

Shellharbour Wastewater Treatment Plant

June Pollution Monitoring Summary



EPL 211

Summary period: 01-06-2019 to 30-06-2019

Date obtained: 11-07-2019

Date published: 17-07-2019

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	-	-	33
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	3	4	6
copper	ug/L	monthly	1	-	-	2.3
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	5	20,007	100,000
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	19.4
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
total suspended solids	mg/L	every 6 days	5	6	8	13

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

Shellharbour Wastewater Treatment Plant

May Pollution Monitoring Summary



EPL 211

Summary period: 01-05-2019 to 31-05-2019

Date obtained: 04-06-2019

Date published: 12-06-2019

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	12	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	-	-	34
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	4	8	10
copper	ug/L	monthly	1	-	-	3.5
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	5	1598	7,800
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	1.9
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
total suspended solids	mg/L	every 6 days	5	10	12	13

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

Shellharbour Wastewater Treatment Plant

April Pollution Monitoring Summary



EPL 211

Summary period: 01-04-2019 to 30-04-2019

Date obtained: 06-05-2019

Date published: 13-05-2019

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
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	7	9	11
copper	ug/L	monthly	1	-	-	2.9
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	230	36,646	58,000
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	-	-	100
total suspended solids	mg/L	every 6 days	5	9	11	13

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

Shellharbour Wastewater Treatment Plant

March Pollution Monitoring Summary



EPL 211

Summary period: 01-03-2019 to 31-03-2019

Date obtained: 09-04-2019

Date published: 12-04-2019

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	-	-	26
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	4	6	11
copper	ug/L	monthly	1	-	-	1.8
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	110	6646	13,000
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	2.7
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	6	10	19

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

Shellharbour Wastewater Treatment Plant

February Pollution Monitoring Summary



EPL 211

Summary period: 01-02-2019 to 28-02-2019

Date obtained: 05-03-2019

Date published: 08-03-2019

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	-	-	22
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	3	4	5
copper	ug/L	monthly	1	-	-	1.7
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	2	200	860
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	5.9
nonylphenol ethoxylate	ug/L	monthly	1	-	-	6
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

Shellharbour Wastewater Treatment Plant

January Pollution Monitoring Summary



EPL 211

Summary period: 01-01-2019 to 31-01-2019

Date obtained: 13-02-2019

Date published: 22-02-2019

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	-	-	29
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	3	5	7
copper	ug/L	monthly	1	-	-	2.3
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	12	72,082	360,000
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	1.9
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	7	11

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

Shellharbour Wastewater Treatment Plant

December Pollution Monitoring Summary



EPL 211

Summary period: 01-12-2018 to 31-12-2018

Date obtained: 07-01-2019

Date published: 11-01-2019

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	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 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
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	2	6	15
copper	ug/L	monthly	1	-	-	2
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	71	3730	11,000
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	4.1
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	5	7	10

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

Shellharbour Wastewater Treatment Plant

November Pollution Monitoring Summary



EPL 211

Summary period: 01-11-2018 to 30-11-2018

Date obtained: 06-12-2018

Date published: 18-12-2018

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	-	-	16
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	3	4	8
chlorine (total residual)	mg/L	monthly	1	-	-	0.04
copper	ug/L	monthly	1	-	-	1.3
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	5	22020	110,000
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	22.5
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	10

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

Shellharbour Wastewater Treatment Plant

October Pollution Monitoring Summary



EPL 211

Summary period: 01-10-2018 to 31-10-2018

Date obtained: 12-11-2018

Date published: 23-11-2018

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
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	3	5
copper	ug/L	monthly	1	-	-	2.2
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	3	12	24
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	16.1
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

Shellharbour Wastewater Treatment Plant

September Pollution Monitoring Summary



EPL 211

Summary period: 01-09-2018 to 30-09-2018

Date obtained: 15-10-2018

Date published: 19-10-2018

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	-	-	27
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	3	4	7
copper	ug/L	monthly	1	-	-	3
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	<1	3	7
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	31.6
nonylphenol ethoxylate	ug/L	monthly	1	-	-	<5
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	-	-	7.6
total suspended solids	mg/L	every 6 days	5	4	6	9

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

Shellharbour Wastewater Treatment Plant

August Pollution Monitoring Summary



EPL 211

Summary period: 01-08-2018 to 31-08-2018

Date obtained: 11-09-2018

Date published: 14-09-2018

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	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 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	-	-	23
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	2	5	12
copper	ug/L	monthly	1	-	-	1.9
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	6	3	5	7
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	2.2
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	7	13

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

Shellharbour Wastewater Treatment Plant

July Pollution Monitoring Summary



EPL 211

Summary period: 01-07-2018 to 31-07-2018

Date obtained: 09-08-2018

Date published: 14-08-2018

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	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 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
carbonaceous biochemical oxygen demand	mg/L	every 6 days	6	<2	<2	<2
copper	ug/L	monthly	1	-	-	2.2
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	2	9	15
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	0.9
nonylphenol ethoxylate	ug/L	monthly	1	-	-	<5
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
total suspended solids	mg/L	every 6 days	6	<2	3	4

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