Barwick's

WHOLESALE/RETAIL LANDSCAPE SUPPLIES

Notice of Intent

In Vessel Composting Facility Project

13 September 2022

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1 Summary

1.1 Executive Summary

Established in 1977, B G & J M Barwick Pty Ltd (Barwick) is a Tasmanian family business specialising in producing landscaping supplies from organic waste products derived from the manufacturing industry.

With a 46 FTE workforce, Barwick recently expanded its successful forestry and manufacturing waste reprocessing business, located adjacent to Norske Skog Boyer mill in Southern Tasmania, to add a green waste composting facility at Bridgewater.

With the Boyer site reprocessing around 82ktpa of manufacturing and primary industry organic waste, the addition of the Bridgewater facility in 2019, added a further 12.5ktpa of green waste to the company's reprocessing capacity.

With a well-established public and commercial customer base, Barwick is best known for its high-quality products, which include rich organic compost, soil conditioners, mulches, woodchips, soils and coal ash.

In addition to these operations, Barwick is owner of Pure Living Soil Pty Ltd (PLS). PLS operates a licenced organic composting facility at Oatlands and has been producing high quality compost since 2003.

Whilst PLS accepts commercial organic waste from throughout the state, since 2019, PLS also processes Food Organics and Garden Organics (FOGO) from three Southern Councils. In the 2020/21 reporting period, PLS processed around 18ktpa of organic waste, including 6ktpa of FOGO.

More recently, a fourth Southern Council has transitioned from kerbside garden organics (GO) to FOGO, which has been accepted at the PLS site since October 2021.

Barwick is looking to expand on existing organic waste process capability and capacity through development of a food and garden organics (FOGO) composting facility at its existing facilities in Boyer.

1.2 Project and Applicant Details

The Project	
Title	In Vessel Composting Facility
Location	1277 Boyer Road, Boyer, Tasmania
Proponent Details	
Name	B G & J M Barwick Pty Ltd
Address	129 Lyell Highway
	Granton Tas 7030
ACN	160 939 659
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Applicant/Proponent Contact Details	
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Operator Details	
Name	B G & J M Barwick Pty Ltd
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2 Background

Barwick is the proponent and will be the operator of the in vessel composting facility. Barwick operate a series of wholesale and retail landscape supply yards around Tasmania providing quality landscape materials including gravels, aggregates, mulch, loam, compost and general landscape products.

Within the normal wholesale and retail product range are products derived from organic waste received from other industries including forestry and paper production. The make-up and quantity of organic waste products has changed over time and Barwick has had to adjust to continue to provide disposal and recycling options.

Barwick has been involved in converting bark fibre and other green waste materials into landscaping products for over 40 years. The company currently operates two successful composting operations as follows:

Name	Operator	Annual Capacity
Interlaken Road Resource Recovery	Pure Living Soil Pty Ltd	9,900 tonnes
Barwicks Landscape Supplies Yard	B G & J M Barwick Pty Ltd	2,500 tonnes

With an existing organic waste processing capacity of >113ktpa, including 11ktpa of FOGO waste from Southern Councils, Barwick is demonstrably highly experienced in the processing of organic waste material.

Whilst successful completion of the project relies first and foremost on Barwick's 40 years of experience in the industry, the execution and future operation of this project is supported by a number of highly experienced subject matter experts.

Barwick will rely on its long-standing relationship with JustWaste Consulting, a well-known independent Tasmanian Waste Management Services and Consultation business, to work in partnership with Barwick to deliver this project

Barwick is also in the process of conducting a targeted Expressions of Interest process to establish a partnership with an experienced firm to provide the turnkey design and construction of the facility.

The Barwick project team is led by Tyronn Barwick. Tyronn joined the family business in 1993 and now manages the business. Tyronn has long recognised the increase in green and food waste being buried in landfill and saw a need for more compost to be produced given the increase in demand.

This foresight led Tyronn to transform Barwick's business model in 2012 by investing in a joint venture to buy a major composting site near Oatlands.

Another successfully executed major recycling project is the 2016 partnership with Tyrecycle which saw the construction of a $1.5 m tyre shredding plant at Bridgewater, providing a much-needed solution to the hundreds and thousands of tyres that are usually sent to landfill in the State per year.

2.1 Financial Capacity

B G & J M Barwick Pty Ltd has been operating since 1977 and is not under external Administration. The company, including any related entities, have not had any applications for orders to appoint liquidators or provisional liquidators, or to be wound up or dissolved, or any other action relating to insolvency.

Barwick's have been the successful recipient of a State Government Grant which will provide approx. one third of the estimated project costs of $13,780,000. Additional equity will be provided from the Barwick's business to fund the remaining project costs. Barwick's has a strong and stable existing business and balance sheet to provide this additional funding.

Extensive financial modelling has been undertaken in respect to the proposed project which indicates the project is viable over the operational life of the project and will deliver strong positive cash flows over that time. Once established, the project should deliver positive cash flows exceeding $4M per annum. This will facilitate continued expansion of the business over and above the base case modelled.

Barwick's existing successful business is a strong indicator of the market that exists for organic waste processing and the downstream demand for premium compost.

2.2 Project Description

The proposed project is the design and construction of an in-vessel composting facility using advanced technology that will provide a long-term, sustainable and cost-effective organics processing solution. The facility, which will be located on an existing operational site, is fully enclosed with odour control infrastructure and leachate management systems and will comprise of:

- The facility will typically be operated by up to five employees from 4 am to 6 pm Monday to Friday, although access to the site by Barwick's may occur at other times as required, such as to respond to alarms. Feedstock and other deliveries to the facility will be Monday - Saturday with processing of the feedstocks generally on the same day. The composting tunnel process of the facility will operate 24/7 facilitated by automatic process controls and remote monitoring.
- A pre-treatment building made of steel construction with a negative pressure air management system with fans maintaining a constant air exchange. The existing shed onsite will be re-furbished for this purpose and will contain an air curtain system with fast roller shutter doors to prevent odorous air from escaping the building during truck movements.
- 3 to 4 composting tunnels made of precast concrete, each able to hold up to 540 tonnes per tunnel (650kg per cubic meter). Subject to final engineering design, each tunnel will measure approximately 40 x 8 x 6 m. A technical room at the rear of tunnels will house a 'control system' which is used by operators to control the composting process. The tunnels will be designed to handle a range of organic feedstocks including FOGO material, biosolids, grease trap waste, other wet organics (subject to feedstock mix meeting overall parameters for AS4454-2012 standards).
- Feedstocks could include, but not limited to at this stage:
    - Food organics Garden Organics (FOGO);
    - Food organics;
    - Garden, wood chips, pine bark, sawdust organics;
    - Fish organics;
    - Chicken organics
    - Dairy organics;
    - Food and beverage processing;
    - Biosolids
    - Grease trap;
    - Fly Ash
    - Norske Skog Biomass
    - Plasterboard
- A central air treatment system that guarantees a consistent negative pressure in the buildings to contain odours and provide sufficient air changes regardless of process requirements where air volume is either used in the composting tunnels as fresh air or bypassed to the central air treatment system where it is cleaned by scrubbers and emitted from the biofilter.
- A leachate system that collects leachates and condensates from the facility and treats them in order to maximise recirculation to the process therefore avoiding disposal, providing a closed-loop system.

The proposed facility has been designed to provide a cost-effective landfill diversion solution, using innovative and sustainable technologies to treat and recycle organic waste with minimum impact on the environment.

Engineers advise that the in-vessel process can achieve the pasteurisation required for industry and Tasmanian EPA standards (tested over 6 batches) and will capture and reduce odour by up to 95% to meet Tasmanian EPA requirements.

The end composting products will meet AS4454-2012 standards, subject to adequate external maturation in windrows and correct operation in line with the Standard.

Project benefits and strategic links include:

- Avoids landfill greenhouse gas emissions, extends the landfill life and generates valuable compost by-product for Tasmanian agricultural, nursery, government and residential re-use.
- Deliver best practice leachate and odour management while continuing to meet the Australian Standard for Compost and Mulch (AS4454) and EPA conditions.
- Delivers against the Tasmanian Government's Waste Action Plan 2019 to reduce the volume of organic waste sent to landfill by 25% by 2025 and 50% by 2030.
- Strengthens Tasmania's biosecurity capabilities (e.g. fruit fly response and salmon mortalities). Strengthens quarantine capabilities and delivers TasWater Trade Waste Policy solutions for biosolids and grease-trap waste.

2.3 Project site and location

The project location is 1277 Boyer Road, Boyer Tasmania (C/T 113285/1). This location is at Barwick's' existing facilities at Boyer, adjacent to the Norske Skog Paper Mill at 1279 Boyer Road (C/T 113287/1). The Project site has existing access roads, power, water, building/sheds and general facilities, and will also rely on road infrastructure within the Norske Skog Paper Mill site for access.

The adjacent Norske Skog site, highlighted in green in the image above, has an established EPA 2F classification with existing environmental controls in place and it is proposed (subject to EPA approval) that any surplus leachate will be pumped to Norske Skog's existing wastewater treatment facility for treatment by Norske Skog.

The Norske Skog site also provides a 5km boundary from any residential housing (in relation to the project site) and has existing management controls in place for flora and fauna.

The current planning scheme specifies that the proposed project location is zoned 25. General Industrial.

Currently, the project site is used for processing and storage of pine bark from the Norske Mill and contains an existing building with office facilities and sheds.

The above image shows where the proposed tunnels will be situated on site and how these will integrate with the existing building which will be re-furbished to become the pre-treatment building.

2.4 Stakeholder Consultation

Barwick have engaged a waste and environmental consultant to assist with the Community Engagement Strategy for the project.

A draft Community Engagement Strategy has been developed that details how community expectations will be managed during the design, construction and operation of the proposed facility. Please refer to Appendix 2 – Community Engagement Strategy for further details including the key issues, engagement objectives, key stakeholder groups, engagement tools, schedule and outcomes measurement.

Barwick's have also held consultation with the following people / organisations:

- Derwent Valley Council;
- EPA Tasmania;
- NRE Tasmania;
- TASSAL;
- City of Hobart;
- Glenorchy City Council;
- Kingborough Council;
- Mornington Park Waste Transfer Station;
- Southern Waste Solutions;

2.5 Social Value of the Project

2.5.1 Environmental Benefit

As stated in the Tasmanian Organics Research Report 2022 (TORR) and the State Governments Waste Action Plan, the diversion from landfill is top of the agenda. This project has a two-way benefit being the diversion of organics from landfill and also the production of quality compost materials that can benefit the soils of Tasmania to increase agriculture production state-wide.

In keeping with the TORR recommendations, this proposed project will significantly reduce greenhouse gas emissions in Tasmania by diverting ~52ktpa of additional organic waste which would have otherwise been land spread or sent to landfill.

Barwick's high quality end composting products will be used to help Tasmania's soil quality in both the agriculture and retail markets. Using local quality compost in Tasmania's agriculture and horticulture sectors is especially crucial, as this compost will increase the amount of water which our soils can hold, thereby reducing the amount of water required, reducing the amount of fertiliser and chemicals used, and will reduce run-off and erosion.

By utilising Barwick's end products in these sectors, it will increase the workability of Tasmania's soil, thereby reducing the fossil fuel emissions that would otherwise be needed to produce and ship soil maintenance products.

Additionally, the proposed location is closer to council FOGO collections, which will reduce the environmental cost of transporting waste over long distances.

2.5.2 Local Employment

The proposed project will result in creating direct employment of 15 FTW, with the roles advertised locally to source Tasmanian employees, ensuring this direct and immediate economic benefit remains in Southern Tasmania.

During the initial construction of the facility, based upon the budget project costs approximately 90% will be spent with local, Tasmanian companies. This includes sourcing local sub-contractors for building works and provision of building materials such as gravel, concrete and machinery. In addition, other materials sourced through local business include steel, electrical, plumbing, fans, blowers, pipework, biofilter medium along with the associated labour and machinery.

2.5.3 Economic Benefit

The successful completion of this project will provide considerable tax revenue generated from the increase in Barwick's compost sales, as well as a significant reduction in the cost to Tasmania for processing organic waste and reduction in the cost for emissions from landfill.

The project will provide an economic benefit to our agriculture and horticulture sectors, providing a year-round, stable compost which can be stored long term to utilise when required, reducing costs for other fertilisers, conditioners and irrigation, and will help increase crop yields.

The proposed project will encourage the longer lifespan and reduction in pressure to Tasmania's existing landfill sites and will help reduce dumping costs. The successful construction of this facility at Boyer would see simultaneous operations at both Barwick's sites (Interlaken and Boyer), where previously, some potential suppliers including councils and manufacturers have had reservations about the cost of transporting organic waste to Barwick's Interlaken site. The simultaneous operations of these sites can assist in balancing any cost associated with $/tonne increases, especially following the introduction of Tasmania's Waste Levey, and become an attractive and viable option for future contracts, given the increasing costs to landfill.

2.5.4 Social Benefits

Barwick's proposed facility will bring numerous social benefits to Southern Tasmania. It will encourage increased uptake and awareness of household FOGO waste, leading to the redirection and avoidance of organic waste to landfill. Once organic waste recycling is incorporated into the community's daily thinking mentality, it will become practice and part of Tasmanian culture. This will impact the lifestyle decision of not only current Tasmanian's but for future generations to come.

Barwick's local operation will provide education to local schools and the community through site tours and school programs. These tours and programs will be a source of information on the benefits of composting at all levels, helping to create a circular economy, and encourage 'from the plate back to the paddock' thinking.

Through the success of Barwick's in-vessel composing facility, Tasmanians will see a reduction in waste to landfill, healthier food through greater soil conditions, stronger and more local food system, with a regenerative outlook. We aim for this project to be a source of pride for the community, will encourage volunteerism and involvement in local communities, an increase in the lifestyles of Southern Tasmanians and will see a happier and healthier community.

2.6 Environmental Impacts

The proposed project site is located on Boyer Road and shares three boundaries with the Norske Skog Paper Mill, the other being Boyer Road. The Norske Skog Paper Mill is subject to Level 2 activities with a current classification of 2F under Environmental Management and Pollution Control Act and has established controls for wastewater and groundwater management, noise and odour control which includes air quality modelling.

Three key areas have been identified as potential environmental impacts for the project, being:

2.6.1 Air quality associated with the operation

Excessive air emissions, particularly odour can have a negative impact on surrounding properties. The proposed in vessel composting solution is designed to ensure minimal odour through the inclusion of air (odour) management equipment and controls. Notwithstanding this, the proponent is proposing to undertake air quality modelling.

2.6.2 Water quality associated with the operation

Leachate that drains from the composting material in the tunnels will be captured via the under-floor drainage system and transported via internal pipelines, screened, and sprayed back to the tunnels to maintain suitable moisture levels in the material and enrich the nutrient value of the product. When disposal of surplus leachate is required, it is proposed that leachate will be pumped to Norske Skoge's existing wastewater treatment facility (subject to EPA approval) for treatment by Norske Skog.

The Proponent proposes to undertake necessary surveys in respect to leachate and stormwater management practices.

2.6.3 Noise emissions associated with the operation

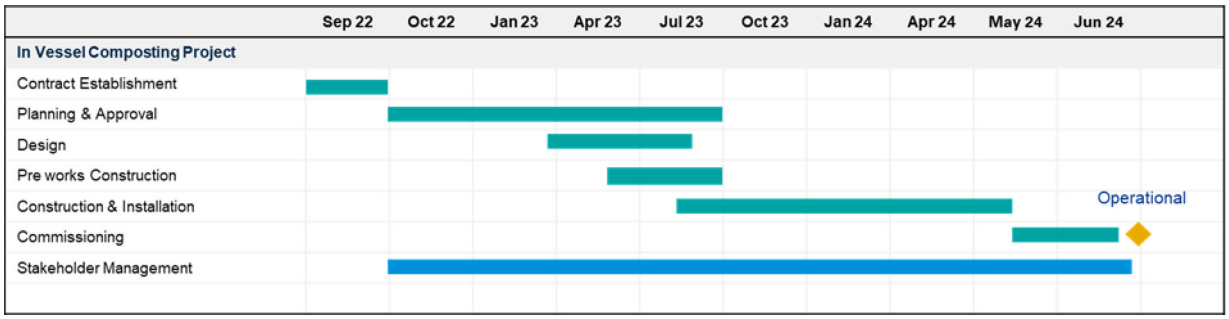
Noise emissions may occur during the construction phase where there is likely to be heavy machinery operating. The construction phase will be a short duration of approximately 6 months. Thereafter the operation will utilise a series of wheel-loaders or along with screening equipment. The air transfer and odour management systems will be through a series of fans, which will constantly be operating.

Truck movements will also occur with trucks delivering waste to the composting facility.

Given the close proximity to Norske Skog noise emissions are expected to have minimal impact on this site or surrounding residences (of which the closest is approximately 5km away) and the Proponent proposes that noise emissions will be considered and monitored during both the construction and operational phases of the project.

2.7 Project Timeframe

The project has commenced and is in its early stages. The project is expected to be complete and operational in June 2024. The below provides a high-level timeline for the project:



2.8 Other Details

2.8.1 Environment Protection and Biodiversity Conservation Act 1999 (Cth)

The activity will not cause an impact on a Matter of National Environmental Significance (MNES), therefore no assessment under the EPBC Act 1999 (Cth) is required at this stage, hence the Bilateral Agreement will not be invoked.

2.8.2 Land Use Planning and Approvals Act 1993

The proposal will be considered under the Derwent Valley Interim Planning Scheme 2015: Table 8.2 Use Classes.

Use Class	Description
Recycling and waste recovery	Use of land to collect, dismantle, store, dispose of, recycle or sell used or scrap material. Examples include a recycling depot, refuse disposal site, scrap yard, vehicle wrecking yard and waste transfer station
Land Use Zone	25 General Industrial
25.2 Use Table	Permitted

a) The Derwent Valley Council will require a development application for the proposed project

b) A Single Development Permit application will be required
c) The application will be made under Division 2 Section 57 of LUPA Act 1993 by virtue of the Level 2 status of the proposed activity under the EMPC Act 1994, Schedule 2, 3.(d) (i) as required by Section 25. (1) (b) of the same Act
d) The use is consistent with the zone intent hence no rezoning will be required
e) The proposal is for a new activity not an intensification of an existing activity
f) Not an intensification, hence not applicable

2.8.3 Environmental Licence

This proposal is not for an activity that requires an environmental licence.

Appendix A – Certificate of Title

(provided as a separate attachment to this document)

Appendix B – Community Engagement Strategy

(provided as a separate attachment to this document)