

# Penrith Wastewater Treatment Plant

## 2020-21 Pollution monitoring yearly limit summaries



### EPL 1409

Summary period: 01-07-2020 to 30-06-2021

Date published: 13-08-2021

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

50 percentile yearly summary								
EPA Point 5 Site code PR0005		Point description: At the outlet of the chlorine contact tank						
pollutant	unit of measure	sampling frequency	number of samples	minimum result	maximum result	50 percentile limit	50 percentile value	within limits
biochemical oxygen demand	mg/L	every 6 days	51	<2	<2	10	<2	yes
nitrogen (ammonia)	mg/L	every 6 days	61	<0.01	5.06	0.9	0.03	yes
nitrogen (total)	mg/L	every 6 days	61	2.37	7.73	10	4.07	yes
phosphorus (total)	mg/L	every 6 days	61	0.04	0.57	0.2	0.06	yes
total suspended solids	mg/L	every 6 days	61	<2	13	5	<2	yes

80 percentile yearly summary								
EPA Point 5 Site code PR0005		Point description: At the outlet of the chlorine contact tank						
pollutant	unit of measure	sampling frequency	number of samples	minimum result	maximum result	80 percentile limit	80 percentile value	within limits
faecal coliforms	CFU/100mL	every 6 days	61	<1	100	200	31	yes

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90 percentile yearly summary								
EPA Point 5 Site code PR0005	Point description: At the outlet of the chlorine contact tank							
pollutant	unit of measure	sampling frequency	number of samples	minimum result	maximum result	90 percentile limit	90 percentile value	within limits
aluminium	ug/L	monthly	12	111	285	270	264	yes
arsenic	ug/L	monthly	2	<0.2	0.3	-	0.3	n/a
cadmium	ug/L	monthly	12	<0.1	0.2	0.2	<0.1	yes
biochemical oxygen demand	mg/L	every 6 days	51	<2	<2	15	<2	yes
cobalt	ug/L	monthly	2	0.8	0.8	2	0.8	yes
copper	ug/L	monthly	12	1.5	6.2	-	4.2	n/a
hydrogen sulphide (unionised)	ug/L	monthly	12	<30	<30	60	<30	yes
iron	ug/L	monthly	12	106	159	350	140	yes
nickel	ug/L	monthly	2	1.6	2.5	-	2.5	n/a
nitrogen (ammonia)	mg/L	every 6 days	61	<0.01	5.06	1.4	1.03	yes
nitrogen (total)	mg/L	every 6 days	61	2.37	7.73	15	4.99	yes
phosphorus (total)	mg/L	every 6 days	61	0.04	0.57	0.4	0.08	yes
total suspended solids	mg/L	every 6 days	61	<2	13	10	<2	yes
zinc	ug/L	monthly	12	18	30	180	26	yes

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Average yearly summary								
EPA Point 5 Site code PR0005	Point description: At the outlet of the chlorine contact tank							
pollutant	unit of measure	sampling frequency	number of samples	minimum result	maximum result	Average Limit	Average value	within limits
aluminium	ug/L	monthly	12	111	285	200	174	yes
arsenic	ug/L	monthly	2	<0.2	0.3	-	<0.2	n/a
cadmium	ug/L	monthly	12	<0.1	0.2	0.2	<0.1	yes
cobalt	ug/L	monthly	2	0.8	0.8	-	0.8	n/a
copper	ug/L	monthly	12	1.5	6.2	8	4	yes
hydrogen sulphide (unionised)	ug/L	monthly	12	<30	<30	30	<30	yes
iron	ug/L	monthly	12	106	159	330	121	yes
nickel	ug/L	monthly	2	1.6	2.5	-	2	n/a
zinc	ug/L	monthly	12	18	30	60	23	yes

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90 percentile yearly summary								
EPA Point 21 Site code PR0021		Point description: Downstream of the St Marys Advanced Water Treatment Plant return stream						
pollutant	unit of measure	sampling frequency	number of samples	minimum result	maximum result	90 percentile limit	90 percentile value	within limits
chlorine (total residual)	mg/L	every 6 days	61	<0.04	0.6	0.1	<0.04	yes

50 percentile yearly summary								
EPA Point 21 Site code PR0022		Point description: Upstream of the St Marys Advanced Water Treatment Plant return stream						
pollutant	unit of measure	sampling frequency	number of samples	minimum result	maximum result	50 percentile limit	50 percentile value	within limits
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	12	8.4	100	50	100	yes

Note: Sydney Water commenced monitoring of biochemical oxygen demand from 1st September 2020. Historically, carbonaceous biochemical oxygen demand was monitored.

Effluent quality monitoring results obtained from EPA Points 5, 21 and 22 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).