

2024 Annual Drinking Water and Summary Report

Mitchell Drinking Water System



February 10, 2025

Municipality of West Perth
160 Wellington Street
P.O. Box 609
Mitchell ON N0K 1N0

**ATTENTION: Mr. Dan Hobson
CAO**

**REFERENCE: 2024 Annual Drinking Water and Summary Report
Mitchell Drinking Water System**

Please find enclosed the 2024 Annual Drinking Water and Summary Report for the Mitchell Drinking Water System. The reports are prepared in accordance with O. Reg 170/03 of the Safe Drinking Water Act.

Under O. Reg 170/03 the Annual Report must cover the period from January 1 to December 31 in a year and must be prepared by February 28 of the following year. The annual report is to be made available free of charge to anyone who requests a copy.

O. Reg 170/03 also requires the preparation of a Summary Report for the preceding year which must be presented to Council no later than March 31.

A copy of the reports will be available at the Municipal Office, the West Perth Public Library and on the Municipality's website.

Any questions or concerns regarding the reports can be directed towards the Environmental Services Department.

Sincerely,



Environmental Services
Municipality of West Perth

Part 1 - ANNUAL REPORT (as required by O. Reg. 170/03, Section 11)

Drinking-Water System Number:	210000577
Drinking-Water System Name:	Mitchell Drinking Water System
Drinking-Water System Owner:	Municipality of West Perth
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2024 to December 31, 2024

Complete if your Category is Large Municipal Residential or Small Municipal Residential	Complete for all other Categories
<p><i>Does your Drinking-Water System serve more than 10,000 people?</i></p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p><i>Number of Designated Facilities served:</i></p> <p>-</p>
<p><i>Is your annual report available to the public at no charge on a web site on the Internet?</i></p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p><i>Did you provide a copy of your annual report to all Designated Facilities you serve?</i></p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p><i>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</i></p> <p>Municipal Office, West Perth Public Library and Municipality of West Perth Website</p>	<p><i>Number of Interested Authorities you report to:</i></p> <p>-</p> <p><i>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility?</i></p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>

List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:	
Drinking Water System Name	Drinking Water System Number
N/A	

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water?
N/A

Indicate how you notified system users that your annual report is available and is free of charge.		
<input checked="" type="checkbox"/> Public access/notice via the web	<input checked="" type="checkbox"/> Public access/notice via Government Office	<input type="checkbox"/> Public access/notice via a newspaper
<input checked="" type="checkbox"/> Public access/notice via Public Request	<input checked="" type="checkbox"/> Public access/notice via a Public Library	<input type="checkbox"/> Public access/notice via Other Method
Describe your Drinking Water System		
<p>The Mitchell Drinking Water System is a Class II Distribution and Supply sub-system owned and operated by the Municipality of West Perth. The system consists of four drilled groundwater wells.</p> <p>Well #1, contained within Well-house #1, is 23.2m deep and has a 200mm steel liner inserted into the original 305mm well casing. Raw water from this well is pumped through piping past Well-house #2 where, when required, it is combined with raw water from Well #2 and directed to Distribution Center 123.</p> <p>Well #2 is 30.2m deep and has a 200mm steel liner inserted into the original 305mm well casing. Raw water is combined with raw water from Well #1 when required and directed to Distribution Center 123.</p> <p>Well #3 is the main well for Distribution Center 123. The well is 54.7m deep with a 200mm steel liner inserted into the original 305mm well casing. Water from this well is conveyed through piping to Distribution Center 123.</p> <p>Well #4, located within Distribution Center 4, was drilled to a final depth of 71.6m with a 300mm steel casing. Raw water from this well is treated within Distribution Center 4.</p> <p>Raw water from all four wells is typically free from any bacteriological activity. The water is hard and naturally has elevated levels of fluoride and sodium. The turbidity of the raw water ranges from 0 to 1 NTU.</p> <p>Other than the normal increase in usage during the summer months, there are no major operational challenges due to event-driven fluctuations.</p> <p>Distribution Center 123 is located on the west side of St. George St. The storage reservoir is located adjacent to the eastern limit of the plant. It has a baffled section with a capacity of 155m³ and an unbaffled section with a capacity of 243m³. Raw water from Wells 1, 2 and 3 is conveyed into the plant, after which treatment chemicals are injected; sodium silicate for iron sequestering, and sodium hypochlorite for disinfection. The treated water is directed into the reservoir for contact time and then through the high lift pumps into the distribution system. The disinfection system at Distribution Center 123 has been designed with backup chemical pumps.</p> <p>Distribution Center 4 is located near the NW corner of Arthur St and Herbert St. The plant includes a disinfection system and a 305m³ baffled, below grade reservoir. Sodium silicate is injected for iron sequestering. Disinfection is achieved using liquid sodium hypochlorite. As in Distribution Center 123, the treated water is directed into</p>		

the reservoir for contact time and then through the high lift pump into the distribution system. The disinfection system at Distribution Center 4 has been designed with backup chemical pumps.

The Mitchell Standpipe is located at 97 Arthur Street. It is approximately 46m high and approximately 11m wide. The standpipe control building houses level and pressure monitoring equipment. A diesel-powered fire pump is also connected to the piping system.

The Mitchell Water Tower is located at 125 Clarke Street. It is approximately 41m high and has a capacity of 1,000 m³. The control room houses level, pressure, flow monitoring equipment, and re-chlorination equipment.

The works currently service a population of approximately 4,200. There is approximately 42 km of distribution piping of various diameters and materials contained within the Mitchell Drinking Water System. There are approximately 1950 service connections and 242 fire hydrants. Flow varies across the grid, with lower flow volumes in the most remote and dead-end parts of the grid. Pressure within the distribution system is maintained by the level of the standpipe and water tower. If required, the distribution system pressure can be controlled by the high lift pumps at each Distribution Center.

List all water treatment chemicals used over this reporting period

- Liquid Chlorine 12% - NSF certified
- Liquid Chlorine 6% - NSF certified
- Sodium Silicate - NSF certified

Please provide a brief description and a breakdown of monetary expenses incurred

- Frank St Reconstruction
- James St Reconstruction
- SCADA Server Relocation
- Fire Flow Testing
- Well 4 Inspection

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	Corrective Action Date	Corrective Action
Mar 28 2024	Arsenic	0.017 mg/L and 0.022 mg/L	Mar 30 2024	Resampled as per HPPH – resample results of 0.0021mg/L and 0.002mg/L.

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period					
	Number of Samples	Range of E. Coli Results (Min-Max)	Range of Total Coliform Results (Min-Max)	Number of HPC Samples	Range of HPC Results (Min-Max)
Raw Well #1	53	0-0	0-0	N/A	N/A
Raw Well #2	53	0-0	0-0	N/A	N/A
Raw Well #3	53	0-0	0-0	N/A	N/A
Raw Well #4	45*	0-0	0-0	N/A	N/A
POE #123	53	0-0	0-0	53	0-6
POE #4	43*	0-0	0-0	43*	0-5
Distribution	212	0-0	0-0	53	0-1

*Value due to operational maintenance

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report					
	Continuous Monitoring	Number of Grab Samples	Range of Results Continuous (Min-Max)	Range of Results Grab Samples (Min-Max)	Units
Turbidity Raw Well #1	N/A	52	N/A	0.06-0.18	NTU
Turbidity Raw Well #2	N/A	52	N/A	0.04-0.19	NTU
Turbidity Raw Well #3	N/A	52	N/A	0.05-0.19	NTU
Turbidity Raw Well #4	N/A	42**	N/A	0.04-0.19	NTU
Chlorine - POE 123	8760	678	0.29*-2.16**	0.88-1.77	mg/L
Chlorine - POE 4	8760	495	0.34**-1.75	0.81-1.65	mg/L
Distribution	N/A	366	N/A	0.62-1.48	mg/L

*Low chlorine event, water not directed to users.

**Value due to operational maintenance.

Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument				
Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
N/A				

Distribution Center 123

Summary of Inorganic parameters tested during this reporting period or the most recent sample results				
Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	Apr 22 2024	ND	µg/L	No
Arsenic	Apr 22 2024	3.4	µg/L	No
Barium	Apr 22 2024	69	µg/L	No
Boron	Apr 22 2024	120	µg/L	No
Cadmium	Apr 22 2024	ND	µg/L	No
Chromium	Apr 22 2024	ND	µg/L	No
Lead - see results below				
Mercury	Apr 22 2024	ND	µg/L	No
Selenium	Apr 22 2024	ND	µg/L	No
Sodium	Apr 22 2024	40	mg/L	Yes
Uranium	Apr 22 2024	ND	µg/L	No
Fluoride	Dec 12 2022	1.8	mg/L	Yes
Nitrite	Jan 2 2024	ND	µg/L	No
Nitrate	Jan 2 2024	ND	µg/L	No
Nitrite	Apr 2 2024	ND	µg/L	No
Nitrate	Apr 2 2024	ND	µg/L	No
Nitrite	Jul 2 2024	ND	µg/L	No
Nitrate	Jul 2 2024	ND	µg/L	No
Nitrite	Oct 7 2024	ND	µg/L	No
Nitrate	Oct 7 2024	ND	µg/L	No

ND = Not detected

Distribution Center 4

Summary of Inorganic parameters tested during this reporting period or the most recent sample results				
Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	Dec 5 2022	ND	µg/L	No
Arsenic	Dec 5 2022	1.7	µg/L	No
Barium	Dec 5 2022	63	µg/L	No
Boron	Dec 5 2022	110	µg/L	No
Cadmium	Dec 5 2022	ND	µg/L	No
Chromium	Dec 5 2022	ND	µg/L	No
Lead - see results below				
Mercury	Dec 5 2022	ND	µg/L	No
Selenium	Dec 5 2022	ND	µg/L	No
Sodium	Nov 6 2023	49	mg/L	Yes
Uranium	Dec 5 2022	0.29	µg/L	No
Fluoride	Dec 12 2022	1.9	mg/L	Yes
Nitrite	Jan 2 2024	ND	µg/L	No
Nitrate	Jan 2 2024	ND	µg/L	No
Nitrite	Apr 2 2024	ND	µg/L	No
Nitrate	Apr 2 2024	ND	µg/L	No
Nitrite	Jul 2 2024	ND	µg/L	No
Nitrate	Jul 2 2024	ND	µg/L	No
Nitrite	N/A*	N/A	N/A	N/A
Nitrate	N/A*	N/A	N/A	N/A

ND = Not detected

*Due to operational maintenance

Lead Testing Results

Summary of Lead Results during this reporting period (Winter: Dec 15 – April 15; Summer: June 15 - Oct 15)				
Sampling Period	Location	Distribution System Lead (ug/L)	Distribution System Alkalinity (mg/L)	Any Adverse Water Quality Incidents?
Mar 25 2024	Hydrant #29	1.5	210	No
Mar 25 2024	Hydrant #101	1.1	210	No
Mar 25 2024	Hydrant #180	0.98	220	No
Jul 22 2024	Hydrant #63	0.94	210	No
Jul 22 2024	Hydrant #149	0.70	210	No
Jul 22 2024	Hydrant #126	0.56	210	No

Point of Entry 123

Summary of Organic parameters tested during this reporting period or the most recent sample results				
Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Semivolatile Organics				
2,3,4,6- Tetrachlorophenol	Apr 22 2024	ND	µg/L	No
2,4,6-Trichlorophenol	Apr 22 2024	ND	µg/L	No
2,4-D	Apr 22 2024	ND	µg/L	No
2,4-Dichlorophenol	Apr 22 2024	ND	µg/L	No
Alachlor	Apr 22 2024	ND	µg/L	No
Atrazine	Apr 22 2024	ND	µg/L	No
Des-ethyl atrazine	Apr 22 2024	ND	µg/L	No
Atrazine+Desethyl-atrazine	Apr 22 2024	ND	µg/L	No
Bromoxynil	Apr 22 2024	ND	µg/L	No
Carbaryl	Apr 22 2024	ND	µg/L	No
Carbofuran	Apr 22 2024	ND	µg/L	No
Chlorpyrifos(Dursban)	Apr 22 2024	ND	µg/L	No
Diazinon	Apr 22 2024	ND	µg/L	No
Dicamba	Apr 22 2024	ND	µg/L	No
Diclofop-methyl	Apr 22 2024	ND	µg/L	No
Dimethoate	Apr 22 2024	ND	µg/L	No
Malathion	Apr 22 2024	ND	µg/L	No
MCPA	Apr 22 2024	ND	µg/L	No
Metolachlor	Apr 22 2024	ND	µg/L	No
Metribuzin(Sencor)	Apr 22 2024	ND	µg/L	No
Pentachlorophenol	Apr 22 2024	ND	µg/L	No
Phorate	Apr 22 2024	ND	µg/L	No
Picloram	Apr 22 2024	ND	µg/L	No
Prometryne	Apr 22 2024	ND	µg/L	No
Simazine	Apr 22 2024	ND	µg/L	No
Terbufos	Apr 22 2024	ND	µg/L	No
Triallate	Apr 22 2024	ND	µg/L	No
Trifluralin	Apr 22 2024	ND	µg/L	No
Benzo(a)pyrene	Apr 22 2024	ND	µg/L	No
Volatile Organics				
1,1-Dichloroethylene	Apr 22 2024	ND	µg/L	No
1,2-Dichlorobenzene	Apr 22 2024	ND	µg/L	No
1,2-Dichloroethane	Apr 22 2024	ND	µg/L	No
1,4-Dichlorobenzene	Apr 22 2024	ND	µg/L	No
Benzene	Apr 22 2024	ND	µg/L	No
Carbon Tetrachloride	Apr 22 2024	ND	µg/L	No
Chlorobenzene	Apr 22 2024	ND	µg/L	No

Summary of Organic parameters tested during this reporting period or the most recent sample results				
Methylene Chloride (Dichloromethane)	Apr 22 2024	ND	µg/L	No
Ethylbenzene	Apr 22 2024	ND	µg/L	No
Tetrachloroethylene	Apr 22 2024	ND	µg/L	No
Toluene	Apr 22 2024	ND	µg/L	No
Trichloroethylene	Apr 22 2024	ND	µg/L	No
Vinyl Chloride	Apr 22 2024	ND	µg/L	No
o-Xylene	Apr 22 2024	ND	µg/L	No
p+m-Xylene	Apr 22 2024	ND	µg/L	No
Total Xylenes	Apr 22 2024	ND	µg/L	No
PCBs				
Total PCB	Apr 22 2024	ND	µg/L	No
Pesticides & Herbicides				
Glyphosate	Apr 22 2024	ND	µg/L	No
Diquat	Apr 29 2024	ND	µg/L	No
Diuron	Apr 22 2024	ND	µg/L	No
Guthion (Azinphos-methly)	Apr 22 2024	ND	µg/L	No
Paraquat	Apr 29 2024	ND	µg/L	No

ND = Not detected

Point of Entry 4

Summary of Organic parameters tested during this reporting period or the most recent sample results				
Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Semivolatile Organics				
2,3,4,6- Tetrachlorophenol	Dec 5 2022	ND	µg/L	No
2,4,6-Trichlorophenol	Dec 5 2022	ND	µg/L	No
2,4-D	Dec 5 2022	ND	µg/L	No
2,4-Dichlorophenol	Dec 5 2022	ND	µg/L	No
Alachlor	Dec 5 2022	ND	µg/L	No
Atrazine	Dec 5 2022	ND	µg/L	No
Des-ethyl atrazine	Dec 5 2022	ND	µg/L	No
Atrazine+Desethyl-atrazine	Dec 5 2022	ND	µg/L	No
Bromoxynil	Dec 5 2022	ND	µg/L	No
Carbaryl	Dec 5 2022	ND	µg/L	No
Carbofuran	Dec 5 2022	ND	µg/L	No
Chlorpyrifos(Dursban)	Dec 5 2022	ND	µg/L	No
Diazinon	Dec 5 2022	ND	µg/L	No
Dicamba	Dec 5 2022	ND	µg/L	No

Summary of Organic parameters tested during this reporting period or the most recent sample results				
Diclofop-methyl	Dec 5 2022	ND	µg/L	No
Dimethoate	Dec 5 2022	ND	µg/L	No
Malathion	Dec 5 2022	ND	µg/L	No
MCPA	Dec 5 2022	ND	µg/L	No
Metolachlor	Dec 5 2022	ND	µg/L	No
Metribuzin(Sencor)	Dec 5 2022	ND	µg/L	No
Pentachlorophenol	Dec 5 2022	ND	µg/L	No
Phorate	Dec 5 2022	ND	µg/L	No
Picloram	Dec 5 2022	ND	µg/L	No
Prometryne	Dec 5 2022	ND	µg/L	No
Simazine	Dec 5 2022	ND	µg/L	No
Terbufos	Dec 5 2022	ND	µg/L	No
Triallate	Dec 5 2022	ND	µg/L	No
Trifluralin	Dec 5 2022	ND	µg/L	No
Benzo(a)pyrene	Dec 5 2022	ND	µg/L	No
Volatile Organics				
1,1-Dichloroethylene	Dec 5 2022	ND	µg/L	No
1,2-Dichlorobenzene	Dec 5 2022	ND	µg/L	No
1,2-Dichloroethane	Dec 5 2022	ND	µg/L	No
1,4-Dichlorobenzene	Dec 5 2022	ND	µg/L	No
Benzene	Dec 5 2022	ND	µg/L	No
Carbon Tetrachloride	Dec 5 2022	ND	µg/L	No
Chlorobenzene	Dec 5 2022	ND	µg/L	No
Methylene Chloride (Dichloromethane)	Dec 5 2022	ND	µg/L	No
Ethylbenzene	Dec 5 2022	ND	µg/L	No
Tetrachloroethylene	Dec 5 2022	ND	µg/L	No
Toluene	Dec 5 2022	ND	µg/L	No
Trichloroethylene	Dec 5 2022	ND	µg/L	No
Vinyl Chloride	Dec 5 2022	ND	µg/L	No
o-Xylene	Dec 5 2022	ND	µg/L	No
p+m-Xylene	Dec 5 2022	ND	µg/L	No
Total Xylenes	Dec 5 2022	ND	µg/L	No
PCBs				
Total PCB	Dec 5 2022	ND	µg/L	No
Pesticides & Herbicides				
Glyphosate	Dec 5 2022	ND	µg/L	No
Diquat	Dec 5 2022	ND	µg/L	No
Diuron	Dec 5 2022	ND	µg/L	No
Guthion (Azinphos-methyl)	Dec 5 2022	ND	µg/L	No
Paraquat	Dec 5 2022	ND	µg/L	No

ND = Not detected

Distribution System

Summary of Organic parameters tested during this reporting period or the most recent sample results				
Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
THM	Jan 2 2024	10.7	µg/L	No
	Apr 2 2024	22.2	µg/L	
	Jul 2 2024	16.9	µg/L	
	Oct 7 2024	14.2	µg/L	
THM Running Annual Average	2024	16.0	µg/L	No
HAA	Jan 2 2024	21.0	µg/L	No
	Apr 2 2024	15.0	µg/L	
	Jul 2 2024	24.0	µg/L	
	Oct 7 2024	29.0	µg/L	
HAA Running Annual Average	2024	22.3	µg/L	No

Point of Entry 123

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.				
Parameter	Sample Date	Result Value	Unit of Measure	ODWS Standard
Fluoride	Dec 12 2022	1.8	mg/L	1.5

Point of Entry 4

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.				
Parameter	Sample Date	Result Value	Unit of Measure	ODWS Standard
Fluoride	Dec 12 2022	1.9	mg/L	1.5

Note: Fluoride is naturally occurring in Mitchell's Drinking Water Supply. For more information on fluoride visit Huron Perth Public Health Unit at:

<https://www.hp-ph.ca/en/health-matters/water.aspx>

Part 2 – SUMMARY REPORT (as required by O. Reg. 170/03, Schedule 22)

Non-Compliance with Legislations, Regulations, Approvals & Orders

There was one incident of non-compliance as described in the 2024 Mitchell Drinking Water System Inspection Report by The Ministry of Environment, Conservation and Parks:

Finding: The owner did not have evidence that the required notifications from the Municipal Drinking Water Licence and Drinking Water Works Permit to all legal owners associated with the drinking water system were made.

Action: From herein, the Owner / Operating Authority shall ensure that Developers who have interim ownership of portions of the water system until it is transferred to the Municipality, are consistently provided with copies of the Municipal Drinking Water Licence and Drinking Water Works Permit as prescribed by Drinking Water Works Permit # 060-201 - Issue #5, Schedule B, Section 2.7. It should be noted that the Owner / Operating Authority advised that they would amend an existing policy to ensure consistency with this requirement. Compliance with this requirement will be assessed during the next inspection of the water system.

The Owner has implemented procedures to ensure Developers receive and review the Municipal Drinking Water License and the Drinking Water Works Permit.

In March 2024, there was an adverse water quality incident. During routine lead sampling, the lab identified an arsenic exceedance. As a corrective measure, Huron Perth Public Health instructed staff to conduct resampling. The resample results were below the maximum allowable concentration. Three additional distribution samples were taken at the discretion of the Operating Authority to further verify water quality.

Results of the resampling were as follows:

Mitchell Dist. Hydrant #29 - 0.002 mg/L

Mitchell Dist. Hydrant #101 - 0.0021mg/L

Mitchell Dist. Hydrant #180 - 0.0024 mg/L

Mitchell Dist. Water Tower - 0.0016 mg/L

Mitchell Dist. Standpipe - 0.0019 mg/L

The following outlines well exceedances:

January 3, 2024 - Well #2

The well pump exceeded the flow rate specified in the MDWL and PTTW. Duration of 5 minutes. No corrective action needed; the issue occurred during routine sampling when one well shut off after all three wells were running. The maximum daily volume did not exceed the PTTW limit.

March 25, 204 - Well #2

The well pump exceeded the flow rate specified in the MDWL and PTTW. Duration of 10 minutes. No corrective action needed; caused by start up and scaling of new flow meter. The maximum daily volume did not exceed the PTTW limit.

June 19, 2024 - Well #1

The well pump exceeded the flow rate specified in the MDWL and PTTW. Duration of 5 minutes. No corrective action needed; the issue occurred during routine sampling when one well shut off after all three wells were running. The maximum daily volume did not exceed the PTTW limit.

July 15, 2024 - Well #2

The well pump exceeded the flow rate specified in the MDWL and PTTW. Duration of 5 minutes. No corrective action needed; the issue was caused by a power blip occurring simultaneously with the well startup. The maximum daily volume did not exceed the PTTW limit.

November 28, 2024 – Well #4

The well pump exceeded the flow rate specified in the MDWL and PTTW. Duration of 5 minutes. No corrective action needed; caused by third party verification. The maximum daily volume did not exceed the PTTW limit.

Well #1

System Capability Assessment			
Comparison of Flow Rates (raw flow; m ³):			
Month	Average Daily Flow	Maximum Daily Flow	Max Flow (L/min)
January	554.64	1176.48	1715.40
February	533.55	1186.19	1734.60
March	591.49	1388.22	1734.60
April	456.21	1385.20	1726.20
May	323.94	1126.06	1785.00
June	269.73	1072.11	1845.60
July	327.30	1118.77	1755.00
August	292.25	1096.76	1702.20
September	507.65	1312.23	1735.80
October	525.13	1159.50	1726.80
November	487.84	1142.42	1694.40
December	251.46	940.77	1693.80
Maximum	N/A	1388.22	1845.60
Average	426.77	1175.39	1737.45
PTTW (m³)	2617.92	2617.92	1818
% of PTTW Max.	-	53%	102%
% of PTTW Avg.	16%	45%	96%

Well #2

System Capability Assessment			
Comparison of Flow Rates (raw flow; m ³):			
Month	Average Daily Flow	Maximum Daily Flow	Max Flow (L/min)
January	4.93	41.99	2127.60
February	3.78	30.75	1779.60
March	91.35	1345.84	5729.40
April	437.85	1592.31	1829.40
May	415.31	1550.77	1810.80
June	418.15	1482.34	1818.00
July	353.23	1436.51	11694.60*
August	367.77	1428.32	1822.20
September	525.77	1601.00	1773.60
October	591.95	1578.21	1828.20
November	631.73	1629.89	1826.40
December	309.34	1208.80	1813.80
Maximum	N/A	1629.89	11694.6
Average	345.93	1243.89	2987.80
PTTW (m³)	3024	3024	2100
% of PTTW Max.	-	54%	557%
% of PTTW Avg.	11%	41%	142%

*Highest recorded value is a false reading that occurred during a power blip.

Well #3

System Capability Assessment			
Comparison of Flow Rates (raw flow; m ³):			
Month	Average Daily Flow	Maximum Daily Flow	Max Flow (L/min)
January	881.93	1857.98	2750.40
February	850.14	1875.09	2747.40
March	1045.47	2233.11	2754.00
April	1233.44	2364.88	2791.80
May	1001.13	1894.00	2758.80
June	915.81	1779.01	2788.20
July	929.29	1953.96	2792.40
August	892.06	1840.12	2796.00
September	1675.84	2794.21	2759.40
October	2179.48	2796.22	2764.80
November	2162.16	2817.54	2761.20
December	1063.65	2210.20	2760.00
Maximum	N/A	2817.54	2796.00
Average	1235.87	2201.36	2768.70
PTTW (m³)	3900	3900	2880
% of PTTW Max.	-	72%	97%
% of PTTW Avg.	32%	56%	96%

Well #4

System Capability Assessment			
Comparison of Flow Rates (raw flow; m ³):			
Month	Average Daily Flow	Maximum Daily Flow	Max Flow (L/min)
January	1444.10	3030.00	4356.00
February	1475.83	3181.00	4386.36
March	1843.00	3632.00	4368.48
April	1850.27	3577.00	4321.44
May	1663.94	3809.00	4333.80
June	1567.13	3185.00	4392.18
July	1601.16	3217.00	5596.26
August	1597.94	3108.00	4408.32
September	605.57	3212.00	4298.46
October	0.00	0.00	0.00
November	33.43	668.00	8736.66*
December	1335.71	2985.00	4364.70
Maximum	N/A	3809.00	8736.66
Average	1251.51	2800.33	4463.56
PTTW (m³)	8640	8640	6000
% of PTTW Max.	-	44%	146%
% of PTTW Avg.	14%	32%	74%

*Highest recorded value is a false read due to third party verification.

Wells - Combined

System Capability Assessment		
Comparison of Flow Rates (total raw flow; m ³ /d):		
Month	Average Flow	Maximum Daily Flow
January	2885.61	3801.47
February	2863.30	4026.94
March	3571.31	5442.03
April	3977.77	5440.37
May	3404.32	5765.97
June	3170.82	4307.12
July	3210.97	4210.11
August	3150.02	4176.66
September	3314.83	4473.68
October	3296.56	4361.94
November	3315.17	4704.76
December	2960.16	4081.67
Average	3260.07	N/A
Maximum	N/A	5765.97
System Capacity (m³)	8640	8640
Capacity (%)	38%	67%

Distribution Center 123

System Capability Assessment		
Comparison of Flow Rates (total treated flow; m ³ /d):		
Month	Average Flow	Maximum Daily Flow
January	1430.73	3039.60
February	1374.79	3054.70
March	1694.06	3627.00
April	2009.03	3796.30
May	1629.85	3087.00
June	1491.34	2927.80
July	1513.33	3198.90
August	1451.00	2981.40
September	2557.91	4244.70
October	3119.08	3931.80
November	3093.12	3994.90
December	1532.79	3145.31
Average	1908.08	N/A
Maximum	N/A	4244.70
System Capacity (m³)	8640	8640
Capacity (%)	22%	49%

Distribution Center 4

System Capability Assessment		
Comparison of Flow Rates (total treated flow; m ³ /d):		
Month	Average Flow	Maximum Daily Flow
January	1401.52	2952.00
February	1432.31	3080.00
March	1785.52	3518.00
April	1791.97	3492.00
May	1610.90	3714.00
June	1517.50	3087.00
July	1551.16	3120.00
August	1547.29	2993.00
September	587.17	3099.00
October	0.00	0.00
November	17.77	268.00
December	1292.65	2902.00
Average	1211.31	N/A
Maximum	N/A	3714.00
System Capacity (m³)	8640	8640
Capacity (%)	14%	43%

Distribution Centers - Combined

System Capability Assessment		
Comparison of Flow Rates (total treated flow; m ³ /d):		
Month	Average Flow	Maximum Daily Flow
January	2832.24	3778.60
February	2807.10	3903.40
March	3479.58	5333.50
April	3801.00	5279.10
May	3240.75	5443.20
June	3008.84	3930.70
July	3064.49	4066.70
August	2998.29	3999.40
September	3145.08	4261.70
October	3119.08	3931.80
November	3110.88	4055.00
December	2825.44	3935.31
Average	3119.40	N/A
Maximum	N/A	5443.2
System Capacity (m³)	8640	8640
Capacity (%)	36%	63%