

# St Marys Water Resource Recovery Facility

## March Pollution Monitoring Summary



### EPL 1729

Summary period: 01-03-2024 to 31-03-2024

Date obtained: 05-04-2024

Date published: 18-04-2024

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

**Table 1: 3 Day Geometric Mean and 100 percentile data**

EPA Point 5 Site code SM0005		Point description: At the outlet of the chlorine contact 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
nitrogen (total)	mg/L	every 6 days	-	-	45	6.13	yes
phosphorus	mg/L	every 6 days	-	-	5	0.04	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 5 Site code SM0005		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
aluminium	ug/L	monthly	1	-	-	47
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
chlorine (total residual)	mg/L	every 6 days	5	<0.04	<0.04	<0.04
copper	ug/L	monthly	1	-	-	14
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	<1	1	3
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
iron	ug/L	monthly	1	-	-	68
nickel	ug/L	monthly	1	-	-	4
nitrogen (ammonia)	mg/L	every 6 days	5	0.02	0.02	0.02
nitrogen (total)	mg/L	every 6 days	5	2.46	4.33	6.13
phosphorus	mg/L	every 6 days	5	0.02	0.03	0.04
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	19

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

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

# St Marys Water Resource Recovery Facility

## February Pollution Monitoring Summary



### EPL 1729

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 and 100 percentile data**

EPA Point 5 Site code SM0005		Point description: At the outlet of the chlorine contact 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
nitrogen (total)	mg/L	every 6 days	-	-	45	8.14	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 5 Site code SM0005		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
aluminium	ug/L	monthly	1	-	-	55
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
chlorine (total residual)	mg/L	every 6 days	5	<0.04	<0.04	<0.04
copper	ug/L	monthly	1	-	-	6.8
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	<1	1	4
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
iron	ug/L	monthly	1	-	-	61
nickel	ug/L	monthly	1	-	-	3.1
nitrogen (ammonia)	mg/L	every 6 days	5	0.02	0.06	0.23
nitrogen (total)	mg/L	every 6 days	5	3.71	5.43	8.14
phosphorus	mg/L	every 6 days	5	0.03	0.06	0.12
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	19

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

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

# St Marys Water Resource Recovery Facility

## January Pollution Monitoring Summary



### EPL 1729

Summary period: 01-01-2024 to 31-01-2024

Date obtained: 04-02-2024

Date published: 15-02-2024

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

**Table 1: 3 Day Geometric Mean and 100 percentile data**

EPA Point 5 Site code SM0005		Point description: At the outlet of the chlorine contact 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
nitrogen (total)	mg/L	every 6 days	-	-	45	6.18	yes
phosphorus	mg/L	every 6 days	-	-	5	0.04	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 5 Site code SM0005		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
aluminium	ug/L	monthly	1	-	-	38
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
chlorine (total residual)	mg/L	every 6 days	5	<0.04	<0.04	<0.04
copper	ug/L	monthly	1	-	-	7.8
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	<1	7	14
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
iron	ug/L	monthly	1	-	-	55
nickel	ug/L	monthly	1	-	-	2.9
nitrogen (ammonia)	mg/L	every 6 days	5	0.02	0.02	0.02
nitrogen (total)	mg/L	every 6 days	5	3.41	4.62	6.18
phosphorus	mg/L	every 6 days	5	0.02	0.03	0.04
total suspended solids	mg/L	every 6 days	5	<2	<2	2
zinc	ug/L	monthly	1	-	-	18

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

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

# St Marys Water Resource Recovery Facility

## December Pollution Monitoring Summary



### EPL 1729

Summary period: 01-12-2023 to 31-12-2023

Date obtained: 12-01-2024

Date published: 22-01-2024

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

**Table 1: 3 Day Geometric Mean and 100 percentile data**

EPA Point 5 Site code SM0005		Point description: At the outlet of the chlorine contact 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
nitrogen (total)	mg/L	every 6 days	-	-	45	7.65	yes
phosphorus	mg/L	every 6 days	-	-	5	0.18	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 5 Site code SM0005		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
aluminium	ug/L	monthly	1	-	-	58
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
chlorine (total residual)	mg/L	every 6 days	5	<0.04	<0.04	<0.04
copper	ug/L	monthly	1	-	-	13
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	<1	4	8
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
iron	ug/L	monthly	1	-	-	43
nickel	ug/L	monthly	1	-	-	3.3
nitrogen (ammonia)	mg/L	every 6 days	5	0.02	0.18	0.8
nitrogen (total)	mg/L	every 6 days	5	3.99	6.07	7.65
phosphorus	mg/L	every 6 days	5	0.06	0.12	0.18
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	25

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

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

# St Mary's Water Resource Recovery Facility

## November Pollution Monitoring Summary



### EPL 1729

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 and 100 percentile data**

EPA Point 5 Site code SM0005		Point description: At the outlet of the chlorine contact 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
nitrogen (total)	mg/L	every 6 days	-	-	45	7.17	yes
phosphorus	mg/L	every 6 days	-	-	5	0.1	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 5 Site code SM0005		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
aluminium	ug/L	monthly	1	-	-	61
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
chlorine (total residual)	mg/L	every 6 days	5	<0.04	<0.04	<0.04
copper	ug/L	monthly	1	-	-	13.7
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	<1	6	16
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
iron	ug/L	monthly	1	-	-	72
nickel	ug/L	monthly	1	-	-	4.6
nitrogen (ammonia)	mg/L	every 6 days	5	0.02	0.02	0.03
nitrogen (total)	mg/L	every 6 days	5	4.31	5.47	7.17
phosphorus	mg/L	every 6 days	5	0.02	0.04	0.1
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	24

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

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

# St Mary's Water Resource Recovery Facility

## October Pollution Monitoring Summary



### EPL 1729

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 and 100 percentile data**

EPA Point 5 Site code SM0005		Point description: At the outlet of the chlorine contact 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
nitrogen (total)	mg/L	every 6 days	-	-	45	6.05	yes
phosphorus	mg/L	every 6 days	-	-	5	0.04	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 5 Site code SM0005		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
aluminium	ug/L	monthly	1	-	-	44
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
chlorine (total residual)	mg/L	every 6 days	5	<0.04	<0.04	<0.04
copper	ug/L	monthly	1	-	-	10.4
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	1	2	4
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
iron	ug/L	monthly	1	-	-	83
nickel	ug/L	monthly	1	-	-	6.6
nitrogen (ammonia)	mg/L	every 6 days	5	0.02	0.03	0.05
nitrogen (total)	mg/L	every 6 days	5	3.87	4.85	6.05
phosphorus	mg/L	every 6 days	5	0.03	0.03	0.04
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	32

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

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

# St Mary's Water Resource Recovery Facility September Pollution Monitoring Summary



## EPL 1729

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 and 100 percentile data**

EPA Point 5 Site code SM0005		Point description: At the outlet of the chlorine contact 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
nitrogen (total)	mg/L	every 6 days	-	-	45	8.74	yes
phosphorus	mg/L	every 6 days	-	-	5	0.1	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 5 Site code SM0005		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
aluminium	ug/L	monthly	1	-	-	146
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
chlorine (total residual)	mg/L	every 6 days	5	<0.04	<0.04	0.04
copper	ug/L	monthly	1	-	-	15.3
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	<1	9	25
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
iron	ug/L	monthly	1	-	-	102
nickel	ug/L	monthly	1	-	-	3.9
nitrogen (ammonia)	mg/L	every 6 days	5	0.02	0.08	0.31
nitrogen (total)	mg/L	every 6 days	5	4.14	6.58	8.74
phosphorus	mg/L	every 6 days	5	0.04	0.07	0.1
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	34

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

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

# St Mary's Water Resource Recovery Facility

## August Pollution Monitoring Summary



### EPL 1729

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 and 100 percentile data**

EPA Point 5 Site code SM0005		Point description: At the outlet of the chlorine contact 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
nitrogen (total)	mg/L	every 6 days	-	-	45	6.17	yes
phosphorus	mg/L	every 6 days	-	-	5	0.06	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 5 Site code SM0005		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
aluminium	ug/L	monthly	1	-	-	128
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
chlorine (total residual)	mg/L	every 6 days	5	<0.04	<0.04	0.04
copper	ug/L	monthly	1	-	-	9.9
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	<1	1	3
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
iron	ug/L	monthly	1	-	-	79
nickel	ug/L	monthly	1	-	-	3.3
nitrogen (ammonia)	mg/L	every 6 days	5	0.02	0.02	0.03
nitrogen (total)	mg/L	every 6 days	5	3.73	4.75	6.17
phosphorus	mg/L	every 6 days	5	0.05	0.05	0.06
total suspended solids	mg/L	every 6 days	5	<2	<2	5
zinc	ug/L	monthly	1	-	-	27

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

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



# St Mary's Water Resource Recovery Facility

## July Pollution Monitoring Summary



### EPL 1729

Summary period: 01-07-2023 to 31-07-2023

Date obtained: 08-08-2023

Date published: 15-08-2023

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

**Table 1: 3 Day Geometric Mean and 100 percentile data**

EPA Point 5 Site code SM0005		Point description: At the outlet of the chlorine contact 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
nitrogen (total)	mg/L	every 6 days	-	-	45	4.51	yes
phosphorus	mg/L	every 6 days	-	-	5	0.06	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 5 Site code SM0005		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
aluminium	ug/L	monthly	1	-	-	137
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
chlorine (total residual)	mg/L	every 6 days	6	<0.04	<0.04	<0.04
copper	ug/L	monthly	1	-	-	9.7
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	6	2	3	7
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
iron	ug/L	monthly	1	-	-	66
nickel	ug/L	monthly	1	-	-	3.2
nitrogen (ammonia)	mg/L	every 6 days	5	0.02	0.04	0.08
nitrogen (total)	mg/L	every 6 days	5	4.11	4.31	4.51
phosphorus	mg/L	every 6 days	5	0.04	0.05	0.06
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	31

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

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