

BROADWATER LANDFILL FACILITY MONITORING RESULTS

Environmental Protection Licence No. 60665

Licensee: Richmond Valley Council

| POINT 1 | | Ground Water Discharge Pipe | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|-----------|-----------------------------|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|-------------|-------------|-------------|------------|------------|-------------|-------------|------------|------------|------------|------------|--|
| Parameter | Frequency | Trigger level | Unit of Measure | 14/06/2018 | 27/03/2018 | 12/09/2017 | 21/07/2017 | 8/03/2017 | 12/12/2016 | 22/09/2016 | 30/06/2016 | 15/03/2016 | 3/12/2015 | 9/09/2015 | 17/06/2015 | 30/03/2015 | 19/12/2014 | 29/08/2014 | 6/06/2014 | 18/04/2014 | 16/12/2013 | 30/08/2013 | 19/06/2013 | 6/03/2013 | 4/12/2012 | 19/09/2012 | 25/05/2012 | 6/03/2012 | 6/12/2011 | 6/09/2011 | 22/06/2011 | | |
| Date sampled | | | HH:MM | 7:30 | 8:45 | 9:26 | 9:15 | 8:55 | 6:55 | 14:30 | 13:45 | 16:45 | 7:25 | 9:35 | 7:45 | 8:20 | 6:15 | 8:35 | 9:15 | 7:45 | | 16:05 | 12:05 | 8:15 | | | 6:30 | 9:30 | | | | | |
| Sampled by | | | | Mark Bayley | Jesse Munro | Mark Bayley | Mark Bayley | Mark Bayley | Mark Bayley | Jesse Munro | Mark Bayley | Jesse Munro | Mark Bayley | Jesse Munro | Jesse Munro | Mark Bayley | Mark Bayley | Jesse Munro | Jesse Munro | Jesse Munro | | Mark Bayley | Mark Bayley | Mark Bayley | | | Mark Bayley | Mark Bayley | | | | | |
| Date results received | | | | 30/07/2018 | 2/05/2018 | 23/10/2017 | 8/08/2017 | 20/04/2017 | 16/01/2017 | | | | | | | | | | | | | | | | | | | | | | | | |
| Date results published | | | | 7/08/2018 | 3/05/2018 | 26/10/2017 | 11/08/2017 | 15/05/2017 | 25/01/2017 | | | | | | | | | | | | | | | | | | | | | | | | |
| Ammonia | Quarterly | N/A | mg/L | 0.755 | 1.02 | 0.925 | 0.715 | 0.433 | 0.71 | 0.58 | 0.645 | 0.684 | 0.538 | 0.631 | 1.002 | 0.748 | 0.974 | 0.89 | 0.73 | 0.626 | 0.97 | 0.709 | 0.494 | 1.42 | 1.051 | 0.682 | 0.702 | 0.28 | 0.09 | 0.54 | 0.61 | | |
| Calcium | Quarterly | N/A | mg/L | 63.8 | 59.2 | 57.2 | 52 | 69 | 56 | 48 | 53 | 56 | 49 | 51 | 54 | 56 | 57.6 | 68.7 | 69 | 67.8 | 63.6 | 60 | 56 | 104 | 79.9 | 55.8 | 45 | 45.3 | 50.8 | 47.6 | 56.9 | | |
| Chloride | Quarterly | N/A | mg/L | 8.4 | 15 | 49 | 14 | 50 | 16 | 14 | 16 | 56 | 16 | 23 | 14 | 468 | 106 | 14 | 17.1 | 17.8 | 16.8 | 18 | 16 | 27 | 27 | 27 | 9 | 16.52 | 14.62 | 16.6 | 19.52 | | |
| Conductivity | Quarterly | N/A | µS/cm | 494 | 492 | 445 | 425 | 575 | 410 | 379 | 440 | 470 | 395 | 413 | 466 | 389 | 415 | 510 | 530 | 492 | 410 | 413 | 377 | 689 | 559.5 | 430 | 391 | 357 | 339 | 348 | 400 | | |
| Iron | Quarterly | | mg/L | 47.8 | 40.965 | 35 | 63.7 | 68.2 | 38.8 | 37.9 | 49 | 29.1 | 29.5 | 36 | 36.8 | 26.6 | 48.7 | 33.2 | 58.8 | 43.5 | 22.6 | 40.3 | 19.5 | 107 | 69.865 | 32.73 | 16.5 | 83.4 | 99.7 | 32.2 | 61.8 | | |
| Magnesium | Quarterly | | mg/L | 7.2 | 6.8 | 7.3 | 6 | 7 | 6 | 5 | 6.5 | 6 | 6 | 7 | 7 | 7.13 | 10.7 | 8.24 | 7.81 | 7.5 | 8 | 7 | 14 | 10.6 | 7.2 | 6 | 7.1 | 6.4 | 6.4 | 8 | | | |
| Manganese | Quarterly | | mg/L | 0.688 | 0.643 | 0.633 | 0.562 | 0.788 | 0.63 | 0.6 | 0.67 | 0.649 | 0.606 | 0.618 | 0.666 | 0.684 | 0.728 | 0.899 | 0.96 | 0.927 | 0.85 | 0.752 | 0.718 | 1.31 | 0.982 | 0.654 | 0.661 | 0.797 | 0.383 | 0.7 | 0.786 | | |
| Potassium | Quarterly | | mg/L | 8.4 | 8.4 | 9.2 | 8 | 7 | 6 | 6 | 6 | 7 | 6 | 6 | 6 | 6 | 7.61 | 8 | 8 | 8.33 | 8.4 | 8 | 8 | 13 | 10.8 | 8.6 | 7 | 7.6 | 6.6 | 6.5 | 7.5 | | |
| Sodium | Quarterly | | mg/L | 13.5 | 12.1 | 14.6 | 14 | 15 | 12 | 12 | 13 | 12 | 10 | 10 | 12 | 12 | 12.2 | 14.3 | 12.9 | 11.4 | 11.4 | 13 | 12 | 25 | 19.4 | 13.8 | 11 | 13 | 12.7 | 11.6 | 14.7 | | |
| Standing Water Level | Quarterly | | metres | at Surface | at Surface | at Surface | at Surface | at Surface | at Surface | at Surface | at Surface | at Surface | at Surface | at Surface | at Surface | at Surface | at Surface | at Surface | at Surface | at Surface | at Surface | at Surface | at Surface | at Surface | at Surface | at Surface | at Surface | at Surface | at Surface | at Surface | at Surface | at Surface | |
| Sulphate | Quarterly | | mg/L | 1.7 | 3 | 12 | 4 | 4 | 2 | 2 | <9 | <3 | 6 | 6 | <5 | 21 | 1.86 | 122 | 1.53 | 1.71 | 1.53 | 1 | 5 | 125 | 67 | 9 | 0.4 | 6 | <5 | <5 | <5 | | |
| pH | Quarterly | | pH | 6.91 | 6.86 | 6.84 | 6.82 | 6.78 | 6.64 | 6.69 | 6.78 | 6.6 | 6.56 | 6.79 | 6.91 | 6.73 | 6.7 | 5.81 | 6.5 | 6.46 | 6.5 | 6.62 | 6.59 | 6.53 | 6.735 | 6.94 | 6.78 | 6.6 | 6.7 | 6.8 | 6.5 | | |