West Hornsby Wastewater Treatment Plant 2020-21 Pollution monitoring yearly limit summaries



EPL 1695

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 WH0005	Point description: Downstream of the disinfection facilities								
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	17	10	<2	yes	
Ceriodaphnia dubia immobilisation (EC50)	% Effluent/Vol	monthly	12	100	100	50	100	yes	
nitrogen (ammonia)	mg/L	every 6 days	61	0.01	7.86	0.9	0.02	yes	
nitrogen (total)	mg/L	every 6 days	61	1.28	23.2	10	4.75	yes	
phosphorus (total)	mg/L	every 6 days	61	0.02	1.09	0.3	0.06	yes	
total suspended solids	mg/L	every 6 days	61	<2	40	5	<2	yes	

80 percentile yearly summary									
EPA Point 5 Site code WH0005	Point descripti	Point description: Downstream of the disinfection facilities							
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	5	100,000	200	60	yes	

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90 percentile yearly summary									
EPA Point 5 Site code WH0005 pollutant	Point description: Downstream of the disinfection facilities								
	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	97	762	620	230	yes	
biochemical oxygen demand	mg/L	every 6 days	51	<2	17	15	7	yes	
copper	ug/L	monthly	12	1.6	22.7	17	6.9	yes	
cyanide	ug/L	monthly	2	<5	<5	-	<5	n/a	
hydrogen sulphide (unionised)	ug/L	monthly	12	<30	<30	60	<30	yes	
iron	ug/L	monthly	12	28	878	1,600	94	yes	
nitrogen (ammonia)	mg/L	every 6 days	61	0.01	7.86	1.4	2.07	no ¹	
nitrogen (total)	mg/L	every 6 days	61	1.28	23.2	15	7.63	yes	
phosphorus (total)	mg/L	every 6 days	61	0.02	1.09	1	0.49	yes	
total suspended solids	mg/L	every 6 days	61	<2	40	10	11	no ¹	
zinc	ug/L	monthly	12	12	31	40	16	yes	

¹The Nitrogen (Ammonia) and Total Suspended Solids 90th%-ile concentration limit exceedances were largely influenced by wet weather flows received by the facility. All partially treated and fully treated effluent combine prior to the EPL effluent quality monitoring point 5, whilst ensuring the fulfillment with clause O4.1 requirement.

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Average yearly summary									
EPA Point 5 Site code WH0005	Point description: Downstream of the disinfection facilities								
pollutant	unit of measure	sampling frequency	number of samples	minimum result	maximum result	Average Limit	Average value	within limits	
aluminium	ug/L	monthly	12	97	762	330	226	yes	
copper	ug/L	monthly	12	1.6	22.7	8	6	yes	
cyanide	ug/L	monthly	2	<5	<5	-	<5	n/a	
hydrogen sulphide (unionised)	ug/L	monthly	12	<30	<30	30	<30	yes	
iron	ug/L	monthly	12	28	878	490	119	yes	
zinc	ug/L	monthly	12	12	31	26	15	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 Point 5 are used to indicate the quality of water discharged at EPA Point 1 (discharge to waters).

As per clause M2.4 under EPL 1695, collection of daily samples from EPA Points 7 or 10 is required during the occurrence of any bypass or discharge from EPA Point 8 or 9, great er than 2 hours during normal working hours. There was no bypass recorded from EPA Point 8 or 9 during normal working hours greater than 2 hours in the 2020-21 period.