



MONTHLY REPORTING PERIOD - AUGUST, 2021

1. SUMMARY

The list below provides a summary of the water quality information collected by BMID in August 2021. Documentation and figures are provided on the following pages to support this submission.

| Source | Total (US Gals) | Total (Mega Litres) |
|--------------------------------|-----------------|---------------------|
| Mission Creek | 451,877,856 | 1,710.36 |
| Well 4 | 2,138,000 | 8.09 |
| Well 5 | 27,082,549 | 102.51 |
| Well 6 (Irrigation Only) | 14,862,000 | 56.25 |
| Scotty Creek (Irrigation Only) | 28,577,000 | 108.16 |
| Total | 524,537,405 | 1,985.37 |

1. The month of August had above average precipitation which helped to mitigate the drought conditions and lowered irrigation demands by consumers. The overall consumption for August 2021 was reduced to 71% of the ten-year average for the month;
2. Stage 1 water restrictions were introduced by BMID on July 16. These restrictions, coupled with increased precipitation, helped to lower demands on the water system;
3. Resulting from the record heat and prolonged dry spring/summer, BMID began to release water from its high-elevation storage reservoirs some three weeks earlier than usual. Although the reservoirs were full in the spring, BMID staff will continue to monitor water levels throughout the summer;
4. BMID's quarterly testing for disinfection by-products was carried out on August 9 at the UV plant and at Pearson Sample Station (near Pearson Elementary). Results for both Trihalomethanes (THM) and Haloacetic acids (HAA) were found to meet Guidelines for Canadian Drinking Water;
5. 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 has been minimal over the past 12 months. Monitoring has showed minor variations in groundwater levels, but no substantial changes. The hillside is being monitored for surface movement on a monthly basis and groundwater levels as required.
6. The WTP resumed full-time operations on March 21, 2021 as turbidity levels began to necessitate treatment. The WTP ran throughout August and will continue to operate until raw water quality improves in the late-fall or early-Winter;
7. Raw water turbidity levels in Mission Creek peaked at 1.07 NTU (average daily turbidity) on August 5 and 8. Turbidity levels in Mission creek tend to stabilize in late summer as the creek's flow drops and BMID's high elevation reservoirs are utilized to supplement flow. Average daily turbidity for August was 0.88 NTU at the intake;
8. Turbidity levels at the Distribution Intake (end of Hadden Reservoir) high reading was 0.63 NTU on August 24, 2021. Average turbidity for August was 0.47 NTU at the Distribution Intake at the lower end of Hadden Reservoir;

9. The highest recorded monthly turbidity level at the first customer (Booster #1) was 0.55 NTU on August 25, 2021. Average monthly turbidity at the first customer was 0.37 NTU for August;
10. BMID's Ultraviolet Treatment Facility treated 1,710,544 m³ of water, 324 m³ of which was "Off-Spec" (0.019%). Average UV Transmissivity was 89.3%. The average inlet chlorine residual level at the UV site was 1.28 mg/L. The average outgoing chlorine was 1.32 mg/L after the sodium hypochlorite top-up system;
11. BMID's Scotty Creek source, used for irrigation in the north-end, resumed operations on May 25, 2021. The Scotty Creek source will remain available for irrigation use until flows reduce later in the fall;
12. Well #4 resumed operations as a source for domestic water in the north-end of the distribution system on August 24;
13. Well #5, used as the primary domestic water source in the north-end of the system for both irrigation and domestic consumption, resumed operations on May 4. Well #5 remained in operation for all of August. Well #5 will continue to provide both domestic and irrigation water until flows reduce later in the fall;
14. Well #6, which supplies irrigation water to the twinned north-end water distribution systems, was placed in standby on August 21. This is a result of reduced irrigation demand in the north-end of the distribution system from the peak flows experienced in early summer;
15. *E.Coli* levels at Mission Creek's Point-of-Diversion (creek intake prior to WTP) had normal counts for summer with a peak count of 45 on August 3, 2021. The average *E.Coli* count was 23.2 for the month based on 5 samples;
16. *E.Coli* levels in the raw water at the water distribution system intake down-stream of the WTP, immediately prior to disinfection, had low counts on all samples with a peak count of 3 on August 3, 2021. The reduction in *E.Coli* levels is credited to the settling of particles in the water in Stevens and Hadden Reservoirs;
17. No *E.Coli* or *Total Coliforms* were found in treated water in the distribution system through third-party analysis. In addition, no positive samples were detected by BMID's in-house presence/absence testing throughout August;
18. On June 30, 2021, there were three fires started by lightning in the upper Mission Creek watershed. The largest is the Derickson Lake fire. The fire is located just below the catchment area of the three BMID reservoirs on the Graystoke plateau. BMID is staying in contact with the BC Wildfire Service in regards to the location and protection of BMID facilities in the watershed that consist of 3 reservoir/dam sites at Graystoke, Fish Hawk and Loch Long.

1.0 FLOWS - AUGUST, 2021

The Maximum Daily Flow was on August 5, at 23,943,463 US gallons (90.63 ML)

The Minimum Daily Flow was on August 31, at 10,863,503 US gallons (41.12 ML)

Mission Creek provided 86% of domestic and irrigation flow throughout August.

Figure 1.1 - Domestic Water System Flow

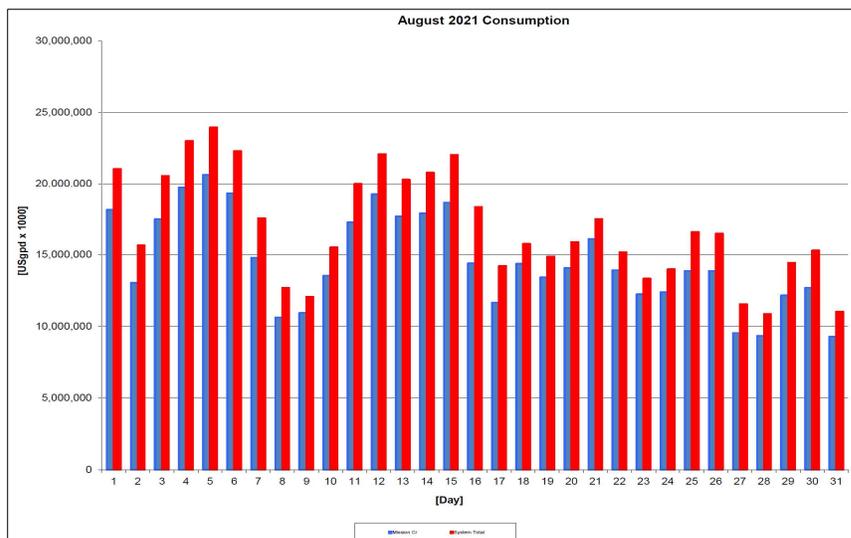


Table 1.2 - August 2021 - Daily Consumption Report

| Year | Mission Cr | Well #4 | Well #5 | Well #6 | Scotty Crk | System Total | System Total |
|--------------|-------------|-----------|------------|------------|------------|--------------|--------------|
| 2021 | Usgpd | Usgpd | Usgpd | Usgpd | Usgpd | Usgpd | ML/Day |
| 1-Aug | 18,115,251 | 0 | 998,919 | 1,003,000 | 920,000 | 21,037,170 | 79.63 |
| 2-Aug | 13,028,012 | 0 | 998,922 | 1,000,000 | 614,000 | 15,640,934 | 59.20 |
| 3-Aug | 17,470,513 | 0 | 998,539 | 988,000 | 1,086,000 | 20,543,052 | 77.76 |
| 4-Aug | 19,680,206 | 0 | 999,428 | 798,000 | 1,517,000 | 22,994,634 | 87.03 |
| 5-Aug | 20,629,112 | 0 | 999,351 | 852,000 | 1,463,000 | 23,943,463 | 90.63 |
| 6-Aug | 19,272,272 | 0 | 999,975 | 999,000 | 1,023,000 | 22,294,247 | 84.38 |
| 7-Aug | 14,786,975 | 0 | 999,478 | 999,000 | 755,000 | 17,540,453 | 66.39 |
| 8-Aug | 10,617,495 | 0 | 999,937 | 581,000 | 484,000 | 12,682,432 | 48.00 |
| 9-Aug | 10,938,227 | 0 | 999,272 | 124,000 | 0 | 12,061,499 | 45.65 |
| 10-Aug | 13,533,479 | 0 | 999,209 | 592,000 | 379,000 | 15,503,688 | 58.68 |
| 11-Aug | 17,249,533 | 0 | 999,281 | 770,000 | 986,000 | 20,004,814 | 75.72 |
| 12-Aug | 19,203,561 | 0 | 999,158 | 916,000 | 960,000 | 22,078,719 | 83.57 |
| 13-Aug | 17,657,151 | 0 | 999,012 | 1,005,000 | 638,000 | 20,299,163 | 76.83 |
| 14-Aug | 17,870,258 | 0 | 999,446 | 1,003,000 | 910,000 | 20,782,704 | 78.66 |
| 15-Aug | 18,625,817 | 0 | 999,649 | 1,006,000 | 1,389,000 | 22,020,466 | 83.35 |
| 16-Aug | 14,394,838 | 0 | 998,752 | 1,015,000 | 1,906,000 | 18,314,590 | 69.32 |
| 17-Aug | 11,659,020 | 0 | 999,296 | 911,000 | 635,000 | 14,204,316 | 53.76 |
| 18-Aug | 14,362,398 | 0 | 999,507 | 265,000 | 117,000 | 15,743,905 | 59.59 |
| 19-Aug | 13,407,944 | 0 | 998,930 | 2,000 | 464,000 | 14,872,874 | 56.29 |
| 20-Aug | 14,068,955 | 0 | 999,016 | 2,000 | 798,000 | 15,867,971 | 60.06 |
| 21-Aug | 16,094,415 | 0 | 998,946 | 31,000 | 346,000 | 17,470,361 | 66.13 |
| 22-Aug | 13,915,709 | 0 | 999,881 | 0 | 256,000 | 15,171,590 | 57.42 |
| 23-Aug | 12,232,035 | 0 | 999,754 | 0 | 89,000 | 13,320,789 | 50.42 |
| 24-Aug | 12,379,470 | 122,000 | 741,839 | 0 | 732,000 | 13,975,309 | 52.90 |
| 25-Aug | 13,852,493 | 329,000 | 445,345 | 0 | 1,942,000 | 16,568,838 | 62.71 |
| 26-Aug | 13,852,968 | 306,000 | 582,600 | 0 | 1,715,000 | 16,456,568 | 62.29 |
| 27-Aug | 9,527,258 | 247,000 | 192,644 | 0 | 1,581,000 | 11,547,902 | 43.71 |
| 28-Aug | 9,337,503 | 252,000 | 0 | 0 | 1,274,000 | 10,863,503 | 41.12 |
| 29-Aug | 12,155,346 | 339,000 | 378,866 | 0 | 1,559,000 | 14,432,212 | 54.63 |
| 30-Aug | 12,687,574 | 284,000 | 999,166 | 0 | 1,311,000 | 15,281,740 | 57.84 |
| 31-Aug | 9,272,067 | 259,000 | 758,431 | 0 | 728,000 | 11,017,498 | 41.70 |
| Totals Usgpd | 451,877,856 | 2,138,000 | 27,082,549 | 14,862,000 | 28,577,000 | 524,537,405 | 1985.37 |
| Totals ML | 1,710.36 | 8.09 | 102.51 | 56.25 | 108.16 | | |
| Avg's | 14,576,705 | 55.17 | | | | 17,117,330 | 64.04 |
| Max | 20,629,112 | 78.08 | | | | 23,943,463 | 90.63 |
| Min | 9,272,067 | 35.09 | | | | 10,863,503 | 41.12 |

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 Distribution Intake's Point of Disinfection and at the Mission Creek raw water Point of Diversion and at Stevens Pond outlet (point halfway between WTP Outlet and Distribution Intake).

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

The WTP lowers colour, turbidity and particle counts in the raw water. The *E. Coli* readings are consistent with the reduction in those other parameters. The *E. Coli* readings confirm the WTP's effectiveness in reducing raw water quality risks with coagulation, flocculation, and sedimentation process followed by settling times across Stevens and Hadden Reservoirs.

Figure 2.1 - Raw Water *E. Coli* Readings (CARO Lab results) July 2021 - August 2021

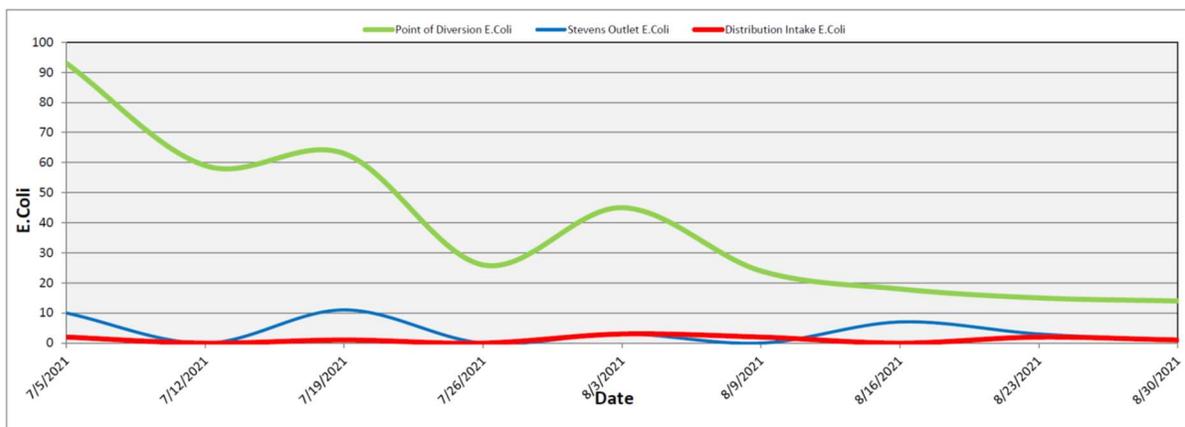


Table 2.1 - *E. Coli* Readings (CARO Labs)

| Date | Point of Diversion E. Coli | Stevens Outlet E. Coli | Distribution Intake E. Coli |
|-----------|-------------------------------|---------------------------|--------------------------------|
| 5-Jul-21 | 93 | 10 | 2 |
| 12-Jul-21 | 59 | 0 | 0 |
| 19-Jul-21 | 63 | 11 | 1 |
| 26-Jul-21 | 26 | 0 | 0 |
| 3-Aug-21 | 45 | 3 | 3 |
| 9-Aug-21 | 24 | 0 | 2 |
| 16-Aug-21 | 18 | 7 | 0 |
| 23-Aug-21 | 15 | 3 | 2 |
| 30-Aug-21 | 14 | 1 | 1 |

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

Stevens Outlet (Raw) - Sampling point after exiting 142,000 m³ 1st upper balancing reservoir (Stevens Res.)

Hadden Outlet (Raw) - Sampling point after exiting 75,000 m³ 2nd lower balancing reservoir (Hadden Res.)
(Hadden Outlet = Distribution Intake - Point of Disinfection)

3.0 RAW AND TREATED WATER TURBIDITY

Through August 2021, turbidity for the Mission Creek source was measured at Booster Station No. 1 on Gallagher’s Road, which is the approximate location of the first-customer. The highest turbidity level recorded at this location was 0.55 NTU on August 25, 2021.

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

Figure 3.1 – Daily Turbidity Readings (Distribution Intake and Booster Station 1)

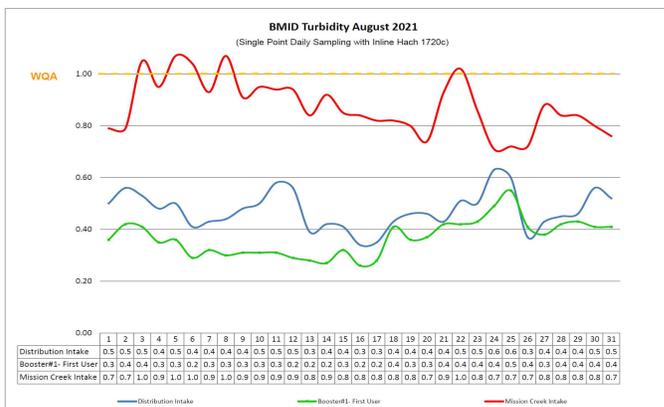


Table 3.1 - Daily Monitoring Record – Turbidity at Distribution Intake & Bst Stn 1

| Turbidity Point Sampling for August 2021 | | | |
|--|----------------------|---------------------|-----------------------|
| Date | Mission Creek Intake | Distribution Intake | Booster#1- First User |
| | Daily Average [NTU] | Daily Average [NTU] | Daily Average [NTU] |
| 1 | 0.79 | 0.50 | 0.36 |
| 2 | 0.79 | 0.56 | 0.42 |
| 3 | 1.05 | 0.53 | 0.41 |
| 4 | 0.95 | 0.48 | 0.35 |
| 5 | 1.07 | 0.50 | 0.36 |
| 6 | 1.04 | 0.41 | 0.29 |
| 7 | 0.93 | 0.43 | 0.32 |
| 8 | 1.07 | 0.44 | 0.30 |
| 9 | 0.91 | 0.48 | 0.31 |
| 10 | 0.95 | 0.50 | 0.31 |
| 11 | 0.94 | 0.58 | 0.31 |
| 12 | 0.94 | 0.56 | 0.29 |
| 13 | 0.84 | 0.39 | 0.28 |
| 14 | 0.92 | 0.42 | 0.27 |
| 15 | 0.85 | 0.41 | 0.32 |
| 16 | 0.84 | 0.34 | 0.26 |
| 17 | 0.82 | 0.35 | 0.28 |
| 18 | 0.82 | 0.43 | 0.41 |
| 19 | 0.80 | 0.46 | 0.36 |
| 20 | 0.74 | 0.46 | 0.37 |
| 21 | 0.93 | 0.43 | 0.42 |
| 22 | 1.02 | 0.51 | 0.42 |
| 23 | 0.86 | 0.50 | 0.43 |
| 24 | 0.71 | 0.63 | 0.49 |
| 25 | 0.72 | 0.60 | 0.55 |
| 26 | 0.72 | 0.37 | 0.41 |
| 27 | 0.88 | 0.43 | 0.38 |
| 28 | 0.84 | 0.45 | 0.42 |
| 29 | 0.84 | 0.46 | 0.43 |
| 30 | 0.80 | 0.56 | 0.41 |
| 31 | 0.76 | 0.52 | 0.41 |
| AVG | 0.88 | 0.47 | 0.37 |

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 August, 2021.

Figure 4.1 - CT Trending – BMID Mission Creek Source – August 2021

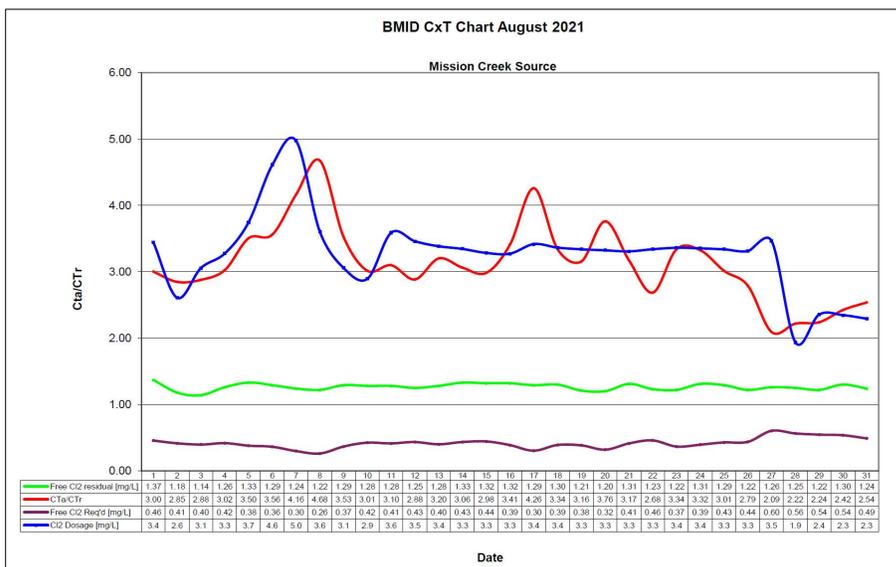


Table 4.2 - CT Table – Mission Creek Source

| BMID August 2021 | | | | | | | | | | | | | |
|----------------------|--------------|---------------------|-------------------|--------------------------------------|-------------|----------|---------|-----------------------------------|-------------------------------|----------------------|-------------|----------------------------|--------------------------------------|
| Mission Creek Source | | | | | | | | | | | | | |
| DATE | pH (Average) | TEMP (Present) [°C] | PEAK FLOW [Usgpm] | Free Cl ₂ residual [mg/L] | CT achieved | CT req'd | CTa/CTr | Free Cl ₂ Req'd [mg/L] | Cl ₂ Dosage [mg/L] | VOLUME TOTAL [USgal] | TIME [mins] | FLOW Daily Average [USGPM] | Cl ₂ DOSAGE Average [PPD] |
| August | | | | | | | | | | | | | |
| 1 | 7.54 | 21.0 | 17990 | 1.37 | 201.8 | 67.2 | 3.00 | 0.46 | 3.4 | 2649600 | 147 | 12807 | 530 |
| 2 | 7.52 | 20.0 | 15708 | 1.18 | 199.0 | 69.9 | 2.85 | 0.41 | 2.6 | 2649600 | 169 | 12347 | 387 |
| 3 | 7.52 | 20.8 | 15945 | 1.14 | 189.4 | 65.8 | 2.88 | 0.40 | 3.1 | 2649600 | 166 | 13917 | 511 |
| 4 | 7.53 | 21.6 | 17404 | 1.26 | 191.8 | 63.4 | 3.02 | 0.42 | 3.3 | 2649600 | 152 | 14582 | 574 |
| 5 | 7.52 | 23.5 | 18006 | 1.33 | 195.7 | 55.8 | 3.50 | 0.38 | 3.7 | 2649600 | 147 | 13615 | 613 |
| 6 | 7.55 | 21.6 | 14979 | 1.29 | 228.2 | 64.1 | 3.56 | 0.36 | 4.6 | 2649600 | 177 | 10445 | 579 |
| 7 | 7.58 | 21.2 | 11919 | 1.24 | 275.6 | 66.2 | 4.16 | 0.30 | 5.0 | 2649600 | 222 | 7497 | 448 |
| 8 | 7.58 | 20.2 | 9764 | 1.22 | 331.1 | 70.8 | 4.68 | 0.26 | 3.6 | 2649600 | 271 | 7735 | 335 |
| 9 | 7.56 | 19.4 | 12934 | 1.29 | 264.3 | 74.9 | 3.53 | 0.37 | 3.1 | 2649600 | 205 | 9542 | 351 |
| 10 | 7.55 | 19.6 | 15296 | 1.28 | 221.7 | 73.6 | 3.01 | 0.42 | 2.9 | 2649600 | 173 | 12205 | 425 |
| 11 | 7.53 | 20.0 | 15407 | 1.28 | 220.1 | 71.0 | 3.10 | 0.41 | 3.6 | 2649600 | 172 | 12221 | 527 |
| 12 | 7.56 | 20.3 | 16389 | 1.25 | 202.1 | 70.1 | 2.88 | 0.43 | 3.5 | 2649600 | 162 | 13584 | 565 |
| 13 | 7.61 | 20.7 | 15216 | 1.28 | 222.9 | 69.6 | 3.20 | 0.40 | 3.4 | 2649600 | 174 | 12443 | 506 |
| 14 | 7.63 | 19.9 | 15438 | 1.33 | 228.3 | 74.5 | 3.06 | 0.43 | 3.3 | 2649600 | 172 | 12601 | 507 |
| 15 | 7.65 | 20.1 | 15850 | 1.32 | 220.7 | 74.0 | 2.98 | 0.44 | 3.3 | 2649600 | 167 | 13172 | 520 |
| 16 | 7.65 | 20.5 | 14249 | 1.32 | 245.4 | 71.9 | 3.41 | 0.39 | 3.3 | 2649600 | 186 | 10192 | 401 |
| 17 | 7.62 | 20.3 | 11159 | 1.29 | 306.3 | 71.9 | 4.26 | 0.30 | 3.4 | 2649600 | 237 | 8242 | 338 |
| 18 | 7.58 | 18.3 | 12649 | 1.30 | 272.3 | 81.6 | 3.34 | 0.39 | 3.4 | 2649600 | 209 | 10160 | 411 |
| 19 | 7.64 | 18.6 | 12585 | 1.21 | 254.7 | 80.7 | 3.16 | 0.38 | 3.3 | 2649600 | 211 | 9479 | 380 |
| 20 | 7.61 | 19.8 | 11523 | 1.20 | 275.9 | 73.4 | 3.76 | 0.32 | 3.3 | 2649600 | 230 | 9954 | 398 |
| 21 | 7.63 | 18.7 | 13536 | 1.31 | 256.4 | 80.8 | 3.17 | 0.41 | 3.3 | 2649600 | 196 | 11381 | 452 |
| 22 | 7.65 | 18.0 | 14345 | 1.23 | 227.2 | 84.6 | 2.68 | 0.46 | 3.3 | 2649600 | 185 | 9827 | 394 |
| 23 | 7.66 | 17.0 | 10651 | 1.22 | 303.5 | 90.9 | 3.34 | 0.37 | 3.4 | 2649600 | 249 | 8638 | 349 |
| 24 | 7.67 | 16.4 | 10858 | 1.31 | 319.7 | 96.1 | 3.32 | 0.39 | 3.4 | 2649600 | 244 | 8749 | 353 |
| 25 | 7.69 | 16.6 | 11904 | 1.29 | 287.1 | 95.3 | 3.01 | 0.43 | 3.3 | 2649600 | 223 | 9780 | 392 |
| 26 | 7.70 | 16.5 | 12141 | 1.22 | 266.2 | 95.5 | 2.79 | 0.44 | 3.3 | 2649600 | 218 | 9605 | 382 |
| 27 | 7.71 | 16.3 | 16358 | 1.26 | 204.1 | 97.6 | 2.09 | 0.60 | 3.5 | 2649600 | 162 | 6721 | 280 |
| 28 | 7.73 | 16.5 | 15422 | 1.25 | 214.8 | 96.8 | 2.22 | 0.56 | 1.9 | 2649600 | 172 | 12458 | 290 |
| 29 | 7.72 | 16.9 | 15438 | 1.22 | 209.4 | 93.5 | 2.24 | 0.54 | 2.4 | 2649600 | 172 | 12601 | 357 |
| 30 | 7.65 | 17.3 | 15866 | 1.30 | 217.1 | 89.6 | 2.42 | 0.54 | 2.3 | 2649600 | 167 | 13172 | 371 |
| 31 | 7.69 | 17.2 | 14249 | 1.24 | 230.6 | 90.8 | 2.54 | 0.49 | 2.3 | 2649600 | 186 | 10192 | 281 |
| Averages | 7.61 | 19.19 | 14232 | 1.27 | 241.40 | 78.14 | 3.13 | 0.42 | 3.27 | | | | |

5.0 ULTRAVIOLET DISINFECTION

| | | |
|----------------------|----------------------------|---------|
| Total Water Treated: | 1,710,544.1 m ³ | 100.00% |
| On-Spec Water: | 1,710,219.7 m ³ | 99.981% |
| Off-Spec Water: | 324.4 m ³ | 0.019% |

Average monthly chlorine residual before UV Treatment was 1.28 mg/L
The average monthly chlorine residual after UV treatment and re-chlorination was 1.32 mg/L.

Figure 5.1 - UV Disinfection – BMID Mission Creek Source – August 2021

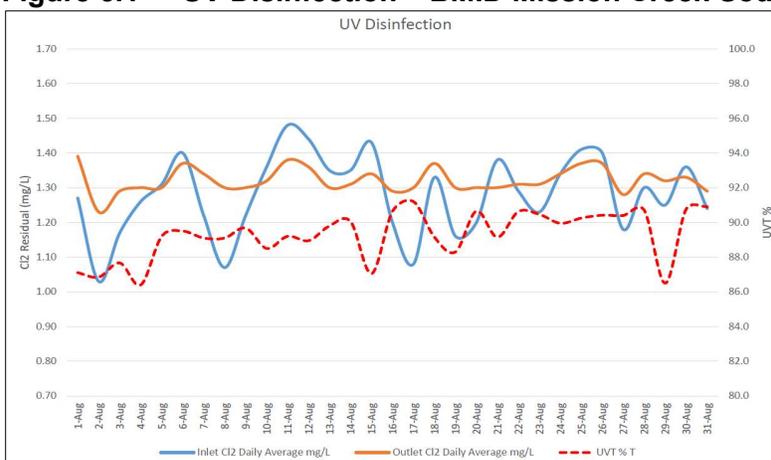


Table 5.2 - UV Disinfection Table – Mission Creek Source

| Date | Inlet Cl2 | Outlet Cl2 | UVT | In Spec Water | Off Spec | Off Spec % |
|----------------|-------------|-------------|--------------|---------------------------|--------------|---------------|
| | Daily | Daily | | | | |
| | mg/L | mg/L | % T | Cubic Meters | Cubic Meters | Percentage |
| 1-Aug | 1.27 | 1.39 | 87.1 | 68,574 | 0 | 0.00% |
| 2-Aug | 1.03 | 1.23 | 86.9 | 49,316 | 0 | 0.00% |
| 3-Aug | 1.17 | 1.29 | 87.7 | 66,133 | 0 | 0.00% |
| 4-Aug | 1.26 | 1.30 | 86.4 | 74,498 | 0 | 0.00% |
| 5-Aug | 1.31 | 1.30 | 89.2 | 78,090 | 0 | 0.00% |
| 6-Aug | 1.40 | 1.37 | 89.5 | 72,954 | 0 | 0.00% |
| 7-Aug | 1.22 | 1.34 | 89.1 | 55,936 | 39 | 0.07% |
| 8-Aug | 1.07 | 1.30 | 89.1 | 40,191 | 1 | 0.00% |
| 9-Aug | 1.22 | 1.30 | 89.7 | 41,406 | 0 | 0.00% |
| 10-Aug | 1.36 | 1.32 | 88.5 | 51,165 | 65 | 0.13% |
| 11-Aug | 1.48 | 1.38 | 89.2 | 65,293 | 3 | 0.00% |
| 12-Aug | 1.44 | 1.36 | 89.0 | 72,693 | 0 | 0.00% |
| 13-Aug | 1.35 | 1.30 | 89.8 | 66,731 | 109 | 0.16% |
| 14-Aug | 1.35 | 1.31 | 90.1 | 67,538 | 109 | 0.16% |
| 15-Aug | 1.43 | 1.34 | 87.1 | 70,506 | 0 | 0.00% |
| 16-Aug | 1.20 | 1.29 | 90.6 | 54,490 | 0 | 0.00% |
| 17-Aug | 1.08 | 1.30 | 91.2 | 44,134 | 0 | 0.00% |
| 18-Aug | 1.33 | 1.37 | 89.2 | 54,368 | 0 | 0.00% |
| 19-Aug | 1.16 | 1.30 | 88.3 | 50,755 | 0 | 0.00% |
| 20-Aug | 1.20 | 1.30 | 90.7 | 53,257 | 0 | 0.00% |
| 21-Aug | 1.38 | 1.30 | 89.2 | 60,924 | 0 | 0.00% |
| 22-Aug | 1.29 | 1.31 | 90.6 | 52,677 | 0 | 0.00% |
| 23-Aug | 1.23 | 1.31 | 90.5 | 46,303 | 0 | 0.00% |
| 24-Aug | 1.34 | 1.34 | 90.0 | 46,861 | 0 | 0.00% |
| 25-Aug | 1.41 | 1.37 | 90.3 | 52,437 | 0 | 0.00% |
| 26-Aug | 1.40 | 1.37 | 90.4 | 52,439 | 0 | 0.00% |
| 27-Aug | 1.18 | 1.28 | 90.4 | 36,065 | 0 | 0.00% |
| 28-Aug | 1.30 | 1.34 | 90.7 | 35,346 | 0 | 0.00% |
| 29-Aug | 1.25 | 1.32 | 86.5 | 46,013 | 0 | 0.00% |
| 30-Aug | 1.36 | 1.33 | 90.8 | 48,028 | 0 | 0.00% |
| 31-Aug | 1.24 | 1.29 | 90.9 | 35,099 | 0 | 0.00% |
| Average | 1.28 | 1.32 | 89.30 | Total 1,710,219.70 | 324.4 | 0.019% |

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

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

| Date | 2521 Beigo Rd | | Booster 1 | | Elison Blow-Off | | Elison School | | 3976 Highway 97 | | Prospect Reservoir | | Tower Reservoir | | Well #6 | | Well #5 | | 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 | Coliforms | E.coli | Coliforms | E.coli |
| 5-Jul-21 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | 0 | 0 | - | - | 0 | 0 | 0 | 0 | - | - | 0 | 0 | 0 | 0 |
| 12-Jul-21 | - | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | - | 0 | 0 | - | - | 0 | 0 | - | - | - | - | - | - |
| 19-Jul-21 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | 0 | 0 | - | - | - | - | 0 | 0 | - | - | 0 | 0 | 0 | 0 |
| 26-Jul-21 | - | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | - | 0 | 0 | - | - | 0 | 0 | - | - | - | - | - | - |
| 3-Aug-21 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | 0 | 0 | - | - | 0 | 0 | 0 | 0 | - | - | 0 | 0 | 0 | 0 |
| 9-Aug-21 | - | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | - | 0 | 0 | - | - | 0 | 0 | - | - | - | - | - | - |
| 16-Aug-21 | 0 | 0 | 0 | 0 | - | - | - | - | - | - | 0 | 0 | - | - | - | - | 0 | 0 | - | - | 0 | 0 | 0 | 0 |
| 23-Aug-21 | - | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | - | 0 | 0 | - | - | 0 | 0 | - | - | - | - | - | - |
| 30-Aug-21 | 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 nine samples were found to be absent of both *Total Coliforms* and *E.Coli*.

Table 6.2 - BMID In-house Testing – Presence Absence

| Location | 8/3/2021 | | | | 8/10/2021 | | | | 8/16/2021 | | | | 8/24/2021 | | | | 8/30/2021 | | | |
|----------------|----------|-------|-------|------|-----------|-------|-------|------|-----------|-------|-------|------|-----------|-------|-------|------|-----------|-------|-------|------|
| | Cl2 | Temp. | Pres. | Abs. | Cl2 | Temp. | Pres. | Abs. | Cl2 | Temp. | Pres. | Abs. | Cl2 | Temp. | Pres. | Abs. | Cl2 | Temp. | Pres. | Abs. |
| Sylvania Cres | | | | | | | | | 0.67 | 22.4 | - | X | | | | | | | | |
| 170 Kneller Rd | | | | | | | | | 0.69 | 22.6 | - | X | | | | | | | | |
| 2105 Morrison | | | | | 0.98 | 22.6 | - | X | | | | | | | | | 0.67 | 21.2 | - | X |
| Staymen Rd | | | | | 0.91 | 22.9 | - | X | | | | | | | | | 0.66 | 21.1 | - | X |
| 260 Campion Rd | 0.05 | 24.4 | - | X | | | | | | | | | 0.00 | 22.6 | - | X | | | | |
| Fenwick Rd | 0.30 | 23.2 | - | X | | | | | | | | | 0.42 | 21.2 | - | X | | | | |
| Solly Ct | | | | | | | | | 0.71 | 22.2 | - | X | | | | | | | | |

Table 6.3 – Disinfection By-Products – THM and HAA Results

| 9-Aug-21 | | |
|----------------|------------|------------|
| Location | THM (mg/L) | HAA (mg/L) |
| UV Plant | 0.0515 | 0.0420 |
| Pearson School | 0.0709 | 0.0611 |

- 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) = 11
- Total tests sampled by BMID and tested by Caro Labs = 31
- Total tests sampled in BMID treated distribution system = 42 (Zero Positive Samples)