Mayfield Concept Plan Approval

Quarterly Stormwater Monitoring Report

February 2018

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

The second round of stormwater sampling was conducted in December 2015, with results received in January. This round included all of those analytes that are required to be monitored quarterly. The comprehensive suites of metals that are required to be monitored annually were conducted in September 2015.

Results for those analytes to be monitored quarterly are presented Table 2 below:

Table 2: Results for quarterly suite of analytes

	Units	ED1	ED2	ED3	WD1	WD2	WD3
pH	pH unit	6.82	6.72	6.64	6.61	6.65	6.66
TSS	mg/L	7	15	18	<5	9	10
Dissolved Oxygen	%	92.4	89.9	89.9	83	88.4	89
Total Nitrogen (calc)	µg/L	600	500	400	900	1000	900
Oil and Grease	mg/L	<8	<8	<8	<8	<8	<8
Filterable Reactive Phosphate	µg/L	150	150	150	<50	<50	60
Biological Oxygen Demand	mg/L	2	2	<2	7	6	5