MONTHLY REPORTING PERIOD - JANUARY, 2025

SUMMARY

This document provides a summary of water quantity and quality data collected by BMID in January 2025.

WATER SUPPLY SUMMARY

Water Source	Active / Not Active	Volume (Mega Liters)	Irrigation / Domestic	Comments
Mission Ck.	**Active**	**232.70**	**Domestic**	Primary Water supply. Domestic demand only this month.
Scotty Creek	Not Active	0	Irrig. only	Scotty Creek source will resume operations in summer 2025
Well 3 Cornish	Not Active	0	Irrig. only	Well #3 upgrade underway to provide for irrigation
Well 4	**Active**	**11.57**	**Domestic**	Well # 4 – domestic to Scotty Creek service area
Well 5	Not Active	0	Irrig. only	Well #5 will resume supply in summer 2025
Well 6	Not Active	0	Irrig. only	Well # 6 will resume supply in summer 2025
January 2025	**Total:**	**244.27**		**10 Year Average for January = 235.95**

WATER QUALITY SUMMARY

Raw Water Microbiological Summary		**E-Coli**		
Location	# of Samples	Lowest *E.Coli* Reading	Ave. *E.Coli* Reading	Highest *E.Coli* Reading
Mission Creek Intake	4	0	2	4
Stevens Reservoir	4	0	0	0
Hadden Reservoir	4	0	0	0

Treated Water Microbiological Summary		**Turbidity Summary**		
Location	Low Reading	Average Reading	High Reading	Comments
Mission Creek Raw Water	0.19 NTU	0.51 NTU	0.84 NTU	
Distribution Intake	0.29 NTU	0.33 NTU	0.43 NTU	
Booster # 1 (first customer)	0.26 NTU	0.31 NTU	0.44 NTU	
UV Treatment Plant	0.48 NTU	0.54 NTU	0.77 NTU	

UV Treatment Plant				
Plant Flow Volume	In-Spec	Off-Spec	% Off-Spec	Comments
232,702 m^3	232,670 m^3	32 m^3	0.014%	Ave. UVT% - 84.3%

WATER QUALITY DISTRIBUTION TESTING

		CARO (third party) Testing	24
BMID Population:	30,000	In House Pres./Absence	9
Required Minimum # of Tests:	30	Total Tests:	**33**
		Total Positive Tests:	**0**

Documentation and figures are provided on the following pages to support this submission.

1.0 FLOWS - JANUARY, 2025

Mission Creek provided 95% of the 224.27 Mega Liters used in the BMID system in January, with Well # 4 supplying the remaining 5%.

Figure 1.1 - Domestic Water System Flow

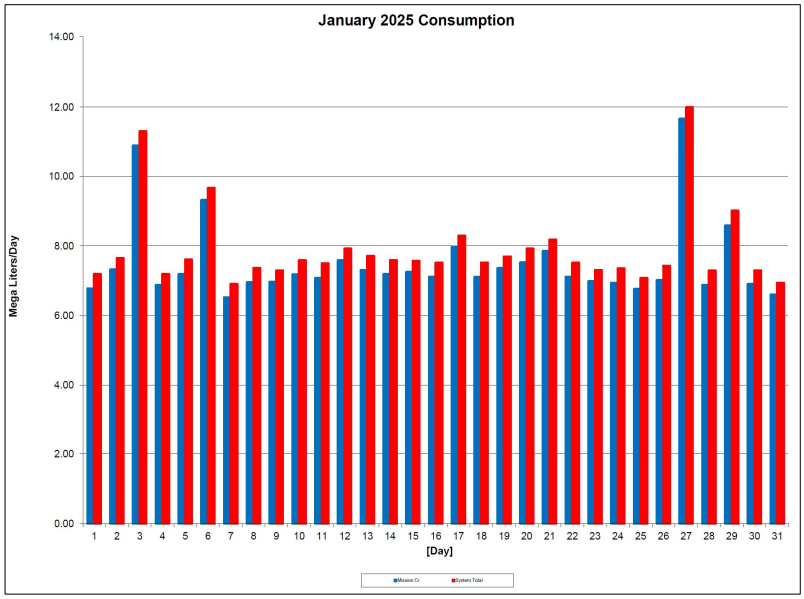


Table 1.2 - January 2025 - Daily Consumption Report

Year	Mission Cr	Well #4	Well #5	Well #6	System Total
2025	ML/Day	ML/Day	ML/Day	ML/Day	ML/Day
1-Jan	6.77	0.41	-	-	7.19
2-Jan	7.32	0.32	-	-	7.64
3-Jan	10.90	0.41	-	-	11.31
4-Jan	6.87	0.31	-	-	7.19
5-Jan	7.19	0.42	-	-	7.60
6-Jan	9.31	0.35	-	-	9.66
7-Jan	6.52	0.38	-	-	6.90
8-Jan	6.95	0.41	-	-	7.36
9-Jan	6.96	0.33	-	-	7.29
10-Jan	7.17	0.41	-	-	7.58
11-Jan	7.08	0.41	-	-	7.49
12-Jan	7.59	0.33	-	-	7.92
13-Jan	7.30	0.41	-	-	7.71
14-Jan	7.18	0.40	-	-	7.59
15-Jan	7.25	0.32	-	-	7.57
16-Jan	7.11	0.40	-	-	7.51
17-Jan	7.97	0.32	-	-	8.29
18-Jan	7.10	0.41	-	-	7.52
19-Jan	7.36	0.33	-	-	7.69
20-Jan	7.52	0.40	-	-	7.92
21-Jan	7.85	0.32	-	-	8.18
22-Jan	7.11	0.41	-	-	7.51
23-Jan	6.98	0.32	-	-	7.30
24-Jan	6.94	0.41	-	-	7.35
25-Jan	6.76	0.31	-	-	7.07
26-Jan	7.01	0.41	-	-	7.43
27-Jan	11.66	0.33	-	-	12.00
28-Jan	6.88	0.41	-	-	7.29
29-Jan	8.58	0.43	-	-	9.01
30-Jan	6.91	0.39	-	-	7.29
31-Jan	6.60	0.34	-	-	6.94
Total ML	**232.70**	**11.57**	**0.00**	**0.00**	**244.27**
Avg's	7.54	0.37	-	-	7.91
Max	11.66	0.43	0.00	0.00	12.00
Min	6.52	0.31	0.00	0.00	6.90

2.0 RAW WATER QUALITY - BACTERIOLOGICAL MONITORING

Raw water samples were taken at three points at BMID settling ponds before chlorination. Samples were taken at the Mission Creek raw water intake, the outlet for Stevens Pond, and the point of disinfection at the end of Hadden Reservoir.

Samples from the previous month are also provided to show a two-month trend

Figure 2.1 - Raw Water *E.Coli* Readings (CARO Lab results) December 2024 - January 2025

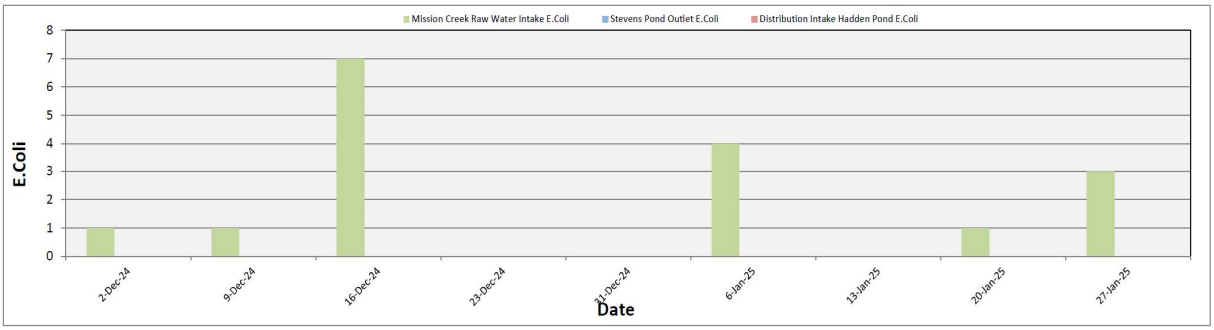


Table 2.1 - *E.Coli* Readings (CARO Labs)

Date	Mission Creek Raw Water Intake E.Coli	Stevens Pond Outlet E.Coli	Distribution Intake Hadden Pond E.Coli
2-Dec-24	1	NA	NA
9-Dec-24	1	0	0
16-Dec-24	7	0	0
23-Dec-24	0	0	0
31-Dec-24	0	0	0
6-Jan-25	4	0	0
13-Jan-25	0	0	0
20-Jan-25	1	0	0
27-Jan-25	3	0	0

Stevens or WTP Intake (Raw) - Sampling of raw water at intake from Mission Creek

Stevens Outlet (Raw) - Sampling point after exiting 142,000 m^3 1st upper balancing reservoir (Stevens Res.)

Hadden Outlet (Raw) - Sampling point after exiting 75,000 m^3 2nd lower balancing reservoir (Hadden Res.)

(*Hadden Outlet = Distribution Intake - Point of Disinfection*)

3.0 RAW AND TREATED WATER TURBIDITY

Turbidity is measured online at four locations, Mission Creek raw water intake, the Distribution Intake, the UV treatment plant, and Booster#1. The first user of the BMID system is located near Booster #1. The highest turbidity level recorded at this location was 0.44 NTU on January 1st, 2025.

Figure 3.1 – Daily Turbidity Readings
(Mission Creek Raw - Distribution Intake - Booster Station 1 and UV Plant)

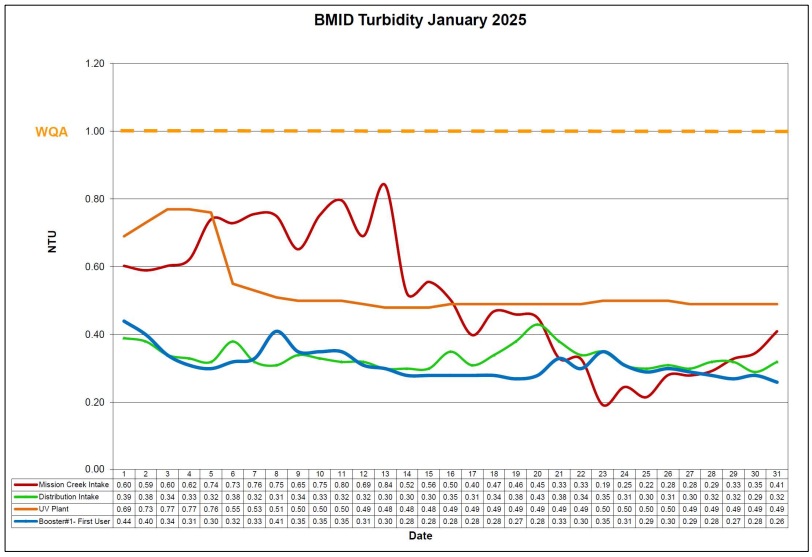


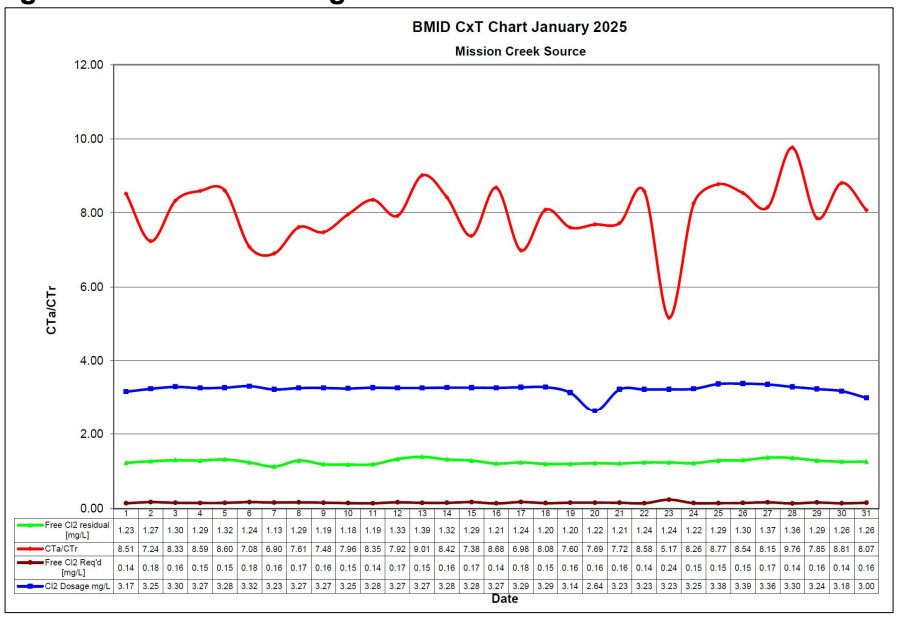
Table 3.1 - Daily Monitoring Record – Turbidity at On-Line Turbidity Analyzers

Turbidity Point Sampling for January 2025				
Date	Mission Creek Intake	Distribution Intake	Booster#1- First User	UV Plant
	Daily Average [NTU]	Daily Average NTU	Daily Average NTU	Daily Average [NTU]
1	0.60	0.39	0.44	0.69
2	0.59	0.38	0.40	0.73
3	0.60	0.34	0.34	0.77
4	0.62	0.33	0.31	0.77
5	0.74	0.32	0.30	0.76
6	0.73	0.38	0.32	0.55
7	0.76	0.32	0.33	0.53
8	0.75	0.31	0.41	0.51
9	0.65	0.34	0.35	0.50
10	0.75	0.33	0.35	0.50
11	0.80	0.32	0.35	0.50
12	0.69	0.32	0.31	0.49
13	0.84	0.30	0.30	0.48
14	0.52	0.30	0.28	0.48
15	0.56	0.30	0.28	0.48
16	0.50	0.35	0.28	0.49
17	0.40	0.31	0.28	0.49
18	0.47	0.34	0.28	0.49
19	0.46	0.38	0.27	0.49
20	0.45	0.43	0.28	0.49
21	0.33	0.38	0.33	0.49
22	0.33	0.34	0.30	0.49
23	0.19	0.35	0.35	0.50
24	0.25	0.31	0.31	0.50
25	0.22	0.30	0.29	0.50
26	0.28	0.31	0.30	0.50
27	0.28	0.30	0.29	0.49
28	0.29	0.32	0.28	0.49
29	0.33	0.32	0.27	0.49
30	0.35	0.29	0.28	0.49
31	0.41	0.32	0.26	0.49
AVG	0.51	0.33	0.31	0.54

4.0 CHLORINE CONTACT TIME

Temperature, pH, peak flow and chlorine residual levels are recorded to determine the CT levels that are required to provide 3 log inactivation of *Giardia*. Chlorine Contact times exceeded the CT levels required to provide 3 log (99.9%) inactivation of *Giardia Lamblia* throughout the month of January, 2025.

Figure 4.1 - CT Trending – BMID Mission Creek Source – January 2025



CTa – CT achieved
CTr – CT Required

The minimum CT that BMID achieved was 6.90 X that of what was required

Table 4.2 - CT Table – Mission Creek Source

BMID January 2025 Mission Creek Source													
DATE	pH	TEMP	PEAK	Free Cl_2	CT	CT	CTa/CTr	Free Cl_2	Cl2	VOLUME	TIME	FLOW	Dosage
	Average	(Present)	FLOW	residual	achieved	req'd		Req'd	Dosage	TOTAL		Daily Average	Average
January		[°C]	L/s	[mg/L]				[mg/L]	mg/L	Liters	[mins]	Liters/Second	KG/Day
1	7.24	2.9	116	1.23	1771	208.0	8.51	0.14	3.17	10029827	1440	80	21.8
2	7.25	3.0	141	1.27	1507	208.3	7.24	0.18	3.25	10029827	1187	88	24.5
3	7.25	2.8	123	1.30	1766	212.0	8.33	0.16	3.30	10029827	1359	82	23.4
4	7.25	2.9	119	1.29	1807	210.3	8.59	0.15	3.27	10029827	1401	81	23.0
5	7.25	3.0	122	1.32	1802	209.5	8.60	0.15	3.28	10029827	1365	84	23.8
6	7.25	3.3	144	1.24	1439	203.3	7.08	0.18	3.32	10029827	1160	90	25.9
7	7.24	2.9	133	1.13	1417	205.4	6.90	0.16	3.23	10029827	1254	78	21.8
8	7.24	3.1	137	1.29	1573	206.6	7.61	0.17	3.27	10029827	1219	81	23.0
9	7.24	3.0	129	1.19	1537	205.5	7.48	0.16	3.27	10029827	1291	82	23.1
10	7.25	3.3	123	1.18	1606	201.8	7.96	0.15	3.25	10029827	1361	86	24.0
11	7.24	3.4	119	1.19	1670	199.9	8.35	0.14	3.28	10029827	1403	82	23.3
12	7.24	3.4	138	1.33	1610	203.3	7.92	0.17	3.27	10029827	1210	90	25.4
13	7.25	3.2	124	1.39	1877	208.2	9.01	0.15	3.27	10029827	1350	84	23.8
14	7.25	3.1	126	1.32	1752	208.1	8.42	0.16	3.28	10029827	1327	85	24.1
15	7.25	3.3	143	1.29	1509	204.5	7.38	0.17	3.28	10029827	1169	85	24.0
16	7.25	3.4	116	1.21	1746	201.1	8.68	0.14	3.27	10029827	1443	85	24.0
17	7.26	2.8	141	1.24	1475	211.2	6.98	0.18	3.29	10029827	1190	93	26.5
18	7.25	2.9	119	1.20	1681	208.0	8.08	0.15	3.29	10029827	1401	84	23.8
19	7.25	2.6	124	1.20	1614	212.4	7.60	0.16	3.14	10029827	1345	86	23.3
20	7.26	3.3	130	1.22	1565	203.6	7.69	0.16	2.64	10029827	1282	90	20.5
21	7.27	3.3	128	1.21	1576	204.1	7.72	0.16	3.23	10029827	1302	92	25.6
22	7.26	3.0	116	1.24	1788	208.3	8.58	0.14	3.23	10029827	1442	81	22.7
23	7.27	3.0	192	1.24	1080	209.1	5.17	0.24	3.23	10029827	871	82	23.0
24	7.27	3.1	119	1.22	1710	207.2	8.26	0.15	3.25	10029827	1402	81	22.8
25	7.27	3.1	118	1.29	1833	208.9	8.77	0.15	3.38	10029827	1421	80	23.2
26	7.28	3.0	120	1.30	1804	211.4	8.54	0.15	3.39	10029827	1388	83	24.1
27	7.27	3.1	133	1.37	1718	210.8	8.15	0.17	3.36	10029827	1254	90	26.2
28	7.26	3.1	111	1.36	2048	209.8	9.76	0.14	3.30	10029827	1506	81	23.0
29	7.26	3.2	133	1.29	1623	206.7	7.85	0.16	3.24	10029827	1258	82	23.1
30	7.26	3.2	116	1.26	1814	206.0	8.81	0.14	3.18	10029827	1440	81	22.4
31	7.27	3.5	129	1.26	1635	202.5	8.07	0.16	3.00	10029827	1297	78	20.1
Averages	7.25	3.1	129	1.26	1657	207.0	8.00	0.16	3.24	10029827	1301	84	23.5

5.0 ULTRAVIOLET DISINFECTION

Total Water Treated:	232,702 m^3	100.00%
On-Spec Water:	232,670 m^3	99.986%
Off-Spec Water:	32 m^3	0.014%

Average monthly chlorine residual before UV Treatment was 1.55 mg/L
The average monthly chlorine residual after UV treatment and re-chlorination was 1.42 mg/L.

Figure 5.1 - UV Disinfection – BMID Mission Creek Source – January 2025

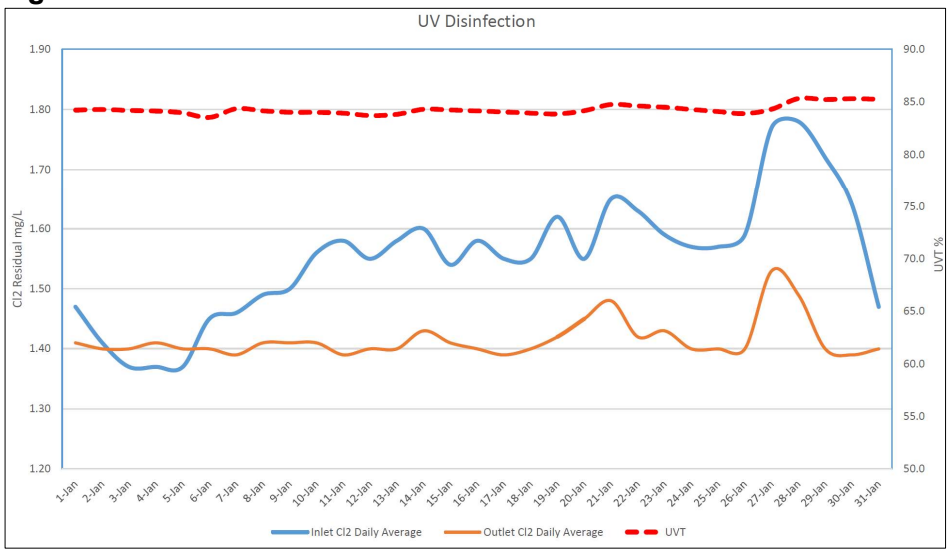


Table 5.2 - UV Disinfection Table – Mission Creek Source

	Inlet Cl2 Daily Average	Outlet Cl2 Daily Average		UVT	Turbidity		In Spec Water Volume	Off Spec Water Volume	Off Spec % of Water Volume
Date	mg/L	mg/L		% T	NTU		Cubic Meters	Cubic Meters	Percentage
1-Jan	1.47	1.41		84.2	0.69		6772	0	0.00%
2-Jan	1.41	1.40		84.3	0.73		7320	0	0.00%
3-Jan	1.37	1.40		84.2	0.77		10898	6.2	0.06%
4-Jan	1.37	1.41		84.1	0.77		6873	0	0.00%
5-Jan	1.37	1.40		84.0	0.76		7188	0	0.00%
6-Jan	1.45	1.40		83.5	0.55		9312	0	0.00%
7-Jan	1.46	1.39		84.4	0.53		6518	0	0.00%
8-Jan	1.49	1.41		84.2	0.51		6951	0	0.00%
9-Jan	1.50	1.41		84.0	0.50		6962	0	0.00%
10-Jan	1.56	1.41		84.0	0.50		7175	0	0.00%
11-Jan	1.58	1.39		83.9	0.50		7079	0	0.00%
12-Jan	1.55	1.40		83.7	0.49		7586	0	0.00%
13-Jan	1.58	1.40		83.8	0.48		7277	26	0.36%
14-Jan	1.60	1.43		84.3	0.48		7185	0	0.00%
15-Jan	1.54	1.41		84.2	0.48		7246	0	0.00%
16-Jan	1.58	1.40		84.2	0.49		7109	0	0.00%
17-Jan	1.55	1.39		84.1	0.49		7966	0	0.00%
18-Jan	1.55	1.40		83.9	0.49		7104	0	0.00%
19-Jan	1.62	1.42		83.9	0.49		7357	0	0.00%
20-Jan	1.55	1.45		84.2	0.49		7519	0	0.00%
21-Jan	1.65	1.48		84.8	0.49		7851	0	0.00%
22-Jan	1.63	1.42		84.6	0.49		7107	0	0.00%
23-Jan	1.59	1.43		84.5	0.50		6984	0	0.00%
24-Jan	1.57	1.40		84.3	0.50		6936	0	0.00%
25-Jan	1.57	1.40		84.1	0.50		6759	0	0.00%
26-Jan	1.59	1.40		83.9	0.50		7012	0	0.00%
27-Jan	1.77	1.53		84.3	0.49		11665	0	0.00%
28-Jan	1.78	1.49		85.3	0.49		6875	0	0.00%
29-Jan	1.72	1.40		85.2	0.49		8580	0	0.00%
30-Jan	1.64	1.39		85.3	0.49		6905	0	0.00%
31-Jan	1.47	1.40		85.3	0.49		6601	0	0.00%
Average	1.55	1.42		84.3		Total	232669.7	32.2	0.014%

6.0 WATER DISTRIBUTION SAMPLING (TREATED)

Third Party Analysis (CARO Analytical Services)

- Samples taken once per week at ten locations around the BMID service area
- 24 samples were found to be absent of Coliforms.
- 24 samples were found to be absent of *E.Coli*.

Table 6.1 - CARO Independent Lab Testing – Total Coliforms – *E.Coli*

Date	2921 Belgo Rd		Booster 1		Ellison Blow-Off		Ellison School		3976 Highway 97		Prospect Reservoir		Tower Reservoir		Well #4		Kirschner Res		Pearson School	
	Coliforms	E.coli	Coliforms	E.coli	Coliforms	E.coli	Coliforms	E.coli	Coliforms	E.coli	Coliforms	E.coli	Coliforms	E.coli	Coliforms	E.coli	Coliforms	E.coli	Coliforms	E.coli
2-Dec-24			0	0	0	0	0	0	0	0			0	0	0	0				
9-Dec-24	0	0	0	0							0	0			0	0	0	0	0	0
16-Dec-24			0	0	0	0	0	0	0	0			0	0	0	0				
23-Dec-24	0	0	0	0							0	0			0	0	0	0	0	0
31-Dec-24			0	0	0	0	0	0	0	0			0	0	0	0				
6-Jan-25	0	0	0	0							0	0			0	0	0	0	0	0
13-Jan-25			0	0	0	0	0	0	0	0			0	0	0	0				
20-Jan-25	0	0	0	0							0	0			0	0	0	0	0	0
27-Jan-25			0	0	0	0	0	0	0	0			0	0	0	0				

In-House Analysis (BMID Staff)

- Presence/Absence samples taken on a three-week cycle at seven sites around the BMID service area.
- All 9 samples were found to be absent of both *Total Coliforms* and *E.Coli*.

Table 6.2 - BMID In-house Testing – Presence Absence

Location	1/6/2025				1/15/2025				1/21/2025				1/26/2025			
	Cl2	Temp.	Pres.	Abs.	Cl2	Temp.	Pres.	Abs.	Cl2	Temp.	Pres.	Abs.	Cl2	Temp.	Pres.	Abs.
Sylvania Cres					0.52	9.2	-	X								
170 Kneller Rd					0.65	9.0	-	X								
2105 Morrison									0.61	9.6	-	X				
Staymen Rd									0.56	10.2	-	X				
260 Campion Rd	0.22	11.2	-	X									0.26	9.6	-	X
Fenwick Rd	0.36	10.8	-	X									0.51	8.6	-	X
Solly Ct					1.19	9.6	-	X								

Table 6.3 - BMID Disinfection By-product Testing – THM and HAA

13-Jan-25		
Location	THM (mg/L)	HAA (mg/L)
Kirschner Reservoir	0.0976	**0.1170**
Pearson School	0.0922	**0.1290**
2921 Belgo Rd	**0.1670**	**0.1060**
Ellison School*	0.0111	0.00238
3976 Hwy 97 N	0.0952	**0.1120**

*Primarily Ground Water Supply

- THM quarterly averages are within the acceptable limits as set out in the Guidelines for Canadian Drinking Water Quality (Below 0.10 mg/L).
- HAA quarterly averages are slightly above the acceptable guideline (below 0.08 mg/L).

7.0 WELL #6 POTENTIAL POTABILITY TESTING

- BMID will take monthly bacterial samples on the raw water at Well #6 to determine the potential potability of the source. Results are as follows:

Well 6 Bacterial Testing		
Date	Total Coliforms	E.Coli Coliforms
24-Jun-24	0	0
29-Jul-24	0	0
26-Aug-24	0	0
28-Oct-24	0	0
25-Nov-24	0	0
31-Dec-24	0	0
27-Jan-25	0	0