Warriewood Wastewater Treatment Plant June Pollution Monitoring Summary



EPL 1784

Summary period: 01-06-2019 to 30-06-2019 Licensee: Sydney Water Corporation

Date obtained: 11-07-2019 PO Box 399

Date published: 17-07-2019 PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 5 Site code WW0005	Point description: Outfall pipeline on the plant's eastern boundary						
pollutant	unit of sampling sampling and specific sampling specific						
total suspended solids	mg/L	monthly	80	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 5 Site code WW0005	Point description: Outfall pipeline on the plant's eastern boundary						
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result	
aluminium	ug/L	monthly	1	-	_	16	
copper	ug/L	monthly	1	-	-	2.8	
cyanide	ug/L	monthly	1	-	-	<5	
faecal coliforms	CFU/100mL	every 6 days	5	3	43	75	
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	-	-	31.1	
total suspended solids	mg/L	every 6 days	5	6	8	9	

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

Warriewood Wastewater Treatment Plant May Pollution Monitoring Summary



EPL 1784

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

Date obtained: 30-05-2019

Date published: 12-06-2019

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 5 Site code WW0005	Point description: Outfall pipeline on the plant's eastern boundary						
pollutant	unit of sampling sampling and specific sampling specific						
total suspended solids	mg/L	monthly	80	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 5 Site code WW0005	Point descript	Point description: Outfall pipeline on the plant's eastern boundary						
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result		
aluminium	ug/L	monthly	1	-	_	20		
copper	ug/L	monthly	1	-	-	4.3		
cyanide	ug/L	monthly	1	-	-	<5		
faecal coliforms	CFU/100mL	every 6 days	5	18	737	3,200		
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	_	_	39.5		
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

Warriewood Wastewater Treatment Plant April Pollution Monitoring Summary



EPL 1784

Summary period: 01-04-2019 to 30-04-2019 Licensee: Sydney Water Corporation

Date obtained: 04-05-2019 PO Box 399

Date published: 13-05-2019 PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 5 Site code WW0005	Point description: Outfall pipeline on the plant's eastern boundary						
pollutant	unit of sampling sampling and some sampling sampling sampling specification and some sampling						
total suspended solids	mg/L	monthly	80	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 5 Site code WW0005	Point description: Outfall pipeline on the plant's eastern boundary						
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result	
aluminium	ug/L	monthly	1	_	-	20	
copper	ug/L	monthly	1	_	-	3.4	
cyanide	ug/L	monthly	1	_	-	<5	
faecal coliforms	CFU/100mL	every 6 days	5	31	11,799	49,000	
nonylphenol ethoxylate	ug/L	monthly	1	_	-	19	
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	_	-	24.9	
total suspended solids	mg/L	every 6 days	5	4	9	16	

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

Warriewood Wastewater Treatment Plant March Pollution Monitoring Summary



EPL 1784

Summary period: 01-03-2019 to 31-03-2019 Licensee: Sydney Water Corporation

Date obtained: 09-04-2019 PO Box 399

Date published: 12-04-2019 PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 5 Site code WW0005	Point description: Outfall pipeline on the plant's eastern boundary					
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits	
total suspended solids	mg/L	monthly	80	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 5 Site code WW0005	Point description: Outfall pipeline on the plant's eastern boundary						
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result	
aluminium	ug/L	monthly	1	-	_	20	
chlorine (total residual)	mg/L	on bypass	1	_	_	0.3	
copper	ug/L	monthly	1	_	_	3.5	
cyanide	ug/L	monthly	1	_	_	<5	
faecal coliforms	CFU/100mL	every 6 days	5	290	10538	25,000	
nonylphenol ethoxylate	ug/L	monthly	1	-	_	<5	
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	_	_	30.3	
total suspended solids	mg/L	every 6 days	5	6	17	48	

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

Warriewood Wastewater Treatment Plant February Pollution Monitoring Summary



Licensee: Sydney Water Corporation

PO Box 399

EPL 1784

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

Date obtained: 06-03-2019

Date published: 15-03-2019 PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 5 Site code WW0005	Point description: Outfall pipeline on the plant's eastern boundary						
pollutant	unit of sampling 3DGM limit 3DGM Actual within limits						
total suspended solids	mg/L	monthly	80	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 5 Site code WW0005	Point description: Outfall pipeline on the plant's eastern boundary						
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result	
aluminium	ug/L	monthly	1	-	_	40	
copper	ug/L	monthly	1	-	_	3.4	
cyanide	ug/L	monthly	1	-	_	<5	
faecal coliforms	CFU/100mL	every 6 days	5	75	2769	7,300	
nonylphenol ethoxylate	ug/L	monthly	1	-	_	6	
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	-	-	44.5	
total suspended solids	mg/L	every 6 days	5	5	7	9	

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

Warriewood Wastewater Treatment Plant January Pollution Monitoring Summary



EPL 1784

Summary period: 01-01-2019 to 31-01-2019 Licensee: Sydney Water Corporation

PO Box 399

Date published: 22-02-2019 PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

Date obtained: 13-02-2019

EPA Point 5 Site code WW0005	Point description: Outfall pipeline on the plant's eastern boundary						
pollutant	unit of sampling 3DGM limit 3DGM Actual within limits						
total suspended solids	mg/L	monthly	80	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 5 Site code WW0005	Point description: Outfall pipeline on the plant's eastern boundary						
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result	
aluminium	ug/L	monthly	1	_	-	16	
copper	ug/L	monthly	1	_	-	5.2	
cyanide	ug/L	monthly	1	_	_	6	
faecal coliforms	CFU/100mL	every 6 days	5	36	4,184	17,000	
nonylphenol ethoxylate	ug/L	monthly	1	_	_	<5	
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	_	_	27.3	
total suspended solids	mg/L	every 6 days	5	7	10	14	

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

Warriewood Wastewater Treatment Plant December Pollution Monitoring Summary



EPL 1784

Summary period: 01-12-2018 to 31-12-2018 Licensee: Sydney Water Corporation

Date obtained: 04-01-2019 PO Box 399

Date published: 11-01-2019 PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 5 Site code WW0005	Point description: Outfall pipeline on the plant's eastern boundary					
pollutant	unit of sampling measure frequency 3DGM limit 3DGM Actual within limits					
total suspended solids	mg/L	monthly	80	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 5 Site code WW0005	Point description: Outfall pipeline on the plant's eastern boundary						
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result	
aluminium	ug/L	monthly	1	-	_	13	
copper	ug/L	monthly	1	-	_	2.7	
cyanide	ug/L	monthly	1	-	_	6	
faecal coliforms	CFU/100mL	every 6 days	5	9	3824	13,000	
nonylphenol ethoxylate	ug/L	monthly	1	-	_	<5	
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	-	-	30.8	
total suspended solids	mg/L	every 6 days	5	4	7	11	

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

Warriewood Wastewater Treatment Plant November Pollution Monitoring Summary



EPL 1784

Summary period: 01-11-2018 to 30-11-2018 Licensee: Sydney Water Corporation

Date obtained: 13-12-2018 PO Box 399

Date published: 21-12-2018 PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 5 Site code WW0005	Point description: Outfall pipeline on the plant's eastern boundary						
pollutant	unit of sampling measure frequency 3DGM limit 3DGM Actual within limits						
total suspended solids	mg/L	monthly	80	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 5 Site code WW0005	Point description: Outfall pipeline on the plant's eastern boundary						
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result	
aluminium	ug/L	monthly	1	_	_	16	
copper	ug/L	monthly	1	_	_	2.8	
cyanide	ug/L	monthly	1	_	_	<5	
faecal coliforms	CFU/100mL	every 6 days	5	7	1649	8,200	
nonylphenol ethoxylate	ug/L	monthly	1	_	_	<5	
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	_	_	84.6	
total suspended solids	mg/L	every 6 days	5	3	5	9	

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

Warriewood Wastewater Treatment Plant October Pollution Monitoring Summary



EPL 1784

Summary period: 01-10-2018 to 31-10-2018 Licensee: Sydney Water Corporation

Date obtained: 12-11-2018 PO Box 399

Date published: 23-11-2018 PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 5 Site code WW0005	Point description: Outfall pipeline on the plant's eastern boundary						
pollutant	unit of sampling measure frequency 3DGM limit 3DGM Actual within limits						
total suspended solids	mg/L	monthly	80	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 5 Site code WW0005	Point description: Outfall pipeline on the plant's eastern boundary						
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result	
aluminium	ug/L	monthly	1	-	_	30	
copper	ug/L	monthly	1	-	_	7.7	
cyanide	ug/L	monthly	1	-	_	<5	
faecal coliforms	CFU/100mL	every 6 days	5	16	161	430	
nonylphenol ethoxylate	ug/L	monthly	1	-	-	<5	
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	-	-	23.7	
total suspended solids	mg/L	every 6 days	5	5	9	13	

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

Warriewood Wastewater Treatment Plant September Pollution Monitoring Summary



EPL 1784

Summary period: 01-09-2018 to 30-09-2018 Licensee: Sydney Water Corporation

Date obtained: 15-10-2018 PO Box 399

Date published: 19-10-2018 PARRAMATTA NSW 2124

Table 1: 3 Day Geometric Mean data

EPA Point 5 Site code WW0005	Point description: Outfall pipeline on the plant's eastern boundary						
pollutant	unit of sampling measure frequency 3DGM limit 3DGM Actual within limits						
total suspended solids	mg/L	monthly	80	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 5 Site code WW0005	Point description: Outfall pipeline on the plant's eastern boundary						
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result	
aluminium	ug/L	monthly	1	-	_	16	
copper	ug/L	monthly	1	-	_	6.5	
cyanide	ug/L	monthly	1	-	_	<5	
faecal coliforms	CFU/100mL	every 6 days	6	10	35	58	
nonylphenol ethoxylate	ug/L	monthly	1	-	_	<5	
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	-	-	21.3	
total suspended solids	mg/L	every 6 days	5	2	7	11	

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

Warriewood Wastewater Treatment Plant August Pollution Monitoring Summary



EPL 1784

Summary period: 01-08-2018 to 31-08-2018 Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Date obtained: 11-09-2018

Date published: 14-09-2018

Table 1: 3 Day Geometric Mean data

EPA Point 5 Site code WW0005	Point description: Outfall pipeline on the plant's eastern boundary						
pollutant	unit of sampling measure frequency 3DGM limit 3DGM Actual within limits						
total suspended solids	mg/L	monthly	80	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 5 Site code WW0005	Point description: Outfall pipeline on the plant's eastern boundary						
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result	
aluminium	ug/L	monthly	1	-	_	12	
copper	ug/L	monthly	1	-	_	3.1	
cyanide	ug/L	monthly	1	-	_	<5	
faecal coliforms	CFU/100mL	every 6 days	5	8	16	40	
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	5	6	

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

Warriewood Wastewater Treatment Plant July Pollution Monitoring Summary



EPL 1784

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 5 Site code WW0005	Point description: Outfall pipeline on the plant's eastern boundary					
pollutant	unit of sampling measure frequency 3DGM limit 3DGM Actual within limits					
total suspended solids	mg/L	monthly	80	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 5 Site code WW0005	Point description: Outfall pipeline on the plant's eastern boundary						
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result	
aluminium	ug/L	monthly	1	-	_	16	
copper	ug/L	monthly	1	-	_	3.7	
cyanide	ug/L	monthly	1	-	_	<5	
faecal coliforms	CFU/100mL	every 6 days	6	8	58	220	
nonylphenol ethoxylate	ug/L	monthly	1	-	_	<5	
sea urchin fertilisation (EC50)	% Effluent/Vol	monthly	1	-	-	31.1	
total suspended solids	mg/L	every 6 days	5	3	5	7	

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