

CITY OF HAMILTON'S
DRINKING WATER SYSTEMS (DWS) COMPLIANCE
SUMMARY REPORT FOR MUNICIPALITIES



2018

Safe Drinking Water Act, Ontario Regulation, 170/03,
Schedule 22

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1 - INTRODUCTION

This summary report for municipalities has been prepared in accordance with the Safe Drinking Water Act, Ontario Regulation, 170/03, Schedule 22. The City of Hamilton is the Owner of the following five Drinking Water Systems (DWS):

Licence Number	Drinking Water System
005-101	Hamilton DWS
005-102	Freelton DWS
005-103	Greensville DWS
005-104	Carlisle DWS
005-105	Lynden DWS

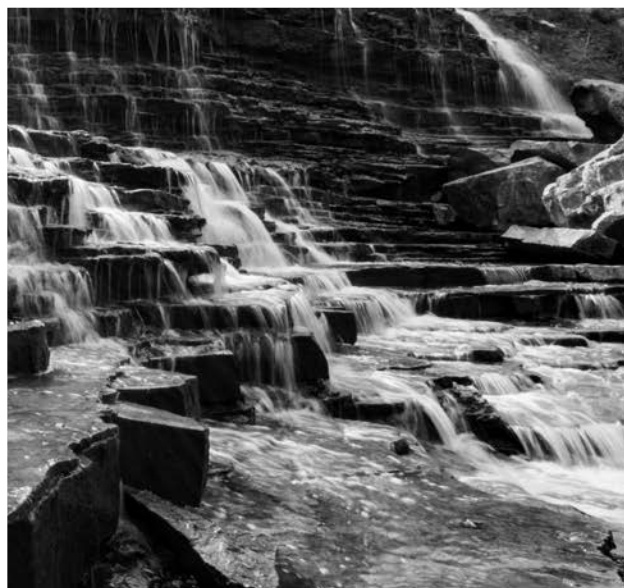
For each of the City of Hamilton's five DWSs, the following information is provided for the 2018 reporting period:

- A summary of quantities and flow rates of the water supplied
- Monthly average and maximum daily flows (in comparison to approved flow rates)

There were no Provincial Officer's Orders issued. All confirmed Adverse Water Quality Incidents were reported to the Ontario Ministry of Environment, Conservation and Parks (MECP) Spills Action Centre (SAC) and Public Health Services (PHS) and are provided in the report. All water taking quantities and flow rates were within approved rated capacities and provincial water taking limits. The MECP 2017 and 2018 inspection ratings are as follows.

MECP Inspection Rating by Calendar Year

Drinking Water System	2017 Inspection Rating	2018 Inspection Rating
Carlisle	100%	94.40%
Freelton	100%	96.74%
Greensville	100%	99.36%
Lynden	100%	100%
Hamilton DWS - Woodward	Not conducted in 2017	96.32%
Hamilton DWS - Fifty Road	100%	100%



2 - HAMILTON DWS, WOODWARD SUBSYSTEM



2.1 Hamilton Drinking Water System, Woodward Subsystem Description

The Woodward Treatment Facility supplies a significant portion of Hamilton's population with drinking water including Stoney Creek, Dundas, Ancaster, Waterdown and Glanbrook. The population served is estimated at 535,000. In addition, the treatment system provides treated water to parts of Haldimand County (Caledonia, York and Cayuga) and parts of Halton Region. The water source for the community within the Woodward Subsystem is Lake Ontario.



2.2 Adverse Water Quality Incidents (AWQI) - Hamilton Drinking Water System, Woodward Subsystem

The following AWQIs were reported to the MECP, SAC and PHS.

Notification Date (m-d-y)	Location of Adverse	Adverse Water Quality Incident	Resolution
03-09-2018	Woodward WTP	Operational Adverse Equipment Malfunction. There was a hot water leak above #13 Filter at Water Plant. There was one drip of hot water every 15-20 seconds dripping in the middle of #13 Filter. The hot water contains a conditioning agent comprised mostly of sodium hydroxide.	<p>→ On March 10th, the hot water line for the South/East Quadrant was isolated, Filter #13 was taken out of service and backwashed.</p> <p>Treated samples were taken for Schedule 23 Metals and VOCs testing. All results were within historical values. On March 12th the hot water line above Filter #13 was repaired and observed to have no more leaks. The filter was backwashed and returned to service.</p>
05-26-2018	Fire Station, 363 Isaac Brock Dr.	Total Coliforms = 1 CFU/100mL (Regulatory requirement is 0 CFU/100mL)	<p>→ Resampled adverse location, one upstream and one downstream hydrant. All results passed. The adverse was not confirmed.</p>
07-06-2018	Delbrook Court	Duty to report other observations. There was a watermain in need of emergency repair at the intersection of Royal Ave. and Stroud. In order to facilitate the repair, the City of Hamilton installed a temporary overland water line and put it into service before samples were taken and tested.	<p>→ Precautionary Boil Water Advisory was issued on July 6th. Two sets of samples were taken 24 hours apart. All results passed. Precautionary Boil Water Advisory was lifted on July 9th.</p> <p>On August 5th, two sets of samples were taken 24 hours apart from the repaired watermain. All results passed. The overland water line was removed on August 8th and the repaired watermain was put back in service.</p>

08-15-2018	Hydrant FL03H025	Free Chlorine = 0.02 mg/L Combined Chlorine = 0.15 mg/L (Regulatory requirement is minimum combined chlorine of 0.25 mg/L or free chlorine of 0.05 mg/L)	→ Watermain was flushed to restore chlorine. Flushing restored the combined chlorine to 1.18 mg/L.
08-30-2018	Lee Smith Booster Station – Ancaster	Total Coliforms = 4 CFU/100 mL (Regulatory requirement is 0 CFU/100mL)	→ • August 30th, resample and test - resulted in confirmed AWQI at Lee Smith Booster Station. • September 1st, resample and test - resulted in adverse at upstream hydrant. • September 2nd, resample and test. Two sets of samples were taken 24 hours apart. All results passed. • Reservoir was cleaned on September 12th, disinfected in the morning of September 14th utilizing Method 2 of the AWWA Standard. It was refilled to overflow and isolated. • September 15th, two sets of samples were taken 24 hours apart. All results passed.
10-03-2018	Central Fire Station, 35-43 John St. N.	Total Coliforms = 2 CFU/100mL (Regulatory requirement is 0 CFU/100mL)	→ Resampled adverse location, one upstream and one downstream hydrant. All results passed. The adverse was not confirmed.
10-24-2018	Fire Station 24, 252 Parkside Dr.	Total Coliforms = 2 CFU/100mL (Regulatory requirement is 0 CFU/100mL)	→ Resampled adverse location, one upstream and one downstream hydrant. All results passed. The adverse was not confirmed.



2.3 MECP Hamilton Drinking Water System, Woodward Subsystem Inspection Findings and Self-Declared Non-Compliances

A summary of findings that were either issued during the MECP inspection or self-declared during the 2018 calendar year (Inspection date: January 18, 2018):

#	Finding Type	Finding	Status
1	Non-Compliance	<p>Failure to ensure that all continuous analysers were calibrated in accordance with the manufacturer's instructions or as per Licence and Permit requirements (Filter Turbidity Meters).</p> <p>Action(s) Required: The City shall ensure that continuous monitoring equipment is checked and calibrated in accordance with Schedule 6, section 6-5 (1) 8. Also include procedures for all analyzer verification checks, frequency and triggers for the analyzer adjustment and full calibration, including documentation records by operators and instrumentation, to demonstrate and ensure optimum accuracy of analyzers and margins of error as per Schedule 6, section 6-5(1)10 for chlorine and turbidity.</p>	→ Actions complete
2	Recommendation	<p>Review, confirm and update chlorine contact (CT) time calculations. SCADA Process Control Narratives (PCN), Process Logic Control (PLC) alarm settings and testing protocols to be updated accordingly.</p>	→ Actions complete
3	Recommendation	<p>Provide update on the Unidirectional Flushing Project and system ATP testing program.</p>	→ Actions complete
4	Recommendation	<p>Review backwash programming and related Standard Operating Procedure.</p>	→ Actions complete
5	Recommendation	<p>Review maintenance records to demonstrate sedimentation tank clean outs and any other significant maintenance.</p>	→ Actions complete
6	Recommendation	<p>Review the need for NTU testing above 100 NTU while maintaining accuracy in readings as needed (i.e. probe #7997-200).</p>	→ Actions complete

7	Recommendation	Continue to review all water storage facilities within the City to confirm the presence and condition of vent and overflow screens and also review station check schedules and documentation to ensure system integrity.	→ Actions on-going
8	Recommendation	Review sampling locations for THMs and HAA to ensure samples are collected at the appropriate locations.	→ Actions on-going
9	Recommendation	Review sampling protocols with all operators as per Schedule 17-6 section 2. ii of O. Reg. 170.	→ Actions complete
10	Recommendation	Provide the progress updates of the Corrosion Control Plan Schedule on a quarterly basis (until the system went live).	→ Actions complete



2.4 Water Production Reports - Summary

The following provides a summary of daily flow rates and instantaneous peak flow rates in comparison to the capacity of the water works as identified in the Permit to Take Water. This information is tabulated in the accompanying tables.



FIGURE 2-1: WOODWARD TREATMENT PLANT - 2018 MONTHLY PRODUCTION (SUMMARY)

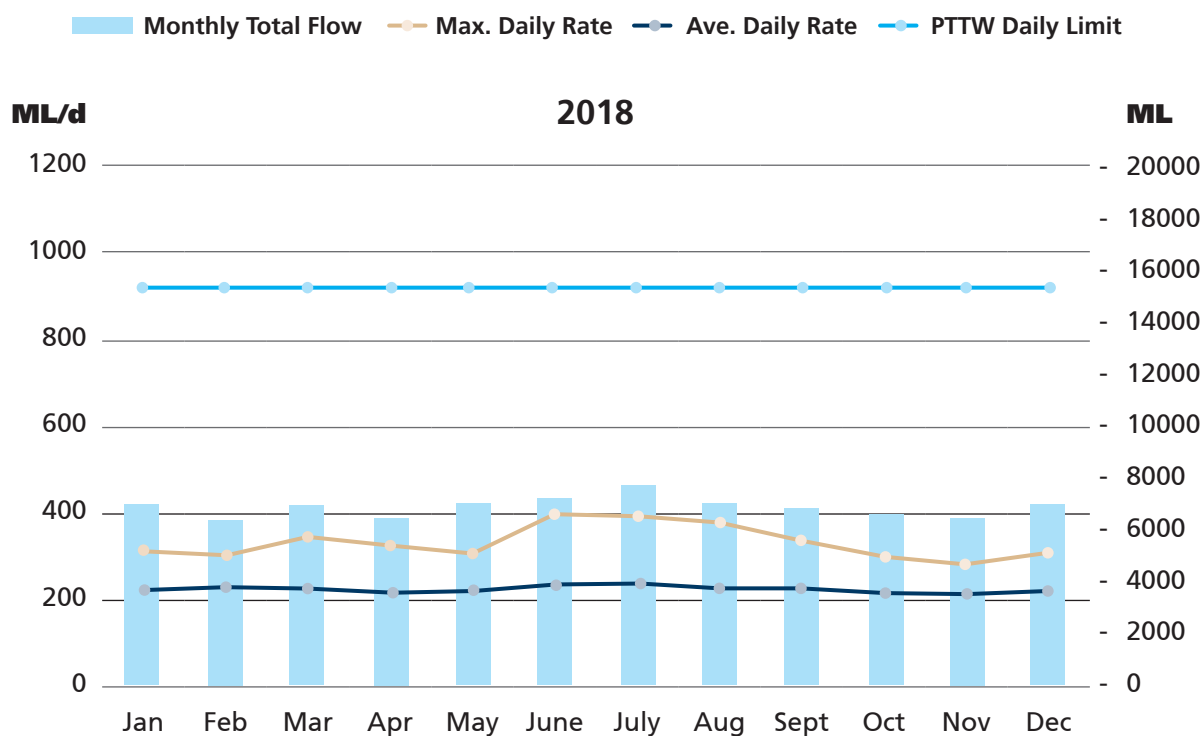


TABLE 2-1: WOODWARD TREATMENT PLANT - 2018 MONTHLY PRODUCTION (SUMMARY)

WOODWARD	UNITS	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Total	ML	7,051	6,457	7,102	6,551	7,132	7,430	7,896	7,277	6,949	6,651	6,573	7,127
Average	ML/d	227	231	229	218	230	248	255	235	232	215	219	230
Maximum	ML/d	314	306	345	327	313	400	397	377	334	298	290	316
PTTW	ML/d	909	909	909	909	909	909	909	909	909	909	909	909



3 - HAMILTON DWS, FIFTY ROAD SUBSYSTEM

3.1 Hamilton Drinking Water System, Fifty Road Subsystem Description

The treated water supply for this area comes from the Town of Grimsby Water Distribution System and serves a population of approximately 200 people. Water is provided from Grimsby west along Highway 8, then south on Fifty Road to Concession Road and to an underground, 1,100m³ storage reservoir operated by the City of Hamilton. The reservoir supplies water to residences on Reservoir Park Road.

3.2 Adverse Water Quality Incidents (AWQI) - Hamilton Drinking Water System, Fifty Road Subsystem

The following AWQIs were reported to the MECP, SAC and PHS.

Notification Date (m-d-y)	Location of Adverse	Adverse Water Quality Incident	Resolution
10-02-2018	Fifty Road Sampling Station A	Total Coliforms = 1 CFU/100mL (Regulatory requirement is 0 CFU/100mL)	→ Resampled adverse location, one upstream and downstream hydrant. All results passed. The adverse was not confirmed

3.3 MECP Hamilton Drinking Water System, Fifty Road Subsystem Inspection Findings and Self-Declared Non-Compliances

A summary of findings that were either issued during the MECP inspection or self-declared during the 2018 calendar year (Inspection date: May 24, 2018):

#	Finding Type	Finding	Status
1	Recommendation	Add Concession Road to the flushing program in order to demonstrate maintained chlorine residuals in the system.	→ Action complete
2	Recommendation	Review and update the Drinking Water Works Permit to include additional chemical pumps and booster pumps.	→ Action pending next Drinking Water Works Permit Schedule C consolidation
3	Recommendation	Review standard operating procedures (SOPs) and operating practices to ensure that the "Residual Chlorine Analyzers Technical Bulletin" is adhered to and documents can be provided to demonstrate work completed. Action required: Submit a revised SOP and Operations and Maintenance plan to the undersigned inspector by July 31, 2018.	→ Actions complete

3.4 Water Production Reports - Summary

The Fifty Road DWS receives treated water from the Town of Grimsby Water Distribution System. Therefore a water production summary is not available.

An aerial photograph of a suburban neighborhood. In the center-right, a tall, cylindrical water tower with a white top section stands out against the green trees. Surrounding the tower are several houses with gabled roofs, lawns, and mature trees. The scene is captured from a high angle, showing the layout of the streets and the density of the vegetation.

4 - CARLISLE DWS

4.1 Carlisle Drinking Water System Description

The Carlisle water supply system consists of four wells, one elevated water storage tank, treatment, sampling and analysis, which services a population of approximately 1,800 people. The water source for the community of Carlisle is ground water.



4.2 Adverse Water Quality Incidents (AWQI) - Carlisle DWS

There were no AWQIs in 2018.

4.3 MECP Carlisle Drinking Water System (DWS) Inspection Findings and Self-Declared Non-Compliances

A summary of findings that were either issued during the MECP inspection or self-declared during the 2018 calendar year (Inspection date: May 24, 2018):

#	Finding Type	Finding	Status
1	Self-declared Non-Compliance (2064) also included as a Non-Compliance in the Inspection Report	Failure to make logs or other record keeping mechanisms available for at least five (5) years. Accidental disposal of operator log books June 6, 2018. Note – This non-compliance was originally noted in the Greenville inspection. Please refer to Greenville NC for further details.	→ Actions complete
2	Non-Compliance	Failure to ensure that all continuous analysers were calibrated, maintained, and operated, in accordance with the manufacturer's instructions and Schedule E of the Municipal Drinking Water Licence (Ultraviolet (UV) analyzers). Action(s) Required: UV units are required to be maintained as per manufacturer recommendations and Schedule E of the Licence which requires "on a yearly basis, the owner shall inspect, clean and check functionality of UV sensors, lamps and associated equipment. Replacement of UV sensors and lamps will be as required or if intensity falls below the set limits." Records did not demonstrate work was completed annually as required. At all times, ensure that monthly and annual maintenance is conducted as required. Submit to the undersigned provincial officer by January 31, 2019 a new work order tracking process to ensure compliance.	→ Actions complete
3	Self-declared Non-Compliance (2136) also included as a Non-Compliance in the Inspection Report	Failure to ensure all operators possessed the required certification (two (2) operators working with expired licences). Note – This non-compliance was originally noted in the Freelon inspection. Please refer to Freelon NC for further details.	→ Actions complete

4	Recommendation	<p>List the minimum intensity required to meet 40 mj/cm2, in the Real Time SCADA Data Assessment procedure (PW-WW-PO-P-011-001) to show the methodology/buffer of the alarm set points.</p> <p>Note – This recommendation was originally noted in the Greenville inspection. Please refer to Greenville for further details.</p>	→ Actions complete, however, follow-up is required.
5	Recommendation	<p>Review records to clearly identify analyzer make, model, location, calibration frequency required by manufacture and frequency of calibration adopted by the City.</p>	→ Actions pending



4.4 Water Production Reports - Summary

The following provides a summary of daily flow rates and instantaneous peak flow rates in comparison to the capacity of the water works as identified in the Permit to Take Water. This information is tabulated in the accompanying tables.

FIGURE 4-1: CARLISLE WELLS (FDC01 & FDC02) - 2018 MONTHLY PRODUCTION (SUMMARY)

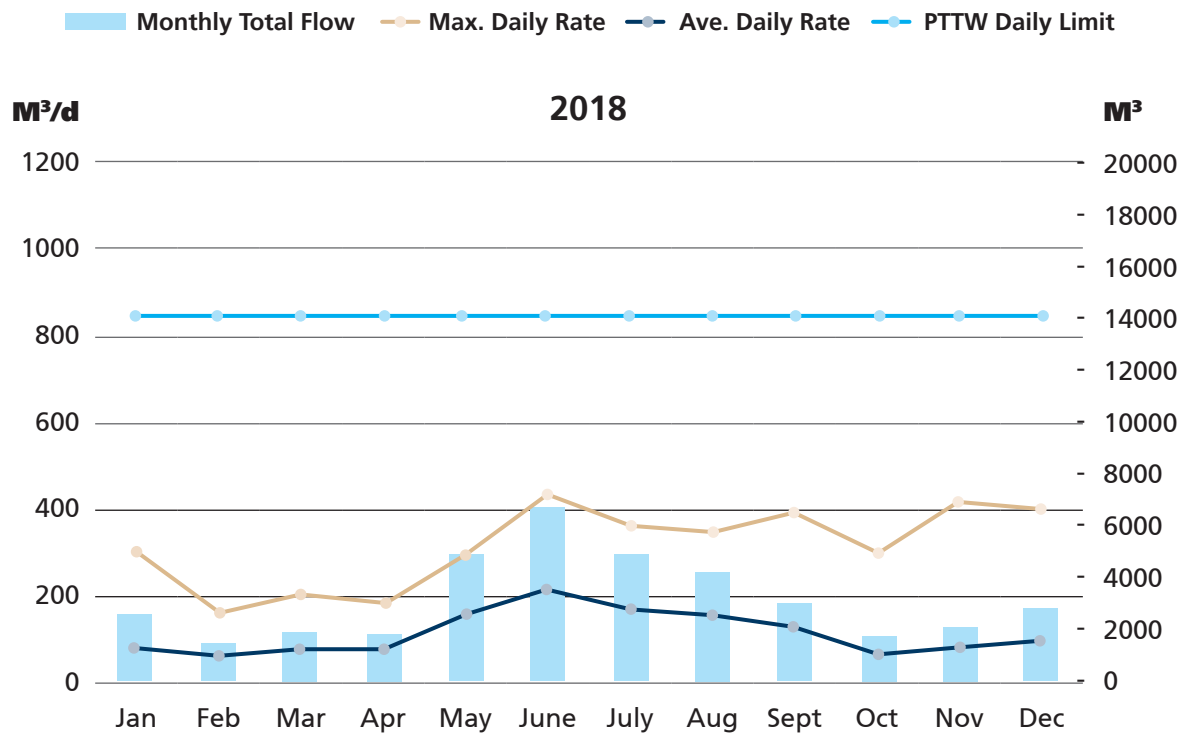


TABLE 4-1: CARLISLE WELLS (FDC01 & FDC02) - 2018 MONTHLY PRODUCTION (SUMMARY)

FDC01 & 02	UNITS	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Total	m ³	2,676	1,547	2,303	2,258	5,024	6,721	5,074	4,244	3,042	1,884	2,214	2,807
Average	m ³ /d	86	55	74	75	162	224	164	137	101	61	74	91
Maximum	m ³ /d	301	160	204	185	305	439	363	344	401	315	421	407
PTTW	m ³ /d	851	851	851	851	851	851	851	851	851	851	851	851

FIGURE 4-2: CARLISLE WELL (FDC03R) - 2018 MONTHLY PRODUCTION (SUMMARY)

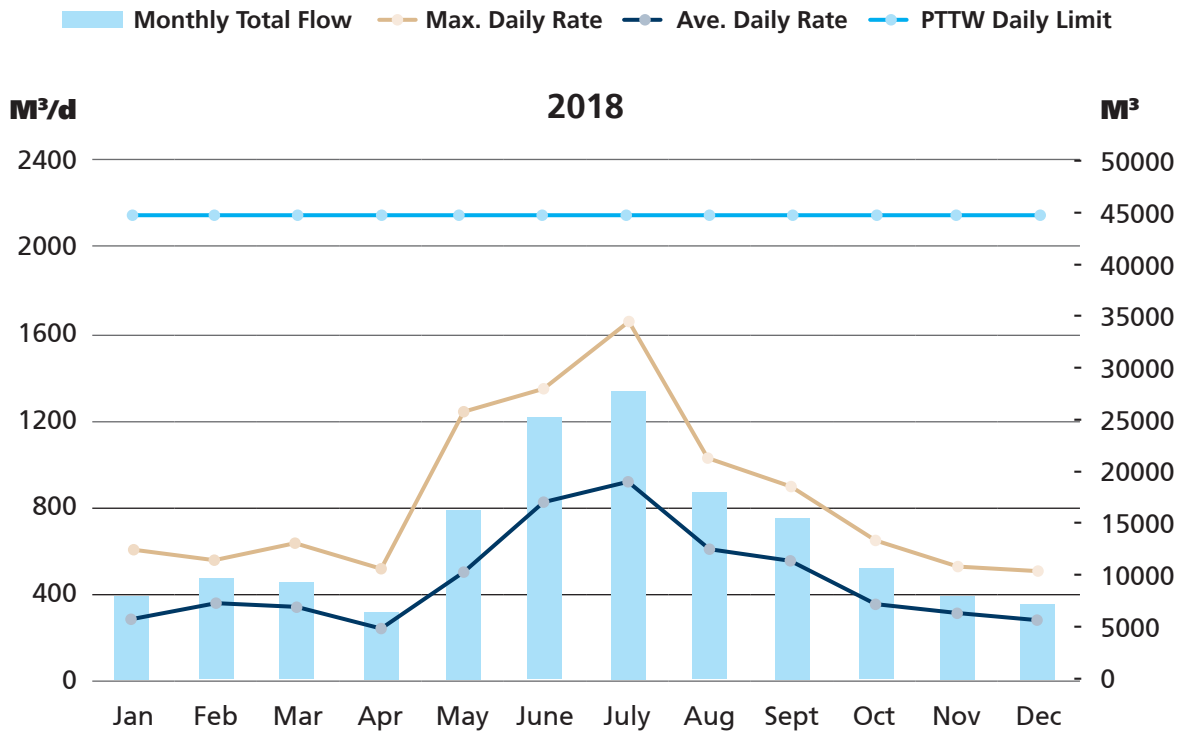


TABLE 4-2: CARLISLE WELL (FDC03R) - 2018 MONTHLY PRODUCTION (SUMMARY)

FDC03R	UNITS	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Total	m ³	8,103	10,110	10,011	6,847	16,379	25,268	28,470	18,851	15,715	10,485	8,191	7,408
Average	m ³ /d	261	361	323	228	528	842	918	608	524	338	273	239
Maximum	m ³ /d	630	565	671	516	1,255	1,333	1,642	1,032	898	683	515	495
PTTW	m ³ /d	2,160	2,160	2,160	2,160	2,160	2,160	2,160	2,160	2,160	2,160	2,160	2,160

FIGURE 4-3: CARLISLE WELL (FDC05) - 2018 MONTHLY PRODUCTION (SUMMARY)

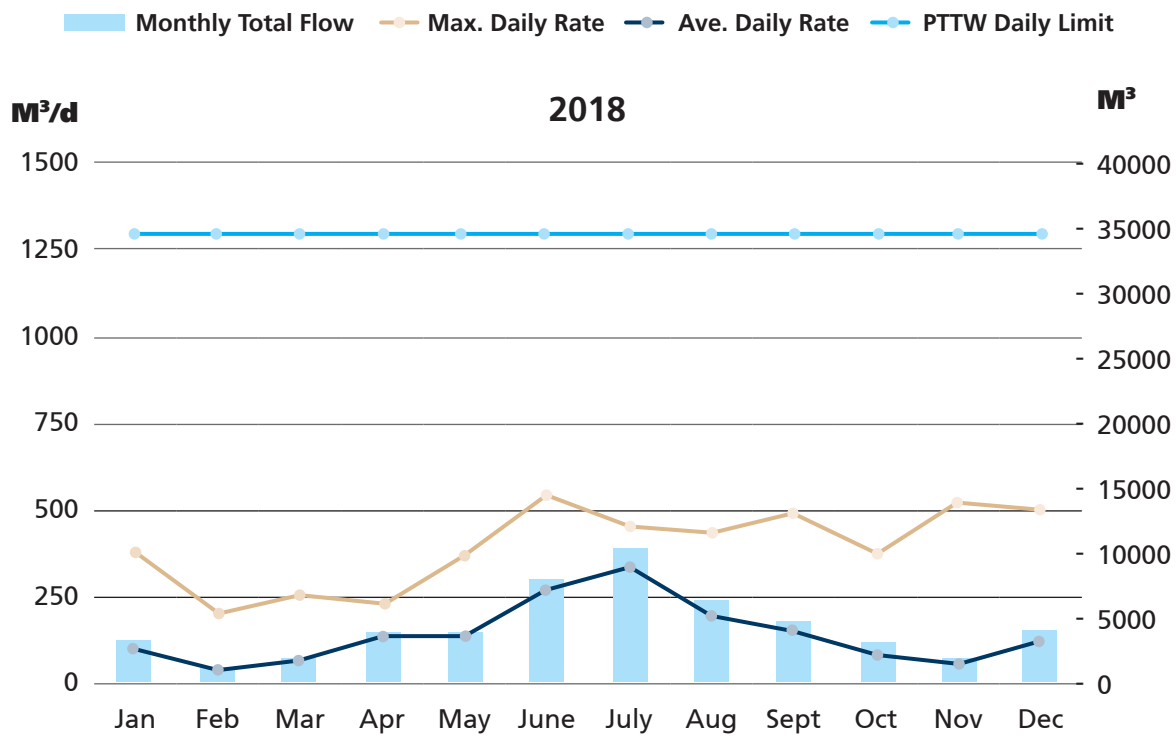


TABLE 4-3: CARLISLE WELL (FDC05) - 2018 MONTHLY PRODUCTION (SUMMARY)

FDC05	UNITS	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Total	m³	3,217	1,065	1,868	4,171	4,224	8,025	11,115	6,146	4,523	3,211	2,339	4,161
Average	m³/d	104	38	60	139	136	268	359	198	151	104	78	134
Maximum	m³/d	453	456	333	503	651	769	740	492	609	447	335	478
PTTW	m³/d	1,296	1,296	1,296	1,296	1,296	1,296	1,296	1,296	1,296	1,296	1,296	1,296



5 - FREELTON DWS

5.1 Freelton Drinking Water System Description

The Freelton water supply system consists of two wells, one elevated water storage tank, treatment, sampling and analysis which services a population of approximately 790 people. The water source for the community of Freelton is ground water.

5.2 Adverse Water Quality Incidents (AWQI) - Freelon DWS

There were no AWQIs in 2018.

5.3 MECP Freelon Drinking Water System (DWS) Inspection Findings and Self-Declared Non-Compliances

A summary of findings that were either issued during the MECP inspection or self-declared during the 2018 calendar year (Inspection date: October 25, 2018):

#	Finding Type	Finding	Status
1	Self-declared Non-Compliance (2064) also included as a Non-Compliance in the Inspection Report	Failure to make logs or other record keeping mechanisms available for at least five (5) years. Accidental disposal of operator log books June 6, 2018. Note – This non-compliance was originally noted in the Greenville inspection. Please refer to Greenville NC for further details.	→ Action complete
2	Self-declared Non-Compliance (2136) also included as a Non-Compliance in the Inspection Report	Failure to ensure all operators possessed the required certification (two (2) operators working with expired licences). Action(s) Required: Reviewing training, documentation requirements and communication protocols and comply with all applicable requirements under the Safe Drinking Water Act and regulations. Note – This non-compliance was repeated in the subsequent inspection for Carlisle drinking water system.	→ Actions complete

5.4 Water Production Reports - Summary

The following provides a summary of daily flow rates and instantaneous peak flow rates in comparison to the capacity of the water works as identified in the Permit to Take Water. This information is tabulated in the accompanying tables.

FIGURE 5-1: FREELTON WELL (FDF01) - 2018 MONTHLY PRODUCTION (SUMMARY)

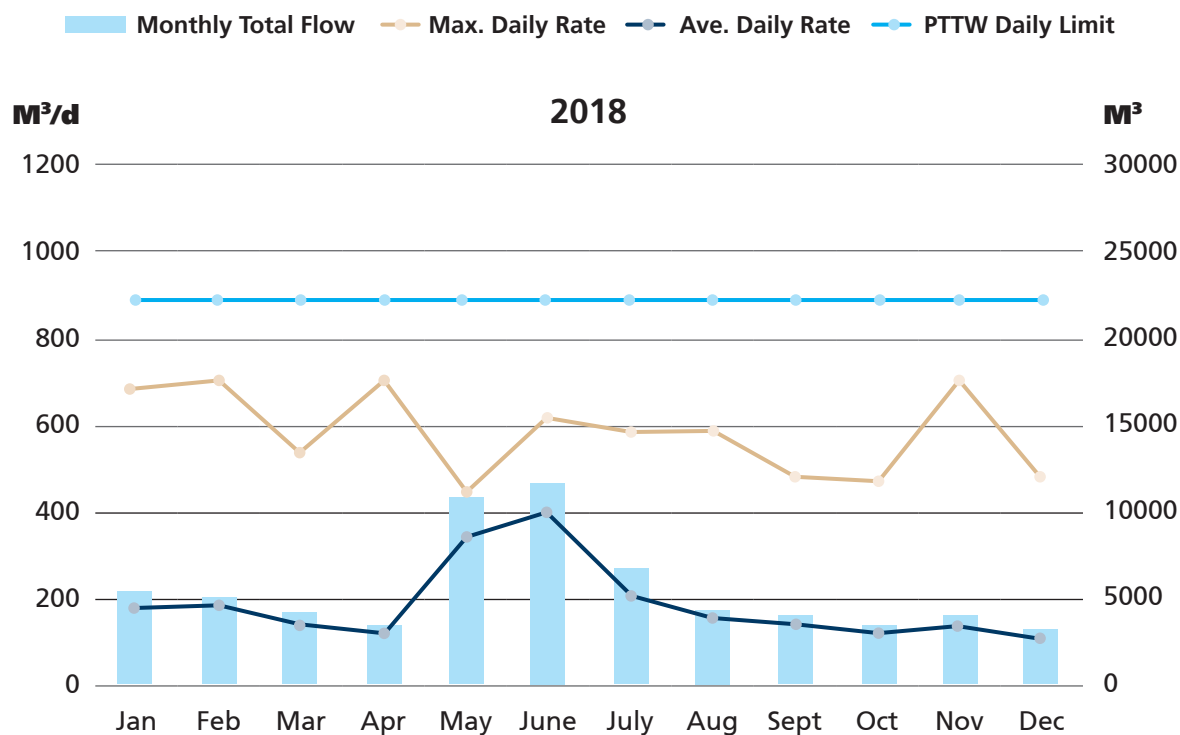


TABLE 5-1: FREELTON WELL (FDF01) - 2018 MONTHLY PRODUCTION (SUMMARY)

FDC01 & 02	UNITS	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Total	m ³	5,468	5,100	4,318	3,740	11,226	11,863	6,449	4,226	3,958	3,534	3,985	3,161
Average	m ³ /d	176	182	139	125	362	395	208	136	132	114	133	102
Maximum	m ³ /d	677	691	540	693	456	623	586	585	475	466	692	484
PTTW	m ³ /d	878	878	878	878	878	878	878	878	878	878	878	878

FIGURE 5-2: FREELTON WELL (FDF03) - 2018 MONTHLY PRODUCTION (SUMMARY)

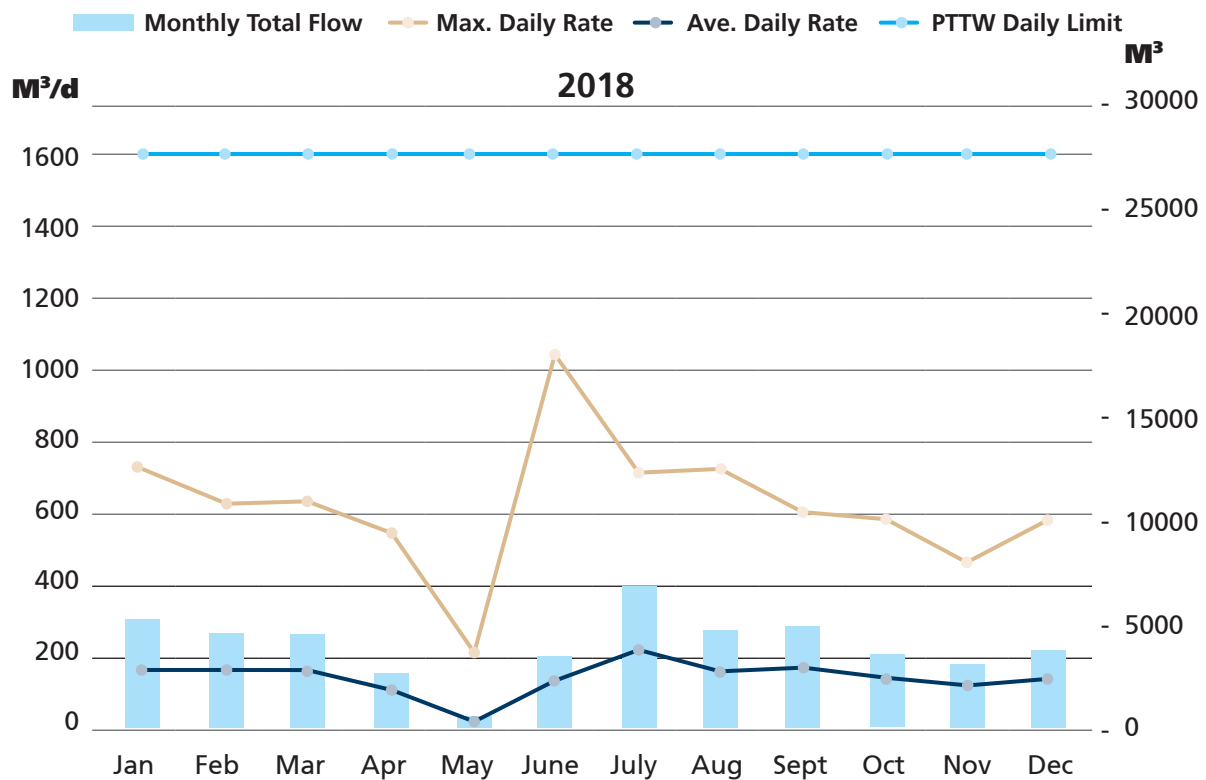


TABLE 5-2: FREELTON WELL (FDF03) - 2018 MONTHLY PRODUCTION (SUMMARY)

FDC01 & 02	UNITS	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Total	m ³	5,476	4,825	4,814	2,632	637	3,665	7,050	4,856	5,178	3,785	3,071	3,818
Average	m ³ /d	177	172	155	88	21	122	227	157	173	122	102	123
Maximum	m ³ /d	723	628	630	533	201	1,049	713	722	608	587	470	579
PTTW	m ³ /d	1,607	1,607	1,607	1,607	1,607	1,607	1,607	1,607	1,607	1,607	1,607	1,607

A black and white photograph of a man with a beard and short hair, wearing a white t-shirt. He is holding a clear glass of water to his lips and drinking. The background is a bright, out-of-focus interior space with large windows. A blue horizontal bar is positioned at the top right of the image, containing the text '6 - GREENSVILLE DWS'.

6 - GREENSVILLE DWS

6.1 Greenville Drinking Water System Description

The Greenville water supply system consists of one well, one well station, treatment, sampling and analysis which services a population of approximately 100 people. The water source for the community of Greenville is ground water.

6.2 Adverse Water Quality Incidents (AWQI) - Greenville DWS

There were no AWQIs in 2018.

6.3 MECP Greenville Drinking Water System (DWS) Inspection Findings and Self-Declared Non-Compliances

A summary of findings that were either issued during the MECP inspection or self-declared during the 2018 calendar year (Inspection date: September 19, 2018):

#	Finding Type	Finding	Status
1	Self-declared Non-Compliance (2064) also included as a Non-Compliance in the Inspection Report	Failure to make logs or other record keeping mechanisms available for at least five (5) years. Accidental disposal of operator log books June 6, 2018. Action(s) Required: 1. Ensure log books are accessible for at least five years, as per O. Reg. 128, section 27(6). Note – This non-compliance was repeated in subsequent inspections for Lynden, Freelon, and Carlisle drinking water systems.	→ Actions complete
2	Recommendation	Implement a program of regular watermain flushing and/or scouring.	→ A flushing strategy was implemented in 2018.
3	Recommendation	As part of the recommended regular flushing program, also conduct regular chlorine residual tests of samples collected from dead ends or extremities of the distribution system in addition to the current sampling stations.	→ A flushing strategy was implemented in 2018.
4	Recommendation	Review records to clearly identify analyzer make, model, location, calibration frequency required by manufacture and frequency of calibration adopted by the City.	→ Actions pending.
5	Recommendation	List the minimum intensity required to meet 40 mJ/cm ² , in the Real Time SCADA Data Assessment procedure (PW-WW-PO-P-011-001) to show the methodology/buffer of the alarm set points.	→ Actions complete, however, follow-up is required.

6.4 Water Production Reports - Summary

The following provides a summary of daily flow rates and instantaneous peak flow rates in comparison to the capacity of the water works as identified in the Permit to Take Water. This information is tabulated in the accompanying tables.

FIGURE 6-1: GREENSVILLE WELL (FDG01) - 2018 MONTHLY PRODUCTION (SUMMARY)

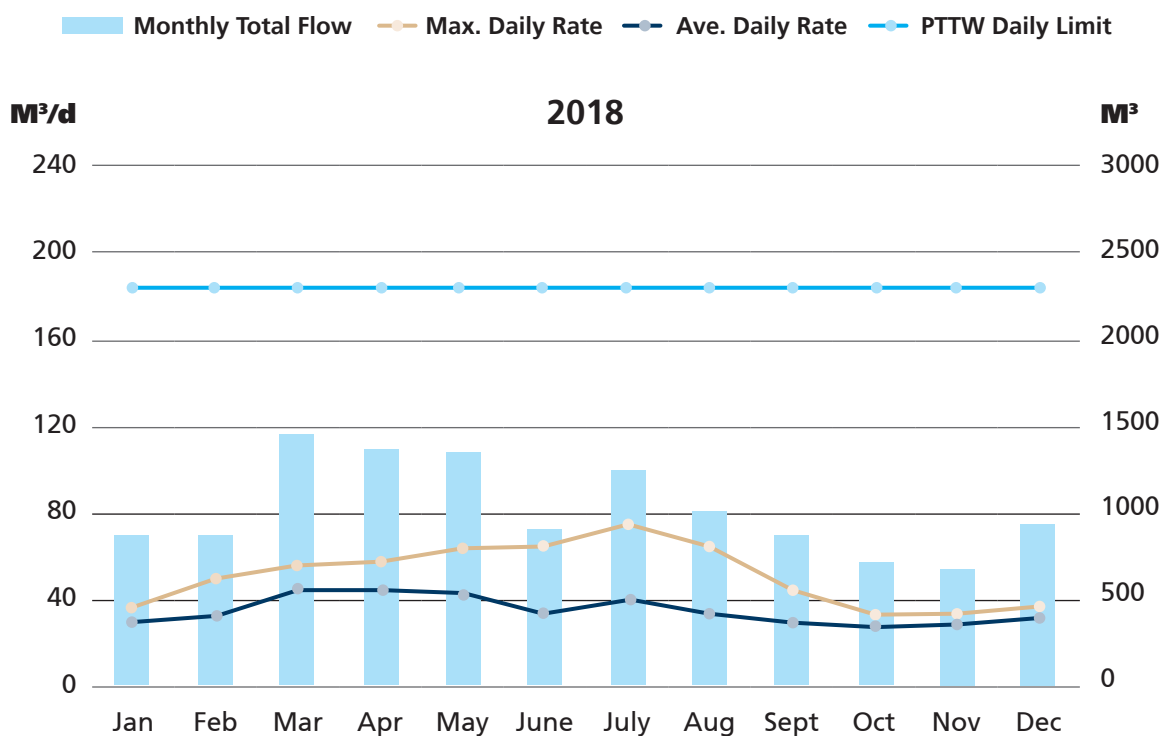
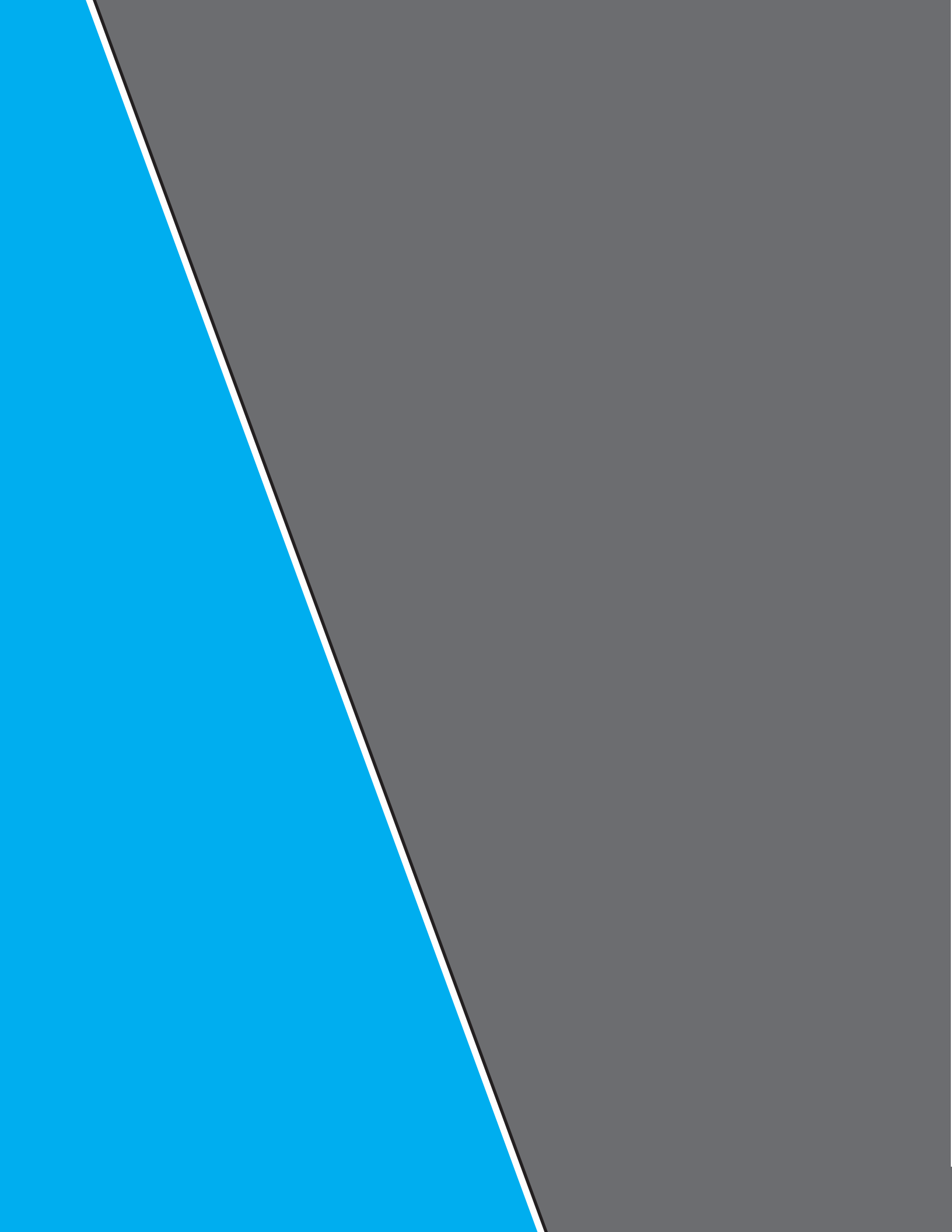


TABLE 6-1: GREENSVILLE WELL (FDG01) - 2018 MONTHLY PRODUCTION (SUMMARY)

WOODWARD	UNITS	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Total	m ³	862	856	1,453	1,373	1,360	939	1,236	1,005	855	691	666	917
Average	m ³ /d	28	31	47	46	44	31	40	32	28	22	22	30
Maximum	m ³ /d	34	45	55	54	63	62	74	61	43	26	25	37
PTTW	m ³ /d	197	197	197	197	197	197	197	197	197	197	197	197



7 - LYNDEN DWS



7.1 Lynden Drinking Water System Description

The Lynden ground water supply system consists of one well, one well station, treatment, sampling and analysis which services a population of approximately 380 people. The water source for the community of Lynden is ground water.

7.2 Adverse Water Quality Incidents (AWQI) - Lynden DWS

The following AWQIs were reported to the MECP, SAC and PHS.

Notification Date (m-d-y)	Location of Adverse	Adverse Water Quality Incident	Resolution
09-27-2018	Lynden Sampling Station D	Total Coliforms = 1 CFU/100mL (Regulatory requirement is 0 CFU/100mL)	→ Resampled adverse location, one upstream and downstream location. All results passed. The adverse was not confirmed.

7.3 MECP Lynden Drinking Water System (DWS) Inspection Findings and Self-Declared Non-Compliances

A summary of findings that were either issued during the MECP inspection or self-declared during the 2018 calendar year (Inspection date: September 19, 2018):

#	Finding Type	Finding	Status
1	Self-declared Non-Compliance (2064) also included as a Non-Compliance in the Inspection Report	Failure to make logs or other record keeping mechanisms available for at least five (5) years. Accidental disposal of operator log books June 6, 2018. Note – This non-compliance was originally noted in the Greenville inspection. Please refer to Greenville NC for further details.	→ Actions complete

7.4 Water Production Reports - Summary

The following provides a summary of daily flow rates and instantaneous peak flow rates in comparison to the capacity of the water works as identified in the Permit to Take Water. This information is tabulated in the accompanying tables.

FIGURE 7-1: LYNDEN WELL (FDL01) - 2018 MONTHLY PRODUCTION (SUMMARY)

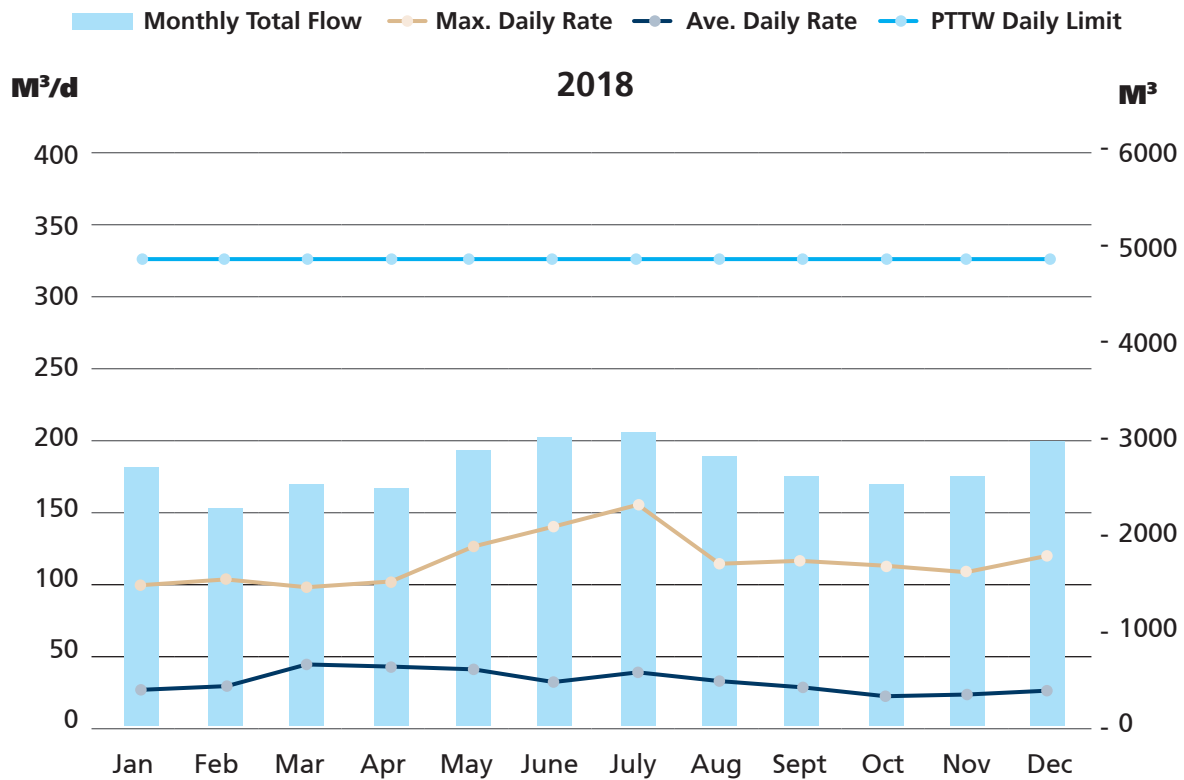


TABLE 7-1: LYNDEN WELL (FDL01) - 2018 MONTHLY PRODUCTION (SUMMARY)

FDC01 & 02	UNITS	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Total	m ³	2,678	2,336	2,522	2,477	2,907	3,022	3,074	2,851	2,622	2,545	2,702	2,971
Average	m ³ /d	86	83	81	83	94	101	99	92	87	82	90	96
Maximum	m ³ /d	98	106	96	100	123	136	155	116	119	113	110	122
PTTW	m ³ /d	327	327	327	327	327	327	327	327	327	327	327	327

