Varna Drinking Water System

Waterworks # 260019630
System Category – Small Municipal Residential

Annual Drinking Water Report

Prepared For: The Municipality of Bluewater

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

Issued: February 23, 2024

Revision: 0

Operating Authority:

OCWA

ONTARIO CLEAN WATER AGENCY
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Overview

This report fulfills requirements of Ontario Regulation 170/03 Section 11 and Schedule 22. The report must be made available to anyone that requests a copy of the report. By March 31st, 2024 the report must be provided to members of municipal council.

Report Availability

This system does not serve more than 10,000 residence and the annual reports will be available to residents at the Municipal Office as well as on the municipal website. Notification will be at the Municipal Office and copies provided free of charge if requested. The Municipal Office is located at 14 Mill Ave, Zurich, Ontario, N0M 2T0.

System Process Description

The Varna Drinking Water System serves the community of Varna located in the Municipality of Bluewater; approximate population served is 154.

Water is sourced from a 73 m deep well. The well has a 15.2 cm diameter casing installed to a depth of 57.3 m and extends above grade approximately 33 cm. The well has a 100 mm diameter sleeve installed from 57.3 m to 73 m. The well is equipped with a 1.6 L/s submersible pump. The well pump was installed at a depth of 65.8 m with 32 mm diameter galvanized steel discharge piping.

There are three 450 L chlorine contact tanks in the existing pump house. A 12 kW standby propane generator provides backup power to the system. Other equipment includes: three pressure tanks, a 60 L chlorine storage tank, two chlorine pumps, and various other pressure gauges, meters, and sample taps. The normal operating pressure in the system is set by the pressure switch in the well house to be between 275 and 415 kPa; typical operating pressures in this system are in the range of 250 to 400 kPa.

A 50 mm diameter watermain is installed throughout the distribution system. There are no fire hydrants on the Varna Drinking Water System, however, there is a connection for emergency supply and multiple blow-offs for flushing.

Treatment Chemicals used during the reporting year

Sodium Hypcholorite 12% is used to achieve primary disinfection in the Varna Drinking Water System. Refer to Table 1 below for supplier information.

Table 1: *Treatment Chemicals in the Varna Drinking Water System*

Chemical Name	Use	Supplier
Sodium Hypochlorite 12%	Primary Treatment	Jutzi Water Technologies

Summary of Non-Compliance

Adverse Water Quality Incidents

Under the *Safe Drinking Water Act*, O.Reg 170/03, any adverse water quality incidents (AWQI) are required to be reported to the Ministry of the Environment, Conservation and Parks (MECP) and corrective action taken. Refer to Table 2 below for a summary of AWQI incidents in 2023.

Table 2: *Adverse Water Quality Incidents*

Date	AWQI #	Location	Problem	Details	Legislation	Corrective Action Taken
March 2, 2023	161422	Distribution	Total Coliform	1 Total Coliform on Lab Result	O. Reg 170/03	Resampled (upstream, downstream, location of AWQI). All samples met regulatory requirements.

Non-Compliance

Under the *Safe Drinking Water Act*, O.Reg 170/03, any events where legislative requirements were not met are are required to be reported to the MECP and corrective actions taken. Refer to Table 3 below for a summary of non-compliance incidents in 2023.

Table 3: *Summary of Non-Compliance Incidents*

Legislation	Requirement(s) system failed to meet	Duration of the failure (i.e. date(s))	Corrective Action	Status
There were no non-compliance issues reported during the reporting period.				

Non-Compliance Identified in a Ministry Inspection

The routine MECP Inspections have an Inspection Rating Record. This record evaluates the system to provide information for the owner/operator on areas that need to be improved. The particular areas that were evaluated for the Varna Drinking Water System were: Capacity Assessment, Distribution System, Source, Treatment Processes, Operations Manuals, Logbooks, Certification and Training, Water Quality Monitoring, and Reporting and Corrective Actions. This system received 0 out of 621 non-compliance ratings and as such received 100% for the Final Inspection Rating. Refer to Table 4 for non-compliances identified in a Ministry inspection.

Table 4: *Non-Compliances Identified in a Ministry Inspection*

Legislation	Requirement(s) system failed to meet	Duration of the failure (i.e. date(s))	Corrective Action	Status
There were no non-compliances identified in the Inspection Report.				

Flows

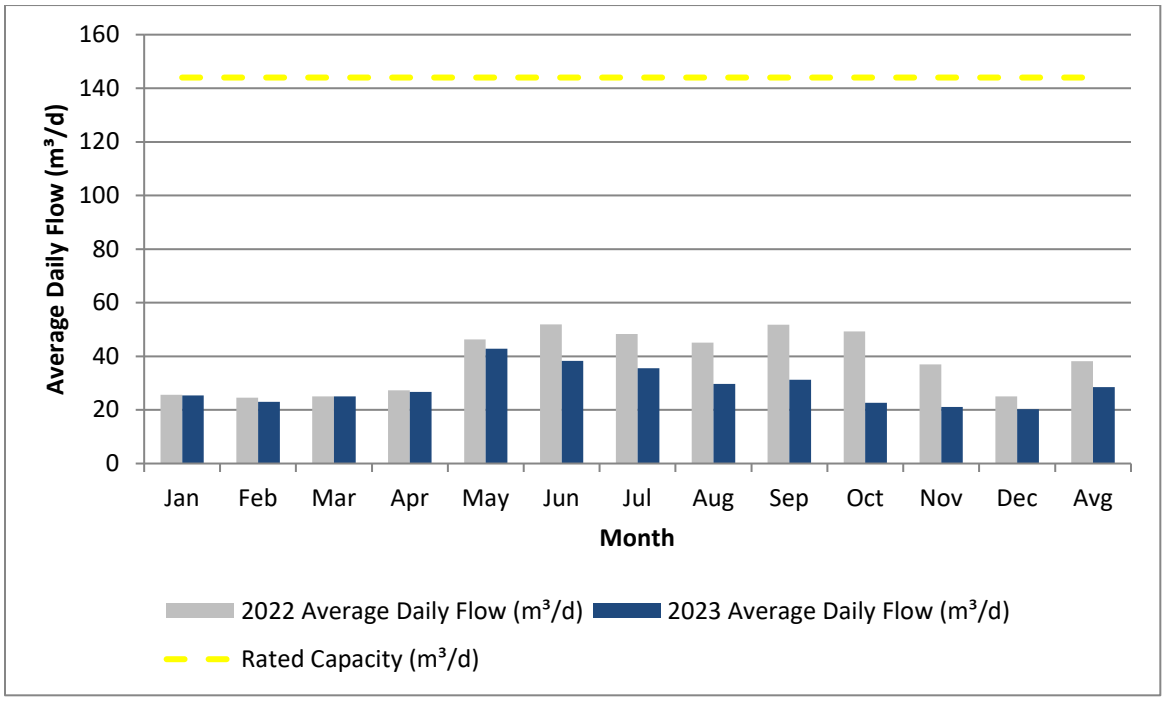
Raw and Treated Water Flows

The raw and treated water flows are regulated under the Permit to Take Water (PTTW #0266-AE9NRG) and Municipal Drinking Water Licencse (MDWL #045-106). The 2023 daily raw flow was submitted to the Ministry electronically under the PTTW number. A copy of the data that was submitted is attached in Appendix A.

The total volume of treated water in 2023 was 10 417 m^3. In 2022, the total volume was 13 939 m^3. The volume in 2023 was lower due to the detection and repair of a watermain leak.

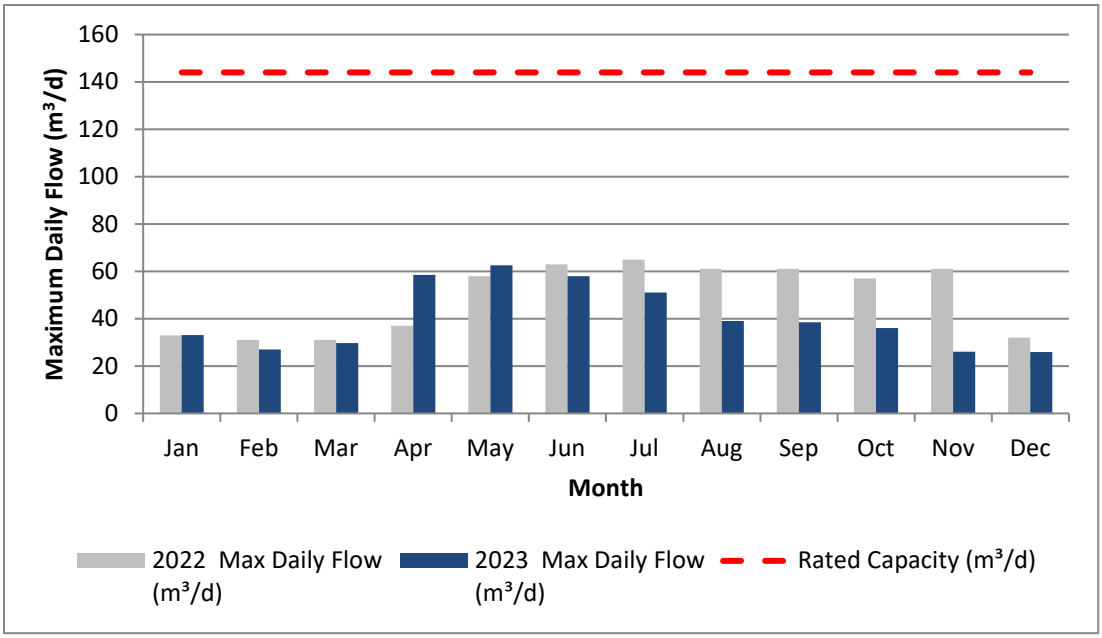
The Varna DWS pumps water from its onsite well where the flow is measured. This flow measures the raw water for the PTTW and the treated water for the rated capacity for the MDWL. Both of these (PTTW and MDWL) limit the flow to 144m^3/d. The average daily flow in 2023 was 29 m^3 compared to 38 m^3 in 2022 (Figure 1). The system is currently operating at 20% of its rated capacity.

Figure 1: *Average Daily Flows*



The maximum daily flow in 2023 was 63 m^3/d compared to 65 m^3/d in 2022 (Figure 2). The limit for water taking as per the PTTW is 100 L/min or 144 m^3/d. This limit was not exceeded in 2023.

Figure 2: *Maximum Daily Flow*



Regulatory Sample Results Summary

Microbiological Testing

To meet regulatory requirements, raw water (RW) is sampled monthly and distribution water (DW) weekly to test for E. coli, Total Coliforms and heterotrophic plate count (HPC). The regulatory limit for Total Coliform and E. coli is zero, heterotrophic plate count (HPC) doesn't have a limit. Additional treated water samples were taken for monitoring purposes. Refer to Table 5 below for a summary of testing results.

Table 5: *Microbiological Testing Summary*

	No. of Samples Collected	Range of E.Coli Results (cfu/100mL)		Range of Total Coliform Results (cfu/100mL)		No. of HPC Samples Collected	Range of HPC Results (cfu/mL)	
		Min	Max	Min	Max		Min	Max
Raw Water	12	0	0	0	0	n/a	n/a	n/a
Treated Water	3	0	0	0	0	n/a	n/a	n/a
Distribution Water	55	0	0	0	1	52	10	20

Operational Testing

As per the *Safe Drinking Water Act*, O.Reg 170/03, raw water turbidity is required to be monitored monthly with an objective of turbidity less than 1 NTU. Free chlorine residuals are required to be continuously monitored with an online chlorine analyzer. Free chlorine residuals are also monitored throughout the distribution system to ensure adequate secondary disinfection is provided. The regulatory requirement for free chlorine residual is a minimum of 0.05 mg/L with an objective of 0.20 mg/L in the distribution system. Refer to Table 6 for turbidity and free chlorine residual results.

Table 6: *Turbidity and Free Chlorine Residual Monitoring*

Parameter	No. of Samples Collected	Range of Results	
		Minimum	Maximum
Turbidity, grab (NTU) – RW	12	0.16	0.75
Free Chlorine Residual, On-Line (mg/L) - TW	8760	0.73	1.94
Free Chlorine Residual, grab (mg/L) - DW	60	0.72	1.50

Inorganic Parameters

Inorganic parameters are tested as a requirement under O. Reg. 170/03. Sodium and Fluoride are required to be tested every 60 months. Nitrate and Nitrite are tested quarterly as required under O. Reg. 170/03. In the event any of the parameters (except Sodium and Fluoride) exceed half of the maximum allowable concentration, the parameter is required to be sampled quarterly. Refer to Table 7 below.

Table 7: *Inorganic Parameter Testing*

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Treated Water (TW)					
Antimony: Sb (ug/L) - TW	2022/11/01	<MDL 0.6	6.0	0	0
Arsenic: As (ug/L) - TW	2022/11/01	1.5	10.0	0	0
Barium: Ba (ug/L) - TW	2022/11/01	123.0	1000.0	0	0
Boron: B (ug/L) - TW	2022/11/01	69.0	5000.0	0	0
Cadmium: Cd (ug/L) - TW	2022/11/01	0.005	5.0	0	0
Chromium: Cr (ug/L) - TW	2022/11/01	<MDL 0.08	50.0	0	0
Mercury: Hg (ug/L) - TW	2022/11/01	<MDL 0.01	1.0	0	0
Selenium: Se (ug/L) - TW	2022/11/01	0.11	50.0	0	0
Uranium: U (ug/L) - TW	2022/11/01	1.11	20.0	0	0
Additional Inorganics					
Fluoride (mg/L) - TW	2022/11/01	1.15	1.5	0	0
Nitrite (mg/L) - TW	2023/01/10	<MDL 0.003	1.0	0	0
Nitrite (mg/L) - TW	2023/04/11	<MDL 0.003	1.0	0	0
Nitrite (mg/L) - TW	2023/07/10	<MDL 0.003	1.0	0	0
Nitrite (mg/L) - TW	2023/10/10	<MDL 0.003	1.0	0	0
Nitrate (mg/L) - TW	2023/01/10	<MDL 0.006	10.0	0	0
Nitrate (mg/L) - TW	2023/04/11	<MDL 0.006	10.0	0	0
Nitrate (mg/L) - TW	2023/07/10	<MDL 0.006	10.0	0	0
Nitrate (mg/L) - TW	2023/10/10	<MDL 0.006	10.0	0	0
Sodium: Na (mg/L) - TW	2022/11/01	10.6	20*	0	1

MAC = Maximum Allowable Concentration as per O.Reg 169/03

MDL = Below the laboratory method detection level

*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 mg/L 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 15.1 Sampling:

The Schedule 15.1 Sampling is required under O.Reg 170/03. This includes sampling for lead, alkalinity and pH. The Varna Drinking Water System is under reduced sampling. As such, no residential plumbing samples were required to be collected. Monitoring the pH and alkalinity in the distribution system is essential to ensure adequate buffering for corrosion control and to minimize exposure to metals such as lead. Refer to Table 8 below.

Table 8: *Schedule 15.1 Sampling Results*

Distribution System	Number of Sampling Points	Number of Samples	Range of Results		MAC (ug/L)	Number of Exceedances
			Minimum	Maximum		
Alkalinity (mg/L)	2	4	228	233	n/a	n/a
pH	2	4	7.06	7.15	n/a	n/a
Lead (ug/l)	2	4	0.11	0.38	10	0

Organic Parameters

Organic parameters are tested every 60 months 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. Organic parameter test results for treated water are listed below in Table 9.

Chlorine byproducts including Trihalomethane and Halocetic Acid are tested quarterly in the distribution system. Results are listed in Table 9 below.

Table 9: *Organic Parameter Testing*

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Treated Water					
Alachlor (ug/L) - TW	2022/11/01	<MDL 0.02	5.0	0	0
Atrazine + N-dealkylated metabolites (ug/L) - TW	2022/11/01	<MDL 0.01	5.0	0	0
Azinphos-methyl (ug/L) – TW	2022/11/01	<MDL 0.05	20.0	0	0
Benzene (ug/L) – TW	2022/11/01	<MDL 0.32	1.0	0	0
Benzo(a)pyrene (ug/L) – TW	2022/11/01	<MDL 0.004	0.01	0	0
Bromoxynil (ug/L) – TW	2022/11/01	<MDL 0.33	5.0	0	0
Carbaryl (ug/L) – TW	2022/11/01	<MDL 0.05	90.0	0	0
Carbofuran (ug/L) - TW	2022/11/01	<MDL 0.01	90.0	0	0
Carbon Tetrachloride (ug/L) - TW	2022/11/01	<MDL 0.17	2.0	0	0
Chlorpyrifos (ug/L) - TW	2022/11/01	<MDL 0.02	90.0	0	0
Diazinon (ug/L) – TW	2022/11/01	<MDL 0.02	20.0	0	0
Dicamba (ug/L) – TW	2022/11/01	<MDL 0.2	120.0	0	0
1,2-Dichlorobenzene (ug/L) – TW	2022/11/01	<MDL 0.41	200.0	0	0
1,4-Dichlorobenzene (ug/L) – TW	2022/11/01	<MDL 0.36	5.0	0	0
1,2-Dichloroethane (ug/L) – TW	2022/11/01	<MDL 0.35	5.0	0	0
1,1-Dichloroethylene (ug/L) – TW	2022/11/01	<MDL 0.33	14.0	0	0
Dichloromethane (ug/L) – TW	2022/11/01	<MDL 0.35	50.0	0	0
2,4-Dichlorophenol (ug/L) – TW	2022/11/01	<MDL 0.15	900.0	0	0
2,4-Dichlorophenoxy acetic acid (ug/L) – TW	2022/11/01	<MDL 0.19	100.0	0	0

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Diclofop-methyl (ug/L) – TW	2022/11/01	<MDL 0.4	9.0	0	0
Dimethoate (ug/L) – TW	2022/11/01	<MDL 0.06	20.0	0	0
Diquat (ug/L) – TW	2022/11/01	<MDL 1.0	70.0	0	0
Diuron (ug/L) – TW	2022/11/01	<MDL 0.03	150.0	0	0
Glyphosate (ug/L) – TW	2022/11/01	<MDL 1.0	280.0	0	0
Malathion (ug/L) – TW	2022/11/01	<MDL 0.02	190.0	0	0
2-Methyl-4chlorophenoxyacetic Acid (MCPA)	2022/11/01	<MDL 0.01	50.0	0	0
Metolachlor (ug/L) – TW	2022/11/01	<MDL 0.02	80.0	0	0
Metribuzin (ug/L) – TW	2022/11/01	<MDL 0.3	80.0	0	0
Monochlorobenzene (Chlorobenzene) (ug/L) - TW	2022/11/01	<MDL 1.0	10.0	0	0
Paraquat (ug/L) – TW	2022/11/01	<MDL 0.04	3.0	0	0
PCB (ug/L) – TW	2022/11/01	<MDL 0.15	60.0	0	0
Pentachlorophenol (ug/L) – TW	2022/11/01	<MDL 0.01	2.0	0	0
Phorate (ug/L) – TW	2022/11/01	<MDL 1.0	190.0	0	0
Picloram (ug/L) – TW	2022/11/01	<MDL 0.03	1.0	0	0
Prometryne (ug/L) – TW	2022/11/01	<MDL 0.01	10.0	0	0
Simazine (ug/L) – TW	2022/11/01	<MDL 0.01	1.0	0	0
Terbufos (ug/L) – TW	2022/11/01	<MDL 0.35	10.0	0	0
Tetrachloroethylene (ug/L) – TW	2022/11/01	<MDL 0.2	100.0	0	0
2,3,4,6-Tetrachlorophenol (ug/L) – TW	2022/11/01	<MDL 0.01	230.0	0	0
Triallate (ug/L) - TW	2022/11/01	<MDL 0.44	5.0	0	0
Trichloroethylene (ug/L) – TW	2022/11/01	<MDL 0.25	5.0	0	0
2,4,6-Trichlorophenol (ug/L) – TW	2022/11/01	<MDL 0.12	100.0	0	0
Trifluralin (ug/L) – TW	2022/11/01	<MDL 0.02	45.0	0	0
Vinyl Chloride (ug/L) – TW	2022/11/01	<MDL 0.17	1.0	0	0
Distribution Water					
Trihalomethane: Total (ug/L) Annual Average	2023/01/01	2.225	100.0	0	0
Halocetic Acid: Total (ug/L) Annual Average	2023/01/01	5.3	80.0	0	0

MAC = Maximum Allowable Concentration as per O.Reg 169/03
MDL = Below the laboratory method detection level

Additional Legislated Samples

There are no additional sampling requirements within the Varna Drinking Water System.

Major Maintenance and Capital Summary

The Varna Drinking Water System completed repairs, installations, and replacements as listed below. These represent the major expenses incurred in 2023.

Table 10: *Major Maintenance in 2023*

Item	Description
1	Contact Tank Repair
2	Watermain Repair
3	Watermain Replacement
4	Sample Station Installed

Revision History

Date	Revision #	Revision Notes
February 23, 2024	0	Issued Report

Appendix A

Permit to Take Water (PTTW) Data

Date	Value (m^3/d)	Value (Litres)
01/01/2023	27.3610	27361.0001
02/01/2023	28.9090	28909.0004
03/01/2023	21.3520	21351.9993
04/01/2023	22.6790	22679.0009
05/01/2023	22.6920	22691.9994
06/01/2023	23.8240	23823.9994
07/01/2023	24.1000	24100.0004
08/01/2023	26.3610	26361.0001
09/01/2023	25.7100	25709.9991
10/01/2023	24.4080	24408.0009
11/01/2023	24.7390	24739.0003
12/01/2023	22.9300	22930.0003
13/01/2023	22.8080	22808.0006
14/01/2023	27.4510	27451.0002
15/01/2023	26.0980	26097.9996
16/01/2023	33.0390	33039.0015
17/01/2023	27.5680	27568.0008
18/01/2023	27.9910	27990.9992
19/01/2023	30.0980	30097.9996
20/01/2023	26.8790	26878.9997
21/01/2023	29.5830	29583.0002
22/01/2023	31.8020	31802.0000
23/01/2023	29.0850	29084.9991
24/01/2023	26.0880	26087.9993
25/01/2023	25.4530	25452.9991
26/01/2023	20.8050	20805.0003
27/01/2023	21.1210	21121.0003
28/01/2023	21.7180	21718.0004
29/01/2023	24.2170	24216.9991
30/01/2023	20.3440	20343.9999
31/01/2023	22.0620	22062.0003

Date	Value (m^3/d)	Value (Litres)
01/02/2023	22.6530	22652.9999
02/02/2023	20.7070	20707.0007
03/02/2023	22.6080	22607.9998
04/02/2023	21.6440	21643.9991
05/02/2023	23.1650	23165.0009
06/02/2023	21.3220	21322.0005
07/02/2023	22.9080	22908.0009
08/02/2023	21.0670	21066.9994
09/02/2023	22.7370	22736.9995
10/02/2023	21.5360	21535.9993
11/02/2023	24.7480	24747.9992
12/02/2023	25.6060	25606.0009
13/02/2023	24.7030	24702.9991
14/02/2023	22.4140	22413.9996
15/02/2023	22.1260	22125.9995
16/02/2023	22.3220	22322.0005
17/02/2023	21.7870	21787.0007
18/02/2023	23.3400	23340.0002
19/02/2023	22.6560	22656.0001
20/02/2023	23.7270	23726.9993
21/02/2023	21.2040	21204.0005
22/02/2023	23.9410	23941.0000
23/02/2023	23.5070	23507.0000
24/02/2023	20.9220	20922.0009
25/02/2023	23.6990	23698.9994
26/02/2023	25.0980	25097.9996
27/02/2023	26.9670	26966.9991
28/02/2023	26.6960	26695.9991

Date	Value (m^3/d)	Value (Litres)
01/03/2023	23.2170	23216.9991
02/03/2023	28.1430	28142.9996
03/03/2023	23.4090	23409.0004
04/03/2023	23.0970	23097.0001
05/03/2023	25.0880	25087.9993
06/03/2023	25.3410	25340.9996
07/03/2023	24.3640	24364.0003
08/03/2023	24.7260	24725.9998
09/03/2023	22.3690	22368.9995
10/03/2023	23.7710	23770.9999
11/03/2023	26.6760	26676.0006
12/03/2023	26.0680	26068.0008
13/03/2023	26.5430	26542.9993
14/03/2023	22.3570	22357.0004
15/03/2023	26.3640	26364.0003
16/03/2023	29.4530	29452.9991
17/03/2023	23.9940	23993.9995
18/03/2023	29.5890	29589.0007
19/03/2023	26.5100	26510.0002
20/03/2023	24.8040	24804.0009
21/03/2023	26.5530	26552.9995
22/03/2023	24.7920	24791.9998
23/03/2023	25.3390	25339.0007
24/03/2023	25.8470	25847.0001
25/03/2023	29.7200	29719.9993
26/03/2023	28.6290	28628.9997
27/03/2023	28.5640	28563.9992
28/03/2023	24.8830	24882.9994
29/03/2023	16.8860	16885.9997
30/03/2023	19.6530	19652.9999
31/03/2023	20.2680	20267.9996

Date	Value (m^3/d)	Value (Litres)
01/04/2023	22.2100	22209.9991
02/04/2023	36.1190	36118.9995
03/04/2023	58.4360	58436.0013
04/04/2023	56.1690	56168.9984
05/04/2023	40.8930	40893.0016
06/04/2023	17.4410	17441.0000
07/04/2023	20.6650	20665.0009
08/04/2023	21.6520	21652.0004
09/04/2023	23.0890	23089.0007
10/04/2023	22.0610	22060.9991
11/04/2023	21.0430	21042.9993
12/04/2023	18.1160	18115.9992
13/04/2023	24.2550	24254.9992
14/04/2023	26.3870	26386.9991
15/04/2023	26.3150	26315.0005
16/04/2023	21.8690	21868.9995
17/04/2023	21.5280	21527.9999
18/04/2023	21.4410	21441.0000
19/04/2023	18.3660	18365.9992
20/04/2023	20.7050	20704.9999
21/04/2023	20.8160	20815.9991
22/04/2023	22.1000	22100.0004
23/04/2023	26.2860	26285.9993
24/04/2023	22.8390	22839.0007
25/04/2023	25.3590	25358.9993
26/04/2023	24.3030	24302.9995
27/04/2023	22.3160	22316.0000
28/04/2023	19.7890	19788.9996
29/04/2023	34.1810	34180.9998
30/04/2023	43.8670	43867.0006

Date	Value (m^3/d)	Value (Litres)
01/05/2023	21.8180	21818.0008
02/05/2023	20.4700	20469.9993
03/05/2023	20.9470	20947.0005
04/05/2023	20.7950	20795.0003
05/05/2023	28.2000	28200.0008
06/05/2023	38.5750	38575.0008
07/05/2023	25.6920	25691.9994
08/05/2023	24.9250	24924.9992
09/05/2023	29.0440	29044.0006
10/05/2023	34.9330	34932.9987
11/05/2023	24.3260	24326.0002
12/05/2023	39.9640	39964.0007
13/05/2023	33.6240	33624.0005
14/05/2023	54.7540	54754.0016
15/05/2023	53.9900	53990.0017
16/05/2023	60.0100	60009.9983
17/05/2023	55.2070	55207.0007
18/05/2023	58.7230	58722.9996
19/05/2023	55.2180	55217.9985
20/05/2023	51.7970	51797.0009
21/05/2023	54.7740	54773.9983
22/05/2023	62.5430	62542.9993
23/05/2023	56.6270	56626.9993
24/05/2023	49.7830	49783.0009
25/05/2023	47.4840	47484.0012
26/05/2023	49.6930	49693.0008
27/05/2023	55.5360	55535.9990
28/05/2023	61.6500	61650.0015
29/05/2023	56.6090	56609.0012
30/05/2023	44.3330	44333.0002
31/05/2023	37.5040	37504.0016

Date	Value (m^3/d)	Value (Litres)
01/06/2023	31.3950	31395.0005
02/06/2023	31.3340	31333.9996
03/06/2023	53.4400	53439.9986
04/06/2023	58.0010	58000.9995
05/06/2023	53.8880	53888.0005
06/06/2023	31.9810	31981.0009
07/06/2023	45.7940	45793.9987
08/06/2023	29.4540	29454.0005
09/06/2023	35.4480	35448.0019
10/06/2023	37.0310	37030.9982
11/06/2023	40.5450	40544.9982
12/06/2023	23.7910	23791.0004
13/06/2023	30.7950	30795.0001
14/06/2023	30.2260	30225.9998
15/06/2023	27.5670	27566.9994
16/06/2023	31.7690	31768.9991
17/06/2023	32.7940	32793.9987
18/06/2023	53.3130	53312.9997
19/06/2023	45.2680	45268.0016
20/06/2023	42.7320	42731.9984
21/06/2023	37.9220	37922.0009
22/06/2023	43.3600	43360.0006
23/06/2023	32.6860	32686.0008
24/06/2023	37.2780	37277.9999
25/06/2023	43.6960	43695.9991
26/06/2023	26.7930	26792.9993
27/06/2023	30.8400	30840.0002
28/06/2023	31.6000	31600.0004
29/06/2023	51.3540	51353.9981
30/06/2023	46.0470	46047.0009

Date	Value (m^3/d)	Value (Litres)
01/07/2023	46.5570	46556.9992
02/07/2023	34.0780	34077.9991
03/07/2023	51.0110	51011.0016
04/07/2023	37.7340	37734.0012
05/07/2023	39.4350	39435.0014
06/07/2023	28.7330	28732.9998
07/07/2023	32.9730	32972.9996
08/07/2023	32.1830	32182.9987
09/07/2023	40.3820	40382.0000
10/07/2023	41.6110	41611.0001
11/07/2023	29.6810	29680.9998
12/07/2023	28.1300	28129.9992
13/07/2023	29.2310	29231.0009
14/07/2023	30.1790	30179.0009
15/07/2023	38.0130	38013.0005
16/07/2023	36.9320	36931.9992
17/07/2023	29.9050	29905.0007
18/07/2023	32.8050	32805.0003
19/07/2023	40.0700	40069.9997
20/07/2023	33.7720	33772.0015
21/07/2023	31.6120	31611.9995
22/07/2023	35.8020	35801.9981
23/07/2023	51.0460	51046.0014
24/07/2023	37.7680	37768.0016
25/07/2023	39.3240	39324.0013
26/07/2023	38.5310	38530.9982
27/07/2023	33.9480	33948.0019
28/07/2023	35.1070	35106.9984
29/07/2023	30.6810	30680.9998
30/07/2023	30.5940	30593.9999
31/07/2023	24.2510	24250.9995

Date	Value (m^3/d)	Value (Litres)
01/08/2023	24.8750	24875.0000
02/08/2023	25.3930	25392.9996
03/08/2023	29.5910	29590.9996
04/08/2023	25.8300	25829.9999
05/08/2023	31.1480	31148.0007
06/08/2023	29.3340	29333.9996
07/08/2023	32.5430	32542.9993
08/08/2023	29.3150	29315.0005
09/08/2023	30.4800	30479.9995
10/08/2023	30.5420	30541.9998
11/08/2023	26.3810	26381.0005
12/08/2023	30.3610	30361.0001
13/08/2023	38.0350	38034.9998
14/08/2023	29.4780	29478.0006
15/08/2023	27.6300	27629.9992
16/08/2023	29.2020	29201.9997
17/08/2023	26.9660	26965.9996
18/08/2023	29.6330	29632.9994
19/08/2023	30.0770	30076.9994
20/08/2023	34.4650	34465.0002
21/08/2023	38.9730	38972.9996
22/08/2023	28.0260	28025.9991
23/08/2023	27.7320	27732.0004
24/08/2023	30.4430	30443.0008
25/08/2023	26.7960	26795.9995
26/08/2023	28.3410	28340.9996
27/08/2023	34.2770	34277.0004
28/08/2023	28.6090	28608.9993
29/08/2023	26.9270	26927.0000
30/08/2023	30.9330	30933.0006
31/08/2023	29.2230	29222.9996

Date	Value (m^3/d)	Value (Litres)
01/09/2023	28.5160	28516.0007
02/09/2023	34.7680	34768.0016
03/09/2023	33.5880	33588.0013
04/09/2023	37.2090	37208.9996
05/09/2023	38.4370	38437.0003
06/09/2023	28.7740	28774.0002
07/09/2023	31.7000	31700.0008
08/09/2023	30.3680	30368.0000
09/09/2023	33.7520	33751.9989
10/09/2023	34.5740	34573.9988
11/09/2023	30.8790	30878.9997
12/09/2023	33.1650	33165.0009
13/09/2023	30.4590	30459.0004
14/09/2023	30.7420	30742.0006
15/09/2023	29.4030	29402.9999
16/09/2023	27.2730	27273.0007
17/09/2023	32.4720	32472.0001
18/09/2023	31.4520	31451.9997
19/09/2023	31.6820	31681.9992
20/09/2023	34.0870	34087.0018
21/09/2023	34.4250	34424.9992
22/09/2023	31.6780	31677.9995
23/09/2023	33.5530	33553.0014
24/09/2023	33.5090	33508.9989
25/09/2023	34.5950	34595.0012
26/09/2023	30.2020	30201.9997
27/09/2023	24.2090	24208.9996
28/09/2023	23.0420	23041.9998
29/09/2023	26.8170	26816.9994
30/09/2023	22.3770	22377.0008

Date	Value (m^3/d)	Value (Litres)
01/10/2023	24.7270	24726.9993
02/10/2023	21.1620	21162.0007
03/10/2023	24.8610	24861.0001
04/10/2023	24.1140	24114.0003
05/10/2023	22.1000	22100.0004
06/10/2023	21.3980	21398.0007
07/10/2023	21.0090	21009.0008
08/10/2023	22.5440	22544.0006
09/10/2023	25.0270	25027.0004
10/10/2023	19.8280	19827.9991
11/10/2023	19.8660	19865.9992
12/10/2023	21.0640	21063.9992
13/10/2023	19.9410	19941.0000
14/10/2023	26.6590	26659.0004
15/10/2023	36.0600	36060.0014
16/10/2023	25.1000	25100.0004
17/10/2023	21.1880	21187.9997
18/10/2023	18.8460	18846.0006
19/10/2023	19.2330	19232.9998
20/10/2023	20.9880	20988.0009
21/10/2023	21.2410	21240.9992
22/10/2023	22.4000	22399.9996
23/10/2023	21.0800	21079.9999
24/10/2023	22.6580	22658.0009
25/10/2023	24.7120	24711.9999
26/10/2023	24.2260	24225.9998
27/10/2023	20.9930	20993.0000
28/10/2023	25.6390	25638.9999
29/10/2023	26.6880	26687.9997
30/10/2023	20.4130	20413.0001
31/10/2023	17.7550	17754.9992

Date	Value (m^3/d)	Value (Litres)
01/11/2023	20.2500	20250.0000
02/11/2023	20.2550	20254.9992
03/11/2023	18.9160	18916.0004
04/11/2023	20.8740	20874.0005
05/11/2023	24.8080	24808.0006
06/11/2023	23.5840	23583.9996
07/11/2023	25.0960	25096.0007
08/11/2023	25.2800	25280.0007
09/11/2023	19.2400	19239.9998
10/11/2023	19.0750	19075.0008
11/11/2023	19.7360	19736.0001
12/11/2023	22.2270	22226.9993
13/11/2023	21.9820	21982.0004
14/11/2023	20.9700	20969.9993
15/11/2023	18.7580	18757.9994
16/11/2023	21.6480	21648.0007
17/11/2023	17.9590	17958.9996
18/11/2023	20.1010	20100.9998
19/11/2023	22.3820	22382.0000
20/11/2023	17.5750	17575.0008
21/11/2023	20.8070	20806.9992
22/11/2023	17.5450	17545.0001
23/11/2023	17.4620	17461.9999
24/11/2023	20.2520	20252.0008
25/11/2023	25.0350	25034.9998
26/11/2023	26.0060	26006.0005
27/11/2023	25.4560	25455.9994
28/11/2023	21.9540	21954.0005
29/11/2023	16.7250	16725.0004
30/11/2023	21.9990	21999.0005

Date	Value (m^3/d)	Value (Litres)
01/12/2023	20.4930	20493.0000
02/12/2023	18.7130	18712.9993
03/12/2023	19.6190	19618.9995
04/12/2023	22.6560	22656.0001
05/12/2023	20.1640	20163.9996
06/12/2023	17.7790	17778.9993
07/12/2023	17.1710	17170.9995
08/12/2023	17.5600	17559.9995
09/12/2023	18.8510	18850.9998
10/12/2023	19.6320	19632.0000
11/12/2023	16.9350	16934.9995
12/12/2023	18.9740	18974.0009
13/12/2023	16.8000	16799.9992
14/12/2023	22.5690	22569.0002
15/12/2023	17.2170	17216.9991
16/12/2023	20.9740	20974.0009
17/12/2023	22.3470	22347.0001
18/12/2023	18.9110	18910.9993
19/12/2023	22.1090	22108.9993
20/12/2023	19.8490	19849.0009
21/12/2023	21.0410	21041.0004
22/12/2023	19.2240	19224.0009
23/12/2023	21.4170	21416.9998
24/12/2023	24.6460	24645.9999
25/12/2023	23.6620	23662.0007
26/12/2023	25.9300	25930.0003
27/12/2023	20.1210	20121.0003
28/12/2023	20.3720	20371.9997
29/12/2023	20.6100	20610.0006
30/12/2023	20.3810	20381.0005
31/12/2023	21.5270	21527.0004