

# Richmond Wastewater Treatment Plant

## 2020-21 Pollution monitoring yearly limit summaries



### EPL 1726

Summary period: 01-07-2020 to 30-06-2021

Date published: 13-08-2021

**Licensee:** Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

| 50 percentile yearly summary             |                 |                                                  |                   |                |                |                     |                     |               |
|------------------------------------------|-----------------|--------------------------------------------------|-------------------|----------------|----------------|---------------------|---------------------|---------------|
| EPA Point 16<br>Site code RM0016         |                 | Point description: Outlet of dechlorination tank |                   |                |                |                     |                     |               |
| pollutant                                | unit of measure | sampling frequency                               | number of samples | minimum result | maximum result | 50 percentile limit | 50 percentile value | within limits |
| biochemical oxygen demand                | mg/L            | every 6 days                                     | 41                | <2             | 15             | 10                  | <2                  | yes           |
| Ceriodaphnia dubia immobilisation (EC50) | % Effluent/Vol  | onthly during discha                             | 8                 | 100            | 100            | 50                  | 100                 | yes           |
| nitrogen (ammonia)                       | mg/L            | every 6 days                                     | 50                | <0.1           | 3.1            | 0.9                 | <0.1                | yes           |
| nitrogen (total)                         | mg/L            | every 6 days                                     | 50                | 4.51           | 8.22           | 10                  | 5.73                | yes           |
| phosphorus (total)                       | mg/L            | every 6 days                                     | 50                | 0.02           | 0.45           | 0.3                 | 0.03                | yes           |
| total suspended solids                   | mg/L            | every 6 days                                     | 50                | <2             | 12             | 5                   | <2                  | yes           |

| 80 percentile yearly summary     |                 |                                                  |                   |                |                |                     |                     |               |
|----------------------------------|-----------------|--------------------------------------------------|-------------------|----------------|----------------|---------------------|---------------------|---------------|
| EPA Point 16<br>Site code RM0016 |                 | Point description: Outlet of dechlorination tank |                   |                |                |                     |                     |               |
| pollutant                        | unit of measure | sampling frequency                               | number of samples | minimum result | maximum result | 80 percentile limit | 80 percentile value | within limits |
| faecal coliforms                 | CFU/100mL       | every 6 days                                     | 50                | 5              | 100,000        | 200                 | 75                  | yes           |

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| 90 percentile yearly summary     |                 |                                                  |                   |                |                |                     |                     |               |
|----------------------------------|-----------------|--------------------------------------------------|-------------------|----------------|----------------|---------------------|---------------------|---------------|
| EPA Point 16<br>Site code RM0016 |                 | Point description: Outlet of dechlorination tank |                   |                |                |                     |                     |               |
| pollutant                        | unit of measure | sampling frequency                               | number of samples | minimum result | maximum result | 90 percentile limit | 90 percentile value | within limits |
| biochemical oxygen demand        | mg/L            | every 6 days                                     | 41                | <2             | 15             | 15                  | 2                   | yes           |
| nitrogen (ammonia)               | mg/L            | every 6 days                                     | 50                | <0.1           | 3.1            | 1.4                 | <0.1                | yes           |
| nitrogen (total)                 | mg/L            | every 6 days                                     | 50                | 4.51           | 8.22           | 15                  | 6.99                | yes           |
| phosphorus (total)               | mg/L            | every 6 days                                     | 50                | 0.02           | 0.45           | 1                   | 0.05                | yes           |
| total suspended solids           | mg/L            | every 6 days                                     | 50                | <2             | 12             | 10                  | 2                   | yes           |
| chlorine (total residual)        | mg/L            | every 6 days                                     | 50                | <0.04          | <0.04          | 0.1                 | <0.04               | yes           |

Effluent quality monitoring results obtained from EPA Point 16 are used to indicate the quality of water discharged at EPA Point 12 (discharge to waters).

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| 50 percentile yearly summary     |                 |                                                         |                   |                |                |                     |                     |               |
|----------------------------------|-----------------|---------------------------------------------------------|-------------------|----------------|----------------|---------------------|---------------------|---------------|
| EPA Point 17<br>Site code RM0017 |                 | Point description: Inlet to recycled water pump station |                   |                |                |                     |                     |               |
| pollutant                        | unit of measure | sampling frequency                                      | number of samples | minimum result | maximum result | 50 percentile limit | 50 percentile value | within limits |
| biochemical oxygen demand        | mg/L            | every 6 days                                            | 51                | <2             | <2             | 10                  | <2                  | yes           |
| faecal coliforms                 | CFU/100mL       | every 6 days                                            | 60                | <1             | 13             | 10                  | <1                  | yes           |
| nitrogen (ammonia)               | mg/L            | every 6 days                                            | 61                | <0.01          | 1.6            | 1                   | <0.01               | yes           |
| nitrogen (total)                 | mg/L            | every 6 days                                            | 61                | 3.14           | 7.84           | 10                  | 5.15                | yes           |
| phosphorus (total)               | mg/L            | every 6 days                                            | 61                | 0.02           | 0.11           | 0.3                 | 0.03                | yes           |
| total suspended solids           | mg/L            | every 6 days                                            | 61                | <2             | 4              | 10                  | <2                  | yes           |

| 90 percentile yearly summary     |                 |                                                         |                   |                |                |                     |                     |               |
|----------------------------------|-----------------|---------------------------------------------------------|-------------------|----------------|----------------|---------------------|---------------------|---------------|
| EPA Point 17<br>Site code RM0017 |                 | Point description: Inlet to recycled water pump station |                   |                |                |                     |                     |               |
| pollutant                        | unit of measure | sampling frequency                                      | number of samples | minimum result | maximum result | 90 percentile limit | 90 percentile value | within limits |
| biochemical oxygen demand        | mg/L            | every 6 days                                            | 51                | <2             | <2             | 15                  | <2                  | yes           |
| nitrogen (ammonia)               | mg/L            | every 6 days                                            | 61                | <0.01          | 1.6            | 5                   | 0.03                | yes           |
| nitrogen (total)                 | mg/L            | every 6 days                                            | 61                | 3.14           | 7.84           | 15                  | 6.61                | yes           |
| phosphorus (total)               | mg/L            | every 6 days                                            | 61                | 0.02           | 0.11           | 1                   | 0.05                | yes           |
| total suspended solids           | mg/L            | every 6 days                                            | 61                | <2             | 4              | 15                  | 2                   | yes           |
| chlorine (total residual)        | mg/L            | every 6 days                                            | 60                | 1.24           | 3.8            | 5                   | 2.05                | yes           |

Effluent quality monitoring results obtained from EPA Point 17 are used to indicate the quality of water to Points 4, 13 and 14.

Note: Sydney Water commenced monitoring of biochemical oxygen demand from 1st September 2020. Historically, carbonaceous biochemical oxygen demand was monitored.