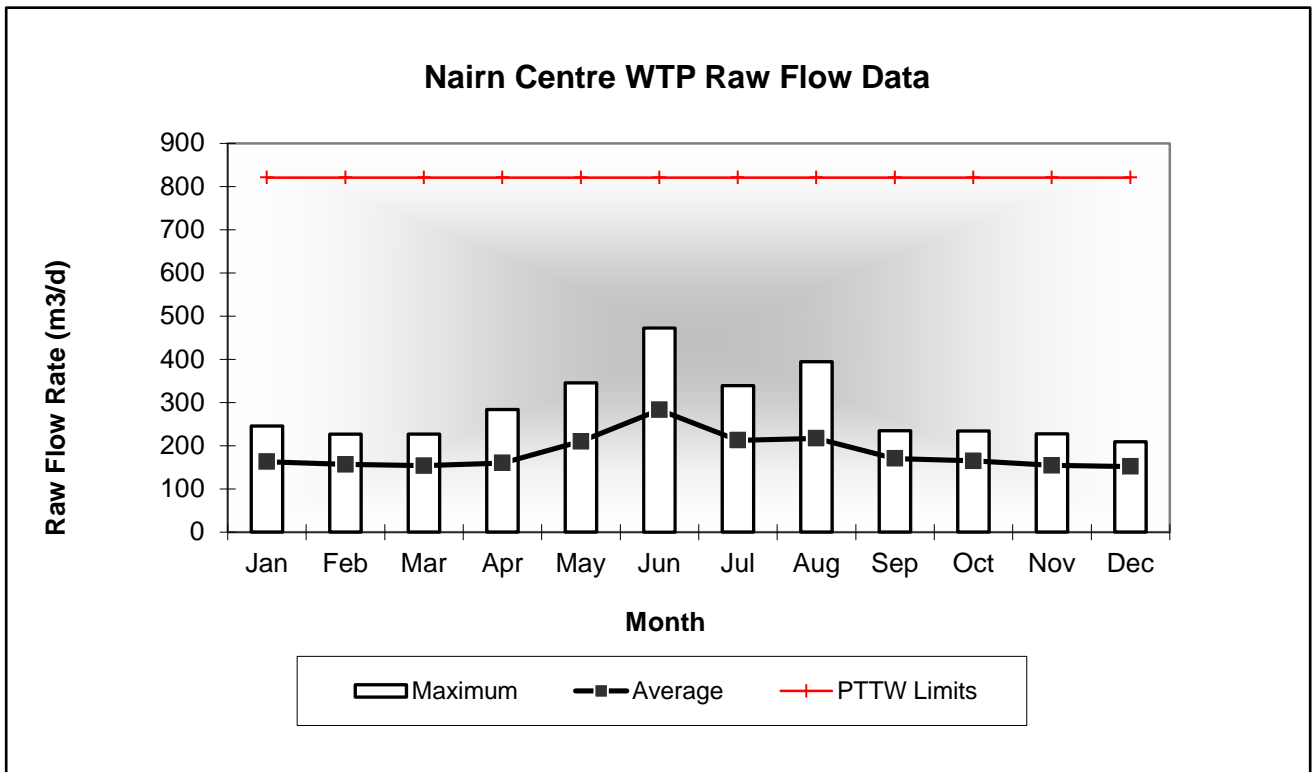
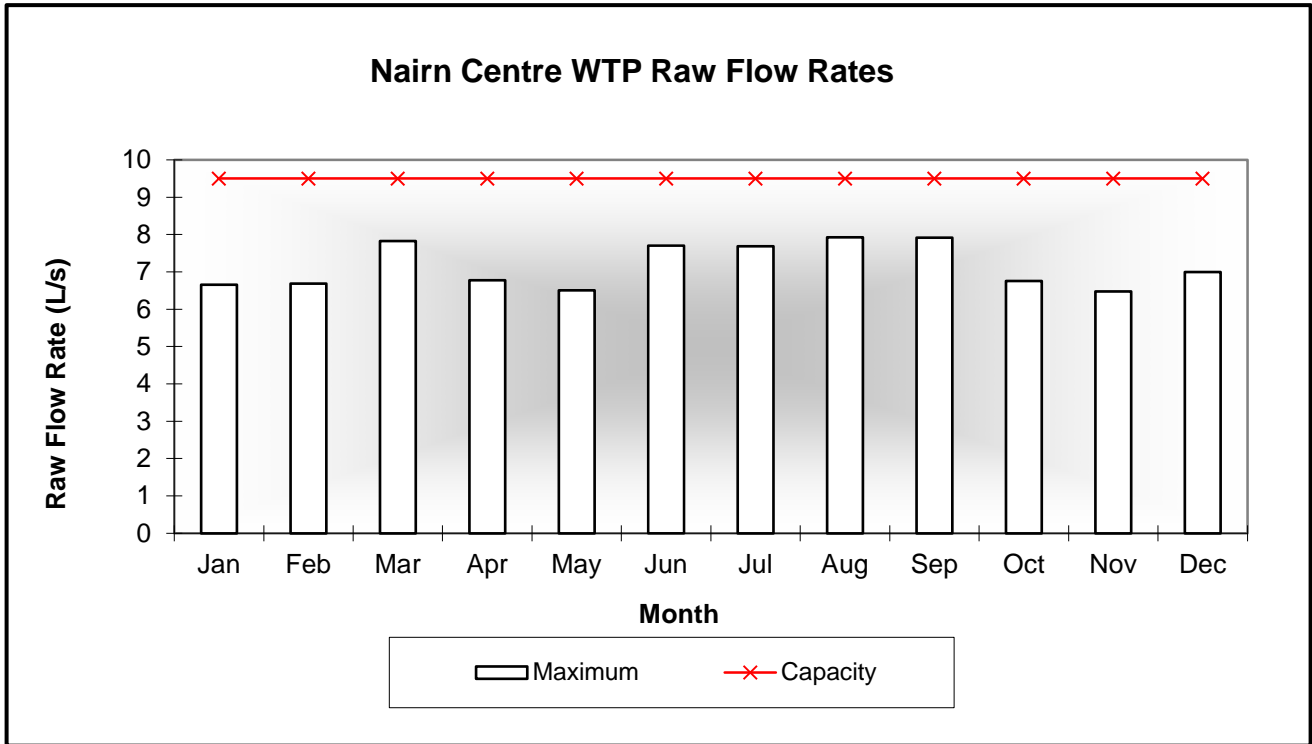
Flows - Raw

Daily raw maximum instantaneous flow is stated in the PTTW at a maximum rate of flow of 9.5 L/s and a maximum daily volume of 820.8 m³/d.

The average monthly raw water flow for this reporting period was 183.1 m³/d. The maximum daily flow was 472.6 m³/d representing 58% of water taking limits. In 2021, the total volume of water taken from the environment was 66,844.2 m³

The quantity of raw water taken **did not** exceed the limits stipulated within the PTTW..

<i>RAW WATER FLOW DATA - TOTAL ALL SOURCES</i>						
Month	Total Monthly Flow (m ³)	Average Flow (m ³ /d)	Maximum Flow (m ³ /d)	Maximum Flow Rate (L/s)	Limits	
					L/s (PTTW)	m ³ /d (PTTW)
January	5,046.7	162.8	245.4	6.66	9.5	820.8
February	4,385.04	156.61	226.6	6.69	9.5	820.8
March	4,758.24	153.49	226.7	7.83	9.5	820.8
April	4,796.2	159.87	283.6	6.78	9.5	820.8
May	6,511.9	210.06	345.3	6.51	9.5	820.8
June	8,483.4	282.78	472.6	7.7	9.5	820.8
July	6,587.13	212.49	338.9	7.69	9.5	820.8
August	6,725	216.94	394.3	7.93	9.5	820.8
September	5,111.5	170.38	234.5	7.92	9.5	820.8
October	5,103.6	164.63	233.9	6.76	9.5	820.8
November	4,633	154.43	227.3	6.48	9.5	820.8
December	4,702.5	151.69	209	7	9.5	820.8
Total	66,844.2					
Average		183.13				
Maximum			472.6	7.93	9.5	820.8





Annual Raw Water Review

Raw Water Taking	Total Taking m3/d	Average Day m3/d	Max Day m3/d	Max Day % of PTTW allowable 820.8 m3/d
2021	66,844.2	183.13	472.6	58%
2020	67,617.5	184.75	456.6	56%
2019	80,733.4	221.19	481.9	59%
2018	75,355	206.45	474.3	58%

System Failures and Corrective Actions

The latest inspection of the drinking water facility took place on [October 28, 2021](#). The Operating Authority is still waiting for the IRR.

There were two non-compliances listed in the inspection report:

Question ID MRDW1075000 – Do all operators possess the required certification? All operators did not possess the required certification.

P.Drolet (DWI) notes; An operator attended the site and acted as an Operator in Training (OIT) on July 21, 2021 but did not have the required licence. The Operating Authority notified the MECP of this situation on September 10, 2021. The operator's OIT licence expired on May 31, 2021 and was not renewed until August 11, 2021.

Question ID MRDW1076000 – Do only certified operators make adjustments to the treatment equipment? Adjustments to the treatment equipment were not made only by certified operators.

P.Drolet (DWI) notes; An operator attended the site and acted as an Operator in Training (OIT) on July 21, 2021 but did not have the required licence. The Operating Authority notified the MECP of this situation on September 10, 2021. The operators OIT licence expired on May 31, 2021 and was not renewed until August 11, 2021. Being that the operator normally held an OIT licence, they did not perform any process changes without the supervision of the attending OIC. The application for the renewal was submitted to the Ontario Water Wastewater Certification Office (OWWCO) on June 15, 2021 and on June 23, 2021 the operator was informed that the application was incomplete. Another completed application was then resubmitted to the OWWCO.

OCWA indicated that new procedures are in place and training and licencing will be a regular topic at all cluster meetings. Training reports are being prepared and presented quarterly to management detailing staffs current licencing and training needs. In addition OCWA has begun providing monthly updates to Management and Compliance based on OWWCO's valid licenced operator reports. Furthermore, management will take a more direct approach when dealing with operators who have let their licence lapse. Direction will be given to staff detailing their responsibilities while on operator awaits renewal of their licence.



AWQIs reported to the Ministry					
Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
01-Feb-21	Pressure	0	psi	AWQI#153491 – Loss of pressure due to power loss when performing monthly generator test. Power was restored, system flushed and two sets of bacti samples were collected. All sample results were non-detect.	03-Feb-21

SECTION 4: SECTION 11 REPORT

Information to be provided

Population Served	477 (Stats Canada – 2011)
Does your Drinking-Water System serve more than 10,000 people?	No
Is your annual report available to the public at no charge on a web site on the Internet?	Yes
Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.	Township of Nairn and Hyman, Municipal Office 64 McIntyre Street Nairn Centre, Ontario P0M 2L0
Number of Designated Facilities served:	0
Did you provide a copy of your annual report to all Designated Facilities you serve?	NA
Number of Interested Authorities you report to:	0
Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility?	NA
List all Drinking-Water Systems (if any), and their DWS Number which receive all of their drinking water from your system:	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?	NA
Indicate how you notified system users that your annual report is available, and is free of charge.	Public access/notice via the web
Indicate if you notified system users that your annual report is available and is free of charge using an alternate method	YES



Facility Description

A prefabricated package water treatment plant, comprising chemical addition, pre-chlorination, coagulation/flocculation, sedimentation, and dual media filtration, followed by pH adjustment, fluoridation and post chlorination, designed for conventional operating parameters at a rated capacity of 818 m³/day, with duty low lift pump starting and stopping the operation of the water treatment plant. Treated water storage consisting of two clear wells each having a capacity of 345 m³. High lift pumps comprising two vertical multistage pumps, each rated at 6.6 L/s and a fire pump with a capacity of 40.1 L/s. The discharge header fitted with pressure relief valve, a pressure gauge, a chlorine injection point, a magnetic flow meter, and sampling point for a chlorine residual analyzer with the discharge header having a system of three hydro-pneumatic tanks, each with 1.6m³ capacity. A 26m³ surge tank receives sludge from the clarifier and backwash waste from the dual media filters, equipped with two centrifugal submersible pumps each rated at 1.0 L/s with clarified supernatant from the 65 m³ settling chamber overflowing to an outfall chamber, and from there to the adjacent creek and from there to the Spanish River. Stand-by power is available from a 160 kW (200 kVa) diesel generator.

Chemicals Used

Poly Aluminum Chloride (PAC)	Coagulation
Magnafloc LT 27 AG (Polymer)	Coagulation aide
Sodium Hypochlorite 12%	Disinfection
Hydrofluorosilicic Acid (25% HFS)	Fluoride
Soda Ash (dense)	Alkalinity and pH control

Significant Expenses

Significant expenses incurred to

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

Work Order	Completion Date	Comment
2176807	09-Aug-21	Purchased and replaced raw water flow meter – \$4,023

Adverse Water Quality Incidents

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
01-Feb-21	Pressure	0	psi	AWQI#153491 – Loss of pressure due to power loss when performing monthly generator test. Power was restored, system flushed and two sets of bacti samples were collected. All sample results were non-detect.	03-Feb-21



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

	No. of Samples	Range of E.Coli		Range of Total Coliform Results		Number of	Range of HPC Results	
	Collected	Min #	Max #	Min #	Max #	HPC Samples	Min #	Max #
Raw Water	53	0	25	0	480	0		
Treated Water	53	0	0	0	87	53	0	600
Distribution	103	0	0	0	0	52	0	2000

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03

	No. of Samples	Range of Results	
	Collected	Minimum	Maximum
Turbidity, On-Line (NTU) - Filt1	8760	0.01	2.31
Free Chlorine Residual, Treated (mg/L)	8760	0.38	1.96
Free Chlorine Residual, Distribution Location 1	103	0.83	1.82
Free Chlorine Residual, Distribution Location 2	103	0.48	1.66
Free Chlorine Residual, Distribution Location 3	103	0.74	1.67
Free Chlorine Residual, Distribution Location 4	52	0.5	1.41

Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument. (Use monitoring BW TSS sheet to Paste and Copy)

Date of legal instrument issued	Parameter and limits	Month Sampled	Day Sampled	Result	Unit of Measure
MDWL 281-101 Issue Date: August 11, 2020 Expiry Date: August 10, 2025	Backwash (BW) Total Suspended Solids (TSS) 25 mg/L annual average	Jan	25	2	mg/L
		Feb	22	14	mg/L
		Mar	29	4	mg/L
		Apr	26	2	mg/L
		May	25	2	mg/L
		Jun	28	2	mg/L
		Jul	26	5	mg/L
		Aug	23	2	mg/L
		Sep	27	2	mg/L
		Oct	25	101	mg/L
		Nov	29	19	mg/L
		Dec	29	2	mg/L
		Annual Average			13.1

*The May TSS sample was collected by the operator and sent to the lab. However, the sample was not analyzed for TSS. The lab is creating a non-conformity record and is currently investigating the issue.



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

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
TREATED WATER				MAC	1/2 MAC
Antimony: Sb (ug/L) - TW	2021/01/13	<MDL 0.9	6.0	No	No
Arsenic: As (ug/L) - TW	2021/01/13	<MDL 0.2	10.0	No	No
Barium: Ba (ug/L) - TW	2021/01/13	4.73	1000.0	No	No
Boron: B (ug/L) - TW	2021/01/13	5.0	5000.0	No	No
Cadmium: Cd (ug/L) - TW	2021/01/13	0.004	5.0	No	No
Chromium: Cr (ug/L) - TW	2021/01/13	0.95	50.0	No	No
Mercury: Hg (ug/L) - TW	2021/01/13	<MDL 0.01	1.0	No	No
Selenium: Se (ug/L) - TW	2021/01/13	0.04	50.0	No	No
Uranium: U (ug/L) - TW	2021/01/13	0.014	20.0	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
TREATED WATER				MAC	1/2 MAC
Fluoride (mg/L) - TW	2017/01/26	<MDL 0.06	1.5	No	No
Nitrite (mg/L) - TW	2021/02/08	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2021/04/12	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2021/07/05	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2021/10/04	<MDL 0.003	1.0	No	No
Nitrate (mg/L) - TW	2021/02/08	0.077	10.0	No	No
Nitrate (mg/L) - TW	2021/04/12	0.113	10.0	No	No
Nitrate (mg/L) - TW	2021/07/05	0.086	10.0	No	No
Nitrate (mg/L) - TW	2021/10/04	0.079	10.0	No	No
Sodium: Na (mg/L) - TW	2017/01/26	10.4	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.

Summary of Lead testing under Schedule 15.1 during this reporting period

Location Type	Number of Samples	Range of Results		MAC (ug/L)	Number of Exceedances
		Minimum	Maximum		
Distribution - Lead Results (ug/L)	2	1.44	1.72	10	0
Distribution - Alkalinity (mg/L)	2	14	16	n/a	n/a
Distribution - pH In-House	2	6.87	7.02	n/a	n/a



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

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
TREATED WATER				MAC	1/2 MAC
Alachlor (ug/L) - TW	2021/01/13	<MDL 0.02	5.0	No	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	2021/01/13	<MDL 0.01	5.0	No	No
Azinphos-methyl (ug/L) - TW	2021/01/13	<MDL 0.05	20.0	No	No
Benzene (ug/L) - TW	2021/01/13	<MDL 0.32	1.0	No	No
Benzo(a)pyrene (ug/L) - TW	2021/01/13	<MDL 0.004	0.01	No	No
Bromoxynil (ug/L) - TW	2021/01/13	<MDL 0.33	5.0	No	No
Carbaryl (ug/L) - TW	2021/01/13	<MDL 0.05	90.0	No	No
Carbofuran (ug/L) - TW	2021/01/13	<MDL 0.01	90.0	No	No
Carbon Tetrachloride (ug/L) - TW	2021/01/13	<MDL 0.17	2.0	No	No
Chlorpyrifos (ug/L) - TW	2021/01/13	<MDL 0.02	90.0	No	No
Diazinon (ug/L) - TW	2021/01/13	<MDL 0.02	20.0	No	No
Dicamba (ug/L) - TW	2021/01/13	<MDL 0.2	120.0	No	No
1,2-Dichlorobenzene (ug/L) - TW	2021/01/13	<MDL 0.41	200.0	No	No
1,4-Dichlorobenzene (ug/L) - TW	2021/01/13	<MDL 0.36	5.0	No	No
1,2-Dichloroethane (ug/L) - TW	2021/01/13	<MDL 0.35	5.0	No	No
1,1-Dichloroethylene (ug/L) - TW	2021/01/13	<MDL 0.33	14.0	No	No
Dichloromethane (Methylene Chloride) (ug/L) - TW	2021/01/13	<MDL 0.35	50.0	No	No
2,4-Dichlorophenol (ug/L) - TW	2021/01/13	<MDL 0.15	900.0	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW	2021/01/13	<MDL 0.19	100.0	No	No
Diclofop-methyl (ug/L) - TW	2021/01/13	<MDL 0.4	9.0	No	No
Dimethoate (ug/L) - TW	2021/01/13	<MDL 0.06	20.0	No	No
Diquat (ug/L) - TW	2021/01/13	<MDL 1.0	70.0	No	No
Diuron (ug/L) - TW	2021/01/13	<MDL 0.03	150.0	No	No
Glyphosate (ug/L) - TW	2021/01/13	<MDL 1.0	280.0	No	No
Malathion (ug/L) - TW	2021/01/13	<MDL 0.02	190.0	No	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (mg/L) - TW	2021/01/13	<MDL 0.01	50.0	N/A	N/A
Metolachlor (ug/L) - TW	2021/01/13	<MDL 0.02	80.0	No	No
Metribuzin (ug/L) - TW	2021/01/13	<MDL 0.3	80.0	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) - TW	2021/01/13	<MDL 1.0	10.0	No	No
Paraquat (ug/L) - TW	2021/01/13	<MDL 0.04	3.0	No	No
PCB (ug/L) - TW	2021/01/13	<MDL 0.15	60.0	No	No
Pentachlorophenol (ug/L) - TW	2021/01/13	<MDL 0.01	2.0	No	No
Phorate (ug/L) - TW	2021/01/13	<MDL 1.0	190.0	No	No
Picloram (ug/L) - TW	2021/01/13	<MDL 0.03	1.0	No	No
Prometryne (ug/L) - TW	2021/01/13	<MDL 0.01	10.0	No	No
Simazine (ug/L) - TW	2021/01/13	<MDL 0.01	1.0	No	No
Terbufos (ug/L) - TW	2021/01/13	<MDL 0.35	10.0	No	No
Tetrachloroethylene (ug/L) - TW	2021/01/13	<MDL 0.2	100.0	No	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	2021/01/13	<MDL 0.01	230.0	No	No



Triallate (ug/L) - TW	2021/01/13	<MDL 0.44	5.0	No	No
Trichloroethylene (ug/L) - TW	2021/01/13	<MDL 0.25	5.0	No	No
2,4,6-Trichlorophenol (ug/L) - TW	2021/01/13	<MDL 0.12	100.0	No	No
Trifluralin (ug/L) - TW	2021/01/13	<MDL 0.02	45.0	No	No
Vinyl Chloride (ug/L) - TW	2021/01/13	<MDL 0.17	1.0	No	No
DISTRIBUTION WATER					
Trihalomethane: Total (ug/L) Annual Average - DW	2021/12/31	69.25	100.00	No	Yes
HAA Total (ug/L) Annual Average – DW	2021/12/31	54.6	80.0	No	Yes

SECTION 5: RAW WATER SUBMISSIONS

Raw water flows were submitted to the MECP on [February 1, 2022](#).

Ontario

Location: WTRS / WT DATA / Input WT Record WTRS-WT-008

Water Taking Data submitted successfully.

Confirmation:

Thank you for submitting your water taking data online.

Permit Number: 6410-BAPR97
 Permit Holder: THE CORPORATION OF THE TOWNSHIP OF NAIRN AND HYMAN.
 Received on: Feb 1, 2022 2:03 PM

This confirmation indicates that your data has been received by the Ministry, but should not be construed as acceptance of this data if it differs from that specified on the Permit Number, assigned to the Permit Holder stated above.

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NAIRN2 HYMAN2 | 2022/02/01
 version: v4.5.0.21 (build#: 22)
 Last modified: 2018/09/18

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SECTION 6: CONCLUSION

The [Nairn Centre WTP](#) delivers water that, in all its treated and distribution samples, indicates the water to be free of bacteriological contamination.

Based on information available for the [2021](#) operating year, the [Nairn Centre WTP](#) was able to meet the demand of water use without exceeding the PTTW or the MDWL.



List of Acronyms and Definitions

Alkalinity	The capacity of water for neutralizing an acid solution
AWQI	Adverse Water Quality Incident- when a water sample test result exceeds the Ontario Drinking Water Quality Standards
Backwash	Water pumped backwards to clean filters
BWA	Boil Water Advisory; Issued when risk of contamination is possible in drinking water
CFU	Colony Forming Units
Chlorine Residual	A low level of chlorine remaining in water after disinfection occurs
DW	Distribution Water
DWA	Drinking Water Advisory; Issued when water cannot be consumed by any means
DWWP	Drinking Water Works Permit - provides a description of the overall system
E.Coli	Bacteria used as indicators to measure the degree of pollution and sanitary quality of water
GUDI 170/03	Groundwater Under Direct Influence – Considered to be surface water under O.Reg
HPC	Heterotrophic Plant Count
L/s	Litres per Second
m ³ /d	Cubic Metres per Day
MAC	Maximum Acceptable Concentration
MDL	Minimum Detection Level
MDWL requirements	Municipal Drinking Water Licence - relates to the operation and performance requirements
mg/L	Miligrams per Litre
Ministry	Ministry of the Environment and Climate Change
MOECC	Ministry of the Environment and Climate Change
O.Reg	Ontario Regulation
PTTW water	Permit to Take Water – Permit which allows water taking from groundwater or surface water
RW	Raw Water
TC	Total Coliforms
TSS	Total Suspended Solids
Turbidity	Cloudiness or haziness of water
TW	Treated Water



Appendix A

Raw Water Flows

Ontario Clean Water Agency
Annual Water Taking and Transfer Report
 From 01/01/2021 To 12/31/2021

Facility: NAIRN CENTRE DRINKING WATER SYSTEM-5042
 Tag: Raw Flow: Sum (m3/d)
 Tag Group: Raw Water

Permit#: 6410-BAPR97
 Source Name: Spanish River
 Source: River
 Type:
 Purpose: Municipal

Coordinate Zone: 17
 Easting: 455049
 Northing: 5131662
 Method deter: Metered

Date Measured	Value (m³/d)	Value (Litres)
01/01/2021	129.2000	129199.9969
02/01/2021	130.5000	130500.0000
03/01/2021	185.7000	185699.9969
04/01/2021	145.4000	145399.9939
05/01/2021	147.8000	147800.0031
06/01/2021	193.4000	193399.9939
07/01/2021	135.1000	135100.0061
08/01/2021	143.3000	143300.0031
09/01/2021	174.3000	174300.0031
10/01/2021	205.6000	205600.0061
11/01/2021	109.6000	109599.9985
12/01/2021	183.2000	183199.9969
13/01/2021	151.7000	151699.9969
14/01/2021	139.7000	139699.9969
15/01/2021	216.3000	216300.0031
16/01/2021	148.5000	148500.0000
17/01/2021	143.2000	143199.9969
18/01/2021	176.9000	176899.9939
19/01/2021	143.1000	143100.0061
20/01/2021	150.6000	150600.0061
21/01/2021	245.4000	245399.9939
22/01/2021	126.2000	126199.9969
23/01/2021	169.2000	169199.9969
24/01/2021	181.5000	181500.0000
25/01/2021	150.7000	150699.9969
26/01/2021	196.1000	196100.0061
27/01/2021	127.8000	127800.0031
28/01/2021	175.0000	175000.0000
29/01/2021	141.4000	141399.9939
30/01/2021	172.7000	172699.9969
31/01/2021	207.6000	207600.0061
01/02/2021	226.6000	226600.0061
02/02/2021	128.1400	128140.0000
03/02/2021	131.7000	131700.0000
04/02/2021	200.4000	200399.9939
05/02/2021	120.4000	120400.0015
06/02/2021	158.5000	158500.0000
07/02/2021	202.4000	202399.9939
08/02/2021	106.9000	106900.0015
09/02/2021	144.0000	144000.0000
10/02/2021	174.2000	174199.9969
11/02/2021	116.4000	116400.0015

12/02/2021	154.6000	154600.0061
13/02/2021	211.7000	211699.9969
14/02/2021	137.3000	137300.0031
15/02/2021	125.3000	125300.0031
16/02/2021	218.3000	218300.0031
17/02/2021	142.9000	142899.9939
18/02/2021	103.5000	103500.0000
19/02/2021	151.1000	151100.0061
20/02/2021	199.4000	199399.9939
21/02/2021	112.2000	112199.9969
22/02/2021	148.6000	148600.0061
23/02/2021	212.2000	212199.9969
24/02/2021	115.6000	115599.9985
25/02/2021	119.0000	119000.0000
26/02/2021	151.8000	151800.0031
27/02/2021	223.3000	223300.0031
28/02/2021	148.6000	148600.0061
01/03/2021	111.3000	111300.0031
02/03/2021	171.2000	171199.9969
03/03/2021	150.1000	150100.0061
04/03/2021	170.9000	170899.9939
05/03/2021	170.8000	170800.0031
06/03/2021	166.6000	166600.0061
07/03/2021	136.0000	136000.0000
08/03/2021	222.5000	222500.0000
09/03/2021	145.5000	145500.0000
10/03/2021	113.0000	113000.0000
11/03/2021	177.0000	177000.0000
12/03/2021	114.8000	114800.0031
13/03/2021	226.7000	226699.9969
14/03/2021	158.8000	158800.0031
15/03/2021	134.2300	134230.0000
16/03/2021	140.9000	140899.9939
17/03/2021	182.7000	182699.9969
18/03/2021	141.5000	141500.0000
19/03/2021	148.7000	148699.9969
20/03/2021	152.6000	152600.0000
21/03/2021	169.7200	169720.0000
22/03/2021	148.9100	148910.0000
23/03/2021	146.3600	146360.0000
24/03/2021	132.4200	132420.0000
25/03/2021	140.6000	140600.0000
26/03/2021	125.5000	125500.0000
27/03/2021	185.3000	185300.0031
28/03/2021	175.3000	175300.0031
29/03/2021	107.0000	107000.0000
30/03/2021	162.0000	162000.0000
31/03/2021	129.3000	129300.0031
01/04/2021	156.8000	156800.0031
02/04/2021	157.2000	157199.9969
03/04/2021	164.1000	164100.0061
04/04/2021	138.2000	138199.9969
05/04/2021	196.3000	196300.0031
06/04/2021	113.4000	113400.0015
07/04/2021	200.6000	200600.0061
08/04/2021	181.0000	181000.0000
09/04/2021	171.3000	171300.0031
10/04/2021	133.9000	133899.9939
11/04/2021	191.3000	191300.0031
12/04/2021	113.5000	113500.0000
13/04/2021	283.6000	283600.0061

14/04/2021	109.1000	109099.9985
15/04/2021	104.2000	104199.9969
16/04/2021	148.1000	148100.0061
17/04/2021	199.2000	199199.9969
18/04/2021	124.1000	124099.9985
19/04/2021	145.6000	145600.0061
20/04/2021	175.1000	175100.0061
21/04/2021	130.1000	130100.0061
22/04/2021	209.5000	209500.0000
23/04/2021	126.7000	126699.9969
24/04/2021	167.4000	167399.9939
25/04/2021	213.8000	213800.0031
26/04/2021	114.2000	114199.9969
27/04/2021	226.4000	226399.9939
28/04/2021	117.7000	117699.9969
29/04/2021	133.1000	133100.0061
30/04/2021	150.7000	150699.9969
01/05/2021	223.7000	223699.9969
02/05/2021	134.8000	134800.0031
03/05/2021	122.5000	122500.0000
04/05/2021	213.2000	213199.9969
05/05/2021	141.4000	141399.9939
06/05/2021	114.1000	114099.9985
07/05/2021	170.1000	170100.0061
08/05/2021	175.5000	175500.0000
09/05/2021	204.3000	204300.0031
10/05/2021	115.4000	115400.0015
11/05/2021	134.8000	134800.0031
12/05/2021	237.4000	237399.9939
13/05/2021	138.0000	138000.0000
14/05/2021	177.6000	177600.0061
15/05/2021	220.7000	220699.9969
16/05/2021	225.8000	225800.0031
17/05/2021	190.0000	190000.0000
18/05/2021	256.1000	256100.0061
19/05/2021	128.2000	128199.9969
20/05/2021	260.3000	260299.9878
21/05/2021	259.0000	259000.0000
22/05/2021	177.6000	177600.0061
23/05/2021	312.6000	312600.0061
24/05/2021	291.5000	291500.0000
25/05/2021	244.9000	244899.9939
26/05/2021	223.0000	223000.0000
27/05/2021	313.5000	313500.0000
28/05/2021	235.9000	235899.9939
29/05/2021	243.4000	243399.9939
30/05/2021	281.3000	281299.9878
31/05/2021	345.3000	345299.9878
01/06/2021	342.7000	342700.0122
02/06/2021	422.8000	422799.9878
03/06/2021	365.2000	365200.0122
04/06/2021	472.4000	472399.9939
05/06/2021	223.8000	223800.0031
06/06/2021	336.4000	336399.9939
07/06/2021	472.6000	472600.0061
08/06/2021	405.9000	405899.9939
09/06/2021	326.0000	326000.0000
10/06/2021	309.3000	309299.9878
11/06/2021	191.4000	191399.9939
12/06/2021	215.4000	215399.9939
13/06/2021	272.3000	272299.9878

14/06/2021	199.4000	199399.9939
15/06/2021	295.6000	295600.0061
16/06/2021	236.1000	236100.0061
17/06/2021	294.7000	294700.0122
18/06/2021	325.6000	325600.0061
19/06/2021	397.7000	397700.0122
20/06/2021	325.0000	325000.0000
21/06/2021	123.3000	123300.0031
22/06/2021	273.5000	273500.0000
23/06/2021	218.4000	218399.9939
24/06/2021	229.6000	229600.0061
25/06/2021	197.2000	197199.9969
26/06/2021	219.2000	219199.9969
27/06/2021	125.4000	125400.0015
28/06/2021	260.1000	260100.0061
29/06/2021	224.1000	224100.0061
30/06/2021	182.3000	182300.0031
01/07/2021	211.4000	211399.9939
02/07/2021	200.5000	200500.0000
03/07/2021	177.0000	177000.0000
04/07/2021	269.4000	269399.9939
05/07/2021	243.6700	243670.0000
06/07/2021	210.8700	210870.0000
07/07/2021	193.8100	193810.0000
08/07/2021	190.3400	190340.0000
09/07/2021	238.9400	238940.0000
10/07/2021	243.5000	243500.0000
11/07/2021	222.1000	222100.0061
12/07/2021	278.4000	278399.9939
13/07/2021	203.3000	203300.0031
14/07/2021	159.8000	159800.0031
15/07/2021	181.8000	181800.0031
16/07/2021	263.1000	263100.0061
17/07/2021	197.7000	197699.9969
18/07/2021	214.4000	214399.9939
19/07/2021	218.3000	218300.0031
20/07/2021	338.9000	338899.9939
21/07/2021	174.5000	174500.0000
22/07/2021	258.4000	258399.9939
23/07/2021	147.6000	147600.0061
24/07/2021	213.3000	213300.0031
25/07/2021	152.9000	152899.9939
26/07/2021	193.5000	193500.0000
27/07/2021	171.1000	171100.0061
28/07/2021	194.2000	194199.9969
29/07/2021	239.1000	239100.0061
30/07/2021	168.0000	168000.0000
31/07/2021	217.3000	217300.0031
01/08/2021	144.1000	144100.0061
02/08/2021	205.8000	205800.0031
03/08/2021	217.0000	217000.0000
04/08/2021	173.1000	173100.0061
05/08/2021	156.8000	156800.0031
06/08/2021	394.3000	394299.9878
07/08/2021	359.6000	359600.0061
08/08/2021	112.7000	112699.9969
09/08/2021	235.8000	235800.0031
10/08/2021	142.0000	142000.0000
11/08/2021	170.9000	170899.9939
12/08/2021	190.2000	190199.9969
13/08/2021	210.4000	210399.9939

14/08/2021	199.4000	199399.9939
15/08/2021	221.0000	221000.0000
16/08/2021	219.8000	219800.0031
17/08/2021	168.9000	168899.9939
18/08/2021	241.4000	241399.9939
19/08/2021	314.0000	314000.0000
20/08/2021	213.7000	213699.9969
21/08/2021	270.8000	270799.9878
22/08/2021	272.7000	272700.0122
23/08/2021	216.5000	216500.0000
24/08/2021	243.2000	243199.9969
25/08/2021	299.9000	299899.9939
26/08/2021	267.0000	267000.0000
27/08/2021	182.2000	182199.9969
28/08/2021	208.9000	208899.9939
29/08/2021	130.4000	130399.9939
30/08/2021	186.4000	186399.9939
31/08/2021	156.1000	156100.0061
01/09/2021	203.3000	203300.0031
02/09/2021	214.0000	214000.0000
03/09/2021	175.8000	175800.0031
04/09/2021	132.2000	132199.9969
05/09/2021	202.2000	202199.9969
06/09/2021	164.0000	164000.0000
07/09/2021	191.4000	191399.9939
08/09/2021	95.8000	95800.0031
09/09/2021	192.3000	192300.0031
10/09/2021	182.5000	182500.0000
11/09/2021	134.0000	134000.0000
12/09/2021	213.6000	213600.0061
13/09/2021	86.5000	86500.0000
14/09/2021	191.7000	191699.9969
15/09/2021	134.7000	134699.9969
16/09/2021	206.3000	206300.0031
17/09/2021	147.0000	147000.0000
18/09/2021	175.2000	175199.9969
19/09/2021	202.2000	202199.9969
20/09/2021	118.0000	118000.0000
21/09/2021	201.6000	201600.0061
22/09/2021	186.1000	186100.0061
23/09/2021	184.3000	184300.0031
24/09/2021	139.4000	139399.9939
25/09/2021	213.6000	213600.0061
26/09/2021	135.1000	135100.0061
27/09/2021	187.7000	187699.9969
28/09/2021	138.4000	138399.9939
29/09/2021	128.1000	128100.0061
30/09/2021	234.5000	234500.0000
01/10/2021	112.0000	112000.0000
02/10/2021	210.3000	210300.0031
03/10/2021	152.1000	152100.0061
04/10/2021	135.9000	135899.9939
05/10/2021	191.2000	191199.9969
06/10/2021	128.5000	128500.0000
07/10/2021	204.7000	204699.9969
08/10/2021	130.9000	130899.9939
09/10/2021	200.3000	200300.0031
10/10/2021	150.4000	150399.9939
11/10/2021	161.5000	161500.0000
12/10/2021	144.7000	144699.9969
13/10/2021	222.4000	222399.9939

14/10/2021	123.3000	123300.0031
15/10/2021	233.9000	233899.9939
16/10/2021	107.0000	107000.0000
17/10/2021	193.1000	193100.0061
18/10/2021	144.3000	144300.0031
19/10/2021	228.0000	228000.0000
20/10/2021	106.7000	106699.9969
21/10/2021	223.0000	223000.0000
22/10/2021	121.5000	121500.0000
23/10/2021	211.0000	211000.0000
24/10/2021	161.5000	161500.0000
25/10/2021	130.2000	130199.9969
26/10/2021	176.6000	176600.0061
27/10/2021	164.3000	164300.0031
28/10/2021	149.5000	149500.0000
29/10/2021	145.5000	145500.0000
30/10/2021	192.3000	192300.0031
31/10/2021	147.0000	147000.0000
01/11/2021	128.1000	128100.0061
02/11/2021	183.5000	183500.0000
03/11/2021	173.1000	173100.0061
04/11/2021	154.6000	154600.0061
05/11/2021	135.3000	135300.0031
06/11/2021	215.7000	215699.9969
07/11/2021	126.1000	126099.9985
08/11/2021	212.8000	212800.0031
09/11/2021	122.8000	122800.0031
10/11/2021	129.1000	129100.0061
11/11/2021	188.5000	188500.0000
12/11/2021	117.2000	117199.9969
13/11/2021	147.9000	147899.9939
14/11/2021	227.3000	227300.0031
15/11/2021	100.2000	100199.9969
16/11/2021	131.6000	131600.0061
17/11/2021	158.0000	158000.0000
18/11/2021	161.8000	161800.0031
19/11/2021	184.4000	184399.9939
20/11/2021	117.4000	117400.0015
21/11/2021	145.2000	145199.9969
22/11/2021	167.6000	167600.0061
23/11/2021	187.1000	187100.0061
24/11/2021	125.2000	125199.9969
25/11/2021	155.1000	155100.0061
26/11/2021	165.2000	165199.9969
27/11/2021	117.1000	117099.9985
28/11/2021	220.9000	220899.9939
29/11/2021	121.0000	121000.0000
30/11/2021	113.2000	113199.9969
01/12/2021	153.7000	153699.9969
02/12/2021	208.2000	208199.9969
03/12/2021	92.9000	92900.0015
04/12/2021	186.3000	186300.0031
05/12/2021	117.3000	117300.0031
06/12/2021	152.8000	152800.0031
07/12/2021	197.3000	197300.0031
08/12/2021	99.7000	99699.9969
09/12/2021	169.5000	169500.0000
10/12/2021	168.2000	168199.9969
11/12/2021	165.2000	165199.9969
12/12/2021	118.3000	118300.0031
13/12/2021	154.5000	154500.0000

14/12/2021	209.0000	209000.0000
15/12/2021	117.6000	117599.9985
16/12/2021	161.8000	161800.0031
17/12/2021	133.0000	133000.0000
18/12/2021	134.9000	134899.9939
19/12/2021	207.8000	207800.0031
20/12/2021	87.5000	87500.0000
21/12/2021	207.1000	207100.0061
22/12/2021	125.9000	125900.0015
23/12/2021	115.6000	115599.9985
24/12/2021	154.9000	154899.9939
25/12/2021	193.5000	193500.0000
26/12/2021	131.3000	131300.0031
27/12/2021	120.0000	120000.0000
28/12/2021	207.5000	207500.0000
29/12/2021	155.1000	155100.0061
30/12/2021	133.7000	133699.9969
31/12/2021	122.4000	122400.0015