**Assessing Urban Lake Performance for Stormwater Harvesting: Insights from Two Lake Systems in Western Sydney, Australia**

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**Supplementary Table S1 Wattle Grove Lake Regular Water Quality Data.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Date | Temperature (°C) | Dissolved Oxygen (mg/L) | Electrical Conductivity (µs/cm) | Turbidity (NTU) | pH | DOC (mg/L) | Nitrite (ug/L) | Ammonia (ug/L) | PO4P (ug/L) | NOxN (ug/L) | BOD 5 (mg/L) | TSS (mg/L) | TS (mg/L) | TN (µg/L) | TP (µg/L) | Chl-a (µg/L) |
| 21/01/2015 | 22.00 | 7.62 | 135.13 | 111.83 | 7.15 | 6.70 | 44.00 | 183.17 | 315.67 | 615.50 |  |  | 250.00 | 4033.17 |  |  |
| 28/01/2015 | 21.30 | 8.35 | 98.28 | 84.17 | 7.30 | 7.67 | 12.67 | 160.50 | 160.50 | 340.83 | 4.32 | 166.67 | 540.00 | 2924.67 |  |  |
| 4/02/2015 | 19.80 | 7.08 | 110.25 | 67.33 | 7.52 | 6.24 | 13.33 | 69.00 | 204.33 |  |  | 130.00 | 300.00 | 2488.50 |  |  |
| 11/02/2015 | 24.00 | 8.16 | 129.03 | 80.67 | 6.50 | 8.07 | 11.33 | 695.50 | 250.50 | 225.50 | 3.02 | 56.67 | 196.67 | 4986.67 |  |  |
| 18/02/2015 | 25.00 | 8.16 | 134.20 | 79.17 | 6.74 | 6.25 | 12.33 | 138.50 | 121.33 | 146.50 |  | 63.33 |  | 1812.00 |  |  |
| 25/02/2015 | 22.30 | 7.60 | 122.97 | 79.50 | 6.71 | 6.56 | 7.83 | 170.50 | 127.83 | 147.83 | 4.48 | 116.67 | 436.67 |  |  |  |
| 4/03/2015 | 21.00 | 7.91 | 132.98 | 83.50 | 6.36 | 6.20 | 11.83 | 169.50 | 133.67 | 271.33 | 5.43 | 22.00 | 270.00 |  |  |  |
| 11/03/2015 | 22.00 | 7.79 | 145.82 | 108.00 | 6.55 | 6.29 | 13.17 | 61.83 | 40.83 | 124.67 |  | 63.33 | 233.33 |  |  |  |
| 18/03/2015 | 20.40 | 7.17 | 133.10 | 88.00 | 6.17 | 6.47 | 20.17 | 233.67 | 38.33 | 194.83 | 3.94 | 86.67 | 180.00 |  |  |  |
| 19/05/2015 | 16.33 | 8.34 | 210.15 | 42.67 | 8.12 | 7.48 | 10.33 | 90.50 | 48.67 | 410.33 | 1.19 | 21.00 |  |  |  |  |
| 26/05/2015 | 15.77 | 8.56 | 220.88 | 43.67 | 8.00 | 7.28 | 9.83 | 96.50 | 19.50 | 358.17 | 1.73 | 22.67 |  |  |  |  |
| 2/06/2015 | 15.70 | 8.86 | 204.07 | 45.50 | 7.60 | 7.24 | 9.83 | 94.83 | 13.17 | 376.00 | 1.45 | 22.50 |  |  |  |  |
| 9/06/2015 | 14.52 | 9.55 | 167.28 | 50.83 | 7.52 | 7.24 | 11.50 | 125.67 | 3.33 | 329.83 | 2.06 |  |  |  |  |  |
| 19/06/2015 | 14.42 | 10.27 | 155.40 | 47.33 | 7.74 | 7.13 | 8.17 | 62.00 | 6.33 | 389.00 | 2.41 |  |  |  |  |  |
| 23/06/2015 | 13.40 | 9.50 | 200.65 | 46.00 | 7.77 | 6.55 | 9.67 | 48.83 | 2.67 | 453.83 | 2.17 | 30.33 |  |  |  |  |
| 30/06/2015 | 13.23 | 9.87 | 194.83 | 38.50 | 6.86 | 6.77 | 13.33 | 61.67 | 6.50 | 473.50 | 1.73 | 19.33 |  |  |  |  |
| 7/07/2015 | 11.65 | 10.59 | 206.72 | 36.67 | 6.68 |  | 6.33 | 72.50 |  | 428.83 |  | 17.33 |  |  |  |  |
| 20/04/2016 | 21.47 | 7.31 | 187.13 | 85.00 | 7.23 | 7.30 | 96.33 | 578.67 |  |  |  | 76.33 | 229.00 |  |  | 74.03 |
| 4/05/2016 | 18.00 | 7.69 | 182.97 | 86.33 | 7.70 | 7.81 |  |  |  |  | 4.73 | 57.00 | 214.50 |  |  | 310.82 |
| 18/05/2016 | 16.60 | 8.17 | 185.20 | 71.00 | 7.20 | 8.25 | 51.00 | 77.67 | 23.67 |  | 5.34 | 40.67 | 192.97 |  |  | 180.09 |
| 9/06/2016 | 16.67 | 7.47 | 130.87 | 45.67 | 6.40 | 8.08 | 10.00 | 104.67 | 164.67 | 533.67 | 2.40 | 34.33 | 161.33 | 1378.00 | 2069.00 | 306.49 |
| 22/06/2016 | 15.46 | 8.74 | 161.74 | 36.00 | 6.78 | 7.72 | 12.80 | 32.20 | 59.50 | 498.70 | 4.46 | 34.00 | 129.20 | 754.80 | 1494.20 | 63.20 |
| 8/07/2016 | 13.96 | 10.64 | 190.68 | 17.00 | 6.83 | 6.87 | 8.20 | 21.20 | 12.40 | 217.40 | 3.49 | 17.40 | 96.00 | 755.20 | 1086.00 | 0.00 |
| 21/07/2016 | 17.54 | 9.09 | 160.48 | 19.80 | 7.11 | 7.91 | 11.00 | 158.00 | 46.00 | 281.60 | 2.57 | 7.40 | 117.00 | 585.20 | 648.40 | 20.78 |
| 8/08/2016 | 14.28 | 9.44 | 205.46 | 37.60 | 6.73 | 6.14 | 18.40 | 252.20 | 83.60 | 406.80 | 4.35 | 16.00 | 133.60 | 1573.40 | 738.00 | 0.00 |
| 28/08/2016 | 15.84 | 9.24 | 153.38 | 59.80 | 6.41 | 5.22 | 16.40 | 105.00 | 43.80 | 459.00 | 4.21 | 31.60 | 200.00 | 1104.00 | 509.90 | 18.18 |
| 12/09/2016 | 20.30 | 7.95 | 174.72 | 49.60 | 7.19 | 6.01 | 20.80 | 40.80 | 56.40 | 479.60 | 4.04 | 27.20 | 165.80 | 1194.00 | 523.60 | 20.30 |
| 23/09/2016 | 21.04 | 7.75 | 175.20 | 68.00 | 6.81 | 5.22 | 36.40 | 110.20 | 47.20 | 473.20 | 3.04 | 46.40 | 187.60 | 1160.60 | 144.00 | 15.92 |
| 8/10/2016 | 20.88 | 8.07 | 205.92 | 34.00 | 6.68 | 5.54 | 21.40 | 39.20 | 92.00 | 384.50 | 2.93 | 24.60 | 135.60 | 999.30 | 169.40 | 17.73 |
| 27/10/2016 | 21.82 | 8.20 | 197.32 | 24.40 | 7.48 | 5.49 | 3.00 | 29.10 | 10.40 |  | 3.53 | 7.60 | 97.80 | 1086.40 | 905.80 | 31.30 |
| 20/11/2016 | 26.43 | 6.67 | 218.73 | 53.00 | 7.13 | 5.85 | 4.00 | 44.00 | 18.33 |  | 3.34 | 23.00 | 166.67 | 356.33 |  | 49.04 |
| 30/11/2016 | 27.70 | 7.06 | 230.67 | 67.00 | 7.20 | 5.82 | 39.33 | 137.33 | 5.33 | 71.33 | 6.49 | 55.67 | 164.67 | 1482.33 | 2751.00 | 39.49 |
| 21/12/2016 | 26.87 | 6.97 | 185.70 | 67.33 | 7.48 | 5.11 | 49.33 | 112.67 | 20.17 | 223.17 | 5.53 | 59.00 | 243.33 | 1327.00 | 268.00 | 29.94 |
| 27/01/2017 | 24.70 | 7.06 | 154.03 | 64.67 | 7.42 | 6.45 | 15.33 | 59.00 | 129.83 | 62.33 | 4.63 | 54.00 | 208.00 | 1326.00 | 115.67 | 60.90 |
| 9/02/2017 | 28.27 | 7.19 | 141.40 | 60.00 | 6.90 | 4.95 | 7.00 | 36.67 | 35.00 | 62.00 | 5.62 | 26.00 | 95.67 | 1183.17 | 230.00 | 16.26 |
| 11/03/2017 | 24.43 | 7.73 | 151.13 | 84.33 | 7.81 | 6.58 | 19.17 | 35.67 | 53.67 | 386.50 | 4.67 | 12.00 | 128.00 | 1006.83 | 345.00 | 2.25 |
| 12/04/2017 | 23.37 | 8.80 | 178.87 | 26.67 | 7.39 | 7.66 | 20.33 | 87.00 | 72.33 | 164.67 | 5.28 | 43.67 | 194.67 | 1011.33 | 154.33 | 26.85 |
| 30/04/2017 | 19.33 | 8.57 | 211.83 | 53.00 | 7.65 | 7.59 | 44.33 | 459.67 | 131.67 | 350.50 | 4.95 | 33.67 | 204.67 | 1007.67 | 727.67 | 12.88 |
| 16/05/2017 | 16.63 | 8.68 | 214.73 | 52.00 | 7.23 | 7.29 | 52.33 | 73.17 | 35.67 | 513.83 | 3.25 | 30.67 | 188.00 | 944.00 | 453.00 | 18.20 |
| 31/05/2017 | 14.50 | 9.67 | 201.23 | 61.33 | 7.45 | 6.62 | 9.00 | 57.50 | 17.33 | 431.17 | 4.19 | 49.67 | 254.67 | 1101.67 | 419.67 | 27.35 |
| 24/06/2017 | 15.87 | 9.73 | 201.03 | 50.00 | 7.06 | 5.08 | 7.00 | 121.33 | 251.83 | 303.83 | 2.23 | 1.33 | 84.00 | 495.00 |  | 33.10 |
| 30/07/2017 | 14.80 | 10.71 | 207.60 | 25.33 | 7.64 | 5.47 | 4.33 | 106.67 | 28.00 | 332.83 | 2.82 | 1.00 | 116.67 | 902.76 | 120.00 |  |

**Supplementary Table S2 Woodcroft Lake Regular Water Quality Data.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Date** | Temperature (°C) | Dissolved Oxygen (mg/L) | ElectricalConductivity (µs/cm) | Turbidity (NTU) | pH | DOC (mg/L) | Nitrite (ug/L) | Ammonia (ug/L) | PO4P (ug/L) | NOxN (ug/L) | BOD 5 (mg/L) | TSS (mg/L) | TS (mg/L) | TN (µg/L) | TP (µg/L) | Chl-a (µg/L) |
| 11/02/2015 | 22.62 | 9.29 | 415.60 | 4.40 | 7.57 | 7.94 | 1.20 | 120.80 | 297.40 | 16.40 | 0.87 | 18.00 | 158.00 | 1659.20 |  |  |
| 18/02/2015 | 24.94 | 8.81 | 400.40 | 4.80 | 7.61 | 7.99 | 0.00 | 47.00 | 108.00 | 7.60 | 1.06 | 18.00 | 254.00 | 2099.80 |  |  |
| 26/02/2015 | 23.30 | 8.03 | 383.40 | 3.40 | 7.40 | 7.21 | 1.00 | 45.80 | 47.60 | 8.00 | 2.87 | 18.00 | 120.00 | 1791.00 |  |  |
| 5/03/2015 | 22.64 | 8.36 | 426.60 | 3.60 | 7.89 | 7.39 | 0.00 | 31.80 | 117.00 | 3.60 | 1.55 | 10.00 | 210.00 | 1215.06 |  |  |
| 12/03/2015 | 22.82 | 5.56 | 243.20 | 2.20 | 8.52 | 7.34 | 1.60 | 117.00 | 45.40 | 62.80 | 3.29 | 14.00 | 150.00 | 1195.48 |  |  |
| 19/03/2015 | 23.66 | 8.22 | 416.40 | 3.80 | 7.40 | 7.66 | 2.40 | 79.60 | 211.60 | 31.20 | 4.04 | 14.00 | 122.00 | 1967.80 | 244.43 |  |
| 26/03/2015 | 22.22 | 8.94 | 417.40 | 3.40 | 7.97 | 10.59 | 3.00 | 58.60 | 106.20 | 58.80 | 2.34 | 16.00 | 88.00 | 4638.60 | 255.45 |  |
| 2/04/2015 | 22.16 | 6.89 | 352.40 | 3.20 | 7.29 | 8.23 | 6.80 | 74.60 | 177.60 | 77.00 | 3.52 | 32.00 | 174.00 | 4514.60 |  |  |
| 9/04/2015 | 20.82 | 7.70 | 370.60 | 6.40 | 7.68 | 10.30 | 9.80 | 86.60 | 99.00 | 116.40 | 1.03 | 4.00 | 234.00 | 7535.40 |  |  |
| 16/04/2015 | 21.00 | 5.40 | 417.20 | 6.00 | 7.63 | 8.78 | 10.20 | 279.80 | 332.00 | 172.20 | 1.62 | 2.00 | 188.00 | 5941.80 | 261.79 |  |
| 23/04/2015 | 17.14 | 6.72 | 342.20 | 15.20 | 7.66 | 10.87 | 132.00 | 66.00 | 270.00 | 12.40 | 2.89 | 172.00 | 544.00 | 8664.25 | 300.89 |  |
| 15/05/2015 | 16.20 | 7.94 | 303.80 | 6.00 | 6.20 | 8.62 | 3.00 | 197.40 | 25.40 | 275.20 | 1.61 | 11.00 | 204.00 | 2679.60 |  |  |
| 21/05/2015 | 17.06 | 7.04 | 312.80 | 7.72 | 6.80 | 7.12 | 18.80 | 90.20 | 118.20 | 224.60 | 1.06 | 5.20 |  | 2161.80 | 124.14 |  |
| 28/05/2015 | 15.02 | 8.16 | 343.80 | 7.44 | 5.80 | 7.26 | 7.40 | 70.00 | 59.80 | 289.20 | 0.87 | 5.40 |  | 2138.00 |  |  |
| 4/06/2015 | 12.82 | 7.89 | 388.40 | 7.27 | 6.20 | 6.49 | 7.36 | 137.48 | 5.20 | 277.72 | 1.07 | 9.20 |  | 2691.20 |  |  |
| 11/06/2015 | 14.08 | 7.62 | 317.80 | 7.41 | 5.20 | 7.02 | 5.80 | 137.00 | 2.67 | 261.00 | 0.76 |  |  | 2594.00 | 15.34 |  |
| 18/06/2015 | 14.02 | 7.13 | 311.60 | 7.87 | 4.40 | 6.66 | 9.60 | 158.80 | 33.40 | 145.00 | 1.21 |  | 78.40 | 2616.80 |  |  |
| 25/06/2015 | 15.08 | 7.19 | 286.60 | 7.36 | 9.60 | 6.37 | 7.20 | 153.60 | 11.50 | 246.20 | 0.74 | 10.40 | 208.00 | 2907.20 |  |  |
| 2/07/2015 | 11.34 | 8.05 | 299.20 | 6.85 | 4.80 | 4.73 | 8.40 | 104.80 | 5.00 | 253.20 | 1.04 | 10.20 | 131.40 | 1298.20 |  |  |
| 9/07/2015 | 10.48 | 8.09 | 308.80 | 7.00 | 5.00 | 4.96 | 13.60 | 166.80 |  |  | 0.74 | 8.20 | 142.40 | 1606.20 | 14.29 |  |
| 16/07/2015 | 11.84 | 8.07 | 254.20 | 7.81 | 6.20 | 5.36 | 9.40 | 278.80 |  | 159.00 | 1.02 | 9.20 | 184.60 | 1337.40 |  |  |
| 23/07/2015 | 12.58 | 8.86 | 304.80 | 7.82 | 6.40 | 5.71 | 9.80 | 168.40 |  | 285.60 | 0.80 | 10.00 | 164.80 | 1539.40 | 15.41 |  |
| *30/07/2015* | 12.02 | 10.42 | 311.00 | 8.01 | 6.20 | 6.39 | 14.00 | 209.60 |  | 234.80 |  | 3.80 | 169.00 | 1300.00 |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 13/04/2016 | 22.20 | 7.31 | 485.40 | 4.40 | 7.08 | 7.15 | 3.20 | 85.60 | 50.60 |  |  | 10.70 | 150.98 |  |  |  |
| 27/04/2016 | 19.06 | 5.41 | 331.40 | 5.40 | 7.13 | 6.42 |  |  |  |  | 3.50 | 5.20 | 172.60 |  |  | 60.00 |
| 11/05/2016 | 17.23 | 6.26 | 338.67 | 4.33 | 7.21 | 6.29 |  |  |  |  | 1.47 | 9.00 | 194.00 |  |  | 49.35 |
| 1/06/2016 | 15.43 | 7.09 | 266.83 | 6.17 | 7.01 | 6.66 | 21.33 | 256.17 | 47.00 | 216.00 | 3.00 | 5.67 | 216.25 | 885.00 | 1105.17 | 165.71 |
| 15/06/2016 | 14.17 | 7.10 | 279.67 | 8.17 | 7.26 | 6.54 | 25.00 | 243.50 | 139.00 |  | 2.34 | 6.67 | 139.83 | 619.50 | 1370.50 | 29.09 |
| 29/06/2016 | 12.73 | 7.74 | 268.83 | 5.17 | 6.86 | 7.10 | 27.67 | 237.00 | 33.00 | 368.42 | 1.62 | 10.75 | 189.33 | 871.83 | 620.33 | 12.99 |
| 13/07/2016 | 12.53 | 7.98 | 328.83 | 12.00 | 6.96 | 6.44 | 19.17 | 213.00 | 55.17 | 342.00 | 2.60 | 45.67 | 217.33 | 1268.17 | 1323.17 |  |
| 2/08/2016 | 14.53 | 8.80 | 282.00 | 5.50 | 7.21 | 6.38 | 17.33 | 165.00 | 78.67 | 377.33 | 3.85 | 32.00 | 180.17 | 1085.00 | 560.00 |  |
| 18/08/2016 | 16.90 | 8.94 | 290.17 | 4.17 | 6.87 | 5.21 | 16.50 | 152.50 | 162.33 | 273.17 | 2.39 | 13.67 | 186.17 | 685.67 | 476.67 | 8.05 |
| 6/09/2016 | 18.13 | 9.93 | 280.50 | 3.33 | 7.04 | 5.58 | 13.80 | 73.60 | 52.60 | 285.00 | 2.59 | 23.00 | 188.80 | 983.20 | 302.40 | 9.62 |
| 15/09/2016 | 19.78 | 8.81 | 282.17 | 4.00 | 7.24 | 5.46 | 11.17 | 56.17 | 76.67 | 214.25 | 1.61 | 12.17 | 168.33 | 847.67 | 321.67 |  |
| 2/10/2016 | 18.45 | 8.51 | 284.50 | 4.00 | 7.62 | 5.87 | 12.00 | 44.83 | 63.00 | 39.50 | 1.51 | 3.40 | 144.00 | 608.33 | 20.83 |  |
| 19/10/2016 | 20.23 | 8.50 | 324.17 | 6.83 | 7.39 | 5.29 | 10.67 | 26.00 | 128.08 | 67.50 | 1.52 | 15.67 | 211.83 | 196.25 | 151.17 | 5.53 |
| 3/11/2016 | 23.38 | 7.68 | 316.25 | 5.25 | 6.96 | 5.52 | 4.50 | 39.13 | 22.00 | 14.00 | 1.25 | 13.25 | 180.25 |  |  | 3.89 |
| 27/11/2016 | 25.15 | 6.58 | 336.50 | 5.00 | 7.86 | 5.39 | 3.25 | 19.50 | 160.75 | 5.88 | 2.43 | 7.50 | 202.50 | 633.75 | 1764.50 | 16.57 |
| 13/12/2016 | 27.88 | 6.61 | 346.75 | 4.25 | 7.76 | 6.07 | 3.25 | 29.00 | 22.88 |  | 2.29 | 15.00 | 214.75 | 468.75 | 735.38 | 4.91 |
| 18/01/2017 | 32.25 | 6.43 | 333.75 | 4.00 | 7.57 | 5.96 | 4.25 | 13.75 |  | 17.00 | 1.34 | 7.50 | 210.00 | 333.25 | 555.50 | 18.36 |
| 2/02/2017 | 26.58 | 7.39 | 345.75 | 3.25 | 7.24 | 5.55 | 5.25 | 50.00 | 21.50 |  | 1.52 | 1.25 | 205.00 | 172.67 | 109.75 | 9.53 |
| 18/02/2017 | 28.18 | 6.92 | 340.50 | 5.25 | 7.34 | 5.62 | 17.63 | 125.38 |  | 107.50 | 2.55 | 66.00 | 282.00 | 854.50 | 47.50 | 6.00 |
| 30/03/2017 | 22.18 | 7.19 | 256.25 | 7.75 | 7.65 | 6.01 | 48.63 | 86.25 | 79.75 | 197.50 | 5.10 | 2.75 | 178.25 | 515.50 | 290.00 | 2.89 |
| 27/04/2017 | 21.65 | 8.77 | 264.50 | 3.50 | 7.70 | 6.14 | 16.50 | 142.13 | 9.00 | 121.63 | 2.77 | 1.00 | 190.00 | 593.25 | 629.00 | 11.96 |
| 12/05/2017 | 17.47 | 7.77 | 262.67 | 7.67 | 7.50 | 5.91 | 15.67 | 139.83 | 37.83 | 120.17 | 3.88 | 102.33 | 185.67 | 571.67 | 187.33 | 8.00 |
| 22/05/2017 | 18.90 | 6.76 | 272.50 | 1.50 | 7.51 | 5.79 | 13.75 | 114.25 | 5.25 | 152.13 | 1.08 | 3.25 | 193.00 | 2218.25 | 82.75 | 1.17 |
| 26/06/2017 | 17.05 | 7.90 | 283.50 | 11.25 | 7.54 | 5.35 | 11.25 | 51.13 | 59.38 | 201.50 | 2.63 |  | 1995.25 | 765.00 |  | 24.40 |
| 31/07/2017 | 17.80 | 9.28 | 272.25 | 1.50 | 7.50 | 4.83 | 8.75 | 236.50 | 14.00 | 213.25 |  | 5.75 | 144.75 | 1710.25 | 188.75 |  |

**Supplementary Table S3 Woodcroft Wetland Regular Water Quality Data.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Date** | Temperature (°C) | Dissolved Oxygen (mg/L) | Electrical Conductivity (µS/cm) | Turbidity (NTU) | pH | DOC (mg/L) | Nitrite (µg/L) | Ammonia (µg/L) | PO4-P (µg/L) | NOx-N (µg/L) | BOD5 (mg/L) | TSS (mg/L) | TS (mg/L) | TN (µg/L) | TP (µg/L) | Chl-a (µg/L) |
| 11/02/2015 | 23.15 | 6.98 | 800.50 | 4.00 | 7.17 | 14.02 | 1.50 | 131.50 | 396.50 | 1.50 | 2.02 | 10.00 | 520.00 | 2728.50 |  |  |
| 18/02/2015 | 24.60 | 3.62 | 477.00 | 3.50 | 7.12 | 12.47 | 0.50 | 79.00 | 234.00 | 5.00 | 3.08 | 55.00 | 695.00 | 3166.00 |  |  |
| 26/02/2015 | 23.30 | 4.73 | 590.50 | 4.00 | 7.02 | 12.89 | 0.00 | 43.00 | 225.00 | 5.00 | 2.33 | 35.00 | 320.00 | 2164.00 | 96.83 |  |
| 5/03/2015 | 23.25 | 7.66 | 389.00 | 3.50 | 8.09 | 16.02 | 0.00 | 36.00 | 399.00 | 11.00 | 3.68 | 35.00 | 415.00 | 2475.00 | 37.57 |  |
| 12/03/2015 | 23.60 | 5.91 | 165.50 | 5.00 | 8.29 | 9.63 | 12.00 | 155.00 | 319.50 | 60.10 | 6.00 | 10.00 | 140.00 | 3700.50 | 276.91 |  |
| 19/03/2015 | 22.95 | 5.27 | 596.00 | 5.00 | 7.15 | 11.69 | 2.00 | 33.00 | 937.00 | 0.50 | 6.76 | 25.00 | 315.00 | 1980.00 | 514.00 |  |
| 26/03/2015 | 22.25 | 5.53 | 451.00 | 3.50 | 7.36 | 11.97 | 18.00 | 123.50 | 364.50 | 127.00 | 1.16 | 10.00 | 185.00 | 6118.50 | 180.11 |  |
| 2/04/2015 | 21.95 | 5.12 | 421.50 | 2.50 | 7.28 | 7.92 | 21.00 | 148.00 | 471.00 | 215.00 | 2.94 | 45.00 | 210.00 | 4735.00 | 87.17 |  |
| 9/04/2015 | 19.90 | 5.37 | 506.50 | 3.50 | 7.89 | 11.82 | 29.00 | 211.50 | 252.50 | 90.00 | 1.79 | 0.00 | 335.00 | 9600.50 | 50.95 |  |
| 16/04/2015 | 20.60 | 8.07 | 186.60 | 6.00 | 8.31 | 6.03 | 32.00 | 426.50 | 431.50 | 703.50 | 2.29 | 10.00 | 35.00 | 7210.00 | 189.74 |  |
| 23/04/2015 | 17.00 | 7.12 | 432.00 | 13.00 | 7.49 |  | 669.50 | 110.00 | 519.50 | 18.50 | 1.18 | 35.00 | 165.00 |  | 360.38 |  |
| 15/05/2015 | 15.05 | 4.89 | 623.50 | 7.00 |  | 8.05 | 5.00 | 639.00 | 42.50 | 218.00 | 2.27 | 13.50 |  | 3703.00 | 193.42 |  |
| 21/05/2015 | 17.35 | 5.73 | 563.50 | 5.50 | 7.98 | 11.10 | 34.00 | 549.50 | 77.50 | 121.50 | 3.10 | 16.50 |  | 4469.00 | 220.21 |  |
| 28/05/2015 | 14.25 | 7.83 | 486.50 | 3.50 | 7.44 | 8.86 | 29.00 | 252.50 | 41.00 | 115.00 | 1.71 | 6.50 |  | 2975.00 | 56.99 |  |
| 4/06/2015 | 12.05 | 6.48 | 645.50 | 4.50 | 7.17 | 7.39 | 20.60 | 612.00 | 23.10 | 95.20 | 1.69 | 11.00 |  | 3297.50 | 16.08 |  |
| 11/06/2015 | 14.10 | 6.06 | 571.00 | 4.00 | 7.50 | 8.20 | 8.50 | 524.50 | 8.00 | 57.50 | 1.46 |  |  | 3025.50 | 15.80 |  |
| 18/06/2015 | 14.60 | 7.32 | 331.00 | 6.00 | 8.16 | 6.55 | 13.00 | 195.50 | 68.00 | 155.50 | 1.93 |  | 196.50 | 3379.50 | 18.89 |  |
| 25/06/2015 | 15.15 | 5.35 | 484.00 | 4.50 | 7.41 | 9.95 | 15.50 | 1208.00 | 46.50 | 103.50 | 2.56 | 4.50 | 511.50 | 8570.50 | 24.69 |  |
| 2/07/2015 | 11.05 | 7.32 | 440.50 | 5.00 | 6.75 | 6.98 | 25.50 | 182.00 | 29.00 | 249.00 | 1.59 | 16.50 | 289.50 | 2065.00 | 21.70 |  |
| 9/07/2015 | 9.35 | 7.65 | 518.00 | 4.00 | 6.94 | 6.21 | 19.50 | 263.00 |  |  | 1.82 | 5.50 | 423.50 | 1382.00 | 16.05 |  |
| 16/07/2015 | 12.15 | 8.19 | 299.50 | 5.00 | 8.16 | 5.62 | 12.50 | 276.00 |  | 208.50 | 2.84 | 10.00 | 236.00 | 1563.00 | 7.33 |  |
| 23/07/2015 | 13.15 | 9.64 | 451.50 | 11.00 | 7.89 | 7.49 | 33.50 | 283.50 |  | 380.00 | 3.13 | 8.50 | 364.50 | 2354.50 | 16.92 |  |
| *30/07/2015* | 11.25 | 9.58 | 549.00 | 6.50 | 7.75 | 9.04 | 21.50 | 280.50 |  | 67.00 |  | 9.00 | 543.00 | 1215.00 |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 13/04/2016 | 21.00 | 7.26 | 778.50 | 8.50 | 7.10 | 9.90 | 74.50 | 1216.00 | 496.00 |  |  | 14.50 | 593.00 |  |  |  |
| 27/04/2016 | 17.20 | 6.87 | 416.00 | 8.00 | 7.17 | 6.50 |  |  |  |  | 5.78 | 0.00 | 239.00 |  |  | 175.32 |
| 11/05/2016 | 15.65 | 6.00 | 433.50 | 7.00 | 7.22 | 6.87 |  |  |  |  | 3.24 | 10.00 | 264.25 |  |  | 79.22 |
| 1/06/2016 | 15.20 | 8.93 | 149.15 | 11.00 | 7.18 | 6.30 | 41.50 | 371.00 | 191.00 | 458.50 | 4.27 | 15.25 | 145.00 | 1434.16 | 907.46 | 75.32 |
| 15/06/2016 | 12.50 | 6.45 | 1063.50 | 5.50 | 7.07 | 9.11 | 20.50 | 625.50 | 187.00 |  | 3.28 | 0.00 | 631.00 | 14.88 | 1255.86 | 8.44 |
| 29/06/2016 | 10.75 | 9.07 | 301.00 | 5.50 | 6.71 | 6.62 | 30.00 | 283.00 | 37.25 | 337.00 | 1.58 | 13.75 | 196.00 | 801.75 | 731.00 | 8.44 |
| 13/07/2016 | 11.75 | 7.92 | 806.00 | 8.00 | 6.98 | 13.61 | 29.50 | 375.00 | 83.25 | 210.50 | 1.51 | 17.00 | 566.00 | 835.00 | 905.50 |  |
| 2/08/2016 | 14.60 | 5.94 | 1387.00 | 13.00 | 7.14 | 16.05 | 3.00 |  | 634.50 |  | 6.87 | 9.50 | 361.00 | 1711.00 | 1647.00 |  |
| 18/08/2016 | 14.80 | 7.89 | 907.50 | 5.50 | 6.94 | 7.49 | 22.50 | 491.75 | 249.25 | 118.50 | 2.28 |  |  | 580.50 | 987.00 | 21.43 |
| 6/09/2016 | 16.95 | 9.80 | 287.00 | 6.00 | 7.17 | 5.54 | 15.50 | 99.50 | 42.00 | 260.25 | 1.69 | 16.00 | 173.50 | 1260.75 | 556.00 | 12.29 |
| 15/09/2016 | 18.60 | 6.34 | 559.00 | 2.50 | 6.61 | 7.29 | 26.00 | 275.75 | 117.00 | 367.25 | 2.06 | 5.00 | 352.00 | 889.00 | 504.00 |  |
| 2/10/2016 | 16.35 | 7.09 | 819.50 | 3.50 | 7.51 | 8.48 | 20.00 | 721.25 | 214.75 | 33.50 | 2.97 | 8.00 | 484.00 | 936.50 | 371.50 |  |
| 19/10/2016 | 18.95 | 5.98 | 483.50 | 10.50 | 6.87 | 9.08 | 26.25 | 494.75 | 220.25 | 137.00 | 4.18 | 22.50 | 319.00 | 1113.50 | 821.75 | 6.05 |
| 3/11/2016 | 19.35 | 5.60 | 1339.50 | 13.00 | 6.98 | 9.59 | 5.50 | 1103.00 | 223.50 |  | 4.03 | 48.00 | 828.50 |  |  | 4.91 |
| 27/11/2016 | 24.20 | 4.95 | 657.00 | 33.00 | 7.88 | 11.92 | 2.00 | 132.00 | 311.50 |  | 5.95 | 37.50 | 469.00 | 1361.00 | 1745.50 | 54.91 |
| 13/12/2016 | 27.25 | 4.86 | 745.50 | 24.00 | 7.31 | 10.03 | 4.50 | 161.75 | 83.25 |  | 4.07 | 353.00 | 1374.50 | 1597.50 | 1143.25 | 695.62 |
| 18/01/2017 | 32.50 | 5.58 | 1082.00 | 13.50 | 7.29 | 9.71 | 4.00 | 12.50 | 101.50 | 2.00 | 6.54 | 60.00 | 796.00 | 968.50 | 927.00 | 297.35 |
| 2/02/2017 | 25.20 | 5.67 | 319.50 | 14.00 | 6.86 | 12.86 | 44.00 | 267.00 | 191.00 | 197.50 | 6.60 | 15.00 | 224.50 | 1550.00 | 396.00 | 73.98 |
| 18/02/2017 | 27.70 | 6.26 | 354.50 | 8.00 | 6.88 | 7.80 | 68.25 | 179.75 |  | 450.25 | 4.06 | 21.00 | 290.50 | 944.00 | 320.00 | 4.74 |
| 30/03/2017 | 22.05 | 6.94 | 277.00 | 7.00 | 7.48 | 6.85 | 47.50 | 52.50 | 70.00 | 371.50 | 5.01 | 5.00 | 194.00 | 921.50 | 460.50 | 2.44 |
| 27/04/2017 | 18.55 | 6.16 | 1070.00 | 10.50 | 7.66 | 10.31 | 11.00 | 357.00 | 96.50 | 58.75 | 5.62 | 2.00 | 729.50 | 648.25 | 595.00 | 19.07 |
| 12/05/2017 | 16.15 | 8.72 | 808.50 | 28.50 | 7.40 | 9.47 | 42.50 | 1886.00 | 111.50 | 108.00 | 6.42 | 51.50 | 608.00 | 1338.50 | 358.00 | 37.73 |
| 22/05/2017 | 18.15 | 6.07 | 333.50 | 1.00 | 7.15 | 5.90 | 43.50 | 290.00 | 44.00 | 283.50 | 1.78 | 9.00 | 249.50 | 1768.00 | 182.00 | 36.85 |
| 26/06/2017 | 16.70 | 9.03 | 583.50 | 5.50 | 7.57 | 6.10 | 14.50 | 185.75 | 62.50 | 135.00 | 2.02 | 3.50 | 328.50 | 631.00 |  | 13.43 |
| 31/07/2017 | 19.05 | 10.26 | 245.70 | 1.50 | 7.58 | 6.23 | 30.00 | 966.25 | 129.50 | 441.25 |  | 10.50 | 120.50 | 2509.00 | 297.00 |  |

**Supplementary Table S4 Autosampler Data – Wattle Grove Lake (WGL) Inlet.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Date | Rainfall(mm) | Nitrite (µg/L) | NOxN (µg/L) | NO3N (µg/L) | NH4N (µg/L) | PO4P (µg/L) | TN (µg/L) | TP (µg/L) | Temp, °C | DO, mg/L | EC, µS/cm | pH | Turbidity, NTU | TS, mg/L | TSS, mg/L |
| 4/08/2016 | 18 | 10 | 134 | 124 | 56 | 40 | 1102 | 589.5 |  |  |  |  |  |  |  |
| 24/08/2016 | 40.2 | 11 | 135 | 124 | 37 | 38 | 534 | 600 |  |  |  |  |  | 71 |  |
| 2/09/2016 | 7.8 | 10 | 174 | 164 | 61 | 71 | 500 | 1035 | 20.9 | 9.58 | 50.3 | 6.67 | 11 | 64 | 1 |
| 18/09/2016 | 9.2 | 39 | 488 | 449 | 157 | 40 | 1348 | 322 | 22.2 | 8.11 | 171.4 | 6.87 | 41 | 183 | 35 |
| 7/12/2016 | 12 | 35 | 176 | 141 | 100 | 15 | 1338 | 3252 | 24.5 | 6.95 | 210.6 | 8.1 | 18 | 270 | 33 |
| 17/12/2016 | 28.4 | 6 | 253 | 247 | 16 | 48 | 659 | 872 |  | 8.32 | 65.5 | 8.42 | 22 | 80 | 28 |
| 6/01/2017 | 32.4 | 20 | 501.5 | 481.5 | 53.5 | 274 | 1028 | 1218 | 25.6 | 7.69 | 170.9 | 6.66 | 41 | 127 | 17 |
| 7/02/2017 | 24.8 | 9 | 95 | 86 | 51 | 19 | 1209.5 | 51 | 28 | 7.05 | 142.7 | 6.94 | 7 | 82 | 1 |
| 1/03/2017 | 10.4 | 59 | 1162.5 | 1103.5 | 74 | 165.5 | 2970.5 |  |  | 8.06 | 179.4 | 7.33 | 39 | 193 | 13 |
| 2/03/2017 | 16.4 | 11 | 455.5 | 444.5 | 57 | 192.5 | 1166 | 312 |  |  | 80 | 7.26 | 10 | 49 | 6 |
| 15/03/2017 | 33 | 10 | 308 | 298 | 75 | 26 | 1211 | 274 |  |  | 137.8 | 6.71 | 47 | 113 | 3 |
| 22/03/2017 | 18.2 | 19 | 400 | 381 | 24 | 43 | 1027 | 512 |  |  |  | 7.2 | 10 | 161 | 28 |
| 30/03/2017 | 33.2 | 16 | 288 | 272 | 95 | 81 | 730 | 647 | 21.1 | 8.33 | 46.2 |  | 20 | 51 | 26 |
| 7/06/2017 | 50.2 | 14 | 178 | 164 | 6 | 55 | 610 |  | 18.5 | 9.1 | 86.7 | 7.96 | 3 | 43 | 1 |
| 31/07/2017 | 8.6 | 5 | 377.5 | 372.5 | 61 | 66 | 1452 | 562 |  | 9.99 | 111.5 | 7.64 | 19 | 39 | 14 |
| 3/08/2017 | 13.4 | 7 | 340 | 333 | 95 | 29.5 | 1520 | 325 |  | 9.5 | 170.8 | 7.4 | 37 | 184 | - |

**Supplementary Table S5 Autosampler Data – Wattle Grove Lake (WGL) Outlet.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Date | Rainfall(mm) | Nitrite (µg/L) | NOxN (µg/L) | NO3N (µg/L) | NH4N (µg/L) | PO4P (µg/L) | TN (µg/L) | TP (µg/L) | Temp, °C | DO, mg/L | EC, µS/cm | pH | Turbidity, NTU | TS, mg/L | TSS, mg/L |
| 4/08/2016 | 18 | 28.5 | 396 | 367.5 | 189 | 24.5 | 1573 | 240 |  |  |  |  |  |  |  |
| 24/08/2016 | 40.2 | 30 | 512 | 482 | 125 | 4 | 1242 | 837 |  |  |  |  |  | 206 |  |
| 2/09/2016 | 7.8 | 20 | 491 | 471 | 104 | 62 | 459 | 1273 | 20.9 | 9.23 | 163.9 | 6.62 | 65 | 181 | 32 |
| 18/09/2016 | 9.2 | 39 | 515 | 476 | 163 | 61 | 1305 | 692 | 22.2 | 8.32 | 180 | 6.84 | 46 | 199 | 61 |
| 7/12/2016 | 12 | 6 | 190 | 184 | 44 | 10 | 1091 | 185 | 24.4 | 7.03 | 225 | 8.01 | 17 | 271 | 35 |
| 17/12/2016 | 28.4 | 44 | 196.5 | 152.5 | 181.5 | 16 | 1348.5 | 183.5 |  | 8.46 | 223.5 | 8.15 | 66 | 221.5 | 48.5 |
| 6/01/2016 | 32.4 | 43.5 | 344.5 | 301 | 109.25 | 296 | 1215.5 | 320 | 24.9 | 7.855 | 180.85 | 6.89 | 45.5 | 153 | 24 |
| 7/02/2017 | 24.8 | 7 | 363.75 | 356.75 | 24.25 | 42.5 | 1065.5 | 24 | 27.3 | 7.055 | 160.15 | 6.96 | 19.5 | 100.5 | 12.5 |
| 1/03/2017 | 10.4 | 10.5 | 185 | 174.5 | 48 | 204 | 4525 | 304.5 |  | 8.28 | 84.9 | 7.43 | 48 | 150 | 23 |
| 2/03/2017 | 16.4 | 10 | 239 | 229 | 37 | 118.5 | 789 |  |  |  | 87.7 | 7.19 | 24 | 59 | 16 |
| 15/03/2017 | 33 | 19 | 312 | 293 | 80 | 18 | 756 | 92 |  |  | 150.9 | 6.73 | 35 | 77 | 4 |
| 22/03/2017 |  | 17 | 358 | 341 | 20 | 17 | 1057 | 19 |  |  |  | 7.25 | 13 | 33 | 2 |
| 30/03/2017 |  | 33 | 298 | 265 | 114 | 41 | 883 | 471 | 22.6 | 7.26 | 186.4 |  | 21 | 170 | 1 |
| 7/06/2017 | 50.2 | 8 | 291 | 283 | 0 | 24 | 643 |  | 18.5 | 9.37 | 180.5 | 7.71 | 16 | 142 | 14 |
| 31/07/2017 | 8.6 | 2 | 351 | 349 | 28 | 16 | 1521 | 382 |  | 8.89 | 217.3 | 7.36 | 41 | 124 | 44 |
| 3/08/2017 | 13.4 | 6 | 351 | 345 | 28 | 16 | 1351 | 319 |  | 9.68 | 203 | 7.32 | 37 | 199 | 1 |

**Supplementary Table S6 Autosampler Data – Woodcroft Inlet (GPT).**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Date | Rainfall(mm) | Nitrite (µg/L) | NOxN (µg/L) | NO3N (µg/L) | NH4N (µg/L) | PO4P (µg/L) | TN (µg/L) | TP (µg/L) | Temp, °C | DO, mg/L | EC, µS/cm | pH | Turbidity, NTU | TS, mg/L | TSS, mg/L |
| 5/06/2016 | 169 | 34 | 260 | 226 | 62 | 300 | 836 | 986.7 |  |  |  |  |  |  |  |
| 19/06/2016 | 23.9 | 18 | 520 | 502 | 89 | 147 | 753 | 741 |  |  |  |  |  |  |  |
| 20/07/2016 | 41.7 | 4 | 900 | 896 | 7 | 181 | 1112 | 731 |  |  |  |  |  | 464 | 13.5 |
| 5/08/2016 | 7.4 | 17 | 384 | 367 | 2 | 60 | 1986 | 713 |  |  |  |  |  | 154 |  |
| 24/08/2016 | 34.5 | 22 | 987 | 965 | 197 | 449 | 1885 | 680 |  |  |  |  |  | 140 |  |
| 2/09/2016 | 27.7 | 37 | 1127 | 1090 | 293 | 251 | 3141 | 646 | 20.9 | 9.61 | 209.9 | 6.8 | 15 | 171 | 5 |
| 17/12/2016 | 47.8 | 48 | 1428 | 1380 | 82 | 152 | 3398 | 249 |  | 8.58 | 471 | 7.94 | 12 | 310 | 13 |
| 6/01/2017 | 7.4 | 32 | 382 | 350 | 83 | 165.5 | 1154 | 465 | 26.8 | 3.78 | 294 | 7.6 | 5 | 152 | 1 |
| 28/02/2017 | 32.5 | 26 | 424 | 398 | 116.5 | 162 | 942 | 390.5 |  | 8.26 | 141.1 | 7.01 | 7 | 124 | 10 |
| 2/03/2017 | 14.2 | 29 | 1008.5 | 979.5 | 137 | 178 | 1590 | 511 |  |  | 150.2 | 7.3 | 4 | 76 | 13 |
| 14/03/2017 | 62 | 28 | 1525 | 1497 | 144 | 323 | 3112 | 431 |  |  | 288 | 7.7 | 8 | 172 | 1 |

**Supplementary Table S7 Autosampler Data – Woodcroft Wetland Outlet.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Date | Rainfall(m m) | Nitrite (µg/L) | NOxN(µg/L) | NO3N(µg/L) | NH4N(µg/L) | PO4P(µg/L) | TN (µg/L) | TP (µg/L) | Temp, °C | DO, mg/L | EC, µS/cm | pH | Turbidity, NTU | TS, mg/L | TSS, mg/L |
| 31/05/2016 | 7.1 | 32 | 187 | 155 | 590 | 152 | 1148 | 1110.817 |  |  |  |  |  |  |  |
| 4/06/2016 | 7.2 | 53 | 453 | 400 | 225 | 81 | 1555 | 480.5833 |  |  |  |  |  |  |  |
| 5/06/2016 | 169 | 23 | 400 | 377 | 211 | 99 | 1363 | 837.0667 |  |  |  |  |  |  |  |
| 5/06/2016 | 176.2 | 38 | 417 | 379 | 220 | 145 | 1417 | 150.8667 |  |  |  |  |  |  |  |
| 19/06/2016 | 23.9 | 24.5 | 260 | 235.5 | 113 | 147 |  | 1265 |  |  |  |  |  |  |  |
| 8/07/2016 | 11.4 | 30 | 355 | 325 | 312 | 64 | 1226 | 1474 |  |  |  |  |  | 211 | 15 |
| 20/07/2016 | 41.7 | 29 | 438 | 409 | 265 | 47 | 763 | 440 |  |  |  |  |  | 157 | 1 |
| 5/08/2016 | 7.4 | 20 | 341 | 321 | 251 | 6 | 1501 | 859 |  |  |  |  |  | 142 |  |
| 24/08/2016 | 34.5 | 19 | 397 | 378 | 99 | 178 | 441 | 847 |  |  |  |  |  | 74 |  |
| 2/09/2016 | 27.7 | 25 | 659 | 634 | 227 | 221 | 1491 | 1130 | 20.9 | 9.7 | 131.6 | 6.82 | 12 | 124 | 12 |
| 18/09/2016 | 12 | 15 | 215 | 200 | 80 | 63 | 675 |  | 22.2 | 8.47 | 278 | 6.97 | 1 | 167 | 3 |
| 17/12/2016 | 47.8 | 17 | 805.5 | 788.5 | 89.5 | 96 | 1435 | 129.5 |  | 8.35 | 134.8 | 8.14 | 8 | 63 | 7 |
| 6/01/2017 | 7.4 | 17 | 285 | 268 | 68 | 123 | 979.5 | 1391 | 27.3 | 7.48 | 95 | 7.79 | 11 | 25 | 4 |
| 28/02/2017 | 32.5 | 300 | 1387 | 1087 | 49 | 157 | 1628 | 470.5 |  | 8.74 | 205.5 |  | 3 | 223 | 12 |
| 2/03/2017 | 14.2 | 21 | 726 | 705 | 127 | 178.5 | 1821 | 454 |  |  | 98.1 | 7.3 | 2 | 50 | 3 |
| 14/03/2017 | 62 | 22 | 519 | 497 | 135 | 51 | 1497 | 434 |  |  | 129.6 | 7.05 | 3 | 50 | 1 |
| 30/03/2017 | 25.4 | 25 | 425 | 400 | 53 | 72 | 704 | 92 | 20.8 | 8.49 | 114 | 7.34 | 1 | 100 | 1 |
| 7/06/2017 | 51.3 | 18 | 282 | 264 | 179 | 38 | 639 |  | 17.3 | 8.9 | 254 | 7.7 | 2 | 149 | 1 |
| 31/07/2017 | 6.6 | 38 | 463 | 425 | 1111.5 | 130 | 2739 | 321 | 18.6 | 10.04 | 377 | 7.41 | 1 | 196 | 14 |
| 3/08/2017 | 6.9 | 13 | 197 | 184 | 290 | 7 | 1218 | 16 |  | 9.59 | 275 | 7.33 | 12 | 186 | 1 |

**Supplementary Table S8 Autosampler Data – Siphons (overflow from wetland).**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Date | Rainfall(mm) | Nitrite (µg/L) | NOxN (µg/L) | NO3N (µg/L) | NH4N (µg/L) | PO4P (µg/L) | TN (µg/L) | TP (µg/L) | Temp, °C | DO, mg/L | EC, µS/cm | pH | Turbidity, NTU | TS, mg/L | TSS, mg/L |
| 5/06/2016 | 169 | 16 | 216 | 200 | 194 | 512 | 2025 | 655 |  |  |  |  |  |  |  |
| 19/06/2016 | 23.9 | 24 | 244 | 220 | 97 | 202 | 962 | 1013 |  |  |  |  |  |  |  |
| 8/07/2016 | 11.4 | 21 | 408 | 387 | 93 | 278 | 457 | 831 |  |  |  |  |  | 112 | 28 |
| 20/07/2016 | 41.7 | 26 | 401 | 375 | 119 | 77 | 595.5 | 565 |  |  |  |  |  | 83 | 1 |
| 5/08/2016 | 7.4 | 30 | 550 | 520 | 46 | 13 | 1564 | 313 |  |  |  |  |  | 208 |  |
| 24/08/2016 | 34.5 | 23 | 451 | 428 | 109 | 254 | 1067 | 1080 |  |  |  |  |  | 121 |  |
| 2/09/2016 | 27.7 | 21 | 377 | 356 | 115 | 94 | 840 | 391 | 21 | 9.56 | 117.6 | 6.98 | 12 | 125 | 23 |
| 18/09/2016 | 12 | 15 | 216 | 201 | 26 | 46 | 864 | 395 | 22.2 | 7.49 | 323 | 6.95 | 19 | 196 | 18 |
| 17/12/2016 | 47.8 | 16.75 | 332.25 | 315.5 | 45.25 | 24 | 850 | 56 |  | 8.195 | 113.3 | 8.115 | 5 | 59 | 12.5 |
| 6/01/2017 | 7.4 | 3 | 6 | 3 | 29 | 107 | 903 | 30 | 28 | 7.78 | 255 | 7.59 | 7 | 129 | 1 |
| 28/02/2017 | 32.5 | 24 | 403 | 379 | 73 | 126 | 1376 | 322 |  | 9.12 | 124.3 | 6.58 | 2 | 106 | 3 |
| 2/03/2017 | 14.2 | 12 | 75 | 63 | 46 | 110 | 898 | 179.5 |  |  | 271 | 7.06 | 2 | 152 | 6 |
| 14/03/2017 | 62 | 16 | 821 | 805 | 56 | 125 | 1658.5 | 463 |  |  | 148.7 | 7.61 | 6 | 60 | 1 |
| 30/03/2017 | 25.4 | 11 | 250 | 239 | 48.5 | 72 | 599 | 80 | 21.5 | 5.77 | 155.9 | 7.34 | 3 | 123 | 3 |
| 6-7/6/2017 | 51.3 | 17 | 255 | 238 | 101 | 60 | 637 |  | 17.3 | 9.25 | 85.2 | 7.9 | 2 | 67 | 1 |
| 31/07/2017 | 6.6 | 7 | 246 | 239 | 248 | 7 | 1215 | 14 |  | 9.12 | 478 | 7.26 | 31 | 229 | 1 |
| 3/08/2017 | 6.9 | 11 | 216 | 205 | 123.5 | 7 | 1036 | 159 |  | 7.99 | 299 | 7.3 | 17 | 217 | 1 |

**Supplementary Table S9 Autosampler Data – Outlet Woodcroft Lake.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Date | Rainfall(m m) | Nitrite (µg/L) | NOxN(µg/L) | NO3N(µg/L) | NH4N(µg/L) | PO4P(µg/L) | TN (µg/L) | TP (µg/L) | Temp, °C | DO, mg/L | EC, µS/cm | pH | Turbidity, NTU | TS, mg/L | TSS, mg/L |
| 6/06/2016 | 169 | 32 | 403 | 371 | 189 | 90 | 1357.8 | 708.1 |  |  |  |  |  |  |  |
| 19/06/2016 | 23.9 | 21 | 356 | 335 | 201 | 74 | 581 | 741 |  |  |  |  |  |  |  |
| 8/07/2016 | 11.4 | 19 | 419 | 400 | 55 | 83 | 1147 | 1301 |  |  |  |  |  | 190 | 6 |
| 20/07/2016 | 41.7 | 17 | 439 | 422 | 37 | 70 | 585.5 | 668 |  |  |  |  |  | 158 | 1 |
| 5/08/2016 | 7.4 | 9 | 391 | 382 | 34 | 24 | 1263 | 159 |  |  |  |  |  | 142 |  |
| 24/08/2016 | 34.5 | 11 | 345 | 334 | 63 | 59 | 386 | 485 |  |  |  |  |  | 191 |  |
| 2/09/2016 | 27.7 | 7 | 345 | 338 | 38 | 49 | 774 | 216 | 21 | 7.13 | 303 | 6.88 | 2 | 194 | 2 |
| 18/09/2016 | 12 | 12 | 308 | 296 | 105 | 40 | 755 | 505 | 22.2 | 7.49 | 323 | 6.95 | 19 | 171 | 1 |
| 17/12/2016 | 47.8 | 5 | 61 | 56 | 83 | 20 | 607 | 491 |  | 7.82 | 341 | 8.25 | 5 | 175 | 10 |
| 6/01/2017 | 7.4 | 4 | 68 | 64 | 92 | 174 | 556 | 1297 | 27.4 | 7.44 | 331 | 7.58 | 6 | 167 | 1 |
| 28/02/2017 | 32.5 | 5 | 87 | 82 | 100 | 83.5 | 1101 | 355 |  | 8.82 | 327 | 7.29 | 2 | 215 | 4 |
| 2/03/2017 | 14.2 | 5 | 67 | 62 | 80.5 | 309.5 | 999 |  |  |  | 330 | 7.17 | 1 | 191 | 9 |
| 14/03/2017 | 62 | 9 | 87 | 78 | 162 | 22 | 554 | 400.5 |  |  | 305 | 7.47 | 1 | 121 | 1 |
| 30/03/2017 | 25.4 | 24 | 152 | 128 | 168 | 71 | 503 | 421 | 22.7 | 6.69 | 258 | 7.68 | 3 | 193 | 1 |
| 6-7/6/2017 | 51.3 | 18 | 209 | 191 | 205 | 27 | 554 |  | 17.3 | 8.54 | 251 | 7.7 | 1 | 147 | 1 |
| 31/07/2017 | 6.6 | 0 | 244 | 244 | 122 | 14 | 2945 | 480 | 17.7 | 7.41 | 299 | 7.43 | 1 | 260 | 14 |
| 3/08/2017 | 6.9 | 0 | 320 | 320 | 83 | 17 | 3369 | 470 |  | 8.56 | 320 | 7.18 | 4 |  |  |

**Supplementary Table S10 Seasonal Average Water Quality Data.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Temperature (°C) | DO (mg/L) | EC (µS/cm) |
|  | Summer | Autumn | Winter | Spring | Summer | Autumn | Winter | Spring | Summer | Autumn | Winter | Spring |
| WCW | 26.24 | 19.27 | 13.56 | 19.07 | 5.38 | 6.47 | 7.72 | 6.62 | 624 | 497 | 574 | 691 |
| WCL | 26.53 | 19.97 | 13.85 | 20.85 | 7.64 | 7.25 | 8.13 | 8.33 | 367 | 342 | 297 | 304 |
| WGL | 23.80 | 19.22 | 14.81 | 23.03 | 7.58 | 8.18 | 9.55 | 7.61 | 135 | 181 | 181 | 200 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | Turbidity (NTU) | TSS (mg/L) | TS (mg/L) |
|  | Summer | Autumn | Winter | Spring | Summer | Autumn | Winter | Spring | Summer | Autumn | Winter | Spring |
| WCW | 10.14 | 7.14 | 6.22 | 11.42 | 78.43 | 16.58 | 9.65 | 22.83 | 602.93 | 411.04 | 336.12 | 437.67 |
| WCL | 4.19 | 5.53 | 7.14 | 4.74 | 20.54 | 23.32 | 12.94 | 12.50 | 349.54 | 183.56 | 289.85 | 182.62 |
| WGL | 77.19 | 68.11 | 39.72 | 49.33 | 84.04 | 43.02 | 19.38 | 30.74 | 283.79 | 208.16 | 129.73 | 153.02 |

|  |  |  |
| --- | --- | --- |
|  | TN (µg/L) | TP (µg/L) |
|  | Summer | Autumn | Winter | Spring | Summer | Autumn | Winter | Spring |
| WCW | 1874.07 | 3688.77 | 2134.68 | 1112.15 | 576.62 | 250.86 | 457.88 | 799.75 |
| WCL | 1054.17 | 3103.40 | 1516.52 | 653.84 | 291.64 | 173.88 | 381.02 | 512.11 |
| WGL | 2510.15 | 1014.3 | 943.55 | 1046.49 | 204.56 | 419.93 | 952.21 | 898.76 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | Chl-a (µg/L) | BOD5 (mg/L) | DOC (mg/L) |
|  | Summer | Autumn | Winter | Spring | Summer | Autumn | Winter | Spring | Summer | Autumn | Winter | Spring |
| WCW | 267.92 | 19.29 | 25.41 | 19.54 | 4.10 | 3.57 | 2.59 | 3.48 | 11.39 | 9.35 | 8.12 | 8.65 |
| WCL | 9.70 | 22.23 | 48.05 | 8.90 | 1.78 | 2.45 | 1.72 | 1.82 | 6.62 | 7.66 | 6.01 | 5.52 |
| WGL | 35.70 | 81.56 | 63.11 | 28.96 | 4.6 | 4.06 | 2.80 | 3.89 | 6.44 | 7.14 | 6.72 | 5.66 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | NOx-N (µg/L) | NH4-N (µg/L) | PO4-P (µg/L) |
|  | Summer | Autumn | Winter | Spring | Summer | Autumn | Winter | Spring | Summer | Autumn | Winter | Spring |
| WCW | 92.39 | 166.79 | 226.92 | 126.17 | 124.93 | 405.38 | 456.18 | 471.04 | 205.21 | 292.09 | 134.53 | 188.17 |
| WCL | 20.46 | 127.65 | 256.95 | 104.35 | 61.68 | 107.48 | 180.59 | 43.20 | 99.48 | 109.04 | 49.72 | 83.85 |
| WGL | 202.63 | 320.6 | 391.77 | 229.85 | 180.61 | 168.44 | 97.63 | 66.77 | 151.69 | 55.94 | 55.52 | 38.28 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

**Supplementary Table S11 Seasonal Inlet and Outlet Water Quality Data**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Temperature (°C) | DO, mg/L | EC (µS/cm) |
|  | Summer | Autumn | Winter | Spring | Summer | Autumn | Winter | Spring | Summer | Autumn | Winter | Spring |
| GPT | 26.8 |  |  | 20.9 | 6.18 |  |  | 9.61 | 382.5 | 219.1 |  | 209.9 |
| WCW | 27.3 | 20.8 | 17.95 | 21.55 | 7.915 | 8.49 | 9.51 | 9.09 | 114.9 | 113.9 | 302 | 204.8 |
| SIPHONS | 28 | 21.5 | 17.3 | 21.6 | 8.06 | 5.77 | 8.79 | 8.53 | 160.53 | 191.87 | 287.4 | 220.3 |
| OUTLET WCL | 27.4 | 22.7 | 17.5 | 21.6 | 7.63 | 6.69 | 8.17 | 7.31 | 336 | 297.67 | 290 | 313 |
| INLET WGL | 26.03 | 21.1 | 18.5 | 21.55 | 7.50 | 8.20 | 9.53 | 8.85 | 147.43 | 110.85 | 123 | 110.85 |
| OUTLET WGL | 25.86 | 22.6 | 18.5 | 21.55 | 7.71 | 7.77 | 9.31 | 8.78 | 191.85 | 127.48 | 200.27 | 171.95 |

|  |  |  |  |
| --- | --- | --- | --- |
|  | Turbidity (NTU) | TSS (mg/L) | TS (mg/L) |
|  | Summer | Autumn | Winter | Spring | Summer | Autumn | Winter | Spring | Summer | Autumn | Winter | Spring |
| GPT WCL | 8.5 | 6 |  | 15 | 7 | 7 | 13.5 | 5 | 231 | 124 | 252.67 | 171 |
| WCW | 9.5 | 2 | 5 | 6.5 | 5.5 | 1.67 | 6.4 | 7.5 | 44 | 66.67 | 159.29 | 145.5 |
| SIPHONS WCL | 5.67 | 3.67 | 16.67 | 15.5 | 8.67 | 3.33 | 6.4 | 20.5 | 82.33 | 111.67 | 148.14 | 160.5 |
| OUTLET WCL | 5.5 | 1.67 | 2 | 10.5 | 5.5 | 3.67 | 5.5 | 1.5 | 171 | 168.33 | 181.33 | 182.5 |
| INLET WGL | 22 | 25.2 | 19.67 | 26 | 19.75 | 15.2 | 7.5 | 18 | 139.75 | 113.4 | 74.3 | 123.5 |
| OUTLET WGL | 41 | 28.2 | 31.33 | 55.5 | 29.56 | 9.2 | 19.67 | 46.5 | 171.44 | 97.8 | 157.8 | 190 |

|  |  |  |
| --- | --- | --- |
|  | TN | TP |
|  | Summer | Autumn | Winter | Spring | Summer | Autumn | Winter | Spring |
| GPT WCL | 2275.75 | 2351 | 1314.37 | 3141 | 357 | 471 | 770.3433 | 646 |
| WCW | 1207.25 | 1340.667 | 1286.198 | 1083 | 760.25 | 326.6667 | 669.0517 | 1130 |
| SIPHONS WCL | 867.67 | 1051.83 | 1062 | 852 | 47.33 | 240.83 | 578.70 | 393 |
| OUTLET WCL | 581.5 | 685.33 | 1354.26 | 764.5 | 894 | 410.75 | 626.51 | 360.5 |
| INLET WGL | 1059 | 1336 | 1060 | 924 | 1348 | 375 | 543 | 679 |
| OUTLET WGL | 1198 | 1602 | 1354 | 882 | 176 | 222 | 376 | 983 |