

Appendix B. Summary statistics for sample sites in the Samish Bay Watershed Water Quality Monitoring Project

|                         | pH<br>Units | DO<br>mg/L | DO<br>% sat | Temp<br>°C | Turb<br>NTU | Cond<br>us/cm | CondTemp<br>us/cm | Sal<br>ppt | Discharge<br>cfs | Staff<br>ft | Fecal Coliform<br>cfu | Nitrite + Nitrate<br>mg/L | Total Kjeldahl<br>Nitrogen<br>mg/L | Total<br>Phosphorus<br>mg/L | Orthophosphate<br>mg/L | Nitrate<br>mg/L | Ammonia<br>mg/L | TSS<br>mg/L |
|-------------------------|-------------|------------|-------------|------------|-------------|---------------|-------------------|------------|------------------|-------------|-----------------------|---------------------------|------------------------------------|-----------------------------|------------------------|-----------------|-----------------|-------------|
| <b>ABPS 1 - Site 1</b>  |             |            |             |            |             |               |                   |            |                  |             |                       |                           |                                    |                             |                        |                 |                 |             |
| No.                     | 76.00       | 76.00      | 75.00       | 78.00      | 79.00       | 79.00         | 47.00             | 79.00      | 0.00             | 9.00        | 78.00                 | 0.00                      | 0.00                               | 39.00                       | 29.00                  | 28.00           | 38.00           | 35.00       |
| Mean                    | 7.39        | 5.53       | 55.67       | 11.19      | 37.60       | 19640.25      | 25267.94          | 16.03      | NA               | 2.57        | 282.90                | NA                        | NA                                 | 0.64                        | 0.36                   | 2.18            | 1.51            | 93.34       |
| SD                      | 0.55        | 3.14       | 34.98       | 5.10       | 68.83       | 11376.60      | 13771.86          | 8.20       | NA               | 0.35        | 521.05                | NA                        | NA                                 | 0.45                        | 0.27                   | 2.37            | 0.95            | 182.40      |
| Max                     | 8.78        | 18.49      | 259.50      | 24.00      | 558.00      | 38530.00      | 41480.00          | 26.70      | 0.00             | 3.50        | 2500.00               | 0.00                      | 0.00                               | 2.00                        | 1.00                   | 8.39            | 4.49            | 1091.00     |
| Min                     | 6.50        | 0.43       | 8.90        | 2.70       | 6.10        | 7.39          | 11.09             | 0.10       | 0.00             | 2.40        | 2.00                  | 0.00                      | 0.00                               | 0.05                        | 0.08                   | 0.07            | 0.30            | 7.00        |
| <b>ABSR1 - Site 2</b>   |             |            |             |            |             |               |                   |            |                  |             |                       |                           |                                    |                             |                        |                 |                 |             |
| No.                     | 35.00       | 35.00      | 35.00       | 35.00      | 35.00       | 35.00         | 23.00             | 35.00      | 0.00             | 0.00        | 33.00                 | 0.00                      | 0.00                               | 0.00                        | 0.00                   | 0.00            | 0.00            | 0.00        |
| Mean                    | 7.22        | 6.29       | 62.71       | 11.39      | 33.99       | 20844.66      | 22511.39          | 14.99      | NA               | NA          | 307.00                | NA                        | NA                                 | NA                          | NA                     | NA              | NA              | NA          |
| STD                     | 0.53        | 3.04       | 30.38       | 5.34       | 67.97       | 14967.65      | 13439.84          | 8.28       | NA               | NA          | 614.50                | NA                        | NA                                 | NA                          | NA                     | NA              | NA              | NA          |
| Max                     | 8.80        | 14.43      | 135.30      | 21.00      | 412.00      | 77700.00      | 42490.00          | 27.40      | 0.00             | 0.00        | 2500.00               | 0.00                      | 0.00                               | 0.00                        | 0.00                   | 0.00            | 0.00            | 0.00        |
| Min                     | 6.45        | 0.13       | 1.40        | 4.80       | 3.21        | 1820.00       | 3002.00           | 1.50       | 0.00             | 0.00        | 4.00                  | 0.00                      | 0.00                               | 0.00                        | 0.00                   | 0.00            | 0.00            | 0.00        |
| <b>ESMTG4 - Site 3</b>  |             |            |             |            |             |               |                   |            |                  |             |                       |                           |                                    |                             |                        |                 |                 |             |
| No.                     | 74.00       | 74.00      | 74.00       | 75.00      | 75.00       | 75.00         | 47.00             | 75.00      | 0.00             | 0.00        | 73.00                 | 0.00                      | 0.00                               | 38.00                       | 30.00                  | 22.00           | 36.00           | 32.00       |
| Mean                    | 7.64        | 5.64       | 53.81       | 10.92      | 28.24       | 15075.64      | 19027.39          | 12.88      | NA               | NA          | 246.74                | NA                        | NA                                 | 0.92                        | 0.57                   | 1.55            | 1.76            | 72.81       |
| SD                      | 0.64        | 4.10       | 40.92       | 4.48       | 41.02       | 10025.79      | 13182.55          | 9.55       | NA               | NA          | 564.20                | NA                        | NA                                 | 0.84                        | 0.51                   | 1.44            | 1.04            | 165.66      |
| Max                     | 9.26        | 19.27      | 201.40      | 19.90      | 304.00      | 33150.00      | 41040.00          | 51.00      | 0.00             | 0.00        | 2500.00               | 0.00                      | 0.00                               | 3.80                        | 1.72                   | 5.17            | 4.20            | 959.00      |
| Min                     | 6.89        | 0.07       | 0.80        | 3.20       | 3.50        | 22.90         | 35.41             | 0.00       | 0.00             | 0.00        | 2.00                  | 0.00                      | 0.00                               | 0.05                        | 0.12                   | 0.07            | 0.11            | 5.00        |
| <b>EBEW1 - Site 4</b>   |             |            |             |            |             |               |                   |            |                  |             |                       |                           |                                    |                             |                        |                 |                 |             |
| No.                     | 39.00       | 36.00      | 38.00       | 39.00      | 39.00       | 38.00         | 23.00             | 39.00      | 0.00             | 0.00        | 38.00                 | 0.00                      | 0.00                               | 0.00                        | 0.00                   | 0.00            | 0.00            | 0.00        |
| Mean                    | 7.72        | 7.00       | 75.79       | 12.62      | 37.88       | 11234.00      | 14589.70          | 8.53       | NA               | NA          | 227.26                | NA                        | NA                                 | NA                          | NA                     | NA              | NA              | NA          |
| SD                      | 0.53        | 3.57       | 52.89       | 5.89       | 73.20       | 9020.43       | 12107.38          | 7.40       | NA               | NA          | 485.64                | NA                        | NA                                 | NA                          | NA                     | NA              | NA              | NA          |
| Max                     | 8.81        | 14.89      | 281.70      | 23.60      | 458.00      | 28500.00      | 35550.00          | 22.30      | 0.00             | 0.00        | 2500.00               | 0.00                      | 0.00                               | 0.00                        | 0.00                   | 0.00            | 0.00            | 0.00        |
| Min                     | 7.02        | 0.00       | 0.40        | 4.80       | 8.78        | 492.00        | 801.00            | 0.40       | 0.00             | 0.00        | 4.00                  | 0.00                      | 0.00                               | 0.00                        | 0.00                   | 0.00            | 0.00            | 0.00        |
| <b>EBEE2 - Site 5</b>   |             |            |             |            |             |               |                   |            |                  |             |                       |                           |                                    |                             |                        |                 |                 |             |
| No.                     | 38.00       | 38.00      | 38.00       | 38.00      | 38.00       | 38.00         | 23.00             | 38.00      | 0.00             | 6.00        | 39.00                 | 0.00                      | 0.00                               | 0.00                        | 0.00                   | 0.00            | 0.00            | 0.00        |
| Mean                    | 7.48        | 4.31       | 43.33       | 12.94      | 31.44       | 8507.87       | 12410.70          | 6.52       | NA               | 3.42        | 276.33                | NA                        | NA                                 | NA                          | NA                     | NA              | NA              | NA          |
| SD                      | 0.34        | 3.35       | 35.37       | 6.08       | 61.09       | 8959.87       | 11362.94          | 6.58       | NA               | 1.07        | 307.52                | NA                        | NA                                 | NA                          | NA                     | NA              | NA              | NA          |
| Max                     | 8.17        | 14.88      | 157.00      | 23.90      | 390.00      | 29400.00      | 34000.00          | 21.40      | 0.00             | 4.70        | 1100.00               | 0.00                      | 0.00                               | 0.00                        | 0.00                   | 0.00            | 0.00            | 0.00        |
| Min                     | 6.91        | 0.04       | 0.50        | 4.50       | 2.31        | 12.28         | 803.00            | 0.20       | 0.00             | 2.00        | 2.00                  | 0.00                      | 0.00                               | 0.00                        | 0.00                   | 0.00            | 0.00            | 0.00        |
| <b>EFMN1 - Site 6</b>   |             |            |             |            |             |               |                   |            |                  |             |                       |                           |                                    |                             |                        |                 |                 |             |
| No.                     | 36.00       | 37.00      | 37.00       | 36.00      | 36.00       | 36.00         | 22.00             | 36.00      | 0.00             | 0.00        | 37.00                 | 0.00                      | 0.00                               | 0.00                        | 0.00                   | 0.00            | 0.00            | 0.00        |
| Mean                    | 7.43        | 5.35       | 54.04       | 12.42      | 37.78       | 4177.55       | 7007.05           | 3.19       | NA               | NA          | 254.54                | NA                        | NA                                 | NA                          | NA                     | NA              | NA              | NA          |
| SD                      | 0.36        | 3.49       | 40.96       | 5.89       | 105.37      | 6555.57       | 8865.68           | 4.74       | NA               | NA          | 315.75                | NA                        | NA                                 | NA                          | NA                     | NA              | NA              | NA          |
| Max                     | 8.17        | 17.26      | 227.00      | 24.20      | 650.00      | 24740.00      | 28670.00          | 17.80      | 0.00             | 0.00        | 1100.00               | 0.00                      | 0.00                               | 0.00                        | 0.00                   | 0.00            | 0.00            | 0.00        |
| Min                     | 6.78        | 0.04       | 0.50        | 4.30       | 5.63        | 8.30          | 333.00            | 0.00       | 0.00             | 0.00        | 14.00                 | 0.00                      | 0.00                               | 0.00                        | 0.00                   | 0.00            | 0.00            | 0.00        |
| <b>ESPSTG5 - Site 7</b> |             |            |             |            |             |               |                   |            |                  |             |                       |                           |                                    |                             |                        |                 |                 |             |
| No.                     | 79.00       | 79.00      | 78.00       | 80.00      | 80.00       | 80.00         | 48.00             | 80.00      | 0.00             | 0.00        | 78.00                 | 0.00                      | 0.00                               | 41.00                       | 31.00                  | 25.00           | 38.00           | 38.00       |
| Mean                    | 7.53        | 5.76       | 56.88       | 11.80      | 36.70       | 7232.62       | 9514.23           | 5.46       | NA               | NA          | 350.60                | NA                        | NA                                 | 0.96                        | 0.68                   | 2.08            | 1.50            | 49.71       |
| SD                      | 0.47        | 3.60       | 40.85       | 5.45       | 81.39       | 7157.65       | 8473.94           | 5.33       | NA               | NA          | 584.52                | NA                        | NA                                 | 1.25                        | 0.68                   | 1.63            | 1.07            | 101.87      |
| Max                     | 8.90        | 19.37      | 260.90      | 26.70      | 599.00      | 31280.00      | 32250.00          | 20.30      | 0.00             | 0.00        | 2500.00               | 0.00                      | 0.00                               | 7.80                        | 2.70                   | 5.70            | 4.50            | 573.00      |
| Min                     | 6.83        | 0.04       | 0.60        | 3.10       | 0.78        | 9.32          | 415.00            | 0.20       | 0.00             | 0.00        | 2.00                  | 0.00                      | 0.00                               | 0.21                        | 0.08                   | 0.10            | 0.09            | 5.00        |
| <b>SBTG3 - Site 8</b>   |             |            |             |            |             |               |                   |            |                  |             |                       |                           |                                    |                             |                        |                 |                 |             |
| No.                     | 76.00       | 77.00      | 76.00       | 77.00      | 77.00       | 77.00         | 49.00             | 77.00      | 0.00             | 0.00        | 77.00                 | 0.00                      | 0.00                               | 40.00                       | 30.00                  | 21.00           | 39.00           | 37.00       |
| Mean                    | 7.33        | 4.29       | 39.78       | 10.83      | 35.72       | 12232.85      | 27409.27          | 9.54       | NA               | NA          | 248.42                | NA                        | NA                                 | 0.79                        | 0.56                   | 1.54            | 1.79            | 46.84       |
| SD                      | 0.49        | 2.67       | 22.71       | 4.55       | 42.01       | 8681.64       | 83691.81          | 6.69       | NA               | NA          | 378.87                | NA                        | NA                                 | 0.54                        | 0.47                   | 1.44            | 0.99            | 41.72       |
| Max                     | 8.25        | 12.38      | 115.60      | 20.70      | 270.00      | 30410.00      | 596000.00         | 24.50      | 0.00             | 0.00        | 2500.00               | 0.00                      | 0.00                               | 2.34                        | 2.00                   | 6.40            | 3.70            | 228.00      |
| Min                     | 6.36        | 0.05       | 0.90        | 3.10       | 6.52        | 52.30         | 96.50             | 0.00       | 0.00             | 0.00        | 2.00                  | 0.00                      | 0.00                               | 0.19                        | 0.17                   | 0.05            | 0.24            | 6.00        |

Appendix B. Summary statistics for sample sites in the Samish Bay Watershed Water Quality Monitoring Project

|                          | pH<br>Units | DO<br>mg/L | DO<br>% sat | Temp<br>°C | Turb<br>NTU | Cond<br>us/cm | CondTemp<br>us/cm | Sal<br>ppt | Discharge<br>cfs | Staff<br>ft | Fecal Coliform<br>cfu | Nitrite + Nitrate<br>mg/L | Total Kjeldahl<br>Nitrogen<br>mg/L | Total<br>Phosphorus<br>mg/L | Orthophosphate<br>mg/L | Nitrate<br>mg/L | Ammonia<br>mg/L | TSS<br>mg/L |
|--------------------------|-------------|------------|-------------|------------|-------------|---------------|-------------------|------------|------------------|-------------|-----------------------|---------------------------|------------------------------------|-----------------------------|------------------------|-----------------|-----------------|-------------|
| <b>ESSC1.5 - Site 9</b>  |             |            |             |            |             |               |                   |            |                  |             |                       |                           |                                    |                             |                        |                 |                 |             |
| No.                      | 81.00       | 81.00      | 81.00       | 81.00      | 82.00       | 81.00         | 49.00             | 82.00      | 1.00             | 13.00       | 81.00                 | 0.00                      | 0.00                               | 39.00                       | 31.00                  | 24.00           | 39.00           | 29.00       |
| Mean                     | 7.53        | 6.60       | 65.46       | 12.11      | 22.51       | 9216.13       | 10990.36          | 6.74       | 3.10             | 2.10        | 280.58                | NA                        | NA                                 | 0.55                        | 0.45                   | 0.97            | 0.42            | 83.48       |
| SD                       | 0.48        | 2.99       | 35.25       | 6.39       | 49.16       | 11100.64      | 13679.20          | 8.12       | NA               | 0.69        | 489.85                | NA                        | NA                                 | 0.53                        | 0.51                   | 0.66            | 0.48            | 180.98      |
| Max                      | 8.79        | 18.92      | 263.90      | 25.80      | 325.00      | 36440.00      | 38270.00          | 24.40      | 3.10             | 3.35        | 2500.00               | 0.00                      | 0.00                               | 1.87                        | 2.00                   | 2.43            | 2.30            | 788.00      |
| Min                      | 6.44        | 0.10       | 1.50        | 1.70       | 3.73        | 68.30         | 112.30            | 0.00       | 3.10             | 1.25        | 2.00                  | 0.00                      | 0.00                               | 0.06                        | 0.06                   | 0.16            | 0.06            | 6.00        |
| <b>ESED3.0 - Site 10</b> |             |            |             |            |             |               |                   |            |                  |             |                       |                           |                                    |                             |                        |                 |                 |             |
| No.                      | 39.00       | 38.00      | 38.00       | 39.00      | 39.00       | 38.00         | 23.00             | 39.00      | 0.00             | 1.00        | 41.00                 | 0.00                      | 0.00                               | 0.00                        | 0.00                   | 0.00            | 0.00            | 0.00        |
| Mean                     | 7.31        | 5.35       | 51.14       | 12.29      | 12.72       | 6837.12       | 9457.83           | 4.82       | NA               | 2.30        | 268.63                | NA                        | NA                                 | NA                          | NA                     | NA              | NA              | NA          |
| SD                       | 0.46        | 2.67       | 23.06       | 5.90       | 27.18       | 10096.40      | 13618.92          | 7.35       | NA               | NA          | 500.83                | NA                        | NA                                 | NA                          | NA                     | NA              | NA              | NA          |
| Max                      | 8.44        | 11.41      | 113.60      | 24.00      | 174.00      | 30910.00      | 35890.00          | 22.70      | 0.00             | 2.30        | 2500.00               | 0.00                      | 0.00                               | 0.00                        | 0.00                   | 0.00            | 0.00            | 0.00        |
| Min                      | 6.57        | 0.18       | 1.80        | 3.50       | 1.04        | 69.90         | 112.60            | 0.10       | 0.00             | 2.30        | 2.00                  | 0.00                      | 0.00                               | 0.00                        | 0.00                   | 0.00            | 0.00            | 0.00        |
| <b>ESBH4.0 - Site 11</b> |             |            |             |            |             |               |                   |            |                  |             |                       |                           |                                    |                             |                        |                 |                 |             |
| No.                      | 72.00       | 73.00      | 72.00       | 73.00      | 73.00       | 70.00         | 41.00             | 72.00      | 0.00             | 0.00        | 73.00                 | 0.00                      | 0.00                               | 29.00                       | 24.00                  | 23.00           | 33.00           | 19.00       |
| Mean                     | 7.13        | 4.27       | 35.98       | 10.12      | 34.68       | 165.36        | 212.49            | 0.11       | NA               | NA          | 174.86                | NA                        | NA                                 | 0.20                        | 0.13                   | 1.01            | 0.27            | 26.84       |
| SD                       | 0.30        | 2.95       | 23.27       | 4.13       | 46.16       | 94.18         | 123.69            | 0.06       | NA               | NA          | 395.51                | NA                        | NA                                 | 0.13                        | 0.09                   | 0.79            | 0.28            | 22.74       |
| Max                      | 7.75        | 10.01      | 80.60       | 17.10      | 223.00      | 484.00        | 604.00            | 0.30       | 0.00             | 0.00        | 2500.00               | 0.00                      | 0.00                               | 0.60                        | 0.40                   | 3.16            | 1.20            | 91.00       |
| Min                      | 6.20        | 0.14       | 2.00        | 1.50       | 3.19        | 2.00          | 70.80             | 0.00       | 0.00             | 0.00        | 3.00                  | 0.00                      | 0.00                               | 0.05                        | 0.05                   | 0.09            | 0.05            | 6.00        |
| <b>CCCR1.0 - Site 12</b> |             |            |             |            |             |               |                   |            |                  |             |                       |                           |                                    |                             |                        |                 |                 |             |
| No.                      | 73.00       | 74.00      | 73.00       | 74.00      | 74.00       | 73.00         | 49.00             | 74.00      | 0.00             | 56.00       | 73.00                 | 19.00                     | 21.00                              | 33.00                       | 21.00                  | 35.00           | 35.00           | 20.00       |
| Mean                     | 7.27        | 7.77       | 69.34       | 10.55      | 11.28       | 5248.41       | 8240.69           | 3.49       | NA               | 2.36        | 228.86                | 0.84                      | 0.98                               | 0.16                        | 0.09                   | 0.90            | 0.18            | 43.80       |
| SD                       | 0.26        | 2.66       | 17.67       | 4.78       | 26.57       | 9038.76       | 14098.86          | 5.76       | NA               | 1.46        | 400.37                | 0.62                      | 0.46                               | 0.13                        | 0.04                   | 0.63            | 0.12            | 97.28       |
| Max                      | 7.77        | 17.61      | 136.20      | 21.00      | 231.00      | 57600.00      | 71200.00          | 29.10      | 0.00             | 6.56        | 2500.00               | 1.78                      | 2.00                               | 0.55                        | 0.16                   | 1.94            | 0.55            | 410.00      |
| Min                      | 6.62        | 3.15       | 32.90       | 3.30       | 1.01        | 7.00          | 10.20             | 0.00       | 0.00             | 0.70        | 2.00                  | 0.11                      | 0.50                               | 0.05                        | 0.05                   | 0.11            | 0.05            | 4.00        |
| <b>EFMS2 - Site 13</b>   |             |            |             |            |             |               |                   |            |                  |             |                       |                           |                                    |                             |                        |                 |                 |             |
| No.                      | 38.00       | 38.00      | 38.00       | 38.00      | 38.00       | 38.00         | 24.00             | 37.00      | 0.00             | 0.00        | 39.00                 | 0.00                      | 0.00                               | 0.00                        | 0.00                   | 0.00            | 0.00            | 0.00        |
| Mean                     | 7.32        | 4.07       | 39.61       | 12.81      | 25.85       | 5019.03       | 6828.88           | 3.67       | NA               | NA          | 292.21                | NA                        | NA                                 | NA                          | NA                     | NA              | NA              | NA          |
| SD                       | 0.33        | 2.60       | 26.06       | 5.84       | 15.08       | 6872.10       | 8546.71           | 4.84       | NA               | NA          | 423.20                | NA                        | NA                                 | NA                          | NA                     | NA              | NA              | NA          |
| Max                      | 7.90        | 10.36      | 113.00      | 24.30      | 64.90       | 27080.00      | 29590.00          | 18.30      | 0.00             | 0.00        | 1600.00               | 0.00                      | 0.00                               | 0.00                        | 0.00                   | 0.00            | 0.00            | 0.00        |
| Min                      | 6.43        | 0.09       | 1.20        | 5.40       | 6.20        | 5.24          | 6.16              | 0.40       | 0.00             | 0.00        | 9.00                  | 0.00                      | 0.00                               | 0.00                        | 0.00                   | 0.00            | 0.00            | 0.00        |
| <b>SRFM3.0 - Site 14</b> |             |            |             |            |             |               |                   |            |                  |             |                       |                           |                                    |                             |                        |                 |                 |             |
| No.                      | 80.00       | 81.00      | 80.00       | 82.00      | 81.00       | 81.00         | 49.00             | 80.00      | 0.00             | 1.00        | 83.00                 | 1.00                      | 0.00                               | 18.00                       | 11.00                  | 41.00           | 31.00           | 26.00       |
| Mean                     | 7.64        | 10.94      | 96.78       | 10.05      | 10.23       | 160.14        | 320.72            | 0.11       | NA               | 1.20        | 222.22                | 0.53                      | NA                                 | 0.14                        | 0.10                   | 0.79            | 0.11            | 21.54       |
| SD                       | 0.35        | 1.50       | 14.10       | 4.07       | 16.15       | 548.88        | 1056.92           | 0.46       | NA               | NA          | 467.52                | NA                        | NA                                 | 0.12                        | 0.05                   | 0.53            | 0.05            | 31.03       |
| Max                      | 8.71        | 16.70      | 140.50      | 19.20      | 128.00      | 3882.00       | 6060.00           | 3.30       | 0.00             | 1.20        | 2500.00               | 0.53                      | 0.00                               | 0.46                        | 0.20                   | 3.78            | 0.22            | 146.00      |
| Min                      | 6.86        | 8.37       | 73.20       | 3.80       | 2.27        | 0.00          | 51.90             | 0.00       | 0.00             | 1.20        | 8.00                  | 0.53                      | 0.00                               | 0.05                        | 0.05                   | 0.45            | 0.05            | 5.00        |
| <b>SRTR4.5 - Site 15</b> |             |            |             |            |             |               |                   |            |                  |             |                       |                           |                                    |                             |                        |                 |                 |             |
| No.                      | 78.00       | 80.00      | 79.00       | 82.00      | 82.00       | 81.00         | 49.00             | 81.00      | 0.00             | 6.00        | 83.00                 | 1.00                      | 1.00                               | 20.00                       | 11.00                  | 41.00           | 30.00           | 22.00       |
| Mean                     | 7.54        | 11.06      | 97.11       | 9.77       | 10.04       | 65.70         | 108.31            | 0.03       | NA               | 3.35        | 204.29                | 0.57                      | 0.60                               | 0.18                        | 0.11                   | 0.73            | 0.12            | 26.59       |
| SD                       | 0.30        | 1.53       | 13.09       | 3.80       | 26.01       | 25.37         | 97.13             | 0.05       | NA               | 1.51        | 337.41                | NA                        | NA                                 | 0.19                        | 0.09                   | 0.22            | 0.09            | 65.57       |
| Max                      | 8.32        | 16.54      | 139.20      | 17.90      | 230.00      | 112.40        | 752.00            | 0.10       | 0.00             | 6.00        | 2500.00               | 0.57                      | 0.60                               | 0.69                        | 0.34                   | 1.40            | 0.50            | 317.00      |
| Min                      | 6.93        | 7.88       | 70.90       | 3.90       | 1.29        | 0.00          | 54.50             | 0.00       | 0.00             | 1.70        | 2.00                  | 0.57                      | 0.60                               | 0.05                        | 0.05                   | 0.48            | 0.05            | 5.00        |
| <b>SRCD6.5 - Site 16</b> |             |            |             |            |             |               |                   |            |                  |             |                       |                           |                                    |                             |                        |                 |                 |             |
| No.                      | 80.00       | 82.00      | 81.00       | 83.00      | 82.00       | 82.00         | 50.00             | 82.00      | 29.00            | 26.00       | 84.00                 | 23.00                     | 17.00                              | 16.00                       | 12.00                  | 41.00           | 32.00           | 17.00       |
| Mean                     | 7.51        | 10.89      | 95.31       | 9.70       | 13.75       | 66.59         | 95.00             | 0.04       | 303.65           | 12.48       | 195.76                | 0.69                      | 0.62                               | 0.13                        | 0.09                   | 0.73            | 0.14            | 31.88       |
| SD                       | 0.32        | 1.71       | 12.73       | 3.66       | 49.30       | 23.84         | 24.24             | 0.05       | 327.76           | 2.36        | 358.22                | 0.16                      | 0.34                               | 0.09                        | 0.05                   | 0.22            | 0.13            | 79.40       |
| Max                      | 8.36        | 16.17      | 141.10      | 17.70      | 375.00      | 110.00        | 135.60            | 0.10       | 1416.92          | 19.30       | 2500.00               | 1.03                      | 1.81                               | 0.43                        | 0.22                   | 1.38            | 0.60            | 338.00      |
| Min                      | 6.77        | 6.30       | 51.00       | 3.70       | 1.08        | 0.00          | 53.90             | 0.00       | 31.13            | 5.50        | 3.00                  | 0.45                      | 0.30                               | 0.05                        | 0.05                   | 0.45            | 0.05            | 5.00        |

Appendix B. Summary statistics for sample sites in the Samish Bay Watershed Water Quality Monitoring Project

|                            | pH<br>Units | DO<br>mg/L | DO<br>% sat | Temp<br>°C | Turb<br>NTU | Cond<br>us/cm | CondTemp<br>us/cm | Sal<br>ppt | Discharge<br>cfs | Staff<br>ft | Fecal Coliform<br>cfu | Nitrite + Nitrate<br>mg/L | Total Kjeldahl<br>Nitrogen<br>mg/L | Total<br>Phosphorus<br>mg/L | Orthophosphate<br>mg/L | Nitrate<br>mg/L | Ammonia<br>mg/L | TSS<br>mg/L |
|----------------------------|-------------|------------|-------------|------------|-------------|---------------|-------------------|------------|------------------|-------------|-----------------------|---------------------------|------------------------------------|-----------------------------|------------------------|-----------------|-----------------|-------------|
| <b>TCH990.5 - Site 17</b>  |             |            |             |            |             |               |                   |            |                  |             |                       |                           |                                    |                             |                        |                 |                 |             |
| No.                        | 81.00       | 82.00      | 80.00       | 82.00      | 82.00       | 80.00         | 49.00             | 80.00      | 6.00             | 29.00       | 83.00                 | 19.00                     | 21.00                              | 24.00                       | 17.00                  | 35.00           | 32.00           | 14.00       |
| Mean                       | 7.17        | 6.53       | 57.42       | 10.44      | 14.01       | 104.98        | 149.11            | 0.07       | 67.60            | 2.56        | 293.75                | 0.84                      | 0.68                               | 0.13                        | 0.09                   | 0.98            | 0.12            | 23.64       |
| SD                         | 0.37        | 2.99       | 23.85       | 4.32       | 19.54       | 43.13         | 46.41             | 0.05       | 109.62           | 1.30        | 576.53                | 0.61                      | 0.24                               | 0.07                        | 0.05                   | 0.70            | 0.11            | 22.80       |
| Max                        | 7.92        | 13.90      | 106.10      | 18.70      | 113.00      | 201.40        | 259.90            | 0.10       | 290.37           | 6.60        | 2500.00               | 1.97                      | 1.40                               | 0.28                        | 0.23                   | 2.91            | 0.63            | 68.00       |
| Min                        | 6.30        | 0.98       | 9.20        | 3.10       | 1.88        | 0.00          | 83.40             | 0.00       | 9.81             | 1.10        | 4.00                  | 0.07                      | 0.35                               | 0.05                        | 0.05                   | 0.07            | 0.05            | 5.00        |
| <b>TCFS4.0 - Site 18</b>   |             |            |             |            |             |               |                   |            |                  |             |                       |                           |                                    |                             |                        |                 |                 |             |
| No.                        | 82.00       | 83.00      | 82.00       | 83.00      | 82.00       | 82.00         | 50.00             | 82.00      | 0.00             | 27.00       | 84.00                 | 23.00                     | 16.00                              | 20.00                       | 20.00                  | 41.00           | 26.00           | 25.00       |
| Mean                       | 7.66        | 10.90      | 95.21       | 9.48       | 21.33       | 88.52         | 129.06            | 0.05       | NA               | 0.93        | 445.80                | 1.20                      | 0.69                               | 0.14                        | 0.09                   | 1.27            | 0.09            | 22.28       |
| SD                         | 0.31        | 1.78       | 13.57       | 3.37       | 39.63       | 42.72         | 50.49             | 0.05       | NA               | 0.31        | 747.52                | 0.36                      | 0.72                               | 0.08                        | 0.04                   | 0.48            | 0.03            | 41.05       |
| Max                        | 8.14        | 16.82      | 144.59      | 16.20      | 290.00      | 159.00        | 207.90            | 0.10       | 0.00             | 1.60        | 2500.00               | 2.00                      | 3.30                               | 0.42                        | 0.21                   | 2.80            | 0.20            | 209.00      |
| Min                        | 6.74        | 3.52       | 28.70       | 2.90       | 1.52        | 0.00          | 60.20             | 0.00       | 0.00             | 0.45        | 8.00                  | 0.65                      | 0.10                               | 0.05                        | 0.05                   | 0.60            | 0.05            | 5.00        |
| <b>SRFS12.5 - Site 19</b>  |             |            |             |            |             |               |                   |            |                  |             |                       |                           |                                    |                             |                        |                 |                 |             |
| No.                        | 78.00       | 79.00      | 78.00       | 79.00      | 79.00       | 78.00         | 50.00             | 78.00      | 0.00             | 44.00       | 79.00                 | 23.00                     | 13.00                              | 21.00                       | 10.00                  | 41.00           | 19.00           | 15.00       |
| Mean                       | 7.43        | 10.96      | 96.79       | 9.21       | 9.81        | 58.09         | 82.13             | 0.03       | NA               | 2.04        | 148.15                | 0.70                      | 0.52                               | 0.13                        | 0.08                   | 0.70            | 0.12            | 26.93       |
| SD                         | 0.41        | 1.92       | 14.48       | 2.99       | 30.08       | 21.89         | 28.76             | 0.05       | NA               | 0.90        | 262.80                | 0.15                      | 0.27                               | 0.10                        | 0.03                   | 0.16            | 0.06            | 50.66       |
| Max                        | 8.00        | 15.34      | 143.60      | 15.20      | 238.00      | 90.70         | 121.70            | 0.10       | 0.00             | 5.00        | 1100.00               | 1.06                      | 1.00                               | 0.51                        | 0.16                   | 1.06            | 0.27            | 203.00      |
| Min                        | 5.30        | 1.67       | 29.40       | 3.60       | 0.46        | 0.00          | 13.50             | 0.00       | 0.00             | 0.22        | 2.00                  | 0.41                      | 0.10                               | 0.05                        | 0.05                   | 0.41            | 0.05            | 5.00        |
| <b>FCPR1.0 - Site 20</b>   |             |            |             |            |             |               |                   |            |                  |             |                       |                           |                                    |                             |                        |                 |                 |             |
| No.                        | 80.00       | 81.00      | 80.00       | 81.00      | 81.00       | 80.00         | 50.00             | 80.00      | 24.00            | 47.00       | 79.00                 | 21.00                     | 11.00                              | 19.00                       | 9.00                   | 40.00           | 23.00           | 17.00       |
| Mean                       | 7.75        | 10.75      | 97.27       | 10.57      | 6.21        | 57.38         | 80.38             | 0.02       | 153.79           | 1.83        | 180.80                | 0.63                      | 0.42                               | 0.11                        | 0.07                   | 0.69            | 0.11            | 11.12       |
| SD                         | 0.50        | 2.01       | 15.54       | 4.39       | 7.77        | 19.69         | 21.26             | 0.04       | 155.26           | 0.64        | 447.65                | 0.26                      | 0.22                               | 0.06                        | 0.03                   | 0.32            | 0.07            | 13.99       |
| Max                        | 9.35        | 14.86      | 142.40      | 20.40      | 42.60       | 96.20         | 128.00            | 0.10       | 599.88           | 3.10        | 2500.00               | 1.12                      | 0.70                               | 0.28                        | 0.14                   | 1.41            | 0.30            | 64.00       |
| Min                        | 6.54        | 3.17       | 25.50       | 3.40       | 0.93        | 0.00          | 42.70             | 0.00       | 4.41             | 0.74        | 4.00                  | 0.10                      | 0.10                               | 0.05                        | 0.05                   | 0.10            | 0.05            | 5.00        |
| <b>SRH9910.0 - Site 21</b> |             |            |             |            |             |               |                   |            |                  |             |                       |                           |                                    |                             |                        |                 |                 |             |
| No.                        | 78.00       | 80.00      | 79.00       | 80.00      | 80.00       | 79.00         | 50.00             | 78.00      | 24.00            | 23.00       | 81.00                 | 22.00                     | 12.00                              | 20.00                       | 10.00                  | 42.00           | 22.00           | 18.00       |
| Mean                       | 7.52        | 10.78      | 95.20       | 9.83       | 8.72        | 60.49         | 85.90             | 0.02       | 332.42           | 2.13        | 222.72                | 0.69                      | 0.51                               | 0.13                        | 0.07                   | 0.72            | 0.10            | 18.94       |
| SD                         | 0.38        | 1.76       | 14.55       | 3.56       | 22.27       | 19.51         | 21.77             | 0.04       | 335.69           | 0.81        | 442.66                | 0.15                      | 0.25                               | 0.10                        | 0.03                   | 0.20            | 0.04            | 32.81       |
| Max                        | 8.15        | 15.10      | 138.00      | 17.20      | 181.00      | 94.10         | 123.10            | 0.10       | 1242.08          | 4.35        | 2500.00               | 1.03                      | 0.89                               | 0.42                        | 0.14                   | 1.20            | 0.20            | 147.00      |
| Min                        | 6.45        | 2.87       | 23.20       | 3.70       | 0.78        | 0.00          | 49.30             | 0.00       | 24.10            | 1.22        | 2.00                  | 0.43                      | 0.10                               | 0.05                        | 0.05                   | 0.43            | 0.05            | 5.00        |
| <b>SRPR15.5 - Site 22</b>  |             |            |             |            |             |               |                   |            |                  |             |                       |                           |                                    |                             |                        |                 |                 |             |
| No.                        | 47.00       | 48.00      | 47.00       | 48.00      | 48.00       | 48.00         | 27.00             | 46.00      | 25.00            | 5.00        | 47.00                 | 22.00                     | 10.00                              | 19.00                       | 7.00                   | 40.00           | 18.00           | 15.00       |
| Mean                       | 7.46        | 10.85      | 94.90       | 9.18       | 5.85        | 58.67         | 85.33             | 0.03       | 201.59           | 1.06        | 177.70                | 0.64                      | 0.33                               | 0.13                        | 0.08                   | 0.66            | 0.09            | 25.20       |
| SD                         | 0.34        | 1.16       | 10.92       | 2.92       | 12.94       | 21.63         | 27.53             | 0.05       | 184.80           | 0.61        | 373.96                | 0.16                      | 0.21                               | 0.11                        | 0.03                   | 0.16            | 0.04            | 48.95       |
| Max                        | 8.12        | 13.68      | 122.20      | 14.70      | 88.50       | 91.60         | 123.50            | 0.10       | 695.47           | 1.60        | 2500.00               | 0.83                      | 0.60                               | 0.47                        | 0.13                   | 0.97            | 0.20            | 194.00      |
| Min                        | 6.76        | 8.41       | 63.50       | 3.60       | 0.73        | 0.00          | 30.70             | 0.00       | 1.35             | 0.30        | 4.00                  | 0.26                      | 0.10                               | 0.05                        | 0.05                   | 0.26            | 0.04            | 5.00        |
| <b>SRH921.0 - Site 23</b>  |             |            |             |            |             |               |                   |            |                  |             |                       |                           |                                    |                             |                        |                 |                 |             |
| No.                        | 43.00       | 44.00      | 43.00       | 44.00      | 44.00       | 44.00         | 26.00             | 44.00      | 26.00            | 16.00       | 39.00                 | 22.00                     | 10.00                              | 15.00                       | 6.00                   | 41.00           | 19.00           | 8.00        |
| Mean                       | 7.15        | 8.31       | 72.35       | 9.28       | 3.34        | 50.27         | 74.68             | 0.00       | 81.26            | 1.39        | 133.95                | 0.35                      | 0.33                               | 0.11                        | 0.09                   | 0.34            | 0.11            | 7.50        |
| SD                         | 0.36        | 1.45       | 9.94        | 3.40       | 1.87        | 19.04         | 19.91             | 0.02       | 69.04            | 0.71        | 403.54                | 0.13                      | 0.17                               | 0.05                        | 0.03                   | 0.13            | 0.07            | 2.20        |
| Max                        | 7.89        | 12.50      | 95.00       | 15.10      | 8.71        | 81.00         | 107.00            | 0.10       | 293.75           | 2.90        | 2500.00               | 0.71                      | 0.70                               | 0.26                        | 0.13                   | 0.71            | 0.33            | 10.00       |
| Min                        | 6.51        | 6.24       | 52.80       | 2.50       | 1.08        | 0.00          | 41.60             | 0.00       | 5.37             | 0.50        | 2.00                  | 0.18                      | 0.10                               | 0.06                        | 0.05                   | 0.17            | 0.05            | 5.00        |
| <b>SRIR25.0 - Site 24</b>  |             |            |             |            |             |               |                   |            |                  |             |                       |                           |                                    |                             |                        |                 |                 |             |
| No.                        | 44.00       | 45.00      | 44.00       | 45.00      | 45.00       | 45.00         | 25.00             | 45.00      | 0.00             | 2.00        | 45.00                 | 0.00                      | 0.00                               | 20.00                       | 15.00                  | 34.00           | 30.00           | 5.00        |
| Mean                       | 7.07        | 7.87       | 68.00       | 9.92       | 4.87        | 68.53         | 99.57             | 0.04       | NA               | 1.08        | 804.87                | NA                        | NA                                 | 0.23                        | 0.08                   | 0.64            | 0.14            | 8.00        |
| SD                         | 0.29        | 2.19       | 15.53       | 3.99       | 3.71        | 33.56         | 39.74             | 0.05       | NA               | 0.04        | 914.74                | NA                        | NA                                 | 0.47                        | 0.02                   | 0.45            | 0.09            | 3.24        |
| Max                        | 7.77        | 12.10      | 107.40      | 17.40      | 23.00       | 138.10        | 172.80            | 0.10       | 0.00             | 1.10        | 2500.00               | 0.00                      | 0.00                               | 2.20                        | 0.13                   | 1.62            | 0.38            | 12.00       |
| Min                        | 6.27        | 4.35       | 40.00       | 3.30       | 1.57        | 0.00          | 43.80             | 0.00       | 0.00             | 1.05        | 34.00                 | 0.00                      | 0.00                               | 0.05                        | 0.05                   | 0.10            | 0.05            | 5.00        |