North Richmond Water Resource Recovery Facility
March Pollution Monitoring Summary

EPL 190

Summary period: 01-03-2024 to 31-03-2024
Date obtained: 08-04-2024
Date published: 18-04-2024

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
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	-	-	496
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
copper	ug/L	monthly	1	-	-	7.8
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	34
nitrogen (ammonia)	mg/L	every 6 days	5	0.46	0.55	0.61
nitrogen (total)	mg/L	every 6 days	5	8.38	9.37	10.3
phosphorus (total)	mg/L	every 6 days	5	0.4	0.45	0.52
total suspended solids	mg/L	every 6 days	5	<2	3	4
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	6	<1	735	4,400
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: 01-02-2024 to 29-02-2024
Date obtained: 12-03-2024
Date published: 25-03-2024

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
total suspended solids	mg/L	monthly	10	8	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	-	-	650
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	3
copper	ug/L	monthly	1	-	-	11.4
cyanide	ug/L	bi-annually	1	-	-	<5
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	52
nitrogen (ammonia)	mg/L	every 6 days	5	0.65	1.68	3.33
nitrogen (total)	mg/L	every 6 days	5	9.38	13.38	17.7
phosphorus (total)	mg/L	every 6 days	5	0.57	1.16	2.18
total suspended solids	mg/L	every 6 days	5	5	8	15
zinc	ug/L	monthly	1	-	-	33

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	<1	1231	4,900
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: 01-01-2024 to 31-01-2024
Date obtained: 07-02-2024
Date published: 19-02-2024

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
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	-	-	669
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
copper	ug/L	monthly	1	-	-	5.5
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	55
nitrogen (ammonia)	mg/L	every 6 days	5	0.74	0.96	1.57
nitrogen (total)	mg/L	every 6 days	5	8.16	9.31	10.1
phosphorus (total)	mg/L	every 6 days	5	0.31	0.38	0.5
total suspended solids	mg/L	every 6 days	5	3	4	5
zinc	ug/L	monthly	1	-	-	16

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	2	22	52
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: 01-12-2023 to 31-12-2023
Date obtained: 10-01-2024
Date published: 22-01-2024

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
total suspended solids	mg/L	monthly	10	9	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	-	-	558
biochemical oxygen demand	mg/L	every 6 days	6	<2	<2	3
copper	ug/L	monthly	1	-	-	8.9
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	34
nitrogen (ammonia)	mg/L	every 6 days	6	0.28	0.53	0.9
nitrogen (total)	mg/L	every 6 days	6	8.27	9.42	10.9
phosphorus (total)	mg/L	every 6 days	6	0.25	0.41	0.66
total suspended solids	mg/L	every 6 days	6	2	5	8
zinc	ug/L	monthly	1	-	-	31

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	3	884	2,200
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: 01-11-2023 to 30-11-2023
Date obtained: 06-12-2023
Date published: 14-12-2023

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
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	-	-	343
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	3
copper	ug/L	monthly	1	-	-	8.8
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	51
nitrogen (ammonia)	mg/L	every 6 days	5	0.44	0.66	0.84
nitrogen (total)	mg/L	every 6 days	5	7.67	8.77	9.86
phosphorus (total)	mg/L	every 6 days	5	0.2	0.26	0.33
total suspended solids	mg/L	every 6 days	5	2	3	5
zinc	ug/L	monthly	1	-	-	33

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	20	138	350
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: 01-10-2023 to 31-10-2023
Date obtained: 03-11-2023
Date published: 17-11-2023

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
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	-	-	326
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	4
copper	ug/L	monthly	1	-	-	7.3
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	21
nitrogen (ammonia)	mg/L	every 6 days	5	0.32	0.89	1.44
nitrogen (total)	mg/L	every 6 days	5	8.42	9.17	9.85
phosphorus (total)	mg/L	every 6 days	5	0.14	0.2	0.26
total suspended solids	mg/L	every 6 days	5	3	5	6
zinc	ug/L	monthly	1	-	-	32

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	2	82	260
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: 01-09-2023 to 30-09-2023
Date obtained: 09-10-2023
Date published: 13-10-2023

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
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	-	-	424
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	2
copper	ug/L	monthly	1	-	-	4.1
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	19
nitrogen (ammonia)	mg/L	every 6 days	5	1.23	1.39	1.47
nitrogen (total)	mg/L	every 6 days	5	7.16	7.86	8.63
phosphorus (total)	mg/L	every 6 days	5	0.11	0.16	0.21
total suspended solids	mg/L	every 6 days	5	3	4	4
zinc	ug/L	monthly	1	-	-	38

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	55	260
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: 01-08-2023 to 31-08-2023
Date obtained: 05-09-2023
Date published: 14-09-2023

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
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	-	-	743
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	2
copper	ug/L	monthly	1	-	-	5.3
cyanide	ug/L	bi-annually	1	-	-	<5
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	21
nitrogen (ammonia)	mg/L	every 6 days	5	0.77	1.08	1.44
nitrogen (total)	mg/L	every 6 days	5	6.15	8.38	11.2
phosphorus (total)	mg/L	every 6 days	5	0.17	0.25	0.38
total suspended solids	mg/L	every 6 days	5	4	5	8
zinc	ug/L	monthly	1	-	-	28

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	7	30
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: 01-07-2023 to 31-07-2023
Date obtained: 05-08-2023
Date published: 15-08-2023

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
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	-	-	303
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
copper	ug/L	monthly	1	-	-	3.6
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	18
nitrogen (ammonia)	mg/L	every 6 days	5	0.95	1.14	1.47
nitrogen (total)	mg/L	every 6 days	5	6.06	7.29	8.07
phosphorus (total)	mg/L	every 6 days	5	0.07	0.11	0.18
total suspended solids	mg/L	every 6 days	5	<2	2	8
zinc	ug/L	monthly	1	-	-	37

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	44
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).