



Our Ref. DOC17/439382

Mr Kelly McNicol
Department of Planning and Environment
Industry and Assessment
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Attention: Ms Kate Masters

Standard Post and Electronic Mail
23 August 2017

Dear Mr McNicol

Mayfield West Recycling Facility SSD 7698 – Water Assessment

I refer to the Mayfield West Recycling Facility SSD 7698 at 1a McIntosh Drive, Mayfield West submitted by Benedict Recycling Pty Ltd ("the Applicant") and the Response to Submissions Report (RTS) dated 20 July 2017.

Further to comments provided to the Department of Planning and Environment (DPE) on 17 August 2017 (DOC17/426803), please see below advice from the EPA's water technical specialist relating to Sections 3.13 to 3.19 of the RTS:

- The RTS has not demonstrated that the sizing of the treatment system is adequate for controlled discharges or managed overflows.
- Controlled discharges could potentially have a range of pollutants at non-trivial levels. Consequently, the current Blue Book based design and discharge frequency would not be considered appropriate as the current system only treats for sediment-laden water. The levels of pollutants in managed overflows may result in non-trivial harm and more stringent capture and reduced overflow frequencies may therefore be required, or alternatively, at-source controls to ensure that only clean sediment is discharged.
- It is the responsibility of the Applicant to assess and mitigate all potential non-trivial risks to human health or the environment as part of the development application. The first step is to characterise the full range of potential site risks, consider all practical and reasonable measures to avoid a discharge, (e.g. maximise reuse), and then consider all practical and reasonable measures to minimise the impact of the discharge.


- Current sediment dam sizing is based on *Managing Urban Stormwater – Soils and Construction* (Blue Book) volumes 1 and 2 which include practices and principles appropriate for managing uncontaminated runoff containing only clean sediment. A characterisation of discharge quality is proposed after consent. It is therefore not possible to assess the adequacy of the proposed sediment basin sizing or the suitability of the proposed contingency mitigation options. Additional storage volume is not included as a contingency option. Therefore, no information has been provided to determine if the development can be 'retrofitted' or if there is a commitment to retrofit the site with any necessary controls to appropriately manage water pollution, including costs and area available for additional water capture, storage or treatment; or at source controls, including roofing or bunding high risk areas of the site.
- It is recommended that more specific detail on the types and viability of possible contingency mitigation measures and commitment to implementing is provided if these are to be implemented based on a post-approval characterisation.
- The analyte suite proposed in Table 3.16 is generally suitable for a characterisation program. Process or cleaning chemicals and any treatment chemical residuals should also be included in the program as well as any pest or weed control chemicals used on site. The proposed 12-week program is limited by rainfall events occurring in that timeframe. There needs to be a minimum number of samples taken that is statistically representative, covers the range of operations at the site and a range of rainfall event sizes.
- The validation monitoring program does not provide an appropriate definition of what will be considered to be low risk to the Hunter River.
 - A target suspended sediment concentration of 50 mg/L prior to discharge may not be appropriate if there are pollutants attached to sediment.
 - The proposal to develop "Hunter River Trigger Values" based on water quality in the lower Hunter is unlikely to be in accordance with the approach described in Section 3.3.2.4 of the ANZECC/ARMCANZ (2000) guidelines. The lower Hunter estuary is a highly modified environment and the community's objective for the level of protection for the Hunter River is a slightly to moderately disturbed system. The default trigger values in the ANZECC (2000) guidelines were derived from ecosystem data for unmodified or slightly disturbed ecosystems. Slightly disturbed reference sites must therefore be used to derive site specific trigger values for a waterway with a slightly to moderately disturbed protection level. 24 contiguous monthly samples from an appropriate (i.e. slightly disturbed) reference site(s) would be required. The reference site(s) should be agreed by the EPA. The default trigger values apply until these criteria are met for agreed reference sites.
 - For water quality assessments, if an ANZECC (2000) trigger value is not available for an analyte then Volume 2 of ANZECC (2000) should be consulted for interim trigger values or international literature or guidelines should be referenced to identify an environmental concern level to use in the assessment.
- The contingency options in Section 3.9.5 include a range of potential elements but does not adequately cover all options or provide adequate detail on the proposed options.
 - Treatment options for example may include flocculation, however, this may not address dissolved contaminants and introduces an additional potential toxicant in the flocculation product that will need to be managed and assessed.
 - Offsite disposal would only ever be a temporary measure and a more permanent solution would need to be found.
 - Additional runoff capture volumes relative to risk is not included.

- The water treatment plant option does not provide detail on the budget, viability and site constraints related to its ability to address as yet unknown levels of pollutants. Additional runoff capture may still need to be provided with this option to reduce managed overflow risks.
 - At source controls including covers and roofs are not considered.
 - Maximising reuse is not considered, however should be a primary option prior to considering any discharge.
 - Discharge to sewer has not been considered as an option for any higher risk parts of the site.
- A discharge assessment of the flocculants that will be used is needed to inform options to ensure consideration of any non-trivial risks to the receiving environment.

It would be preferable to address these issues prior to consent or seek greater detail on the ability and commitment to implement additional mitigation measures that may be required. If additional detail is provided it is recommended that if consent is granted that the expansion is conditional on the characterisation program and agreed mitigation plan. A PRP can be used to characterise the discharge and require the development of a mitigation, implementation and ongoing monitoring plan in a staged approach.

If you have any further questions in relation to this matter, please contact Karen Gallagher on (02) 4908 6822.

Yours faithfully

 25/8/2017

STEVEN JAMES
Acting Manager Regional Waste Compliance
Environment Protection Authority