

## Fact sheet

### Class C recycled water quality annual summary 2009-10

for the Gold Coast district

| Component                               | Units                   | Number of tests | Treatment plant median result |          |          |          |
|---|-------------------------|-----------------|-------------------------------|----------|----------|----------|
|   |                         |                 | Beenleigh                     | Coomabah | Merrimac | Elanora  |
| Alkalinity                              | mg CaCO <sub>3</sub> /L | 52              | 220                           | 110      | 130      | 150      |
| Chloride                                | mg/L                    | 52              | 160                           | NT       | NT       | NT       |
| Chlorine free                           | mg/L                    | 52              | NT                            | 0.05     | 0.07     | 0.05     |
| Chlorine total                          | mg/L                    | 52              | NT                            | 0.17     | 0.29     | 0.05     |
| Conductivity                            | mS/cm                   | 52              | 1.02                          | 1.48     | 1.01     | 1.26     |
| <i>E. coli</i>                          | CFU/100mL               | 52              | 240                           | 230      | 50       | 80       |
| Elements <sup>a</sup> Aluminium (total) | mg/L                    | 2               | 0.069                         | 0.077    | 0.084    | 0.026    |
| Arsenic (total)                         | mg/L                    | 2               | 0.0008                        | 0.0013   | 0.0006   | 0.0009   |
| Beryllium (total)                       | mg/L                    | 2               | < 0.1                         | < 0.1    | < 0.1    | < 0.1    |
| Boron (total)                           | mg/L                    | 2               | 0.35                          | 0.24     | 0.23     | 0.11     |
| Cadmium (total)                         | mg/L                    | 2               | < 0.001                       | < 0.001  | < 0.001  | < 0.001  |
| Calcium (total)                         | mg/L                    | 2               | 22.5                          | 31       | 31.5     | 51.5     |
| Chromium (total)                        | mg/L                    | 2               | < 0.001                       | < 0.001  | < 0.001  | < 0.001  |
| Cobalt (total)                          | mg/L                    | 2               | < 0.001                       | < 0.001  | < 0.001  | < 0.001  |
| Copper (total)                          | mg/L                    | 2               | < 0.005                       | < 0.005  | < 0.005  | < 0.005  |
| Fluoride (total)                        | mg/L                    | 2               | 0.5                           | 0.45     | 0.45     | 0.5      |
| Iron (total)                            | mg/L                    | 2               | 0.1                           | 0.06     | 0.06     | 0.12     |
| Lead (total)                            | mg/L                    | 2               | < 0.005                       | < 0.005  | 0.013    | < 0.005  |
| Lithium (total)                         | mg/L                    | 2               | < 0.04                        | < 0.04   | < 0.04   | < 0.04   |
| Magnesium (total)                       | mg/L                    | 2               | 15                            | 39       | 10.5     | 14.5     |
| Manganese (total)                       | mg/L                    | 2               | 0.083                         | 0.074    | 0.15     | 0.037    |
| Mercury (total)                         | mg/L                    | 2               | 0.0003                        | < 0.0002 | < 0.0002 | < 0.0002 |
| Molybdenum (total)                      | mg/L                    | 2               | < 0.05                        | < 0.05   | < 0.05   | < 0.05   |
| Nickel (total)                          | mg/L                    | 2               | 0.006                         | < 0.005  | < 0.005  | < 0.005  |

| Component                               | Units | Number of tests | Treatment plant median result |           |          |         |
|---|-------|-----------------|-------------------------------|-----------|----------|---------|
|   |       |                 | Beenleigh                     | Coombabah | Merrimac | Elanora |
| Elements <sup>a</sup> Potassium (total) | mg/L  | 2               | 19.5                          | 21        | 16.5     | 18.5    |
| Selenium (total)                        | mg/L  | 2               | <0.001                        | <0.001    | <0.001   | <0.001  |
| Silica (total)                          | mg/L  | 1               | 13                            | 9.7       | 11       | 10      |
| Silver (total)                          | mg/L  | 2               | < 0.005                       | < 0.005   | < 0.005  | < 0.005 |
| Sodium (total)                          | mg/L  | 2               | 195                           | 280       | 145      | 155     |
| Vanadium (total)                        | mg/L  | 2               | < 0.005                       | < 0.005   | < 0.005  | < 0.005 |
| Zinc (total)                            | mg/L  | 2               | 0.04                          | 0.03      | 0.02     | 0.02    |
| Nitrogen, ammonia                       | mg/L  | 52              | 0.54                          | 0.2       | 0.05     | 1.3     |
| Nitrogen, oxidised                      | mg/L  | 52              | 0.71                          | 1.1       | 1.6      | 4.3     |
| Nitrogen, total                         | mg/L  | 52              | 2.3                           | 2.3       | 2.6      | 6.6     |
| Oxygen, biochemical demand              | mg/L  | 52              | < 3                           | < 3       | < 3      | < 3     |
| Oxygen, chemical demand                 | mg/L  | 52              | 30                            | 40        | 40       | 30      |
| Oxygen, dissolved                       | mg/L  | 52              | 6                             | 6.8       | 7.9      | 6.7     |
| pH                                      |       | 52              | 8.1                           | 7.5       | 7.7      | 7.7     |
| Phosphorus, orthophosphate              | mg/L  | 52              | 0.33                          | 1.7       | 0.03     | 2.6     |
| Phosphorus, total                       | mg/L  | 52              | 0.45                          | 1.8       | 0.11     | 2.7     |
| Sodium adsorption ratio                 |       | 2               | 7.8                           | 9.2       | 5.7      | 4.9     |
| Sulfate                                 | mg/L  | 2               | 58                            | 100       | 72       | 70      |
| Suspended solids                        | mg/L  | 52              | 2                             | 3         | 2        | 2       |
| Temperature                             | °C    | 52              | 25.7                          | 26.1      | 26       | 26      |
| Total organic carbon                    | mg/L  | 11              | 12                            | 11        | 10       | 11      |
| Turbidity                               | NTU   | 52              | 2                             | 1.7       | 1.5      | 2       |

## Comments

mg/L = Milligrams per litre (or parts per million)

NTU = Nephelometric Turbidity Units

°C = Degrees celcius

mg CaCO<sub>3</sub>/L = mg/L of calcium carbonate

mS/cm = Millisiemens per centimetre

CFU = Colony forming unit

NT = Not tested

Median = the number in the middle of a set of numbers; that is half the numbers have a value greater than or equal to the median, and half have a value less than or equal to the median.

All results except temperature, free & total chlorine, dissolved oxygen, E.coli and elements, are medians of 24hr composite samples collected weekly between 01/07/09 - 30/06/10. All microbiological results are quoted from final lagoon effluent.

A Mean metal results determined from samples collected on 18/11/2009 & 11/05/2010 for Coombabah, Elanora, Merrimac & Beenleigh.