

Shellharbour Wastewater Treatment Plant

June Pollution Monitoring Summary



EPL 211

Summary period: 01-06-2017 to 30-06-2017

Date obtained: 20-07-2017

Date published: 25-07-2017

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	-	-	36
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	2
copper	ug/L	monthly	1	-	-	3.4
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	4	81	380
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	0.8
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	4	5

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: 01-05-2017 to 31-05-2017

Date obtained: 20-06-2017

Date published: 23-06-2017

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	-	-	26
carbonaceous biochemical oxygen demand	mg/L	every 6 days	6	<2	<2	3
copper	ug/L	monthly	1	-	-	3.9
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	6	97	360
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	0.1
nonylphenol ethoxylate	ug/L	monthly	1	-	-	7
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
total suspended solids	mg/L	every 6 days	6	<2	5	8

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: 01-04-2017 to 30-04-2017

Date obtained: 16-05-2017

Date published: 24-05-2017

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	-	-	19
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	2
copper	ug/L	monthly	1	-	-	5.4
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	17	896	3,500
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	2	3	5

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: 01-03-2017 to 31-03-2017

Date obtained: 12-04-2017

Date published: 19-04-2017

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	<2	4	11
copper	ug/L	monthly	1	-	-	7.7
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	13	88147	440,000
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	6	15

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: 01-02-2017 to 28-02-2017

Date obtained: 07-03-2017

Date published: 14-03-2017

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	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 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
carbonaceous biochemical oxygen demand	mg/L	every 6 days	4	<2	<2	5
copper	ug/L	monthly	1	-	-	3.1
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	2	916	4,300
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	4	3	4	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: 01-01-2017 to 31-01-2017

Date obtained: 10-02-2017

Date published: 15-02-2017

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	-	-	27
carbonaceous biochemical oxygen demand	mg/L	every 6 days	6	<2	<2	4
copper	ug/L	monthly	1	-	-	4.6
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	3	1778	8,000
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	0.7
nonylphenol ethoxylate	ug/L	monthly	1	-	-	<5
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
total suspended solids	mg/L	every 6 days	6	4	8	12

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: 01-12-2016 to 31-12-2016

Date obtained: 09-01-2017

Date published: 13-01-2017

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	<2	<2	3
copper	ug/L	monthly	1	-	-	3.4
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	2	96	370
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	-	-	86.5
total suspended solids	mg/L	every 6 days	5	3	4	6

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: 01-11-2016 to 30-11-2016

Date obtained: 05-12-2016

Date published: 16-12-2016

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	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 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	2	5
copper	ug/L	monthly	1	-	-	18.5
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	6	265	1,000
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	0.5
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	5	11	30

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: 01-10-2016 to 31-10-2016

Date obtained: 03-11-2016

Date published: 11-11-2016

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	<2	<2	2
copper	ug/L	monthly	1	-	-	3.9
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	15	26	48
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	4	5	6

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: 01-09-2016 to 30-09-2016

Date obtained: 05-10-2016

Date published: 14-10-2016

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	-	-	101
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	3
copper	ug/L	monthly	1	-	-	13.2
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	6	11	15
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	<2	3	5

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: 01-08-2016 to 31-08-2016

Date obtained: 06-09-2016

Date published: 12-09-2016

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	-	-	39
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	3	5
copper	ug/L	monthly	1	-	-	3.7
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	9	104	440
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	7	11

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: 01-07-2016 to 31-07-2016

Date obtained: 05-08-2016

Date published: 19-08-2016

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	16	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	-	-	90
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	3	4	6
copper	ug/L	monthly	1	-	-	5.3
diazinon	ug/L	monthly	1	-	-	<0.1
faecal coliforms	CFU/100mL	every 6 days	5	<1	68	300
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30
nitrogen (ammonia)	mg/L	monthly	1	-	-	0.8
nonylphenol ethoxylate	ug/L	monthly	1	-	-	<5
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	-	-	78
total suspended solids	mg/L	every 6 days	5	7	10	13

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