

Quakers Hill Wastewater Treatment Plant

2020-21 Pollution Monitoring Summary



EPL 1724

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

Date published: 13-08-2021

Licensee: Sydney Water Corporation

PO Box 399

PARRAMATTA NSW 2124

Table 1: 50 percentile yearly summary

EPA Point 4 Site code QH0004		Point description: Downstream of the overflow weir in the clean water 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	4	10	<2	yes
nitrogen (ammonia)	mg/L	every 6 days	61	<0.01	5.87	0.9	0.19	yes
total suspended solids	mg/L	every 6 days	61	<2	5	5	<2	yes

Table 1: 50 percentile yearly summary

EPA Point 5 Site code QH0005		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
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	12	100	100	50	100	yes

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Table 2: 80 percentile yearly summary

EPA Point 5 Site code QH0005		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	2,800	200	18	yes

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Table 3: 90 percentile yearly summary								
EPA Point 4 Site code QH0004		Point description: Downstream of the overflow weir in the clean water tank						
pollutant	unit of measure	sampling frequency	number of samples	minimum result	maximum result	90 percentile limit	90 percentile value	within limit
aluminium	ug/L	monthly	12	49	153	190	150	yes
cadmium	ug/L	monthly	12	<0.1	<0.1	0.3	<0.1	yes
biochemical oxygen demand	mg/L	every 6 days	51	<2	4	15	<2	yes
chromium	ug/L	monthly	12	<0.2	0.5	4	0.4	yes
cobalt	ug/L	monthly	2	0.4	0.5	-	0.5	n/a
copper	ug/L	monthly	12	1.9	3.9	6	3.9	yes
manganese	ug/L	monthly	12	36.8	54.6	-	54.6	n/a
molybdenum	ug/L	monthly	2	1.6	1.6	-	1.6	n/a
nickel	ug/L	monthly	2	1.7	2.7	-	2.7	n/a
nitrogen (ammonia)	mg/L	every 6 days	61	<0.01	5.87	1.4	1.82	no ¹
total suspended solids	mg/L	every 6 days	61	<2	5	10	3	yes
zinc	ug/L	monthly	12	13	25	41	23	yes

¹Nitrogen (ammonia) 90th%-ile concentration limit exceedance was largely influenced by a significant trade waste inflow received on multiple occasions at the facility inlet. The source of the trade waste issue was detected and addressed in April 2021. Following this, concentration results for Nitrogen (ammonia) were consistently well below the 50th%-ile limit.

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Table 3: 90 percentile yearly summary

EPA Point 5 Site code QH0005		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 limit
chlorine (total residual)	mg/L	every 6 days	61	<0.04	1.07	0.1	<0.04	yes
hydrogen sulphide (unionised)	ug/L	monthly	12	<30	<30	60	<30	yes

Table 4: 100 percentile yearly summary

EPA Point 4 Site code QH0004		Point description: Downstream of the overflow weir in the clean water tank						
pollutant	unit of measure	sampling frequency	number of samples	minimum result	maximum result	100 percentile limit	100 percentile value	within limits
nitrogen (total)	mg/L	every 6 days	61	3.1	8.31	45	8.31	yes
phosphorus	mg/L	every 6 days	61	0.03	0.63	5	0.63	yes

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Table 5: Average yearly summary

EPA Point 4 Site code QH0004		Point description: Downstream of the overflow weir in the clean water 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	49	153	120	97	yes
cadmium	ug/L	monthly	12	<0.1	<0.1	0.2	<0.1	yes
chromium	ug/L	monthly	12	<0.2	0.5	3	0.3	yes
cobalt	ug/L	monthly	2	0.4	0.5	-	0.5	n/a
copper	ug/L	monthly	12	1.9	3.9	5	3	yes
manganese	ug/L	monthly	12	36.8	54.6	-	45.7	n/a
molybdenum	ug/L	monthly	2	1.6	1.6	-	2	n/a
nickel	ug/L	monthly	2	1.7	2.7	-	2	n/a
zinc	ug/L	monthly	12	13	25	34	19	yes

Table 5: Average yearly summary

EPA Point 5 Site code QH0005		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
hydrogen sulphide (unionised)	ug/L	monthly	12	<30	<30	30	<30	yes

Effluent quality monitoring results obtained from EPA Points 4 and 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).