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Planning Services Industry Assessments
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2000

Att: Nikki Matthews
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Dear Sir/Madam

Recommended Comments for Approval - Concrush Increase to Capacity – SSD 8753

Thank you for providing the Response to Submissions (**RtS**) for the abovementioned proposal to the Environment Protection Authority (**EPA**). The EPA previously provided comments on the proposal to the Department of Planning and Environment (**DPE**) on 13 December 2018, 5 February 2019 and 5 March 2019.

The EPA understands the proposal seeks to increase to capacity for the Concrush Resource Recovery Facility at 21 Racecourse Road, Teralba (**Premises**), including:

- Increasing the processing capacity of the existing facility from 108,000 tonnes per annum (tpa) to 250,000 tpa;
- Increasing the storage capacity from 40,000 to 150,000 tonnes at any one time;
- Upgrading existing facilities;
- Increasing the site footprint from 2.4 hectares (ha) to 4.8 ha;
- Establishing a landscaping material and supplies retail component; and
- Extending operational hours to allow night work.

The EPA has reviewed the RtS and consolidated previous letters and recommendations to provide Recommended Comments for Approval for State Significant Development 8753 as **Attachment A**.

The RtS provided significant variations to the management of water in the proposal. For this reason, comments on the EPA's assessment of water management in the RtS are provided as **Attachment B**.

The Premises currently operates under Environment Protection Licence 13351 (**the Licence**). If the proposal is approved, a separate application to vary the Licence must be made to the EPA before any works relating to the expansion, including construction and operations, may begin.

All assessments, investigations, reports and plans required in Attachment A are subject to the EPA's review and the EPA will need to be satisfied of their adequacy prior to varying the Licence.

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If you have any queries relating to this matter, please contact Grace Bell on (02) 4908 6845.

Yours faithfully

31/5/2019

STEVEN JAMES
Unit Head Waste Compliance
Environment Protection Authority

Attachment A: EPA Recommended Comments for Approval for SSD 8753

Attachment B: Assessment of Water Management in Response to Submissions

Attachment A

EPA Recommended Comments for Approval for SSD 8753

Air

1. The premises must be maintained in a condition which minimises and prevents the emission of air pollutants, including dust, from the premises.

2. Activities at the premises must be carried out in a manner that will prevent and or minimise the emission of air pollutants, including dust, from the premises.

3. The proponent must prepare and implement an Air Quality Management Plan (AQMP) for the premises. For all emission sources at the site the AQMP must include:
   a. Proactive and reactive management strategies;
   b. Key performance indicator(s);
   c. Monitoring method(s);
   d. Location, frequency and duration of monitoring;
   e. Record keeping;
   f. Response mechanisms; and
   g. Compliance reporting.

Noise

4. Construction hours are limited to:
   a. 7 am to 6 pm (Monday to Friday)
   b. 8 am to 1 pm (Saturdays)
   c. No work (Sundays and Public Holidays)

5. All feasible and reasonable noise mitigation measures must be applied to manage construction and operational noise impacts at the premises. Noise mitigation measures are outlined in the Environmental Impact Statement (Umwelt, 9 November 2018) and Appendix H Noise Impact Assessment (RCA Australia (RCA ref 13155-601/4 November 2018)).

6. Written confirmation from residents in NCA1 to DPE is recommended to confirm their position on the proposed noise mitigation management measures as referenced in the RtS section 4.1.1.2.

7. Activities are not permitted to be carried out at the premises during night time periods.

   Note: Time of day is defined in the EPA's Noise Policy for Industry guidelines as follows:
   - Day: 7 am to 6 pm Monday to Saturday; 8 am to 6 pm on Sundays and Public Holidays.
   - Evening: 6 pm to 10 pm.
   - Night: the remaining periods.

8. Noise barriers on the eastern and southern perimeter of the premises must be completed prior to the commencement of construction and must be maintained during operations.

9. Only one of the following activities, and associated plant, may be carried out at any time during the evening period:
   a. Screening and stockpiling of material; or
   b. Loading and dispatch of trucks.

   Note: This condition applies when the site is operational (I.e. when the licence has been varied to permit operations).

Contaminated Land

10. A Data Gap Investigation (DGI) is required during construction to establish groundwater quality and hydrology at the premises.

11. The DGI must include the installation and investigation of a third groundwater well.

12. A summary report of the DGI must be prepared and submitted to the EPA prior to the commencement of operations.

13. The proponent must prepare and implement an Environment Management Plan (EMP) and Remedial Action Plan (RAP) to manage any residual contamination throughout the construction phase.

14. The EMP and RAP may be included in the premises' Construction Environmental Management Plan (CEMP).

15. The proponent must engage a certified consultant to prepare a Section A Site Audit Statement to confirm suitability of the land for its proposed use.

16. The Section A Site Audit Statement must be submitted to the EPA prior to the commencement of operations.

    Note: All reports submitted to the EPA to comply with the requirements of the *Contaminated Land Management Act 1997* (I.e. reports are to be prepared, or reviewed and approved, by a certified consultant).

Water

17. Prior to commencement of operations, the proponent must prepare a Discharge Impact Assessment (DIA). The DIA must:
    a. be prepared by a suitably qualified and experienced expert/s;
    b. demonstrate that all practical and reasonable measures have been investigated and will be implemented to avoid, minimise or mitigate water pollution impacts;
    c. estimate the expected volume and frequency of discharges from each proposed discharge point;
    d. characterise the expected quality of discharges from each proposed discharge point in terms of the concentrations and loads of all pollutants potentially present at levels that pose a risk of non-trivial harm to human health or the environment;
    e. assess the potential impact of discharges on the environmental values of the receiving waterways with reference to the relevant *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* guideline values; and
    f. where relevant propose changes to the water management system to address potential impacts and revise the discharge characterisation and impact assessment.

18. Prior to commencement of operations, the proponent must prepare a Discharge Verification and Mitigation Plan (DVMP) to verify the quality of operation stage discharges and identify management triggers and responses. The DVMMP must:
    a. be prepared by a suitably qualified and experienced expert/s;
    b. detail methods to determine the frequency and volume of discharges;
    c. detail sampling methods to verify the quality of discharges, specifying:
        i. the sampling location/s;
        ii. the sampling frequency, number and conditions (ensuring sampling is timed to be representative of operational conditions);

iii. the analytical suite based on a risk assessment of the types of materials that will be processed and stored onsite, the pollutants that could be mobilised from these and monitoring results for similar sites (e.g. the existing development);
iv. identify management triggers to be applied to the characterisation and ongoing monitoring results;
v. identify mitigation measures to be implemented in response to these triggers (e.g. increasing the size of sediment basins, at-source pollution controls, additional or alternative water treatment measures); and
vi. specify the timeframe for implementation of mitigation measures.

19. Within 12 months of commencement of operations, the proponent must provide a Discharge Verification and Mitigation Report (DVMR). The DVMR must:
    a. be carried out by a suitably qualified and experienced expert/s;
    b. be prepared consistent with the methodology set out in the DVMP; and
    c. detail any exceedances of management triggers and associated mitigation measures implemented.

20. The DIA, DVMP and DVMR must be submitted to the EPA for review.

    Note: Timelines for submission of reports to the EPA will be negotiated via a licence variation.

21. There must be no discharges to waterways except as a direct result of rainfall in excess of the design capacity of the final water storages. The final design capacity and equivalent rainfall depth will be determined based on assessment and the DIA.

22. All wastewater storages, with the exception of the garden and wood waste leachate dam and constructed wetland, must be lined consistent with the design specifications for leachate dams recommended by the *Environmental Guidelines Solid Waste Landfills* (EPA, 2016).

23. Garden and wood waste leachate must not be reused outside of the leachate barrier system. This condition may be reviewed by the EPA, subject to the applicant demonstrating that the potential water pollution risks will be appropriately managed.

24. No more than 200 tonnes of Garden and Wood Waste may be stored at the premises at any one time.

25. No more than 5,000 tonnes of Garden and Wood Waste may be processed at the premises per annum.

    Note: “per annum” is defined by the anniversary date of an environment protection licence.

Attachment B

Assessment of Water Management in Response to Submissions – SSD 8753

1. Stormwater Management

1.1 Treatment

Sediment retention basins are designed to capture and treat stormwater containing 'uncontaminated' sediment. Monitoring from the existing site indicates runoff contains elevated metal concentrations. Chromium VI ranged up to 53µg/L, 53 times the guideline value, and copper ranged up to 76µg/L, 54 times the guideline value. The RtS indicates storage and processing of waste concrete is the source of these pollutants.

Further assessment is required to determine whether the proposed stormwater management system will adequately treat runoff or if alternative and/or additional measures are required to minimise and mitigate potential impacts (e.g. to reduce metal concentrations).

1.2 Sediment retention basin sizing

The EPA indicated that the type C sediment retention basins, proposed in the EIS, may not be appropriate or adequate to treat runoff that contains pollutants other than coarse sediment. The RtS now proposes type D sediment retention basins, sized to treat runoff from the 5-day 85th percentile rainfall event, citing the recommendations of the Blue Book (*Managing Urban Stormwater: Soils and Construction, Volume 1* [Landcom, 2004]). Landcom (2004) provides guidance on stormwater management during the construction-phase of urban development, which may not be appropriate for longer-term operation-phase stormwater management.

Managing Urban Stormwater: Soils and Construction, Volume 2b Waste Landfills (DECC, 2008) provides relevant guidance for ongoing stormwater management at the proposed waste management facility. DECC (2008) recommends that where the duration of disturbance is more than three years and the receiving environment is not sensitive, Type D sediment retention basins should be designed to achieve the required water quality for storms up to the 90th percentile 5-day storm event (i.e. 51.8mm at Newcastle).

The proposed basins appear undersized for ongoing management of sediment laden stormwater.

1.3 Wastewater storage liners

It is unclear whether the sediment retention basins would be lined. The basins would receive leachate overflows and contaminated runoff from waste processing and stockpiling areas. The RtS indicates the wastewater will contain a range of pollutants, including nutrients and metals.

Wastewater storages, such as the proposed basins, should therefore be lined consistent with the design specifications for leachate dams recommended in the *Environmental Guidelines Solid Waste Landfills* (EPA, 2016).

1.4 Discharge impact assessment and verification

The sediment retention basins would be dewatered to the stormwater reuse system and no controlled discharges to waterways are proposed. This partially mitigates the water pollution risks, however, managed overflows would occur as a result of rainfall in excess of the design capacity of the basins and these are likely to carry a range of pollutants.

The RtS does not adequately assess the potential impact of these discharges. Table 4.5 of the RtS estimates concentrations of nitrogen compounds and total phosphorus from SD2. These do not include all pollutants expected to be present at non-trivial levels (e.g. metals) and discharges from SD1 are not characterised. The RtS does not assess whether the discharges will maintain or restore

the environmental values of the receiving waterway. A discharge impact assessment is required to ensure residual water pollution risks are appropriately managed.

If the development is approved, treatment performance would need to be verified once operational and where necessary mitigation measures implemented to address potential water pollution risks.

2. Leachate Management for Garden and Wood Waste

The EPA previously commented that the garden and wood waste leachate could pose risks to water if it is reused outside the green waste leachate barrier system. The EPA recommended that the applicant considers options to manage this leachate separately, such as increasing the capacity of the leachate dam and storing and processing green waste undercover. The RtS considers roofing over the green waste area, indicating this would be cost prohibitive and does not vary the leachate management measures proposed in the EIS.

Monitoring results indicate runoff from the existing site contains elevated nutrient concentrations. Organic waste is likely the main source of these pollutants. The median oxides of nitrogen (nitrate + nitrite) concentration was 18mg/L and ranged up to 74mg/L, 1,850 times the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* guideline value (40µg/L).

Treated leachate could contain elevated nutrient concentrations as the wetland treatment performance is uncertain. Given the hardstand surface will be composed of recycled roadbase (which is likely to be highly permeable), leachate reuse outside the leachate barrier potentially poses risks to groundwater and adjacent waterways.

The applicant would need to demonstrate that water pollution risks would be appropriately managed before leachate reuse outside the leachate barrier system could be considered.