

Mayfield Concept Plan Approval 09_0096

2023 Quarterly Stormwater Monitoring Report

In accordance with Schedule 3 Condition 2.21 (d) of Mayfield Concept Approval 09_0096, PON developed a Stormwater Management Strategy for the Concept Approval Area that includes a stormwater monitoring program to confirm that the site continues to meet the commitments and requirements of the Approval. Sampling is undertaken on a quarterly basis at the downstream extents of site drainage infrastructure, prior to discharge into the Eastern and Western drains. There are a total of six sampling locations shown on Figure 1 below.

Figure 1: Mayfield Concept Area Stormwater 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 | % | Quarterly | Grab sample during rainfall event | | |
| Heavy metals (comprehensive suite) | ug/L | Annually | Grab sample during rainfall event | | |

Stormwater sampling was conducted on 27 March 2023 for locations WD1, WD2 and WD3. Sampling was conducted on 20 April 2023 for locations ED1, ED2 and ED3. All samples were analysed for quarterly suite of parameters and the results are presented below in Table 2.

The annual heavy metal suite is next due in March 2024.

Table 2: Results for quarterly suite of analytes

| 3 March 2022 | Units | ED1 | ED2 | ED3 | WD1 | WD2 | WD3 |
|-------------------------------|---------|------|------|------|------|------|------|
| рН | pH unit | 6.87 | 6.76 | 6.92 | 6.92 | 7.12 | 7.15 |
| TSS | mg/L | 71 | 77 | 133 | 67 | 12 | <5 |
| Dissolved Oxygen | % | 83.9 | 92.6 | 91 | 79.0 | 77.3 | 72.4 |
| Total Nitrogen (calc) | μg/L | 800 | 800 | 600 | 2800 | 2200 | 1600 |
| Oil and Grease | mg/L | <5 | <5 | <5 | <5 | <5 | <5 |
| Filterable Reactive Phosphate | μg/L | 140 | 160 | 100 | 80 | <50 | <5 |
| Biological Oxygen Demand | mg/L | 4 | 4 | 2 | 9 | 4 | 5 |