

Picton Wastewater Treatment Plant

2020-21 Pollution monitoring yearly limit summaries



EPL 10555

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 1 Site code PI0001		Point description: Outlet of the effluent buffer tank at the western dam						
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	on bypass	105	<2	35	7	<2	yes
nitrogen (ammonia)	mg/L	on bypass	138	<0.1	1	0.5	0.1	yes
nitrogen (total)	mg/L	on bypass	138	0.85	4.99	6	4	yes
phosphorus (total)	mg/L	on bypass	138	0.02	0.3	0.2	0.05	yes
total suspended solids	mg/L	on bypass	138	<2	15	5	<2	yes

80 percentile yearly summary								
EPA Point 1 Site code PI0001		Point description: Outlet of the effluent buffer tank at the western dam						
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	on bypass	138	<1	24,000	200	230	no ¹

¹The faecal coliforms exceedance was influenced by the March 2021 East Coast Low event. To minimise uncontrolled discharge of water from the Eastern Dam, effluent which was not fully treated was transferred into Western Dam. This resulted in a number of FC exceedances in a short period of time.

Following this event, a temporary disinfection process was setup on Eastern to Western dam transfer line. Improvements in treatment level, UV disinfection and capacity are being planned

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90 percentile yearly summary

EPA Point 1 Site code PI0001		Point description: Outlet of the effluent buffer tank at the western dam						
pollutant	unit of measure	sampling frequency	number of samples	minimum result	maximum result	90 percentile limit	90 percentile value	within limits
biochemical oxygen demand	mg/L	on bypass	105	<2	35	10	2	yes
nitrogen (ammonia)	mg/L	on bypass	138	<0.1	1	1	0.4	yes
nitrogen (total)	mg/L	on bypass	138	0.85	4.99	10	4.62	yes
phosphorus (total)	mg/L	on bypass	138	0.02	0.3	0.4	0.19	yes
total suspended solids	mg/L	on bypass	138	<2	15	10	4	yes

50 percentile yearly summary

EPA Point 11 Site code PI0011		Point description: Outlet of the effluent irrigation eastern dam						
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 when irrigating	13	<2	5	10	3	yes
faecal coliforms	CFU/100mL	every 6 days when irrigating	14	<2	140	2,000	21	yes
nitrogen (ammonia)	mg/L	every 6 days when irrigating	14	0.02	2.44	2	0.11	yes
nitrogen (total)	mg/L	every 6 days when irrigating	14	2.24	5.01	10	2.75	yes
pH	pH Units	every 6 days when irrigating	14	7.52	9.57	6.5 - 9.5	8.74	yes
phosphorus (total)	mg/L	every 6 days when irrigating	14	0.06	0.61	8	0.16	yes
total suspended solids	mg/L	every 6 days when irrigating	14	<2	11	120	2	yes

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EPA Point 11 Site code PI0011		Point description: Outlet of the effluent irrigation eastern dam						
pollutant	unit of measure	sampling frequency	number of samples	minimum result	maximum result	90 percentile limit	90 percentile value	within limits
biochemical oxygen demand	mg/L	every 6 days when irrigating	13	<2	5	15	4	yes
faecal coliforms	CFU/100mL	every 6 days when irrigating	14	2	140	10,000	57	yes
nitrogen (ammonia)	mg/L	every 6 days when irrigating	14	0.02	2.44	5	2.4	yes
nitrogen (total)	mg/L	every 6 days when irrigating	14	2.24	5.01	15	4.97	yes
phosphorus (total)	mg/L	every 6 days when irrigating	14	0.06	0.61	9	0.6	yes
total suspended solids	mg/L	every 6 days when irrigating	14	<2	11	480	9	yes

50 percentile yearly summary

EPA Point 13 Site code PI0013		Point description: Outlet of the effluent irrigation western dam						
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 when irrigating	13	<2	10	7	2	yes
nitrogen (ammonia)	mg/L	every 6 days when irrigating	15	0.01	0.3	0.5	0.06	yes
nitrogen (total)	mg/L	every 6 days when irrigating	15	3.54	4.48	6	4.1	yes
pH	pH Units	every 6 days when irrigating	15	7.51	9.05	6.5 - 9.5	8.3	yes
phosphorus (total)	mg/L	every 6 days when irrigating	15	0.02	0.16	0.2	0.06	yes
total suspended solids	mg/L	every 6 days when irrigating	15	<2	4	7	<2	yes

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EPA Point 13 Site code PI0013		Point description: Outlet of the effluent irrigation western dam						
pollutant	unit of measure	sampling frequency	number of samples	minimum result	maximum result	90 percentile limit	90 percentile value	within limits
biochemical oxygen demand	mg/L	every 6 days when irrigating	13	<2	10	10	7	yes
faecal coliforms	CFU/100mL	every 6 days when irrigating	15	5	240	200	180	yes
nitrogen (ammonia)	mg/L	every 6 days when irrigating	15	0.01	0.3	1	0.25	yes
nitrogen (total)	mg/L	every 6 days when irrigating	15	3.54	4.48	10	4.35	yes
phosphorus (total)	mg/L	every 6 days when irrigating	15	0.02	0.16	0.4	0.13	yes
total suspended solids	mg/L	every 6 days when irrigating	15	<2	4	15	3	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 1 are used to indicate the quality of water discharged at EPA Point 14 (precautionary discharge point to Stonequarry Creek).