

Environmental Assessment
Report
New Asphalt Plant
59 Remount Road, Mowbray
Downer EDI Works
Pty Ltd

June 2022



ENVIRONMENT PROTECTION AUTHORITY

Environmental Assessment Report

Proponent	Downer EDI Works
Proposal	New Asphalt Plant
Location	59 Remount Road, Mowbray
Class of Assessment	2B
PCE no.	10868
Permit Application No.	DA0392/2021 City of Launceston
MyDAS Folder No.	21/2140
MyDAS Document No.	D22-230915

Assessment Process Milestones

13/05/2021	Notice of Intent lodged
2/06/2021	Guidelines Issued
31/08/2021	Permit Application Referral received by the Board
11/02/2022	Case for assessment (EIS) accepted
19/02/2022	Start of public consultation period
21/03/2022	End of public consultation period
23/05/2022	Date draft conditions issued to proponent
12/06/2022	Statutory period for assessment ends

Glossary/Acronyms

Board	Board of the Environment Protection Authority
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EMPC Act	<i>Environmental Management and Pollution Control Act 1994</i>
EMPCS	Environmental management and pollution control system
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</i>
LUPA Act	<i>Land Use Planning and Approvals Act 1993</i>
NC Act	<i>Nature Conservation Act 2002</i>
NOI	Notice of Intent
NRE	Department of Natural Resources and Environment Tasmania
RMPS	Resource Management and Planning System of Tasmania
RAP	Recycled Asphalt Pavement
SD	Sustainable development
TSP Act	<i>Threatened Species Protection Act 1995</i>

Report Summary

This report is an environmental assessment of a new asphalt plant by Downer EDI Works Pty Ltd.

The proposal involves construction and operation of an asphalt plant in Mowbray with a production capacity of 50,000 tonnes per annum. The proposed batch process will enable the incorporation of a small proportion of recycled plastics, glass, fly ash, rubber, and recycled asphalt material in addition to bitumen and crushed rock. The proposed asphalt plant will replace an existing Downer EDI facility located on a Boral Quarry site, also in Mowbray, which will be decommissioned.

This report has been prepared based on information provided in the permit application and Environmental Impact Statement (EIS). Relevant government agencies and the public were consulted, and their submissions considered as part of the assessment.

Appendix 1 contains details of matters raised by the public and referral agencies during the consultation process.

Appendix 2 contains a table of the proponent's proposed management measures.

Appendix 3 contains the environmental permit conditions for the proposal.

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I Approval Process

The Board of the Environment Protection Authority (the Board) received a Notice of Intent for this proposal on 13 May 2021.

The proposal is defined as a 'level 2 activity' under clause 7(d), Schedule 2 of the *Environmental Management and Pollution Control Act 1994* (EMPC Act), being a pre-mix bitumen plant.

The Board required that information to support the proposal be provided in the form of an Environmental Impact Statement (EIS), prepared in accordance with the Guidelines issued by the Board on 2 June 2021.

An application for a permit under the *Land Use Planning and Approvals Act 1993* (LUPA Act) was referred by City of Launceston on 31 August 2021.

Several drafts of the EIS were submitted to EPA for review against the Guidelines before it was finalised and accepted on behalf of the Board on 11 February 2022.

The EIS was released for public inspection for 28 days starting on 19 February 2022. Advertisements were placed in *The Examiner* and on the EPA website. The EIS was also referred to relevant government agencies for comment. One representation was received, although no supplementary information was required.

The Executive Director, Environmental Assessments, has undertaken determination of the assessment under delegation from the Board.

2 SD Objectives and EIA Principles

The proposal must be considered by the Board in the context of the objectives of the Resource Management and Planning System of Tasmania (RMPS), and the Environmental Management and Pollution Control System (EMPCS). Both sets of objectives are specified in Schedule 1 of the EMPC Act.

The functions of the Board are to administer and enforce the provisions of the EMPC Act, and to use its best endeavours to further the RMPS and EMPCS objectives. The Board must assess the proposal in accordance with the Environmental Impact Assessment Principles defined in Section 74 of the EMPC Act.

3 The Proposal

The main characteristics of the proposal are summarised in Table 1. A detailed description of the proposal is provided in Section 2 of the EIS.

The EIS states that the proposed plant will produce standard asphalt as well as ‘Reconophalt’ products, which incorporate recycled materials such as:

- Recycled Asphalt Pavement (RAP);
- TonerPlas (waste toner and granular soft plastics); and
- crumb rubber.

Table 1: Summary of the proposal’s main characteristics

Activity	
Production of a maximum of 50,000 tonnes of asphalt per annum.	
Location and planning context	
Location	59 Remount Road, Mowbray as shown in Figure 1
Land zoning	The site is zoned General industrial under the <i>Launceston Interim Planning Scheme 2015</i> (Figure 2).
Land tenure	Private Freehold
Activity site	
Land Use	The site is currently operated as a salvage yard for recycled building materials including scrap metal recycling. This land use will cease if a permit for the asphalt plant is issued by Council.
Topography	Relatively flat with a gentle slope to the northwest with the lowest elevation of 33.2m AHD recorded in the north-west corner of the site.
Geology	The area is dominated by Cenozoic sediments and Late Cenozoic terrace deposits comprising siliceous pebbles, gravel, and sand.
Soils	Silt, sandy clay, clayey sand overlying moderate to high density brown/orange and grey/brown/red mottled clay. Dolerite boulders at surface in the north-eastern corner of the site.
Hydrology	A north flowing table drain is located on Cavalry Road. This drain directs water under Cavalry Road through a culvert. Water is then piped under 11 Cavalry Road and discharges to a dam located on the Mowbray golf course. The dam discharges to Newnham Creek (Figure 3). The EIS states groundwater was not encountered to a depth of 2.7m during the soils assessment.
Natural Values	The site has been used for commercial purposes for over twenty years and is devoid of vegetation except for some grass and a small cluster of mature pine trees. As no natural areas remain, natural values are not considered further in this report.

Local region	
Climate	Cold winters with occasional temperatures below 0 degrees and moderate summers. The average annual rainfall for Launceston is 677mm. Winds are predominantly from the north-west.
Surrounding land zoning, tenure and uses	The area immediately surrounding the site comprises industrial uses including a quarry, two asphalt plants and warehousing. Recreational areas (golf course, horse racing) and commercial areas are also located nearby. The nearest residential areas are located between 430m and 564m to the south (Figure 4).
Species of conservation significance	Three species of threatened flora were recorded before 1996 on land within 500m of the site boundary, however these areas have since been cleared. One sighting of the Tasmanian wedge-tailed eagle (<i>Aquila audax subsp. fleayi</i>) within 500m was recorded in 2017.
Proposed infrastructure	
Major equipment	Materials feed hoppers, rotary dryer, baghouse, pug mill mixer, materials scale, hot asphalt storage, bitumen storage tanks, diesel storage tanks, oil storage, reclaimed RAP screen, weighbridge, offices, stormwater sumps and attenuation tank (refer Figure 5).
Inputs	
Water	Mains connection. Minor usage for ablutions and crib room, washing of trucks that have transported aggregates to site.
Energy	Natural gas is proposed as the main fuel source (supplied from mains). Diesel is proposed as an alternative fuel source if required.
Other raw materials	Aggregate which comprises 58% of the total raw materials will be sourced from the Boral quarry located at 150 Remount Road. Other raw materials include, sand, RAP, lime, bitumen, toner waste and soft plastic, crushed glass, and crumb rubber. The toner waste, soft plastic and crumbed rubber comprise a total of 0.08% of raw materials. Crushed glass comprises 0.62% of raw materials.
Wastes and emissions	
Liquid	Stormwater runoff from plant and stockpile areas. No liquid waste from the asphalt production process.
Atmospheric	Dust from internal traffic, odour, and particulate emissions from the asphalt plant stack.
Solid	General refuse including food scraps, paper, and packaging.
Controlled wastes	Spilled asphalt product will be recycled into the process. No workshop or maintenance facilities for vehicles on site. Assessment for soil contamination undertaken for site due diligence determined metals and petroleum hydrocarbon compounds were within acceptable limits for commercial use.
Noise	From RAP screen, materials loading, plant operation, and vehicles on site and going to and from the site.

Greenhouse gases	The production of asphalt generates greenhouse gases including carbon dioxide, methane, nitrous oxide, sulphur dioxide, propane, ethane, and fluorinated gases.
Construction, commissioning and operations	
Construction	<p>The following hours are proposed for construction:</p> <ul style="list-style-type: none"> • 6am to 6pm Monday to Friday • 7am to 4pm Saturday (when required) • No operation Sundays or Public Holidays <p>Construction will take approximately 26 weeks.</p>
Commissioning	<p>Commissioning will include:</p> <ul style="list-style-type: none"> • Compliance testing of the asphalt plant burner. • Calibration of feeders, conveyor belts, load scales and weighbridge. • Testing of alarms and safety devices. • Testing of input delivery systems. • Testing of plant drying and heating efficiency and production capacity. • Verification testing of noise and air emissions. • Testing of asphalt mixes for compliance with local road specifications.
Operating hours (ongoing)	<p>Receipt of goods is proposed:</p> <ul style="list-style-type: none"> • 6am to 6pm Monday to Friday • 7am to 4pm Saturday (when required) • No operation Sundays or Public Holidays <p>Asphalt production is proposed to be between 0700 to 1400 hours Monday to Friday on a regular basis. 24 hours per day, 7 days per week operation is proposed for specific campaigns.</p>
Other key characteristics	
The plant is proposed to replace an existing asphalt batch plant, also operated by Downer EDI located on the Boral Quarry site at 150 Remount Road, Mowbray.	



Figure 1: Proposed location (Figure 2 of the EIS)

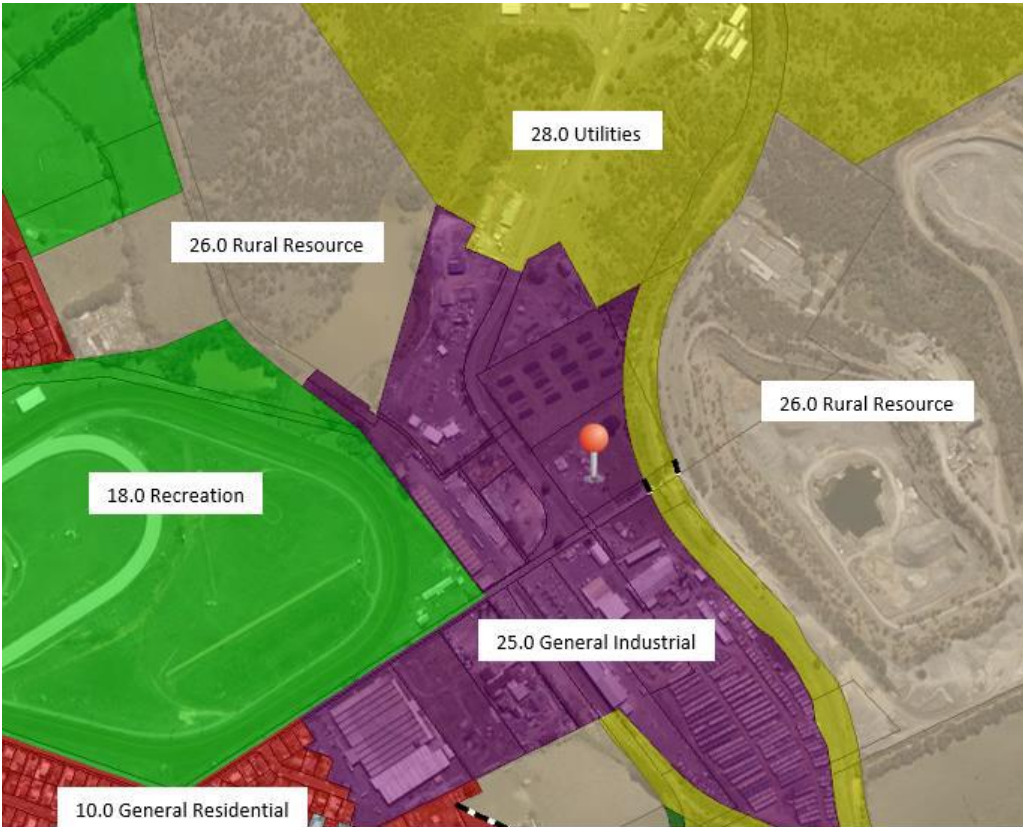


Figure 2: Land zoning (Figure 5 of the EIS)



Figure 3: Drainage in the local area (Figure 23 of the EIS)



Figure 4: Distance to sensitive receptors (Figure 6 of the EIS)

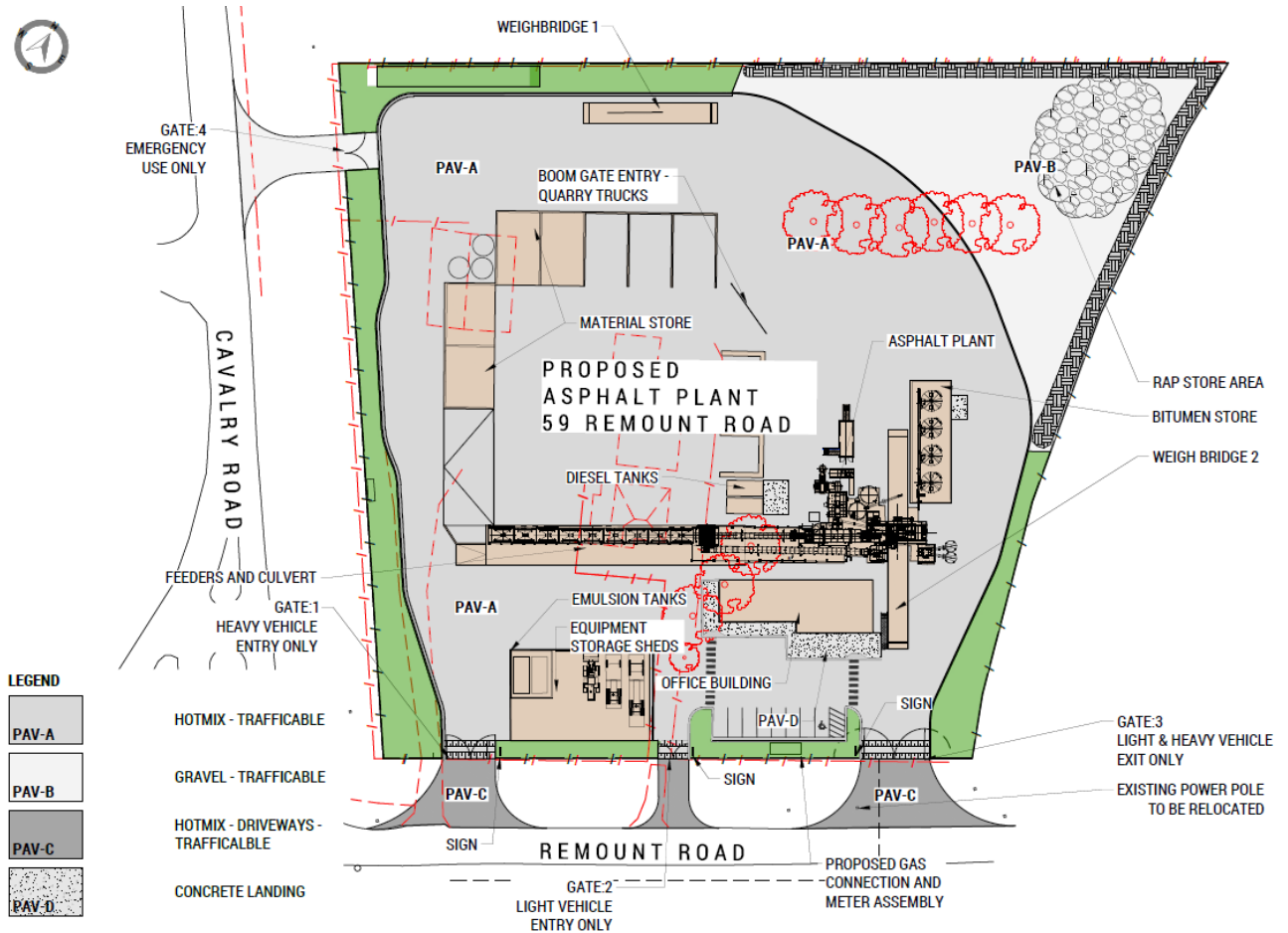


Figure 5: Site plan (Figure 3 of the EIS)

4 Project Rationale and Alternatives

The EIS states that the site was selected due to proximity to customers and raw materials, access to supply services, distance to sensitive receptors, and location within an industrial estate.

The type of plant (an Ammann Value/Uni Batch 180 plant) was selected for the following reasons:

- The plant has the capability of mixing asphalt with the addition of up to 30% RAP which provides the environmental benefits of recycling products that would otherwise go to landfill.
- Waste plastic and rubber can be recycled in the plant.
- The plant incorporates efficient electrical heating and insulation for the bitumen tanks.
- The use of heated storage minimises shut downs and start ups, which reduces air emissions.

The construction of a new plant will be on land owned by Downer EDI Works rather than on leased land (as per the existing Downer asphalt plant on the Boral Quarry site). The EIS states this will enable Downer EDI Works to have more control over minimising safety risks to visitors, cartage contractors and staff.

The EIS states the construction of the new plant will enable a range of asphalt incorporating recycled materials to be available for the Tasmanian market.

5 Public and Agency Consultation

One public submission was received during the public consultation period. The main issue raised was:

- Setback distances between the closest proposed building and the adjacent railway easement.

Appendix I of this report contains details of the submission received.

The EIS was also referred to several government agencies with an interest in the proposal. No submissions were received.

The following individuals also provided specialist advice on the EIS:

- Regulatory Officer, Environment Protection Authority
- Scientific Officer (Air), Environment Protection Authority
- Scientific Officer (Water), Environment Protection Authority
- Scientific Officer (Noise), Environment Protection Authority

6 Evaluation of Key Environmental Issues

Two key environmental issues were identified for detailed evaluation in this report:

- Air quality
- Noise

These issues are discussed in the following subsections.

6.1 Key Issue 1: Air Quality

6.1.1 Description

Emission sources

The production of dust, odours, and gaseous pollutants (fumes) can occur at most stages of the asphalt production process. Emissions to air can be derived from both the stack (odours and fumes), and from fugitive sources (particulate matter/dust, odour, and fumes).

Dust sources include vehicle movements, stockpiles, handling of materials with front-end loaders, screening, aggregate drying, and truck loading.

Potential sources of fumes include the exhaust stack, venting of the bitumen storage tank, and truck loading. Process emissions include products of both complete combustion (such as NO_x and SO_x, CO₂, and water) and incomplete combustion (Volatile organic compounds - VOCs, CO, and other organic particulate matter). VOCs are created from use of liquid bitumen, petroleum distillates, and emulsifiers. Storage tanks holding fuel oils and heated liquid asphalts may also be a source of VOC emissions.

Air dispersion modelling

Air emissions modelling was undertaken for the proposal and is presented in Section 6.1 and Appendix S of the EIS.

Modelling results for the constituents of concern were assessed against criteria values derived from three sources as follows;

- *Tasmanian Environment Protection Policy (Air Quality) 2004* for odour under schedule 3.
- *NSW Environment Protection Authority (EPA) Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (2017)* for metals and VOCs.
- *National Environment Protection (Ambient Air Quality) Measure (Air NEPM) standards (2021)* for Carbon Monoxide, Oxides of Nitrogen, Sulphur Dioxide and Particulate Matter (PM₁₀ and PM_{2.5}).

Modelling assumptions included the following:

- Use of Reconophalt (asphalt with recycled components) comprising TonerPlas (including soft plastic), virgin bitumen and RAP to a maximum of 5,000 t per annum.
- Emission factors for constituents of concern based on NPI data for Asphalt Plant Manufacturing.
- Stack emissions likely to be the same as those predicted by manufacture data.
- Emissions calculated based on a production rate of 180 tonne per hour for 24 hour production.
- Natural gas as a burner fuel.

Modelling results

The maximum ground level concentrations (GLCs) for constituents of concern at or beyond the boundary of the site air is presented in Table 1. Results for particulates at each sensitive receptor identified in Figure 4 is provided in

Table 2.

Isopleths for PM₁₀ (24 hrs), PM_{2.5} (24 hrs) and odour are presented in Figure 6, Figure 7 and Figure 8.

Table 1: Air dispersion modelling results (figure 15 in EIS, extracted from table 3-8 EIS Appendix S)

Maximum glc at or beyond the site boundary ($\mu\text{g}/\text{m}^3$)						
Constituent	Av. period	Criterion	Predicted glc			
			Conc. ($\mu\text{g}/\text{m}^3$)	Percent of criterion	UTM coordinate location	
					Easting	Northing
Gases and particles						
CO	8 hrs	11,254	82.1	0.7	512553	5416466
NO ₂ #	1 hr	164.3	92.5	56.3	512553	5416646
	1 yr	30.8	6.8	22.1	512573	5416346
SO ₂	1 hr	286	13.2	4.6	512553	5416446
	24 hrs	57.2	6.8	11.9	512553	5416446
PM ₁₀	24 hrs	50	469.7	939.4	512473	5416546
	1 yr	25	39.0	156.0	512473	5416546
PM _{2.5}	24 hrs	25	70.7	282.8	512473	5416546
	1 yr	8	6.1	76.3	512473	5416546
Metals						
Arsenic	1 hr	0.09	1.2×10^{-3}	1.3	512553	5416446
Beryllium		0.004	3.9×10^{-4}	9.7		
Cadmium		0.018	1.5×10^{-3}	8.2		
Chromium		9 / 0.09	1.6×10^{-3}	< 0.1 / 1.8		
Copper		3.7	6.4×10^{-3}	0.2		
Lead		0.5	1.3×10^{-3}	0.3		
Manganese		18	1.8×10^{-2}	0.1		
Mercury		1.8	8.1×10^{-4}	< 0.1		
Nickel		0.18	7.4×10^{-3}	4.1		
Selenium		-	1.6×10^{-4}	-		
Zinc		90	1.2×10^{-2}	< 0.1		

Constituent	Av. period	Criterion	Predicted glc			
			Conc. ($\mu\text{g}/\text{m}^3$)	Percent of criterion	UTM coordinate location	
					Easting	Northing
VOCs and odour						
Acetone	1 hr	22,000	12.6	0.1	512553	5416408
Acetaldehyde		42	1.3	3.1		
Benzene		29	0.7	2.3		
1,3-Butadiene		40	1.7	4.2		
Formaldehyde		20	3.5	17.3		
PAHs ⁿ		0.4 ⁿ	0.2	62.5		
Toluene		360	8.3	2.3		
Xylenes		190	1.7×10^{-2}	< 0.1		
Odour [*]		2	22.4	1120.0	512553	5416466

as 100 % of NO_x * In odour units (OU). ⁿ as benzo[a]pyrene. ⁿ speciation of glc provided in the Appendix.

Exceeds criterion level.

Table 2: Ground level Concentrations at sensitive receptors (figure 15 in EIS, extract from Table 3-9 EIS Appendix S)

Discrete receptor location glcs ($\mu\text{g}/\text{m}^3$) gases and particulates									
Gases and particles									
Receptor	CO	NO_2 [#]		SO_2		PM_{10}		$\text{PM}_{2.5}$	
	8 hr	1 hr	1 yr	1 hr	24 hr	24 hr	1 yr	24 hr	1 yr
R1	11.8	20.2	0.2	2.9	0.9	6.5	5.5×10^{-2}	1.1	3.3×10^{-2}
R2	12.6	18.4	4.9×10^{-2}	2.6	0.6	7.9	4.9×10^{-2}	1.2	1.5×10^{-2}
R3	9.6	13.9	2.2×10^{-2}	2.0	0.4	5.0	2.4×10^{-2}	0.8	6.8×10^{-3}
R4	6.1	10.7	1.8×10^{-2}	1.5	0.3	3.9	1.7×10^{-2}	0.6	5.3×10^{-3}
R5	21.0	21.1	8.5×10^{-2}	3.0	1.2	7.0	3.2×10^{-2}	1.4	1.7×10^{-2}
R6	5.9	18.4	2.4×10^{-2}	2.6	0.3	0.5	7.3×10^{-3}	0.3	4.7×10^{-3}
R7	10.6	15.8	0.2	2.3	0.9	2.0	3.3×10^{-2}	0.9	3.0×10^{-2}

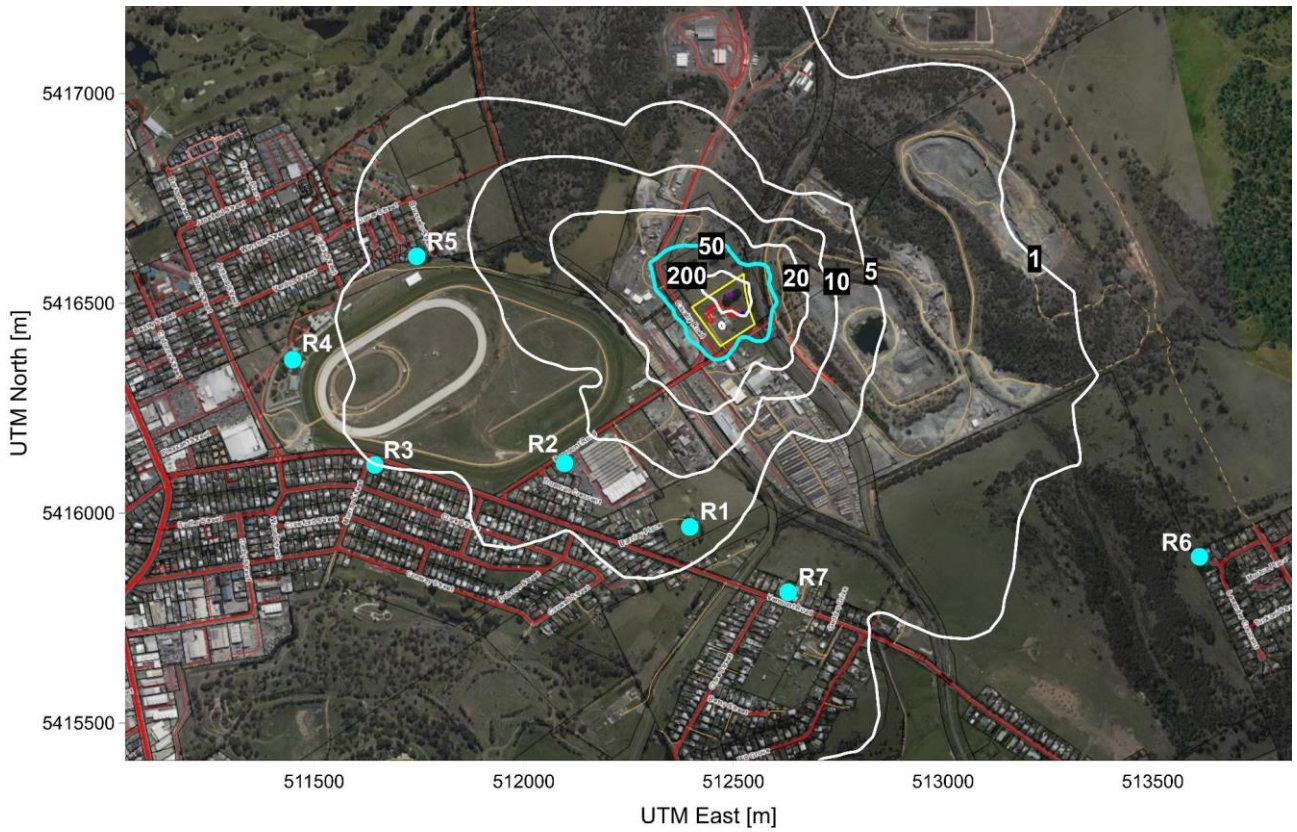


Figure 6: 100th percentile 24 hr average glc PM₁₀ contours (µg/m³) (figure 16 in EIS, figure 3-17 in EIS appendix S)

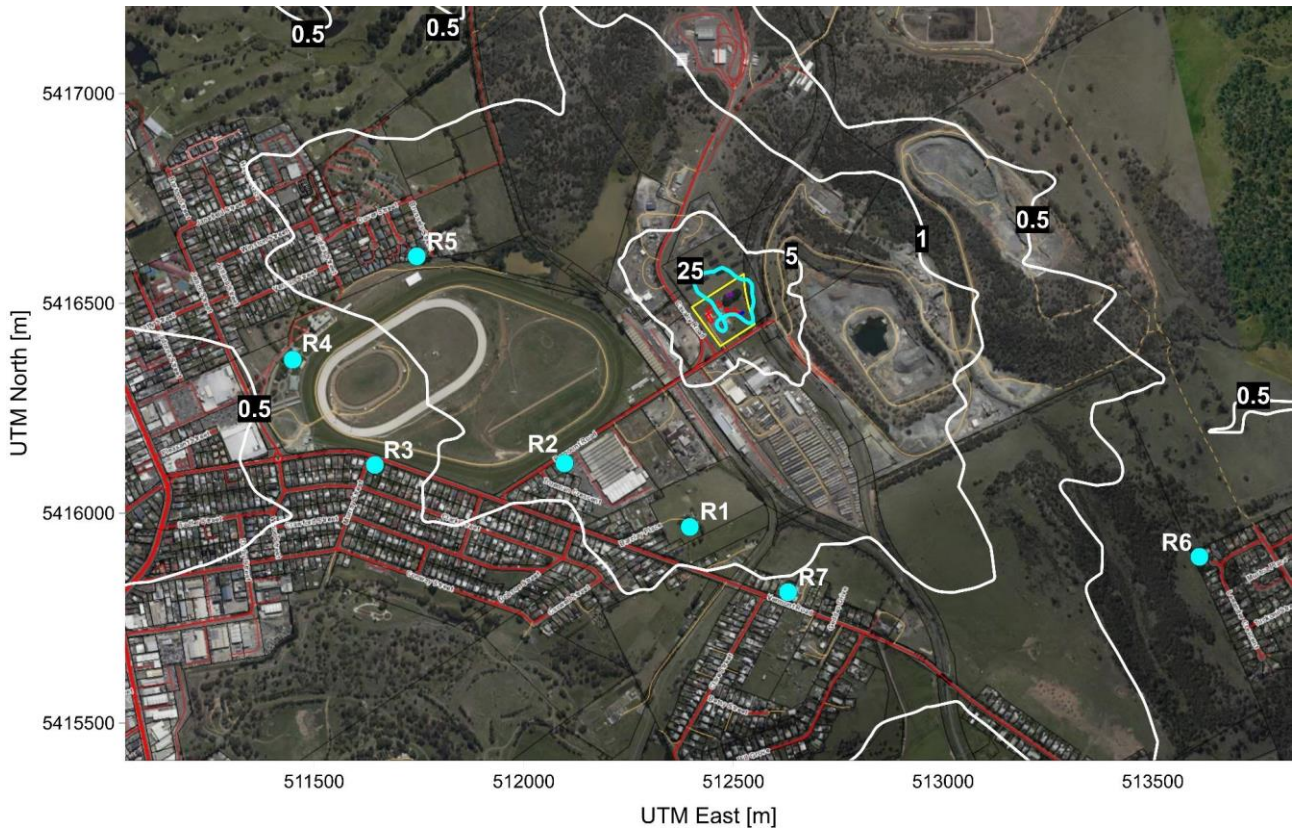


Figure 7: 100th percentile 24 hr average glc PM_{2.5} contours (µg/m³) (Figure 16 in EIS, Figure 3-19 in EIS appendix S)

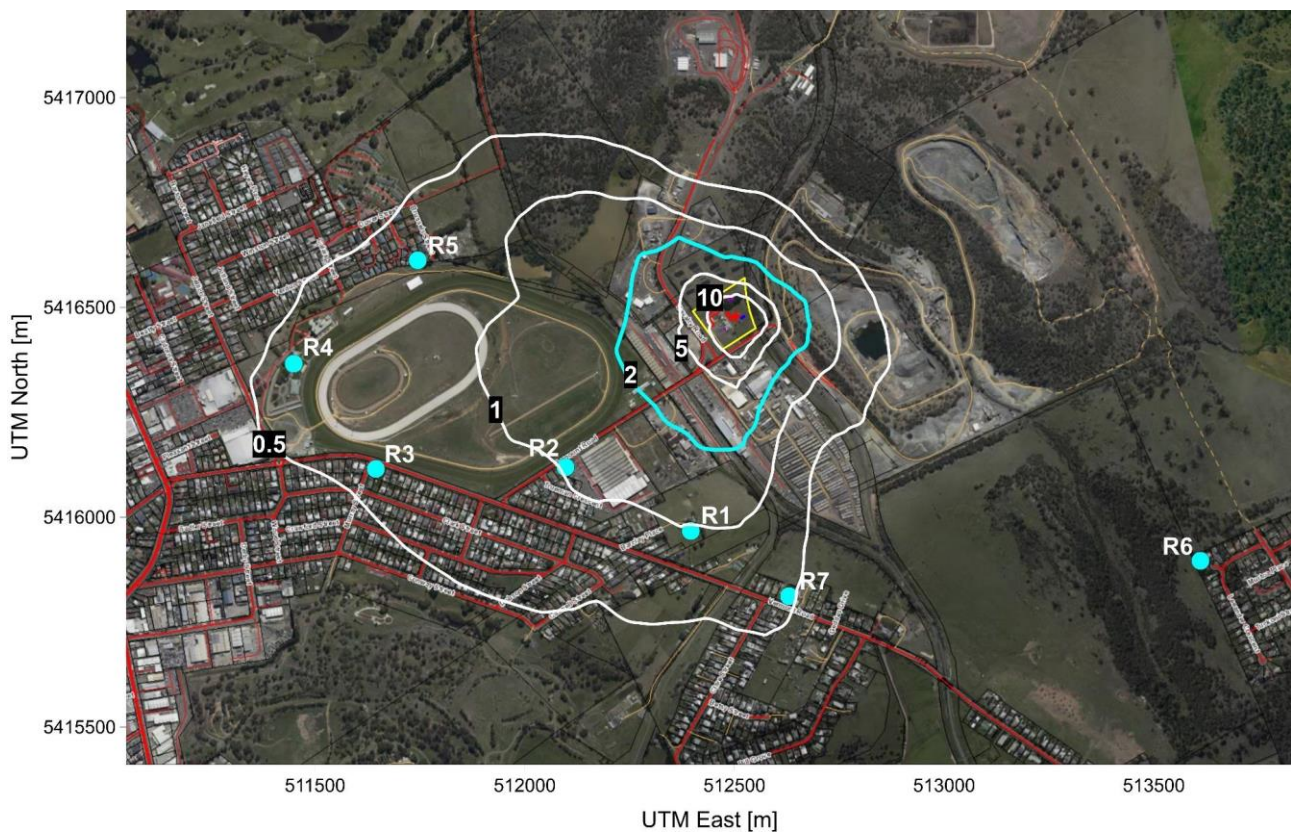


Figure 8: 99.5th percentile 1 hr average glc odour contours in OU (Figure 3-23 in EIS Appendix S)

The modelling results indicate the following:

- Predicted GLCs for PM₁₀ and PM_{2.5} exceed the air criterion (Air NEPM) at or beyond the boundary of the site, however the exceedances are limited to the area at or near the site boundary.
- The maximum 24 hour average PM₁₀ and PM_{2.5} GLCs predicted at any of the 7 nearest sensitive receptors were 7 µg/m³ and 1.4 µg/m³ respectively (below criteria).
- Predicted GLCs for carbon monoxide, nitrous oxide and sulphur dioxide were below criteria with most results below 50% of the criterion level.
- All predicted GLCs for metals were below criteria.
- VOCs for benzene, 1-3 butadiene, formaldehyde, toluene, and xylenes were below criteria.
- Polycyclic Aromatic Hydrocarbons, modelled as Benzo(a)pyrene (BaP) did not exceed the criterion.
- Predicted GLCs for odour exceeded the 2 odour unit criterion with the highest concentration being 22.4 odour units. However, odour isopleths (Figure 8) indicate these highest odour levels are close to the site boundary in areas subject to industrial uses within an industrial land use zone. Odour levels at sensitive receptors are approximately 1 odour unit.

The EPA air specialist has noted that the values for annual PM₁₀ and PM_{2.5} concentrations in Table 2 have been miscalculated. From Fig 6 and 7 it can be seen that annual concentrations of PMs are below 0.5 micrograms per cubic meter (i.e., under criteria) but almost an order higher than those quoted in Table 2.

The EIS states that the particulates emissions modelling is likely to be very conservative as the model assumed RAP screening would be undertaken every day of operation and the material screened would be similar to a crushed quarry aggregate. The EIS states RAP would only be screened approximately twice a year for a total of around 4 weeks per annum. Additionally, the RAP is comprised of broken up bitumen (bound and coated aggregate) and the screening process seeks to maintain the coated surface for optimum reuse. Screening of RAP would therefore result in a much lower level of particulate emission than crushed quarry aggregate.

Dust emissions during construction were not modelled. The EIS states construction is likely to create moderate amounts of dust from ground disturbance, however, these were not expected to be significant.

The EIS states that although odour is likely to be detected at or beyond the boundary on neighbouring land, these areas are subject to industrial use and odours are not likely to be detectable at the nearest sensitive receptors.

6.1.2 Management measures

The EIS states a number of air emissions management features have been included in the plant design:

- The aggregate material flow is encapsulated in a tunnel system including full roll top covers over collecting conveyor belts, a confined entrance to the rotary dryer, elevator, and mixing tower process.
- Air emissions are captured in a fully enclosed and automated bag house filtration system. The bag house is visually inspected weekly, and leak tested using fluorescent tracer dust on a quarterly basis.
- The mixing tower is held in a negative pressure state which prevents the escape of dust and steam from the plant. The tower has a dust aspiration system connected to the baghouse filter.
- Granular recycled additives such as Tonerplas or Crumb rubber are added to the final wet mixing cycle with any fugitive emissions captured and vented directly back to the baghouse filter system.
- If power to the plant is cut manually or due to electrical failure, the plant will automatically shut down and emissions will cease.

Other mitigation measures include the following:

- Hardstand bunkers will be constructed for storage of production materials with fine aggregates and sands covered to minimise dust emissions from raw materials stockpiles.
- Dust monitoring will be completed at the boundary of the site during the first two RAP screening campaigns for a minimum of a total of two weeks.
- A stack emission test will be undertaken during asphalt and Reconophalt processing to confirm VOC and other emissions (
-
-

- Table 3).

Table 3: Proposed asphalt plant emissions testing (Table 8 of the EIS)

Requirement	Description	When	Testing Description	Analytes
Item 1	Stack Emissions Monitoring	Total of Two Events. Event 1 – during commissioning Event 2 –after commissioning and within the first 12 months after the date of commissioning.	Event 1 and Event 2 – laboratory testing of samples collected during processing of product with and without Reconophalt as separate samples. Event 2	- Metals - NO ₂ - NO _x - SO _x - Particulates (PM2.5 and PM10) - VOC's Broad screen speciation
Item 2	Stack Emission Monitoring Ongoing	Every 2 years	With or without Reconophalt based on highest result from first 12 months of testing. i.e., if the Reconophalt test provided the result with the highest concentration the future tests would include testing with Reconophalt.	- Metals - NO ₂ - NO _x - SO _x - Particulates (PM2.5 and PM10) - VOCs targeted screen based on Item 1 results. - Odour
Item 3	Baghouse Check	Quarterly	Trace Dye Test	NA

6.1.3 Public and agency comment and responses

None received.

6.1.4 Evaluation

The use of NSW Environment Protection Authority criteria for VOCs and Benzo(a)pyrene is appropriate. Modelling indicates impacts to sensitive receptors from air emissions are unlikely. The commitment to undertaken air emissions testing is supported as this will verify emissions modelling. Condition **A1** requires an assessment of air emissions within three months of commissioning being completed and at two year intervals thereafter. Condition **A1** specifies the emissions to be assessed and allows the Director to vary testing parameters if needed. Condition **A2** requires an Air Emissions Survey Report to be prepared and submitted to the Director.

Standard conditions relating to control of dust emissions (**A3**) and control of odour (**A4**) from the site to prevent environmental nuisance have also been included.

Conditions requiring maintenance of emission control equipment (**A5**) and use of approved fuels for combustion (**A6**) are consistent with conditions for other similar bitumen plants. These conditions ensure the risk of odours, gaseous emissions, and particulates causing nuisance or harm continue to be minimised. Condition **A6** requires natural gas to be used as this was modelled in the air emissions study. The burner is also capable of running on diesel fuel and if this is proposed in the future, additional emissions information may be required prior to any approval for the change.

The preparation of a CEMP for the construction stage of the proposal is considered appropriate and will be required by condition **CNI**. The CEMP will be required to include measures to manage dust emissions during construction.

6.1.5 Conditions

The proponent will be required to comply with the following conditions:

- A1** Survey of air emissions
- A2** Air Emissions Survey Report
- A3** Control of dust emissions
- A4** Odour management
- A5** Maintain emission control equipment
- A6** Fuel
- CNI** Construction Environmental Management Plan

6.2 Key Issue 2: Noise

6.2.1 Description

Existing environment and emission sources

Existing dominant noise sources in the area include traffic noise from vehicles travelling along Remount Road and Vermont Road as well as industrial noise from activity in Remount Road, the Boral quarry and Cavalry Road.

Ambient noise emissions were tested at the receiver location 'RI' 10 Barclay Street (refer Figure 4). Rating background noise levels (RBLs) were as follows.

- 44.2 dBA – Day (0700 hrs to 1800 hrs)
- 39.0 dBA – Evening (1800 hrs to 2200 hrs)
- 35.0 dBA – Night (2200 hrs to 0700 hrs)

The EIS states background noise readings indicate that the existing day, evening and night time noise levels are moderately high for a residential area and attributes this to traffic noise, animal noises and industrial activity along Remount and Cavalry Roads.

Noise emissions will be generated from a few components of the proposed asphalt plant including the burner, stack exhaust, elevator, transfer chute, screen, and mobile plant.

Noise modelling

Noise emissions modelling was undertaken for the proposal and is presented in Section 6.2 and Appendix S of the EIS. As well as the sources described above, a Level 2 silencer and acoustic hood were included as attenuation measures.

The noise inputs for the model are detailed in section 4.3 of Appendix S of the EIS. Predicted levels under both neutral (day and night scenarios) and worst case weather (night only) conditions were modelled using the CONCAWE prediction algorithm. The RAP screening is a day only activity and was not included in the night model runs.

The EIS presents noise criteria in accordance with the *NSW Industrial Noise Policy* which suggests operational noise trigger levels of RBL + 5dBA. The EIS proposes the following noise trigger levels:

- 49 dB(A) between 0700 hours and 1800 hours (Day time); and
- 44 dB(A) between 1800 hours and 2200 hours (Evening time); and
- 40 dB(A) between 2200 hours and 0700 hours (Night-time).

Modelling results

Noise contours for day (neutral) and night (worst case weather) periods are presented in Figure 9 and Figure 10. Predicted sound pressure levels at sensitive receptors are presented in Table 4.

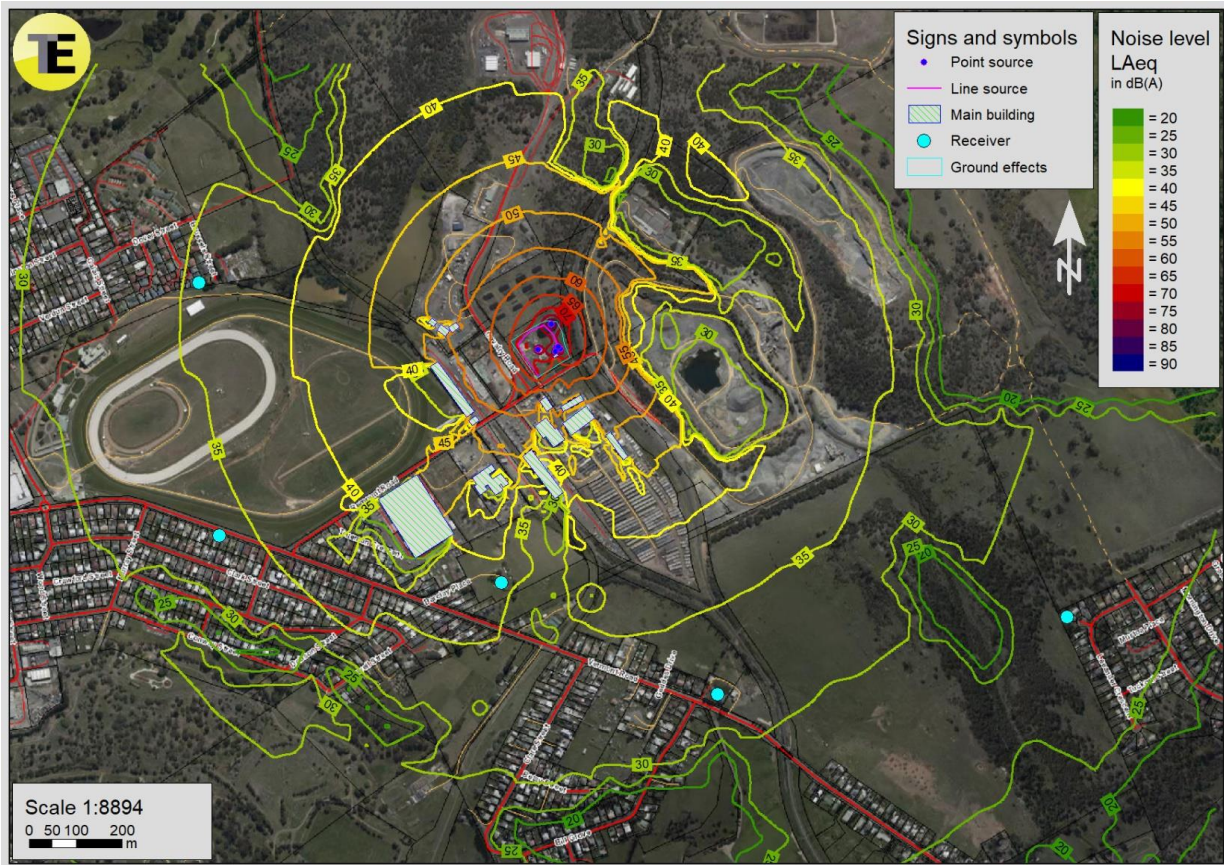


Figure 9: Predicted noise contours – day – neutral weather (Figure 4-6 in Appendix S of the EIS)

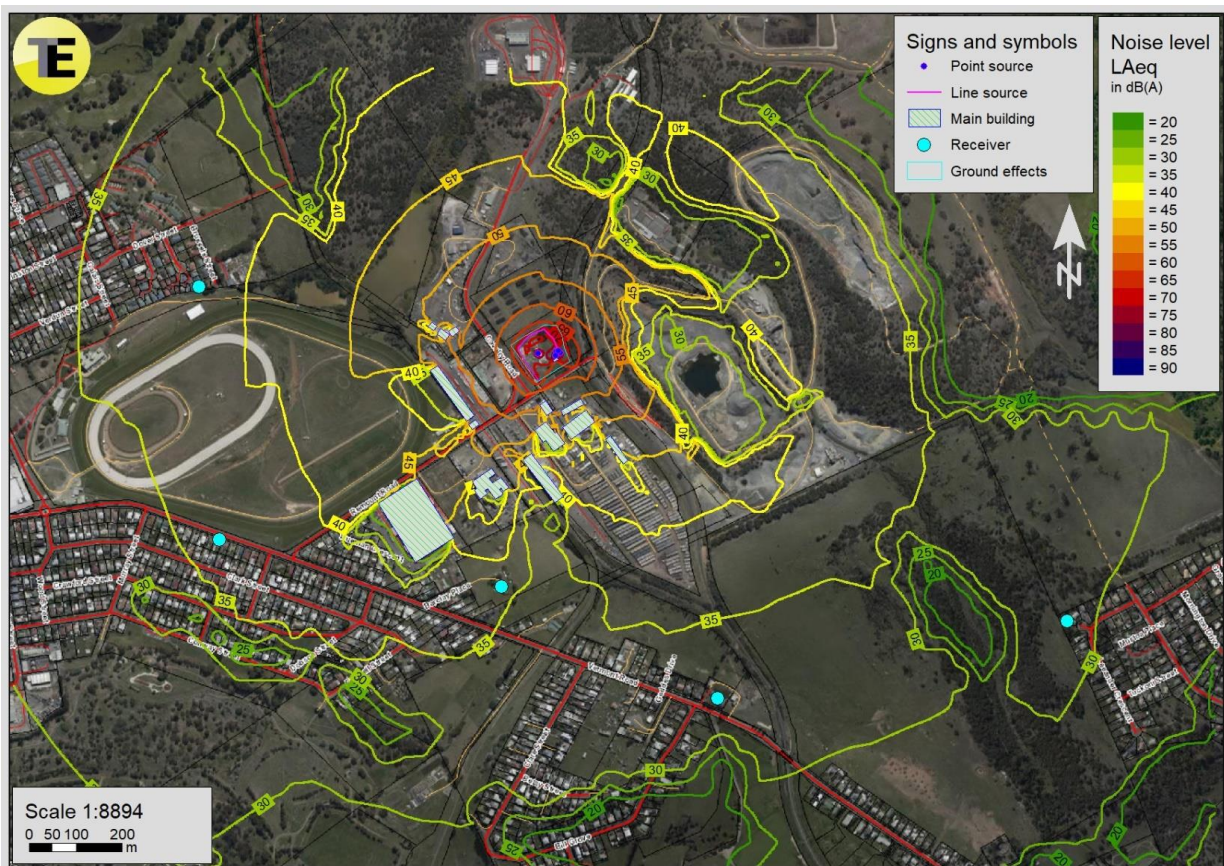


Figure 10: Predicted noise contours – night – worst case weather (Figure 4-8 in Appendix S of the EIS)

Table 4: Predicted sound pressure levels at sensitive receptors (Table 4-3 in Appendix S of the EIS)

Predicted sound pressure levels (dBA)			
Receiver	Day	Night	
	neu	neu	wcw
R1	39	35	39
R2	34	31	36
R3	36	34	38
R4	27	25	31
R5	32	28	33

The EIS states that predicted sound pressure levels are below the proposed noise trigger levels and that environmental noise nuisance is unlikely during operations.

The EIS does not make reference to the Tasmanian *Environment Protection Policy (Noise) 2009* but it is noted that the predicted sound pressure levels at sensitive receptors are consistent with the acoustic environment indicator levels specified in Table I of the policy.

6.2.2 Management measures

The EIS includes the following mitigation measures in relation to noise:

- Noise output, including low frequency noise, will be assessed as part of plant commissioning.

6.2.3 Public and agency comment and responses

None received.

6.2.4 Evaluation

The proponent is encouraged to avoid operation overnight and in the early morning hours, while noting demand is driven by particular jobs, and the product is produced in batches. The EIS states the majority of asphalt production is proposed to be between 0700 to 1400 hours Monday to Friday, however it is understood the plant will need to be fired up prior to this time and receipt of goods is proposed until 6pm. The EIS proposes occasional Saturday operations between the hours of 0700 and 1600. The EPA Regulatory Officer advised a 0600 hrs weekday operating start time is standard for other industries in the area and there have been no known noise complaints from existing industrial sources.

Operation 24 hour per day, 7 days a week is proposed for specific campaigns. It is noted that the residents on Remount Road may be affected, particular by night-time truck movements. Condition **N1** specifies daytime operating hours of 0600 to 1800 Monday to Friday and 0700 to 1600 on Saturday with operations outside these hours (including night-time) only permitted subject to written notice to the Director and the residents of Remount Road. Written notice is to include details of the proposed operations and suitable measures to mitigate nuisance noise.

Condition **CN2** is included to limit construction activities to between 0600 and 1800 hours Monday to Friday and 0700 to 1600 hours on Saturdays unless otherwise authorised.

The application of the *NSW Industrial Noise Policy* is an appropriate approach as noise trigger levels are the levels at sensitive receptors above which nuisance noise may be an issue. It is noted, however, that trigger levels are not intended for use as a mandatory requirement for regulation, and regulation of noise emissions is problematic when multiple industries are co-located in one area.

Modelling presented in the EIS indicates the proposal may result in daytime sound pressure levels between 27 and 39 dBA ($L_{Aeq, 10min}$) at the 5 sensitive receptor locations. A 45dBA ($L_{Aeq, 10min}$) daytime noise emission limit is imposed in condition **N2**. This is considered appropriate as modelling indicates this is achievable. It also allows a noise 'buffer' for future expansion of industrial activity in the area, noting that cumulative noise impacts should not exceed 50dBA ($L_{Aeq, 10min}$) during day hours at any sensitive receptor. Condition **N2** specifies 45 dBA ($L_{Aeq, 10min}$) and 35 dBA ($L_{Aeq, 10min}$) for evening and night-time respectively which are both comparable with other activities in the area and also considered achievable based on the modelling presented in the EIS.

Night-time operation during the worst-case weather conditions should be avoided unless additional attenuation measures are in place to meet the limits specified in Condition **N2**.

As per the *Environment Protection Policy (Noise) 2009*, best practice environmental management should be employed in every activity to reduce noise emissions to the greatest extent that is reasonably practical. It should be noted that no additional noise attenuation measures (such as noise screens) were recommended in the noise impact assessment report. If noise attenuation measures such as screens are implemented in future these are expected to result in a reduction of the predicted noise emissions levels in the assessment report.

N3 is included to require a noise survey be undertaken after commissioning of the plant to verify modelling undertaken for the EIS. **N3** also requires a noise survey to be undertaken if any changes in activity occur that are likely to substantially alter the character or volume of the noise emitted. Condition **N4** provides noise survey method and reporting requirements to support condition **N3**.

Condition **CNI** (CEMP) (discussed under Key Issue I Air Quality) is also relevant as it includes a requirement to implement noise control measures during construction.

6.2.5 Conditions

The proponent will be required to comply with the following conditions:

- N1** Operating hours
- CN2** Operating hours construction
- N2** Noise emission limits
- N3** Noise survey requirements
- N4** Noise survey method and reporting

7 Evaluation of Environmental Issues

In addition to the key issues, the following environmental issues are considered relevant to the proposal and have been evaluated in this section:

1. Water quality
2. Solid wastes
3. Dangerous goods and environmentally hazardous materials
4. Greenhouse gases
5. Decommissioning and rehabilitation
6. Social and economic issues

General conditions

The following general conditions will be imposed on the activity:

- **G1** Access to and awareness of conditions and associated documents
- **G2** Incident response
- **G3** No changes without approval
- **G4** Change of responsibility
- **G5** Change of ownership
- **G6** Notification prior to commissioning
- **G7** Notification prior to commencement

Issue 1: Water quality

Potential impacts

The western corner of the site comprises compacted road base. The remaining parts of the site are grass. Surface water flows from east to west and the north-western corner is the lowest point, showing signs of minor water logging.

The receiving environment for surface water runoff from the local area (Newnham Creek) also receives runoff from other industrial/ commercial areas, including a landfill. The EIS states Newnham Creek is a moderate to highly disturbed ecosystem and toxicant values for 95% protection of species could be conservatively applied.

Construction of the asphalt plant and associated infrastructure will create exposed surfaces vulnerable to erosion and sediment loss during high rainfall events. Runoff from stockpiles, roads, or other areas around the plant may become contaminated and pollute stormwater and waterways. Dry granulated materials such as plastics and rubber stored on site may be problematic if blown or washed into the stormwater system.

During operation, stormwater will be generated from operational infrastructure areas such as hardstands, roads, car parks, buildings, and drains. Potential contaminants of stormwater runoff include sediments, fuel, chemicals and oil and greases. This runoff also has the potential to flow to surface water and to the downstream environment without adequate controls.

Staff amenities will be connected to sewerage and the EIS states no trade waste connection is required.

Management measures proposed in EIS

The EIS details development to improve surface drainage on the site with water flows directed to sump pits. These will contain submersible pumps to remove water collected from below ground infrastructure such as the weighbridge and bitumen store bund. The EIS states mesh baskets with geotextile fabric will be installed at the side of the pit inlets to capture sediments.

Bitumen and emulsion tanks will be contained within concrete storage bunds, with corner collection pits fitted with a key locked sump pump. A visual inspection of the water in the bunds will be completed to determine if the water can be released to stormwater.

All stormwater from site will enter a 73,000 L detention tank where water will be fed by low flow to a gross pollutant trap. The gross pollutant trap will discharge to the existing local infrastructure (the table drain, culvert and pipe to Newnam Creek dam). Sediment will settle in the base of the detention tank for later removal by pump truck. The gross pollutant trap also captures hydrocarbons as they float on top of the water column for removal by pump truck.

The EIS states that although hydrocarbons could be discharged to stormwater, the levels would be very low and similar to roads and carparks where residual hydrocarbons are washed into stormwater during rain events.

Sampling of water released from the gross pollutant tank is proposed on a quarterly bases and the EIS states that if hydrocarbons are detected a review of operational controls would be undertaken.

The EIS lists the following mitigation measures to reduce the volume of pollutants entering stormwater.

- Sealing most of the yard with either concrete or asphalt to prevent sediment runoff.
- Installing bunding around significant fuel and chemical storage.

- Shallow surface level gradients so that surface flow speeds are reduced.
- Regular clean up procedures to include daily manual sweep up and weekly road sweeper.
- Limiting the number of rainwater collection pits
- Grading of the site to direct water to sumps, with entry and exit points to the site raised to ensure all runoff is contained and treated within the site.
- Bunding of dispensing locations and hazardous goods storage in accordance with ASI940-2004.
- Quarterly water monitoring from the gross pollutant trap discharge point (refer table 5).
- Daily and weekly checks by the plant manager.
- Spill procedures to ensure liquids are dry soaked with sand or similar.
- Construction Environmental Management Plan including measures for sediment control with sediment control measures are proposed to be implemented prior to the commencement of construction (Appendix F of the EIS).

Table 5: Effluent discharge monitoring (Table 8 in EIS)

Sampling Point = Discharge from Storage Tank		
Testing	Compliance Criteria	Frequency of Sampling
List of Analytes	ANZECC Fresh Water 95% of species protection	
Total Metals	See table 3.4.1 of ANZECC V1	Quarterly
Dissolved Metals	See table 3.4.1 of ANZECC V1	Quarterly
Suspended Solids	<40 mg/L. See Table 4.4.2 of ANZECC V1	Quarterly
Total Recoverable Hydrocarbons (TRH) all fractions	No criteria specified. Indicator of the presence of petroleum hydrocarbons.	Quarterly
BTEXN	See table 3.4.1 of ANZECC V1	Quarterly
Table Notes		
1. 'Metals' include – As, B, Cd, CrVI, Co, Cu, Pb, Hg, Ni, Zn.		

Public and agency comment

None received.

Evaluation

Conditions common to batching bitumen plants are included in the permit in relation to construction of perimeter drains and bunds on the site (**E1**), and stormwater and wastewater collection and treatment (**E2**). The installation of a stormwater detention tank and gross pollutant trap is considered appropriate and condition **E3** prevents the discharge of any effluent from the site except via the gross pollutant trap discharge.

It is considered that the potential for impact to surface waters is low given the proposed surface water management and the nature of the receiving environment, however, there remains a risk that contaminated effluent may be discharged if management measures are not appropriately implemented. Condition **M1** requires monitoring of effluent discharged from the site on a quarterly basis. Condition **M2** specifies requirements for management of samples and measurements.

The EIS does not discuss the management of granular synthetic products although it is noted that bunkers are indicated in the site plan (EIS Appendix A). Although granulated products such as crumb rubber, glass and waste plastics are a novel addition to asphalt batching in Tasmania, granulated products are used as additives in other industries and have resulted in wind or water dispersed pollution where not appropriately managed. Condition **OPI** has been included to require the appropriate storage and management of dry granular materials to prevent migration to stormwater.

Requirements for fuel and chemical storage and bunding are addressed under **Issue 3: Dangerous goods and environmentally hazardous materials.**

Conditions

The proponent will be required to comply with the following conditions:

- E1** Perimeter drains or bunds
- E2** Wastewater and stormwater
- E3** Effluent discharge
- M1** Effluent monitoring
- M2** Samples and measurements for monitoring purposes
- OPI** Dry granular synthetic materials management

Issue 2: Solid wastes
Potential impacts
<p>Solid waste from the proposal may include yard, plant and sump cleaning, and waste asphalt material. Improper storage and disposal of solid wastes can potentially lead to contamination of land and waterways. Solid waste (fine particles) will also be captured by the baghouse as part of air emissions management.</p> <p>Controlled wastes may be generated through fuel or chemical spill clean up (absorbent materials or contaminated soils).</p> <p>The EIS states any spilt, out of specification, or excess products will be returned to the plant for reprocessing.</p>
Management measures proposed in EIS
<p>The following management measures are included in the EIS:</p> <ul style="list-style-type: none"> • Spillage of solid raw materials and finished product are manually collected for reuse. • Out of specification product is reworked through the plant. • The particulates captured within the baghouse filter are placed in a sealed storage silo where they are fed back into the asphalt mix. • The plant accepts RAP which is a waste material that would generally be disposed of at landfill. The RAP is used in the manufacture of fresh asphalt. • Daily checks of the site will be completed to identify any materials which need cleaning up.
Public and agency comment
None received.
Evaluation
The reuse of waste materials in the asphalt plant is supported and no specific conditions for solid waste management are necessary. The proponent is made aware of the requirements for transport of any controlled wastes from the site (LO3) and the waste management hierarchy (OII).
Conditions
<p>The proponent is made aware of the following:</p> <p>LO3 Controlled waste transport</p> <p>OII Waste management hierarchy</p>

Issue 3: Dangerous goods and environmentally hazardous materials

Potential impacts

Improper storage and handling of these substances may cause pollution of air, water and soil, and result in impacts to human health.

The following hazardous goods will be stored onsite:

- Diesel stored in self bunded above ground tanks.
- Bitumen stored above ground in a concrete containment bund.
- Turpentine in small quantities, up to a maximum volume of 4 x 15 litre drums stored in a self-bunded dangerous goods storage container.
- Shellite stored in small quantities, up to a maximum volume of 2 x 15 litre drums.
- Acetylene, oxygen and argon shield light stored in cylinders and within a gas cage.
- Recosol 185, an anti-oxidizing agent used in Cold Mixed Asphalt Manufacture will be stored in a 1,000 litre tote and contained within a covered IBC bund.
- CRS Emulsion stored in above ground bunded tanks.

The EIS states there will not be any significant quantities of chemicals stored on the site during construction. Vehicles and equipment will be refuelled and maintained offsite. The proponent has advised that washing of trucks with asphalt release agent will not be undertaken on site.

The potential for explosion risk has been assessed and is considered to be low.

It is noted that crumbed rubber will be stored on site for use in Reconophalt production.

Management measures proposed in EIS

The EIS states chemicals and fuel will be stored in either self-bunded containers or concrete containment bunds allowing containment of any spillages or leaks. If spills occur outside of bunded areas, spill procedures will enable immediate clean up using absorbent materials.

CRS Emulsion is transferred from a road tanker to two emulsion holding tanks through a suction transfer pump. The transfer takes place on the hardstand area adjacent to the emulsion tank storage bund, where a flexible suction hose is coupled to the delivery road tanker.

Additional controls outlined in the EIS include:

- 100mm bunded 'roll over kerb' and bunded apron at the fill point for the diesel tanks.
- 100mm bunded 'roll over kerb' at the bitumen tank fill point.
- Concrete bund capable of holding 110% of the largest bitumen tank 60m³ with stormwater control.
- 100mm bunded 'roll over kerb' and bunded apron at the emulsion fill and unloading point
- Concrete bund capable of holding 110% of the total volume of the contents of the emulsion tank.
- Spill kits available onsite.
- Undercover bund at the dispense point of the emulsion tank.
- Spill alarm on tanks.
- Lock on diesel tank bund.
- Lock on sump pumps on bitumen and emulsion tank bunds.

Public and agency comment

None received.

Evaluation

Provision of appropriate bunding and storage and use of self bunded containers is supported and will be required by condition **H1**. **H2** is also included to specify requirements for hazardous materials in quantities less than 250 L.

Provision of spill kits is required by condition **H3**, and an inventory of hazardous materials will be required by condition **H4**.

Although trucks are not proposed to be washed using asphalt release agent, it is anticipated asphalt release agent may need to be applied to other plant and equipment from time to time. **H5** is included to permit the application of asphalt release agent to plant and equipment only where bunded areas allow for the collection of any potentially contaminated wastewater.

Conditions

The proponent will be required to comply with the following conditions:

- H1** Storage and handling of hazardous materials
- H2** Hazardous materials (<250 L)
- H3** Spill kits
- H4** Inventory of hazardous materials
- H5** Application of asphalt release agent

The proponent is also made aware of the following:

- O12** Notification of incidents under Section 32 of EMPCA

Issue 4: Greenhouse gases
Potential impacts
<p>The production of asphalt generates greenhouse gases including carbon dioxide, methane, nitrous oxide, sulphur dioxide, propane, ethane, and fluorinated gases. National Pollution Inventory reporting for the existing Downer asphalt plant in Mowbray indicates approximately 9,515 tonnes of greenhouse gases were produced in the 2019/2020 year.</p> <p>The new plant is designed to produce less greenhouse gases emissions than older style plants and the EIS states that replacing the existing plant with the new facility at 59 Remount Road will result in a reduction in emissions.</p>
Management measures proposed in EIS
<p>The following management measures are included in the EIS:</p> <ul style="list-style-type: none"> • Use of gas instead of diesel to operate the plant. • Regular maintenance to ensure that the plant and burner operate as efficiently as possible. • Efficient movement of vehicles through the plant for pick up and drop off.
Public and agency comment
None received.
Evaluation
There is currently no requirement under Federal or State legislation for industry to demonstrate offsetting of emissions generated.
Conditions
No specific conditions in relation to greenhouse gases are imposed.

Issue 5: Decommissioning and rehabilitation
Potential impacts
<p>Poor site closure and equipment decommissioning practices can lead to generation of solid wastes, and potentially soil, water, and air contamination if raw materials, chemicals, and final asphalt product are not removed from the site.</p> <p>The EIS details measures to decommission the existing Downer asphalt plant which is a regulated activity on a separate land parcel in Mowbray. The measures detailed for that site will be assessed against the legal instrument for that site and do not relate to the current proposal. Decommissioning activities for the current proposal are not discussed in the EIS.</p>
Management measures proposed in EIS
<p>Section 8 of the EIS includes the following:</p> <ul style="list-style-type: none"> • A Decommissioning and Rehabilitation Plan will be developed prior to discontinuing the use of the site.
Public and agency comment
None received.
Evaluation
<p>Standard conditions relating to site closure (temporary and final) and rehabilitation are considered necessary and have been included in the permit.</p> <p>Condition DC1 requires a Decommissioning and Rehabilitation Plan (DRP) be submitted to the Director within 30 days of being notified of the planned cessation. Condition DC2 is required to ensure the rehabilitation of the site following permanent cessation. Condition DC3 is required to ensure the proponent notifies the Director of the permanent cessation of the activity and condition DC4 requires notification where a temporary suspension of the activity is likely to occur. Condition DC5 is included to ensure the DRP is implemented.</p>
Conditions
<p>The proponent will be required to comply with the following conditions:</p> <p>DC1 DRP requirements</p> <p>DC2 Rehabilitation following cessation</p> <p>DC3 Notification of cessation</p> <p>DC4 Temporary suspension of activity</p> <p>DC5 Implementation of the DRP</p>

Issue 6: Social and economic issues
Potential impacts
<p>The proposal has potential to generate employment in the local area and result in wider economic benefits. It also has potential for negative impacts on the local community if it results in environmental nuisance or harm.</p> <p>The proposal constitutes a new industrial activity in a current industrial area.</p> <p>The development will primarily be undertaken by local contractors and tradespeople. The EIS states approximately 20-24 local contractors will work on site for a period of 3 months, 5 days a week during construction. A further 15-18 persons will be onsite during the plants erecting and commissioning phase.</p>
Management measures proposed in EIS
None proposed.
Public and agency comment
None received.
Evaluation
<p>The objectives of Tasmania's Resource Management and Planning System encompass the social and economic aspects of resource use and development as well as the environmental aspects. It is therefore appropriate for the Board to consider the social and economic aspects of a proposal in its assessment process.</p> <p>The Board has no power under the EMPC Act to impose permit conditions specifically in relation to social and economic matters, however it has taken these matters into account as relevant in making its determination and setting conditions on water quality, noise, and odour.</p>
Conditions
No specific conditions in relation to social and economic issues are imposed.

8 Issues not assessed by the Board

Traffic and truck-related issues were raised during the assessment process but are not the Board's responsibility under the EMPC Act, and are more appropriately addressed by another regulatory agency.

- A traffic impact assessment was undertaken by Traffic and Civil Services (Appendix N of the EIS). Vehicles will access the site via Remount Road. Traffic activity at the Remount Road access point is estimated to be 200 vehicles per day with through traffic accessing the Boral quarry and 58 Remount Road. The assessment states that the additional traffic from the proposed plant will be noticeable but the impact is expected to be minimal.
- The assessment made recommendations for improvements to the site access, including upgrading and sealing access points and clearing vegetation for visibility.
- The area has many industrial facilities in the vicinity and is not considered an area with suitable foraging or habitat for species of conservation significance. The risk to species of significance is not considered to be greatly increased due to this activity.

9 Report Conclusions

This assessment has been based on the information provided by the proponent, Downer EDI Works Pty Ltd, in the permit application and the case for assessment (the EIS).

This report incorporates specialist advice provided by EPA scientific and regulatory staff, the Department of Natural Resources and Environment Tasmania, and other government agencies, and considers issues raised in public submissions.

It is concluded that:

1. the RMPS and EMPCS objectives have been duly and properly pursued in the assessment of the proposal; and
2. the assessment of the proposal has been undertaken in accordance with the Environmental Impact Assessment Principles; and
3. the proposal is capable of being managed in an environmentally acceptable manner such that it is unlikely that the RMPS and EMPCS objectives would be compromised, provided that the Permit Conditions - Environmental No. 10868 appended to this report are imposed and duly complied with.

10 Report Approval

Environmental Assessment Report and conclusions, including environmental conditions, adopted:



Martin Read

EXECUTIVE DIRECTOR, ENVIRONMENTAL ASSESSMENTS

Acting under delegation from the Board of the Environment Protection Authority

Date: 15 June, 2022

11 References

ES&D (2020) *Environmental Impact Statement, New Asphalt Batch Plant, 59 Remount Road, Mowbray* (dated January 2022), prepared for Downer EDI Works Pty Ltd, Tasmania.

I2 Appendices

- Appendix 1 Summary of public and agency submissions
- Appendix 2 Table of proponent management measures
- Appendix 3 PCE No: I0868

Appendix I: Summary of public representations and agency submissions

Table 6: Matters raised during public consultation period

Representation No. / Agency	Comments and Issues	Further Information Requested	EPA Comments
1	<ul style="list-style-type: none"> • Setback distances to the TasRail managed easement were not provided in the planning application. • Any permit issued by Council for the development should include a condition that the development and/or any associated activity or installation is not permitted to encroach State Rail Network land. 	No	Outside EPA jurisdiction This is a matter for Council.

Appendix 2: Proponent management measures

Table 7: Proponent management measures (Table 10 of the EIS)

Item No.	Management Measure	Implementation	Section of EIS
Air			
1.	Stack emissions monitoring Ongoing	Biennial testing	6.1
2.	Stack Emission Monitoring (Separate tests to be completed with and without Reconophalt for each of the two rounds)	Two monitoring events in the first twelve months of production where Reconophalt additives are used to include Tonerplas, glass and crumbed rubber. Full VOC speciation and metals sampling to be completed. One test during commissioning and the other within the first 12 months from commencement of production of asphalt to the market.	6.1
3.	Cover raw materials (fine grained) stockpiles	Daily check	6.1.2
4.	Monitor Dust Emissions on the northern and southern boundaries during screening operations for a minimum of two RAP screening campaign	During RAP Screening	6.1
Stormwater and Groundwater			
5.	Stormwater discharge sampling	Quarterly testing	6.3
6.	Weekly Internal Road Sweep	Weekly	6.3.3

Item No.	Management Measure	Implementation	Section of EIS
7.	Manual Collection of spilt raw materials and product	Ongoing throughout the day	6.3.3
8.	Implement spill response procedures immediately if spillage occurs	Immediate	6.3.3
9.	Undertake a groundwater investigation to determine groundwater depth under the site.	Prior to construction commencing	6.4
Noise			
10.	Hours of Operation	<u>Construction Hours.</u> Monday to Friday – 6am to 6pm Saturday – 7am to 4pm (when required) Sundays and Public Holidays – No operation <u>Normal Operation Hours.</u> Monday to Friday – 7am to 4pm. Saturday and Sunday – (when required) <u>Project Specific Operating Hours.</u> Monday to Sunday – 24 hours a day, seven days a week.	2.2.8 2.1.6

Item No.	Management Measure	Implementation	Section of EIS
11.	Noise Monitoring	Post Commissioning and annually for the first three years. If non-compliance in the first three years, monitoring to occur at biennially for two rounds of testing and then cease if compliance is achieved. However, additional monitoring may be required by EPA Tasmania due to changes such as plant upgrades, or equipment changes which are likely to increase noise emissions.	6.2
12.	Noise Reduction Controls	Install Noise Controls prior to operation. <ul style="list-style-type: none"> - Silencer on Stack Exhaust - Silencer Hood on transfer chute and screen - Silencer on Burner 	6.2
Internal Audits			
13.	Internal Inspections	Monthly	7.0
Construction Management			
14.	Construction Environmental Management Plan	Completed prior to commencement of construction works and implemented throughout construction	6.1.1
Dangerous Goods			
15.	Spill Response	Prior to Plant Commissioning. <ul style="list-style-type: none"> - Implement Spill Response Procedures – Provide spill kits - Undertake staff training/refresher training 	6.6

Item No.	Management Measure	Implementation	Section of EIS
16.	Spill Prevention	<p>Bitumen and Emulsion Tanks are contained within a concrete bund.</p> <p>Emulsion Tank bund is undercover to prevent rainwater capture. Bitumen bund is not covered.</p> <p>Diesel stored in above ground self-bunded tank.</p>	<p>6.6</p> <p>6.6.1</p>

Appendix 3: Permit conditions – Environmental No: 10686



ENVIRONMENT PROTECTION AUTHORITY

PERMIT PART B
PERMIT CONDITIONS - ENVIRONMENTAL No. 10868

Issued under the *Environmental Management and Pollution Control Act 1994*

Activity: **The operation of asphalt plant (ACTIVITY TYPE: Pre-mix Bitumen Plants)**
 ASPHALT PLANT, 59 REMOUNT ROAD
 MOWBRAY TAS 7248

The above activity has been assessed as a level 2 activity under the *Environmental Management and Pollution Control Act 1994*.

Acting under Section 25(5)(a)(i) of the EMPCA, the Board of the Environment Protection Authority has required that this Permit Part B be included in any Permit granted under the *Land Use Planning and Approvals Act 1993* with respect to the above activity.

Municipality: **LAUNCESTON**
Permit Application Reference: **DA0392/2021**
EPA file reference: **21/2140**

Date conditions approved: 15 June 2022

Signed:



DELEGATE FOR THE BOARD OF THE ENVIRONMENT
PROTECTION AUTHORITY

DEFINITIONS

Unless the contrary appears, words and expressions used in this Permit Part B have the meaning given to them in **Schedule 1** of this Permit and in the EMPCA. If there is any inconsistency between a definition in the EMPCA and a definition in this Permit Part B, the EMPCA prevails to the extent of the inconsistency.

ENVIRONMENTAL CONDITIONS

The person responsible for the activity must comply with the conditions contained in **Schedule 2** of this Permit Part B.

INFORMATION

Attention is drawn to **Schedule 3**, which contains important additional information.

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Attachments

Attachment 1: PCE 10868 - The Land (modified: 12/05/2022 14:09)..... 1 page

Schedule 1: Definitions

In this Permit Part B:-

Activity means any environmentally relevant activity (as defined in Section 3 of EMPCA) to which this document relates, and includes more than one such activity.

Commissioning means the testing of major items of equipment and is taken to be completed when the item(s) are being used or operated in the course of normal commercial operations.

Construction means activities associated with the construction phase of the activity, including but not limited to, activities associated with the clearance of vegetation, site works to create a level site, rock breaking, installation of fences and other infrastructure whether on land or in water.

Control Location (Noise) means a location chosen to represent the general ambient sound without contribution from noise sources at the activity.

Controlled Waste has the meaning described in Section 3(1) of EMPCA.

Director means the Director, Environment Protection Authority holding office under Section 18 of EMPCA and includes a delegate or person authorised in writing by the Director to exercise a power or function on the Director's behalf.

DRP means Decommissioning and Rehabilitation Plan.

dry granular synthetic materials means crumbed, crushed or granulated materials such as rubber, glass, toner waste and plastic.

Effluent means wastewater discharged from The Land.

EMPCA means the *Environmental Management and Pollution Control Act 1994*.

Environmental Harm and **Material Environmental Harm** and **Serious Environmental Harm** each have the meanings ascribed to them in Section 5 of EMPCA.

Environmental Nuisance and **Pollutant** each have the meanings ascribed to them in Section 3 of EMPCA.

Environmentally Hazardous Material means any substance or mixture of substances of a nature or held in quantities which present a reasonably foreseeable risk of causing serious or material environmental harm if released to the environment and includes fuels, oils, waste and chemicals but excludes sewage.

Noise Sensitive Premises means residences and residential zones (whether occupied or not), schools, hospitals, caravan parks and similar land uses involving the presence of individual people for extended periods, except in the course of their employment or for recreation.

Person Responsible is any person who is or was responsible for the environmentally relevant activity to which this document relates and includes the officers, employees, contractors, joint venture partners and agents of that person, and includes a body corporate.

The Land means the land on which the activity to which this document relates may be carried out, and includes: buildings and other structures permanently fixed to the land, any part of the land covered with water, and any water covering the land. The Land falls within the area defined by:

- 1 Certificate of Title 128392/2; and
- 2 as further delineated at Attachment 1

Wastewater means spent or used water (whether from industrial or domestic sources) containing a pollutant and includes stormwater which becomes mixed with wastewater.

Schedule 2: Conditions

Maximum Quantities

Q1 Regulatory limits

- 1 The activity must not exceed the following limits :
 - 1.1 50,000 tonnes per year of product produced

General

G1 Access to and awareness of conditions and associated documents

A copy of these conditions and any associated documents referred to in these conditions must be held in a location that is known to and accessible to the person responsible for the activity. The person responsible for the activity must ensure that all persons who are responsible for undertaking work on The Land, including contractors and sub-contractors, are familiar with these conditions to the extent relevant to their work.

G2 Incident response

If an incident causing or threatening environmental nuisance, serious environmental harm or material environmental harm from pollution occurs in the course of the activity, then the person responsible for the activity must immediately take all reasonable and practicable action to minimise any adverse environmental effects from the incident.

G3 No changes without approval

- 1 The following changes, if they may cause or increase the emission of a pollutant which may cause material or serious environmental harm or environmental nuisance, must only take place in relation to the activity if such changes have been approved in writing by the EPA Board following its assessment of an application for a permit under the *Land Use Planning and Approvals Act 1993*, or approved in writing by the Director:
 - 1.1 a change to a process used in the course of carrying out the activity; or
 - 1.2 the construction, installation, alteration or removal of any structure or equipment used in the course of carrying out the activity; or
 - 1.3 a change in the quantity or characteristics of materials used in the course of carrying out the activity.

G4 Change of responsibility

If the person responsible for the activity intends to cease to be responsible for the activity, that person must notify the Director in writing of the full particulars of any person succeeding him or her as the person responsible for the activity, before such cessation.

G5 Change of ownership

If the owner of The Land upon which the activity is carried out changes or is to change, then, as soon as reasonably practicable but no later than 30 days after becoming aware of the change or intended change in the ownership of The Land, the person responsible must notify the Director in writing of the change or intended change of ownership.

G6 Notification prior to commissioning

At least 14 days prior to the commencement of commissioning of the asphalt plant, the person responsible for the activity must notify the Director of the date on which commissioning is expected to commence.

G7 Notification prior to commencement

The Director must be notified in writing of the commencement of operations at least 14 days before that occurs.

Atmospheric**A1 Survey of air emissions**

- 1 A survey of air emissions from the activity must be undertaken within 3 months of completion of commissioning of the activity or when reasonably required by the Director by notice in writing.
- 2 Unless otherwise authorised in writing by the Director, the survey must include sampling of emissions from the activity including metals, NO₂, NO_x, SO_x, particulates (PM₁₀ and PM_{2.5}), VOCs broad screen speciation and odour.
- 3 The survey of air emissions must be conducted by personnel or laboratories approved by the Director.

A2 Air Emissions Survey Report

- 1 Air emission survey results must be submitted to the Director within 60 days of the completion of the survey, in the form of a written Air Emissions Survey Report.
- 2 The Air Emissions Survey Report must include:
 - 2.1 the location and operational characteristics of all emission sources;
 - 2.2 sampling plane details;
 - 2.3 sampling parameters;
 - 2.4 test method used;
 - 2.5 information about plant operating conditions at the time of the test;
 - 2.6 measured concentration and emission rates for all pollutants identified in the emission survey;
 - 2.7 a comparison of the measured parameters with the relevant inputs used in the air quality modelling presented in the Air Dispersion Model Report;
 - 2.8 a discussion of potential for exceedance of relevant limits and criteria specified in the Air Quality EPP;
 - 2.9 details of any proposed mitigation measures relating to exceedances; and
 - 2.10 any other additional information relevant to the survey.

A3 Control of dust emissions

Dust emissions from The Land must be controlled to the extent necessary to prevent environmental nuisance beyond the boundary of The Land.

A4 Odour management

The person responsible must institute such odour management measures as are necessary to prevent odours causing environmental nuisance beyond the boundary of The Land.

A5 Maintain emission control equipment

Unless otherwise approved in writing by the Director, the person responsible for the activity must ensure that emission control equipment, including the baghouse, is maintained in efficient operational order and employed at all times the drum dryer is in operation.

A6 Fuel

Any fuel burner on The Land must only consume natural gas, or a fuel approved in writing by the Director.

Construction

CN1 Construction Environmental Management Plan

- 1 At least 30 days prior to the commencement of construction activities, or by a date otherwise specified in writing by the Director, a Construction Environmental Management Plan ('Construction EMP') must be submitted to the Director for approval.
- 2 The Construction EMP must contain a detailed description of the proposed timing and sequence of the major construction activities and of the proposed management measures to be implemented to avoid or minimise the environmental impacts during the construction phase. The Construction EMP must include, but not necessarily be limited to, management measures in relation to the following:
 - 2.1 prevention of impacts upon surface water and waterways;
 - 2.2 erosion and sediment control;
 - 2.3 noise control;
 - 2.4 dust and odour control;
 - 2.5 management of environmentally hazardous materials;
 - 2.6 cultural (Aboriginal and non-aboriginal) heritage considerations;
 - 2.7 flora and fauna management;
 - 2.8 weed, pest and disease management;
 - 2.9 quality control arrangements including supervision by appropriately qualified and experienced persons, detailed construction specifications for key items of environmental management infrastructure, documented site procedures, quality control testing and the keeping of appropriate records; and
 - 2.10 acid sulphate soil management (if identified in pre construction testing).
- 3 Construction must not commence until the Construction EMP has been approved by the Director.
- 4 Unless otherwise specified in writing by the Director, construction activities must be carried out in accordance with an approved Construction EMP.

CN2 Operating hours - Construction

- 1 Unless otherwise approved in writing by the Director:
 - 1.1 Construction activities must not be undertaken outside 0600 hours to 1800 hours Monday to Friday; and 0700 hours to 1600 hours Saturdays
 - 1.2 Notwithstanding the above paragraph, the construction activities must not be carried out on Sundays or Public Holidays that are observed State-wide (Easter Tuesday excepted).

Decommissioning And Rehabilitation

DC1 DRP requirements

Unless otherwise approved in writing by the Director, a Decommissioning and Rehabilitation Plan (DRP) for the activity must be submitted for approval to the Director within 30 days of the Director being notified of the planned cessation of the activity or by a date specified in writing by the Director. The DRP must be prepared in accordance with any guidelines provided by the Director.

DC2 Rehabilitation following cessation

- 1 Following permanent cessation of the activity, and unless otherwise approved in writing by the Director, The Land must be rehabilitated including:

- 1.1 stabilisation of any land surfaces that may be subject to erosion;
 - 1.2 removal or mitigation of all environmental hazards or land contamination, that might pose an on-going risk of causing environmental harm; and
 - 1.3 decommissioning of any equipment that has not been removed.
- 2 Where a Decommissioning and Rehabilitation Plan (DRP) has been approved by the Director, decommissioning and rehabilitation must be carried out in accordance with that plan, as may be amended from time to time with written approval of the Director.

DC3 Notification of cessation

Within 30 days of becoming aware of any event or decision which is likely to give rise to the permanent cessation of the activity, the person responsible for the activity must notify the Director in writing of that event or decision. The notice must specify the date upon which the activity is expected to cease or has ceased.

DC4 Temporary suspension of activity

- 1 Within 30 days of becoming aware of any event or decision which is likely to give rise to the temporary suspension of the activity, the person responsible for the activity must notify the Director in writing of that event or decision. The notice must specify the date upon which the activity is expected to suspend or has suspended.
- 2 During temporary suspension of the activity:
 - 2.1 The Land must be managed and monitored by the person responsible for the activity to ensure that emissions from The Land do not cause serious environmental harm, material environmental harm or environmental nuisance; and
 - 2.2 If required by the Director a Care and Maintenance Plan for the activity must be submitted, by a date specified in writing by the Director, for approval. The person responsible must implement the approved Care and Maintenance Plan, as may be amended from time to time with written approval of the Director.
- 3 Unless otherwise approved in writing by the Director, if the activity on The Land has substantially ceased for 2 years or more, rehabilitation of The Land must be carried out in accordance with the requirements of these conditions as if the activity has permanently ceased.

DC5 Implementation of the DRP

Following permanent cessation of the activity, the decommissioning of the activity and the rehabilitation of The Land must be carried out in accordance with the most recent Decommissioning and Rehabilitation Plan (DRP) approved by the Director, as may be amended from time to time with written approval of the Director.

Effluent Disposal

E1 Perimeter drains or bunds

- 1 Perimeter cut-off drains, or bunds, must be constructed at strategic locations on The Land to prevent surface run-off from entering the area used or disturbed in carrying out the activity. All reasonable measures must be implemented to ensure that sediment transported along these drains, or bunds, remains on The Land. Such measures may include provision of strategically located sediment fences, appropriately sized and maintained sediment settling ponds, vegetated swales, detention basins and other measures designed and operated in accordance with the principles of Water Sensitive Urban Design.
- 2 Drains, or bunds, must have sufficient capacity to contain run-off that could reasonably be expected to arise during a 1 in 20 year rainfall event. Maintenance activities must be undertaken regularly to ensure that this capacity does not diminish.

E2 Wastewater and stormwater

- 1** All wastewater and contaminated stormwater that will be discharged from The Land must be collected and treated prior to discharge to the extent necessary to prevent serious or material environmental harm, or environmental nuisance.
- 2** Notwithstanding the above, all stormwater and wastewater that is discharged from The Land must not carry pollutants such as sediment, oil and grease in quantities or concentrations that are likely to degrade the visual quality of any receiving waters outside The Land.
- 3** All reasonable and practical measures must be implemented to ensure that solids entrained in stormwater and wastewater are retained on The Land. Such measures may include appropriately sized and maintained sediment settling ponds, detention basins or vegetated swales.
- 4** Stormwater and wastewater discharged in accordance with this condition must not be directed to sewer without the approval of the operator of the sewerage system.

E3 Effluent discharge

Effluent from the activity must not be discharged from site except via a gross pollutant trap.

Hazardous Substances

H1 Storage and handling of hazardous materials

- 1** Unless otherwise approved in writing by the Director, all environmentally hazardous materials, including chemicals, fuels, and oils, stored on The Land in volumes exceeding 250 litres must be stored and handled in accordance with the following:
 - 1.1** Any storage facility must be contained within a spill collection bund with a net capacity of whichever is the greater of the following:
 - 1.1.1** at least 110% of the combined volume of any interconnected vessels within that bund; or
 - 1.1.2** at least 110% of the volume of the largest storage vessel; or
 - 1.1.3** at least 25% of the total volume of all vessels stored in that spill collection bund; or
 - 1.1.4** the capacity of the largest tank plus the output of any firewater system over a twenty minute period.
 - 1.2** All activities that involve a significant risk of spillages, including the loading and unloading of bulk materials, must take place in a bunded containment area or on a transport vehicle loading apron.
 - 1.3** Bunded containment areas and transport vehicle loading aprons must:
 - 1.3.1** be made of materials that are impervious to any environmentally hazardous material stored within the bund;
 - 1.3.2** be graded or drained to a sump to allow recovery of liquids;
 - 1.3.3** be chemically resistant to the chemicals stored or transferred;
 - 1.3.4** be designed and managed such that any leakage or spillage is contained within the bunded area (including where such leakage emanates vertically higher than the bund wall);
 - 1.3.5** be designed and managed such that the transfer of materials is adequately controlled by valves, pumps and meters and other equipment wherever practical. The equipment must be adequately protected (for example, with bollards) and contained in an area designed to permit recovery of any released chemicals;

- 1.3.6 be designed such that chemicals which may react dangerously if they come into contact have measures in place to prevent mixing; and
- 1.3.7 be managed such that the capacity of the bund is maintained at all times (for example, by regular inspections and removal of obstructions).

H2 Hazardous materials (< 250 litres)

- 1 Unless otherwise approved in writing by the Director, each environmentally hazardous material, including chemicals, fuels and oils, stored on The Land in discrete volumes not exceeding 250 litres, but not including discrete volumes of 25 litres or less, must be stored within bunded containment areas or spill trays which are designed and maintained to contain at least 110% of the volume of the largest container.
- 2 Bunded containment areas and spill trays must be made of materials that are impervious to any environmentally hazardous materials stored within the bund or spill tray.

H3 Spill kits

Spill kits appropriate for the types and volumes of materials handled on The Land must be kept in appropriate locations and maintained in a functional condition to assist with the containment of spilt environmentally hazardous materials.

H4 Inventory of hazardous materials

An inventory must be kept of all environmentally hazardous materials stored and handled on The Land. The inventory must specify the location of storage facilities and the maximum quantities of each environmentally hazardous material likely to be kept in storage and must include safety data sheets for those environmentally hazardous materials.

H5 Application of asphalt release agent

Unless otherwise approved in writing by the Director, asphalt release agent must only be applied to plant and equipment within bunded areas to ensure all wastewater and potentially contaminated stormwater is collected and treated in accordance with the requirements of these conditions.

Monitoring

M1 Effluent monitoring

- 1 Unless otherwise approved in writing by the Director, within 21 days from commencement the person responsible for the activity must implement the effluent monitoring program specified in Table 1.
- 2 Results of the monitoring must be reported to the Director on a quarterly basis. Each report must include:
 - 2.1 the date(s) of measurements;
 - 2.2 general operating conditions at the Asphalt Plant during each month;
 - 2.3 method(s) employed to produce the measurements; and
 - 2.4 comment and interpretation of results.

3 Table 1: Effluent monitoring program.

Parameter	Units	Sampling Method	Frequency	Monitoring Location
Total metals (As,B,Cd,CrVI,Co,Cu,Pb,Hg,Ni,Zn)	µg/L	Representative Grab	Quarterly	Gross Pollutant Trap storage tank discharge
Dissolved metals (As,B,Cd,CrVI,Co,Cu,Pb,Hg,Ni,Zn)	µg/L	Representative Grab	Quarterly	Gross Pollutant Trap storage tank discharge
Suspended solids	mg/L	Representative Grab	Quarterly	Gross Pollutant Trap storage tank discharge
Total Recoverable Hydrocarbons (all fractions)	µg/	Representative Grab	Quarterly	Gross Pollutant Trap storage tank discharge
BTEXN	µg/	Representative Grab	Quarterly	Gross Pollutant Trap storage tank discharge

M2 Samples and measurements for monitoring purposes

- 1 Any sample or measurement required under these conditions must be taken and processed in accordance with the following:
 - 1.1 sampling and measuring must be undertaken by a person with training, experience, and knowledge of the appropriate procedure;
 - 1.2 the integrity of samples must be maintained prior to delivery to a testing facility;
 - 1.3 sample analysis must be conducted by a testing facility accredited by the National Association of Testing Authorities (NATA), or a testing facility approved in writing by the Director, for the specified test;
 - 1.4 details of methods employed in taking samples and measurements and results of sample analysis, and measurements must be retained for at least three (3) years after the date of collection; and
 - 1.5 sampling and measurement equipment must be maintained and operated in accordance with manufacturer's specifications and records of maintenance must be retained for at least three (3) years.

Noise Control

N1 Hours of operation

- 1 Unless otherwise specified by the Director in writing, the activity must only be operated between the hours of 0600 hrs and 1800 hrs, Monday to Friday, and 0700 and 1600 hrs on Saturday, unless in accordance with the following:
 - 1.1 at least 48 hours written notice is given by the person responsible to the Director and all affected residents on Remount Road, Mowbray, of:
 - 1.2 the date/s and times of the out of hours operations to take place;
 - 1.3 the reason/s necessitating the out of hours operations; and
 - 1.4 the measures to be undertaken to mitigate nuisance noise from plant operations and vehicular ingress and egress along Remount Road and the activity.

- 2 Notwithstanding the above paragraph, the above activities must not be carried out on Public Holidays that are observed State-wide (Easter Tuesday excepted) without the prior written approval of the Director.
- 3 In the event the activity is required to undertake prolonged out of hours operation, the person responsible must ensure a public notice is published in the Examiner Newspaper at least two days prior to the commencement of out of hours works.

N2 Noise emission limits

- 1 Noise emissions from the activity when expressed as the equivalent continuous A-weighted sound pressure level must not exceed:
 - 1.1 45 dB(A) between 0700 hours and 1800 hours (Day time); and
 - 1.2 40 dB(A) between 1800 hours and 2200 hours (Evening time); and
 - 1.3 35 dB(A) between 2200 hours and 0700 hours (Night time).
- 2 Where the combined level of noise from the activity and the normal ambient noise exceeds the noise levels stated above, this condition will not be considered to be breached unless the noise emissions from the activity are audible and exceed the ambient noise levels by at least 3 dB(A).
- 3 Noise emissions from the activity must not exceed LAmax 60 dB(A) at any noise sensitive premises between 2200 hours and 0700 hours (Night time).
- 4 Measured noise levels must be adjusted for tonality, impulsiveness, modulation and low frequency in accordance with the Tasmanian Noise Measurement Procedures Manual.
- 5 All methods of measurement must be in accordance with the Tasmanian Noise Measurement Procedures Manual, issued by the Director.

N3 Noise survey requirements

- 1 Unless otherwise approved in writing by the Director, a noise survey must be completed:
 - 1.1 within 6 months after completion of commissioning; and
 - 1.2 within six (6) months after any change to the activity which is likely to substantially alter the character or increase the volume of noise emitted from The Land.

N4 Noise survey method and reporting requirements

- 1 Noise surveys must be undertaken in accordance with a survey method approved in writing by the Director, as may be amended from time to time with written approval of the Director.
- 2 Without limitation, the survey method must address the following:
 - 2.1 measurements must be carried out at day, evening and night times (where applicable) at each location;
 - 2.2 Simultaneous source measurements in order to compare with the noise data from the monitoring conducted at noise sensitive premises during the same time-period;
 - 2.3 Source noise levels and characteristics of each item of equipment of concern; and
 - 2.4 measurement locations, and the number thereof, must be specified, with one location established as a control location (noise).
- 3 Measurements and data recorded during the survey must include:
 - 3.1 operational status of noise producing equipment and throughput of the activity;
 - 3.2 subjective descriptions of the sound at each location;
 - 3.3 details of meteorological conditions relevant to the propagation of noise;

- 3.4 the equivalent continuous (L_{eq}) and L_1 , L_{10} , L_{50} , L_{90} and L_{99} A-weighted sound pressure levels measured over a period of 10 minutes or an alternative time interval approved by the Director;
 - 3.5 a data set containing periods capturing normal and worst operating conditions;
 - 3.6 A and C weighted one-third octave spectra (including low frequency) over suitably representative period of not less than 1 minute presented in tabulated and graph format; and
 - 3.7 narrow-band spectra over suitably representative periods of not less than 1 minute.
- 4 A noise survey report must be forwarded to the Director within 30 days from the date on which the noise survey is completed.
 - 5 The noise survey report must include the following:
 - 5.1 the results and interpretation of the measurements required by these conditions;
 - 5.2 a map of the area surrounding the activity with the boundary of The Land, measurement locations, and noise sensitive premises clearly marked on the map;
 - 5.3 if and where required, predicted noise levels at the noise sensitive premises based on the completed commissioning source noise measurements;
 - 5.4 any other information that will assist with interpreting the results and whether the activity is in compliance with these conditions and EMPCA; and
 - 5.5 recommendations of appropriate mitigation measures to manage any noise problems identified by the noise survey.

Operations

OP1 Dry granular synthetic materials management

- 1 Measures must be implemented and maintained to restrict or prevent the escape of dry granular synthetic materials from The Land.
- 2 Unless otherwise approved in writing by the Director control measures must include:
 - 2.1 storage to restrict scattering of dry granular synthetic materials by wind;
 - 2.2 appropriate management of granular material during transfer and batching to prevent spillage;
 - 2.3 immediate clean up and segregation of spilt granular materials around bins, bunkers and within the plant activity areas; and
 - 2.4 daily inspection during operations to ensure the stormwater network is kept free of granular materials.

Schedule 3: Information

Legal Obligations

LO1 EMPCA

The activity must be conducted in accordance with the requirements of the *Environmental Management and Pollution Control Act 1994* and Regulations thereunder. The conditions of this document must not be construed as an exemption from any of those requirements.

LO2 Storage and handling of dangerous goods, explosives and dangerous substances

1 The storage, handling and transport of dangerous goods, explosives and dangerous substances must comply with the requirements of relevant State Acts and any regulations thereunder, including:

1.1 *Work Health and Safety Act 2012* and subordinate regulations;

1.2 *Explosives Act 2012* and subordinate regulations; and

1.3 *Dangerous Goods (Road and Rail Transport) Act 2010* and subordinate regulations.

LO3 Controlled waste transport

Transport of controlled wastes to and from The Land must be undertaken only by persons authorised to do so under EMPCA or subordinate legislation.

Other Information

OI1 Waste management hierarchy

1 Wastes should be managed in accordance with the following hierarchy of waste management:

1.1 waste should be minimised, that is, the generation of waste must be reduced to the maximum extent that is reasonable and practicable, having regard to best practice environmental management;

1.2 waste should be re-used or recycled to the maximum extent that is practicable; and

1.3 waste that cannot be re-used or recycled must be disposed of at a waste depot site or treatment facility that has been approved in writing by the relevant planning authority or the Director to receive such waste, or otherwise in a manner approved in writing by the Director.

OI2 Notification of incidents under section 32 of EMPCA

Where a person is required by section 32 of EMPCA to notify the Director of the release of a pollutant, the Director can be notified by telephoning **1800 005 171** (a 24-hour emergency telephone number).

Attachment 1: PCE 10868 - The Land

