



2023 Annual Drinking Water System Summary Report

Paris Drinking Water System



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1. General Information

The County of Brant prepares a report summarizing system operation and water quality for every municipal drinking water system annually. The reports detail the latest water quality testing results, water quantity statistics and any adverse conditions that may have occurred for the previous year, January 1 through December 31. They are available on March 31 on the County website at www.brant.ca/en/water-services/water-services.aspx or by contacting the County of Brant Operations Department.

All efforts have been made to ensure the information presented in this report is accurate. If you have any questions or comments concerning the report, please contact the County at the address and phone number listed below or by email at operations@brant.ca.

Drinking Water System: **Paris Drinking Water System**
Drinking Water System Number: **220002752**
Reporting Period: **January 1, 2023 – December 31, 2023**

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1.1 System Description

The Paris Drinking Water System is a Large Municipal Water System as defined by Ontario Regulation (O.Reg.) 170/03. The Paris Drinking Water System consists of 3 wellfields referred to as Gilbert Water Treatment Facility (located at 319 Grand River Street North), Telfer Water Treatment Facility (located at 166 West River Road), and Bethel Water Treatment Facility (located at 97 Bethel Road). The Paris drinking water system is made of 4 pressure zones and approximately 115 kilometers of watermain. In 2023 6 km of watermain were added to the Paris Drinking Water System through Development and assumed by the County of Brant for ownership and operation. This drinking water system has 6,426 residential service connections, 334 commercial service connections and serves a population of approximately 18,057 people.

The Gilbert Water Treatment Facility is the primary water supply for Paris. The Telfer Water Treatment Facility is used as a back-up during periods of high demand or system maintenance and the Bethel Water Treatment Facility primarily supplies water to the Brant 403 Business Park and the south end of Paris. The Gilbert Water Treatment Facility has 2,266 m³ of storage in an on-site reservoir. Additional storage in the Paris water distribution system is provided by the North Paris elevated storage tank (2,000 m³) located at 67 Woodslee Ave, the Sharpe Reservoir (2,700 m³) located at 11 Chapel St, the Oak Park elevated storage tank (3,700m³) located at 557 Paris Road and the South Paris elevated storage tank (2,400 m³) located at 978 Powerline Road.

GILBERT WATER TREATMENT FACILITY

The Gilbert Water Treatment Facility consists of eight drilled wells. Two wells are completed in the bedrock and are equipped with submersible pumps capable of pumping 37.9 L/s each. The other six wells are completed in the overburden and are equipped with submersible pumps with a total overburden well capacity of 50 L/s. Primary disinfection of the overburden wells is supplied through two ultraviolet reactors. A sodium hypochlorite dosing system provides both primary and secondary disinfection via chlorination and a hydrofluorosilicic acid dosing system provides fluoridation. Onsite storage is provided by two in-ground baffled storage reservoirs (880 m³ and a 1,386 m³, respectively) and two 124 m³ clear wells. The Gilbert Water Treatment Facility has 3 high lift booster pumps that pump water to the distribution system at a rate of 85.4 L/s and have a maximum rated capacity of 10,870 m³/day. This facility also has emergency standby power capable of powering full capacity through a 600 kw diesel motor generator.

TELFER WATER TREATMENT FACILITY

The Telfer Water Treatment Facility consists of two drilled wells, one well completed in the overburden and another well completed in the bedrock. Both wells are equipped with submersible pumps capable of pumping 39.7 L/s each. A sodium hypochlorite dosing system provides primary and secondary disinfection via chlorination and a hydrofluorosilicic acid dosing system provides fluoridation. The Telfer Water Treatment Facility has two 52.11 m³ chlorine contact tanks and a maximum rated capacity of 6,550 m³/day. This facility also has emergency standby power capable of powering full capacity through a 350 kw diesel motor generator.

BETHEL WATER TREATMENT FACILITY

The Bethel Water Treatment Facility consists of four drilled wells completed in the overburden, each equipped with submersible pumps, 3 of which are capable of pumping 15 L/s and the last is capable of pumping 11 L/s. Primary disinfection is achieved through two ultra violet reactors. A sodium hypochlorite dosing system also provides primary and secondary disinfection via chlorination and a hydrofluorosilicic acid dosing system provides fluoridation. The Bethel Water Treatment Facility has two chlorine contact tanks with a total volume of 293m³ and three 25L/s high lift booster pumps that pump water to the distribution system. This facility also has emergency standby power capable of powering full capacity through a 250 kw diesel motor generator.

1.2 Major Expenses

In 2023 the Paris Drinking Water System had operating and maintenance expenditures of approximately \$1,800,000.

In addition to the regular maintenance and operation expenditures, the County of Brant incurred the following Capital expenses:

- Approximately 3.5 km of watermain upgrade and replacement - \$4,600,000
- Reservoir Inspection and maintenance - \$46,000
- Upgrade and maintenance of Gilbert well flow control valves - \$25,000
- Municipal Well Maintenance and Repairs – \$183,000

The Paris Drinking Water System also incurred a total of \$20,000 for the following Capital expenditures. The upgrades listed below were cost shared amongst all 5 Municipal Drinking Water Systems:

- SCADA maintenance and upgrades - \$92,000
- Replacement of Valve Exercising Trailer - \$108,000

2. Microbiological Testing

2.1 E. coli, Total Coliform, Background (BKG)

Bacteriological tests for E. coli and total coliforms are required weekly from the raw and treated water at the facility and from the distribution system. Extra samples are taken after major repairs or maintenance work. Any E. coli or total coliform results above zero in treated water samples must be reported to the Ministry of Environment, Conservation and Parks (MECP) and Medical Officer of Health (MOH). Resamples and any other required actions are taken as quickly as possible.

Bacteriological tests for BKG bacteria are not regulatory but are done as a due diligence action. Background tests are an indicator of the general bacteria population in a water sample. Background bacteria should be less than 200 colonies per 1 mL. Results over 200 colonies per 1 mL may indicate a change in water quality but it is not considered an indicator of unsafe water.

The results from the 2023 sampling program are shown in the table below. There were no adverse test results from the 503 treated water samples in this reporting period.

Sample Location	# of Samples	Range of E.Coli Results (cfu/100ml)	Range of Total Coliform Results (cfu/100ml)	Range of BKG Results (cfu/100ml)
Gilbert Well P28	52	0-0	0-0	0-2
Gilbert Well P29	53	0-0	0-1	0-30
Gilbert Well P210	52	0-0	0-0	0-3
Gilbert Well P211	52	0-0	0-0	0-4
Gilbert Well P212	52	0-0	0-0	0-125
Gilbert Well P213	52	0-0	0-0	0-1
Gilbert Well P214	52	0-0	0-2	0-18
Gilbert Well P215	54	0-0	0-0	0-1
Telfer Well P31	51	0-0	0-0	0-17
Telfer Well P32	52	0-0	0-0	0-3
Bethel Well P51	54	0-0	0-4	0-240
Bethel Well P52	52	0-0	0-7	0-81
Bethel Well P53	52	0-0	0-19	0-65
Bethel Well P54	52	0-0	0-0	0-0
Gilbert Treated	54	0-0	0-0	0-0
Telfer Treated	52	0-0	0-0	0-0
Bethel Treated	53	0-0	0-0	0-0
Distribution	344	0-0	0-0	0-1

2.2 Heterotrophic Plate Count (HPC)

HPC analyses are required from the treated and distribution water. The tests are required weekly for treated water and for 25% of the required distribution system bacteriological samples. HPC test are conducted on ALL raw, treated and distribution samples for due diligence. HPC should be less than 500 colonies per 1 mL. Results over 500 colonies per 1 mL may indicate a change in water quality but it is not considered an indicator of unsafe water.

Sample Location	# of Samples	Range of HPC Results (cfu/100ml)
Gilbert P28	52	0-280
Gilbert P29	53	0->2000
Gilbert Well P210	52	0-80
Gilbert Well P211	52	0-1690
Gilbert Well P212	52	0-10
Gilbert Well P213	52	0-90
Gilbert Well P214	52	0-80
Gilbert Well P215	54	0-760
Telfer Well P31	51	0-NDOGHPC*
Telfer Well P32	52	0-1750
Bethel Well P51	54	0-1270
Bethel Well P52	52	0-1100
Bethel Well P53	52	0-30
Bethel Well P54	52	0-20
Gilbert Treated	54	0->2000
Telfer Treated	52	0-530
Bethel Treated	53	0-10
Distribution	344	0-NDOGHPC*

Non-determinate Overgrowth Heterotrophic Plate Count (NDOGHPC*) refers to an HPC result that has overgrown on the test plate and bacteria colonies cannot be read. This can occur from outside sample contamination. The next HPC sample taken from that sample point had zero HPC confirming that the overgrowth result was not indicative of the water quality.

3. Chemical Testing

The Safe Drinking Water Act requires periodic testing of the water for approximately 60 different chemical parameters. The latest results for all parameters are provided in Appendix A. The sampling frequency varies for different types and sizes of water systems and chemical parameters. If the concentration of a parameter is above half of the Maximum Allowable Concentration (MAC) under the Ontario Drinking Water Quality Standards, an increased testing frequency of once every three months is required by the Regulation. Where concerns regarding a parameter exist, the MECP can also require additional sampling be undertaken.

Information on the health effects and allowable limits of components in drinking water may be found on the MECP web page through the link provided in Appendix A. Additional information on common chemical parameters specific to the Paris Drinking Water System is provided below.

3.1 Sodium

Sodium levels in drinking water are tested once every five years. The aesthetic objective is 200 mg/L meaning at levels less than this the sodium will not impair the taste of the water. When sodium levels are above 20 mg/L the MECP and MOH are notified.

The following lists the latest sodium samples taken from the Paris Water Distribution System:

- 2023 – Gilbert Water Treatment Facility – 20 mg/L
- 2023 – Telfer Water Treatment Facility – 9.5 mg/L
- 2023 – Bethel Water Treatment Facility – 100 mg/L

Since sodium levels at the Bethel Water Treatment Facility are above 20 mg/L, the MECP and MOH have been notified, and impacted residents in Zone 3 will begin to receive an annual communication of this result.

3.2 Hardness

This is an aesthetic parameter that may affect the appearance of the water but is not related to health. Groundwater commonly has high levels of hardness and other minerals from being in contact with geological substrate. Many households have water softeners to help reduce white calcium deposits and improve the efficiency of soaps. This information is included here to help set the water softener at the level recommended by the manufacturer. Samples for hardness are collected at a minimum every 3 years from raw water.

The hardness of the wells was tested in 2023 and ranged from 180 - 1100 mg/L (10.5 - 63.9 grains/gallon), with an average hardness of 684 mg/L (39.8 grains/gallon).

3.3 Additional Testing Required by MECP

Additional testing of DOC (dissolved organic carbon) is required in the Bethel raw water wells in the latest Municipal Drinking Water License for this system. Online Turbidity must also be continuously recorded from the combined water from all Bethel raw water wells.

4. Operational Monitoring

4.1 Chlorine Residual

Free chlorine levels of the treated water are monitored continuously at the discharge point of the Water Treatment Facility. In the distribution system, free chlorine is measured daily at various locations. As a critical control limit, free chlorine residual within the distribution system should be above 0.3 mg/L. A free chlorine level lower than 0.05 mg/L must be reported and corrective action taken. There were no reportable incidents in 2023. A summary of the chlorine residual readings is provided in the table below.

Sample Location	Number of Samples or Monitoring Frequency	Range of Results (mg/L)
Treated – Gilbert Discharge Point	Continuous	0.72 – 1.24
Treated – Telfer Discharge Point	Continuous	0.69-1.35
Treated – Bethel Discharge Point	Continuous	0.60-1.40
Distribution	761	0.46 – 0.97

4.2 Fluoride

Fluoride is required to be added to Gilbert, Telfer and Bethel water treatment plants as mandated by the Brant County Medical Officer of health. Fluoride levels of the treated water are monitored continuously at the discharge point of the Water Treatment Facility. The target range for the addition of Fluoride is 0.55 mg/L – 0.8 mg/L

Sample Location	Number of Samples or Monitoring Frequency	Range of Results (mg/L)
Treated – Gilbert Discharge Point	Continuous	0.46 – 0.81
Treated – Telfer Discharge Point	Continuous	0.36-0.90
Treated – Bethel Discharge Point	Continuous	0.48-0.83

4.3 Turbidity

Turbidity of treated water is continuously monitored at the treatment facilities as a change in turbidity can indicate an operational problem. As a minimum, turbidity for each well is required to be tested monthly. Turbidity is measured in nephelometric turbidity units (NTU). Under O.Reg. 170/03 turbidity in groundwater from a secure well or a well with effective in-situ filtration is not reportable however turbidity should be < 1 NTU at the treatment plant and < 5 NTU in the distribution system. A summary of the monitoring results for 2023 is provided in the table below.

Sample Location	# of Samples	Range of Turbidity Results (NTU)
Gilbert P28	12	0.06-0.17
Gilbert P29	12	0.06-0.19
Gilbert Well P210	12	0.05-0.13
Gilbert Well P211	12	0.05-0.12
Gilbert Well P212	12	0.05-0.16
Gilbert Well P213	12	0.05-0.15
Gilbert Well P214	12	0.05-0.14
Gilbert Well P215	12	0.06-0.19
Telfer Well P31	12	0.05-0.13
Telfer Well P32	12	0.06-0.17
Bethel Well P51	12	0.05-0.15
Bethel Well P52	12	0.06-0.13
Bethel Well P53	12	0.06-0.12
Bethel Well P54	12	0.05-0.15

5. Water Quantity

Continuous monitoring of flow rates from supply wells into the treatment system and from the Water Treatment Facility into the distribution system is required by O.Reg. 170/03.

The Municipal Drinking Water License and Permit to Take Water (PTTW) issued by the MECP regulate the amount of water that can be utilized over a given time period. A summary of the 2023 flows are provided in the tables below and presented graphically in Appendices B, C and D.

GILBERT WATER TREATMENT FACILITY

Municipal Drinking Water Licence (m³/day)	2023 Max Daily Flow (m³/day)	2023 Average Daily Flow (m³/day)	2023 Average Monthly Flow (m³/month)	2023 Total Yearly Flow (m³/year)
10,870	6,885	4,548	138,393	1,660,720

The Municipal Drinking Water License (MDWL) Rated Capacity for the Gilbert Drinking Water System is 10,870 m³/day. The two Permit To Take Waters (PTTW) for Gilbert combined is 9,700 m³/day. The Firm Capacity for Gilbert is 9,573 m³/day. The maximum daily flow in 2023 was 6,885 m³/day, which represents 63% of the MDWL Rated Capacity. The monthly average of 138,393 m³/day is 42% of the MDWL Rated Capacity.

TELFER WATER TREATMENT FACILITY

Municipal Drinking Water Licence (m³/day)	2023 Max Daily Flow (m³/day)	2023 Average Daily Flow (m³/day)	2023 Average Monthly Flow (m³/month)	2023 Total Yearly Flow (m³/year)
6,550	2,945	758	23,116	277,395

The Municipal Drinking Water License (MDWL) Rated Capacity for the Telfer Drinking Water System is 6,550 m³/day. The Permit To Take Water (PTTW) Supply Capacity is 13,897 m³/day (this capacity includes 983 m³/day for Well P36, which is not connected to the system). A true reflection of the Supply Capacity for Telfer is 12,914 m³/day and this value has been used for the graphs in Appendix C. The firm capacity is 3,275 m³/day. The maximum daily flow in 2023 was 2,945 m³/day, which represents 45% of the MDWL Rated Capacity. The monthly average of 23,116 m³/day is 12% of the MDWL Rated Capacity.

BETHEL WATER TREATMENT FACILITY

Municipal Drinking Water Licence (m³/day)	2023 Max Daily Flow (m³/day)	2023 Average Daily Flow (m³/day)	2023 Average Monthly Flow (m³/month)	2023 Total Yearly Flow (m³/year)
4,320	1,624	227	6,883	82,590

The Municipal Drinking Water License (MDWL) Rated Capacity and the Firm Capacity for the Bethel Drinking Water System is 4,320 m³/day. The Permit To Take Water (PTTW) Supply Capacity are both 3,240 m³/day. The maximum daily flow in 2023 was 1,624 m³/day, which represents 38% of the MDWL Rated Capacity. The monthly average of 6,883 m³/day is 5% of the MDWL Rated Capacity.

PARIS DRINKING WATER SYSTEM SUMMARY

2023 Max Daily Flow (m³/day)	2023 Average Daily Flow (m³/day)	2023 Average Monthly Flow (m³/month)	2023 Total Yearly Flow (m³/year)
7,992	5,533	168,392	2,020,700

Approximately 82% of the water provided to the community of Paris comes from the Gilbert Water Treatment Facility, 14% from the Telfer Water Treatment Facility, and 4% from the Bethel Water Treatment Facility. The Paris Drinking Water System, as a whole, has capacity for future growth in the community, but is in need of increased redundancy in North Paris to support the Gilbert Water Treatment Facility.

6. Non-Compliance Findings and Adverse Results

This section documents any known incidents of non-compliance or adverse results and the associated correction actions taken to resolve the issue. Non-compliance issues are typically identified by either the Operating Authority or the MECP Drinking Water Inspectors. The issues and associated required actions are documented by the Inspectors in the system's Annual Inspection Report. All non-compliance issues are investigated, corrective actions taken and documented using the County's Drinking Water Quality Management System (DWQMS) procedures.

6.1 Non-Compliance Findings

An MECP drinking water system inspection was conducted on August 22, 2023. There was one Non-Compliance findings from the inspection due to a delayed Director Notification Form (late by 18 days) for alteration to the system. Since the non-compliance was non-regulatory, the County still received a Final Inspection Rating from the MECP of 100%.

6.2 Adverse Results

Any adverse results from bacteriological, chemical samples or observations of operational conditions that indicate adverse water quality are reported as required and corrective actions are taken. There were no adverse or reportable occurrences in 2023.

Appendix A: Summary of Chemical Results

Understanding Chemical Test Results

The following tables summarize the laboratory results of the chemical testing the County is required to complete. Parameters are required to be tested at frequencies as noted below. Explanations on the health impacts of these parameters can be found in the MECP document PSIB 4449e01 titled "Technical Support Document for Ontario Drinking Water Standards, Objectives and Guidelines" available at https://cvc.ca/wp-content/uploads/2011/03/std01_079707.pdf.

Results are shown as concentrations with units of either milligrams per litre (mg/L) or micrograms per litre (µg/L). 1 mg/L is equal to 1000 µg/L. The Maximum Acceptable Concentration (MAC) is the highest amount of a parameter that is acceptable in Municipal drinking water and can be found in the MECP Drinking Water Standards. The aesthetic objective (A/O) is established for parameters that may impair the taste, odour or colour of water or which may interfere with good quality control practices. For parameters that the Technical Support Document for Ontario Drinking Water Standards, Objectives and Guidelines have not established either a MAC or an A/O, a "-" will indicate this. A result of "ND" stands for "Not Detected" and means that the concentration of the chemical is lower than level that the laboratory equipment is capable of measuring.

Table 1 – Nitrite and Nitrate

Nitrate and nitrite samples are required every 3 months from the treatment system in normal operation.

Parameter	Sample Date (mm/dd/yy)	Result (mg/L)	MAC (mg/L)	Exceedance
Nitrite, Gilbert Treated (as N)	02/07/23	ND	1.0	No
	05/03/23	ND	1.0	No
	08/09/23	ND	1.0	No
	11/14/23	ND	1.0	No
Nitrate, Gilbert Treated (as N)	02/07/23	2.73	10.0	No
	05/03/23	2.47	10.0	No
	08/09/23	3.12	10.0	No
	11/14/23	2.96	10.0	No
Nitrite, Telfer Treated (as N)	01/05/23	ND	1.0	No
	02/07/23	ND	1.0	No
	05/16/23	ND	1.0	No
	08/09/23	ND	1.0	No
	11/14/23	ND	1.0	No
Nitrate, Telfer Treated (as N)	01/05/23	5.72	10.0	No
	02/07/23	5.85	10.0	No
	05/16/23	4.97	10.0	No
	08/09/23	5.38	10.0	No
	11/14/23	4.73	10.0	No
Nitrite, Bethel Treated (as N)	02/07/23	ND	1.0	No
	05/03/23	ND	1.0	No
	08/09/23	ND	1.0	No
	11/14/23	ND	1.0	No
Nitrate, Bethel Treated (as N)	02/07/23	0.45	10.0	No
	05/03/23	0.44	10.0	No
	08/09/23	0.49	10.0	No
	11/14/23	0.45	10.0	No

Table 2 – Trihalomethane and Haloacetic Acids

Trihalomethane (THM) and total Haloacetic Acids (HAA) are by-products of the disinfection process. The samples are required every 3 months from the distribution system.

Parameter	Sample Location	Sample Date (mm/dd/yy)	Result (mg/L)	MAC (mg/L)	Exceedance
THM	Misner Rd Hydrant	02/07/23	5.71	100	No
	Pinehurst Sample STN	05/03/23	5.48	100	No
	HYD, Willow St. Dead End	08/09/23	6.31	100	No
	HYD 4-027 Powerline Rd	11/02/23	17.6	100	No
HAA	Misner Rd Hydrant	02/07/23	ND	80	No
	HYD 1-173 West River Rd	02/07/23	ND	80	No
	HYD at 31 Folstetter	02/07/23	ND	80	No
	Pinehurst Sample STN	05/03/23	ND	80	No
	HYD 1-173 West River Rd	05/16/03	ND	80	No
	HYD at 31 Folstetter	05/03/23	ND	80	No
	HYD, Willow St. Dead End	08/09/23	ND	80	No
	HYD 1-173 West River Rd	08/09/23	ND	80	No
	HYD at 31 Folstetter	08/09/23	ND	80	No
	HYD 4-027 Powerline Rd	11/02/23	ND	80	No
	HYD 1-173 West River Rd	11/02/23	ND	80	No
	HYD at 31 Folstetter	11/02/23	ND	80	No

Table 3 – Sodium and Fluoride

Testing of fluoride and sodium is required every 5 years from the treatment system.

Parameter	Sample Date (mm/dd/yy)	Result (mg/L)	MAC (mg/L)	A/O (mg/L)	Exceedance
Fluoride, Gilbert Treated	01/05/23	0.47	1.5	-	No
Fluoride, Telfer Treated	01/05/23	0.28	1.5	-	No
Fluoride, Bethel Treated	01/05/23	0.67	1.5	-	No
Sodium, Gilbert Treated	01/05/23	20	20	200	No
Sodium, Telfer Treated	01/05/23	8.95	20	200	No
Sodium, Telfer Treated	09/28/23	9.5	20	200	No
Sodium, Bethel Treated	01/05/23	100	20	200	Yes

**Sodium levels between 20 – 200 mg/L must be reported every 5 years.*

***Natural levels of fluoride between 1.5 – 2.4 mg/L must be reported every 5 years.*

Table 4 – Alkalinity, pH and Lead

The following Table summarizes the most recent results for the Lead Testing Program, having been conducted in 2023. Lead samples are taken every 3 years from the distribution system. Levels of alkalinity and pH are monitored twice per year in the distribution system to ensure water quality is consistent and does not facilitate leaching of lead into the water.

Parameter	Number of Samples	Result Range (Min – Max)	MAC	A/O	Operational Target	Exceedance
Distribution Alkalinity (mg/L)	8	140-260	-	-	30-500	-
Distribution pH	8	7.70-8.12	-	6.5-8.5	-	-
Distribution Lead (ug/L)	8	ND-ND	10	-	-	No

Table 5 – Schedule 23 Inorganic Parameters

The following Table summarizes the most recent test results for Schedule 23. Testing is required every 3 years for the secure, non-GUDI wells at Gilbert and Telfer and once per year for the GUDI wells at Bethel.

Parameter	Sample Date (mm/dd/yy)	Gilbert Result	Telfer Result	Bethel Result	Unit of Measure	MAC	A/O	Exceedance
Antimony	01/05/23	ND	ND	ND	mg/L	0.006	-	No
Arsenic	01/05/23	ND	ND	ND	mg/L	0.01	-	No
Barium	01/05/23	0.078	0.081	0.00011	mg/L	1.0	-	No
Boron	01/05/23	0.013	0.014	ND	mg/L	5.0	-	No
Cadmium	01/05/23	ND	ND	ND	mg/L	0.005	-	No
Chromium	01/05/23	ND	ND	ND	mg/L	0.05	-	No
Mercury	01/05/23	ND	ND	ND	mg/L	0.001	-	No
Selenium	01/05/23	ND	ND	ND	mg/L	0.05	-	No
Uranium	01/05/23	0.0011	0.0011	0.00033	mg/L	0.02	-	No

Table 5 – Schedule 24 Organic Parameters

The following Table summarizes the Organic parameters in Schedule 24 sampled during this reporting period or the most recent sample results. Testing is required every 3 years for the secure, non-GUDI wells at Gilbert and Telfer and once per year for the GUDI wells at Bethel.

Parameter	Sample Date (mm/dd/yy)	Gilbert Result	Telfer Result	Bethel Result	Unit of Measure	MAC	A/O	Exceedance
1,1-Dichloroethylene	01/05/23	ND	ND	ND	ug/L	14	-	No
1,2-Dichlorobenzene	01/05/23	ND	ND	ND	ug/L	200	-	No
1,2-Dichloroethane	01/05/23	ND	ND	ND	ug/L	5	-	No
1,4-Dichlorobenzene	01/05/23	ND	ND	ND	ug/L	5	-	No
2,3,4,6-Tetrachlorophenol	01/05/23	ND	ND	ND	ug/L	100	-	No
2,4,6-Trichlorophenol	01/05/23	ND	ND	ND	ug/L	5	-	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	01/05/23	ND	ND	ND	ug/L	100	-	No
2-4 Dichlorophenol	01/05/23	ND	ND	ND	ug/L	900	-	No
Alachlor	01/05/23	ND	ND	ND	ug/L	5	-	No

Parameter	Sample Date (mm/dd/yy)	Gilbert Result	Telfer Result	Bethel Result	Unit of Measure	MAC	A/O	Exceedance
Aroclor 1016	01/05/23	ND	ND	ND	ug/L	-	-	-
Aroclor 1221	01/05/23	ND	ND	ND	ug/L	-	-	-
Aroclor 1232	01/05/23	ND	ND	ND	ug/L	-	-	-
Aroclor 1242	01/05/23	ND	ND	ND	ug/L	-	-	-
Aroclor 1248	01/05/23	ND	ND	ND	ug/L	-	-	-
Aroclor 1254	01/05/23	ND	ND	ND	ug/L	-	-	-
Aroclor 1260	01/05/23	ND	ND	ND	ug/L	-	-	-
Atrazine	01/05/23	ND	ND	ND	ug/L	-	-	-
Atrazine + N-dealkylated metabolites (Atrazine+Desethyl-atrazine)	01/05/23	ND	ND	ND	ug/L	5	-	No
Benzene	01/05/23	ND	ND	ND	ug/L	1	-	No
Benzo(a)pyrene	01/05/23	ND	ND	ND	ug/L	0.01	-	No
Bromoxynil	01/05/23	ND	ND	ND	ug/L	5	-	No
Carbaryl	01/05/23	ND	ND	ND	ug/L	90	-	No
Carbofuran	01/05/23	ND	ND	ND	ug/L	90	-	No
Carbon Tetrachloride	01/05/23	ND	ND	ND	ug/L	2	-	No
Chlorobenzene	01/05/23	ND	ND	ND	ug/L	80	-	No
Chlorpyrifos	01/05/23	ND	ND	ND	ug/L	90	-	No
Desethyl-atrazine	01/05/23	ND	ND	ND	ug/L	-	-	No
Diazinon	01/05/23	ND	ND	ND	ug/L	20	-	No
Dicamba	01/05/23	ND	ND	ND	ug/L	120	-	No
Diclofop-methyl	01/05/23	ND	ND	ND	ug/L	9	-	No
Dimethoate	01/05/23	ND	ND	ND	ug/L	20	-	No
Diquat	01/05/23	ND	ND	ND	ug/L	70	-	No
Diuron	01/05/23	ND	ND	ND	ug/L	150	-	No
Ethylbenzene	01/05/23	ND	ND	ND	ug/L	140	2.4	No

Parameter	Sample Date (mm/dd/yy)	Gilbert Result	Telfer Result	Bethel Result	Unit of Measure	MAC	A/O	Exceedance
Glyphosate	01/05/23	ND	ND	ND	ug/L	280	-	No
Guthion	01/05/23	ND	ND	ND	ug/L	20	-	No
Malathion	01/05/23	ND	ND	ND	ug/L	190	-	No
MCPA	01/05/23	ND	ND	ND	ug/L	100	-	No
Methylene Chloride	01/05/23	ND	ND	ND	ug/L	50	-	No
Metolachlor	01/05/23	ND	ND	ND	ug/L	50	-	No
Metribuzin	01/05/23	ND	ND	ND	ug/L	80	-	No
Paraquat	01/05/23	ND	ND	ND	ug/L	10	-	No
Pentachlorophenol	01/05/23	ND	ND	ND	ug/L	60	-	No
Phorate	01/05/23	ND	ND	ND	ug/L	2	-	No
Picloram	01/05/23	ND	ND	ND	ug/L	190	-	No
Total PCB	01/05/23	ND	ND	ND	ug/L	3	-	No
Prometryne	01/05/23	ND	ND	ND	ug/L	1	-	No
Simazine	01/05/23	ND	ND	ND	ug/L	10	-	No
Terbufos	01/05/23	ND	ND	ND	ug/L	1	-	No
Tetrachloroethylene	01/05/23	ND	ND	ND	ug/L	10	-	No
Toluene	01/05/23	ND	ND	ND	ug/L	60	24	No
Triallate	01/05/23	ND	ND	ND	ug/L	230	-	No
Trichloroethylene	01/05/23	ND	ND	ND	ug/L	5	-	No
Trifluralin	01/05/23	ND	ND	ND	ug/L	45	-	No
Vinyl Chloride	01/05/23	ND	ND	ND	ug/L	1	-	No
o-Xylene	01/05/23	ND	ND	ND	ug/L	-	-	-
p+m-Xylene	01/05/23	ND	ND	ND	ug/L	-	-	-

Appendix B: Water Quantity Summary – Gilbert Water Treatment Facility

Figure 1 - 2023 Average vs Maximum Daily Flow Rates

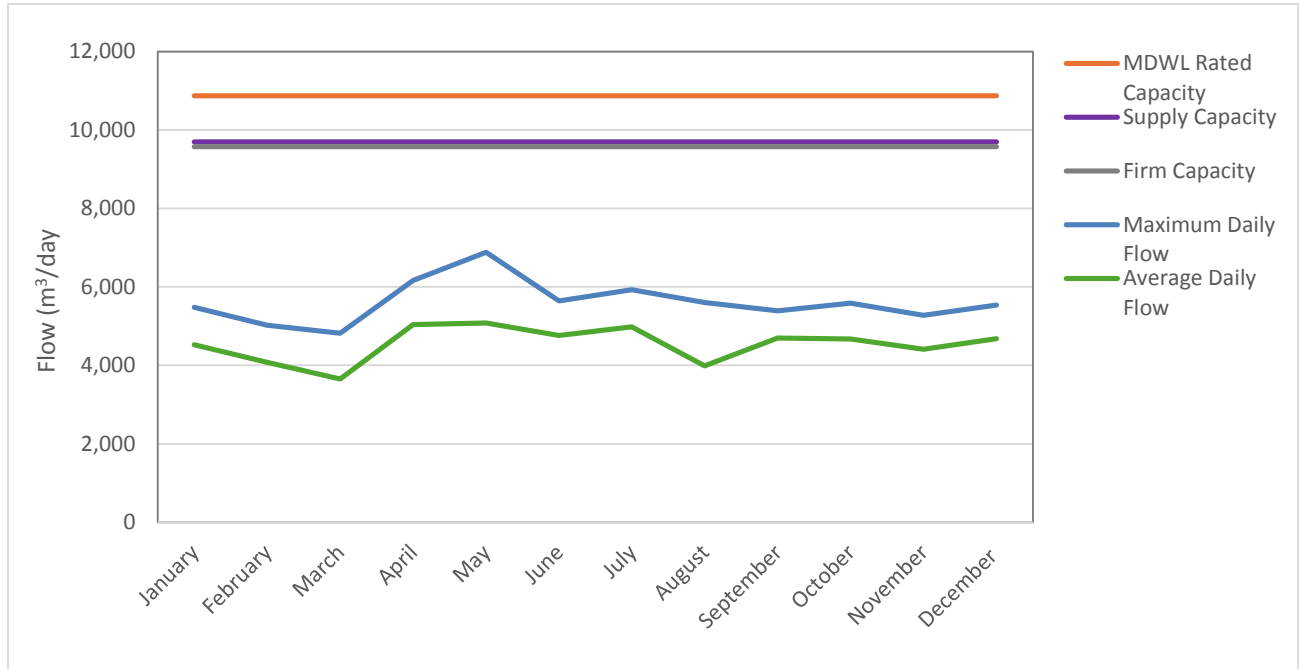


Figure 2 – 2023 Daily Flow Rates

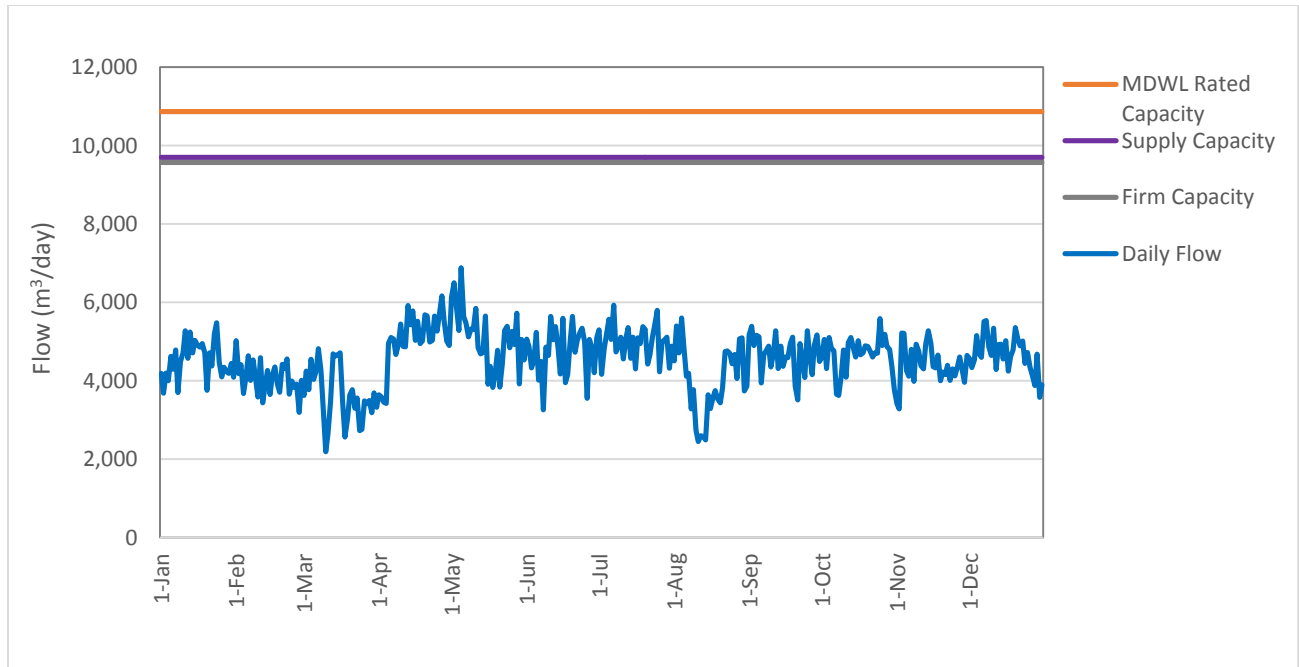
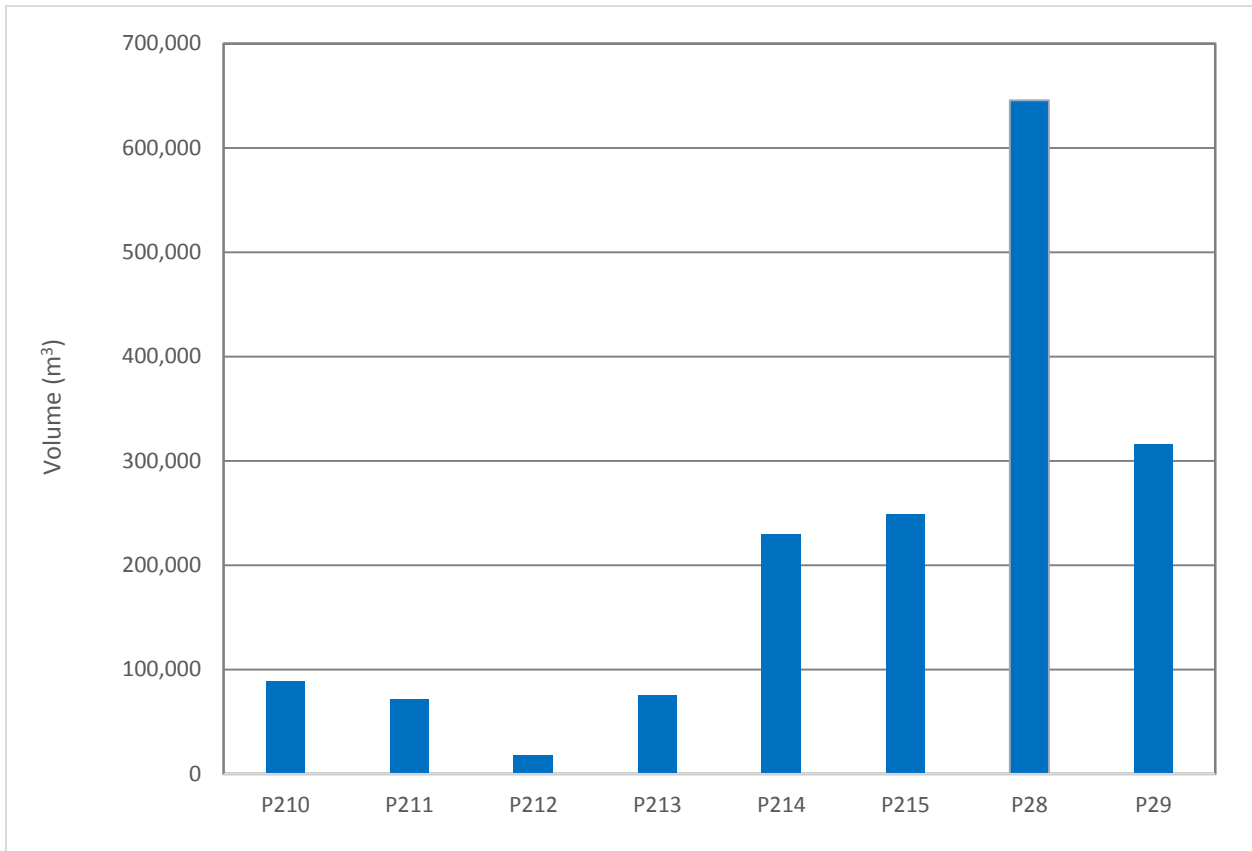


Figure 3 - 2023 Total Production by Well (m³)



Appendix C: Water Quantity Summary – Telfer Water Treatment Facility

Figure 4 - 2023 Average vs Maximum Daily Flow Rates

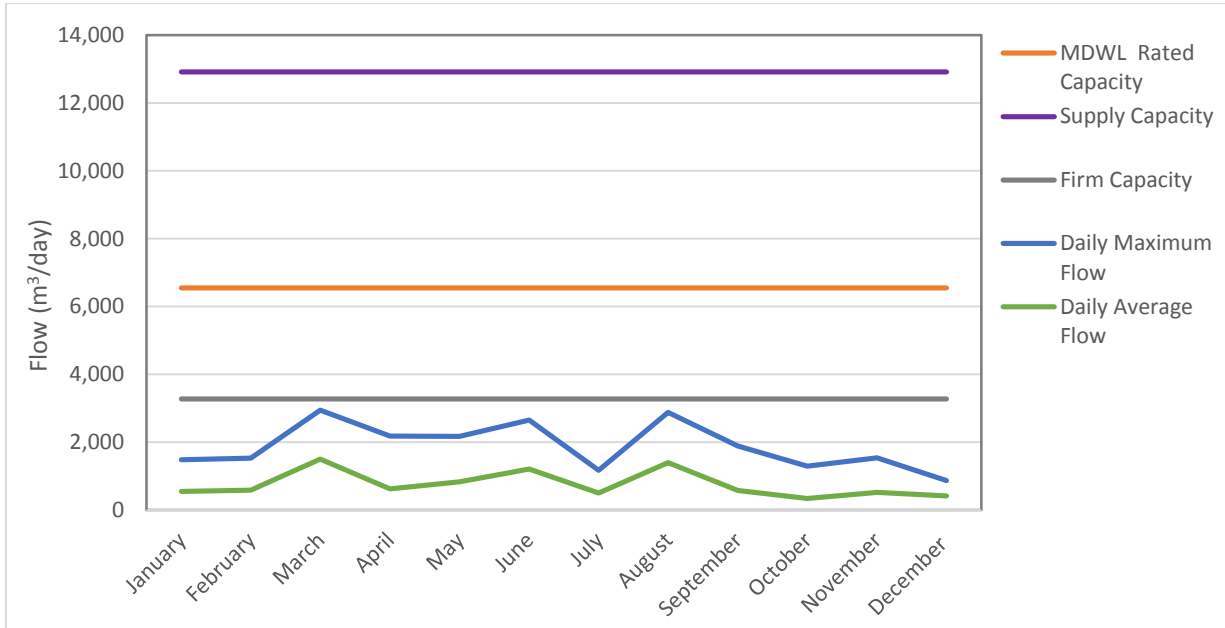


Figure 5 – 2023 Daily Flow Rates

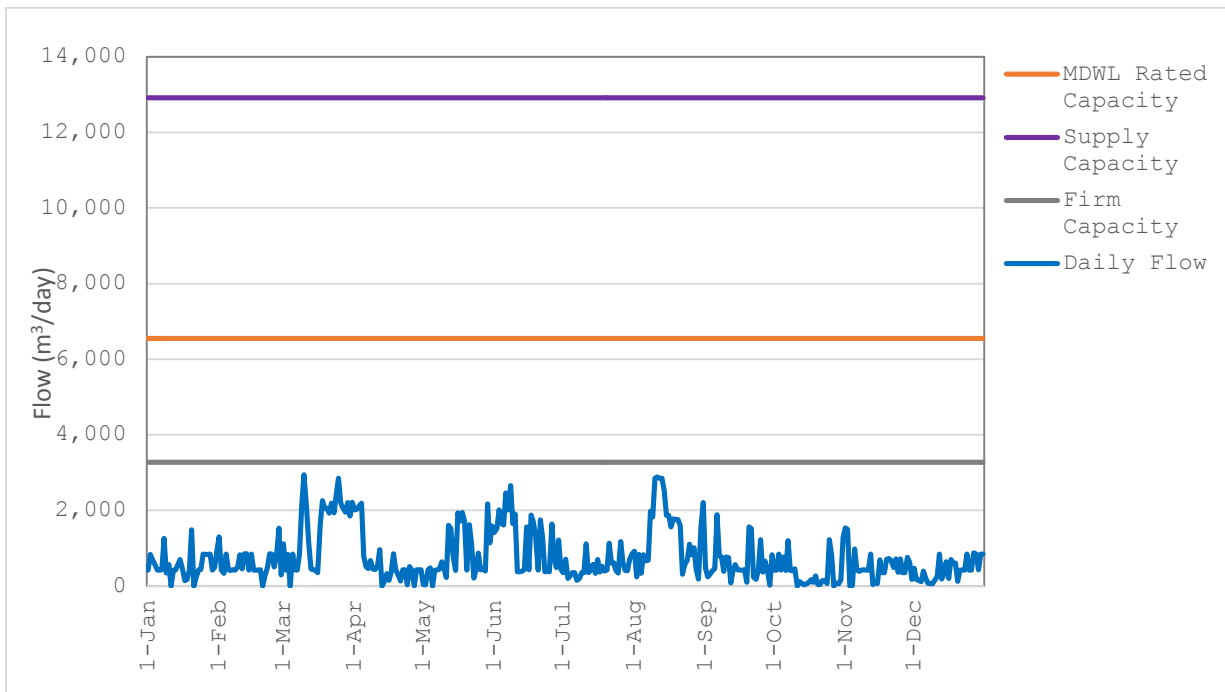
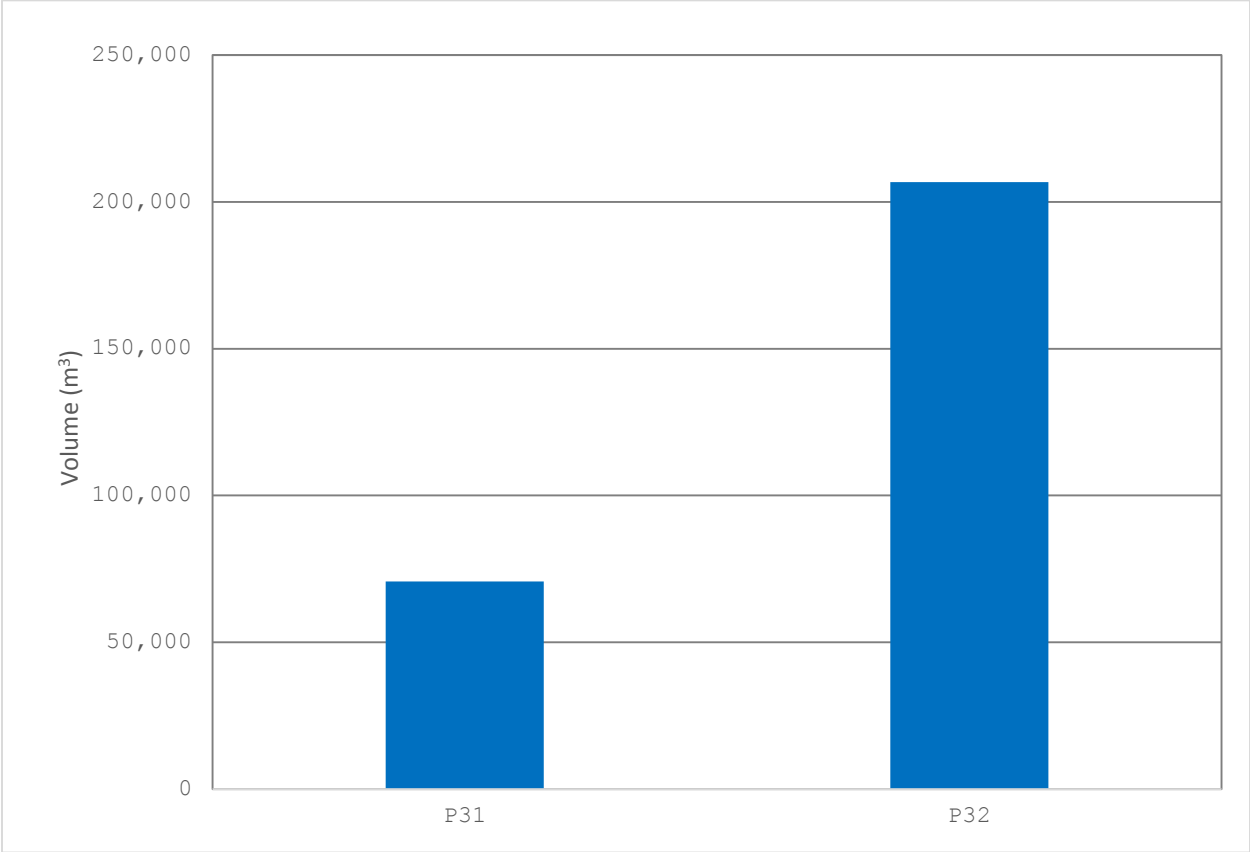


Figure 6 - 2023 Total Production by Well (m³)



Appendix D: Water Quantity Summary – Bethel Water Treatment Facility

Figure 7 - 2023 Average vs Maximum Daily Flow Rates

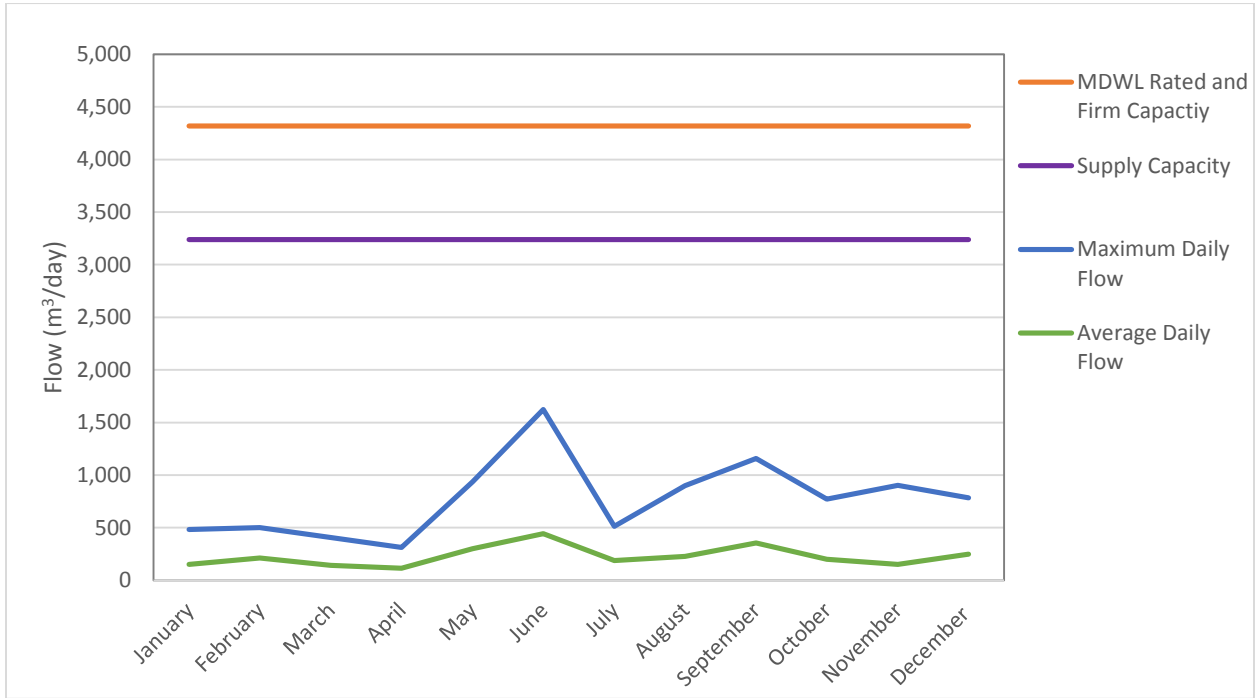


Figure 8 – 2023 Daily Flow Rates

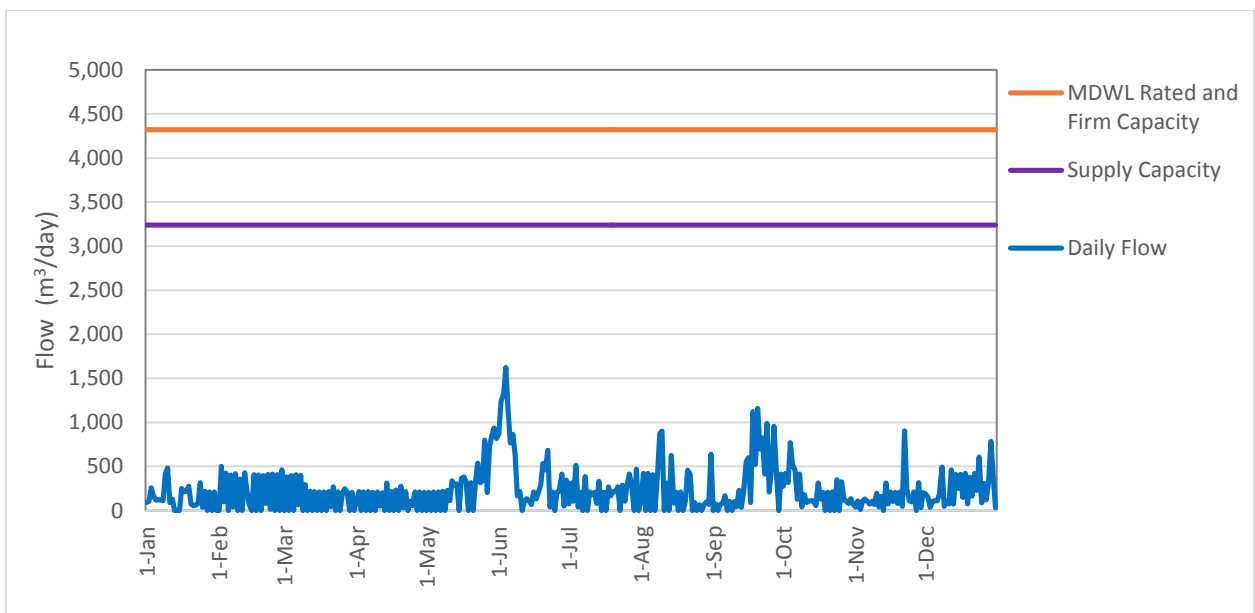


Figure 9 - 2023 Total Production by Well (m³)

