

Mayfield Concept Plan Approval

Quarterly Stormwater Monitoring Report

March 2017

In accordance with Schedule 3 Condition 2.21 d of the Mayfield Concept Approval, PON has developed a Stormwater Management Strategy for the site.

To support the strategy PON conducts an ongoing site wide monitoring program to confirm that the site continues to meet the commitments and requirements of the Concept Plan Approval. Sampling is undertaken on a quarterly basis at the downstream extent of the site drainage infrastructure prior to discharge into the Eastern and Western drains. There are a total of six sampling locations, see Figure1 below:

Figure 1: Mayfield Site Water Quality Monitoring Locations



Analytes that are to be monitored at each sample location are detailed in Table 1 below:

Table 1: Analytes for Stormwater

Pollutant	Unit of Measure	Frequency	Sampling Method
Total suspended solids	mg/L	Quarterly	Grab sample during rainfall event
pH	pH units	Quarterly	Grab sample during rainfall event
Nitrogen (total)	ug/L	Quarterly	Grab sample during rainfall event
Oil and grease	mg/L	Quarterly	Grab sample during rainfall event
Phosphate	ug/L	Quarterly	Grab sample during rainfall event
BOD	mg/L	Quarterly	Grab sample during rainfall event

Dissolved oxygen	mg/L	Quarterly	Grab sample during rainfall event
Heavy metals (comprehensive suite)	ug/L	Annually	Grab sample during rainfall event

No samples could be collected for the fourth quarter of 2016 due to insufficient flow. The comprehensive suites of metals that are required to be monitored annually were conducted in October 2016.

Results for those analytes monitored quarterly for March 2017 are presented Table 2 below:

Table 2: Results for quarterly suite of analytes

	Units	ED1	ED2	ED3	WD1	WD2	WD3
pH	pH unit	7.23	7.02	6.92	8.12	7.25	7.86
TSS	mg/L	15	15	13	16	11	57
Dissolved Oxygen	mg/L	7.2	9	7	4.3	4.7	7.3
Total Nitrogen (calc)	µg/L	300	600	300	1600	1600	2600
Oil and Grease	mg/L	<5	<5	<5	<5	<5	<5
Filterable Reactive Phosphate	µg/L	210	80	180	<50	<50	<50
Biological Oxygen Demand	mg/L	<2	<2	<2	2	12	4