# **B** Monitoring and Complaints Summary

# **B1** Number of Pollution Complaints

| Pollution Category | Number of Complaints |
|--------------------|----------------------|
| Air                | 0                    |
| Water              | 0                    |
| Noise              | 0                    |
| Waste              | 0                    |
| Other              | 0                    |



## **B2** Concentration Monitoring Summary

## Monitoring Point 2: Effluent quality monitoring

| Pollutant                    | Unit of<br>Measure      | No. of<br>Samples<br>required | No. of samples collected | Date samples collected | Lowest<br>sample<br>value | Mean of | Highest<br>sample<br>value | Licence<br>Limit |
|------------------------------|-------------------------|-------------------------------|--------------------------|------------------------|---------------------------|---------|----------------------------|------------------|
| Biochemical oxygen demand    | milligrams per<br>litre | 4                             | 1                        | 15/08/2012             | NA                        | <2      | NA                         | 20               |
| Total<br>suspended<br>solids | milligrams per<br>litre | 4                             | 1                        | 15/08/2012             | NA                        | <5      | NA                         | 30               |

Comments: No spray irrigation occurred during the month of August 2012 therefore the number of required samples were not collected.

#### **Monitoring Point 4: Ambient water monitoring**

|             |                    | No. of     |                          |                        | Lowest          |                | Highest         |                  |
|-------------|--------------------|------------|--------------------------|------------------------|-----------------|----------------|-----------------|------------------|
| Pollutant   | Unit of<br>Measure | •          | No. of samples collected | Date samples collected | sample<br>value | Mean of sample | sample<br>value | Licence<br>Limit |
| · onatant   | Degrees            | required   | conceted                 | conceted               | Value           | Sumple         | Value           | 2                |
| Temperature | Celsius            | Continuous | Continuous               | NA                     | 10.6            | 13.1           | 35.5            | NA*              |
| remperature | CCISIGS            |            |                          |                        |                 |                |                 |                  |



Comments:

\* Tallawarra does not have water quality licence limits for ambient water quality monitoring in its EPL. ANZECC Guidelines apply to receiving waters.

High temperatures in the inlet waters are a result from the station's thermoshock process and in no way impact the receiving waters of Lake Illawarra.

#### Discharge and Monitoring Point 5: Discharge water quality monitoring

|             |         | No. of     |                |              | Lowest |         | Highest |         |
|-------------|---------|------------|----------------|--------------|--------|---------|---------|---------|
|             | Unit of | Samples    | No. of samples | Date samples | sample | Mean of | sample  | Licence |
| Pollutant   | Measure | required   | collected      | collected    | value  | sample  | value   | Limit   |
|             | Degrees | Caratiana  | Cantina        | NIA          | 445    | 467     | 22.2    | 25      |
| Temperature | Celsius | Continuous | Continuous     | NA           | 14.5   | 16.7    | 23.2    | 35      |

Comments: NA

## Monitoring Point 6: Ambient water monitoring

| Pollutant   | Unit of<br>Measure | No. of<br>Samples<br>required | No. of samples collected | Date samples collected | Lowest<br>sample<br>value | Mean of sample | Highest<br>sample<br>value | Licence<br>Limit |
|-------------|--------------------|-------------------------------|--------------------------|------------------------|---------------------------|----------------|----------------------------|------------------|
| Temperature | Degrees<br>Celsius | Continuous                    | Continuous               | NA                     | 9.9                       | 13.4           | 17.4                       | NA*              |

Comments: NA

## **Monitoring Point 7: Ambient water monitoring**

| Pollutant   | Unit of<br>Measure | •          | No. of samples collected | Date samples collected | Lowest<br>sample<br>value | Mean of sample | Highest<br>sample<br>value | Licence<br>Limit |
|-------------|--------------------|------------|--------------------------|------------------------|---------------------------|----------------|----------------------------|------------------|
| Temperature | Degrees<br>Celsius | Continuous | Continuous               | NA                     | 10.5                      | 13.0           | 15.5                       | NA*              |



Comments: NA

## **Monitoring Point 8: Discharge water monitoring**

|              |                | No. of    |                |              | Lowest |         | Highest |         |
|--------------|----------------|-----------|----------------|--------------|--------|---------|---------|---------|
|              | Unit of        | Samples   | No. of samples | Date samples | sample | Mean of | sample  | Licence |
| Pollutant    | Measure        | required  | collected      | collected    | value  | sample  | value   | Limit   |
|              |                | Monthly   |                |              |        |         |         |         |
|              | micrograms     | during    | 1              | 15/08/2012   | NA     | < 0.001 | NA      | NA*     |
| Copper       | per litre      | discharge |                |              |        |         |         |         |
|              |                | Monthly   |                |              |        |         |         |         |
| Nitrogen     | milligrams per | during    | 1              | 15/08/2012   | NA     | 1.1     | NA      | NA*     |
| (total)      | litre          | discharge |                |              |        |         |         |         |
|              |                | Monthly   |                |              |        |         |         |         |
|              |                | during    | 1              | 15/08/2012   | NA     | 7.6     | NA      | NA*     |
| pН           | рН             | discharge |                |              |        |         |         |         |
| Total        |                |           |                |              |        |         |         |         |
| Phosporous - |                | Monthly   | 4              | 45/00/2042   | NI A   | 0.05    |         | NIA*    |
| filtered     | milligrams per | during    | 1              | 15/08/2012   | NA     | 0.05    | NA      | NA*     |
| sample       | litre          | discharge |                |              |        |         |         |         |
| Total        |                | Monthly   |                |              |        |         |         |         |
| suspended    | milligrams per | during    | 1              | 15/08/2012   | NA     | 6       | NA      | NA*     |
| solids       | litre          | discharge |                |              |        |         |         |         |
|              |                | Monthly   |                |              |        |         |         |         |
|              | micrograms     | during    | 1              | 15/08/2012   | NA     | <0.005  | NA      | NA*     |
| Zinc         | per litre      | discharge |                |              |        |         |         |         |

Comments:

<sup>\*</sup> Tallawarra does not have water quality licence limits for discharge water quality monitoring in its EPL. ANZECC Guidelines apply to receiving waters.

## Discharge and Monitoring Point 9: Air emissions monitoring

| Pollutant                  | Unit of<br>Measure            | No. of<br>Samples<br>required | No. of samples | Date samples collected | Lowest<br>sample<br>value | Mean of sample | Highest<br>sample<br>value | Licence<br>Limit |
|----------------------------|-------------------------------|-------------------------------|----------------|------------------------|---------------------------|----------------|----------------------------|------------------|
| Carbon<br>dioxide          | Percent                       | Continuous                    | **             | NA                     | 0.8                       | 3.9            | 4.6                        | NA               |
| Moisture content           | Percent                       | Continuous                    | **             | NA                     | 8.6                       | 9.7            | 11.3                       | NA               |
| Nitric oxide               | parts per<br>million          | Continuous                    | **             | NA                     | 0.1                       | 5              | 25.4                       | NA               |
| Nitrogen<br>dioxide        | parts per<br>million          | Continuous                    | **             | NA                     | 0                         | 2.2            | 16.4                       | NA               |
| Nitrogen oxides            | parts per<br>million          | Continuous                    | **             | NA                     | 0                         | 4.8            | 22.4                       | 25               |
| Oxygen (O2)                | Percent                       | Continuous                    | **             | NA                     | 12.1                      | 13.7           | 14.8                       | NA               |
| Solid particles            | milligrams per<br>cubic metre | Yearly                        | 1              | 2/02/2012              | NA                        | 0.38           | NA                         | 10               |
| Sulphur<br>dioxide         | parts per<br>million          | Yearly                        | 1              | 2/02/2012              | <1.8*                     | <1.8*          | <1.8                       | 3                |
| Temperature                | Degrees<br>Celsius            | Continuous                    | **             | NA                     | 67.8                      | 77.1           | 90.2                       | NA               |
| Volatile organic compounds | parts per<br>million          | Yearly                        | 1              | 2/02/2012              | NA                        | <1.6*          | NA                         | NA               |
| Volumetric<br>flow rate    | cubic metres<br>per second    | Continuous                    | **             | NA                     | 221.5                     | 302.2          | 432.6                      | NA               |



<sup>\*</sup> equipment detection limit

Comments:

Plant offline from 03/08/2012 to 17/08/2012. Air Emissions Monitoring data calculated excluding period when plant offline. The Volumetric flow rate previously reported has not been corrected for density, and previous reports will subsequently be updated with adjusted values.



<sup>\*\*</sup> Continuous data reported based on hourly average CEMS data

#### Monitoring Point 10: Ambient air monitoring

| Pollutant           | Unit of<br>Measure              | No. of<br>Samples<br>required | No. of samples collected | Date samples collected | Lowest<br>sample<br>value | Mean of sample | Highest<br>sample<br>value | Licence<br>Limit |
|---------------------|---------------------------------|-------------------------------|--------------------------|------------------------|---------------------------|----------------|----------------------------|------------------|
| Nitric oxide        | parts per<br>hundred<br>million | Continuous                    | 735                      | NA                     | -0.4                      | 0.1            | 9.5                        | NA               |
| Nitrogen<br>dioxide | parts per<br>hundred<br>million | Continuous                    | 735                      | NA                     | 0                         | 0.3            | 2.6                        | NA               |
| Nitrogen oxides     | parts per<br>hundred<br>million | Continuous                    | 735                      | NA                     | -0.4                      | 0.4            | 11.2                       | NA               |
| Ozone               | parts per<br>hundred<br>million | Continuous                    | 735                      | NA                     | -0.9                      | 2.1            | 4.8                        | NA               |



Comments:

Six monthly maintenance was performed on the NO/NO2/NOx and O3 analysers 22/08/2012 12:20 to 20:05. A brief power failure occurred 23/08/2012 02:40 to 03:45, and the NO/NO2/NOx and O3 analysers took 30 minutes to stabilise after power was restored. A span check was performed on the NO/NO2/NOx and O3 analysers 27/08/2012 09:55 to 11:20.

# **B3** Volume or Mass Monitoring Summary

## Monitoring Point 3: Sewage volume monitoring

| Pollutant | Unit of<br>Measure    |            | No. of samples collected | Date Samples collected | Lowest<br>result | Mean<br>result | Highest<br>result | Licence<br>Limit |
|-----------|-----------------------|------------|--------------------------|------------------------|------------------|----------------|-------------------|------------------|
| Sewage    | Kilolitres per<br>day | Continuous | 31                       | NA                     | NA               | 0              | NA                | 100              |



Comments: No spray irrigation occurred during the month of August 2012 therefore no effluent quality monitoring was conducted.