

Castle Hill Wastewater Treatment Plant

June Pollution Monitoring Summary



EPL 1725

Summary period: 01-06-2022 to 30-06-2022

Date obtained: 07-07-2022

Date published: 15-07-2022

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
biochemical oxygen demand	mg/L	monthly	30	<2	yes
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	10	<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	-	-	223
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cadmium	ug/L	monthly	1	-	-	<0.1
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
copper	ug/L	monthly	1	-	-	7.6
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	55
nitrogen (ammonia)	mg/L	every 6 days	5	0.09	0.28	0.9
nitrogen (total)	mg/L	every 6 days	5	17.3	18.12	19.9
phosphorus (total)	mg/L	every 6 days	5	0.04	0.04	0.05
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	24

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	12	23
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

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

Effluent quality monitoring results obtained from EPA Points 5 and 6 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Castle Hill Wastewater Treatment Plant

May Pollution Monitoring Summary



EPL 1725

Summary period: 01-05-2022 to 31-05-2022

Date obtained: 12-06-2022

Date published: 22-06-2022

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
biochemical oxygen demand	mg/L	monthly	30	<2	yes
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	10	<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	-	-	117
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cadmium	ug/L	monthly	1	-	-	<0.1
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
copper	ug/L	monthly	1	-	-	7.7
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	61
nitrogen (ammonia)	mg/L	every 6 days	5	0.04	0.25	0.81
nitrogen (total)	mg/L	every 6 days	5	8.08	13.44	15.5
phosphorus (total)	mg/L	every 6 days	5	0.03	0.04	0.06
total suspended solids	mg/L	every 6 days	5	<2	<2	3
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	7	131	290
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

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

Effluent quality monitoring results obtained from EPA Points 5 and 6 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Castle Hill Wastewater Treatment Plant

April Pollution Monitoring Summary



EPL 1725

Summary period: 01-04-2022 to 30-04-2022

Date obtained: 09-05-2022

Date published: 20-05-2022

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
biochemical oxygen demand	mg/L	monthly	30	<2	yes
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	10	<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	-	-	181
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cadmium	ug/L	monthly	1	-	-	<0.1
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
copper	ug/L	monthly	1	-	-	4.9
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	57
nitrogen (ammonia)	mg/L	every 6 days	5	0.17	0.26	0.39
nitrogen (total)	mg/L	every 6 days	5	6.73	11.97	14.9
phosphorus (total)	mg/L	every 6 days	5	0.03	0.04	0.04
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
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	36	121	240
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

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

Effluent quality monitoring results obtained from EPA Points 5 and 6 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Castle Hill Wastewater Treatment Plant

March Pollution Monitoring Summary



EPL 1725

Summary period: 01-03-2022 to 31-03-2022

Date obtained: 08-04-2022

Date published: 15-04-2022

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
biochemical oxygen demand	mg/L	monthly	30	<2	yes
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	10	<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	-	-	146
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cadmium	ug/L	monthly	1	-	-	<0.1
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
iron	ug/L	monthly	1	-	-	27
nitrogen (ammonia)	mg/L	every 6 days	5	0.01	0.19	0.6
nitrogen (total)	mg/L	every 6 days	5	3.48	8.12	12
phosphorus (total)	mg/L	every 6 days	5	0.03	0.07	0.12
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	6	65	275,024	740,000
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

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

Effluent quality monitoring results obtained from EPA Points 5 and 6 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Castle Hill Wastewater Treatment Plant

February Pollution Monitoring Summary



EPL 1725

Summary period: 01-02-2022 to 28-02-2022

Date obtained: 12-03-2022

Date published: 25-03-2022

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
biochemical oxygen demand	mg/L	monthly	30	<2	yes
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	10	<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	-	-	106
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cadmium	ug/L	monthly	1	-	-	<0.1
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cobalt	ug/L	bi-annually	1	-	-	0.6
copper	ug/L	monthly	1	-	-	5.4
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	42
nitrogen (ammonia)	mg/L	every 6 days	5	0.02	0.06	0.14
nitrogen (total)	mg/L	every 6 days	5	6.36	12.06	15.9
phosphorus (total)	mg/L	every 6 days	5	0.03	0.06	0.08
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
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	4	7	107508	430,000
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

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

Effluent quality monitoring results obtained from EPA Points 5 and 6 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Castle Hill Wastewater Treatment Plant

January Pollution Monitoring Summary



EPL 1725

Summary period: 01-01-2022 to 31-01-2022

Date obtained: 08-02-2022

Date published: 11-02-2022

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
biochemical oxygen demand	mg/L	monthly	30	<2	yes
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	10	<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	-	-	112
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cadmium	ug/L	monthly	1	-	-	<0.1
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
copper	ug/L	monthly	1	-	-	6.3
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	47
nitrogen (ammonia)	mg/L	every 6 days	5	0.03	0.07	0.11
nitrogen (total)	mg/L	every 6 days	5	12.5	14.08	16.8
phosphorus (total)	mg/L	every 6 days	5	0.03	0.03	0.04
total suspended solids	mg/L	every 6 days	5	<2	<2	5
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	4	65	250
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

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

Effluent quality monitoring results obtained from EPA Points 5 and 6 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Castle Hill Wastewater Treatment Plant

December Pollution Monitoring Summary



EPL 1725

Summary period: 01-12-2021 to 31-12-2021

Date obtained: 07-01-2022

Date published: 20-01-2022

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	
biochemical oxygen demand	mg/L	monthly	30	<2	yes	
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes	
total suspended solids	mg/L	monthly	10	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	-	-	51
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cadmium	ug/L	monthly	1	-	-	<0.1
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
copper	ug/L	monthly	1	-	-	2.4
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	21
nitrogen (ammonia)	mg/L	every 6 days	5	0.06	0.23	0.42
nitrogen (total)	mg/L	every 6 days	5	11.3	14.4	16.3
phosphorus (total)	mg/L	every 6 days	5	0.03	0.05	0.08
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	6	4	14	44
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

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

Effluent quality monitoring results obtained from EPA Points 5 and 6 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Castle Hill Wastewater Treatment Plant

November Pollution Monitoring Summary



EPL 1725

Summary period: 01-11-2021 to 30-11-2021

Date obtained: 10-12-2021

Date published: 17-12-2021

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
biochemical oxygen demand	mg/L	monthly	30	<2	yes
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	10	<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	-	-	115
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cadmium	ug/L	monthly	1	-	-	<0.1
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
copper	ug/L	monthly	1	-	-	6.2
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	42
nitrogen (ammonia)	mg/L	every 6 days	5	0.12	0.25	0.54
nitrogen (total)	mg/L	every 6 days	5	9.18	13.46	17.2
phosphorus (total)	mg/L	every 6 days	5	0.05	0.08	0.13
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	20

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	3	8
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

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

Effluent quality monitoring results obtained from EPA Points 5 and 6 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Castle Hill Wastewater Treatment Plant

October Pollution Monitoring Summary



EPL 1725

Summary period: 01-10-2021 to 31-10-2021

Date obtained: 08-11-2021

Date published: 12-11-2021

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
biochemical oxygen demand	mg/L	monthly	30	<2	yes
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	10	<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
biochemical oxygen demand	mg/L	every 6 days	6	<2	<2	<2
cadmium	ug/L	monthly	1	-	-	<0.1
carbonaceous biochemical oxygen demand	mg/L	every 6 days	6	<2	<2	<2
copper	ug/L	monthly	1	-	-	6
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	45
nitrogen (ammonia)	mg/L	every 6 days	6	0.03	0.08	0.1
nitrogen (total)	mg/L	every 6 days	6	16	16.68	17.3
phosphorus (total)	mg/L	every 6 days	6	0.13	0.18	0.3
total suspended solids	mg/L	every 6 days	6	<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	2	3	5
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

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

Effluent quality monitoring results obtained from EPA Points 5 and 6 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Castle Hill Wastewater Treatment Plant

September Pollution Monitoring Summary



EPL 1725

Summary period: 01-09-2021 to 30-09-2021

Date obtained: 06-10-2021

Date published: 13-10-2021

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
biochemical oxygen demand	mg/L	monthly	30	<2	yes
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	10	<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	-	-	105
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cadmium	ug/L	monthly	1	-	-	<0.1
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
copper	ug/L	monthly	1	-	-	7.3
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	42
nitrogen (ammonia)	mg/L	every 6 days	5	0.03	0.04	0.06
nitrogen (total)	mg/L	every 6 days	5	15.6	16.7	17.8
phosphorus (total)	mg/L	every 6 days	5	0.12	0.15	0.25
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	<1	4	13
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

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

Effluent quality monitoring results obtained from EPA Points 5 and 6 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Castle Hill Wastewater Treatment Plant

August Pollution Monitoring Summary



EPL 1725

Summary period: 01-08-2021 to 31-08-2021

Date obtained: 04-09-2021

Date published: 13-09-2021

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
biochemical oxygen demand	mg/L	monthly	30	<2	yes
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	-	-	244
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cadmium	ug/L	monthly	1	-	-	<0.1
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cobalt	ug/L	bi-annually	1	-	-	0.6
copper	ug/L	monthly	1	-	-	10
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	43
nitrogen (ammonia)	mg/L	every 6 days	5	0.03	0.07	0.11
nitrogen (total)	mg/L	every 6 days	5	13	17.52	20.4
phosphorus (total)	mg/L	every 6 days	5	0.1	0.21	0.29
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	24

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	7	27
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

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

Effluent quality monitoring results obtained from EPA Points 5 and 6 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

Castle Hill Wastewater Treatment Plant

July Pollution Monitoring Summary



EPL 1725

Summary period: 01-07-2021 to 31-07-2021

Date obtained: 11-08-2021

Date published: 18-08-2021

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
biochemical oxygen demand	mg/L	monthly	30	<2	yes
carbonaceous biochemical oxygen demand	mg/L	monthly	30	<2	yes
total suspended solids	mg/L	monthly	10	<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	-	-	92
biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
cadmium	ug/L	monthly	1	-	-	<0.1
carbonaceous biochemical oxygen demand	mg/L	every 6 days	5	<2	<2	<2
copper	ug/L	monthly	1	-	-	7.4
diazinon	ug/L	monthly	1	-	-	<0.1
iron	ug/L	monthly	1	-	-	26
nitrogen (ammonia)	mg/L	every 6 days	5	0.03	0.34	1.43
nitrogen (total)	mg/L	every 6 days	5	17.8	18.82	19.7
phosphorus (total)	mg/L	every 6 days	5	0.09	0.16	0.22
total suspended solids	mg/L	every 6 days	5	<2	<2	<2
zinc	ug/L	monthly	1	-	-	20

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	1	2
hydrogen sulphide (unionised)	ug/L	monthly	1	-	-	<30

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

Effluent quality monitoring results obtained from EPA Points 5 and 6 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).