

Shellharbour Wastewater Treatment Plant

June Pollution Monitoring Summary



EPL 211

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

Date obtained: 06-07-2021

Date published: 20-07-2021

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 4 Site code SH0004		Point description: At the southern end of the secondary effluent channel			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
total suspended solids	mg/L	monthly	50	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 SH0004		Point description: At the southern end of the secondary effluent channel				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	28
biochemical oxygen demand	mg/L	every 6 days	5	<2	2	3
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	2	4
copper	ug/L	monthly	1	-	-	1.9
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	1	4	7
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	0.2
nonylphenol ethoxylate	ug/L	monthly	1	-	-	<5
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	-	-	70.7
total suspended solids	mg/L	every 6 days	5	4	5	6

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

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

Shellharbour Wastewater Treatment Plant

May Pollution Monitoring Summary



EPL 211

Summary period: 01-05-2021 to 31-05-2021

Date obtained: 08-06-2021

Date published: 21-06-2021

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 4 Site code SH0004		Point description: At the southern end of the secondary effluent channel			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
total suspended solids	mg/L	monthly	50	11	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 SH0004		Point description: At the southern end of the secondary effluent channel				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	17
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	3
copper	ug/L	monthly	1	-	-	2.3
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	2	4	10
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	0.6
nonylphenol ethoxylate	ug/L	monthly	1	-	-	<5
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
total suspended solids	mg/L	every 6 days	5	3	5	6

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

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

Shellharbour Wastewater Treatment Plant

April Pollution Monitoring Summary



EPL 211

Summary period: 01-04-2021 to 30-04-2021

Date obtained: 10-05-2021

Date published: 17-05-2021

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 4 Site code SH0004		Point description: At the southern end of the secondary effluent channel			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
total suspended solids	mg/L	monthly	50	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 SH0004		Point description: At the southern end of the secondary effluent channel				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	24
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	3
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	3
copper	ug/L	monthly	1	-	-	1.6
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	1	8	22
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	0.6
nonylphenol ethoxylate	ug/L	monthly	1	-	-	<5
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
total suspended solids	mg/L	every 6 days	5	5	6	8

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

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

Shellharbour Wastewater Treatment Plant

March Pollution Monitoring Summary



EPL 211

Summary period: 01-03-2021 to 31-03-2021

Date obtained: 06-04-2021

Date published: 16-04-2021

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 4 Site code SH0004		Point description: At the southern end of the secondary effluent channel			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
total suspended solids	mg/L	monthly	50	7	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 SH0004		Point description: At the southern end of the secondary effluent channel				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	18
biochemical oxygen demand	mg/L	every 6 days	5	2	8.2	20
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	5	10
copper	ug/L	monthly	1	-	-	1.8
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	1	1914	9,500
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	0.3
nonylphenol ethoxylate	ug/L	monthly	1	-	-	<5
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	-	-	60.4
total suspended solids	mg/L	every 6 days	5	2	11	20

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

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

Shellharbour Wastewater Treatment Plant

February Pollution Monitoring Summary



EPL 211

Summary period: 01-02-2021 to 28-02-2021

Date obtained: 07-03-2021

Date published: 17-03-2021

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 4 Site code SH0004		Point description: At the southern end of the secondary effluent channel			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
total suspended solids	mg/L	monthly	50	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 SH0004		Point description: At the southern end of the secondary effluent channel				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	18
biochemical oxygen demand	mg/L	every 6 days	5	3	4	5
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	2	3	3
copper	ug/L	monthly	1	-	-	2.1
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	20	7040	29,000
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	<0.1
nonylphenol ethoxylate	ug/L	monthly	1	-	-	<5
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
total suspended solids	mg/L	every 6 days	5	3	5	8

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

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

Shellharbour Wastewater Treatment Plant

January Pollution Monitoring Summary



EPL 211

Summary period: 01-01-2021 to 31-01-2021

Date obtained: 12-02-2021

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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 SH0004		Point description: At the southern end of the secondary effluent channel			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
total suspended solids	mg/L	monthly	50	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 SH0004		Point description: At the southern end of the secondary effluent channel				
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	6	10.6	19
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	5	7	13
copper	ug/L	monthly	1	-	-	8.3
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	8,400	26,020	78,000
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	1.4
nonylphenol ethoxylate	ug/L	monthly	1	-	-	<5
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
total suspended solids	mg/L	every 6 days	5	4	5	8

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

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

Shellharbour Wastewater Treatment Plant

December Pollution Monitoring Summary



EPL 211

Summary period: 01-12-2020 to 31-12-2020

Date obtained: 08-01-2021

Date published: 18-01-2021

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 4 Site code SH0004		Point description: At the southern end of the secondary effluent channel			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
total suspended solids	mg/L	monthly	50	13	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 SH0004		Point description: At the southern end of the secondary effluent channel				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	32
biochemical oxygen demand	mg/L	every 6 days	5	7	8.4	9
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	6	7	8
copper	ug/L	monthly	1	-	-	3.6
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	52	1022	4,000
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	8.4
nonylphenol ethoxylate	ug/L	monthly	1	-	-	<5
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	-	-	92.1
total suspended solids	mg/L	every 6 days	5	7	11	15

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

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

Shellharbour Wastewater Treatment Plant

November Pollution Monitoring Summary



EPL 211

Summary period: 01-11-2020 to 30-11-2020

Date obtained: 10-12-2020

Date published: 15-12-2020

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 4 Site code SH0004	Point description: At the southern end of the secondary effluent channel				
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
total suspended solids	mg/L	monthly	50	11	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 SH0004	Point description: At the southern end of the secondary effluent channel					
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	9	16.2	34
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	7	10	17
copper	ug/L	monthly	1	-	-	6.4
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	28	7482	32,000
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	1.3
nonylphenol ethoxylate	ug/L	monthly	1	-	-	<5
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
total suspended solids	mg/L	every 6 days	5	8	15	20

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

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

Shellharbour Wastewater Treatment Plant

October Pollution Monitoring Summary



EPL 211

Summary period: 01-10-2020 to 31-10-2020

Date obtained: 10-11-2020

Date published: 13-11-2020

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 4 Site code SH0004		Point description: At the southern end of the secondary effluent channel			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
total suspended solids	mg/L	monthly	50	21	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 SH0004		Point description: At the southern end of the secondary effluent channel				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	41
biochemical oxygen demand	mg/L	every 6 days	5	11	15.8	20
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	7	10	15
copper	ug/L	monthly	1	-	-	6.3
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	6	5	48408	200,000
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	4.3
nonylphenol ethoxylate	ug/L	monthly	1	-	-	<5
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
total suspended solids	mg/L	every 6 days	5	8	14	19

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

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

Shellharbour Wastewater Treatment Plant

September Pollution Monitoring Summary



EPL 211

Summary period: 01-09-2020 to 30-09-2020

Date obtained: 09-10-2020

Date published: 19-10-2020

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 4 Site code SH0004	Point description: At the southern end of the secondary effluent channel				
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
total suspended solids	mg/L	monthly	50	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 SH0004	Point description: At the southern end of the secondary effluent channel					
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	20
biochemical oxygen demand	mg/L	every 6 days	5	3	12	35
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	2	7	18
copper	ug/L	monthly	1	-	-	1.2
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	<1	597	2,700
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	7.9
nonylphenol ethoxylate	ug/L	monthly	1	-	-	<5
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	-	-	64.4
total suspended solids	mg/L	every 6 days	5	4	10	24

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

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

Note: biochemical oxygen demand monitoring commenced from September 2020.

Shellharbour Wastewater Treatment Plant

August Pollution Monitoring Summary



EPL 211

Summary period: 01-08-2020 to 31-08-2020

Date obtained: 07-09-2020

Date published: 16-09-2020

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 4 Site code SH0004		Point description: At the southern end of the secondary effluent channel			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
total suspended solids	mg/L	monthly	50	28	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 SH0004		Point description: At the southern end of the secondary effluent channel				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	94
carbonaceous biochemical oxygen demand	mg/L	every 6 days	6	2	5	9
copper	ug/L	monthly	1	-	-	4.3
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	1	58014	290,000
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	1.8
nonylphenol ethoxylate	ug/L	monthly	1	-	-	<5
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	-	-	70.7
total suspended solids	mg/L	every 6 days	6	7	13	21

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

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

Shellharbour Wastewater Treatment Plant

July Pollution Monitoring Summary



EPL 211

Summary period: 01-07-2020 to 31-07-2020

Date obtained: 04-08-2020

Date published: 14-08-2020

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 4 Site code SH0004		Point description: At the southern end of the secondary effluent channel			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
total suspended solids	mg/L	monthly	50	10	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 SH0004		Point description: At the southern end of the secondary effluent channel				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	28
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	4	8	20
copper	ug/L	monthly	1	-	-	3.2
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	4	48011	240,000
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	29.1
nonylphenol ethoxylate	ug/L	monthly	1	-	-	<5
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
total suspended solids	mg/L	every 6 days	5	9	13	23

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

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