

Environmental Assessment Report

Increase in production Bitumen Plant

*1 Parkholme Drive,
Bridgewater*

Roadways Proprietary
Limited

December 2020



ENVIRONMENT PROTECTION AUTHORITY

Environmental Assessment Report

Proponent	<i>Roadways Proprietary Limited</i>
Proposal	<i>Increase in production at pre-mix bitumen plant</i>
Location	<i>1 Parkholme Drive, Bridgewater</i>
NELMS no.	<i>PCE No. 10386</i>
Permit Application No.	DA 2020 / 00351 - Brighton Council
Electronic Folder No.	EN-EM-EV-DE-259947
Document No.	D20-88323/001
Class of Assessment	2A

Assessment Process Milestones

18 February 2020	Notice of Intent lodged
11 March 2020	Guidelines Issued
28 September 2020	Permit Application submitted to Council
13 October 2020	Application/Referral received by the Board
21 October 2020	Start of public consultation period
5 November 2020	End of public consultation period
3 December 2020	Date draft conditions issued to proponent
10 December 2020	Statutory period for assessment ends

Acronyms

Board	Board of the Environment Protection Authority
EER	Environmental Effects Report
DPIPWE	Department of Primary Industries, Parks, Water and Environment
EIA	Environmental impact assessment
EL	Environmental licence
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>
EPN	Environment Protection Notice
EPP	Environment Protection Policy
LUPA Act	<i>Land Use Planning and Approvals Act 1993</i>
RMPS	Resource management and planning system
SD	Sustainable development
TSP Act	<i>Threatened Species Protection Act 1995</i>
VOC	Volatile Organic Compounds

Report Summary

This report provides an environmental assessment of a proposed increase in production for Roadways Proprietary Limited at their existing pre-mix bitumen plant, located in the Boral quarry at 1 Parkholme Drive, Bridgewater.

The proposal involves an increase in production of pre-mix bitumen from the 50,000 tonnes per annum currently permitted via Permit No. R0035 (former Notice of Registration) as varied by EPN No. 8061/1, to 70,000 tonnes per annum. No change to production processes or methods is proposed, and the plant will run longer hours to accommodate the proposed increase in production.

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

Further details of the assessment process are presented in section 1 of this report. Section 2 describes the statutory objectives and principles underpinning the assessment. Details of the proposal are provided in section 3. Section 4 reviews the need for the proposal and considers the alternatives. Section 5 summarises the public and agency consultation process. The detailed evaluation of environmental issues is contained in section 6. Other issues are discussed in section 7. The report conclusions are contained in section 8.

Appendix 1 contains a list of commitments made by the proponent. Appendix 2 contains the environmental permit conditions for the proposal. The environmental conditions in Appendix 2 are a new set of operating conditions for the entire, intensified activity that will replace the existing environment protection notice.

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I Approval Process

A Notice of Intent in relation to the proposal was received by the Board of the Environment Protection Authority (the Board) on 18 February 2020.

An application for a permit under the *Land Use Planning and Approvals Act 1993* (LUPA Act) in relation to the proposal was submitted to Brighton Council on 28 September 2020.

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.

Section 25(1) of the EMPC Act required Council to refer the application to the Board of the Environment Protection Authority (the Board) for assessment under the Act. The application was received by the Board on 13 October 2020.

The assessment has been undertaken by the Director, Environment Protection Authority under delegation from the Board.

The Board required that information to support the proposal be provided in the form of an Environmental Effects Report (EER) prepared in accordance with guidelines issued by the Board on 11 March 2020.

A draft of the EER was submitted to EPA Tasmania for review against the guidelines before it was finalised. The final EER was submitted to Council with the permit application. The EER was released for public inspection for a 14-day period commencing on 21 October 2020. An advertisement was placed in *The Mercury* and on the EPA website. No representations were received.

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 in the context of the objectives of the Environmental Management and Pollution Control System (EMPCS) (both sets of objectives are specified in Schedule 1 the EMPC Act). The functions of the Board are to administer and enforce the provisions of the Act, and in particular 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.

The assessment has been undertaken by the Director, Environment Protection Authority under delegation from the Board.

3 The Proposal

The proposal is for an increase in production at the existing pre-mix bitumen plant located in the grounds of the Boral quarry at Bridgewater. The plant is regulated via Permit No. R0035 (former Notice of Registration) for up to 50,000 tonnes of production per annum. The proposed increase is for a maximum of 70,000 tonnes produced per annum. No changes to existing processes at the plant are proposed, and the plant is proposed to run for longer hours to accommodate the increased production output.

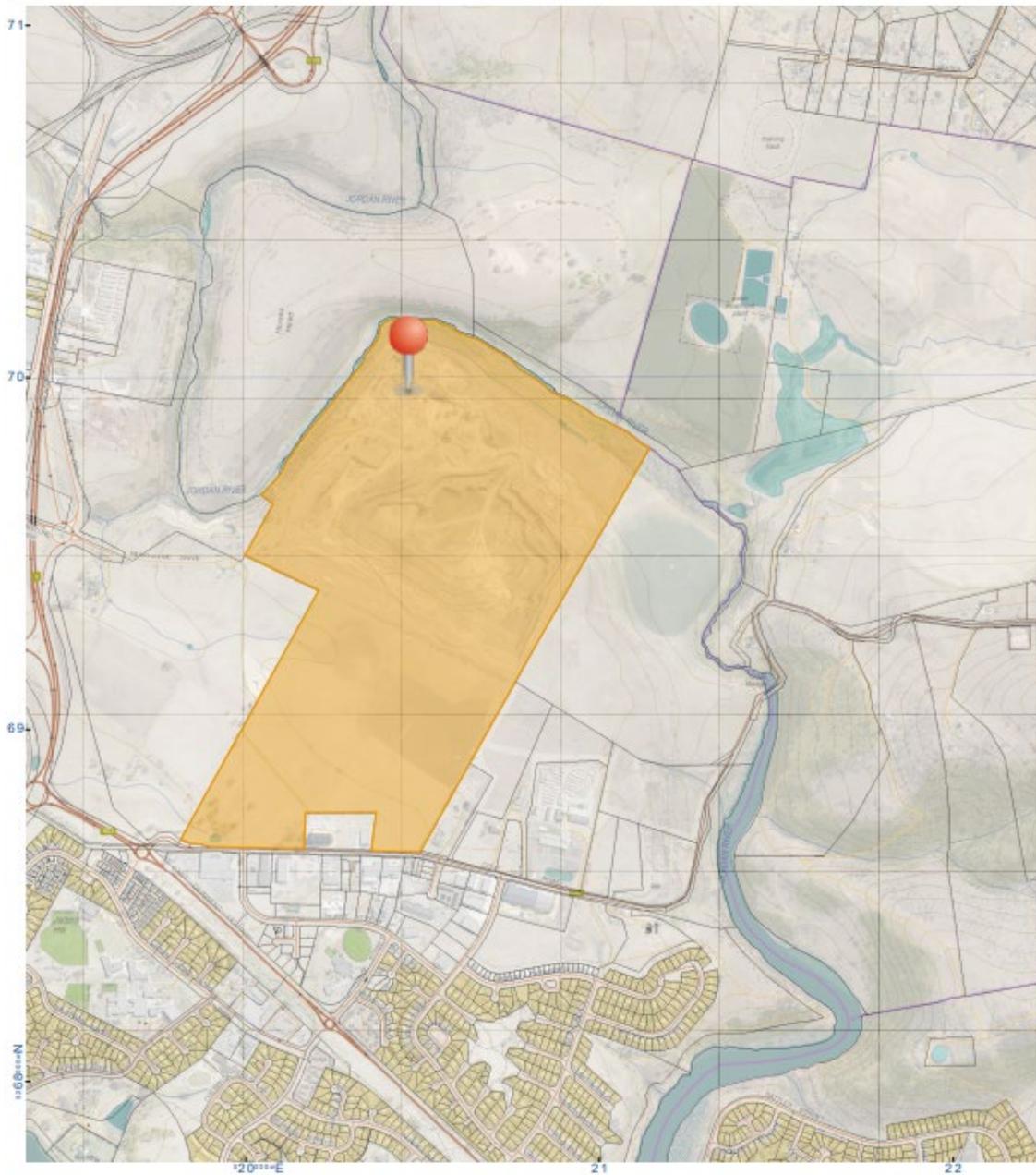
The main characteristics of the proposal are summarised in Table 1. A detailed description is provided in Section 2 of the EER.

Table 1: Summary of the proposal's main characteristics

Activity	
Increase in production at an existing pre-mix bitumen plant, to a maximum of 70,000 tonnes of bitumen produced per annum.	
Location and planning context	
Location	1 Parkholme Drive, Bridgewater (refer to Figure 1 below) Title reference 170481/1 PID 3411200
Land zoning	General Industrial (<i>Brighton Interim Planning Scheme 2015</i>)
Land tenure	Land is owned by Boral Construction Materials Group Limited, and the existing plant operates under a lease agreement with the landowner.
Existing site	
Land Use	The plant occupies the northern corner of the Boral Quarry site (refer to Figure 2, and Figure 3, below).
Topography	Open slopes. The landform of the plant is highly modified due to quarrying operations.
Geology	The area is underlain by consolidated and unconsolidated tertiary sediments.
Soils	Black soils on basalt – moderate to imperfectly drained black cracking soils developed on Tertiary basalt bedrock and colluvium on low undulating (3 – 10%) plateaus (Vertosol – Australian Soil Classification). Signs of erosion are evident between the existing plant and the Jordan River.
Hydrology	The Jordan River lies approximately 70 metres to the north which flows towards the Derwent River to the south. Water from the site drains towards settlement ponds which, during periods of overflow, drain towards the Jordan River (refer to Figure 3 below).
Natural Values	None, the site is highly modified, being located within an existing quarry.
Local region	
Climate	Mean annual rainfall at Bridgewater Treatment Plant is approximately 516mm per annum. Winds in nearby Hobart are predominantly from the north west, with south easterly winds common in the afternoons.

Surrounding land zoning, tenure and uses	<p>Directly to the south of the existing plant is the Boral quarry. The land north of the existing plant slopes down towards the Jordan River.</p> <p>Most of the land surrounding the site (and the quarry) is private freehold farmland, zoned as either <i>Rural Resource</i> or <i>General Industrial</i> under the Planning Scheme. Council own land to the east and north east of the quarry.</p> <p>The nearest residences are located approximately 1,350m to the north east, and 1,700m to the south (refer to Figure 2, below).</p> <p>Much of the remainder of the surrounding land is General Industrial use.</p>
Species of conservation significance	<p>The surrounding paddocks and quarry edges have recorded instances of species of flora of conservation significance, e.g grass cushion (<i>Isoetopsis graminifolia</i>; vulnerable TSPA), doublejointed speargrass (<i>Austrostipa bigeniculata</i>, rare TSPA).</p>
Proposed infrastructure	
Major equipment	<p>No new infrastructure or plant upgrade is proposed. The existing plant operates as follows:</p> <ol style="list-style-type: none"> 1. The hotmix plant is fed from stockpiles of aggregates via a conveyor from cold feed bins located on the south side of the plant. 2. The aggregates pass through a natural gas dryer and are stored in hot bins before being weighed into batches to produce asphalt. 3. The bituminous products are introduced to a hopper and blended with the base media (aggregates) and the product is then ready for delivery. 4. The trucks are loaded with the hotmix (asphalt blend) and transported off site to the road/worksite for use. Trucks arriving on site to be loaded with hotmix will line their trays with vegetable oils to improve the unloading procedure at the site they deliver to.
Other infrastructure	<p>A wet scrubber is in operation in the stack, using storm/wastewater from sediment settling ponds.</p>
Inputs	
Water	<p>Settlement ponds are filled from Boral's mains water supply and then water is pumped from the ponds, used in the plant (wet scrubber), returned to settlement ponds, and then reused in the plant.</p>
Energy	<p>Natural gas.</p>
Other raw materials	<p>Aggregates and other additives (e.g. lime, limestone, crumbed rubber, crushed glass, pelletised cellulose fibre, modified polymer – noting that only the lime and crushed glass are stored on site, other materials brought in as required) depending on customer demand, bituminous products, vegetable oils.</p>
Wastes and emissions	
Liquid	<p>Return water from wet scrubber.</p> <p>Stormwater runoff from around site and stockpiles.</p>
Atmospheric	<p>Odours from the process of heating bitumen.</p> <p>Dust from process/stack, and from stockpiles on site.</p>
Solid	<p>Fine solids settled out in settlement ponds from wet scrubbing process.</p> <p>Aggregates cleaned out from scrubber.</p>
Controlled wastes	<p>Contaminated soil, only in the event of a spill of an environmentally hazardous material.</p>
Noise	<p>Major noise sources are the dust fan, gas burner, loading bay, dryer, and laboratory automatic impact (Marshall) compactor.</p>
Greenhouse gases	<p>Associated with use of diesel- and petrol-powered transportation of raw materials to the plant, and product from the plant, as well as combustion of natural gas during the production process.</p>

Construction and operations	
Proposal timetable	Increased production will commence on approval.
Operating hours (ongoing)	<p>The existing plant can operate 24 hours a day/7 days per week.</p> <p>Maximum production rate is 120 tonnes per hour, however, the plant operates according to customer demand to create batches of material.</p> <p>Operating hours will generally be 0630 to 1600 hours on any day of the week, depending on customer needs.</p> <p>The rate of production will remain constant with the proposed increase, but the plant will expand the hours of production to meet demand.</p>
Other key characteristics	
n/a	



Grid Interval 1km (GDA94 MGAS5)

www.thelist.tas.gov.au

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Figure 1: Bitumen plant location, 1 Parkholme Drive, Bridgewater

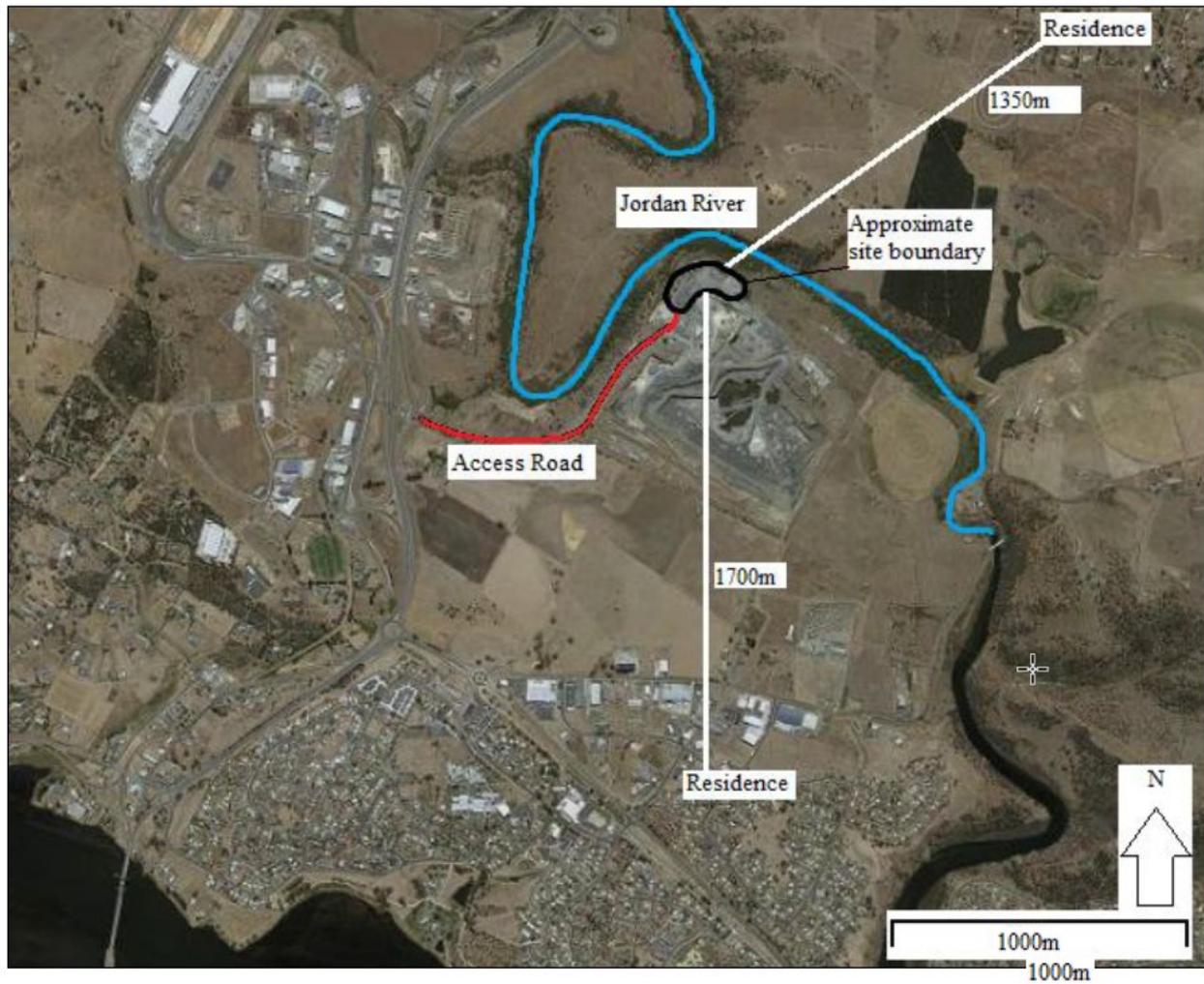


Figure 2: Aerial photograph of bitumen plant location, also showing nearest residences, the Jordan River, and access road (Source: Figure 1, EER).



Figure 3: Bitumen plant site, and drainage features (Source: Figure 6, EER).

4 Need for the Proposal and Alternatives

The rationale for the increase in production is so that the site can meet existing and future demand for road construction materials in Tasmania. The proponents have consulted with local and state government and are aware of many potential large-scale roadworks projects being planned. The demand for asphalt is expected to increase beyond the current permitted limit of 50,000 tonnes per annum.

The impact of increasing production at an existing plant is expected by the proponent to be less than relocating or constructing a second plant.

No alternative sites with access to main distribution road networks, remoteness from sensitive receptors, and existing supplies of raw materials such as sand and aggregate, have been able to be identified.

5 Public and Agency Consultation

No public representations were received.

The EER was not referred to any other government/agency bodies aside from Brighton Council, as the relevant issues which must be addressed are wholly within EPA Tasmania's purview.

EPA Tasmania's Regulatory Officer provided advice on the EER.

6 Evaluation of Environmental Issues

EPA Tasmania has evaluated environmental issues considered relevant to the proposal. Details of this evaluation, along with the permit conditions required by the Director, are discussed below:

The following issues are discussed:

1. Air emissions
2. Water
3. Noise
4. Solid wastes
5. Environmentally hazardous substances
6. Decommissioning and rehabilitation

General conditions

The following general conditions will be imposed on the activity:

- Q1** Regulatory limits
- 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

Issue 1: Air emissions
<p>Description of potential impacts</p>
<p>The production of dust (fine and coarse), odours, and gaseous pollutants (fumes) can occur at most stages of the hotmix production process and may result in environmental harm or nuisance for nearby sensitive receptors.</p> <p>Potential emissions to the air can be derived from both the stack (odours and fumes), and from fugitive sources (particulate matter/dust, odour and fumes).</p> <p>Fugitive sources (mainly of dust) include vehicle movements, stockpiles (wind-blown), handling of materials with front-end loaders etc, screening, aggregate drying, and truck loading.</p> <p>Potential sources of fumes include drying, bitumen storage, mixing, and truck loading. Process emissions will mainly come from the dryer and include products of both complete combustion (such as NO_x and SO_x, CO₂, and water) and incomplete combustion (VOCs, CO, and other organic particulate matter). Volatile organic compounds (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.</p> <p>Odour sources include truck loading processes, and gas leaks.</p>
<p>Management measures proposed in EER</p>
<p>The EER states that the existing plant has a wet scrubber system which will continue to operate and is appropriate for the proposed increase in production. The plant will operate for a greater number of hours rather than at higher capacities.</p> <p>The plant is using high grade raw materials that produce less air emissions than lower grade materials. Emissions are scrubbed with water from sediment ponds and discharged through the stack.</p> <p>A stack emissions test conducted in 2010 showed that emissions were on average just below 100 mg/m³ for particulate matter, meeting the <i>EPP (Air Quality) 2004</i> in-stack concentration limit of 100 mg/m³.</p> <p>The nearest resident is approximately 1,350 metres from the site, which is considered an adequate separation distance by the proponent to avoid impacts of dust, fumes and odours from the plant.</p>
<p>Public and agency comment</p>
<p>n/a</p>
<p>Evaluation</p>
<p>There is no change to the existing acceptable operation of the plant, except for longer hours of operation as driven by customer demand. Standard conditions relating to control of dust emissions (A1) and control of odour (A2) from the site to prevent environmental nuisance are considered sufficient, particularly given the separation distances to nearest residences.</p> <p>Additional conditions requiring maintenance of emission control equipment (A3) and use of approved fuels for combustion (A4) have been carried over from the existing Permit and are consistent with conditions contained in other similar bitumen plants. These conditions ensure</p>

the risk of odours, gaseous emissions, and particulates causing nuisance or harm continue to be minimised.

Conclusion

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

- A1** Control of dust emissions
- A2** Odour management
- A3** Maintain emission control equipment
- A4** Fuel

Issue 2: Water
Description of potential impacts
<p>Runoff from stockpiles, roads, or other areas around the plant may become contaminated and pollute stormwater and waterways.</p> <p>The Jordan River runs past the site approximately 70 metres to the north and flows toward the River Derwent in a south easterly direction.</p>
Management measures proposed in EER
<p>A contour drain is constructed between the asphalt plant and the Jordan River to collect any wastewater. The drain is designed and constructed to cope with winter rain events and directs all run-off water to the settling ponds before the water is re-routed to use in the scrubbers for the stack system. Water supplies can be topped up from the mains supply for the adjacent quarry as needed, as water evaporates from the ponds. The sediment at the bottom of the ponds is re-used by the Boral quarry.</p> <p>The settling ponds have a capacity of 160m³, 216m³, 112m³ and 500m³, giving a combined total holding capacity of 988m³. The existing settling ponds have sufficient capacity to cope with a 1 in 20-year rain event. Data from the Bureau of Meteorology shows that the rainfall intensity of the area for a 24-hour storm is 3.21 mm/hour. The site is approximately 1,000m² so, over a 24-hour period, there would be 77.04 m³ of water going into the settling ponds from the Roadways site. This is considerably under the existing settling pond capacity.</p> <p>Boral undertake monitoring of the settlement ponds, of pH, particulates, and hydrocarbons. In the case of above-average rainfall, the settling ponds are checked for discharge. If there is water discharging from the ponds to the Jordan River a check sample is taken to ensure that a high sediment load is not impacting the Derwent Estuary.</p>
Public and agency comment
n/a
Evaluation
<p>The existing water capture and re-use systems on the site are considered adequate for ensuring water contaminated by bitumen production processes does not enter the adjacent Jordan River. Conditions common to batching bitumen plants are included in the permit in relation to construction of perimeter drains and bunds on the site (EF1), and stormwater and wastewater collection, treatment and discharge (EF2).</p>
Conclusion
<p>The proponent will be required to comply with the following conditions:</p> <p>EF1 Stormwater</p> <p>EF2 Perimeter drains or bunds</p>

Issue 3: Noise
Description of potential impacts
<p>Noise from the operation of the plant, and deliveries to and from the site, may cause nuisance for nearby residents. The current Permit allows for operation 24 hours per day/7 days a week, with the plant operating based on demand for batches of hotmix, rather than continually.</p> <p>The main specific sources of noise on the site are from the dust fan, gas burner, asphalt loading bay, dryer, and laboratory Marshall compactor. The EER states that the combined noise emissions will be less than 46 decibels at a distance of greater than 1000 metres.</p>
Management measures proposed in EER
<p>The EER states that the current plant operation must comply with noise emission limits. While 24/7 operation is permitted, this rarely occurs, with most operation occurring between 0630 to 1600 every day, with extension to these hours should large batches be required. The nearest residence is located approximately 1,350 metres from the plant which the proponent considers to be a sufficient distance to avoid noise impacts, and no noise complaints have been received over the 28 years of operation of the plant.</p> <p>A management commitment is included in the EER to undertake a noise assessment, if requested.</p>
Public and agency comment
n/a
Evaluation
<p>The EER provided the following data for major noise sources on site, stating that “with over 1,000m to the nearest residence the combined noise emissions will be less than 46dB”:</p> <p>Dust fan: 104.4 decibels Gas burner: 100.2 dB Asphalt loading bay 97.2 dB Dryer 94.6 dB Lab Marshall Compactor 94.8 dB</p> <p>The current Permit allows for 24-hour operations, with noise emission limits (or, not to exceed ambient noise levels by 5 dBA and be audible) as follows:</p> <p>Early morning (0700 – 0800 hours): 45 dBA Day time (0800 – 1800 hours): 50 dBA Evening time (1800 – 2200 hours): 45 dBA Night time (2200 – 0700 hours): 40 dBA.</p>

Using common online calculators¹ such as the one used by the proponent, and the sound pressure levels of major noise sources on site as reported in the EER, the combined noise level of all listed major noise sources operating at once is estimated to be 107 dB at one metre. At 1,350 metres (nearest residence), the sound pressure level is estimated to be 44.4 dB, meaning that noise emission limits may be exceeded, if these estimates are somewhat representative of plant operations and the plant is operating with all major noise sources during night time hours (2200 to 0700 hours). At night, it is generally accepted that sound pressure levels at the outside façades of living spaces should not exceed 45 dB(A) to avoid sleep disturbance (e.g. WHO Guidelines for Community Noise, 1995²).

When examining the operation of each major noise source individually, only the dust fan's operation would exceed the existing night-time noise emission limit.

It is proposed that the current Permit noise emission limits are reproduced in the new permit conditions, given no changes to the plant are occurring and that operations will simply continue over longer hours. At the reported maximum production rate of hotmix of 120 tonnes per hour, the plant will operate at least 583 hours per annum for the proposed 70,000 tonnes per annum limit. This is a 40 per cent increase in production and so will likely lead to a 40 percent increase in hours of production, compared to the current operations.

The main risk of a greater annual production limit is that these longer hours required may be pushed into the night time period where noise may create nuisance for residents. It is possible, based on the major noise sources on site reported in the EER, that the current operations are already exceeding the existing noise limits over the night time period, however, complaints have not been received from residents at the current production levels, so this has not been investigated.

The proponent (noting demand is driven by particular jobs, and hotmix is produced in batches), is strongly encouraged to avoid operation overnight and in the early morning hours (particularly between 2200 hours and 0700 hours when estimated sound pressure levels may be high enough to disturb residents). The EER states that generally, operations commence at around 0630 hours, meaning there will be a half-hour period between 0630 and 0700 where operations may occur during the stricter 'night time' noise emission limit period. Given that operations have already been occurring during this period with no complaints received to date, it is considered reasonable that these practices be allowed to continue.

The existing Permit noise emission limits have been included in the permit (**N1**). It is noted that the adjacent quarry has restrictions to operating hours and must meet stricter noise emission limits, although its operations are also considerably closer to the nearest residences. The quarry operations will likely mask some of the bitumen plant noise emissions while operating. The existing bitumen plant Permit contains a specific limit of 65 dBA at neighbouring industrial premises and this has also been included in the new permit conditions (**N1**).

Condition **N2** is included to allow the Director to require a noise survey be undertaken if necessary, to determine whether nuisance is likely to be occurring and to confirm whether noise emission limits are suitable. This will support regulation efforts should disturbance from noise, particularly overnight, begin to be experienced by residents. Condition **N3** provides noise survey method and reporting requirements to support condition **N2**.

¹ <https://www.omnicalculator.com/physics/distance-attenuation> and <https://noisetools.net/decibelcalculator> and <https://au.noisemeters.com/apps/db-calculator/> accessed 30 November 2020.

² <https://www.who.int/docstore/peh/noise/Comnoise-1.pdf> (1995) accessed 30 November 2020.

Conclusion

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

- N1** Noise emission limits
- N2** Noise survey requirements
- N3** Noise survey method and reporting requirements

Issue 4: Solid wastes
Description of potential impacts
Solid waste from the bitumen plant may include yard, plant and truck cleaning, settling sump cleaning, and waste bitumen material. Improper storage and disposal of solid wastes can potentially lead to contamination of land and waterways.
Management measures proposed in EER
<p>Solid waste produced in the asphalt process mainly comes from the settling ponds, where solids collected during the wet scrubbing process accumulate. The solid waste from the settling ponds is recycled and re-used by the Boral quarry.</p> <p>The EER states that the scrubber is cleaned out each day. The sediments collected from the wastewater are stockpiled for re-use at the neighbouring quarry.</p>
Public and agency comment
n/a
Evaluation
The proposed continuation of re-use of solid waste from the wet scrubbers is supported. No specific conditions in relation to solid waste management are considered necessary.
Conclusion
No specific conditions related to waste management are proposed.

Issue 5: Environmentally hazardous substances
Description of potential impacts
<p>The site has stores of diesel, hydrated lime, acetylene, oxygen, and LPG gas on site, as well as a nuclear density gauge. A Hazardous Goods register is provided in Appendix 2 of the EER.</p> <p>Improper storage and handling of these substances may cause pollution of air, water and/or soil, and/or have impacts on human health.</p>
Management measures proposed in EER
<p>Three management commitments are made in the EER in relation to hazardous substances.</p> <p>Spill kits are located on site, with all employees receiving training in their use. Each employee undertakes spill management training specific for the Bridgewater site.</p> <p>The only controlled waste that could occur at this site is contaminated soil from a spillage of environmentally hazardous material.</p> <p>All spills are recorded in the environmental incident register.</p> <p>The nuclear density gauge is subject to the requirements of the <i>Australian Radiation Protection and Nuclear Safety Regulations 1999</i>, and the ARPANSA Code of Practice and Transport Safety Guideline.</p> <p>Trucks are washed down on site with wash water being directed to the settlement ponds.</p>
Public and agency comment
n/a
Evaluation
<p>Continued use of the standard conditions relating to the storage and handling of hazardous materials are considered sufficient and are included in the permit.</p> <p>An additional condition (H5) requiring vehicle washdown, and direction of washdown waters to the settlement ponds for capture and treatment, has been included in the permit. This condition is carried over from the current Permit and is a common condition across similar bitumen plant permits and EPNs.</p>
Conclusion
<p>The proponent will be required to comply with the following conditions:</p> <ul style="list-style-type: none"> H1 Storage and handling of hazardous materials H2 Hazardous materials (< 250 litres) H3 Spill kits H4 Inventory of hazardous materials H5 Vehicle hygiene

Issue 6: Decommissioning and rehabilitation
Description of potential impacts
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 bitumen product are not properly removed from the site.
Management measures proposed in EER
The EER states that decommissioning of the site will include the removal of all infrastructure associated with the asphalt plant. Rehabilitation of the site will be in line with the Boral Quarry rehabilitation, where the plant is co-located. A management commitment is included to this effect.
Public and agency comment
n/a
Evaluation
Standard conditions relating to site closure (temporary and final) and rehabilitation are considered necessary and have been included in the permit. These are largely the same as the existing Permit conditions.
Conclusion
The proponent will be required to comply with the following conditions: DC1 Notification of cessation DC2 DRP requirements DC3 Rehabilitation following cessation DC4 Temporary suspension of activity DC5 Implementation of the DRP

7 Other Issues

The following issues have been raised during the assessment process and are discussed briefly here. These are issues which are not the Board's responsibility under the EMPC Act, or issues which are more appropriately addressed by another regulatory agency.

I. Traffic and truck-related issues:

- a. the number of trucks entering and exiting the site will increase by about 40 per cent as a result of the increase in production. A traffic impact assessment was undertaken by Chris Martin of CSE Tasmania, which estimated an additional maximum of 23 trucks per day which, in the context of the existing traffic in the largely industrial area, was considered to be a minor increase overall. Access to and from the site is via the access for the Boral Quarry, and includes a high standard road junction with a roundabout on to the Midland Highway.
- b. Increased traffic movements may increase the risk to animals on the road network within and external to the site. There are records of roadkill incidents in the nearby area, mainly for wallaby and brushtail possum. The area is well developed with 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 increase in production.
- c. With regard to the hygiene of trucks moving to and from the site - trucks are washed down on site and washdown waters directed to settlement ponds, so the risk of spread of materials from trucks on to the road network and surrounds is considered to be negligible.

8 Report Conclusions

This assessment has been based on the information provided by the proponent, in the permit application, and the case for assessment (the EER).

This report incorporates specialist advice provided by EPA Tasmania scientific specialists and regulatory staff.

It is concluded that:

1. the RMPS and EMPCS objectives have been duly and properly pursued in the assessment of the proposal;
2. the assessment of the proposed activity has been undertaken in accordance with the Environmental Impact Assessment Principles; and
3. the proposed activity is capable of being managed in an environmentally acceptable manner such that it is unlikely that the objectives of the *Environmental Management and Pollution Control Act 1994* (the RMPS and EMPCS objectives) would be compromised, provided that the Permit Conditions - Environmental No. 10386 appended to this report are imposed and duly complied with.

The environmental conditions appended to this report are a new set of operating conditions for the entire, intensified activity that will replace the existing environment protection notice.

9 Report Approval

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



Wes Ford

DIRECTOR, ENVIRONMENT PROTECTION AUTHORITY

Acting under delegation from the Board of the Environment Protection Authority

Date: 10 December 2020

10 References

EER – Environmental Effects Report, Roadways Bridgewater, Project No: 7092, dated August 2020, prepared by ES&D Environmental Services and Design, Heybridge, Tasmania.

II Appendices

Appendix 1 Table of proponent commitments

Appendix 2 Permit conditions – Environmental

Appendix I – Table of proponent commitments

4 PART D - Management Commitments

<i>Number</i>	<i>Commitment</i>	<i>Reference</i>	<i>Completion Date</i>	<i>Person Responsible</i>
1	Undertake annual audits of <i>Workplace Health and Safety Act 1995</i> and the <i>Workplace Health and Safety Regulations 1998</i> and the “Requirements for onsite personnel.”	Section 2.1	Ongoing	S. Prickett
2	EPN, EMP and existing systems to checked for suitability	Section 3.1	At approval	S. Prickett/EPA
3	Organise a noise assessment to be if requested.	Section 3.3	30 days after initial late operation	S. Prickett
4	Ensure spill kits are on site and stocked.	Section 3.5	Ongoing	H Allwright
5	Spill management training is undertaken by all employees	Section 3.5	During employee site induction	H. Allwright
6	Record all spill in an environmental incident register	Section 3.5	At time of incident	H. Allwright
7	The DRP will conform with the Boral quarry decommissioning plan	Section 3.13	30 days before closure	S. Prickett

Appendix 2 – Permit conditions – Environmental



ENVIRONMENT PROTECTION AUTHORITY

PERMIT PART B
PERMIT CONDITIONS - ENVIRONMENTAL No. 10386

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

Activity: **The operation of a premix bitumen plant (ACTIVITY TYPE: Pre-mix Bitumen Plants)**
 BRIDGEWATER BITUMEN PLANT, 1 PARKHOLME DRIVE
 BRIDGEWATER TAS 7030

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: **BRIGHTON**
Permit Application Reference: **DA 2020 / 00351**
EPA file reference: **259947**

Date conditions approved: 10 December 2020

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

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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.

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

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.

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 has the meanings ascribed to it 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.

Pollutant has the meaning ascribed to it in Section 3 of EMPCA.

Stormwater means water traversing the surface of The Land as a result of rainfall.

Tasmanian Noise Measurement Procedures Manual means the document titled *Noise Measurement Procedures Manual*, by the Department of Environment, Parks, Heritage and the Arts, dated July 2008, and any amendment to or substitution of this document.

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 1 Parkholme Drive, Bridgewater, Tasmania, 7030 (also known as 314 Midland Highway, Bridgewater, Tasmania, 7030) at Certificate of Title 170481/1; and
- 2 as further delineated at Attachment 1 and Attachment 2.

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 70,000 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.

Atmospheric

A1 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.

A2 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.

A3 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 wet scrubber, is maintained in efficient operational order and employed at all times the drum dryer is in operation.

A4 Fuel

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

Decommissioning And Rehabilitation**DC1 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.

DC2 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.

DC3 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.

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

EF1 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.

EF2 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.

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 Vehicle hygiene

Vehicle washing and the application of truck release agent must only be undertaken within bunded areas and transport vehicle loading aprons equipped to ensure all wastewater and potentially contaminated stormwater is collected and treated in accordance with the requirements of these conditions.

Noise Control

N1 Noise emission limits

- 1** Noise emissions from the activity when measured at any noise sensitive premises in other ownership and expressed as the equivalent continuous A-weighted sound pressure level must not exceed:
 - 1.1** 45 dB(A) between 0700 hours and 0800 hours (Early morning time); and
 - 1.2** 50 dB(A) between 0800 hours and 1800 hours (Day time); and
 - 1.3** 45 dB(A) between 1800 hours and 2200 hours (Evening time); and
 - 1.4** 40 dB(A) between 2200 hours and 0700 hours (Night time).
- 2** Noise emissions from the activity when measured at any neighbouring industrial activity in other ownership and expressed as the equivalent continuous A-weighted sound pressure must not exceed 65 dB(A).
- 3** 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 5 dB(A).
- 4** The time interval over which noise levels are averaged must be 10 minutes or an alternative time interval specified in writing by the Director.
- 5** Measured noise levels must be adjusted for tonality, impulsiveness, modulation and low frequency in accordance with the Tasmanian Noise Measurement Procedures Manual.
- 6** All methods of measurement must be in accordance with the Tasmanian Noise Measurement Procedures Manual.

N2 Noise survey requirements

- 1** Unless otherwise approved in writing by the Director, a noise survey must be carried out:
 - 1.1** within six (6) months of any change to the activity which is likely to substantially alter the character or increase the volume of noise emitted from The Land; and
 - 1.2** at such other times as may reasonably be required by the Director by notice in writing.

N3 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; and
 - 2.2** 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** one-third octave spectra over suitably representative periods of not less than 1 minute; and
 - 3.6** 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** any other information that will assist with interpreting the results and whether the activity is in compliance with these conditions and EMPCA; and
 - 5.4** recommendations of appropriate mitigation measures to manage any noise problems identified by the noise survey.

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.

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: Certificate of Title 170481/1



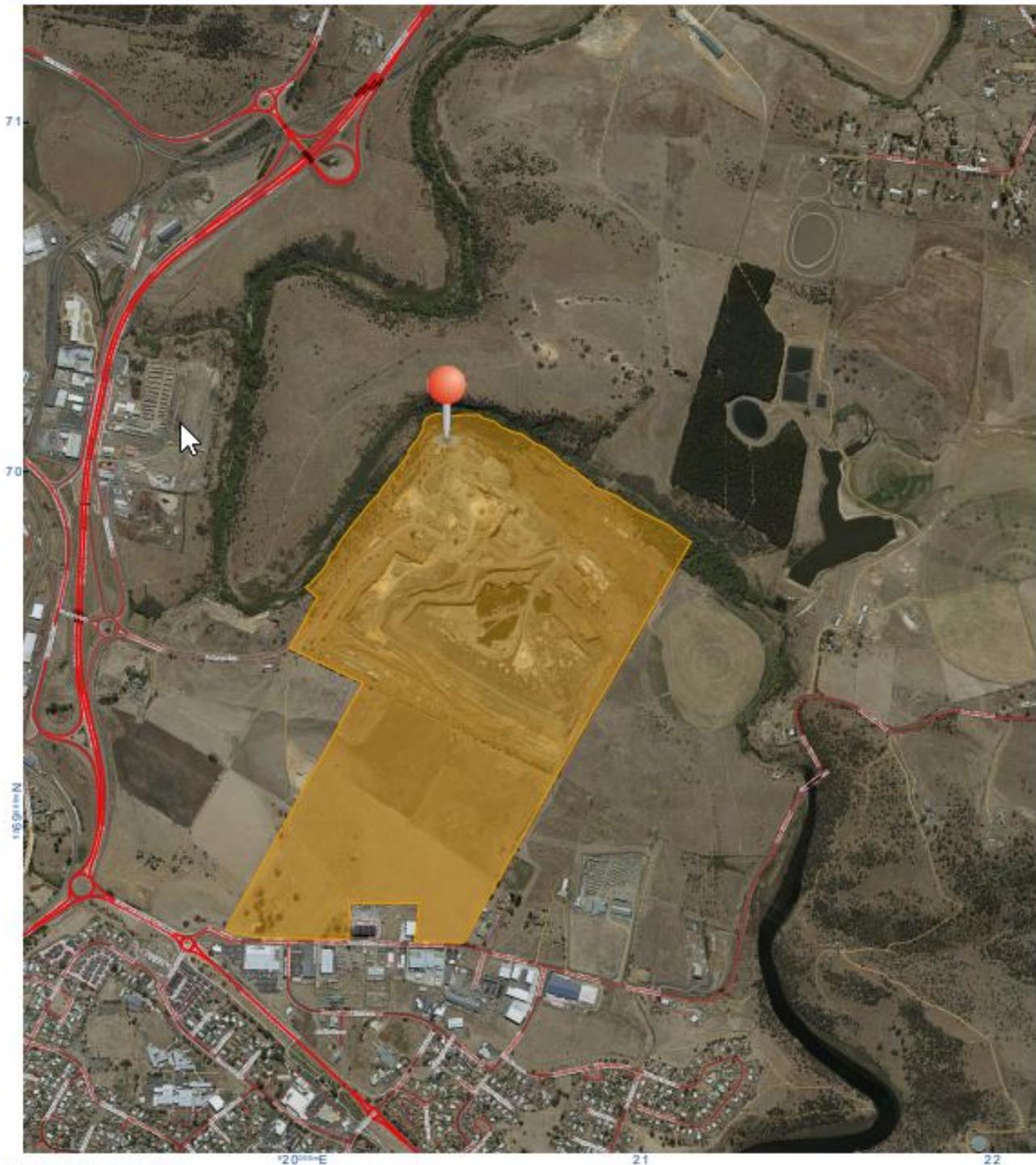
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Land Tasmania

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Page: 1 of 3



Grid Interval 1km (GDA94 MGA55)

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Attachment 2: Portion of Certificate of Title 170481/1 containing bitumen plant



Portion of Certificate of Title 170481/1 containing bitumen plant site