ENVIRONMENTAL ASSESSMENT REPORT

Aquaculture Feed Mill

Wesley Vale

BioMar Pty Ltd

Board of the Environment Protection Authority
August 2018
### Environmental Assessment Report

<table>
<thead>
<tr>
<th><strong>Proponent</strong></th>
<th>BioMar Pty Ltd</th>
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<tr>
<td><strong>Proposal</strong></td>
<td>Aquaculture Feed Mill</td>
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<tr>
<td><strong>Location</strong></td>
<td>Wesley Vale</td>
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<tr>
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<tr>
<td><strong>Permit application no.</strong></td>
<td>208/2017 (Latrobe Council)</td>
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### Assessment process milestones

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<tr>
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<th>Event</th>
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<td>05/04/2017</td>
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<td>09/05/2017</td>
<td>DPEMP Guidelines issued</td>
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<tr>
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<td>05/07/2018</td>
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<td>31/07/2018</td>
<td>Conditions forwarded to proponent for comment</td>
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<td>Biological Oxygen Demand</td>
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<td>COD</td>
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<td>Development Proposal and Environmental Management Plan</td>
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<td>RMPS</td>
<td>Resource management and planning system</td>
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<td>TPA</td>
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<td>TSP Act</td>
<td>Threatened Species Protection Act 1995</td>
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Report summary

This report provides an environmental assessment of BioMar Pty Ltd's proposed aquaculture feed mill.

The proposal involves redeveloping a redundant particle board manufacturing facility into an aquaculture feed mill facility located at 329 Mill Road, Wesley Vale. The proposed feed mill will process up to 19 tonnes per hour of raw materials, including animal and plant proteins, to produce feed pellets for various fish species and stages of growth.

This report has been prepared based on information provided by the proponent in the Development Proposal and Environmental Management Plan (DPEMP) and DPEMP Supplement. Relevant government agencies and the public have been consulted and their submissions and comments considered as part of this assessment.

On 18 May 2018, the Board requested that the proponent submit supplementary information to address government agency comments on the DPEMP and to meet other information requirements. Satisfactory supplementary information was submitted by the proponent on 5 July 2018.

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 proposal, site and design alternatives. Section 5 summarises the public and agency consultation process and the key issues raised in that process. The detailed evaluation of key issues is in section 6, and other issues are evaluated in section 7 and Appendix 1. The report conclusions are contained in section 8.

Appendix 2 contains details of comments made and issues raised in the consultation process. Appendix 3 contains the DPEMP commitments. Appendix 4 contains environmental permit conditions for the proposal.
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1 Approvals process

A Notice of Intent in relation to the proposal was received by the Board of the Environment Protection Authority (the Board) on 5 April 2017.

An application for a permit under the *Land Use Planning and Approvals Act 1993* (LUPA Act) in relation to the proposal was submitted to Latrobe Council on 12 December 2017.

The proposal is defined as a ‘level 2 activity’ under clause 4(e), Schedule 2 of the *Environmental Management and Pollution Control Act 1994* (EMPC Act), being a produce processing works with a capacity to process more than 50 kg per hour of vegetables, seed, grain, fruit or other agricultural crop material. Section 25(1) of the EMPC Act required Council to refer the application to the Board for assessment under the Act. The application was received by the Board on 22 December 2018.

The Board required that information to support the proposal be provided in the form of a Development Proposal and Environmental Management Plan (DPEMP) prepared in accordance with guidelines issued by the Board and Latrobe Council on 9 May 2017.

Several drafts of the DPEMP were submitted to the EPA for comment before being finalised and accepted on behalf of the Board. The final DPEMP was submitted to Council with the permit. The DPEMP was released for public inspection for a 28-day period commencing on 7 April 2018. Advertisements were placed in *The Advocate* and on the EPA website. The DPEMP was also referred at that time to relevant government agencies for comment. No public submissions were received.

On 18 May 2018, the Board requested that the proponent submit supplementary information to address government agency (including DPIPWE) comments on the DPEMP and to meet other information requirements. Satisfactory supplementary information was submitted by the proponent on 5 July 2018.
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 undertake the assessment of the proposal in accordance with the Environmental Impact Assessment Principles defined in Section 74 of the EMPC Act.
3 The proposal

The proposal involves development of an aquaculture feed mill located on the site of a previous particleboard manufacturing facility at 329 Mill Road, Wesley Vale. The feed mill will process up to 19 tonnes per hour of raw materials, including up to 11.6 tonnes per hour of land based grains and vegetables, to produce feed pellets for various fish species and growth stages.

Dry ingredients will be milled and blended according to product recipes. Water is used in the process to control moisture levels for the extrusion of pellets. Further processing includes drying, recovery of fine particles and vacuum coating/infusion of oil for the production of high fat feeds.

The proposal will also involve the construction of a biofilter and installation of a 4 MW natural gas fired boiler, burning up to 420 kg/hr of natural gas.

All process wastewater, including biofilter leachate, will initially be collected and transported to the Ulverstone sewage treatment plant. An on site reuse scheme will be developed during the first 6 months of operation, and used thereafter.

The facility will operate 24 hours a day, 7 days a week, for 50 weeks a year, with peak production occurring between August and December. The first year of production (2019) is expected to produce approximately 65,000 tpa of saleable product, with rates increasing to around 100,000 tpa by 2020.

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

Table 1: Summary of the proposal's main characteristics

<table>
<thead>
<tr>
<th>Activity</th>
<th>Location and planning context</th>
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<tbody>
<tr>
<td>Produce processing works processing up to 11.6 tonnes / hr of vegetables, seed, grain, fruit or other agricultural crop material.</td>
<td>Location 329 Mill Road, Wesley Vale (Figure 1).</td>
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<table>
<thead>
<tr>
<th>Location</th>
<th>Land zoning</th>
<th>Land tenure</th>
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<tr>
<td>General Industrial under the Latrobe Interim Planning Scheme 2013.</td>
<td>Private freehold. Certificate of Title 86717/1, owned by BioMar Pty Ltd.</td>
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<tr>
<th>Existing site</th>
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<td>Land Use</td>
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<tr>
<td>Topography</td>
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<tr>
<td>Geology</td>
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<tr>
<td>Soils</td>
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<tr>
<td>Hydrology</td>
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</table>
### Fauna / Flora

There are no records of threatened fauna or flora listed under the *Threatened Species Protection Act* (1995) (TSP Act) or *Environment Protection and Biodiversity Conservation Act* (1999) (EPBC Act), or vegetation communities listed under the *Nature Conservation Act* (2002) (NC Act) or EPBC Act on site.

### Local region

#### Climate

Mean rainfall is approximately 803 mm per annum. Wind direction is predominantly southerly with a westerly sub-dominant component in the morning (9am), switching to north-westerly in the afternoon (3 pm).

#### Surrounding land zoning, tenure and uses

Land to the west is owned by Tas Paper Pty Ltd (former pulp mill) and is zoned General Industrial. All other surrounding land is zoned Rural Resource and is predominantly used for agricultural purposes, including cropping and fruit production.

Devonport airport is located approximately 2 km to the north west. Wesley Vale township is located approximately 700 m to the south.

#### Species of conservation significance

No threatened communities listed under the NC Act or the EPBC Act are present in the locality.

Eight flora species listed under the TSP Act have been recorded within 5 km of the site. Most records are located to the south in wetlands and areas of remnant native vegetation. None have been recorded on or within 1 km of the site.

Fourteen fauna species listed under the TSP Act have been recorded in the locality (Table 14 of the DPEMP). Thirteen migratory bird species have the potential to occur within 1 km of the site. These however are predominantly shorebirds recorded, or noted as potentially occurring, within coastal habitats to the north.

### Proposed infrastructure

#### Major equipment

The plant is expected to comprise the following processing equipment:

- Tanks for storage of oils
- Hammermill
- Vibrating sifter
- Powder blender
- Pellet extruder
- Belt dryer
- Vacuum coater
- Cooler
- Packaging/bagging system
- Biofilter
- Boiler

#### Other infrastructure

- Factory building – including process buildings, offices, ablutions and changing rooms
- Warehouses for raw materials and finished product storage
- Workshop and store
- Water tanks for process water storage and firefighting
- Package sewage treatment plant
- Wastewater storage tank

### Inputs

#### Water

Water required for processing and biofilter irrigation.

#### Energy

22Kv electricity service line and natural gas line for the boiler.

#### Other raw materials

General construction material, e.g. concrete, sand, gravel, building materials and cladding.

### Wastes and emissions

#### Liquid

Stormwater runoff from the site, process waste water and biofilter irrigation water.
| Atmospheric | Dust from construction.  
Odour from the biofilter and NOx from the boiler during operation. |
| Solid | General refuse, spilled raw material, flush material (during maintenance and commissioning), non-saleable product, and spent bark from the biofilter. |
| Controlled wastes | Potential for contaminated soil waste from excavation during construction.  
Portable chemical toilet maybe used on site during construction, otherwise the existing system will be used. |
| Noise | Construction noise from heavy equipment use (trucks, cranes, graders, excavators).  
Operation noise from the processing plant and movement of heavy vehicles to and from the site. |
| Greenhouse gases | According to the DPEMP, the facility will consume 173,000 GJ of energy and have a reporting obligation under the National Greenhouse and Energy Reporting Scheme (NGERS). |

**Construction, commissioning and operations**

| Proposal timetable | The construction process will be staged over a 14-month period.  
Commissioning will include a cold test which is expected to take approximately 15 days, and a hot test, expected to take approximately 20 days. |
| Operating hours (ongoing) | Construction hours will be between 7:00 am and 6:00 pm.  
The facility will operate 24 hours a day, 7 days a week, 50 weeks a year when at full production.  
According to the DPEMP, operations will gradually increase to full production over a four year period, with initial operations occurring over 24 hours, two or three days per week. |
Figure 1: Proposed location (Figure 1 of the DPEMP). Note, the land shown as yellow is not a true representation of the area on which the activity will take place. A small section in the upper most north west has been not included by the boundary as shown.
Figure 2: Site plan (altered from DA Rev Grd Plan).
Figure 3: Process overview (Figure 2 of the DPEMP).
4 Need for proposal and alternatives

BioMar Pty Ltd (BioMar) intends to manufacture feed products for the Tasmanian aquaculture industry, to which it will supply 47 varieties of fish feed for different stages of salmon growth. According to the DPEMP, the demand for fish feed has risen with an increase in popularity for high-value aquaculture products. The proponents anticipate that the Tasmanian market will continue to grow.

According to the DPEMP, the facility is expected to cost approximately $56M to establish. Initial operations will involve 34 full time employees, increasing to 55, including 21 shift workers, at full production.

The proponent contends that the proposal is consistent with Latrobe Council’s ‘OUR PLACE, OUR PLAN, A Strategic Direction 2012-2017’. The DPEMP makes note of two strategies contained within the plan that are considered relevant to the site:
- 2.1.3 Support the diversification of industries within the municipality to reduce reliance on major industry; and
- 2.1.6 Encourage the ‘Wesley Vale Paper Mill Site’ as a Light Industrial Hub.

The DPEMP also outlines the proposal’s relevance with other regional strategies.

According to the proponent, the proposed site at Wesley Vale was the first potentially suitable site considered by BioMar. They contend that the refurbishment of the site addresses the strategic objectives of the local Council and regional authorities, in re-invigorating abandoned sites within Wesley Vale. The DPEMP lists several other factors taken into consideration in choosing the site.

The DPEMP states that the facility will incorporate current best practice in the design of the processing and impact mitigation technologies, and briefly outlines several alternatives for odour control, including wet scrubbers, activated charcoal filters and thermal treatment (flare to burn off). In assessing the alternatives, the proponent refers to operational costs as well as disposal of waste as being problematic in comparison to the preferred biofilter.

According to the DPEMP, biofilter technology has been used at several BioMar sites and has been proven to be cost effective and consistent in the reduction of odours.
5 Public and agency consultation

A summary of the government agency/body submissions is contained in Appendix 1 of this report.

No representations were received from the public.

The DPEMP was referred to a number of government agencies/bodies with an interest in the proposal. Responses were received from the following:

- TasWater; and
- Department of State Growth.

The following areas of the Department of Primary Industries, Parks, Water and Environment also provided submissions on the DPEMP:

- Air Specialist, EPA Tasmania;
- Water Specialist, EPA Tasmania; and
- Aboriginal Heritage Tasmania.

The DPEMP Supplement prepared by the proponent provides a response to each of the relevant environmental issues raised by government agencies/bodies.

The proponent has also undertaken its own public consultation process, including consultation with government departments, Council, TasNetworks, TasGas, TasWater, neighbouring agricultural producers and Andrew's Creek Primary School (see Table 7 of the DPEMP for a full list).

Consultation was also undertaken with the Federal Civil Aviation Safety Authority (CASA) with regard to the height of the proposed structures, which will be located within the Devonport Airport Operational Airspace.
6 Evaluation of key issues

The key environmental issues relevant to the proposal that were identified for detailed evaluation in this report were:

- Air emissions
- Wastewater emissions (including stormwater)
- Site contamination (construction)

Each of these issues are discussed in the following subsections.

6.1 Air emissions

Description

Ten residential premises are located within 1 km of the biofilter (Figure 17 of the DPEMP), the closest is approximately 430 m to the north (measured from Google Earth), and 220 m from the site boundary. A range of agricultural practices, including horticulture, silviculture, farming and grazing, also occur in the near vicinity.

During construction there is potential for dust generation from material stockpiles, excavation, stripping of topsoil and movement of vehicles.

According to the DPEMP, no fugitive emissions are expected during operation, with key point source emissions from the 4 MW gas fired boiler and biofilter.

An air quality impact study was included as Appendix D of the DPEMP. Ground level concentrations (GLCs) of NOx from the boiler and odour from the biofilter were modelled using TAPM V4 and CALMET to simulate meteorological conditions and CALPUFF for plume dispersion.

Design specifications for the boiler were based on a Danstoker OPTI boiler (See Appendix C of Appendix D of the DPEMP). The modelling predicts that NO2 GLCs will be well below the Environment Protection Policy (Air Quality) 2004 (Air EPP) and Air NEPM design criteria, 0.16 ppm and 0.12 ppm respectively (Figure 15 of Appendix D of the DPEMP). The maximum concentration in the modelling domain was 0.00012 ppm NO2. The proponent concludes that the boiler emissions are unlikely to adversely affect nearby residents or workers.

Test data from an existing BioMar feed mill in Brande, Denmark, and process design data from the plant ‘designers’ (Graintec) were used to estimate biofilter odour emissions for the purposes of modelling. Table 1 of Appendix D of the DPEMP provides information on the major sources of odorous air to the biofilter, and Table 2 provides biofilter inlet and outlet odour concentrations and emission rates from BioMar’s Danish plant.

Two odour scenarios were modelled; a biofilter discharge concentration of 250 OU, which according to the proponent is the design discharge concentration, and a discharge concentration of 500 OU, considered by the proponent to be the maximum discharge odour concentration.

The modelled 99.5 percentile odour GLC at the site boundary is 11.3 OU and 22.5 OU for a biofilter discharge concentration of 250 OU and 500 OU respectively. At the nearest residence it is 0.9 OU and 1.8 OU respectively. GLC contours for each scenario are shown in Figure 4.
An area of farming land adjacent to the site will experience odour concentrations that exceed the Air EPP odour criteria of 2 OU. According to the proponent, the impact of this exceedance is considered to be minimal as no sensitive receivers are permanently located within the affected area. The proponent further contends that the biofilter will remove virtually all noxious odour input, replacing it with a non-offensive, earthy smell characteristic of the biofilter medium.

Figure 4 (Figures 18 and 19 of the DPEMP) Predicted Ground Level Odour Concentrations for biofilter discharge odour concentrations of a) 250 OU and b) 500 OU

According to the proponent, the biofilter will be located in a cleared area within the pine plantation, effectively screened on three sides with the open side towards the facility. It will be approximately 20 m by 30 m in size and contain a 2 m thick layer of woodchips as a medium. A plenum will be installed
below the bed of woodchips to enable exhaust air to be evenly distributed, and an irrigation system will be used to ensure the correct moisture level is maintained. The proponent expects a biofilter odour reduction efficiency of up to 99%.

If the Biofilter is shut down for maintenance or due to malfunction, the production process will cease immediately (electrically interlocked with the extraction fans located at the biofilter), and will not recommence until the malfunction is resolved and/or the biofilter is returned to service.

Management measures

Construction
Commitment 1 - Preparation of a Construction Environmental Management Plan (CEMP).
Commitment 2 - Compliance with the dust management provisions of the CEMP throughout the construction and operation of the facility.

The following measures were outlined in the DPEMP in relation to dust management:
- Vegetation clearance will not be undertaken during hot, dry and windy periods; and
- Watering of construction areas and material stockpiles will be undertaken as necessary during hot, dry and windy conditions.

Operation
Commitment 3 - Preparation of an Odour Management Plan.
Commitment 4 - Preparation of a Biofilter Management and Maintenance Plan.

The following measures were outlined in the DPEMP and Appendix D of the DPEMP in relation to odour (and dust as relevant):
- Raw materials will be delivered in sealed tankers, containers or covered trucks.
  - Bulk raw materials will be unloaded in a fully enclosed building, referred to as the unloading hopper (also refer to “raw material intake” in Figure 5 below and “Intake Pit/Weighbridge” in Figure 2), which will be vented to the biofilter during bulk raw material unloading. The unloading area will therefore be held under slight negative pressure.
  - Specialised raw materials will arrive in sealed bags, ranging in size from 15 kg to 750 kg. According to the DPEMP, the bags will mostly be delivered to the sealed loading docks to the rear of the raw materials warehouse (see Figure 2). In the unlikely event any spillage occurs, it will be retained within the confines of the building, until the clean-up process is complete.
- Raw materials from the unloading hopper will be conveyed in fully enclosed conveyors to the dosing silo area. The dosing silos are fully enclosed in a sealed building, with a fully automated filling and retrieval system.
- The conveying system from the dosing silos to the process building is similarly fully sealed.
- Exhaust air ducting (continuous extraction) will be provided on plant equipment where fugitive and odorous emissions are likely to be generated (i.e. raw materials intake, hammer mill, extruder, cooler and dryer), with odorous emissions captured and directed to the biofilter (see Figure 5).
- Finished goods will be despatched in fully sealed packages, ranging in size from 25 kg to 750 kg.
- All buildings will have sealed doors and roller shutters, with automatic close functions or self-closing actuators installed.


**Public and agency comment and responses**

No comment was received.

**Evaluation**

**Dust**

During construction there is potential for dust generation to result in a nuisance. The proposed management measures, particularly watering of construction areas and material stockpiles during hot, dry weather, are considered adequate to reduce the potential for nuisance to occur, to an acceptable level.

Dust control measures will be detailed in the Construction Environmental Management Plan CEMP (Commitments 1 and 2) (condition **CN1**).

No further regulatory controls are considered necessary given the nature of the construction, the buffering effect of surrounding vegetation and the distance to the nearest residences.

Given the design and operation of the facility as described in the DPEMP, a dust nuisance during operation is not expected.
**Boiler emissions**

The NO\textsubscript{2} GLCs at the boundary of the land are predicted to be well below the design criteria specified in Schedule 2 of the Air EPP (0.16 ppm, 1-hour average).

It is agreed that the boiler emissions are unlikely to adversely affect nearby residents.

In considering the capacity of the boiler (> 100 megajoules per hour), in-stack concentrations of nitrous oxide (NO\textsubscript{x}) should be no greater than 350 mg/m\textsuperscript{3} (as NO\textsubscript{2}) (Schedule 1 of the Air EPP). Condition A\textsubscript{1} is imposed to allow the Director to call for monitoring of in-stack concentrations should concerns be raised in relation to NO\textsubscript{x} or other point source emission levels. Condition A\textsubscript{2} requires the installation and maintenance of appropriate testing facilities.

**Odour**

According to the EPA Air Specialist, the odour model was constructed using an appropriate methodology, and in accordance with the Air EPP.

Based on the data for the main odour air sources, as provided by the plant ‘designers’ (Graintec) (Table 1 of Appendix D of the DPEMP), a biofilter odour discharge concentration of 500 OU could be considered as conservative. According to Table 1 of Appendix D of the DPEMP, a biofilter odour discharge concentration of between 250 OU and 380 OU maybe expected, assuming a biofilter odour reduction of 99%.

The modelled discharge concentration of 250 OU is not considered conservative, and may only occur, for example, under low OU input conditions (e.g. ‘typical OU’, Table 1 of Appendix D of the DPEMP) and a very well maintained biofilter operating at a high level of odour reduction efficiency (e.g. 99%). It should be noted, the efficiency of the biofilter in removing odour can significantly affect the level of conservatism achieved by assuming a 500 OU discharge concentration in the model. This is discussed further below.

The modelling demonstrates exceedances of 2 OU at the boundary of the Land, at concentrations of up to 22.5 OU. According to Section 13 of the Air EPP, if an odour is likely to cause an environmental nuisance, odour emissions from the activity should not exceed 2 OU at the boundary. The intent of Section 13 is captured by Clause 1, Section 9 of the Air EPP, which states that point sources of air pollution which have the potential to cause environmental nuisance should be managed in such a manner as to not prejudice the environmental values defined in Section 6 of the Air EPP. Of particular relevance is “the life, health and well-being of humans at present and in the future.”

In considering that a nuisance is unlikely to occur where odour levels are below 2 OU, based on the results of the modelling, the nearest residence is unlikely to be impacted. Note, for a biofilter odour discharge concentration of 500 OU, the modelling predicts that 1.8 OU will be exceeded at the residence for 0.5% of the time. While no maximum OU level at the residence was provided in the DPEMP, if we assume the level of conservatism imparted by the modelling of a 500 OU discharge is maintained, such an exceedance is considered to be acceptable.

The modelling was undertaken with the assumption that there will be no fugitive emissions from the facility. This would appear to be an acceptable assumption given the management of incoming raw material and the design of the plant and buildings.

Condition A\textsubscript{3} is required to ensure all aspects of the facility are managed such that odour emissions from the land do not result in a nuisance.

To support compliance with condition A\textsubscript{3}, the activity must be undertaken in accordance with an Odour Management Plan condition A\textsubscript{4} (commitment 3). The Odour Management Plan must provide

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BioMar Pty Ltd – Aquaculture Feed Mill, Wesley Vale
details of the control and management for fugitive emissions and operating and monitoring of the point source odour capture and treatment system, to ensure it performs as expected. In particular, it must contain details of management and maintenance of the biofilter (commitment 4) to ensure it performs at optimum efficiency.

The potential impact of biofilter efficiency is highlighted in the biofilter test results provided by BioMar for their aquaculture feed mill at Brande in Demark. According to the Appendix D of the DPEMP, the Brande plant utilises similar technology and ingredients to produce similar products to the proposed Wesley Vale plant. Indeed, the odour concentration inputs (Table 2 of Appendix D of the DPEMP) are relatively similar to those assumed for the Wesley Vale plant (Table 1 of Appendix D of the DPEMP). The results show biofilter discharge concentrations of between 360 OU and 630 OU when scaled to the Wesley Vale plant (based on flow rate), with a range in odour reduction efficiency of between 95% and 99%.

While no further information was provided on the Brande plant, it demonstrates that biofilter efficiency can vary over short periods of time. It also brings into question the proponents assumption of a high level of odour reduction at the Wesley Vale plant (i.e. 98% to 99%), and the level of conservatism in assuming a 500 OU discharge. Indeed, based on the ‘typical’ odour input concentration to the Wesley Vale biofilter (25,086 OU, Table 1 of Appendix D of the DPEMP), a biofilter reduction efficiency of 95% would result in an odour discharge concentration of over 1000 OU. Given the results of the model, if this were to occur for an extended period, it would likely be unacceptable and result in a nuisance. Condition G6 will ensure any complaints received are recorded and appropriately dealt with.

The proponent’s undertaking to cease production should the biofilter ‘malfunction’ or be shut down for maintenance, is supported. However, the Odour Management Plan must also include measures that will be implemented in the event of sustained odour impacts resulting from, for example, inefficient biofilter odour reduction. This may include shut down procedures, and or implementation of additional odour reduction measures.

Given the assumptions contained in the model, and to ensure the facility, in particular the biofilter, is operated to achieve optimal odour reduction, it is considered necessary that odour emission surveys are undertaken quarterly for the first year’s operation (condition A5). The surveys must be undertaken in accordance with the Odour Management Plan and any additional guidance provided by the Director. This allows EPA Tasmania’s Air Specialists to ensure that the design and timing of the surveys is appropriate. Surveys may also be required at other times as determined by the Director, for example should complaints be received (condition G6).

Condition A6 requires the submission of an odour survey report and details the minimum requirements of the report, including an assessment against the odour model predictions, as detailed in Appendix D of the DPEMP, and recommendations for mitigation or management measures as appropriate.

If the results of the odour survey demonstrate that the biofilter odour discharge concentrations are greater than those used in the model (i.e. 500 OU), condition A6 allows for a review of the odour model to determine the likely extent of the odour impact zone.

In considering the above, a comment is required on the proponent’s contention that the GLCs from the biofilter are likely to be lower than that predicted by the model. Section 6.1.3 of the DPEMP outlines several reasons, including the following:

- The biofilter was assumed to be constant for the full year’s modelling period at the maximum airflow capacity. The biofilter will actually operate at lower flow rates that vary depending on plant operations, resulting in lower quantities of odorous air being emitted; and
Air flow from the raw materials hopper will only be operated intermittently, when raw materials are being received. This equates to an 18% reduction in airflow through the biofilter for approximately 80% of the time the plant is in operation.

Variations in odour input to the biofilter, for example due to variable flow rates and or odorous inputs, can provide a challenge to the biology of the system and overall biofilter efficiency. It is therefore important that the biofilter management and maintenance measures detailed in The Odour Management Plan (condition A4) take into consideration such variations, including the proposed intermittent operation of the facility. Indeed, it is noted that the number of operating days per week is likely to vary from an average of only 0.7 days during April to 5 days during October in the first year’s operation (Table 2 of the DPEMP Supplement). The Odour Management Plan must detail how the biofilter will be maintained during extended ‘off’ periods, for example during April, to ensure optimal efficiency is maintained. The quarterly surveys will pick up this variation (condition A5).

The surveys will also confirm, or otherwise, lower biofilter emissions as a result lower flow rates and or odorous inputs than that predicted by the Wesley Vale odour model (Appendix D of the DPEMP).

No consideration was given to the potential for odour generation from the leachate wastewater storage dam. The Odour Management Plan must also detail strategies to manage odour from the dam (condition A4). The proposal to install an aerator for example (see Section 6.2) would assist in this matter. The odour emission surveys will also target odour generation from the storage dam (condition A5).

Finally, given the agricultural land use surrounding the facility, if the facility is managed and operated in accordance with the conditions contained in Permit 9685, it is agreed that air emissions from the proposed plant will not adversely impact on the amenity of the agricultural works.

**Conclusions**

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

- **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** Complaints register
- **G7** Annual Environmental Review
- **G8** Notification prior to commencement
- **G9** Notification prior to commissioning
- **CN1** Construction Environmental Management Plan
- **A1** Gas-fired boiler emissions
- **A2** Stack test facilities
- **A3** Odour Management
- **A4** Odour Management Plan
- **A5** Survey of odour emissions
- **A6** Odour survey report
6.2 Wastewater emissions (including stormwater)

**Description**

The proposal will result in the following wastewater emissions:

- Sewage effluent from ablutions facilities;
- Residual liquid waste from processing; and
- Biofilter leachate.

It will also result in significant alteration to the existing stormwater infrastructure.

Sewage effluent will be processed onsite using a biocycle, or similar, aerated effluent treatment plant. The design of the sewerage system will be as follows:

- It will be based on Australian Standard 1547 (On-site domestic wastewater management), with a design load based on three daytime shifts of 31 people and an afternoon and night shift of 7.
- Gravity drainage will direct effluent from the factory site to roto-moulded prefabricated underground septic tanks, sized for peak daytime flow.
- Effluent will be disposed of to underground absorption trenches via gravity drainage and a distribution pit.
- Initial site soil surveys indicate that the soil, a sandy clay, is likely to be suited for trench or bed effluent disposal. The location of the proposed disposal area is shown in Figure 2.

According to the DPEMP, an assessment will be undertaken of the suitability of the existing on-site sewage system for use during the construction phase, with portable systems brought on to the site if required.

Sixty three (63) m$^3$ of process water will be used each day. The majority will be captured and recycled through internal systems, with 1-2 m$^3$ per day of wastewater generated from boiler blow down and 2 m$^3$ from equipment washdown.

Approximately 24 m$^3$ of water per day will be used to irrigate the biofilter, generating 12 m$^3$ per day of wastewater (biofilter leachate). According to the DPEMP, the leachate from the biofilter is likely to have an elevated biological oxygen demand (BOD) and increased levels of nutrients. Appendix C of the DPEMP Supplement provides leachate water quality data from BioMar’s operating plants in Denmark and Scotland. The results indicate elevated concentrations of several parameters, including Total N (ranges from 100 mg/l – 550 mg/l) and chemical oxygen demand (COD) (500 mg/l – 2600 mg/l).

A total of 16 m$^3$ per day of wastewater is predicted to be generated from the facility.

According to the DPEMP Supplement, a re-use scheme will be developed for disposal of wastewater on site. Sections 3.2 to 3.4 of the Supplement outline the proposed scheme, with the key aspects summarised as follows:

- Approximately 8.5 ha of pine plantation (*Pinus radiata*) is available for irrigation (Figure 2 of the DPEMP supplement);
- A drip or spray water dispersal system would likely be employed;
- The system will be designed to manage irrigation rates of up to 13 kl per day. Table 2 of the DPEMP Supplement provides summary information on the monthly water balance for the first year’s operation. The estimated amount of wastewater produced per day ranges from 4.2 kL to 13 kL, taking into account the average number of days worked per week (ranging from 0.7 in April to 5.0 in October), and the average monthly rainfall collected by the biofilter;
Based on potential uptake by *Pinus radiata*, incident rainfall, irrigation area and wastewater volumes (Table 2 of the DPEMP Supplement), approximately 760 kL of winter storage is likely to be required during July and August;

An existing 0.95 ML dam on site will be used to store the wastewater. The dam will be managed to ensure there is at least 50% freeboard at any one time, providing up to 52 days storage (based on average wastewater production of 9.6kL/day); and

An aerator may be installed in the dam to help reduce parameters such as BOD/COD.

The DPEMP Supplement indicates that TasWater has agreed to accept tankered wastewater loads from the facility for the first 8 months of operation to allow for development of the re-use scheme. Acceptance by TasWater will be based on the following conditions:

- Maximum amount of 15 kL/day;
- Maximum total nitrogen concentration of 210 mg/L; and
- Additional limits determined by sewage treatment capacity.

Leachate from the biofilter will be collected and pumped to the storage dam. From there it will be pumped to a discharge tank (40kL) prior to tankering to the TasWater facility. According to the DPEMP, the tank is sufficient for two days storage.

TasWater has also agreed to accept tankered wastewater once the re-use scheme has been established on the following basis:

- During periods of extended wet weather that may limit the ability to irrigate, with all on site storage facilities at capacity; and
- During periods of calamity events, with prior notice.

The Supplement further indicates that if TasWater is unable to accept wastewater, for example during calamity events or if the storage capacity is full and irrigation is not possible, BioMar will shut the plant down until such time that wastewater can be appropriately managed.

The current stormwater management system on site is characterised by a ridgeline through the centre, with drainage northwards and southwards as follows:

- Runoff from the majority of existing impervious areas, including pavements, roof areas and warehouses ("C2" and "C4" in Figure 20 of the DPEMP), is either collected and conveyed off site to a water treatment facility at 226 Mill Road, or piped to an absorption / dissipation trench in the southwest corner of the site;
- Sheet runoff from impervious areas in the southeast portion of the site ("C1" in Figure 20 of the DPEMP) drains southwards and off site to 388 Mill Road, where according to the DPEMP, the landowner has constructed open drains to cater for the runoff. The proponent has indicated that no formal right or agreement exists with respect to this runoff; and
- Runoff from cleared land (grass) and pine forest in the north of the site ("C3" in Figure 20 of the DPEMP) sheets overland through the forest.

The soil associated with the absorption / dissipation trench in the southwest corner of the site is contaminated with hydrocarbons and zinc (See Section 6.3 below).

The following changes to the stormwater system are proposed:

- A bio-retention basin will be established near the southern boundary of the site (Figure 6) to collect the majority of stormwater from impervious areas.
  - Discharge of stormwater off site to the neighbouring water treatment facility will stop, with the associated infrastructure decommissioned, and water directed to the basin. Stormwater currently directed to the absorption / dissipation trench will also be redirected to the basin.
- Discharge from the basin will be directed to the southern neighbouring property via the existing discharge point (Figure 6).
BioMar is currently negotiating a formal long-term agreement to release the stormwater to the neighbouring property. The neighbour has agreed to accept the water, subject to formalisation of the arrangement.

- The retention basin will be composed of a filter media layer 0.6 m deep, water detention depth of 0.6 m and a surface area of 3,250 m². Table 13 of the DPEMP provides details on the expected annual pollutant load reductions that will be achieved by the retention basin.
- Stormwater runoff from a small impervious area sloping towards the north (associated with the biofilter and 0.1 ha of hardstand near the existing administration building) will either be directed south to the basin or to a small (20 m²) 'bio-retention' swale to the north with discharge overland.

**Management measures**

Commitment 5 - All biofilter leachate will be trucked offsite to a municipal sewage treatment plant until a Re-use Management Plan is approved.

Commitment 6 - A Stormwater Management Plan (SWMP) will be prepared which will include the provision of a detention basin to prevent an increase in discharge volumes and to allow monitoring of water prior to discharge. This will include formalisation of the arrangement with the adjoining landowner to the south to accept discharged water. This SWMP will be reviewed within 6 months of the completion of construction.

According to the DPEMP, the stormwater management system will be designed with sufficient on-site detention to accommodate events up to a 100-year ARI (in accordance with Australian Standards). This will be detailed in the SWMP.

Commitment 7 - The existing stormwater drain discharging via the north-western corner of the site will be decommissioned.

Commitment 8 - No new point source discharges will be created.

Commitment 10 - The disposal system for ablutions waste will be designed and constructed in accordance with AS1547.

The following measure was also outlined in the DPEMP:

- Monitoring during operation of the site will be undertaken to assess the presence of high levels of nutrients, fine sediments or potential contaminants. This will include:
  - monthly testing of biological factors such as pH, nitrogen and phosphorous levels, BOD, COD and suspended solids; and
  - quarterly testing of the above factors plus dissolved solids and metals.
Figure 6 Stormwater management plan (Figure 21 of the DPEMP)

Public and agency comment and responses

TasWater provided the following comment. Previous advice was that tankered wastewater disposal would be required where re-use from onsite treatment was not possible due to seasonal conditions. According to the DPEMP, tankered
wastewater disposal is proposed as a primary wastewater disposal option. As such, TasWater requires the following additional information:

1. Detail of onsite wastewater pre-treatment and the volume, quality and frequency of proposed tankered waste discharge from the site;
2. Plans for the biofilter structure that demonstrate barriers will be in place to minimise the ingress of stormwater;
3. Specify if the storage tank has adequate capacity for any instance where TasWater is unable accept the leachate at the Ulverstone STP or any other STP;
4. Specify any maintenance operations that may modify the quality and quantity of wastewater produced;
5. Reference the requirement for wastewater to be suitable for obtaining a Tankered Waste Consent; and
6. Specify if any vehicle wash down facility is proposed.

Tankered waste consent will need to be obtained prior to disposal from the site. Wastewater disposed at TasWater STP’s will need to meet the acceptance criteria set out in Schedule 3 of Water and Sewerage Regulations, or acceptance criteria otherwise specified by TasWater.

TasWater recommends that the DPEMP is modified to provide the following details:

1. Detailed analysis of volumes and breakdown of discharge wastewater quantities and qualities by process;
2. Measures to ensure consistent discharge volumes to a TasWater waste water treatment plant;
3. Analysis of waste water quality needs to be in reference to Schedule 3 of the Water and Sewerage Act General Regulations 2009, not limited to, but at a minimum addressing these parameters;
   a) Total Nitrogen,
   b) Total Kjeldahl Nitrogen
   c) Ammonia,
   d) Biological Oxygen Demand,
   e) Chemical Oxygen Demand
   f) Total Suspended Solids,
   g) Electrical Conductivity,
   h) Sodium, and
   i) Arsenic or other attributes associated with filter media.

**Evaluation**

**Stormwater**

The proposed alterations to the stormwater management system, including redirecting stormwater away from the contaminated zone identified in the south west of the site and decommissioning the offsite transfer infrastructure (commitment 7), are supported. This will ensure all stormwater is managed on site and will reduce the potential for transport of sediment and contaminants off the site.

While there will be an increase in impervious area across the site, if the facility is managed in accordance with that described in the DPEMP, including the management of raw material and spills (commitment 24), the proposed retention basin should be sufficient to manage and treat stormwater before discharge off site (condition EF1).

Condition EF2 requires that the retention basin, essentially a ‘polishing’ pond prior to discharge to the neighbouring land, be constructed as described in the DPEMP. The condition however also requires that the basin be lined to ensure that the retained water, which may contain pollutants, does not interact with groundwater on site. It is noted that groundwater in the area proposed for the
retention basin is contaminated and was sampled at only 1.85 m depth during April and May 2017 (see Appendix 1, Issue 3)(cf retention basin excavation depth of 1.2 m, see Section 6.3). During wet periods, the groundwater level may be expected to be higher.

The neighbour has agreed to continue to accept runoff from the site, with formalisation of a long-term agreement supported.

The commitment (commitment 6) to develop a stormwater management plan, as detailed in the DPEMP, is also supported. Given the presence of contaminated soils and groundwater on site, and the proposal to excavate and alter site drainage, monitoring of the retention basin for targeted metals, hydrocarbons, total suspended solids and nutrient related parameters is considered necessary and required by condition M1. The monitoring will ensure any contaminants that have been mobilised during demolition and or construction activities will be identified, allowing for appropriate mitigation. The condition allows for a change in the monitoring frequency and or parameters, and indeed cessation of monitoring at a later date, should data confirm there has been no mobilisation of contaminants within the stormwater system that may result in environmental harm or nuisance, and that the bio-filtration performance of the pond is acceptable.

The proposed management of stormwater from the impervious area associated with the biofilter and the hardstand near the existing administration building (approximately 0.1 ha) is considered to be appropriate given the small areas involved.

Facility wastewater

The design of the onsite sewage treatment system will be undertaken in accordance with acceptable standards (Australian Standard (AS) 1547). The construction of the system and associated plumbing will be a matter for Latrobe Council.

The proposed sewage treatment area as shown in Figure 2 does not overlap with the proposed wastewater irrigation area, as shown in Figure 2 of the DPEMP Supplement, nor areas of known soil contamination (see Section 6.3). During the construction phase, there will be no discharge of treated sewage to land.

The commitment (commitment 8) to create no new point source emissions from the Land is supported.

The commitment (commitment 5) to tanker all biofilter leachate to a municipal sewage treatment plant until a re-use scheme is approved is also supported, and required by Condition EF3. TasWater has indicated they will conditionally accept the wastewater for an 8-month period, with a view to developing a tankered waste consent with BioMar before commissioning the facility. Based on Table 2 of the DPEMP Supplement, BioMar will be able to comply with TasWater’s maximum daily tankered volume of 15 kL. This includes taking into consideration additional loads from incident rainfall, a concern initially raised by TasWater.

The DPEMP acknowledges, however, that leachate nutrient levels are likely to be elevated. Indeed, information from BioMar’s other sites indicate that total nutrient levels have the potential to exceed TasWater’s limit of 210 mg/L, with levels of 550 mg/L found at BioMar’s Danish plant (Appendix C of the DPEMP Supplement).

The DPEMP Supplement nevertheless presents a numerical argument (Table 2 of the Supplement) to suggest that in the first year’s operation, total nitrogen levels of the wastewater to discharge should not exceed 210 mg/L. This is based on assumed biofilter leachate concentration of 350 mg/L, and dilution from rainwater, wash down and boiler blow down water, achieved while the wastewater is temporarily stored in the 0.95 ML dam.
No specific information was provided to support the assumption of a biofilter leachate nitrogen concentration of 350 mg/L. Note, the wastewater quality presented in Appendix C of the DPEMP Supplement should only be regarded as indicative, as no details of the processing conducted at these plants were provided.

In acknowledging a level of uncertainty surrounding wastewater chemistry, the DPEMP states that wastewater quality monitoring will be undertaken on commissioning of the facility. This is supported and will be necessary to ensure compliance with TasWater’s tankering conditions.

BioMar’s proposal to shut down the plant if TasWater is unable to accept wastewater, with all on site storage facilities full, will ensure unmanaged wastewater does not result in environmental harm (Condition EF3).

Sufficient information has been provided in the DPEMP Supplement to indicate that a sustainable re-use scheme on the land is likely to be achievable. Condition EF4 requires a Wastewater Reuse Plan be developed within 6 months of commencement of operations. BioMar has indicated in the DPEMP Supplement that should the wastewater contain elevated levels of nutrients and or other parameters (e.g. COD, BOD), they will treat the water. A number of options were presented in the DPEMP Supplement, including establishment of a reed bed/swale system, installation of package treatment plant, and an aerator in the dam.

The Wastewater Reuse Plan will contain details of an ongoing monitoring program for the wastewater stream to ensure nutrient levels or other pollutants of concern do not compromise the viability of the re-use scheme.

The winter storage requirement of 760 kL during July and August (Table 2 of the DPEMP Supplement) was based on a maximum 5 day operating week during the first year. Note, some form of biofilter irrigation may also be required during the ‘off’ days to maintain the medium. The DPEMP also indicates that the facility will operate 7 days a week at full production. It is likely that more than 760 kL of winter storage will be required when the facility is at full production. This will be further examined in the Wastewater Reuse Plan (Condition EF4).

Conclusions

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

- **EF1** Stormwater
- **EF2** Retention basin
- **EF3** Disposal of wastewater
- **EF4** Wastewater Reuse Plan
- **M1** Monitoring requirements
- **M2** Dealing with samples obtained for monitoring
6.3 Site contamination (construction)

Description

A preliminary contamination assessment of the site was undertaken by Pitt&Sherry in 2017 (Appendix F of the DPEMP), which included installation and sampling of six groundwater bores and targeted soil sampling from 8 locations (Figure 7). Table 9 of Appendix F of the DPEMP provides a description of each soil sampling location. Maximum sampling depth ranged between 0.2 and 5 metres.

A summary of the results of the preliminary contamination assessment is as follows:

- Petroleum hydrocarbon contamination at MW3 was found at 4.75 and 5 metres depth at the following concentrations:
  - C10-C36 Fraction 1300 mg/kg and 6050 mg/kg at 4.75 and 5 metres respectively; and
  - C10-C16 Fraction 760 mg/kg and 3580 mg/kg at 4.75 and 5 metres respectively.
- Petroleum hydrocarbon contamination (C10-C36 Fraction) at MW2 at a concentration of 1030 kg/mg at 0.2 metres depth.
- Petroleum hydrocarbon contamination (C10-C36 Fraction) at S01 and S03 at concentrations of 3030 mg/kg and 2960 mg/kg respectively, at 0.1 metres depth.
- Elevated concentrations of chromium (between 56 mg/kg and 178 mg/kg) at MW 2, 3, 4, 5 and 6 and S01 and S02, ranging in depth from 0.1 to 4.75 metres.
- Elevated concentration of magnesium (761 mg/kg) at MW6, at a depth of between 0.4 and 0.5 metres.
- Elevated concentration of Zinc (1,300 mg/kg) at S01 at a depth of 0.1 metres.

According to the DPEMP, elevated levels of petroleum hydrocarbons at MW3 are likely to have resulted from diesel leakage from above ground storage tanks associated with the previous activity. The storage tanks have been removed from the site. Elevated levels of hydrocarbons at locations S01 and S03, and zinc at S01, may have resulted from wastewater/stormwater discharge from the previous activity, which is likely to have been contaminated with waste oils and metals.

The DPEMP does not explain the hydrocarbon soil contamination at MW2 or chromium and magnesium contamination at other locations. Site MW2 is referred to in the DPEMP as “Near underground diesel tank”.

According to the DPEMP, minor ground works will be required for the new access road, extended hardstand, and upgrading of utility trenches for power, water and sewer. Excavations of up to 1 m depth will be required for the process tower building foundations, oil tank foundations, and a new section of gas main, and up to 1.2 m depth for the sediment basin.

Soil and groundwater sampling locations in relation to the proposed building footprint are shown in Figure 7.

According to the DPEMP, excavations are not expected to disturb contaminated soils due to the depth of contamination.
Figure 7 Soil and groundwater sample locations. Soil samples were taken from each of the groundwater monitoring bores (denoted as MW) as well as three additional sites (S-01 - S-03) where there was the potential for contamination based on site history (altered from Figure 12 of the DPEMP. Note location MW4 was added based on the location provided in Appendix F).

Management measures

Commitment 1 Preparation of a Construction Environmental Management Plan

Commitment 11 Preparation of an assessment in accordance with Technical Guideline UPSS2 for the decommissioning of the underground tank.

Commitment 12 Removal of the under-ground tank prior to construction.

The following measure was also outlined in the DPEMP:

- Any contaminated materials required to be removed from the site will be disposed of to an appropriately licensed facility such as Dulverton. The removal and disposal of any controlled wastes will be addressed in the Construction Environmental Management Plan (CEMP).

Public and agency comment and responses

No comment was received.
Evaluation

An underground tank on site will be removed before construction as part of the decommissioning and rehabilitation of the previous activity. Contaminated soil associated with removal of the tank will be managed in accordance with Technical Guideline UPSS2, and as detailed in a Decommissioning Assessment Report required by the EPA Director. The underground tank is therefore not considered a part of this assessment, and correspondingly commitments 11 and 12 have been removed from the commitments list as shown in Appendix 3.

Based on the information presented in the DPEMP, it is agreed that the majority of excavations for construction are unlikely to disturb contaminated soils due to the depth of contamination recorded. It is noted that soil sample locations were based on a site history analysis, with only sample locations MW3 and MW6 in proximity to an area of proposed excavation; being for the oil tank foundations and the sediment basin respectively. While significant hydrocarbon contamination (defined as Level 3 in Information Bulletin No 105, EPA Tasmania, edition November 2012) was found at MW3 at depth (5 metres), no contaminated soil was identified above 4 metres. According to the DPEMP, the depth of contamination at this location corresponded to the groundwater interception depth, suggesting that contamination maybe related to groundwater (see Issue 3 in Appendix 1).

Magnesium and chromium contamination of the soil (defined as Level 2 in Information Bulletin No 105, EPA Tasmania, edition November 2012) was found at shallow depths (between 0.4 and 0.5 metres) at MW6, in relative proximity to the proposed sediment basin.

The proponent acknowledges that the contaminants present in the soils have the potential to result in environmental harm if excavated, and proposes to undertake monitoring should excavation in the affected areas be required, i.e. near MW3 and MW6. The DPEMP however did not provide any further information in relation to a proposed monitoring program.

Condition CN1 requires that a soil contamination monitoring program be detailed in the Construction Environmental Management Plan (commitment 1). The program must include the monitoring of the areas to be excavated for the oil tank foundations and sediment pond, and include detail on additional monitoring to be undertaken should contaminated waste be uncovered or suspected from other areas across the site.

According to the DPEMP, contaminated materials removed from the site will be disposed of at an appropriately licensed facility. The management and disposal of contaminated soil excavated from the site will also be detailed in the CEMP (condition CN1).

Conclusions

No additional environmental conditions are required.
7 Other issues

In addition to the key issues, the following environmental issues are considered relevant to the proposal and have been evaluated in Appendix 1.

1. Noise
2. Biodiversity and natural values
3. Groundwater
4. Environmentally hazardous materials
5. Waste management (Solid, excluding contaminated soil waste)
6. Decommissioning and rehabilitation
8 Report conclusions

This assessment has been based on the information provided by the proponent in the permit application, DPEMP, DPEMP Supplement and in correspondence and discussion between EPA Tasmania and the proponent and proponent’s representatives.

This assessment has incorporated specialist advice provided by EPA Tasmania scientific specialists and regulatory staff, other Divisions of DPIPWE and other government agencies.

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.

It is concluded that 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. 9687 appended to this report are imposed and duly complied with, including commitments made by the proponent in the DPEMP and DPEMP Supplement.
Report approval

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

Warren Jones
CHAIRPERSON
BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

Meeting date: 7th August 2018
9 References

Pitt&Sherry (2018); *BioMar Australia Development Proposal and Environmental Management Plan* (dated 4 April 2018); Pitt&Sherry, Hobart, Tasmania.

10 Appendices

Appendix 1  Assessment of other issues
Appendix 2  Summary of public and agency submissions
Appendix 3  DPEMP commitments
Appendix 4  Permit conditions
Appendix 1 Assessment of other issues

Issue 1: Noise

Description of potential impacts

According to the DPEMP, construction noise impacts on nearby residents are expected to be minimal. No ‘high-noise’ activities such as pile driving or blasting is expected to be required, with construction noise limited to the use of equipment such as delivery trucks, cranes, graders, excavators, and angle grinders.

Operational noise emissions for the proposed plant were modelled using SoundPlan 7.2 noise modelling software, based on internal noise measurements recorded at a similar mill operated by BioMar at Grangemouth, UK (See Table 1 of the DPEMP for measured sound pressure levels). The following noise sources were also included in the model: one 850kW chiller, three 15kW heat pump units, three oil transfer pumps, one water transfer pump, and one semitrailer and car on the site. Noise levels as a result of traffic movements along Mill Road were also estimated.

The results of the noise assessment are presented in Appendix J of the DPEMP (see Figure 5 of Appendix J for an illustration of modelled noise level contours) and summarised as follows:

- Noise levels at the nearest houses to the north, east and south are 29 dB(A), 24.8 dB(A) and 22.5 dB(A) respectively.
- Noise levels at the northern, eastern, southern and western boundary of the land are 36.5 dB(A), 41.2 dB(A), 40.1 dB(A) and 43.9 dB(A) respectively.
- Assuming vehicles travelled at 80 kph, the traffic noise at the nearest house on Mill Road (28m from the road) is expected to change from $L_{eq}$1hr 55.5 to 58.3 dB(A), an increase of 2.8 dB(A).

Management measures proposed in DPEMP

- Commitment 14 Preparation of a post commissioning noise survey.
- Commitment 15 The grinding tower containing the hammer mills will be constructed from pre-cast concrete panels.
- Commitment 16 Less noisy areas of the plant will be constructed from steel sheeting, but close attention will be paid to sealing all cracks and gaps. In addition, some building areas are lined with 100mm structural insulated panel.
- Commitment 17 The building will not have any openable windows.
- Commitment 18 All doors to noisy areas will be fitted with efficient seals and will be kept closed.
- Commitment 19 Ventilation openings will be fitted with silencers or noise attenuating louvres, where required to contain noise.
- Commitment 20 Specific plant items (such as the main air compressor and some larger pumps and fans) will be provided with noise attenuating enclosures.
- Commitment 21 Heavy vehicles will not enter or leave the site between 6:00 pm and 7:00 am.

Public and agency comment

No comment was received.

Evaluation

The noise study undertaken for the DPEMP indicates that environmental nuisance from the proposed operations of the mill is unlikely to occur at any nearby residences. The modelling however was not based on specific noise emissions data for the proposed plant, but rather measurements from a mill considered by the proponent to be similar in layout, building size, equipment and construction materials. The noise report, Appendix J of the DPEMP, further notes that the results of the noise modelling is dependent on the implementation of mitigation measures to reduce emissions from the loudest plant components, such as appropriate building insulation and noise attenuating louvres (commitments 15 to 19).

While the model contains some element of conservatism (see Section 5 of Appendix J), to ensure that the facility does not exceed the levels predicted, and cause environmental nuisance, it is deemed appropriate to impose standard noise emission limits. The levels of 35, 40 and 45 dBA will apply during night-time, evening and daytime respectively (condition N1). Condition G6 will ensure a complaints register is maintained to track and manage any noise complaints.
Given the 24 hour operation of the facility, and a level of uncertainty surrounding the model results, condition N2 requires a noise survey be conducted within 3 months of commencing operations (commitment 14). This is in accordance with the recommendations outlined Appendix J of the DPEMP.

Condition N3 will ensure an appropriate survey methodology is used.

No quantitative information or noise modelling was provided for the construction phase of the proposal. Given the relatively close proximity of residences to the site (approximately 450 metres from the construction area), it is deemed appropriate to limit construction activities to the hours proposed, to ensure noise emissions during construction do not cause impacts to nearby residences during the more sensitive night-time hours (Condition CN2).

The proposed facility is expected to generate approximately 60 truck movements per day along Pardoe Road and Mill Road. The commitment (Commitment 21) to restrict heavy vehicle movements to between the hours of 07:00 hours and 18:00 hours is supported. Condition N1 will nevertheless ensure vehicle movements on site, if undertaken outside these hours, do not cause a nuisance.

Conclusion

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

<table>
<thead>
<tr>
<th>CN2</th>
<th>Operating hours - construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>N1</td>
<td>Noise emission limits</td>
</tr>
<tr>
<td>N2</td>
<td>Noise survey requirements</td>
</tr>
<tr>
<td>N3</td>
<td>Noise survey method and reporting requirements</td>
</tr>
</tbody>
</table>

Issue 2: Biodiversity and natural values

Description of potential impacts

No threatened flora, fauna or vegetation community is present on site.

The site is currently developed as hardstand, associated with the previous processing plant, or is under pine plantation or landscaping (i.e. exotic species). According to the DPEMP, the site offers little in terms of high value habitat for fauna, with only a small area of pine forest proposed to be cleared for the development.

Truck and car movements are generally limited to the hours of 7:00 am to 6:00 pm, with the exception of one shift change at night. According to the DPEMP, this is not expected to have a significant impact of mortality rates with respect to road kill.

The proponent notes that spillages of raw and finished product are likely to attract vermin and native species, with the potential for increased populations of mice, rats, birds and possums, and increased foraging on neighbouring fruit farms.

No weeds listed under the Tasmanian Weed Management Act 1999 have been recorded on site (Natural Values Atlas). On-going weed management will be undertaken as part of site maintenance.

Management measures proposed in DPEMP

- Commitment 26 Installation of signage near the car park exit to warn drivers of wildlife hazards.

Public and agency comment

No comment was received.

Evaluation

The majority of threatened species recorded from the vicinity are associated with wetlands and areas of remnant native vegetation to the south, and coastal habitats to the north. The clearing of a small area of pine plantation is unlikely to impact on threatened species.

No threatened vegetation communities will be disturbed as a result of the proposal.
The commitment (Commitment 25) to prepare a Pest Management Plan to minimise the attraction of pest species to the site, as outlined in section 6.7.4 of the DPEMP, is supported.

The commitment (Commitment 26) to install signage near the car park exit to warn drivers of wildlife hazards is also supported.

**Conclusion**

No additional environmental conditions are required.

**Issue 3: Groundwater**

**Description of potential impacts**

As part of the Preliminary Contamination Assessment (Appendix F), six groundwater monitoring bores were installed on site (Figure 7 of this report) and sampled on 11 April 2017 and 9 May 2017.

Results of groundwater monitoring are summarised as follows:

- Bore hole MW6 recorded elevated levels of chromium (0.532 mg/l), lead (0.106 mg/l), nickel (0.359 mg/l), zinc (0.282 mg/l) and copper (0.164 mg/l).
- Bore holes MW4 and MW5 recorded elevated levels of chromium (0.26 mg/l and 0.115 mg/l respectively). Bore hole MW4 also recorded slightly elevated levels of nickel (0.024 mg/l).
- Bore hole MW3 recorded elevated levels of petroleum hydrocarbons, benzene (0.0013 mg/l) and naphthalene (0.124 mg/l).
- Standing water levels ranged from 1.85 m below ground level (bgl) along the southern boundary (bore MW 6) to 4.6 m bgl near the above ground tanks (bore MW2).

According to the DPEMP, the elevated metals from bores MW4 and MW6 are likely to be due to the previous storage and combustion of recycled waste oil and the disposal of a soluble oil and water mix on site. The elevated levels of petroleum hydrocarbons from bore MW3, near the above ground diesel storage tanks, is likely to be a result of historical leakage from the tanks.

According to the DPEMP, five registered groundwater bores are located within 1 km of the site. The closest, Bore ID 41050 at a depth of 180m, is approximately 60 m south of the site boundary. According to the proponent, water was struck at a depth 156 m and is used for agricultural purposes. Another bore, Bore ID 1244, is located just on the northern boundary of the site, but has been abandoned. Groundwater data from these bores is presented in Table 10 of the DPEMP.

The proponent considers that the risk to off-site groundwater users from onsite groundwater contamination is low due to the depth of the source aquifer. It was further noted in the DPEMP that neither the irrigation nor the livestock water quality guidelines (see Appendix F) were exceeded, and that groundwater is not used as a source of drinking water.

The proposed facility does not involve any extraction from, or discharge to, groundwater, and according to the DPEMP, proposed works are not expected to intercept groundwater.

**Management measures proposed in DPEMP**

- Commitment 13 Implementation of a groundwater monitoring program to monitor the current hydrocarbon contamination recorded near the site of the above ground tanks and the stormwater disposal point. Replacement bores will be installed in suitable locations to replace those at MW1 – MW4 which will be required to be decommissioned to allow for construction. The nature and frequency of monitoring undertaken in accordance with this program will be reviewed 6 months after completion of construction.

**Public and agency comment**

No comment was received.

**Evaluation**
If the conditions contained in Sections 6.2 and 6.3 are adhered to, it is agreed that the proposed facility is unlikely to contribute to contamination of the groundwater on site.

Based on the information presented by the proponent, it is also agreed that the proposed construction works are unlikely to intercept the groundwater. The proposed excavation depth for the process building and above ground tank foundations is approximately 1 m. In this area the water level was measured to be below 4 metres at the time of sampling. The sediment basin will be excavated to a depth of approximately 1.2 m. At this approximate location, the groundwater level was at its highest point (MW 6, 1.85 m bgl) with metal levels significantly higher than ANZECC (2000) freshwater trigger values. Given a level of uncertainty around seasonal groundwater levels, condition E2 requires the basin be lined to reduce the potential for groundwater contamination of the surface waters. Note, should contamination of surface waters occur, condition M1 will ensure it is identified.

The commitment (Commitment 13) to monitor the groundwater on site, at least for the initial start-up and operation of the facility, is supported. Given the proposal is unlikely to impact on groundwater, further requirements around monitoring are not considered necessary.

It is also agreed that the risk to off-site groundwater users from the on-site groundwater contamination is low due to the depth of the aquifers. It is further noted that the closest groundwater bore to the south (Bore ID 41050, approximately 60 m from the site boundary) is not functioning, and capped with a ‘last operating status’ date of 11/4/2007 (http://wrt.tas.gov.au/groundwater-info/).

Conclusion

No additional environmental conditions are required.

**Issue 4: Environmentally hazardous materials**

**Description of potential impacts**

Fuels and lubricants will be used to maintain the operational plant and machinery, with the proponent indicating that only minor quantities of these will be stored on site.

Limited volumes of chemicals will be stored in the laboratory.

Fish, poultry and canola oil will also be stored on site. Estimated quantities are as follows:

- Fish oil, two 385 m³ tanks
- Canola oil, three 165 m³ tanks; and
- Poultry oil, one 80 m³ tank.

According to the DPEMP, during construction fuels and lubricants will be managed in accordance with current best practice construction requirements.

**Management measures proposed in DPEMP**

- Commitment 23 Preparation of a Site Safety Management Plan.
- Commitment 24 Preparation of protocols for management of spills and accidents on site.

The following measures were outlined in the DPEMP:

- Fuel or chemicals stored on site will be outlined in a Site Safety Management Plan;
- Spill clean-up kits will be provided around the site for use in the event of accident;
- Tank bunding will be installed around all tanks to contain any spills and prevent surface or groundwater contamination.

**Public and agency comment**

No comment was received.

**Evaluation**

The commitment (Commitment 23) to prepare a safety management plan, detailing the storage of fuels, chemicals and other environmentally hazardous materials is supported. Details of the plan however are lacking. To ensure the handling and storage of environmentally hazardous materials is undertaken in an appropriate manner, including bunding of storage tanks, conditions H1 and H2 are considered necessary.
Condition **H3** is also required to ensure appropriate spill kits are kept on site for the management of spills (Commitment 24).

**Conclusion**

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

**H1**  Storage and handling of hazardous materials

**H2**  Hazardous materials (<250 litres)

**H3**  Spill kits

---

**Issue 5: Waste management (Solid, excluding contaminated soil waste)**

<table>
<thead>
<tr>
<th>Description of potential impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid wastes will include re-work material, flush material, spent bark from the biofilter, packaging waste, spilled material and non-saleable product.</td>
</tr>
<tr>
<td>Product that fails to meet standards and rework material, which includes process residues such as dust, and start up and shut down material, will be re-introduced into the processing system.</td>
</tr>
<tr>
<td>The DPEMP indicates that rework material will represent approximately 2-3% of the produced volume. Other wastes that cannot be re-used will go to landfill, which will equate to approximately 0.1% of the total production.</td>
</tr>
<tr>
<td>When closing the process line for maintenance, a wheat based flush of the system will be carried out. The flush material will be sent to a licensed facility for composting (e.g. Dulverton).</td>
</tr>
<tr>
<td>According to the DPEMP, bark from the biofilter will be replenished approximately every seven years. Spent bark will be disposed of at an appropriately licensed facility.</td>
</tr>
<tr>
<td>Raw materials that do not meet specification will be returned to the supplier.</td>
</tr>
<tr>
<td>Garbage receptacles will be placed throughout the site for employee rubbish, office and kitchen waste. A centralised collection point will be provided for a waste contractor.</td>
</tr>
</tbody>
</table>

**Management measures proposed in DPEMP**

- Commitment 22 Preparation of a Waste Management Plan identifying waste streams and management strategies for each.

**Public and agency comment**

- No comment was received.

**Evaluation**

The preparation and implementation of a Waste Management Plan (Commitment 22) will assist in the minimisation and management of wastes on site.

Type and quantity of process waste that cannot be re-worked through the process will be detailed in the Annual Environmental Review (condition **G7**).

**Conclusion**

No additional environmental conditions are required.
Issue 6: Decommissioning and rehabilitation

Description of potential impacts
A new Decommissioning and Rehabilitation Plan (DRP) for the site will be prepared in accordance with statutory requirements.

Section 8 of the DPEMP outlines the key objectives of the DRP. According to the DPEMP, the decommissioning phase will resolve contamination issues and establish a passive surface water treatment system, with ongoing monitoring to meet community expectations.

Management measures proposed in DPEMP

- Commitment 37 Preparation of a Decommissioning and Rehabilitation Plan.

Public and agency comment
No comment was received.

Evaluation
To ensure temporary suspension of the activity does not cause environmental nuisance or harm, condition DC1 will be imposed. Environmental management of decommissioning and rehabilitation will be implemented through the requirement under condition DC2 to develop a decommissioning and rehabilitation plan (DRP) 3 years post-commencement, updated as required. Condition DC3 requires the most recent plan be implemented following cessation of the activity; notification required under condition DC4.

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

- DC1 Temporary suspension of activity
- DC2 Decommissioning and rehabilitation plan
- DC3 Implementation of the DRP
- DC4 Notification of cessation
Appendix 2  Summary of public and agency submissions

<table>
<thead>
<tr>
<th>Representation No./ Agency</th>
<th>Comments</th>
</tr>
</thead>
</table>
| TasWater                   | Based on the DPEMP, the operation of the activity in respect to the management of wastewater, as put to TasWater in October 2017, appears to have changed. Specifically, tankered waste disposal is now proposed as the primary wastewater disposal option. Previous advice was that tankered wastewater disposal would be required where re-use from onsite treatment was not possible due to seasonal conditions.

Tankered waste consent will need to be obtained prior to disposal from the site. Waste disposed of at TasWater STP's will need to meet the acceptance criteria set out in Schedule 3 of the Water and Sewerage Act General Regulations 2009, or acceptance criteria otherwise specified by TasWater.

**TasWater therefore requires the following additional information:**

Information and detail of onsite wastewater pre-treatment and volume, quality and frequency of proposed tankered waste discharge from the site, including the following:

- Detailed analysis of volumes and breakdown of discharge wastewater quantities and qualities by process;
- Analysis of wastewater quality needs to include at a minimum, but not limited to, the following parameters, and with reference to standards/limits set out in Schedule 3 of the Water and Sewerage Act General Regulations 2009;
  - Total Nitrogen,
  - Total Kjeldahl Nitrogen,
  - Ammonia,
  - Biological Oxygen Demand,
  - Chemical Oxygen Demand,
  - Total Suspended Solids,
  - Electrical Conductivity
  - Sodium
  - Arsenic or other attributes associated with filter media
- Measures to ensure consistent discharge volumes to a TasWater wastewater treatment plant;
- The volume of tankered wastewater that will be generated, taking into account rainfall ingress into the biofilter, calculated for the following storm events;
  - 5 year ARI
  - 1 year ARI
  - 1hr peak rainfall intensity
- Specify if the storage tank (40 kL) has adequate capacity for any instance where TasWater is unable accept the leachate at the Ulverstone STP or any other STP;
- Specify any maintenance operations that may modify the quality and quantity of wastewater produced; and
- Specify if any vehicle wash down facility is proposed.

Note, wastewater strength remains a concern in relation to achieving acceptance limits under the Water and Sewage Industry General Regulations, Schedule 3. A treatment system to reduce Ammonia would likely be necessary to achieve the relevant limit.

TasWater requires the additional information prior to making a determination on the approval of this proposal.

Commitments in the DPEMP in relation to the details provided for wastewater quality attributes and quantity estimates intended for delivery at a TasWater STP are inadequate for TasWater to assess this proposal at this time.
**EPA Comment:** It is strongly recommended that consultation with TasWater be undertaken.

| Aboriginal Heritage Tasmania | The *Aboriginal Relics Act* 1975 was amended and replaced by the *Aboriginal Heritage Act* 1975 in August 2017. *Aboriginal Relics Act* 1975 should therefore be updated to *Aboriginal Heritage Act* 1975.

Please be aware that all Aboriginal heritage is protected under the *Aboriginal Heritage Act* 1975. If at any time during works Aboriginal heritage is suspected, works must cease immediately and AHT contacted for advice. Attached is an Unanticipated Discovery Plan, which should be kept on hand during all ground disturbance works to ensure obligations are met under the Act. |

| Department of State Growth | The State Roads Division of State Growth agrees with the Traffic Impact Assessment that there will be no adverse impact on the State Roads Network. |
# Appendix 3  DPEMP Commitments

## Commitments Table

<table>
<thead>
<tr>
<th>No.</th>
<th>Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Preparation of a Construction Environmental Management Plan</td>
</tr>
<tr>
<td>2</td>
<td>Compliance with the dust management provisions of the CEMP throughout the construction and operation of the facility</td>
</tr>
<tr>
<td>3</td>
<td>Preparation of an Odour Management Plan</td>
</tr>
<tr>
<td>4</td>
<td>Preparation of a Biofilter Management and Maintenance Plan</td>
</tr>
<tr>
<td>5</td>
<td>All biofilter leachate will be trucked offsite to a municipal sewage treatment plant until a Re-use Management Plan is approved.</td>
</tr>
<tr>
<td>6</td>
<td>A Stormwater Management Plan will be prepared which will include the provision of a detention basin to prevent an increase in discharge volumes and to allow monitoring of water prior to discharge. This will include formalisation of the arrangement with the adjoining landowner to the south to accept discharged water. This SWMP will be reviewed within 6 months of the completion of construction.</td>
</tr>
<tr>
<td>7</td>
<td>The existing stormwater drain discharging via the north-western corner of the site is to be decommissioned</td>
</tr>
<tr>
<td>8</td>
<td>No new point source discharges will be created.</td>
</tr>
<tr>
<td>9</td>
<td>Bunds will be constructed around all oil storage tanks.</td>
</tr>
<tr>
<td>10</td>
<td>The disposal system for ablutions waste will be designed and constructed in accordance with Australian Standards.</td>
</tr>
<tr>
<td>13</td>
<td>Implementation of a groundwater monitoring program to monitor the current hydrocarbon contamination recorded near the site of the above ground tanks and the stormwater disposal point. Replacement bores will be installed in suitable locations to replace those at MW1 – MW4 which will be required to be decommissioned to allow construction. The nature and frequency of monitoring undertaken in accordance with this program will be reviewed 6 months after completion.</td>
</tr>
<tr>
<td>14</td>
<td>Preparation of a post commissioning noise survey</td>
</tr>
<tr>
<td>15</td>
<td>The grinding tower containing the hammer mills will be constructed from pre-cast concrete panels.</td>
</tr>
<tr>
<td>16</td>
<td>Less noisy areas of the plant will be constructed from steel sheeting, but close attention will be paid to sealing all cracks and gaps. In addition, some building areas are lined with 100mm structural insulated panel.</td>
</tr>
<tr>
<td>17</td>
<td>The building will not have any openable windows.</td>
</tr>
<tr>
<td>18</td>
<td>All doors to noisy areas will be fitted with efficient seals and will be kept closed.</td>
</tr>
<tr>
<td>19</td>
<td>Ventilation openings will be fitted with silencers or noise attenuating louvres, where required to contain noise.</td>
</tr>
<tr>
<td>20</td>
<td>Specific plant items (such as the main air compressor and some larger pumps and fans) will be provided with noise attenuating enclosures.</td>
</tr>
<tr>
<td>21</td>
<td>Heavy vehicles will not enter or leave the site between 6:00 pm and 7:00 am</td>
</tr>
<tr>
<td>22</td>
<td>Preparation of a Waste Management Plan identifying waste streams and management strategies for each</td>
</tr>
<tr>
<td>23</td>
<td>Preparation of a Site Safety Management Plan</td>
</tr>
<tr>
<td>24</td>
<td>Preparation of protocols for management of spills and accidents on site</td>
</tr>
<tr>
<td>25</td>
<td>Preparation of a Pest Management Plan</td>
</tr>
<tr>
<td>26</td>
<td>Installation of signage near the car park exist to warn drivers of wildlife hazards</td>
</tr>
<tr>
<td>27</td>
<td>Implementation of an Unanticipated Discovery Plan</td>
</tr>
<tr>
<td>Appendix 3</td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>28</td>
<td>Preparation of a site landscaping plan which includes measures for the provision of additional screening along the southern and western boundaries of the site</td>
</tr>
<tr>
<td>29</td>
<td>The use of non-reflective finishes in muted tones to minimise the degree to which the building stands out.</td>
</tr>
<tr>
<td>30</td>
<td>The avoidance of signage or lighting (e.g. floodlights) which illuminate the taller sections of the building.</td>
</tr>
<tr>
<td>31</td>
<td>Preparation of a Construction Health, Safety and Environmental Plan (HSE)</td>
</tr>
<tr>
<td>32</td>
<td>Preparation of an Operational HSE Plan</td>
</tr>
<tr>
<td>33</td>
<td>Preparation of a Hazard Assessment and Operations Plan</td>
</tr>
<tr>
<td>34</td>
<td>Preparation of an operations EMP</td>
</tr>
<tr>
<td>35</td>
<td>All heavy vehicles will enter and leave the site from the northern end of Mill Rd</td>
</tr>
<tr>
<td>36</td>
<td>Preparation of a Site Monitoring and Review Plan</td>
</tr>
<tr>
<td>37</td>
<td>Preparation of a Decommissioning and Rehabilitation Plan</td>
</tr>
</tbody>
</table>
Appendix 4  Permit Conditions – Environmental No. 9687
PERMIT PART B
PERMIT CONDITIONS - ENVIRONMENTAL No. 9687

Issued under the Environmental Management and Pollution Control Act 1994

Activity: The operation of an aquaculture feed manufacturing plant (ACTIVITY TYPE: Produce Processing Works(works not discharging all wastewater to external approved Wastewater Treatment Works))
329 MILL ROAD
WESLEY VALE TAS 7307

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: LATROBE
Permit Application Reference: DA 208/2017
EPA file reference: 252184

Date conditions approved: 07 AUG 2018

Signed: Warren Jones
CHAIRPERSON, 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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Attachment 2: Retention basin (modified: 09/08/2018 09:18) .................................................... 1 page
Attachment 3: Retention basin monitoring (modified: 09/08/2018 09:16) ................................. 1 page

CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY
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.

Authorized Officer means an authorized officer under section 20 of EMPCA.


Commissioning means the testing of major items of equipment, including the cold and hot testing of the plant as described in Section 2.6 of the DPEMP, 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, excavation, 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.

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


DRP means Decommissioning and Rehabilitation Plan.


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.

Nominated Exhaust Points means the gas-fired boiler stack.

CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

07 AUG 2018
**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.

**Reporting Period** means the financial year.

**Stack Test** means the taking of measurements and the collection of samples for analysis from within a chimney, stack or flue.

**Stormwater** means water traversing the surface of the land as a result of rainfall.


**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 329 Mill Road, Wesley Vale and Certificate of Title 86717/1, as further delineated at Attachment 1.
Schedule 2: Conditions

Maximum Quantities

Q1 Regulatory limits
1. The activity must not exceed the following limits:
   1.1 13,000 kilograms per hour of processing capacity
   1.2 110,000 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 Complaints register
1 A public complaints register must be maintained and made available for inspection by an Authorized Officer upon request. The public complaints register must, as a minimum, record the following detail in relation to each complaint received in which it is alleged that environmental harm (including an environmental nuisance) has been caused by the activity:
1.1 the date and time at which the complaint was received;
1.2 contact details for the complainant (where provided);
1.3 the subject-matter of the complaint;
1.4 any investigations undertaken with regard to the complaint; and
1.5 the manner in which the complaint was resolved, including any mitigation measures implemented.

2 Complaint records must be maintained for a period of at least 3 years.

G7 Annual Environmental Review
1 Unless otherwise specified in writing by the Director, a publicly available Annual Environmental Review for the activity must be submitted to the Director each year within three months of the end of the reporting period. Without limitation, each Annual Environmental Review must include the following information:
1.1 a statement by the General Manager, Chief Executive Officer or equivalent for the activity acknowledging the contents of the Annual Environmental Review;
1.2 subject to the Personal Information Protection Act 2004, a list of all complaints received from the public during the reporting period concerning actual or potential environmental harm or environmental nuisance caused by the activity and a description of any actions taken as a result of those complaints;
1.3 details of environment-related procedural or process changes that have been implemented during the reporting period;
1.4 a summary of the amounts (tonnes or litres) of both solid and liquid wastes produced and treatment methods implemented during the reporting period. Initiatives or programs planned to avoid, minimise, re-use, or recycle such wastes over the next reporting period should be detailed;
1.5 details of all non-trivial environmental incidents and/or incidents of non compliance with permit or environment protection notice conditions that occurred during the reporting period, and any mitigative or preventative actions that have resulted from such incidents;
1.6 a summary of the monitoring data and record keeping required by these conditions. This information should be presented in graphical form where possible, including comparison with the results of at least the preceding reporting period. Special causes and system changes that have impacted on the parameters monitored must be noted. Explanation of significant deviations between actual results and any predictions made in previous reports must be provided;
1.7 identification of breaches of limits specified in these conditions and significant variations from predicted results contained in any relevant DPEMP or EMP, an explanation of why each identified breach of specified limits or variation from predictions occurred and details of the actions taken in response to each identified breach of limits or variance from predictions;
1.8 a list of any issues, not discussed elsewhere in the report, that must be addressed to improve compliance with these conditions, and the actions that are proposed to address any such issues;
1.9 a summary of fulfilment of environmental commitments made for the reporting period. This summary must include indication of results of the actions implemented and explanation of any failures to achieve such commitments; and

1.10 a summary of any community consultation and communication undertaken during the reporting period.

G8 Notification prior to commencement
The Director must be notified in writing of the commencement of operations at least 14 days before that occurs.

G9 Notification prior to commissioning
At least 14 days prior to the commencement of commissioning, the person responsible for the activity must notify the Director of the date on which commissioning is expected to commence.

Atmospheric

A1 Gas-fired boiler emissions
At any time reasonably required by the Director by notice in writing, monitoring of in-stack concentrations of pollutants emitted by the gas-fired boiler must be undertaken, in accordance with methodology approved by the Director.

A2 Stack testing facilities
1 The following stack testing facilities must be available at all nominated exhaust points when undertaking stack testing required by these conditions:

1.1 sampling positions must be in accordance with Australian Standard AS 4323.1 (Stationary source emissions - selection of sampling positions), or as approved in writing by the Director;

1.2 safe sampling platforms must be located to allow access to the sampling positions and safe access to these sampling platforms must be provided; and

1.3 all necessary services required for the test method prescribed must be provided.

A3 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.

A4 Odour Management Plan
1 At least 1 month prior to the commencement of commissioning, or by a date otherwise specified in writing by the Director, an Odour Management Plan must be submitted to the Director for approval. This requirement will be deemed to be satisfied only when the Director indicates in writing that the submitted document adequately addresses the requirements of this condition to his or her satisfaction.

2 The plan must be prepared in accordance with any reasonable guidelines provided by the Director.

3 Without limitation, the plan must include details of the following:

3.1 All odour sources associated with the proposal and an assessment of the potential to result in environmental nuisance;

3.2 Odour control, including fugitive and point source odour controls with sufficient technical detail;

3.3 Biofilter maintenance and management to ensure optimal performance, taking into consideration intermittment and variable production rates, odour input sources and flow rates;

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3.4 Measures to reduce the potential for odour emissions from the wastewater storage dam;
3.5 Planned verification of plant performance during commissioning;
3.6 Contingency plans for emergency or upset conditions, compliants, and periods of sustained odour impacts. Contingency measures may include shutdown procedures and additional odour control measures;
3.7 Monitoring procedures and triggers for response;
3.8 Methodology for a survey of odour emissions, as required by these conditions;
3.9 Record keeping and reporting;
3.10 Staff responsibilities, competence and training;
3.11 A table containing all of the major commitments made in the plan; and
3.12 An implementation timetable for key aspects of the plan.
4 The person responsible must implement and act in accordance with the approved plan.
5 Records of monitoring and maintenance undertaken in accordance with the Odour Management Plan must be made available to an authorized officer upon request.
6 In the event that the Director, by notice in writing to the person responsible, either approves a minor variation to the approved plan or approves a new plan in substitution for the plan originally approved, the person responsible must implement and act in accordance with the varied plan or the new plan, as the case may be.

A5 Survey of odour emissions
1 Unless otherwise approved in writing by the Director, a survey of odour emissions from the activity must be completed:
   1.1 quarterly for 12 months from the date of commencement of commissioning and thereafter biannually.
   1.2 within six (6) months of any change to the activity which is likely to substantially alter the character or increase odour emissions; and
   1.3 at such other times as may reasonably be required by the Director by notice in writing.
2 The odour survey must be undertaken in accordance with the survey of odour emissions methodology as detailed in the Odour Management Plan, and any reasonable guidance provided by the Director.
3 The number and location of measurement location points (MLPs) must be approved in writing by the Director prior to conducting a survey of odour emissions.

A6 Odour survey report
1 Odour survey results must be submitted to the Director within 30 days of the completion of the odour survey in the form of a written odour survey report.
2 Unless otherwise approved in writing by the Director, the report must:
   2.1 include a comparison of odour emission rates calculated from the odour survey and the odour emission rates used as input to the atmospheric dispersion modelling included in the DPEMP;
   2.2 discuss any difference between the measured odour emissions and the odour modelling results in the DPEMP;
   2.3 conclude if odorous gases from the activity are likely to cause environmental nuisance beyond the boundary of The Land;

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2.4 provide details of any mitigation or management measures to be implemented to address any odour emission issues that are causing, or are likely to cause, environmental harm; and

2.5 provide a schedule for the implementation of any proposed mitigation or management measures.

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.

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 control;
2.5 management of environmentally hazardous materials, including contaminated soil excavated from the land;
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 The Construction EMP must contain details of the sampling, analysis and disposal of contaminated soil excavated from The Land consistent with the relevant provisions of Bulletin 105. It must include, but not necessarily be limited to, details of:

3.1 the sampling and analysis to classify soils excavated for the development of the stormwater retention basin and oil tank foundations.
3.2 measures undertaken should contaminated soil be excavated or suspected from other areas on The Land.

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 0700 hours to 1800 hours.
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 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.

DC2 Decommissioning and Rehabilitation Plan

1 A draft Decommissioning and Rehabilitation Plan (DRP) must be submitted for approval to the Director by 3 years after commencement of operations.

2 Unless otherwise approved in writing by the Director, a revised DRP must be submitted to the Director for approval:

2.1 when changes to the conduct of the activity are to occur that will result in significant changes to decommissioning and rehabilitation obligations; and

2.2 within 30 days of the Director being notified of the likely cessation of operations; and

2.3 where required by notice in writing, by a date specified in writing by the Director.

3 The DRP must be prepared in accordance with guidelines issued by the Director. If no guidelines have been issued by the Director the measures described in this plan must include, but should not necessarily be limited to, the following:

3.1 completion of a site history, site contamination assessment and contamination remediation plan (including consideration of groundwater);

3.2 removal of all equipment, structures and waste materials unless they are considered by the Director to be beneficial to a future use of The Land;

3.3 grading and levelling/recontouring and revegetating (or other approved method of soil stabilisation) of the surface of the disturbed area;

3.4 management of drainage on The Land so as to reduce erosion and prevent release of a pollutant from The Land;

3.5 maintenance of the rehabilitated area for a period of not less than [three] years from the date of cessation of operations;

3.6 an itemised estimate of the costs of carrying out the works listed in the DRP and a statement of how these costs will be provided for; and

3.7 any other detail requested in writing by the Director.

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DC3 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.

DC4 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.

Efluent Disposal

E1 Stormwater
1 Polluted 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 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 measures must be implemented to ensure that solids entrained in stormwater are retained on The Land. Such measures may include appropriately sized and maintained sediment settling ponds or detention basins.
4 Stormwater discharged in accordance with this condition must not be directed to sewer without the approval of the operator of the sewerage system.

E2 Retention basin
1 Unless otherwise approved in writing by the Director, prior to commencement of operations a stormwater retention basin must be constructed as described in the DPEMP, and at the location shown at Attachment 2.
   1.1 Notwithstanding, the stormwater retention basin must be constructed with a liner to prevent the discharge of surface water to groundwater, or to a standard otherwise approved in writing by the Director.

E3 Disposal of wastewater
1 Unless otherwise approved in writing by the Director, all wastewater generated on The Land that is not recycled through the production process must only be discharged in accordance with the following:
   1.1 to an approved wastewater treatment facility via tanker loads; or
   1.2 to The Land via an approved Wastewater Reuse Scheme.

E4 Wastewater Reuse Plan
1 A Wastewater Reuse Plan must be submitted to the Director for approval within 3 months from the commencement of operations, or by a date otherwise specified in writing by the Director. This requirement will be deemed to be satisfied only when the Director indicates in writing that the submitted document adequately addresses the requirements of this condition to his or her satisfaction.
2 Without limitation, the plan must include the following:
   2.1 Description of the land intended for irrigation, including area, soils, groundwater, and vegetation;
2.2 A water balance to demonstrate sufficient storage is available to retain wastewater where the irrigation requirement is less than wastewater production;

2.3 Details of the irrigation storage and distribution system and operation to prevent excess irrigation to the extent that contaminants are discharged to surface or groundwater;

2.4 A wastewater monitoring program that includes monitoring for nutrients, salts, pH, EC and any other identified contaminants of concern;

2.5 Continency measures should wastewater quality prohibit irrigation to land;

2.6 Results of all wastewater monitoring undertaken to date.

3 Unless otherwise specified in writing by the Director, disposal of wastewater on The Land must be carried out in accordance with an approved Wastewater Reuse Plan.

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 to assist with the containment of spilt environmentally hazardous materials.

Monitoring

M1 Monitoring requirements

1 Unless otherwise specified in writing by the Director, monitoring of water in the stormwater retention basin must be undertaken in accordance with the Table of Monitoring at attachment 3, as follows:

1.1 the surface water must be sampled or tested for the parameters listed in Column 1 at the frequencies listed in Column 2 using the techniques listed in Column 3; and

1.2 resultant monitoring data must be reported to the Director in accordance with the requirements set out in Column 5 and in the units listed in Column 4.

M2 Dealing with samples obtained for monitoring

1 Any sample or measurement required to be obtained under these conditions must be taken and processed in accordance with the following:

1.1 Australian Standards, the National Association of Testing Authorities (NATA) approved methods, the American Public Health Association Standard Methods for the Analysis of Water and Waste Water or other standard(s) approved in writing by the Director;

1.2 samples must be tested in a laboratory accredited by NATA, or a laboratory approved in writing by the Director, for the specified test;

1.3 results of measurements and analysis of samples and details of methods employed in taking measurements and samples must be retained for at least three (3) years after the date of collection;

1.4 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; and

1.5 noise measurements must be undertaken in accordance with the Tasmanian Noise Measurement Procedures Manual.

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 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 5 dB(A).

3 The time interval over which noise levels are averaged must be 10 minutes or an alternative time interval specified in writing by the Director.

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.

N2 Noise survey requirements
1 Unless otherwise approved in writing by the Director, a noise survey must be carried out:
   1.1 within 3 months from the commencement of operations; and
   1.2 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
   1.3 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_{10}, L_{15}, L_{90} and L_{50} 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

L01 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.

L02 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

O11 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.

O12 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

The Land

329 Mill Road, Wesley Vale (Certificate of Title 86717/1)

as shown in red
## Table of Monitoring

### Stormwater Retention Basin

<table>
<thead>
<tr>
<th>Parameters</th>
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<th>Column 3</th>
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<td>Laboratory testing</td>
<td>mg/L</td>
<td>Quarterly &amp; Annually</td>
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<td>Monthly</td>
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<td>Laboratory testing</td>
<td>mg/L</td>
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