



| Barr Beacon North Water Quality Zone (BBN)                                                                                                                                                                                                                                                                                                                                 |            |      |                   |                                    |                                   |         |        |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------|-------------------|------------------------------------|-----------------------------------|---------|--------|---------|
| Schedule 1 Parameters                                                                                                                                                                                                                                                                                                                                                      |            |      |                   |                                    |                                   |         |        |         |
|                                                                                                                                                                                                                                                                                                                                                                            | Units      | PCV  | Number of Samples | Number of Samples contravening PCV | % No. of samples contravening PCV | Min     | Mean   | Max     |
| Colour                                                                                                                                                                                                                                                                                                                                                                     | mg/l Pt/Co | 20   | 52                | 0                                  | 0                                 | 2.00    | 2.90   | 4.00    |
| Turbidity                                                                                                                                                                                                                                                                                                                                                                  | FTU        | 4    | 52                | 0                                  | 0                                 | 0.12    | 0.12   | 0.23    |
| Odour (quantitative)                                                                                                                                                                                                                                                                                                                                                       | Dil Number | 0    | 52                | 1                                  | 1.92                              | 0.00    | 0.02   | 1.00    |
| Taste (quantitative)                                                                                                                                                                                                                                                                                                                                                       | Dil Number | 0    | 52                | 0                                  | 0                                 | 0.00    | 0.00   | 0.00    |
| Sodium                                                                                                                                                                                                                                                                                                                                                                     | mg/l       | 200  | 8                 | 0                                  | 0                                 | 11.90   | 13.46  | 15.80   |
| Nitrate (as NO3)                                                                                                                                                                                                                                                                                                                                                           | mg/l       | 50   | 8                 | 0                                  | 0                                 | 9.10    | 14.00  | 16.20   |
| Nitrite (as NO2)                                                                                                                                                                                                                                                                                                                                                           | mg/l       | 0.1  | 8                 | 0                                  | 0                                 | <0.01   | <0.01  | 0.01    |
| Nitrate/Nitrite Ratio                                                                                                                                                                                                                                                                                                                                                      | mg/l       | 1    | 8                 | 0                                  | 0                                 | 0.18    | 0.28   | 0.32    |
| Aluminium                                                                                                                                                                                                                                                                                                                                                                  | ug/l       | 200  | 52                | 0                                  | 0                                 | 6.10    | 8.36   | 20.20   |
| Iron                                                                                                                                                                                                                                                                                                                                                                       | ug/l       | 200  | 52                | 0                                  | 0                                 | 7.30    | 8.50   | 19.20   |
| Manganese                                                                                                                                                                                                                                                                                                                                                                  | ug/l       | 50   | 52                | 0                                  | 0                                 | 1.70    | 1.83   | 3.40    |
| Copper (New Reg Limit)                                                                                                                                                                                                                                                                                                                                                     | mg/l       | 2    | 8                 | 0                                  | 0                                 | 0.01    | 0.03   | 0.15    |
| Fluoride                                                                                                                                                                                                                                                                                                                                                                   | mg/l       | 1.5  | 8                 | 0                                  | 0                                 | <0.11   | 0.31   | 1.05    |
| Arsenic (New Regs Limit)                                                                                                                                                                                                                                                                                                                                                   | ug/l       | 10   | 8                 | 0                                  | 0                                 | 1.00    | 1.00   | 1.00    |
| Cadmium                                                                                                                                                                                                                                                                                                                                                                    | ug/l       | 5    | 8                 | 0                                  | 0                                 | 0.12    | 0.12   | 0.12    |
| Chromium                                                                                                                                                                                                                                                                                                                                                                   | ug/l       | 50   | 8                 | 0                                  | 0                                 | <0.70   | <0.70  | 1.00    |
| Nickel (New Reg Limit)                                                                                                                                                                                                                                                                                                                                                     | ug/l       | 20   | 8                 | 0                                  | 0                                 | 0.90    | 2.96   | 16.40   |
| Lead (New Reg Limit)                                                                                                                                                                                                                                                                                                                                                       | ug/l       | 10   | 8                 | 0                                  | 0                                 | 0.90    | 0.90   | 0.90    |
| Antimony (New Reg Limit)                                                                                                                                                                                                                                                                                                                                                   | ug/l       | 5    | 8                 | 0                                  | 0                                 | 0.40    | 0.50   | 0.60    |
| Selenium                                                                                                                                                                                                                                                                                                                                                                   | ug/l       | 10   | 8                 | 0                                  | 0                                 | 0.80    | 0.80   | 0.80    |
| PAH                                                                                                                                                                                                                                                                                                                                                                        | ug/l       | 0.1  | 8                 | 0                                  | 0                                 | 0.00    | 0.00   | 0.00    |
| Escherichia coli                                                                                                                                                                                                                                                                                                                                                           | No./100ml  | 0    | 135               | 0                                  | 0                                 | 0.00    | 0.00   | 0.00    |
| Intestinal Enterococci                                                                                                                                                                                                                                                                                                                                                     | cfu/100ml  | 0    | 8                 | 0                                  | 0                                 | 0.00    | 0.00   | 0.00    |
| Boron (New Reg Limit)                                                                                                                                                                                                                                                                                                                                                      | mg/l       | 1    | 8                 | 0                                  | 0                                 | 0.05    | 0.06   | 0.07    |
| Benzo(a)pyrene                                                                                                                                                                                                                                                                                                                                                             | ug/l       | 0.01 | 8                 | 0                                  | 0                                 | 0.00    | 0.00   | 0.00    |
| Trihalomethanes (total)                                                                                                                                                                                                                                                                                                                                                    | ug/l       | 100  | 8                 | 0                                  | 0                                 | 45.40   | 59.98  | 77.90   |
| Bromate                                                                                                                                                                                                                                                                                                                                                                    | ug/l       | 10   | 8                 | 0                                  | 0                                 | 0.80    | 0.91   | 1.40    |
|                                                                                                                                                                                                                                                                                                                                                                            |            |      |                   |                                    |                                   |         |        |         |
| Indicator Parameters                                                                                                                                                                                                                                                                                                                                                       |            |      |                   |                                    |                                   |         |        |         |
|                                                                                                                                                                                                                                                                                                                                                                            | Units      | PCV  | Number of samples | Number of Samples contravening PCV | % No. of samples contravening PCV | Minimum | Mean   | Maximum |
| pH (New Reg Limit) Env                                                                                                                                                                                                                                                                                                                                                     |            | -    | 52                | 0                                  | 0                                 | 7.00    | 7.26   | 7.70    |
| Sulphate (as SO4)                                                                                                                                                                                                                                                                                                                                                          | mg/l       | 250  | 8                 | 0                                  | 0                                 | 35.60   | 41.44  | 48.40   |
| Ammonium (as NH4)                                                                                                                                                                                                                                                                                                                                                          | mg/l       | 0.5  | 52                | 0                                  | 0                                 | <0.02   | 0.02   | 0.02    |
| Total coliforms                                                                                                                                                                                                                                                                                                                                                            | No./100ml  | 0    | 135               | 1                                  | 0.74                              | 0.00    | 0.01   | 1.00    |
| 3 day count,22 deg C                                                                                                                                                                                                                                                                                                                                                       | cfu/ml     | 50   | 52                | 0                                  | 0                                 | 0.00    | 1.85   | 27.00   |
| Free chlorine                                                                                                                                                                                                                                                                                                                                                              | mg/l       | -    | 135               | 0                                  | 0                                 | 0.03    | 0.18   | 0.76    |
| Total chlorine                                                                                                                                                                                                                                                                                                                                                             | mg/l       | -    | 135               | 0                                  | 0                                 | 0.13    | 0.39   | 0.90    |
| Conductivity                                                                                                                                                                                                                                                                                                                                                               | uS/cm      | 2500 | 52                | 0                                  | 0                                 | 319.00  | 412.15 | 530.00  |
| Chloride                                                                                                                                                                                                                                                                                                                                                                   | mg/l       | 250  | 8                 | 0                                  | 0                                 | 38.00   | 43.38  | 45.00   |
|                                                                                                                                                                                                                                                                                                                                                                            |            |      |                   |                                    |                                   |         |        |         |
| * With the exception of the Total Coliforms and Odour (quantitative) parameters, all of the samples collected from this zone in 2024 complied with the Water Supply (Water Quality) (Amendment) Regulations 2016. The unsatisfactory samples were resampled and were found to comply with the regulations. Supplies to this zone are fluoridated up to a level of 1.5 mg/l |            |      |                   |                                    |                                   |         |        |         |