

Quakers Hill Water Resource Recovery Facility

June Pollution Monitoring Summary



EPL 1724

Summary period: 01-06-2023 to 30-06-2023

Date obtained: 10-07-2023

Date published: 24-07-2023

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean and 100 percentile data

| EPA Point 4 Site code QH0004 | | Point description: Downstream of the overflow weir in the clean water tank | | | | | |
|--|-----------------|--|------------|-------------|----------------------|-----------------------|---------------|
| pollutant | unit of measure | sampling frequency | 3DGM limit | 3DGM actual | 100 percentile limit | 100 percentile actual | within limits |
| biochemical oxygen demand | mg/L | monthly | 30 | <2 | - | - | yes |
| carbonaceous biochemical oxygen demand | mg/L | monthly | 30 | <2 | - | - | yes |
| nitrogen (total) | mg/L | every 6 days | - | - | 45 | 6.92 | yes |
| phosphorus | mg/L | every 6 days | - | - | 5 | 0.24 | yes |
| total suspended solids | mg/L | monthly | 10 | <2 | - | - | yes |

100 percentile means that 100 % of samples (or all samples) taken must not exceed the limit for that pollutant.

3 Day Geometric Mean (3DGM) is a way to average a set of values and is commonly used with water quality assessments which show a great deal of variability. 3DGM is calculated by multiplying the results of the analysis of three samples collected on three consecutive days and then taking the cubed root of that amount.

Table 2: Routine monitoring data

| EPA Point 4 Site code QH0004 | | Point description: Downstream of the overflow weir in the clean water tank | | | | |
|--|-----------------|--|-------------------|----------------|-------------|----------------|
| pollutant | unit of measure | sampling frequency | number of samples | minimum result | mean result | maximum result |
| aluminium | ug/L | monthly | 1 | - | - | 97 |
| biochemical oxygen demand | mg/L | every 6 days | 5 | <2 | <2 | <2 |
| cadmium | ug/L | monthly | 1 | - | - | <0.1 |
| carbonaceous biochemical oxygen demand | mg/L | every 6 days | 5 | <2 | <2 | <2 |
| chromium | ug/L | monthly | 1 | - | - | 0.9 |
| copper | ug/L | monthly | 1 | - | - | 4.8 |
| manganese | ug/L | monthly | 1 | - | - | 2.3 |
| nitrogen (ammonia) | mg/L | every 6 days | 5 | 0.01 | 0.02 | 0.07 |
| nitrogen (total) | mg/L | every 6 days | 5 | 4.54 | 5.55 | 6.92 |
| phosphorus | mg/L | every 6 days | 5 | 0.1 | 0.15 | 0.24 |
| total suspended solids | mg/L | every 6 days | 5 | <2 | <2 | <2 |
| zinc | ug/L | monthly | 1 | - | - | 23 |

| EPA Point 5 Site code QH0005 | | Point description: At the outlet of the chlorine contact tank | | | | |
|--|-----------------|---|-------------------|----------------|-------------|----------------|
| pollutant | unit of measure | sampling frequency | number of samples | minimum result | mean result | maximum result |
| Ceriodaphnia dubia immobilisation (EC50) | % Effluent/Vol | monthly | 1 | - | - | 100 |
| chlorine (total residual) | mg/L | every 6 days | 5 | <0.04 | <0.04 | <0.04 |
| faecal coliforms | CFU/100mL | every 6 days | 5 | 2 | 10 | 27 |
| hydrogen sulphide (unionised) | ug/L | monthly | 1 | - | - | <30 |

Average and percentile limits are only applied annually for routine monitoring data in Table 2.

Effluent quality monitoring results obtained from EPA Points 4 and 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Quakers Hill Water Resource Recovery Facility

May Pollution Monitoring Summary



EPL 1724

Summary period: 01-05-2023 to 31-05-2023

Date obtained: 08-06-2023

Date published: 22-06-2023

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean and 100 percentile data

| EPA Point 4 Site code QH0004 | | Point description: Downstream of the overflow weir in the clean water tank | | | | | |
|--|-----------------|--|------------|-------------|----------------------|-----------------------|---------------|
| pollutant | unit of measure | sampling frequency | 3DGM limit | 3DGM actual | 100 percentile limit | 100 percentile actual | within limits |
| biochemical oxygen demand | mg/L | monthly | 30 | <2 | - | - | yes |
| carbonaceous biochemical oxygen demand | mg/L | monthly | 30 | <2 | - | - | yes |
| nitrogen (total) | mg/L | every 6 days | - | - | 45 | 5.37 | yes |
| phosphorus | mg/L | every 6 days | - | - | 5 | 0.26 | yes |
| total suspended solids | mg/L | monthly | 10 | <2 | - | - | yes |

100 percentile means that 100 % of samples (or all samples) taken must not exceed the limit for that pollutant.

3 Day Geometric Mean (3DGM) is a way to average a set of values and is commonly used with water quality assessments which show a great deal of variability. 3DGM is calculated by multiplying the results of the analysis of three samples collected on three consecutive days and then taking the cubed root of that amount.

Table 2: Routine monitoring data

| EPA Point 4 Site code QH0004 | | Point description: Downstream of the overflow weir in the clean water tank | | | | |
|--|-----------------|--|-------------------|----------------|-------------|----------------|
| pollutant | unit of measure | sampling frequency | number of samples | minimum result | mean result | maximum result |
| aluminium | ug/L | monthly | 1 | - | - | 148 |
| biochemical oxygen demand | mg/L | every 6 days | 6 | <2 | <2 | <2 |
| cadmium | ug/L | monthly | 1 | - | - | <0.1 |
| carbonaceous biochemical oxygen demand | mg/L | every 6 days | 6 | <2 | <2 | <2 |
| chromium | ug/L | monthly | 1 | - | - | 0.4 |
| copper | ug/L | monthly | 1 | - | - | 4 |
| manganese | ug/L | monthly | 1 | - | - | 1.9 |
| nitrogen (ammonia) | mg/L | every 6 days | 6 | 0.01 | 0.01 | 0.02 |
| nitrogen (total) | mg/L | every 6 days | 6 | 3.63 | 4.7 | 5.37 |
| phosphorus | mg/L | every 6 days | 6 | 0.09 | 0.13 | 0.26 |
| total suspended solids | mg/L | every 6 days | 6 | <2 | <2 | <2 |
| zinc | ug/L | monthly | 1 | - | - | 25 |

| EPA Point 5 Site code QH0005 | | Point description: At the outlet of the chlorine contact tank | | | | |
|--|-----------------|---|-------------------|----------------|-------------|----------------|
| pollutant | unit of measure | sampling frequency | number of samples | minimum result | mean result | maximum result |
| Ceriodaphnia dubia immobilisation (EC50) | % Effluent/Vol | monthly | 1 | - | - | 100 |
| chlorine (total residual) | mg/L | every 6 days | 5 | <0.04 | <0.04 | <0.04 |
| faecal coliforms | CFU/100mL | every 6 days | 5 | 5 | 28 | 67 |
| hydrogen sulphide (unionised) | ug/L | monthly | 1 | - | - | <30 |

Average and percentile limits are only applied annually for routine monitoring data in Table 2.

Effluent quality monitoring results obtained from EPA Points 4 and 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Quakers Hill Water Resource Recovery Facility

April Pollution Monitoring Summary



EPL 1724

Summary period: 01-04-2023 to 30-04-2023

Date obtained: 10-05-2023

Date published: 19-05-2023

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean and 100 percentile data

| EPA Point 4 Site code QH0004 | | Point description: Downstream of the overflow weir in the clean water tank | | | | | |
|--|-----------------|--|------------|-------------|----------------------|-----------------------|---------------|
| pollutant | unit of measure | sampling frequency | 3DGM limit | 3DGM actual | 100 percentile limit | 100 percentile actual | within limits |
| biochemical oxygen demand | mg/L | monthly | 30 | <2 | - | - | yes |
| carbonaceous biochemical oxygen demand | mg/L | monthly | 30 | <2 | - | - | yes |
| nitrogen (total) | mg/L | every 6 days | - | - | 45 | 8.3 | yes |
| phosphorus | mg/L | every 6 days | - | - | 5 | 0.12 | yes |
| total suspended solids | mg/L | monthly | 10 | <2 | - | - | yes |

100 percentile means that 100 % of samples (or all samples) taken must not exceed the limit for that pollutant.

3 Day Geometric Mean (3DGM) is a way to average a set of values and is commonly used with water quality assessments which show a great deal of variability. 3DGM is calculated by multiplying the results of the analysis of three samples collected on three consecutive days and then taking the cubed root of that amount.

Table 2: Routine monitoring data

| EPA Point 4 Site code QH0004 | | Point description: Downstream of the overflow weir in the clean water tank | | | | |
|--|-----------------|--|-------------------|----------------|-------------|----------------|
| pollutant | unit of measure | sampling frequency | number of samples | minimum result | mean result | maximum result |
| aluminium | ug/L | monthly | 1 | - | - | 140 |
| biochemical oxygen demand | mg/L | every 6 days | 5 | <2 | <2 | <2 |
| cadmium | ug/L | monthly | 1 | - | - | <0.1 |
| carbonaceous biochemical oxygen demand | mg/L | every 6 days | 5 | <2 | <2 | <2 |
| chromium | ug/L | monthly | 1 | - | - | 0.5 |
| copper | ug/L | monthly | 1 | - | - | 4.9 |
| manganese | ug/L | monthly | 1 | - | - | 4 |
| nitrogen (ammonia) | mg/L | every 6 days | 5 | 0.01 | 0.01 | 0.01 |
| nitrogen (total) | mg/L | every 6 days | 5 | 4.46 | 6.21 | 8.3 |
| phosphorus | mg/L | every 6 days | 5 | 0.08 | 0.09 | 0.12 |
| total suspended solids | mg/L | every 6 days | 5 | <2 | <2 | <2 |
| zinc | ug/L | monthly | 1 | - | - | 17 |

| EPA Point 5 Site code QH0005 | | Point description: At the outlet of the chlorine contact tank | | | | |
|--|-----------------|---|-------------------|----------------|-------------|----------------|
| pollutant | unit of measure | sampling frequency | number of samples | minimum result | mean result | maximum result |
| Ceriodaphnia dubia immobilisation (EC50) | % Effluent/Vol | monthly | 1 | - | - | 100 |
| chlorine (total residual) | mg/L | every 6 days | 5 | <0.04 | <0.04 | <0.04 |
| faecal coliforms | CFU/100mL | every 6 days | 5 | 14 | 41 | 77 |
| hydrogen sulphide (unionised) | ug/L | monthly | 1 | - | - | <30 |

Average and percentile limits are only applied annually for routine monitoring data in Table 2.

Effluent quality monitoring results obtained from EPA Points 4 and 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Quakers Hill Water Resource Recovery Facility

March Pollution Monitoring Summary



EPL 1724

Summary period: 01-03-2023 to 31-03-2023

Date obtained: 04-04-2023

Date published: 14-04-2023

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean and 100 percentile data

| EPA Point 4 Site code QH0004 | | Point description: Downstream of the overflow weir in the clean water tank | | | | | |
|--|-----------------|--|------------|-------------|----------------------|-----------------------|---------------|
| pollutant | unit of measure | sampling frequency | 3DGM limit | 3DGM actual | 100 percentile limit | 100 percentile actual | within limits |
| biochemical oxygen demand | mg/L | monthly | 30 | <2 | - | - | yes |
| carbonaceous biochemical oxygen demand | mg/L | monthly | 30 | <2 | - | - | yes |
| nitrogen (total) | mg/L | every 6 days | - | - | 45 | 7.6 | yes |
| phosphorus | mg/L | every 6 days | - | - | 5 | 0.11 | yes |
| total suspended solids | mg/L | monthly | 10 | 3 | - | - | yes |

100 percentile means that 100 % of samples (or all samples) taken must not exceed the limit for that pollutant.

3 Day Geometric Mean (3DGM) is a way to average a set of values and is commonly used with water quality assessments which show a great deal of variability. 3DGM is calculated by multiplying the results of the analysis of three samples collected on three consecutive days and then taking the cubed root of that amount.

Table 2: Routine monitoring data

| EPA Point 4 Site code QH0004 | | Point description: Downstream of the overflow weir in the clean water tank | | | | |
|--|-----------------|--|-------------------|----------------|-------------|----------------|
| pollutant | unit of measure | sampling frequency | number of samples | minimum result | mean result | maximum result |
| aluminium | ug/L | monthly | 1 | - | - | 185 |
| biochemical oxygen demand | mg/L | every 6 days | 5 | <2 | <2 | <2 |
| cadmium | ug/L | monthly | 1 | - | - | <0.1 |
| carbonaceous biochemical oxygen demand | mg/L | every 6 days | 5 | <2 | <2 | <2 |
| chromium | ug/L | monthly | 1 | - | - | 0.8 |
| copper | ug/L | monthly | 1 | - | - | 3.9 |
| manganese | ug/L | monthly | 1 | - | - | 10.6 |
| nitrogen (ammonia) | mg/L | every 6 days | 5 | 0.01 | 0.02 | 0.03 |
| nitrogen (total) | mg/L | every 6 days | 5 | 4.25 | 5.79 | 7.6 |
| phosphorus | mg/L | every 6 days | 5 | 0.06 | 0.08 | 0.11 |
| total suspended solids | mg/L | every 6 days | 5 | <2 | <2 | 3 |
| zinc | ug/L | monthly | 1 | - | - | 20 |

| EPA Point 5 Site code QH0005 | | Point description: At the outlet of the chlorine contact tank | | | | |
|--|-----------------|---|-------------------|----------------|-------------|----------------|
| pollutant | unit of measure | sampling frequency | number of samples | minimum result | mean result | maximum result |
| Ceriodaphnia dubia immobilisation (EC50) | % Effluent/Vol | monthly | 1 | - | - | 100 |
| chlorine (total residual) | mg/L | every 6 days | 5 | <0.04 | <0.04 | <0.04 |
| faecal coliforms | CFU/100mL | every 6 days | 5 | 24 | 106 | 290 |
| hydrogen sulphide (unionised) | ug/L | monthly | 1 | - | - | <30 |

Average and percentile limits are only applied annually for routine monitoring data in Table 2.

Effluent quality monitoring results obtained from EPA Points 4 and 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Quakers Hill Water Resource Recovery Facility

February Pollution Monitoring Summary



EPL 1724

Summary period: 01-02-2023 to 28-02-2023

Date obtained: 06-03-2023

Date published: 15-03-2023

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean and 100 percentile data

| EPA Point 4 Site code QH0004 | | Point description: Downstream of the overflow weir in the clean water tank | | | | | |
|--|-----------------|--|------------|-------------|----------------------|-----------------------|---------------|
| pollutant | unit of measure | sampling frequency | 3DGM limit | 3DGM actual | 100 percentile limit | 100 percentile actual | within limits |
| biochemical oxygen demand | mg/L | monthly | 30 | <2 | - | - | yes |
| carbonaceous biochemical oxygen demand | mg/L | monthly | 30 | <2 | - | - | yes |
| nitrogen (total) | mg/L | every 6 days | - | - | 45 | 8.47 | yes |
| phosphorus | mg/L | every 6 days | - | - | 5 | 0.13 | yes |
| total suspended solids | mg/L | monthly | 10 | <2 | - | - | yes |

100 percentile means that 100 % of samples (or all samples) taken must not exceed the limit for that pollutant.

3 Day Geometric Mean (3DGM) is a way to average a set of values and is commonly used with water quality assessments which show a great deal of variability. 3DGM is calculated by multiplying the results of the analysis of three samples collected on three consecutive days and then taking the cubed root of that amount.

Table 2: Routine monitoring data

| EPA Point 4 Site code QH0004 | | Point description: Downstream of the overflow weir in the clean water tank | | | | |
|--|-----------------|--|-------------------|----------------|-------------|----------------|
| pollutant | unit of measure | sampling frequency | number of samples | minimum result | mean result | maximum result |
| aluminium | ug/L | monthly | 1 | - | - | 109 |
| biochemical oxygen demand | mg/L | every 6 days | 4 | <2 | <2 | <2 |
| cadmium | ug/L | monthly | 1 | - | - | <0.1 |
| carbonaceous biochemical oxygen demand | mg/L | every 6 days | 4 | <2 | <2 | <2 |
| chromium | ug/L | monthly | 1 | - | - | 0.6 |
| cobalt | ug/L | bi-annual | 1 | - | - | 0.4 |
| copper | ug/L | monthly | 1 | - | - | 3.8 |
| manganese | ug/L | monthly | 1 | - | - | 4.1 |
| molybdenum | ug/L | bi-annual | 1 | - | - | 2.2 |
| nickel | ug/L | bi-annual | 1 | - | - | 2.5 |
| nitrogen (ammonia) | mg/L | every 6 days | 4 | 0.01 | 0.04 | 0.08 |
| nitrogen (total) | mg/L | every 6 days | 4 | 3.64 | 5.39 | 8.47 |
| phosphorus | mg/L | every 6 days | 4 | 0.08 | 0.11 | 0.13 |
| total suspended solids | mg/L | every 6 days | 4 | <2 | <2 | 2 |
| zinc | ug/L | monthly | 1 | - | - | 12 |

| EPA Point 5 Site code QH0005 | | Point description: At the outlet of the chlorine contact tank | | | | |
|--|-----------------|---|-------------------|----------------|-------------|----------------|
| pollutant | unit of measure | sampling frequency | number of samples | minimum result | mean result | maximum result |
| Ceriodaphnia dubia immobilisation (EC50) | % Effluent/Vol | monthly | 1 | - | - | 100 |
| chlorine (total residual) | mg/L | every 6 days | 5 | <0.04 | <0.04 | <0.04 |
| faecal coliforms | CFU/100mL | every 6 days | 5 | 32 | 43 | 54 |
| hydrogen sulphide (unionised) | ug/L | monthly | 1 | - | - | <30 |

Average and percentile limits are only applied annually for routine monitoring data in Table 2.

Effluent quality monitoring results obtained from EPA Points 4 and 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Quakers Hill Water Resource Recovery Facility

January Pollution Monitoring Summary



EPL 1724

Summary period: 01-01-2023 to 31-01-2023

Date obtained: 08-02-2023

Date published: 15-02-2023

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean and 100 percentile data

| EPA Point 4 Site code QH0004 | | Point description: Downstream of the overflow weir in the clean water tank | | | | | |
|--|-----------------|--|------------|-------------|----------------------|-----------------------|---------------|
| pollutant | unit of measure | sampling frequency | 3DGM limit | 3DGM actual | 100 percentile limit | 100 percentile actual | within limits |
| biochemical oxygen demand | mg/L | monthly | 30 | <2 | - | - | yes |
| carbonaceous biochemical oxygen demand | mg/L | monthly | 30 | <2 | - | - | yes |
| nitrogen (total) | mg/L | every 6 days | - | - | 45 | 6.08 | yes |
| phosphorus | mg/L | every 6 days | - | - | 5 | 0.17 | yes |
| total suspended solids | mg/L | monthly | 10 | <2 | - | - | yes |

100 percentile means that 100 % of samples (or all samples) taken must not exceed the limit for that pollutant.

3 Day Geometric Mean (3DGM) is a way to average a set of values and is commonly used with water quality assessments which show a great deal of variability. 3DGM is calculated by multiplying the results of the analysis of three samples collected on three consecutive days and then taking the cubed root of that amount.

Table 2: Routine monitoring data

| EPA Point 4 Site code QH0004 | | Point description: Downstream of the overflow weir in the clean water tank | | | | |
|--|-----------------|--|-------------------|----------------|-------------|----------------|
| pollutant | unit of measure | sampling frequency | number of samples | minimum result | mean result | maximum result |
| aluminium | ug/L | monthly | 1 | - | - | 141 |
| biochemical oxygen demand | mg/L | every 6 days | 6 | <2 | <2 | <2 |
| cadmium | ug/L | monthly | 1 | - | - | <0.1 |
| carbonaceous biochemical oxygen demand | mg/L | every 6 days | 6 | <2 | <2 | <2 |
| chromium | ug/L | monthly | 1 | - | - | 1.3 |
| copper | ug/L | monthly | 1 | - | - | 3.6 |
| manganese | ug/L | monthly | 1 | - | - | 9.1 |
| nitrogen (ammonia) | mg/L | every 6 days | 6 | 0.01 | 0.1 | 0.41 |
| nitrogen (total) | mg/L | every 6 days | 6 | 4.09 | 4.96 | 6.08 |
| phosphorus | mg/L | every 6 days | 6 | 0.09 | 0.11 | 0.17 |
| total suspended solids | mg/L | every 6 days | 6 | <2 | <2 | <2 |
| zinc | ug/L | monthly | 1 | - | - | 14 |

| EPA Point 5 Site code QH0005 | | Point description: At the outlet of the chlorine contact tank | | | | |
|--|-----------------|---|-------------------|----------------|-------------|----------------|
| pollutant | unit of measure | sampling frequency | number of samples | minimum result | mean result | maximum result |
| Ceriodaphnia dubia immobilisation (EC50) | % Effluent/Vol | monthly | 1 | - | - | 100 |
| chlorine (total residual) | mg/L | every 6 days | 5 | <0.04 | 0.08 | 0.38 |
| faecal coliforms | CFU/100mL | every 6 days | 5 | 4 | 30 | 71 |
| hydrogen sulphide (unionised) | ug/L | monthly | 1 | - | - | <30 |

Average and percentile limits are only applied annually for routine monitoring data in Table 2.

Effluent quality monitoring results obtained from EPA Points 4 and 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Quakers Hill Water Resource Recovery Facility

December Pollution Monitoring Summary



EPL 1724

Summary period: 01-12-2022 to 31-12-2022

Date obtained: 01-01-2023

Date published: 10-01-2023

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean and 100 percentile data

| EPA Point 4 Site code QH0004 | | Point description: Downstream of the overflow weir in the clean water tank | | | | | |
|--|-----------------|--|------------|-------------|----------------------|-----------------------|---------------|
| pollutant | unit of measure | sampling frequency | 3DGM limit | 3DGM actual | 100 percentile limit | 100 percentile actual | within limits |
| biochemical oxygen demand | mg/L | monthly | 30 | <2 | - | - | yes |
| carbonaceous biochemical oxygen demand | mg/L | monthly | 30 | <2 | - | - | yes |
| nitrogen (total) | mg/L | every 6 days | - | - | 45 | 6.16 | yes |
| phosphorus | mg/L | every 6 days | - | - | 5 | 0.29 | yes |
| total suspended solids | mg/L | monthly | 10 | <2 | - | - | yes |

100 percentile means that 100 % of samples (or all samples) taken must not exceed the limit for that pollutant.

3 Day Geometric Mean (3DGM) is a way to average a set of values and is commonly used with water quality assessments which show a great deal of variability. 3DGM is calculated by multiplying the results of the analysis of three samples collected on three consecutive days and then taking the cubed root of that amount.

Table 2: Routine monitoring data

| EPA Point 4 Site code QH0004 | | Point description: Downstream of the overflow weir in the clean water tank | | | | |
|--|-----------------|--|-------------------|----------------|-------------|----------------|
| pollutant | unit of measure | sampling frequency | number of samples | minimum result | mean result | maximum result |
| aluminium | ug/L | monthly | 1 | - | - | 94 |
| biochemical oxygen demand | mg/L | every 6 days | 5 | <2 | <2 | <2 |
| cadmium | ug/L | monthly | 1 | - | - | <0.1 |
| carbonaceous biochemical oxygen demand | mg/L | every 6 days | 5 | <2 | <2 | <2 |
| chromium | ug/L | monthly | 1 | - | - | 0.7 |
| copper | ug/L | monthly | 1 | - | - | 3.4 |
| manganese | ug/L | monthly | 1 | - | - | 2.7 |
| nitrogen (ammonia) | mg/L | every 6 days | 5 | 0.01 | 0.22 | 0.6 |
| nitrogen (total) | mg/L | every 6 days | 5 | 3.85 | 4.57 | 6.16 |
| phosphorus | mg/L | every 6 days | 5 | 0.07 | 0.13 | 0.29 |
| total suspended solids | mg/L | every 6 days | 5 | <2 | <2 | <2 |
| zinc | ug/L | monthly | 1 | - | - | 15 |

| EPA Point 5 Site code QH0005 | | Point description: At the outlet of the chlorine contact tank | | | | |
|--|-----------------|---|-------------------|----------------|-------------|----------------|
| pollutant | unit of measure | sampling frequency | number of samples | minimum result | mean result | maximum result |
| Ceriodaphnia dubia immobilisation (EC50) | % Effluent/Vol | monthly | 1 | - | - | 100 |
| chlorine (total residual) | mg/L | every 6 days | 5 | <0.04 | <0.04 | <0.04 |
| faecal coliforms | CFU/100mL | every 6 days | 5 | <1 | 16 | 34 |
| hydrogen sulphide (unionised) | ug/L | monthly | 1 | - | - | <30 |

Average and percentile limits are only applied annually for routine monitoring data in Table 2.

Effluent quality monitoring results obtained from EPA Points 4 and 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Quakers Hill Water Resource Recovery Facility

November Pollution Monitoring Summary



EPL 1724

Summary period: 01-11-2022 to 30-11-2022

Date obtained: 06-12-2022

Date published: 09-12-2022

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean and 100 percentile data

| EPA Point 4 Site code QH0004 | | Point description: Downstream of the overflow weir in the clean water tank | | | | | |
|--|-----------------|--|------------|-------------|----------------------|-----------------------|---------------|
| pollutant | unit of measure | sampling frequency | 3DGM limit | 3DGM actual | 100 percentile limit | 100 percentile actual | within limits |
| biochemical oxygen demand | mg/L | monthly | 30 | <2 | - | - | yes |
| carbonaceous biochemical oxygen demand | mg/L | monthly | 30 | <2 | - | - | yes |
| nitrogen (total) | mg/L | every 6 days | - | - | 45 | 5.66 | yes |
| phosphorus | mg/L | every 6 days | - | - | 5 | 0.16 | yes |
| total suspended solids | mg/L | monthly | 10 | <2 | - | - | yes |

100 percentile means that 100 % of samples (or all samples) taken must not exceed the limit for that pollutant.

3 Day Geometric Mean (3DGM) is a way to average a set of values and is commonly used with water quality assessments which show a great deal of variability. 3DGM is calculated by multiplying the results of the analysis of three samples collected on three consecutive days and then taking the cubed root of that amount.

Table 2: Routine monitoring data

| EPA Point 4 Site code QH0004 | | Point description: Downstream of the overflow weir in the clean water tank | | | | |
|--|-----------------|--|-------------------|----------------|-------------|----------------|
| pollutant | unit of measure | sampling frequency | number of samples | minimum result | mean result | maximum result |
| aluminium | ug/L | monthly | 1 | - | - | 159 |
| biochemical oxygen demand | mg/L | every 6 days | 5 | <2 | <2 | <2 |
| cadmium | ug/L | monthly | 1 | - | - | <0.1 |
| carbonaceous biochemical oxygen demand | mg/L | every 6 days | 5 | <2 | <2 | <2 |
| chromium | ug/L | monthly | 1 | - | - | 1.4 |
| copper | ug/L | monthly | 1 | - | - | 5.7 |
| nitrogen (ammonia) | mg/L | every 6 days | 5 | 0.01 | 0.03 | 0.06 |
| nitrogen (total) | mg/L | every 6 days | 5 | 3.14 | 4.54 | 5.66 |
| phosphorus | mg/L | every 6 days | 5 | 0.08 | 0.12 | 0.16 |
| total suspended solids | mg/L | every 6 days | 5 | <2 | <2 | 2 |
| zinc | ug/L | monthly | 1 | - | - | 17 |

| EPA Point 5 Site code QH0005 | | Point description: At the outlet of the chlorine contact tank | | | | |
|--|-----------------|---|-------------------|----------------|-------------|----------------|
| pollutant | unit of measure | sampling frequency | number of samples | minimum result | mean result | maximum result |
| Ceriodaphnia dubia immobilisation (EC50) | % Effluent/Vol | monthly | 1 | - | - | 100 |
| chlorine (total residual) | mg/L | every 6 days | 5 | <0.04 | <0.04 | <0.04 |
| faecal coliforms | CFU/100mL | every 6 days | 5 | 4 | 18 | 53 |
| hydrogen sulphide (unionised) | ug/L | monthly | 1 | - | - | <30 |

Average and percentile limits are only applied annually for routine monitoring data in Table 2.

Effluent quality monitoring results obtained from EPA Points 4 and 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Quakers Hill Water Resource Recovery Facility

October Pollution Monitoring Summary



EPL 1724

Summary period: 01-10-2022 to 31-10-2022

Date obtained: 03-11-2022

Date published: 16-11-2022

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean and 100 percentile data

| EPA Point 4 Site code QH0004 | | Point description: Downstream of the overflow weir in the clean water tank | | | | | |
|--|-----------------|--|------------|-------------|----------------------|-----------------------|---------------|
| pollutant | unit of measure | sampling frequency | 3DGM limit | 3DGM actual | 100 percentile limit | 100 percentile actual | within limits |
| biochemical oxygen demand | mg/L | monthly | 30 | <2 | - | - | yes |
| carbonaceous biochemical oxygen demand | mg/L | monthly | 30 | <2 | - | - | yes |
| nitrogen (total) | mg/L | every 6 days | - | - | 45 | 4.44 | yes |
| phosphorus | mg/L | every 6 days | - | - | 5 | 0.12 | yes |
| total suspended solids | mg/L | monthly | 10 | <2 | - | - | yes |

100 percentile means that 100 % of samples (or all samples) taken must not exceed the limit for that pollutant.

3 Day Geometric Mean (3DGM) is a way to average a set of values and is commonly used with water quality assessments which show a great deal of variability. 3DGM is calculated by multiplying the results of the analysis of three samples collected on three consecutive days and then taking the cubed root of that amount.

Table 2: Routine monitoring data

| EPA Point 4 Site code QH0004 | | Point description: Downstream of the overflow weir in the clean water tank | | | | |
|--|-----------------|--|-------------------|----------------|-------------|----------------|
| pollutant | unit of measure | sampling frequency | number of samples | minimum result | mean result | maximum result |
| aluminium | ug/L | monthly | 1 | - | - | 89 |
| biochemical oxygen demand | mg/L | every 6 days | 5 | <2 | <2 | 4 |
| cadmium | ug/L | monthly | 1 | - | - | <0.1 |
| carbonaceous biochemical oxygen demand | mg/L | every 6 days | 5 | <2 | <2 | <2 |
| chromium | ug/L | monthly | 1 | - | - | 0.5 |
| copper | ug/L | monthly | 1 | - | - | 2.5 |
| nitrogen (ammonia) | mg/L | every 6 days | 5 | 0.01 | 0.03 | 0.07 |
| nitrogen (total) | mg/L | every 6 days | 5 | 2.66 | 3.44 | 4.44 |
| phosphorus | mg/L | every 6 days | 5 | 0.08 | 0.1 | 0.12 |
| total suspended solids | mg/L | every 6 days | 5 | <2 | <2 | <2 |
| zinc | ug/L | monthly | 1 | - | - | 13 |

| EPA Point 5 Site code QH0005 | | Point description: At the outlet of the chlorine contact tank | | | | |
|--|-----------------|---|-------------------|----------------|-------------|----------------|
| pollutant | unit of measure | sampling frequency | number of samples | minimum result | mean result | maximum result |
| Ceriodaphnia dubia immobilisation (EC50) | % Effluent/Vol | monthly | 1 | - | - | 100 |
| chlorine (total residual) | mg/L | every 6 days | 5 | <0.04 | <0.04 | 0.05 |
| faecal coliforms | CFU/100mL | every 6 days | 5 | <1 | 26 | 120 |
| hydrogen sulphide (unionised) | ug/L | monthly | 1 | - | - | <30 |

Average and percentile limits are only applied annually for routine monitoring data in Table 2.

Effluent quality monitoring results obtained from EPA Points 4 and 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Quakers Hill Water Resource Recovery Facility

September Pollution Monitoring Summary



EPL 1724

Summary period: 01-09-2022 to 30-09-2022

Date obtained: 10-10-2022

Date published: 14-10-2022

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean and 100 percentile data

| EPA Point 4 Site code QH0004 | | Point description: Downstream of the overflow weir in the clean water tank | | | | | |
|--|-----------------|--|------------|-------------|----------------------|-----------------------|---------------|
| pollutant | unit of measure | sampling frequency | 3DGM limit | 3DGM actual | 100 percentile limit | 100 percentile actual | within limits |
| biochemical oxygen demand | mg/L | monthly | 30 | <2 | - | - | yes |
| carbonaceous biochemical oxygen demand | mg/L | monthly | 30 | <2 | - | - | yes |
| nitrogen (total) | mg/L | every 6 days | - | - | 45 | 4.42 | yes |
| phosphorus | mg/L | every 6 days | - | - | 5 | 0.14 | yes |
| total suspended solids | mg/L | monthly | 10 | <2 | - | - | yes |

100 percentile means that 100 % of samples (or all samples) taken must not exceed the limit for that pollutant.

3 Day Geometric Mean (3DGM) is a way to average a set of values and is commonly used with water quality assessments which show a great deal of variability. 3DGM is calculated by multiplying the results of the analysis of three samples collected on three consecutive days and then taking the cubed root of that amount.

Table 2: Routine monitoring data

| EPA Point 4 Site code QH0004 | | Point description: Downstream of the overflow weir in the clean water tank | | | | |
|--|-----------------|--|-------------------|----------------|-------------|----------------|
| pollutant | unit of measure | sampling frequency | number of samples | minimum result | mean result | maximum result |
| aluminium | ug/L | monthly | 1 | - | - | 108 |
| biochemical oxygen demand | mg/L | every 6 days | 5 | <2 | <2 | <2 |
| cadmium | ug/L | monthly | 1 | - | - | <0.1 |
| carbonaceous biochemical oxygen demand | mg/L | every 6 days | 5 | <2 | <2 | <2 |
| chromium | ug/L | monthly | 1 | - | - | 0.9 |
| copper | ug/L | monthly | 1 | - | - | 2.8 |
| nitrogen (ammonia) | mg/L | every 6 days | 5 | <0.01 | 0.04 | 0.16 |
| nitrogen (total) | mg/L | every 6 days | 5 | 3.29 | 3.63 | 4.42 |
| phosphorus | mg/L | every 6 days | 5 | 0.07 | 0.1 | 0.14 |
| total suspended solids | mg/L | every 6 days | 5 | <2 | <2 | <2 |
| zinc | ug/L | monthly | 1 | - | - | 17 |

| EPA Point 5 Site code QH0005 | | Point description: At the outlet of the chlorine contact tank | | | | |
|--|-----------------|---|-------------------|----------------|-------------|----------------|
| pollutant | unit of measure | sampling frequency | number of samples | minimum result | mean result | maximum result |
| Ceriodaphnia dubia immobilisation (EC50) | % Effluent/Vol | monthly | 1 | - | - | 100 |
| chlorine (total residual) | mg/L | every 6 days | 5 | <0.04 | <0.04 | <0.04 |
| faecal coliforms | CFU/100mL | every 6 days | 5 | 1 | 6 | 16 |
| hydrogen sulphide (unionised) | ug/L | monthly | 1 | - | - | <30 |

Average and percentile limits are only applied annually for routine monitoring data in Table 2.

Effluent quality monitoring results obtained from EPA Points 4 and 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Quakers Hill Water Resource Recovery Facility

August Pollution Monitoring Summary



EPL 1724

Summary period: 01-08-2022 to 31-08-2022

Date obtained: 08-09-2022

Date published: 15-09-2022

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean and 100 percentile data

| EPA Point 4 Site code QH0004 | | Point description: Downstream of the overflow weir in the clean water tank | | | | | |
|--|-----------------|--|------------|-------------|----------------------|-----------------------|---------------|
| pollutant | unit of measure | sampling frequency | 3DGM limit | 3DGM actual | 100 percentile limit | 100 percentile actual | within limits |
| biochemical oxygen demand | mg/L | monthly | 30 | <2 | - | - | yes |
| carbonaceous biochemical oxygen demand | mg/L | monthly | 30 | <2 | - | - | yes |
| nitrogen (total) | mg/L | every 6 days | - | - | 45 | 4.24 | yes |
| phosphorus | mg/L | every 6 days | - | - | 5 | 0.08 | yes |
| total suspended solids | mg/L | monthly | 10 | <2 | - | - | yes |

100 percentile means that 100 % of samples (or all samples) taken must not exceed the limit for that pollutant.

3 Day Geometric Mean (3DGM) is a way to average a set of values and is commonly used with water quality assessments which show a great deal of variability. 3DGM is calculated by multiplying the results of the analysis of three samples collected on three consecutive days and then taking the cubed root of that amount.

Table 2: Routine monitoring data

| EPA Point 4 Site code QH0004 | | Point description: Downstream of the overflow weir in the clean water tank | | | | |
|--|-----------------|--|-------------------|----------------|-------------|----------------|
| pollutant | unit of measure | sampling frequency | number of samples | minimum result | mean result | maximum result |
| aluminium | ug/L | monthly | 1 | - | - | 178 |
| biochemical oxygen demand | mg/L | every 6 days | 5 | <2 | <2 | <2 |
| cadmium | ug/L | monthly | 1 | - | - | <0.1 |
| carbonaceous biochemical oxygen demand | mg/L | every 6 days | 5 | <2 | <2 | <2 |
| chromium | ug/L | monthly | 1 | - | - | 0.5 |
| cobalt | ug/L | bi-annual | 1 | - | - | 0.6 |
| copper | ug/L | monthly | 1 | - | - | 2.3 |
| manganese | ug/L | bi-annual | 1 | - | - | 36.3 |
| molybdenum | ug/L | bi-annual | 1 | - | - | 0.5 |
| nickel | ug/L | monthly | 1 | - | - | 1.8 |
| nitrogen (ammonia) | mg/L | every 6 days | 5 | <0.01 | 0.03 | 0.14 |
| nitrogen (total) | mg/L | every 6 days | 5 | 2.87 | 3.6 | 4.24 |
| phosphorus | mg/L | every 6 days | 5 | 0.05 | 0.06 | 0.08 |
| total suspended solids | mg/L | every 6 days | 5 | <2 | <2 | <2 |
| zinc | ug/L | monthly | 1 | - | - | 24 |

| EPA Point 5 Site code QH0005 | | Point description: At the outlet of the chlorine contact tank | | | | |
|--|-----------------|---|-------------------|----------------|-------------|----------------|
| pollutant | unit of measure | sampling frequency | number of samples | minimum result | mean result | maximum result |
| Ceriodaphnia dubia immobilisation (EC50) | % Effluent/Vol | monthly | 1 | - | - | 100 |
| chlorine (total residual) | mg/L | every 6 days | 5 | <0.04 | <0.04 | <0.04 |
| faecal coliforms | CFU/100mL | every 6 days | 5 | 2 | 6 | 12 |
| hydrogen sulphide (unionised) | ug/L | monthly | 1 | - | - | <30 |

Average and percentile limits are only applied annually for routine monitoring data in Table 2.

Effluent quality monitoring results obtained from EPA Points 4 and 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Quakers Hill Water Resource Recovery Facility

July Pollution Monitoring Summary



EPL 1724

Summary period: 01-07-2022 to 31-07-2022

Date obtained: 11-08-2022

Date published: 25-08-2022

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean and 100 percentile data

| EPA Point 4 Site code QH0004 | | Point description: Downstream of the overflow weir in the clean water tank | | | | | |
|--|-----------------|--|------------|-------------|----------------------|-----------------------|---------------|
| pollutant | unit of measure | sampling frequency | 3DGM limit | 3DGM actual | 100 percentile limit | 100 percentile actual | within limits |
| biochemical oxygen demand | mg/L | monthly | 30 | <2 | - | - | yes |
| carbonaceous biochemical oxygen demand | mg/L | monthly | 30 | <2 | - | - | yes |
| nitrogen (total) | mg/L | every 6 days | - | - | 45 | 4.71 | yes |
| phosphorus | mg/L | every 6 days | - | - | 5 | 0.26 | yes |
| total suspended solids | mg/L | monthly | 10 | <2 | - | - | yes |

100 percentile means that 100 % of samples (or all samples) taken must not exceed the limit for that pollutant.

3 Day Geometric Mean (3DGM) is a way to average a set of values and is commonly used with water quality assessments which show a great deal of variability. 3DGM is calculated by multiplying the results of the analysis of three samples collected on three consecutive days and then taking the cubed root of that amount.

Table 2: Routine monitoring data

| EPA Point 4 Site code QH0004 | | Point description: Downstream of the overflow weir in the clean water tank | | | | |
|--|-----------------|--|-------------------|----------------|-------------|----------------|
| pollutant | unit of measure | sampling frequency | number of samples | minimum result | mean result | maximum result |
| aluminium | ug/L | monthly | 1 | - | - | 102 |
| biochemical oxygen demand | mg/L | every 6 days | 5 | <2 | <2 | <2 |
| cadmium | ug/L | monthly | 1 | - | - | <0.1 |
| carbonaceous biochemical oxygen demand | mg/L | every 6 days | 5 | <2 | <2 | <2 |
| chromium | ug/L | monthly | 1 | - | - | 0.3 |
| copper | ug/L | monthly | 1 | - | - | 2.9 |
| nitrogen (ammonia) | mg/L | every 6 days | 5 | 0.01 | 0.09 | 0.35 |
| nitrogen (total) | mg/L | every 6 days | 5 | 2.98 | 3.82 | 4.71 |
| phosphorus | mg/L | every 6 days | 5 | 0.05 | 0.1 | 0.26 |
| total suspended solids | mg/L | every 6 days | 5 | <2 | <2 | 2 |
| zinc | ug/L | monthly | 1 | - | - | 18 |

| EPA Point 5 Site code QH0005 | | Point description: At the outlet of the chlorine contact tank | | | | |
|--|-----------------|---|-------------------|----------------|-------------|----------------|
| pollutant | unit of measure | sampling frequency | number of samples | minimum result | mean result | maximum result |
| Ceriodaphnia dubia immobilisation (EC50) | % Effluent/Vol | monthly | 1 | - | - | 100 |
| chlorine (total residual) | mg/L | every 6 days | 5 | <0.04 | <0.04 | 0.04 |
| faecal coliforms | CFU/100mL | every 6 days | 5 | 5 | 9 | 17 |
| hydrogen sulphide (unionised) | ug/L | monthly | 1 | - | - | <30 |

Average and percentile limits are only applied annually for routine monitoring data in Table 2.

Effluent quality monitoring results obtained from EPA Points 4 and 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).