

# Castle Hill Wastewater Treatment Plant

## June Pollution Monitoring Summary



### EPL 1725

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 5 Site code CH0005		Point description: In the channel between the tertiary filters and the disinfection facilities			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	30	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 CH0005		Point description: In the channel between the tertiary filters and the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	41
cadmium	ug/L	monthly	1	-	-	<0.1
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cobalt	ug/L	monthly	1	-	-	0.6
copper	ug/L	monthly	1	-	-	5.6
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	38
nitrogen (ammonia)	mg/L	every 6 days	5	0.13	0.48	0.92
nitrogen (total)	mg/L	every 6 days	5	9.43	16.39	19.3
phosphorus (total)	mg/L	every 6 days	5	0.16	0.23	0.29
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	18

EPA Point 6 Site code CH0006		Point description: At the outlet from the STP disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
faecal coliforms	CFU/100mL	every 6 days	5	6	8	11
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

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

# Castle Hill Wastewater Treatment Plant

## May Pollution Monitoring Summary



### EPL 1725

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 5 Site code CH0005		Point description: In the channel between the tertiary filters and the disinfection facilities			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	30	<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 CH0005		Point description: In the channel between the tertiary filters and the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	41
cadmium	ug/L	monthly	1	-	-	<0.1
carbonaceous biochemical oxygen demand	mg/L	every 6 days	6	<2	<2	<2
cobalt	ug/L	monthly	1	-	-	0.4
copper	ug/L	monthly	1	-	-	4.2
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	39
nitrogen (ammonia)	mg/L	every 6 days	6	0.01	0.23	0.91
nitrogen (total)	mg/L	every 6 days	6	15.8	17.97	19.1
phosphorus (total)	mg/L	every 6 days	6	0.06	0.13	0.26
total suspended solids	mg/L	every 6 days	6	<2	<2	<2
zinc	ug/L	monthly	1	-	-	11

EPA Point 6 Site code CH0006		Point description: At the outlet from the STP disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
faecal coliforms	CFU/100mL	every 6 days	5	2	4	7
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

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

# Castle Hill Wastewater Treatment Plant

## April Pollution Monitoring Summary



### EPL 1725

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 5 Site code CH0005		Point description: In the channel between the tertiary filters and the disinfection facilities			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	30	<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 CH0005		Point description: In the channel between the tertiary filters and the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	33
cadmium	ug/L	monthly	1	-	-	<0.1
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cobalt	ug/L	monthly	1	-	-	0.4
copper	ug/L	monthly	1	-	-	4.2
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	33
nitrogen (ammonia)	mg/L	every 6 days	5	<0.01	0.04	0.08
nitrogen (total)	mg/L	every 6 days	5	10	14.76	17.3
phosphorus (total)	mg/L	every 6 days	5	0.05	0.17	0.3
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	8

EPA Point 6 Site code CH0006		Point description: At the outlet from the STP disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
faecal coliforms	CFU/100mL	every 6 days	5	1	15	59
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

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

# Castle Hill Wastewater Treatment Plant

## March Pollution Monitoring Summary



### EPL 1725

Summary period: 01-03-2017 to 31-03-2017

Date obtained: 11-04-2017

Date published: 19-04-2017

**Licensee:** Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

**Table 1: 3 Day Geometric Mean data**

EPA Point 5 Site code CH0005		Point description: In the channel between the tertiary filters and the disinfection facilities			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	30	<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 CH0005		Point description: In the channel between the tertiary filters and the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	78
cadmium	ug/L	monthly	1	-	-	<0.1
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cobalt	ug/L	monthly	1	-	-	0.2
copper	ug/L	monthly	1	-	-	6.5
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	31
nitrogen (ammonia)	mg/L	every 6 days	5	0.03	0.07	0.13
nitrogen (total)	mg/L	every 6 days	5	7.67	11.87	17.1
phosphorus (total)	mg/L	every 6 days	5	0.06	0.15	0.21
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	12

EPA Point 6 Site code CH0006		Point description: At the outlet from the STP disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
faecal coliforms	CFU/100mL	every 6 days	5	3	13047	65,000
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

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

# Castle Hill Wastewater Treatment Plant

## February Pollution Monitoring Summary



### EPL 1725

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 5 Site code CH0005		Point description: In the channel between the tertiary filters and the disinfection facilities			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	30	<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 CH0005		Point description: In the channel between the tertiary filters and the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	56
cadmium	ug/L	monthly	1	-	-	<0.1
carbonaceous biochemical oxygen demand	mg/L	every 6 days	4	<2	<2	<2
cobalt	ug/L	monthly	1	-	-	0.2
copper	ug/L	monthly	1	-	-	5.9
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	28
nitrogen (ammonia)	mg/L	every 6 days	4	0.01	0.02	0.03
nitrogen (total)	mg/L	every 6 days	4	16.3	17.5	18.5
phosphorus (total)	mg/L	every 6 days	4	0.06	0.12	0.21
total suspended solids	mg/L	every 6 days	4	<2	<2	<2
zinc	ug/L	monthly	1	-	-	12

EPA Point 6 Site code CH0006		Point description: At the outlet from the STP disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
faecal coliforms	CFU/100mL	every 6 days	5	<1	24	94
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

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

# Castle Hill Wastewater Treatment Plant

## January Pollution Monitoring Summary



### EPL 1725

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 5 Site code CH0005		Point description: In the channel between the tertiary filters and the disinfection facilities			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	30	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 5 Site code CH0005		Point description: In the channel between the tertiary filters and the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	233
cadmium	ug/L	monthly	1	-	-	<0.1
carbonaceous biochemical oxygen demand	mg/L	every 6 days	6	<2	<2	<2
cobalt	ug/L	monthly	1	-	-	0.2
copper	ug/L	monthly	1	-	-	4
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	78
nitrogen (ammonia)	mg/L	every 6 days	6	0.01	0.08	0.35
nitrogen (total)	mg/L	every 6 days	6	12.8	16.93	19.4
phosphorus (total)	mg/L	every 6 days	6	0.05	0.14	0.24
total suspended solids	mg/L	every 6 days	6	<2	<2	8
zinc	ug/L	monthly	1	-	-	11

EPA Point 6 Site code CH0006		Point description: At the outlet from the STP disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
faecal coliforms	CFU/100mL	every 6 days	5	2	9	20
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

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

# Castle Hill Wastewater Treatment Plant

## December Pollution Monitoring Summary



### EPL 1725

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 5 Site code CH0005		Point description: In the channel between the tertiary filters and the disinfection facilities			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	30	<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 CH0005		Point description: In the channel between the tertiary filters and the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	31
cadmium	ug/L	monthly	1	-	-	<0.1
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	2
cobalt	ug/L	monthly	1	-	-	0.3
copper	ug/L	monthly	1	-	-	5.5
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	29
nitrogen (ammonia)	mg/L	every 6 days	5	0.02	0.21	0.88
nitrogen (total)	mg/L	every 6 days	5	16	16.92	18.6
phosphorus (total)	mg/L	every 6 days	5	0.11	0.21	0.25
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	12

EPA Point 6 Site code CH0006		Point description: At the outlet from the STP disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
faecal coliforms	CFU/100mL	every 6 days	5	1	5	10
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

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

# Castle Hill Wastewater Treatment Plant

## November Pollution Monitoring Summary



### EPL 1725

Summary period: 01-11-2016 to 30-11-2016

Date obtained: 05-12-2016

Date published: 12-12-2016

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

**Table 1: 3 Day Geometric Mean data**

EPA Point 5 Site code CH0005		Point description: In the channel between the tertiary filters and the disinfection facilities			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	30	<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 CH0005		Point description: In the channel between the tertiary filters and the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	73
cadmium	ug/L	monthly	1	-	-	<0.1
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cobalt	ug/L	monthly	1	-	-	0.7
copper	ug/L	monthly	1	-	-	4
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	67
nitrogen (ammonia)	mg/L	every 6 days	5	0.01	0.09	0.29
nitrogen (total)	mg/L	every 6 days	5	14.4	16.68	18.8
phosphorus (total)	mg/L	every 6 days	5	0.13	0.17	0.21
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	13

EPA Point 6 Site code CH0006		Point description: At the outlet from the STP disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
faecal coliforms	CFU/100mL	every 6 days	5	1	13	38
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

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



# Castle Hill Wastewater Treatment Plant

## October Pollution Monitoring Summary



### EPL 1725

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 5 Site code CH0005		Point description: In the channel between the tertiary filters and the disinfection facilities			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	30	<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 CH0005		Point description: In the channel between the tertiary filters and the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	62
cadmium	ug/L	monthly	1	-	-	<0.1
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cobalt	ug/L	monthly	1	-	-	0.4
copper	ug/L	monthly	1	-	-	4.9
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	45
nitrogen (ammonia)	mg/L	every 6 days	5	0.01	0.05	0.1
nitrogen (total)	mg/L	every 6 days	5	14.8	16.54	17.5
phosphorus (total)	mg/L	every 6 days	5	0.16	0.22	0.32
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	11

EPA Point 6 Site code CH0006		Point description: At the outlet from the STP disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
faecal coliforms	CFU/100mL	every 6 days	5	1	10	20
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

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

# Castle Hill Wastewater Treatment Plant

## September Pollution Monitoring Summary



### EPL 1725

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 5 Site code CH0005		Point description: In the channel between the tertiary filters and the disinfection facilities			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	30	<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 CH0005		Point description: In the channel between the tertiary filters and the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	70
cadmium	ug/L	monthly	1	-	-	<0.1
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cobalt	ug/L	monthly	1	-	-	0.4
copper	ug/L	monthly	1	-	-	5.5
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	74
nitrogen (ammonia)	mg/L	every 6 days	5	0.02	0.12	0.42
nitrogen (total)	mg/L	every 6 days	5	6	13.28	15.7
phosphorus (total)	mg/L	every 6 days	5	0.13	0.19	0.3
total suspended solids	mg/L	every 6 days	5	<2	<2	2
zinc	ug/L	monthly	1	-	-	16

EPA Point 6 Site code CH0006		Point description: At the outlet from the STP disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
faecal coliforms	CFU/100mL	every 6 days	5	<1	5	10
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

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

# Castle Hill Wastewater Treatment Plant

## August Pollution Monitoring Summary



### EPL 1725

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 5 Site code CH0005		Point description: In the channel between the tertiary filters and the disinfection facilities			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	30	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 CH0005		Point description: In the channel between the tertiary filters and the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	117
cadmium	ug/L	monthly	1	-	-	<0.1
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cobalt	ug/L	monthly	1	-	-	0.6
copper	ug/L	monthly	1	-	-	5
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	117
nitrogen (ammonia)	mg/L	every 6 days	5	0.07	0.09	0.13
nitrogen (total)	mg/L	every 6 days	5	5.81	12.38	16.5
phosphorus (total)	mg/L	every 6 days	5	0.12	0.2	0.33
total suspended solids	mg/L	every 6 days	5	<2	<2	5
zinc	ug/L	monthly	1	-	-	17

EPA Point 6 Site code CH0006		Point description: At the outlet from the STP disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
faecal coliforms	CFU/100mL	every 6 days	5	2	11	29
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

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

# Castle Hill Wastewater Treatment Plant

## July Pollution Monitoring Summary



### EPL 1725

Summary period: 01-07-2016 to 31-07-2016

Date obtained: 08-08-2016

Date published: 19-08-2016

**Licensee:** Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

**Table 1: 3 Day Geometric Mean data**

EPA Point 5 Site code CH0005		Point description: In the channel between the tertiary filters and the disinfection facilities			
pollutant	unit of measure	sampling frequency	3DGM limit	3DGM Actual	within limits
carbonaceous biochemical oxygen demand	mg/L	monthly	30	3	yes
total suspended solids	mg/L	monthly	30	<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 CH0005		Point description: In the channel between the tertiary filters and the disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
aluminium	ug/L	monthly	1	-	-	125
cadmium	ug/L	monthly	1	-	-	<0.1
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	5
cobalt	ug/L	monthly	1	-	-	0.6
copper	ug/L	monthly	1	-	-	4.1
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	77
nitrogen (ammonia)	mg/L	every 6 days	5	0.01	0.04	0.06
nitrogen (total)	mg/L	every 6 days	5	9.86	14.71	18.3
phosphorus (total)	mg/L	every 6 days	5	0.08	0.1	0.16
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	16

EPA Point 6 Site code CH0006		Point description: At the outlet from the STP disinfection facilities				
pollutant	unit of measure	sampling frequency	number of samples	minimum result	mean result	maximum result
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	1	-	-	100
faecal coliforms	CFU/100mL	every 6 days	5	<1	4	11
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

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