

## January 2018

|     |   |                                         |
|-----|---|-----------------------------------------|
| BTU | - | Surface water dry – No sample collected |
| BTM | - | Surface water dry – No sample collected |
| BTD | - | Surface water dry – No sample collected |

Buttonderry Waste Management Facility – Surface Water Results

April 2018

| No. samples required<br>by EPL: 3<br>No. Samples collected: 3 |               | Field Parameters        |                             |                                       |                                   |            |              |                   | Inorganics |                                     |      |      |                           | Alkalinity                     |                                         |                                       |                                       | Nutrients    |                |                |                              |                             |          | Metals          |
|---------------------------------------------------------------|---------------|-------------------------|-----------------------------|---------------------------------------|-----------------------------------|------------|--------------|-------------------|------------|-------------------------------------|------|------|---------------------------|--------------------------------|-----------------------------------------|---------------------------------------|---------------------------------------|--------------|----------------|----------------|------------------------------|-----------------------------|----------|-----------------|
|                                                               |               | Depth to<br>Groundwater | Dissolved<br>Oxygen (Field) | Electrical<br>Conductivity<br>(Field) | Oxygen Redox<br>Potential (Field) | pH (Field) | Temp (Field) | Turbidity (Field) | pH (Lab)   | Electrical<br>Conductivity<br>(Lab) | BOD  | TOC  | Total Suspended<br>Solids | Alkalinity (total)<br>as CaCO3 | Alkalinity<br>(Bicarbonate as<br>CaCO3) | Alkalinity<br>(Carbonate as<br>CaCO3) | Alkalinity<br>(Hydroxide) as<br>CaCO3 | Ammonia as N | Nitrate (as N) | Nitrite (as N) | Nitrogen (Total<br>Oxidised) | Reactive<br>Phosphorus as P | Fluoride | Iron (Filtered) |
| Field ID                                                      | Sampling Date | mBTOC                   | mg/L                        | uS/cm                                 | mV                                | pH_Units   | oC           | NTU               | pH_Units   | uS/cm                               | mg/L | mg/L | mg/L                      | mg/L                           | mg/L                                    | mg/L                                  | mg/L                                  | mg/L         | mg/L           | mg/L           | mg/L                         | mg/L                        | mg/L     | mg/L            |
| BTU                                                           | 19/04/2018    | -                       | 0.94                        | 623                                   | -38                               | 5.85       | 16.7         | 28.8              | 6.41       | 475                                 | -    | 54   | 96                        | 54                             | 54                                      | <1                                    | <1                                    | 0.11         | <0.01          | <0.01          | <0.01                        | -                           | -        | 12.9            |
| BTM                                                           | 18/04/2018    | -                       | 0.95                        | 515                                   | -2                                | 6.57       | 16.5         | 11.5              | 6.71       | 771                                 | -    | 11   | 16                        | 121                            | 121                                     | <1                                    | <1                                    | 0.19         | 0.26           | <0.01          | 0.26                         | -                           | -        | 3.33            |
| BTD                                                           | 19/04/2018    | -                       | 2.24                        | 272                                   | 81                                | 7.09       | 14.8         | 9.4               | 6.95       | 634                                 | -    | 8    | 15                        | 86                             | 86                                      | <1                                    | <1                                    | 0.05         | 0.03           | <0.01          | 0.03                         | -                           | -        | 2.06            |

Buttonderry Waste Management Facility – Surface Water Results

July 2018

| No. samples required<br>by EPL: 3<br>No. Samples collected: 3 |               | Field Parameters        |                             |                                       |                                   |            |              |                   | Inorganics |                                     |      |      |                           | Alkalinity                     |                                         |                                       |                                       | Nutrients    |                |                |                              |                             |          | Metals       |
|---------------------------------------------------------------|---------------|-------------------------|-----------------------------|---------------------------------------|-----------------------------------|------------|--------------|-------------------|------------|-------------------------------------|------|------|---------------------------|--------------------------------|-----------------------------------------|---------------------------------------|---------------------------------------|--------------|----------------|----------------|------------------------------|-----------------------------|----------|--------------|
|                                                               |               | Depth to<br>Groundwater | Dissolved<br>Oxygen (Field) | Electrical<br>Conductivity<br>(Field) | Oxygen Redox<br>Potential (Field) | pH (Field) | Temp (Field) | Turbidity (Field) | pH (Lab)   | Electrical<br>Conductivity<br>(Lab) | BOD  | TOC  | Total Suspended<br>Solids | Alkalinity (total)<br>as CaCO3 | Alkalinity<br>(Bicarbonate as<br>CaCO3) | Alkalinity<br>(Carbonate as<br>CaCO3) | Alkalinity<br>(Hydroxide) as<br>CaCO3 | Ammonia as N | Nitrate (as N) | Nitrite (as N) | Nitrogen (Total<br>Oxidised) | Reactive<br>Phosphorus as P | Fluoride | Iron (total) |
| Field ID                                                      | Sampling Date | mBTOC                   | mg/L                        | uS/cm                                 | mV                                | pH_Units   | oC           | NTU               | pH_Units   | uS/cm                               | mg/L | mg/L | mg/L                      | mg/L                           | mg/L                                    | mg/L                                  | mg/L                                  | mg/L         | mg/L           | mg/L           | mg/L                         | mg/L                        | mg/L     | mg/L         |
| BTU                                                           | 31/07/2018    | -                       | 1.79                        | 766                                   | -16                               | 6.87       | 6.8          | 49.9              | 6.35       | 4.32                                | -    | 39   | -                         | 43                             | 43                                      | <1                                    | <1                                    | 0.05         | 0.56           | <0.01          | 0.56                         | -                           | -        | 16.5         |
| BTM                                                           | 01/08/2018    | Dry                     |                             |                                       |                                   |            |              |                   |            |                                     |      |      |                           |                                |                                         |                                       |                                       |              |                |                |                              |                             |          |              |
| BTD                                                           | 31/07/2018    | -                       | 7.78                        | 821                                   | 133                               | 8.73       | 8.7          | 8.5               | 7.24       | 785                                 | -    | 9    | -                         | 102                            | 102                                     | <1                                    | <1                                    | 0.03         | <0.01          | <0.01          | <0.01                        | -                           | -        | 2.5          |

## Buttonderry Waste Management Facility – Groundwater Results

October 2018

| No. samples required<br>by EPL: 22<br>No. Samples collected: 21 |               | Field Parameters               |                             |                                       |                                   |            |              | Inorganics |                                     |      |      |                           | Alkalinity                     |                                         |                                       |                                       | Nutrients    |                |                |                              |                             |          | Metals          |
|-----------------------------------------------------------------|---------------|--------------------------------|-----------------------------|---------------------------------------|-----------------------------------|------------|--------------|------------|-------------------------------------|------|------|---------------------------|--------------------------------|-----------------------------------------|---------------------------------------|---------------------------------------|--------------|----------------|----------------|------------------------------|-----------------------------|----------|-----------------|
|                                                                 |               | Depth to<br>Groundwater        | Dissolved<br>Oxygen (Field) | Electrical<br>Conductivity<br>(Field) | Oxygen Redox<br>Potential (Field) | pH (Field) | Temp (Field) | pH (Lab)   | Electrical<br>Conductivity<br>(Lab) | BOD  | TOC  | Total Dissolved<br>Solids | Alkalinity (total)<br>as CaCO3 | Alkalinity<br>(Bicarbonate as<br>CaCO3) | Alkalinity<br>(Carbonate as<br>CaCO3) | Alkalinity<br>(Hydroxide) as<br>CaCO3 | Ammonia as N | Nitrate (as N) | Nitrite (as N) | Nitrogen (Total<br>Oxidised) | Reactive<br>Phosphorus as P | Fluoride | Iron (Filtered) |
| Field ID                                                        | Sampling Date | mBTOC                          | mg/L                        | uS/cm                                 | mV                                | pH_Units   | oC           | pH_Units   | uS/cm                               | mg/L | mg/L | mg/L                      | mg/L                           | mg/L                                    | mg/L                                  | mg/L                                  | mg/L         | mg/L           | mg/L           | mg/L                         | mg/L                        | mg/L     | mg/L            |
| 101S (22)                                                       | 30/10/2018    | 5.62                           | 4.55                        | 14,000                                | 140                               | 6.16       | 17.3         | 6.96       | 17600                               | <2   | 2    | 14000                     | 202                            | 202                                     | <1                                    | <1                                    | 0.05         | 0.08           | <0.01          | 0.08                         | <0.01                       | 0.4      | 0.6             |
| 102 S (23)                                                      | 30/10/2018    | 3.71                           | 3.56                        | 5,365                                 | 391                               | 4.85       | 16.1         | 5.18       | 7190                                | <2   | 16   | 4110                      | 10                             | 10                                      | <1                                    | <1                                    | 0.03         | 0.02           | <0.01          | 0.02                         | 0.03                        | 0.3      | 0.06            |
| 103 D (24)                                                      | 30/10/2018    | 4.23                           | 1.12                        | 5,721                                 | 168                               | 5.07       | 21.1         | 5.3        | 5920                                | <2   | 21   | 3640                      | 68                             | 68                                      | <1                                    | <1                                    | 0.12         | 0.14           | 0.01           | 0.15                         | 0.01                        | 0.1      | 0.8             |
| 104S (25)                                                       | 30/10/2018    | 5.33                           | 4.88                        | 1,615                                 | 320                               | 6.75       | 18.4         | 7.39       | 1920                                | <2   | 40   | 1130                      | 468                            | 468                                     | <1                                    | <1                                    | 0.08         | 0.1            | 0.01           | 0.11                         | <0.01                       | 0.6      | 0.33            |
| 105 S (26)                                                      | 30/10/2018    | 4.02                           | 2.85                        | 1,409                                 | 39                                | 6.21       | 19.9         | 6.72       | 1690                                | <2   | 15   | 950                       | 108                            | 108                                     | <1                                    | <1                                    | 0.44         | 0.05           | <0.01          | 0.05                         | <0.01                       | 0.2      | 6.83            |
| 106 S (27)                                                      | 31/10/2018    | 2.66                           | 2.21                        | 6,918                                 | 5.75                              | 5.75       | 18.9         | 5.98       | 12600                               | <2   | 12   | 7960                      | 213                            | 213                                     | <1                                    | <1                                    | 0.44         | 0.03           | <0.01          | 0.03                         | <0.01                       | 0.2      | 47.4            |
| 107 S (28)                                                      | 30/10/2018    | 5.50                           | 0.97                        | 7,210                                 | 6                                 | 6.41       | 19.4         | 6.45       | 1330                                | <2   | 12   | 6260                      | 172                            | 172                                     | <1                                    | <1                                    | 0.76         | 0.05           | 0.03           | 0.08                         | <0.01                       | 0.2      | 0.12            |
| 108 S (29)                                                      | 30/10/2018    | Well dry - No Sample Collected |                             |                                       |                                   |            |              |            |                                     |      |      |                           |                                |                                         |                                       |                                       |              |                |                |                              |                             |          |                 |
| 707 (30)                                                        | 31/10/2018    | 8.60                           | 3.15                        | 11,323                                | 86                                | 6.6        | 18.6         | 6.68       | 15400                               | <2   | <1   | 8730                      | 603                            | 603                                     | <1                                    | <1                                    | 0.07         | 0.03           | <0.01          | 0.03                         | <0.01                       | 0.4      | <0.05           |
| 110 D (31)                                                      | 30/10/2018    | 4.20                           | 0.36                        | 12,325                                | 145                               | 6.3        | 18.9         | 6.87       | 15100                               | <2   | 5    | 9730                      | 395                            | 395                                     | <1                                    | <1                                    | 0.03         | 0.04           | <0.01          | 0.04                         | <0.01                       | 1        | 0.12            |
| 111 S (32)                                                      | 30/10/2018    | 4.32                           | 2.45                        | 15002                                 | 208                               | 3.97       | 17.9         | 4.18       | 17600                               | <2   | 15   | 9660                      | <1                             | <1                                      | <1                                    | <1                                    | 0.17         | 0.07           | 0.01           | 0.08                         | <0.01                       | 0.3      | 5               |
| 112 D (33)                                                      | 31/10/2018    | 3.68                           | 0.89                        | 11,576                                | 196                               | 4.84       | 19.1         | 4.98       | 15000                               | 3    | 10   | 9920                      | 36                             | 36                                      | <1                                    | <1                                    | 0.27         | 0.06           | <0.01          | 0.06                         | <0.01                       | 0.5      | 9.93            |
| 113 S (34)                                                      | 31/10/2018    | 4.71                           | 2.28                        | 1,106                                 | 97                                | 6.15       | 18.1         | 6.28       | 1520                                | <2   | 20   | 7560                      | 162                            | 162                                     | <1                                    | <1                                    | 0.33         | 0.12           | 0.02           | 0.14                         | <0.01                       | <1.0     | 0.41            |
| B (14)                                                          | 30/10/2018    | 10.47                          | 4.28                        | 11,853                                | 75                                | 6.25       | 18.2         | 6.6        | 15100                               | <2   | <1   | 9240                      | 222                            | 222                                     | <1                                    | <1                                    | 0.1          | 0.04           | 0.01           | 0.05                         | <0.01                       | 0.5      | 13.2            |
| BT3 (11)                                                        | 31/10/2018    | 4.02                           | 1.83                        | 10,916                                | 63                                | 6.88       | 18.2         | 5.98       | 14100                               | <2   | <1   | 8370                      | 137                            | 137                                     | <1                                    | <1                                    | 0.35         | <0.01          | 0.01           | 0.01                         | <0.01                       | 0.2      | 38.1            |
| BT4 (9)                                                         | 31/10/2018    | 6.4                            | 0.47                        | 12,502                                | 42                                | 6.02       | 19.0         | 6.08       | 16006                               | <2   | <1   | 9650                      | 179                            | 179                                     | <1                                    | <1                                    | 0.33         | 0.02           | 0.01           | 0.03                         | <0.01                       | 0.2      | 27.8            |
| BT16 (7)                                                        | 30/10/2018    | 3.81                           | 0.51                        | 11,330                                | 115                               | 6.59       | 17.4         | 7.08       | 12200                               | <2   | <1   | 7420                      | 690                            | 690                                     | <1                                    | <1                                    | 0.07         | 0.14           | 0.01           | 0.15                         | 0.04                        | 0.5      | <0.05           |
| BT17 (6)                                                        | 30/10/2018    | 3.40                           | 2.64                        | 11,762                                | 105                               | 3.48       | 2.64         | 7.06       | 14800                               | <2   | <1   | 9160                      | 602                            | 602                                     | <1                                    | <1                                    | 0.02         | <0.01          | <0.01          | <0.01                        | <0.01                       | 0.8      | 1.79            |
| BT19 (5)                                                        | 30/10/2018    | 2.35                           | 1.96                        | 10,456                                | 77                                | 6.6        | 17.0         | 7          | 10900                               | <2   | <1   | 6330                      | 387                            | 387                                     | <1                                    | <1                                    | 0.12         | <0.01          | <0.01          | <0.01                        | 0.07                        | 0.3      | 2.48            |
| BT20 (4)                                                        | 30/10/2018    | 3.98                           | 4.67                        | 8,834                                 | 67                                | 4.84       | 16.2         | 7.08       | 13200                               | <2   | 8    | 6600                      | 604                            | 604                                     | <1                                    | <1                                    | 0.17         | <0.01          | <0.01          | <0.01                        | <0.01                       | 0.5      | <0.05           |
| TB1 (12)                                                        | 30/10/2018    | 1.84                           | 0.21                        | 1,297                                 | -94                               | 6.99       | 18.7         | 7.45       | 1620                                | 10   | 24   | 995                       | 734                            | 734                                     | <1                                    | <1                                    | 4.4          | <0.01          | <0.01          | <0.01                        | 0.14                        | 1.7      | 12.2            |
| TB2 (13)                                                        | 30/10/2018    | 4.16                           | 1.21                        | 11,589                                | 90                                | 6.35       | 19.6         | 6.92       | 13900                               | <2   | 2    | 9450                      | 325                            | 325                                     | <1                                    | <1                                    | 0.14         | <0.01          | <0.01          | <0.01                        | 0.02                        | 0.5      | <0.005          |