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MONTHLY REPORTING PERIOD - OCTOBER, 2024

SUMMARY

This document provides a summary of the water quantity and quality information collected by BMID in October 2024. Documentation and figures are provided on the following pages to support this submission.

WATER SUPPLY & USAGE SUMMARY

1. Water usage data for October, 2024 is as follows:

Source	Total (US Gallons)	Total (Mega Litres)
Mission Creek	115,138,679	435.80
Well 4	4,273,837	16.18
Well 5	0	0
Well 6 (Irrigation Only)	0	0
Scotty Creek (Irrigation Only)	0	0
Total	119,412,517	451.98

2. BMID began withdrawing stored water from high-elevation reservoirs in the summer to supplement Mission Creek flows. BMID continued to utilized the upper elevation reservoirs throughout October;
3. The Scotty Creek source, used to supplement irrigation flows in the north-end of the system during periods of high irrigation demands, was placed in stand-by mode for the year on September 3rd. Scotty Creek remained in stand-by mode for all of October and will remain off until summer 2025 ;
4. Well #5, used as the primary water source in the north-end of the system for both irrigation and domestic consumption during high consumption periods, was placed in stand-by mode on Sep 17th and will remain in stand-by until summer 2025;
5. Well #4, used as a primary source for domestic water in the north-end of the distribution system during low-flow periods was in operation throughout October. Well #4 will remain operational for the remainder of the year as system flows reduce during the autumn and into the winter;
6. Well #6, which supplies water to the north-end irrigation distribution system during times of high irrigation demands, ceased operations on September 24th. Well #6 will resume operation in summer 2025;
7. A portion of the BMID's transmission main west of the Mission Creek Intake and east of the tunnel is located on an unstable slope. Slope movement continues to be monitored. It is currently stable and is not moving;

WATER QUALITY SUMMARY

1. BMID is investigating the use of Well #6 as a possible future potable water source. Quarterly samples were taken at the well on October 28th. Testing will continue for the next year to verify its water quality characteristics;
2. The WTP was in operation throughout most of October as Mission Creek experienced increased turbidity and colour in the raw water. The WTP was turned off on October 29th to drain the reservoirs and allow for seasonal maintenance during a planned shut-down of the Mission Creek source taking place on November 4th;
3. Raw water turbidity levels in Mission Creek peaked, due to a rainfall event, at 1.62 NTU on October 19th. Average daily raw water turbidity for October was 0.67 NTU at the Grit Pond;
4. The highest turbidity level at the Distribution Intake was 0.43 NTU on October 24th 2024. Average settled water turbidity for October was 0.31 NTU at the Distribution Intake at the lower end of Hadden Reservoir. The lowest daily average recording was 0.22 NTU on October 5th, 2024;
5. The highest turbidity level at the first customer (Booster #1) was 0.35 NTU on October 31st. Average monthly turbidity at the first customer was 0.27 NTU, while the lowest daily average turbidity was 0.16 NTU on October 7th-8th;
6. Average daily turbidity at the UV station peaked at 0.54 NTU on October 30th and 31st. Average monthly turbidity at the UV disinfection station was 0.45 NTU;
7. BMID's Ultraviolet Treatment Facility treated 435,847 m^3 of water, 126 m^3 of which was Off-Spec (0.029%);
8. Regarding microbiological readings, BMID resumed withdrawing water from the upper elevation reservoirs in mid-summer. As water continued to be withdrawn from the upper elevation reservoirs, there was an expected increase in microbiological readings;
9. Disinfection byproduct testing took place on October 9th. All THM samples are within the acceptable limits as set out in the Guidelines for Canadian Drinking Water Quality (Below 0.10 mg/L). 2 of the 4 surface water source samples had HAA results above the guideline (below 0.08 mg/L) however, average annual THM and HAA results meet the Canadian Drinking Water Quality Guidelines;
10. *E.Coli* levels at Mission Creek's Point-of-Diversion (creek intake prior to WTP) had normal counts for October. The October 28th sample had the peak count of 62 *E.Coli* Coliforms. The average monthly *E.Coli* count was 18.4, based on 5 samples;
11. *E.Coli* levels in the raw water at the water distribution system intake at the east end of Hadden Reservoir, immediately prior to disinfection, had zero counts on all five samples. Reduction in *E.Coli* levels is due to the effectiveness of the Water Treatment Plant as well as the settling of particles as water passes through Stevens and Hadden Reservoirs;
12. No *E.Coli* or *Total* Coliforms were found in treated water in the distribution system through third-party analysis. In addition, zero positive samples were detected by BMID's in-house presence/absence testing throughout October;

1.0 FLOWS - OCTOBER, 2024

The Maximum Daily Flow was on October 4th at 6,730,375 US gallons (25.47 ML)

The Minimum Daily Flow was on October 29th, at 2,066,221 US gallons (7.82 ML)

Mission Creek provided just over 96% of domestic and irrigation flow supplied in October.

Figure 1.1 - Domestic Water System Flow

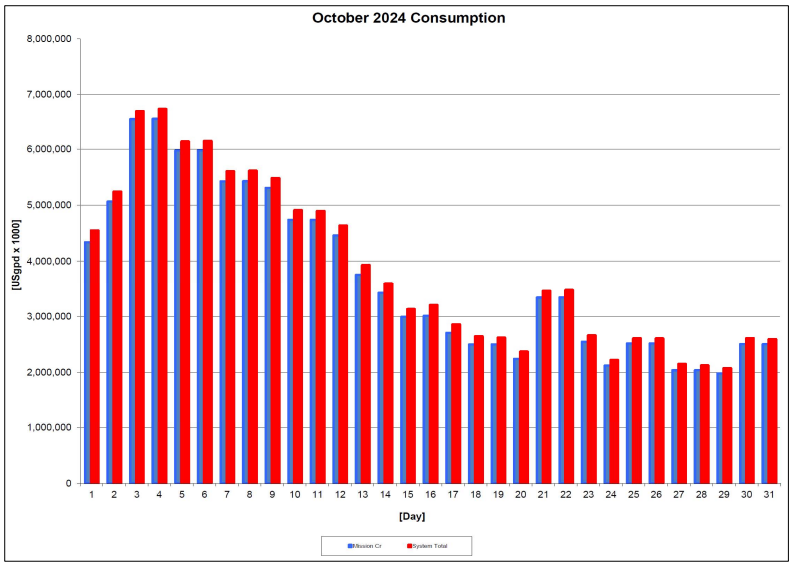


Table 1.2 - October 2024 - Daily Consumption Report

Year	Mission Cr	Well #4	Well #5	System Total	System Total
2024	Usgpd	Usgpd	Usgpd	Usgpd	ML/Day
1-Oct	4,338,523	203,062	-	4,541,585	17.19
2-Oct	5,064,124	172,059	-	5,236,184	19.82
3-Oct	6,555,058	136,085	-	6,691,143	25.33
4-Oct	6,560,976	169,399	-	6,730,375	25.47
5-Oct	5,974,620	174,513	-	6,149,133	23.27
6-Oct	5,977,948	179,107	-	6,157,055	23.30
7-Oct	5,425,617	172,564	-	5,598,181	21.19
8-Oct	5,428,048	178,946	-	5,606,994	21.22
9-Oct	5,307,797	166,578	-	5,474,374	20.72
10-Oct	4,737,423	167,235	-	4,904,658	18.56
11-Oct	4,739,906	149,393	-	4,889,300	18.51
12-Oct	4,459,012	170,884	-	4,629,896	17.52
13-Oct	3,756,499	167,772	-	3,924,271	14.85
14-Oct	3,421,952	170,049	-	3,592,001	13.60
15-Oct	2,992,038	129,845	-	3,121,883	11.82
16-Oct	3,009,870	187,566	-	3,197,436	12.10
17-Oct	2,706,918	143,553	-	2,850,470	10.79
18-Oct	2,497,826	140,647	-	2,638,472	9.99
19-Oct	2,498,803	114,615	-	2,613,418	9.89
20-Oct	2,241,367	123,708	-	2,365,076	8.95
21-Oct	3,335,964	113,345	-	3,449,309	13.06
22-Oct	3,336,994	127,127	-	3,464,121	13.11
23-Oct	2,547,146	105,097	-	2,652,244	10.04
24-Oct	2,121,275	93,870	-	2,215,145	8.38
25-Oct	2,517,744	84,521	-	2,602,265	9.85
26-Oct	2,518,669	80,477	-	2,599,145	9.84
27-Oct	2,037,876	106,807	-	2,144,682	8.12
28-Oct	2,038,721	80,601	-	2,119,322	8.02
29-Oct	1,983,271	82,949	-	2,066,221	7.82
30-Oct	2,502,924	101,378	-	2,604,302	9.86
31-Oct	2,503,769	80,086	-	2,583,855	9.78
Totals Usgpd	115,138,679	4,273,837	0	119,412,517	451.98
Totals ML	435.80	16.18	0.00		
Avg's	3,714,151	14.06		3,894,289	14.58
Max	6,560,976	24.83		6,730,375	25.47
Min	1,983,271	7.51		2,066,221	7.82

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

The E.Coli readings confirm the WTP's effectiveness in reducing raw water quality risks with coagulation, flocculation and sedimentation processes followed by settling times across Stevens and Hadden Reservoirs.

Figure 2.1 - Raw Water *E.Coli* Readings (CARO Lab results) September 2024 - October 2024

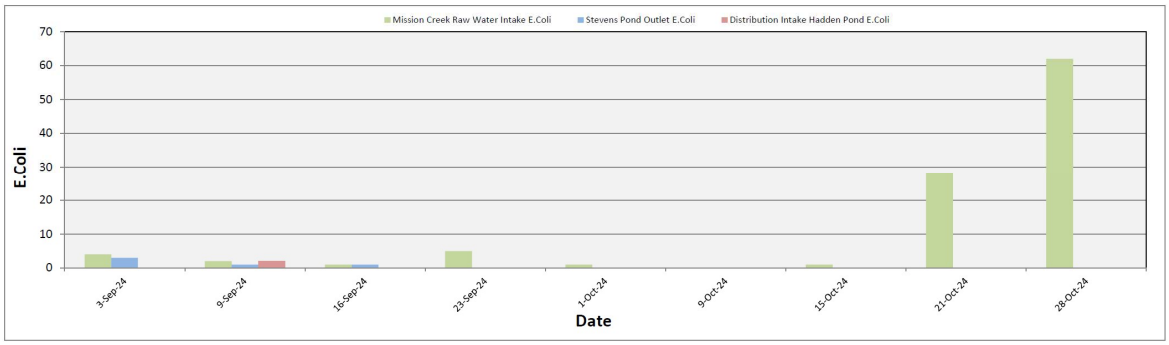


Table 2.1 - *E.Coli* Readings (CARO Labs)

Date	Mission Creek Raw Water Intake E.Coli	Stevens Pond Outlet E.Coli	Distribution Intake Hadden Pond E.Coli
3-Sep-24	4	3	0
9-Sep-24	2	1	2
16-Sep-24	1	1	0
23-Sep-24	5	0	0
1-Oct-24	1	0	0
9-Oct-24	0	0	0
15-Oct-24	1	0	0
21-Oct-24	28	0	0
28-Oct-24	62	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 0.35 NTU on October 31st, 2024. The lowest turbidity level was 0.16 NTU and the average turbidity was 0.27 NTU.

The distribution intake is where the water leaves Hadden Reservoir and enters a closed conduit. Turbidity levels are greatly reduced through the settling process as Mission Creek water makes its way through the reservoirs.

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

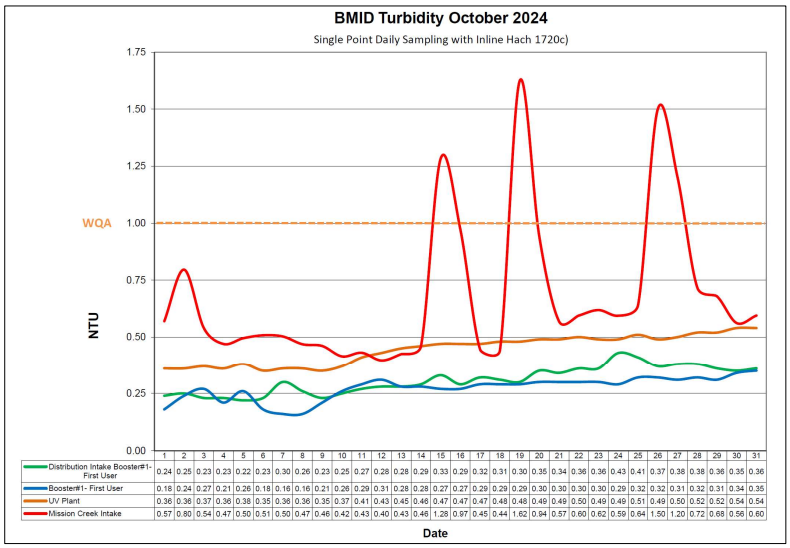


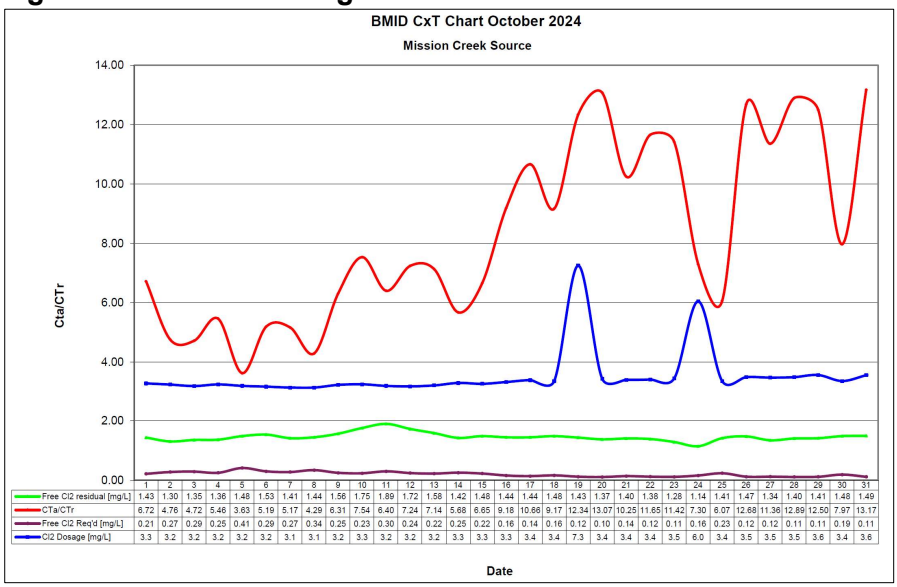
Table 3.1 - Daily Monitoring Record – Turbidity at On-Line Turbidity Analyzers

Turbidity Point Sampling for October 2024				
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	0.57	0.24	0.18	0.36
2	0.80	0.25	0.24	0.36
3	0.54	0.23	0.27	0.37
4	0.47	0.23	0.21	0.36
5	0.50	0.22	0.26	0.38
6	0.51	0.23	0.18	0.35
7	0.50	0.30	0.16	0.36
8	0.47	0.26	0.16	0.36
9	0.46	0.23	0.21	0.35
10	0.42	0.25	0.26	0.37
11	0.43	0.27	0.29	0.41
12	0.40	0.28	0.31	0.43
13	0.43	0.28	0.28	0.45
14	0.46	0.29	0.28	0.46
15	1.28	0.33	0.27	0.47
16	0.97	0.29	0.27	0.47
17	0.45	0.32	0.29	0.47
18	0.44	0.31	0.29	0.48
19	1.62	0.30	0.29	0.48
20	0.94	0.35	0.30	0.49
21	0.57	0.34	0.30	0.49
22	0.60	0.36	0.30	0.50
23	0.62	0.36	0.30	0.49
24	0.59	0.43	0.29	0.49
25	0.64	0.41	0.32	0.51
26	1.50	0.37	0.32	0.49
27	1.20	0.38	0.31	0.50
28	0.72	0.38	0.32	0.52
29	0.68	0.36	0.31	0.52
30	0.56	0.35	0.34	0.54
31	0.60	0.36	0.35	0.54
Average	0.67	0.31	0.27	0.45

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 October, 2024.

Figure 4.1 - CT Trending – BMID Mission Creek Source – October 2024



CTa – CT achieved
CTr – CT Required

The minimum CT that BMID achieved was 3.63 X that of what was required

Table 4.2 - CT Table – Mission Creek Source

	BMID October 2024 Mission Creek Source												
DATE	pH	TEMP	PEAK	Free Cl_2	CT	CT	CTa/CTr	Free Cl_2	Cl_2	VOLUME	TIME	FLOW	CL_2 DOSAGE
	(Average)	(Present)	FLOW	residual	achieved	req'd		Req'd	Dosage	TOTAL		Daily Average	Average
October		[°C]	[Usgpm]	[mg/L]				[mg/L]	[mg/L]	[USgal]	[mins]	[USGPM]	[PPD]
1	7.25	12.8	5,247	1.43	722.1	107.5	6.72	0.21	3.3	2649600	505	3,033	120
2	7.25	12.7	6,776	1.30	508.3	106.7	4.76	0.27	3.2	2649600	391	3,606	141
3	7.24	12.5	6,993	1.35	511.5	108.4	4.72	0.29	3.2	2649600	379	4,639	178
4	7.25	11.5	5,649	1.36	637.9	116.7	5.46	0.25	3.2	2649600	469	3,582	140
5	7.25	11.1	8,890	1.48	441.1	121.5	3.63	0.41	3.2	2649600	298	4,240	163
6	7.25	10.6	6,174	1.53	656.6	126.5	5.19	0.29	3.2	2649600	429	3,811	145
7	7.27	10.9	5,866	1.41	636.9	123.3	5.17	0.27	3.1	2649600	452	3,833	145
8	7.28	10.5	6,964	1.44	547.9	127.6	4.29	0.34	3.1	2649600	380	3,757	142
9	7.25	10.7	5,201	1.56	794.7	126.0	6.31	0.25	3.2	2649600	509	2,969	115
10	7.26	11.0	4,884	1.75	949.3	126.0	7.54	0.23	3.3	2649600	542	3,349	131
11	7.23	10.6	6,036	1.89	829.7	129.6	6.40	0.30	3.2	2649600	439	3,151	121
12	7.22	10.5	4,910	1.72	928.1	128.2	7.24	0.24	3.2	2649600	540	2,650	101
13	7.21	10.1	4,527	1.58	924.8	129.6	7.14	0.22	3.2	2649600	585	2,418	94
14	7.20	10.1	5,215	1.42	721.5	127.1	5.68	0.25	3.3	2649600	508	1,995	79
15	7.21	9.9	4,528	1.48	865.9	130.1	6.65	0.22	3.3	2649600	585	2,104	83
16	7.20	10.4	3,331	1.44	1145.4	124.7	9.18	0.16	3.3	2649600	795	1,874	75
17	7.19	10.3	2,859	1.44	1334.3	125.1	10.66	0.14	3.4	2649600	927	1,625	66
18	7.20	10.0	3,322	1.48	1180.4	128.8	9.17	0.16	3.4	2649600	798	1,761	71
19	7.23	9.3	2,259	1.43	1677.5	136.0	12.34	0.12	7.3	2649600	1173	746	65
20	7.18	8.7	2,008	1.37	1807.5	138.2	13.07	0.10	3.4	2649600	1319	1,503	62
21	7.17	9.2	2,711	1.40	1368.2	133.5	10.25	0.14	3.4	2649600	977	1,593	65
22	7.17	9.4	2,389	1.38	1530.8	131.3	11.65	0.12	3.4	2649600	1109	1,528	63
23	7.17	8.9	2,210	1.28	1534.9	134.5	11.42	0.11	3.5	2649600	1199	1,492	62
24	7.16	8.3	3,016	1.14	1001.4	137.2	7.30	0.16	6.0	2649600	878	819	60
25	7.15	7.8	4,214	1.41	886.6	146.1	6.07	0.23	3.4	2649600	629	1,775	72
26	7.16	7.4	2,024	1.47	1924.3	151.8	12.68	0.12	3.5	2649600	1309	1,376	58
27	7.17	7.4	2,081	1.34	1706.0	150.2	11.36	0.12	3.5	2649600	1273	1,434	60
28	7.16	7.9	1,977	1.40	1876.0	145.5	12.89	0.11	3.5	2649600	1340	1,400	59
29	7.16	7.7	2,024	1.41	1845.7	147.7	12.50	0.11	3.6	2649600	1309	1,246	53
30	7.15	7.3	3,227	1.48	1215.1	152.4	7.97	0.19	3.4	2649600	821	1,766	71
31	7.15	7.6	2,006	1.49	1968.2	149.4	13.17	0.11	3.6	2649600	1321	1,250	54
Averages		9.78	4,142	1.45	1118.67	131.19	8.34	0.20	3.54				

5.0 ULTRAVIOLET DISINFECTION

Total Water Treated:	435,847 m^3	100.00%
On-Spec Water:	435,721 m^3	99.971%
Off-Spec Water:	126 m^3	0.029%

Average monthly chlorine residual before UV Treatment was 1.57 mg/L
The average monthly chlorine residual after UV treatment and re-chlorination was 1.45 mg/L.

Figure 5.1 - UV Disinfection – BMID Mission Creek Source – October 2024

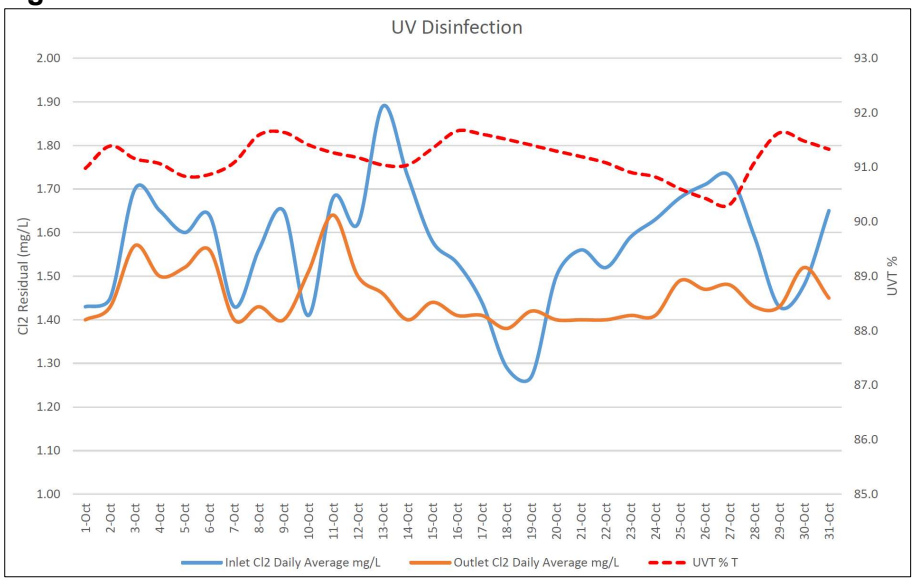


Table 5.2 - UV Disinfection Table – Mission Creek Source

Date	Inlet Cl2 Daily mg/L	Outlet Cl2 Daily mg/L	UVT % T	Turbidity NTU		In Spec Water Volume Cubic Meters	Off Spec Water Cubic Meters	Off Spec % of Water Percentage
1-Oct	1.43	1.40	91.0	0.36		16,423	0	0.00%
2-Oct	1.45	1.43	91.4	0.36		19,170	0	0.00%
3-Oct	1.70	1.57	91.2	0.37		24,814	0	0.00%
4-Oct	1.65	1.50	91.1	0.36		24,836	0	0.00%
5-Oct	1.60	1.52	90.8	0.38		22,616	0	0.00%
6-Oct	1.64	1.56	90.9	0.35		22,629	0	0.00%
7-Oct	1.43	1.40	91.1	0.36		20,538	0	0.00%
8-Oct	1.56	1.43	91.6	0.36		20,547	0	0.00%
9-Oct	1.65	1.40	91.6	0.35		20,092	0	0.00%
10-Oct	1.41	1.51	91.4	0.37		17,933	0	0.00%
11-Oct	1.68	1.64	91.3	0.41		17,943	0	0.00%
12-Oct	1.62	1.50	91.2	0.43		16,879	0	0.00%
13-Oct	1.89	1.46	91.0	0.45		14,220	0	0.00%
14-Oct	1.73	1.40	91.0	0.46		12,954	0	0.00%
15-Oct	1.58	1.44	91.3	0.47		11,326	0	0.00%
16-Oct	1.53	1.41	91.7	0.47		11,331	63	0.00%
17-Oct	1.44	1.41	91.6	0.47		10,184	63	0.00%
18-Oct	1.29	1.38	91.5	0.48		9,455	0	0.00%
19-Oct	1.27	1.42	91.4	0.48		9,459	0	0.00%
20-Oct	1.50	1.40	91.3	0.49		8,485	0	0.00%
21-Oct	1.56	1.40	91.2	0.49		12,628	0	0.00%
22-Oct	1.52	1.40	91.1	0.50		12,632	0	0.00%
23-Oct	1.59	1.41	90.9	0.49		9,642	0	0.00%
24-Oct	1.63	1.41	90.8	0.49		8,030	0	0.00%
25-Oct	1.68	1.49	90.6	0.51		9,531	0	0.00%
26-Oct	1.71	1.47	90.4	0.49		9,534	0	0.00%
27-Oct	1.73	1.48	90.3	0.50		7,714	0	0.00%
28-Oct	1.59	1.43	91.1	0.52		7,717	0	0.00%
29-Oct	1.43	1.43	91.6	0.52		7,508	0	0.00%
30-Oct	1.48	1.52	91.5	0.54		9,475	0	0.00%
31-Oct	1.65	1.45	91.3	0.54		9,478	0	0.00%
Average	1.57	1.45	91.17	0.45	Total	435,721.20	126	0.029%

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
- 30 samples were found to be absent of Coliforms.
- 30 samples were found to be absent of *E.Coli*.

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

	2921 Belgo Rd		Booster 1		Ellison Blow-Off		Ellison School		3976 Highway 97		Prospect Reservoir		Tower Reservoir		Well #5		Well #4		Kirschner Res		Pearson School	
Date	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	Coliforms	E.coli
3-Sep-24	0	0	0	0							0	0			0	0			0	0	0	0
9-Sep-24			0	0	0	0	0	0	0	0			0	0	0	0						
16-Sep-24	0	0	0	0							0	0					0	0	0	0	0	0
23-Sep-24			0	0	0	0	0	0	0	0			0	0			0	0				
1-Oct-24	0	0	0	0							0	0					0	0	0	0	0	0
9-Oct-24			0	0	0	0	0	0	0	0			0	0			0	0				
15-Oct-24	0	0	0	0							0	0					0	0	0	0	0	0
21-Oct-24			0	0	0	0	0	0	0	0			0	0			0	0				
28-Oct-24	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 12 samples were found to be absent of both *Total Coliforms* and *E.Coli*.

Table 6.2 - BMID In-house Testing – Presence Absence

	10/4/2024				10/9/2024				10/15/2024				10/21/2024				10/28/2024			
Location	Cl2	Temp.	Pres.	Abs.	Cl2	Temp.	Pres.	Abs.	Cl2	Temp.	Pres.	Abs.	Cl2	Temp.	Pres.	Abs.	Cl2	Temp.	Pres.	Abs.
Sylvania Cres	0.77	17.2	-	X									0.85	15.8	-	X				
170 Kneller Rd	0.76	16.8	-	X									0.95	15.6	-	X				
2105 Morrison					0.66	17.4	-	X									0.61	17.0	-	X
Staymen Rd					0.64	16.2	-	X									0.56	16.0	-	X
260 Campion Rd									0.01	17.2	-	X								
Fenwick Rd									0.72	16.0	-	X								
Solly Ct	0.90	16.4	-	X									1.03	15.2	-	X				

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

9-Oct-24		
Location	THM (mg/L)	HAA (mg/L)
Kirschner Reservoir	0.0983	**0.0838**
Pearson School	0.0972	0.0755
2921 Belgo Rd	0.0967	**0.0990**
Ellison School*	0.0141	<0.00200
3976 Hwy 97 N	0.0920	0.0777

*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 (0.08 mg/L) however the annual averages are within the guidelines.

7.0 WELL #6 POTENTIAL POTABILITY TESTING

- Well #6 was sampled on Oct 28th for the following items:
  - Microbiological parameters
  - Anions, Calculated parameters, General parameters
  - Total Metals
- 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:

  - A copy of CARO's results will be included at the end of this report.

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

- BMID Population = 28,000

RECOMMENDED TESTS

- Recommended number of samples per month = 28

  (as per Guide for Canadian Drinking Water Quality)

ACTUAL TESTS

- Total tests by BMID staff (presence/absence) = 12
- Total tests sampled by BMID and tested by Caro Labs 30
- Total tests sampled in BMID treated distribution system = 42
- 0 Positive *E.Coli* and Total Coliform Samples

TEST RESULTS

REPORTED TO Black Mountain Irrigation District
PROJECT Screen Works/ Chemistry

WORK ORDER 24J3608
REPORTED 2024-11-03 19:22

Analyte	Result	RL	Units	Analyzed	Qualifier
Screenworks (24J3608-01) | Matrix: Water | Sampled: 2024-10-28 10:01					
Field Parameters					
Chlorine, Free	**2.38**	0.02	mg/L	2024-10-28	
Temperature, field	**7.7**		°C	2024-10-28	
General Parameters					
Alkalinity, Total (as CaCO3)	**36.7**	1.0	mg/L	2024-10-30	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2024-10-30	
Alkalinity, Bicarbonate (as CaCO3)	**36.7**	1.0	mg/L	2024-10-30	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2024-10-30	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2024-10-30	
Colour, True	< 5.0	5.0	CU	2024-10-30	
Conductivity (EC)	**124**	2.0	µS/cm	2024-10-30	
pH	**7.43**	0.10	pH units	2024-10-30	HT2
Turbidity	**0.30**	0.10	NTU	2024-10-30	
UV Transmittance @ 254nm	**91.6**	0.10	% T	2024-10-29	
Well #6 (24J3608-02) | Matrix: Water | Sampled: 2024-10-28 13:48					
Anions					
Chloride	**11.1**	0.10	mg/L	2024-10-29	
Fluoride	< 0.10	0.10	mg/L	2024-10-29	
Nitrate (as N)	**1.49**	0.010	mg/L	2024-10-29	
Nitrite (as N)	< 0.010	0.010	mg/L	2024-10-29	
Sulfate	**22.3**	1.0	mg/L	2024-10-29	
Calculated Parameters					
Hardness, Total (as CaCO3)	**204**	0.500	mg/L	N/A	
Langelier Index	**0.2**	-5.0		2024-11-01	CT10, CT6
Solids, Total Dissolved	**235**	1.00	mg/L	N/A	
Field Parameters					
Chlorine, Free	< 0.02	0.02	mg/L	2024-10-28	
Temperature, field	**11.7**		°C	2024-10-28	
General Parameters					
Alkalinity, Total (as CaCO3)	**177**	1.0	mg/L	2024-10-30	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2024-10-30	
Alkalinity, Bicarbonate (as CaCO3)	**177**	1.0	mg/L	2024-10-30	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2024-10-30	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2024-10-30	
Carbon, Dissolved Organic	**1.14**	0.50	mg/L	2024-10-30	
Colour, True	< 5.0	5.0	CU	2024-10-30	
Conductivity (EC)	**440**	2.0	µS/cm	2024-10-30	
Cyanide, Total	< 0.0020	0.0020	mg/L	2024-10-31	HT1
pH	**7.91**	0.10	pH units	2024-10-30	HT2

CARO ANALYTICAL SERVICES

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	Black Mountain Irrigation District	WORK ORDER	24J3608
PROJECT	Screen Works/ Chemistry	REPORTED	2024-11-03 19:22

Analyte	Result	RL	Units	Analyzed	Qualifier
Well #6 (24J3608-02) | Matrix: Water | Sampled: 2024-10-28 13:48, Continued					
General Parameters, Continued					
Phosphorus, Total (as P)	**0.0283**	0.0050	mg/L	2024-10-31	
Temperature, at pH	**20.9**		°C	2024-10-30	HT2
Turbidity	**0.41**	0.10	NTU	2024-10-30	
Total Metals					
Aluminum, total	< 0.0050	0.0050	mg/L	2024-10-30	
Antimony, total	< 0.00020	0.00020	mg/L	2024-10-30	
Arsenic, total	< 0.00050	0.00050	mg/L	2024-10-30	
Barium, total	**0.0140**	0.0050	mg/L	2024-10-30	
Boron, total	< 0.0500	0.0500	mg/L	2024-10-30	
Cadmium, total	< 0.000010	0.000010	mg/L	2024-10-30	
Calcium, total	**63.0**	0.20	mg/L	2024-10-30	
Chromium, total	**0.00096**	0.00050	mg/L	2024-10-30	
Cobalt, total	< 0.00010	0.00010	mg/L	2024-10-30	
Copper, total	< 0.00040	0.00040	mg/L	2024-10-30	
Iron, total	**0.029**	0.010	mg/L	2024-10-30	
Lead, total	< 0.00020	0.00020	mg/L	2024-10-30	
Magnesium, total	**11.4**	0.010	mg/L	2024-10-31	
Manganese, total	**0.00100**	0.00020	mg/L	2024-10-30	
Mercury, total	< 0.000040	0.000040	mg/L	2024-11-01	HG1
Molybdenum, total	**0.00164**	0.00010	mg/L	2024-10-30	
Nickel, total	**0.00048**	0.00040	mg/L	2024-10-30	
Potassium, total	**1.84**	0.10	mg/L	2024-10-30	
Selenium, total	**0.00092**	0.00050	mg/L	2024-10-30	
Sodium, total	**11.6**	0.10	mg/L	2024-10-31	
Strontium, total	**0.275**	0.0010	mg/L	2024-10-30	
Uranium, total	**0.000940**	0.000020	mg/L	2024-10-30	
Zinc, total	**0.0079**	0.0040	mg/L	2024-10-30	

Sample Qualifiers:

CT10	Results were based on lab pH.
CT6	Results were based on lab temperature & lab pH.
HG1	Sample bottle and preservation submitted is not suitable for Mercury analysis and analyte stability may be affected.
HT1	The sample was prepared and/or analyzed past the recommended holding time.
HT2	The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.