

North Richmond Water Resource Recovery Facility

June Pollution Monitoring Summary



EPL 190

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

Date obtained: 05-07-2023

Date published: 19-07-2023

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 4 Site code NR0004		Point description: Downstream of the weir from the disinfection facilities			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
biochemical oxygen demand	mg/L	monthly	30	<2	yes
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	10	2	yes

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 NR0004		Point description: Downstream of the weir from the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	301
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
copper	ug/L	monthly	1	-	-	4.4
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	9
nitrogen (ammonia)	mg/L	every 6 days	5	0.75	0.92	1.03
nitrogen (total)	mg/L	every 6 days	5	7.3	7.64	8.49
phosphorus (total)	mg/L	every 6 days	5	0.08	0.09	0.11
total suspended solids	mg/L	every 6 days	5	<2	<2	2
zinc	ug/L	monthly	1	-	-	35

EPA Point 5 Site code NR0005		Point description: Outlet of the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
faecal coliforms	CFU/100mL	every 6 days	5	<1	2	4
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).

North Richmond Water Resource Recovery Facility

May Pollution Monitoring Summary



EPL 190

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

Date obtained: 06-06-2023

Date published: 13-06-2023

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 4 Site code NR0004		Point description: Downstream of the weir from the disinfection facilities			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
biochemical oxygen demand	mg/L	monthly	30	<2	yes
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	10	2	yes

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 NR0004		Point description: Downstream of the weir from the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	241
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
copper	ug/L	monthly	1	-	-	4.8
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	13
nitrogen (ammonia)	mg/L	every 6 days	5	0.4	0.6	0.96
nitrogen (total)	mg/L	every 6 days	5	6.38	7.44	8.13
phosphorus (total)	mg/L	every 6 days	5	0.09	0.16	0.31
total suspended solids	mg/L	every 6 days	5	<2	<2	3
zinc	ug/L	monthly	1	-	-	24

EPA Point 5 Site code NR0005		Point description: Outlet of the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
faecal coliforms	CFU/100mL	every 6 days	5	1	9	15
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).

North Richmond Water Resource Recovery Facility

April Pollution Monitoring Summary



EPL 190

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 data

EPA Point 4 Site code NR0004		Point description: Downstream of the weir from the disinfection facilities			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
biochemical oxygen demand	mg/L	monthly	30	<2	yes
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	10	2	yes

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 NR0004		Point description: Downstream of the weir from the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	227
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
copper	ug/L	monthly	1	-	-	3.8
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	17
nitrogen (ammonia)	mg/L	every 6 days	5	0.27	0.42	0.51
nitrogen (total)	mg/L	every 6 days	5	6.07	6.71	7.05
phosphorus (total)	mg/L	every 6 days	5	0.12	0.17	0.26
total suspended solids	mg/L	every 6 days	5	2	3	5
zinc	ug/L	monthly	1	-	-	19

EPA Point 5 Site code NR0005		Point description: Outlet of the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
faecal coliforms	CFU/100mL	every 6 days	5	6	24	51
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).

North Richmond Water Resource Recovery Facility

March Pollution Monitoring Summary



EPL 190

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

Date obtained: 12-04-2023

Date published: 14-04-2023

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 4 Site code NR0004		Point description: Downstream of the weir from the disinfection facilities			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
biochemical oxygen demand	mg/L	monthly	30	<2	yes
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	10	3	yes

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 NR0004		Point description: Downstream of the weir from the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	288
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	2
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
copper	ug/L	monthly	1	-	-	3.7
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	23
nitrogen (ammonia)	mg/L	every 6 days	5	0.58	0.71	0.89
nitrogen (total)	mg/L	every 6 days	5	5.54	5.99	6.8
phosphorus (total)	mg/L	every 6 days	5	0.22	0.29	0.42
total suspended solids	mg/L	every 6 days	5	<2	3	5
zinc	ug/L	monthly	1	-	-	18

EPA Point 5 Site code NR0005		Point description: Outlet of the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
faecal coliforms	CFU/100mL	every 6 days	6	3	1449	8,600
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).

North Richmond Water Resource Recovery Facility

February Pollution Monitoring Summary



EPL 190

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

Date obtained: 08-03-2023

Date published: 17-03-2023

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 4 Site code NR0004		Point description: Downstream of the weir from the disinfection facilities			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
biochemical oxygen demand	mg/L	monthly	30	3	yes
carbonaceous biochemical oxygen demand	mg/L	monthly	30	2	yes
total suspended solids	mg/L	monthly	10	4	yes

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 NR0004		Point description: Downstream of the weir from the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	436
biochemical oxygen demand	mg/L	every 6 days	5	<2	2	3
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	2
copper	ug/L	monthly	1	-	-	4
cyanide	ug/L	bi-annual	1	-	-	<5
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	38
nitrogen (ammonia)	mg/L	every 6 days	5	0.86	1.09	1.31
nitrogen (total)	mg/L	every 6 days	5	5.66	7.84	9.32
phosphorus (total)	mg/L	every 6 days	5	0.15	0.33	0.61
total suspended solids	mg/L	every 6 days	5	3	4	8
zinc	ug/L	monthly	1	-	-	23

EPA Point 5 Site code NR0005		Point description: Outlet of the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
faecal coliforms	CFU/100mL	every 6 days	4	26	107	320
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).

North Richmond Water Resource Recovery Facility

January Pollution Monitoring Summary



EPL 190

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

Date obtained: 06-02-2023

Date published: 15-02-2023

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 4 Site code NR0004		Point description: Downstream of the weir from the disinfection facilities			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
biochemical oxygen demand	mg/L	monthly	30	2	yes
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	10	6	yes

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 NR0004		Point description: Downstream of the weir from the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	385
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	3
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
copper	ug/L	monthly	1	-	-	6.8
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	10
nitrogen (ammonia)	mg/L	every 6 days	5	0.28	0.84	1.43
nitrogen (total)	mg/L	every 6 days	5	5.67	6.97	8.06
phosphorus (total)	mg/L	every 6 days	5	0.28	0.43	0.62
total suspended solids	mg/L	every 6 days	5	3	4	5
zinc	ug/L	monthly	1	-	-	29

EPA Point 5 Site code NR0005		Point description: Outlet of the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
faecal coliforms	CFU/100mL	every 6 days	5	23	43	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).

North Richmond Water Resource Recovery Facility

December Pollution Monitoring Summary



EPL 190

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

Date obtained: 10-01-2023

Date published: 18-01-2023

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 4 Site code NR0004		Point description: Downstream of the weir from the disinfection facilities			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
biochemical oxygen demand	mg/L	monthly	30	<2	yes
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	10	3	yes

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 NR0004		Point description: Downstream of the weir from the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	374
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	4
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
copper	ug/L	monthly	1	-	-	7
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	16
nitrogen (ammonia)	mg/L	every 6 days	5	0.45	0.74	1.19
nitrogen (total)	mg/L	every 6 days	5	6.08	7.65	9.31
phosphorus (total)	mg/L	every 6 days	5	0.15	0.36	0.55
total suspended solids	mg/L	every 6 days	5	<2	2	5
zinc	ug/L	monthly	1	-	-	27

EPA Point 5 Site code NR0005		Point description: Outlet of the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
faecal coliforms	CFU/100mL	every 6 days	6	3	61	270
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).

North Richmond Water Resource Recovery Facility

November Pollution Monitoring Summary



EPL 190

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

Date obtained: 09-12-2022

Date published: 16-12-2022

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 4 Site code NR0004		Point description: Downstream of the weir from the disinfection facilities				
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits	
biochemical oxygen demand	mg/L	monthly	30	<2	yes	
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes	
total suspended solids	mg/L	monthly	10	2	yes	

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 NR0004		Point description: Downstream of the weir from the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	263
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
copper	ug/L	monthly	1	-	-	3.7
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	32
nitrogen (ammonia)	mg/L	every 6 days	5	0.39	0.73	1.05
nitrogen (total)	mg/L	every 6 days	5	5.61	5.77	6.07
phosphorus (total)	mg/L	every 6 days	5	0.10	0.12	0.15
total suspended solids	mg/L	every 6 days	5	<2	2	4
zinc	ug/L	monthly	1	-	-	20

EPA Point 5 Site code NR0005		Point description: Outlet of the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
faecal coliforms	CFU/100mL	every 6 days	5	1	33	130
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).

North Richmond Water Resource Recovery Facility

October Pollution Monitoring Summary



EPL 190

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

Date obtained: 07-11-2022

Date published: 16-11-2022

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 4 Site code NR0004		Point description: Downstream of the weir from the disinfection facilities			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
biochemical oxygen demand	mg/L	monthly	30	2	yes
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	10	5	yes

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 NR0004		Point description: Downstream of the weir from the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	622
biochemical oxygen demand	mg/L	every 6 days	6	<2	<2	2
carbonaceous biochemical oxygen demand	mg/L	every 6 days	6	<2	<2	<2
copper	ug/L	monthly	1	-	-	3.7
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	34
nitrogen (ammonia)	mg/L	every 6 days	6	1.1	1.29	1.5
nitrogen (total)	mg/L	every 6 days	6	5.84	6.8	8.31
phosphorus (total)	mg/L	every 6 days	6	0.16	0.24	0.3
total suspended solids	mg/L	every 6 days	6	4	6	10
zinc	ug/L	monthly	1	-	-	21

EPA Point 5 Site code NR0005		Point description: Outlet of the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
faecal coliforms	CFU/100mL	every 6 days	5	1	50	150
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).

North Richmond Water Resource Recovery Facility

September Pollution Monitoring Summary



EPL 190

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

Date obtained: 06-10-2022

Date published: 14-10-2022

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 4 Site code NR0004		Point description: Downstream of the weir from the disinfection facilities			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
biochemical oxygen demand	mg/L	monthly	30	2	yes
carbonaceous biochemical oxygen demand	mg/L	monthly	30	2	yes
total suspended solids	mg/L	monthly	10	5	yes

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 NR0004		Point description: Downstream of the weir from the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	555
biochemical oxygen demand	mg/L	every 6 days	5	2	2.2	3
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	2
copper	ug/L	monthly	1	-	-	3.9
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	41
nitrogen (ammonia)	mg/L	every 6 days	5	1.16	1.28	1.48
nitrogen (total)	mg/L	every 6 days	5	5.87	6.37	6.75
phosphorus (total)	mg/L	every 6 days	5	0.17	0.19	0.22
total suspended solids	mg/L	every 6 days	5	5	6	7
zinc	ug/L	monthly	1	-	-	22

EPA Point 5 Site code NR0005		Point description: Outlet of the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
faecal coliforms	CFU/100mL	every 6 days	5	<1	5	11
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).

North Richmond Water Resource Recovery Facility

August Pollution Monitoring Summary



EPL 190

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

Date obtained: 05-09-2022

Date published: 09-09-2022

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 4 Site code NR0004		Point description: Downstream of the weir from the disinfection facilities			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
biochemical oxygen demand	mg/L	monthly	30	2	yes
carbonaceous biochemical oxygen demand	mg/L	monthly	30	2	yes
total suspended solids	mg/L	monthly	10	6	yes

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 NR0004		Point description: Downstream of the weir from the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	666
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	3
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	2
copper	ug/L	monthly	1	-	-	3.9
cyanide	ug/L	bi-annual	1	-	-	<5
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	53
nitrogen (ammonia)	mg/L	every 6 days	5	1.76	1.95	2.05
nitrogen (total)	mg/L	every 6 days	5	5.99	6.89	7.5
phosphorus (total)	mg/L	every 6 days	5	0.11	0.16	0.22
total suspended solids	mg/L	every 6 days	5	2	5	9
zinc	ug/L	monthly	1	-	-	26

EPA Point 5 Site code NR0005		Point description: Outlet of the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
faecal coliforms	CFU/100mL	every 6 days	5	<1	5	23
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).

North Richmond Water Resource Recovery Facility

July Pollution Monitoring Summary



EPL 190

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

Date obtained: 08-08-2022

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Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 4 Site code NR0004		Point description: Downstream of the weir from the disinfection facilities			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
biochemical oxygen demand	mg/L	monthly	30	<2	yes
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	10	6	yes

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 NR0004		Point description: Downstream of the weir from the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	835
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	5
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	3
copper	ug/L	monthly	1	-	-	3.4
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	58
nitrogen (ammonia)	mg/L	every 6 days	5	0.75	1.11	1.62
nitrogen (total)	mg/L	every 6 days	5	4.32	5.46	6.34
phosphorus (total)	mg/L	every 6 days	5	0.08	0.16	0.23
total suspended solids	mg/L	every 6 days	5	4	7	12
zinc	ug/L	monthly	1	-	-	22

EPA Point 5 Site code NR0005		Point description: Outlet of the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
faecal coliforms	CFU/100mL	every 6 days	5	1	1521	7,600
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).