

27 September 2017

Karen Gallagher  
Environment Protection Authority

*Sent via email: [karen.gallagher@epa.nsw.gov.au](mailto:karen.gallagher@epa.nsw.gov.au)*

Re: Mayfield West Recycling Facility (SSD 7698) - Water Assessment

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Dear Karen,

Our responses to the Environment Protection Authority's (EPA) letter to the Department of Planning and Environment (DPE) of 22 September 2017 regarding the Mayfield West Recycling Facility extension project are provided below.

## 1 Overview

As you are aware, it is proposed to store some wastes internally (in the Main Processing Building) and some inert wastes externally in the segregated heavy waste processing and stockpiling area. The materials that will be stored outside predominately occur outside prior to delivery to the recycling facility.

In our letter of 8 September 2017 we describe the proposed water management system to prevent water contaminated by external stockpiles being discharged to the Hunter River. Instead, contaminated water will be directed to the sewer as trade waste.

## 2 Storage volume sizing

The water management system will capture water from external stockpiles containing 'potentially contaminating wastes' within a separately bunded area (5,200 m<sup>2</sup>). This water will flow to the three-stage pit and be pumped to storage tanks. For a less than 90th-percentile five-day rain event, this water will be captured, treated, tested, stored (pending analytical results) and discharged to sewer if it does not meet water quality criteria. If water quality criteria are achieved, water will be discharged to the perimeter drain (and ultimately to the Hunter River if it is not reused on site or evaporate).

If the tanks fill before they can be tested, they will automatically discharge to the sewer. Therefore, there will be no opportunity for water from the potentially contaminating wastes area to be discharged to the Hunter River unless it meets water quality criteria, regardless of the proposed capacity of the system.

## 3 Water treatment

No wastes will be stored or processed externally outside of the bunded segregated heavy waste processing and stockpiling area (24,990 m<sup>2</sup>). The whole site covers 89,280 m<sup>2</sup>. So runoff from 64,290 m<sup>2</sup> (including the roofs) will be completely segregated from any waste. This runoff will flow to the perimeter drain and the final sedimentation basin.

The proposed water management solution relies on capturing all water from a smaller area (about 6% of the site) rather than increasing the water containment capacity for the site as a whole.

The proposed approach will allow a thorough assessment of water that has contacted potentially contaminating wastes in a range of climatic conditions. It will ensure that this water is not discharged to the river unless water quality criteria are met. The collected water quality data will be used to determine if an on-site water treatment plant is warranted, and if so, will allow the water treatment plant to be designed to treat specific contaminants so that all water quality criteria are met.

There is ample area within the site to install a water treatment system.

#### 4 ANZECC guidelines and site specific trigger values

To address the EPA's concerns regarding the derivation and application of site-specific water triggers, it is proposed to apply the ANZECC/ARMCANZ (2000) default trigger values for slightly to moderately disturbed ecosystems to determine whether to release water from the tanks to the perimeter drain or to the sewer.

As part of preparing the Surface Water Monitoring and Mitigation Plan, Benedict will work with the EPA to determine whether alternative agreed site-specific criteria are appropriate to replace the default trigger values. Site-specific criteria will not be applied without agreement from the EPA.

#### 5 Closing

We trust that this information assures the EPA that water that has been in contact with potentially contaminating waste that exceeds water quality guidelines will not be discharged to the Hunter River.

I will be on leave from tomorrow, returning on 9 October. We understand that completion of the DPE assessment report for the application awaits the resolution of this matter. Therefore, we look forward to addressing any residual concerns you have as quickly as possible. If you have any questions or comments while I am away, please contact Mark Tooker who will assist. Mark's contact details are:

Telephone: 02 9999 5501

Mobile: 0409 912 631

Email: [mark.tooker@tookerandassociates.com.au](mailto:mark.tooker@tookerandassociates.com.au)

Please copy me and Ernest Dupere ([ernest@benedict.com.au](mailto:ernest@benedict.com.au)) on any emails.

Yours sincerely



Dr Philip Towler

Associate Director

[ptowler@emmconsulting.com.au](mailto:ptowler@emmconsulting.com.au)

cc. Kelly McNicol, Team Leader, Industry Assessments, DPE