ENVIRONMENTAL EFFECTS REPORT

FOR RECYCAL

Proposal to increase size of the previously approved sorting shed (Building 3)

256 George Town Road, Rocherlea

JANUARY 2021

JMG Engineers & Planners

Johnstone McGee & Gandy Pty Ltd
ABN 76 473 834 852 ACN 009 547 139
www.jmg.net.au

HOBART OFFICE
117 Harrington Street
Hobart TAS 7000
Phone (03) 6231 2555
infohbt@jmg.net.au

LAUNCESTON OFFICE
49-51 Elizabeth Street
Launceston TAS 7250
Phone (03) 6334 5548
infoltn@jmg.net.au

Issuing Office: 117 Harrington Street, Hobart 7000
JMG Project No. J192350CL

Document Issue Status

Ver.	Issue Date	Description	Originator		Checked		Approved	
0.1	13 Dec 2019	Draft for client	IEB					
1.0	13 Dec 2019	Draft for EPA review	IEB					
0.3	28 Jan 2020	Draft incorporating EPA comments	IEB					
0.4	6 Aug 2020	Revised for Client Review	IEB	5 Aug 2020				
2.0	10 Aug 2020	Revised draft for EPA review	IEB	10-Aug-20	AS	10-Aug-20	AS	10.08.20
3.0	22 Dec 2020	Including Responses to EPA RFI	IEB	18 Dec 20	MSC	22 Dec	MSC	22Dec
3.1	22 Jan 2021	Updates to Table 1	IEB	22 Jan 21	MSC	22 Jan 21	MSC	22 Jan 21

TABLE OF CONTENTS

Executive Summary

This Environmental Effect Report provides details of the existing metal recycling facilities at 256 George Town Road, Rocherlea and the proposal for a larger Building 3 to accommodate additional on-site processing of non-ferrous metal waste materials.

The recent changes in the global waste industry, mean that previously exported waste materials now need to be managed and processed within Australia. Until additional capacity is created to handle this additional material a temporary buildup of recyclable materials has occurred at the site.

The proposal will create the capacity for further separation of non-ferrous metal material which was previously on-shipped for offsite processing. The proposal is aligned with the site's existing approved operation as a metal recycling facility. The larger Building 3 will enable more materials to be recycled on site, so that the temporary stockpile can be reduced over time.

It is considered that in and of itself the proposal requires no particular changes to existing onsite infrastructure or management practices. The proposed changes will retain metal recycling activities within the existing approved hours of operation and will be managed with the existing staff numbers.

This Environmental Effect Report provides specific responses to matters raised by Environmental Protection Notice No. 10216/1, including a Stormwater Management Plan (Appendix F) and Fire Management Plan (Appendix G) for the site. The recommendations contained within these reports will be incorporated into the existing Environmental Management Plan (Appendix D) for the site.

The potential impacts from the proposed works and upgraded processing facilities are noise and visual impacts. With regards to noise, the proposed Building 3 will fully enclose the upgraded processing facilities. Building materials will be a combination of precast concrete panels and metal sheeting as shown in the proposal plans (Appendix A). It is anticipated that the operational activities will be able to achieve the targeted Noise levels of no more than 52.9dBA at the nearest sensitive receivers, as per the previously approved Noise Report of July 2015 (Appendix E).

With regards to visual impact the larger Building 3 is considered compatible with the large industrial buildings in the surrounding area. The upgraded processing facilities will provide the ability to reduce the temporary buildup of recyclable materials on site, thereby further mitigating any visual impact of the site's operational activities.

The proposal is considered acceptable with respect to applicable Planning Scheme and EMPCA requirements.

1. Part A – Proponent information

Name of proponent:	JMG Engineers and Planners obo Recycal Pty Ltd (current application with Launceston City Council – DA0538/2019)
Name of proponent:	Recycal PTY LTD
Registered address of proponent:	Pitcher Partners, 664 Collins Street, Docklands, VIC 3008
Postal address of proponent:	81-85 Heatherdale Road, Ringwood, VIC 3134
ABN number:	56 145 386 992
ACN number:	145 386 992

Contact person's details:

Doug Rowe
0439031535
doug.rowe@recycal.net

Recycal will operate the facility after construction (and oversee/contract out the construction of proposed Building 3 and sorting machinery installation).

JMG Engineers and Planners have been engaged to prepare the EER, obo Recycal.

JMG Engineers and Planners contact person details:

- Indra Boss
- 03 6231 2555
- planning@jmg.net.au

2. Part B – Proposal description

On December 31, 2017 China announced that it would no longer accept global waste for recycling, resulting in much of the waste being diverted to other South-east Asian countries, which were *quickly overwhelmed by the sheer volume that China had once easily absorbed*.[1]

Australia's recycling industry is facing a crisis as the country struggles to handle the 1.3million-ton stockpile of recyclable waste it had previously shipped to China. [2]

Recycal's metal recycling operations have also been impacted by these changes in the global waste recycling business. Firstly, by the need for short term increase in stockpile of

[1] Laura Parker (2018) "China's ban on trash imports shifts waste crisis to Southeast Asia", National Geographic https://www.nationalgeographic.com/environment/2018/11/china-ban-plastic-trash-imports-shifts-waste-crisis-southeast-asia-malaysia/

[2] Cheryl Katz (2019) "Piling Up: How China's Ban on Importing Waste Has Stalled Global Recycling" https://e360.yale.edu/features/piling-up-how-chinas-ban-on-importing-waste-has-stalled-global-recycling

materials that would have previously been shipped out of Australia; and secondly by upgrading existing facilities to enable additional downstream non-ferrous metal sorting to occur on the site.

To address the second need, Recycal Pty Ltd (from here-on referred to as Recycal) proposes to install specialised equipment to provide the required downstream sorting in Building 3, previously approved via Planning Permit DA302/2015. Building 3 is not yet constructed and the new operational requirements dictate the need for a larger building than previously approved.

Accordingly, an application for a larger Building 3 (Launceston Council Reference DA0538/2019) has been lodged, for assessment as per the requirements of the *Launceston Interim Planning Scheme 2015* (see Appendix H).

The temporary increase to on-site storage of materials, triggered the need for an Environmental Impacts Report, namely this report, which will provide information about the environmental impacts of the proposed activity under the *Environmental Management and Pollution Control Act 1994* (the EMPC Act) (see Appendix I).

The proposed development and works at the subject site do not change the existing approved uses or site management practices at the site, but rather represent an adaptive response to the changed global waste management environment.

1. Description of proposed activity (in context of existing approved use & development)

Recycal seek to erect a new building on 256 George Town Road, Rocherlea. The proposed building will be in place of the previously approved Building 3 (not yet constructed), via Planning Permit DA0302/2015 issued on 23 October 2015 by the City of Launceston. The proposed building constitutes a change to the approved permit that cannot be facilitated via a minor amendment under section 56 of the *Land Use Planning and Approvals Act 1993.*

Recycal operates a metal recycling facility, which it is authorised to do under Planning Permit DA0302/2015 issued by the City of Launceston (Appendix B). The existing site contains a number of buildings, metal processing equipment (including a 60 tonne shearer baling press, shredders), on site car parking facilities, and associated infrastructure (see Figure 1 . The site accepts all types of metals (including vehicles / roofing iron / washing machines / hot-water cylinders / I-beams, etc.). If the vehicles are not drained of hazardous and/or flammable fluids, they are rejected. The current site operation processes a range of ferrous and non-ferrous metals via shearing, cutting, shredding, baling into value added end products for recycling. The shredder allows Recycal to recover steel (ferrous metals) from non-magnetic materials.

The metals recycling process undertaken at the site includes the following steps:

• Materials are physically inspected and non-compliant components are rejected or removed before being transported to the Pre-shedder;

• Materials are then broken up by the Pre-shredder and t Shredder machines;

• Ferrous and non-magnetic materials are then separated during the shredding process by the use of a large magnet;

• Ferrous metals are stored on-site ready for sale.

• Mixed non-ferrous metals (Floc) are stored on-site in the Building 2 for further separation and made ready for sale.

Figure 2 provides an overview of the metal recycling process and highlights that the majority of the existing processes remain the same, and that the only element proposed to change is the further onsite refining of non-ferrous materials, which were previously exported overseas as mixed materials.

Building 3 was always intended to house new technology for the sorting and separation of non-ferrous metals and plastics. Such separated materials have a higher value and can be exported directly and have a greater density for transportation. The current proposal for a larger Building 3 will provide the necessary space for the computerised sorting conveyors (Appendix C) that will process non-ferrous materials (via magnets, visual recognition etc.) to produce a greater range of separated metals.

Table 1 provides an overview of materials received, processed and stored on the site under the various scenarios. Therefore, until Recycal can build the larger building and install the sorting equipment, additional storage capacity for non-ferrous waste is being accommodated in the existing Building 2 on the site.

Once built and with all machinery operational, the site is able to increase its monthly processing volumes so as to reduce the current stock pile over time as shown in **Error! R eference source not found.**.

Table 1 Summary of Materials Received for processing & anticipated storage volumes (tonnes)

	Materials Received Approved via DA0302/2015	***Materials Received Limits via EPN***	***Current Actual Received (as at Dec 2020)***	***Increased Processing volumes (to clear stockpile prior to new equipment installation)***	***Ongoing normal operations (post new processing equipment installation)***
Monthly volume	5,000	6,000	3,000	5,000[3]	5,000
Annual Volume	60,000	72,000	36,000	48,000[4]	60,000
Storage volume	"maximum height of stored materials/items where they can be seen from any public road or place is 4.0m"	30,000	30,000	30,000	30,000

It is noted that as part of the transition, until Building 3 is constructed and the additional non-ferrous sorting machinery is commissioned, the volumes of materials to be received for processing should be maintained at around the EPN levels of 6000 tonnes per month and around 72,000 tonnes per annum. Once fully operation and commissioned the previously approved volumes of 5000 tonnes per month and 60,000 tonnes per annum for materials received, with an onsite storage allowance of 30,000 tonnes will provide the required operational capacity.

[3] This figure reflects the volume of material to be recycled in the 'main yard', to make inroads into the temporary stockpile; it does not include the materials processed in the 'lower yard' namely the pre-sorted smaller items shown in Figure 1.
[4] As above. It is noted that the expert reports (Stormwater Management Plan and Fire Management Plan) appear to have only considered the 'main yard' metal volumes. The discrepancy is not considered to materially alter the conclusions of these expert reports.

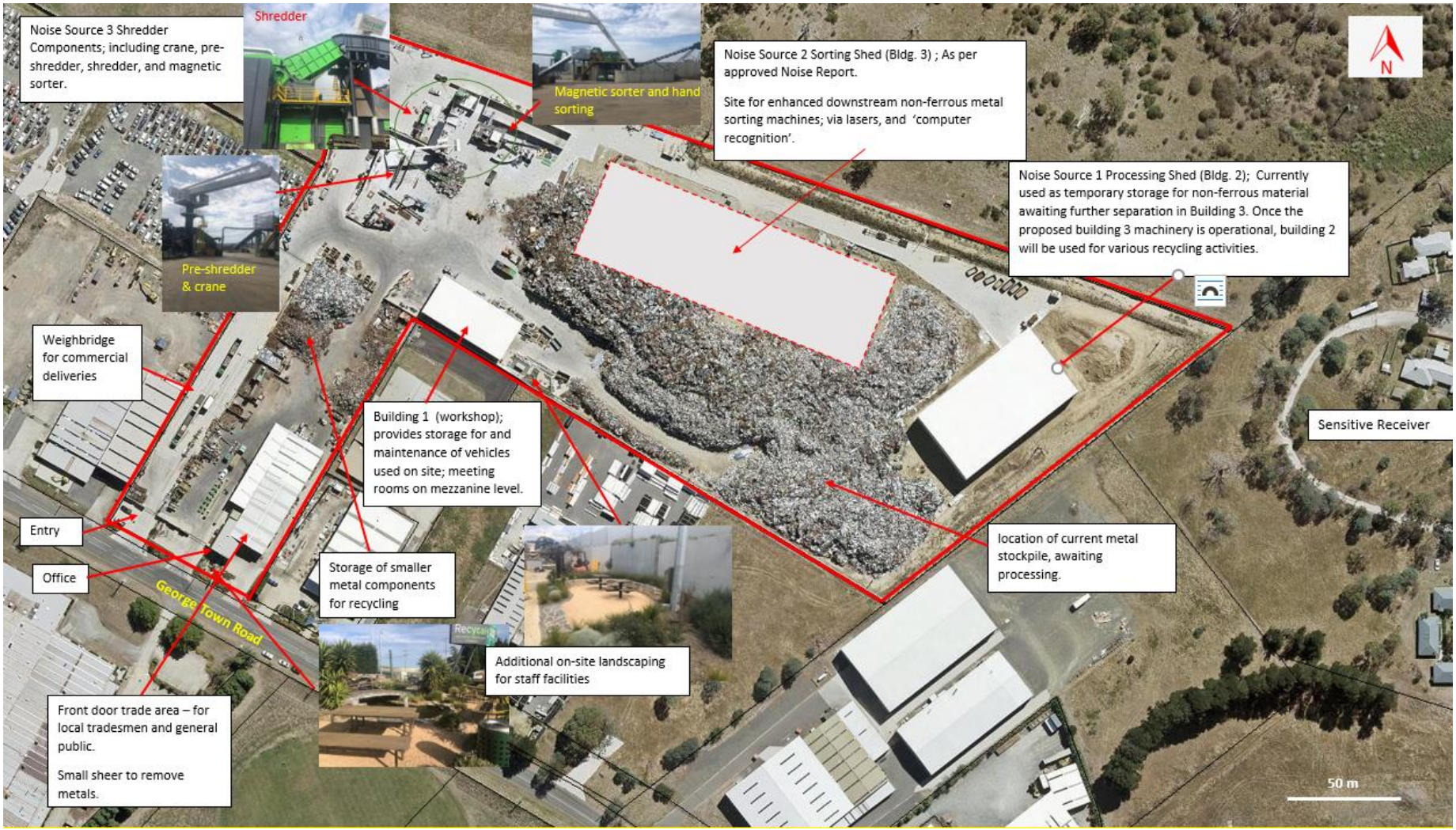


Figure 1 Aerial image of 256 George Town Road, showing approved development, machinery, and operational activities in various areas of the site.

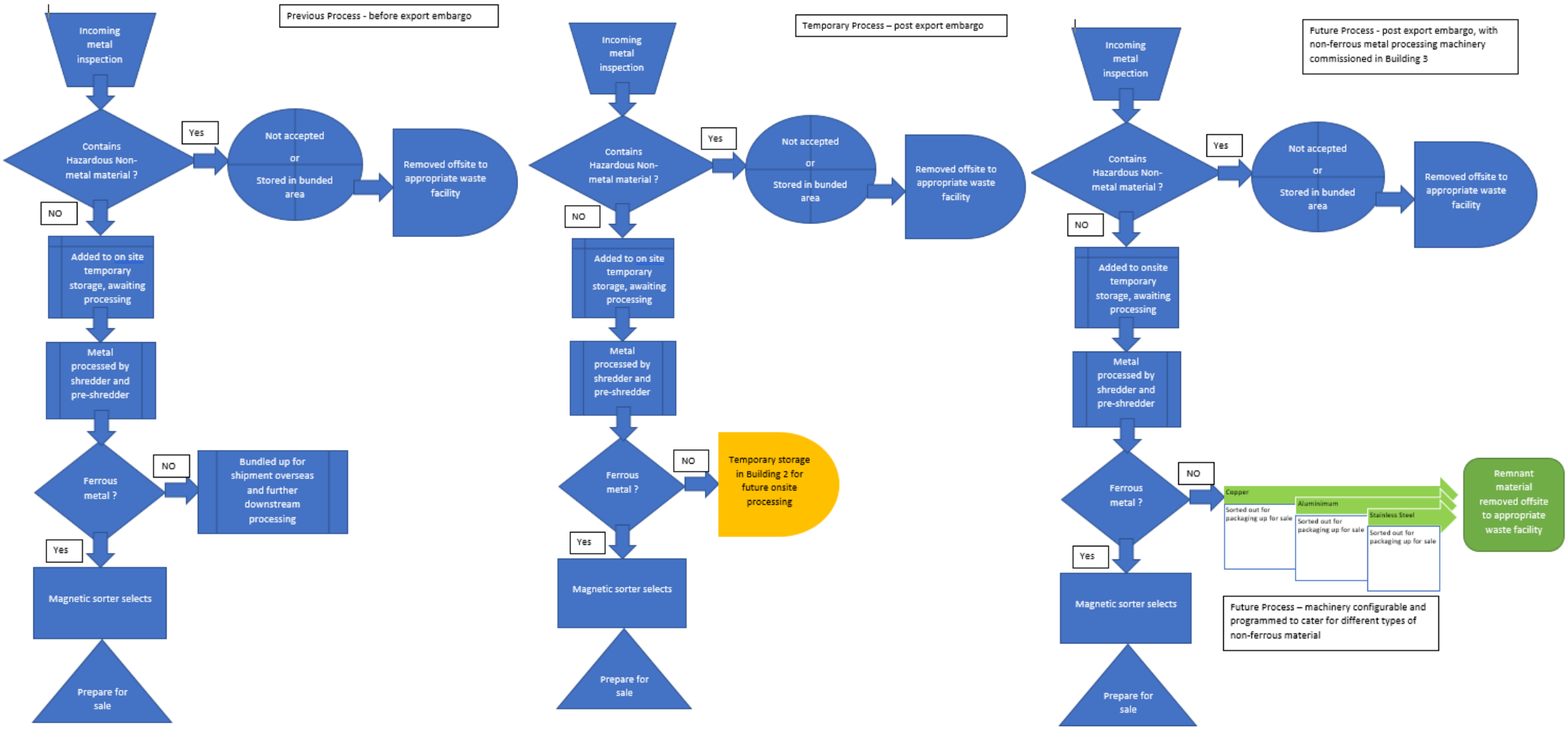


Figure 2 Flow chart of metal recycling process pre and post export embargo, and proposed

Materials to be processed on site, are purchased via established commercial contracts, so that inflows of materials are able to be managed through contract management practices and established client relationships. The site provides some opportunities for smaller business/commercial operators to drop off materials, but this comprises such a small volume of the overall business that it is readily accommodated.

Recycal has service and maintenance contracts with equipment manufacturers, which in combination with the weigh bridge enable the business to track materials received, to ensure that metal recycling activities and volumes operate within approved limits.

The temporary increase in the stockpile is partly due to the limited on-site downstream non-ferrous metal processing capability, which the current application seeks to overcome.

The proposed development is for:

- A new processing shed 40 m wide x 140 m long x 14.5 m high;
- Associated earthworks (i.e. building foundations); and
- Connection into the existing on-site stormwater drains and inceptor system.

Historic planning permit approvals since Recycal commenced operating at the site are summarised in Table 2 below. The on-site recycling activities make use of rubber wheeled loaders and forklifts to move material around on site.

Table 2 - Summary of Planning Permits existing for the site

Date	***Permit Reference***	***Description of Approval***
3 Feb 2017	DA0576/2016	2.4m Security Fence, 2.4m high, 6m long precast concrete panels, along rear, south-eastern and south-western boundary – total length 657m
9 Dec 2016	DA0302/2015.A1	s56 Minor Amendment increase the height for Building 1 (8,5m) and length of Building 3 (120m).
23 Oct 2015	DA0302/2015	Expansion of recycling facility, including construction of buildings and associated infrastructure (ramp, Buildings 1, 2 & 3, and 4 new on-site parking spaces).
10 Apr 2015	DA0042/2015	Recycling and waste disposal – construction of a structure and works; construction of a retaining wall, earth mound and earthwork (retrospective)
09 Apr 2014	DA100/2014	Recycling and waste disposal – recycling depot; provide additional car parking, and replace fence, signage

An Environment Protection Notice No. 10216/1 was issued on 30 July 2019 and is included in Appendix C.

As outlined in the approved Environmental Management Plan (EMP) (dated 4 September 2015) and included in Appendix E, the EMP and associated procedures have been developed from:

- EMPC Act;
- *Occupational Health and Safety Act 2000* and *Regulations 2001*;
- ISO 14001 - 2004-11-15: Environmental management systems - Requirements with guidance for use;
- ISO 14001 - 2004-11-15: Environmental management systems – General guidelines on principles, systems and support techniques;
- AS/NZS ISO 19011:2003 Australian/New Zealand Standard Guidelines for quality and/or environmental management systems auditing.

The construction of the larger Building 3 (Sorting Shed) is targeted to commence in the first half of 2021, so that installation of equipment can commence in mid 2022 with commissioning in late 2022.

The proposed updated sorting machinery is expected to handle around 10 to 14 tonne per hour and will operate in parallel to the other metal processing equipment. The updated sorting machine is anticipated to operate for 30 years. Appendix C provides indicative information on the type of equipment to be installed in the enlarged Building 3.

The proposal retains approved operating hours for the site, which are:

7 am to 5 pm – Mon to Fri

7 am to 2 pm – Saturday

Closed Sunday and Public Holidays.

It is noted that some trucks may leave from/arrive at the site outside of these hours, but such occurrences are ad hoc events, and do not impact on the operation of the metal or other recycling machinery, or the unloading of metal from the trucks, all of which normally occurs within the approved operating hours.

If required, arrangements can be made to limit such ad hoc vehicle movements to a "certain number of events per annum". However, such ad hoc truck movements are not considered to warrant a change to the approved operating hours of the site.

It is further noted that the site does not receive general wastes. The site receives purchased mixed metal suitable for recycling.

The site does not handle hazardous materials. Customers are clearly advised that the site does not accept hazardous items such as Gas Bottles, Asbestos, Radio Active materials, explosives, poisons and hazardous materials, flammable liquids, corrosive liquids, chemicals, oils, fuel and so on, see Figure 3.

However, experience has shown that on occasion, 'stray' hazardous materials may be delivered to the site, such as residual oil in engines of cars or for example paint tins in boots of cars etc. The approved EMP for the site (refer Appendix D) provides details on pages 12 to 18 on management procedures for any hazardous materials that may be found on site, be it for operational purposes or the unintentional, or intentional inclusion in deliveries.

Such procedures include for example, training of staff to recognise hazardous materials, provision of dedicated storage areas to contain such materials until such time as the can be disposed of from the site to appropriate waste facilities, and spill kits to mitigate any spillages that may occur on site.

Figure 3 - Signage at 256 George Town Road, typical of advice signs at Recycal's facilities

The metal processing undertaken at the subject site is a simple operation, taking mixed ferrous and non-ferrous metals etc. and separating them into their many and varied grades The shredding, shearing, briquetting, granulating, and baling of recyclable products allows for a pure product, with a better range of markets to sell into, easier and cheaper freighting of these products to mainland or export markets, where they will undergo conversion into various end products.

The proposed Building 3 will be the location for the downstream nonferrous recovery equipment, specifically designed to optimize the recovery of different nonferrous metallics to further reduce the amount of waste going to landfill in Tasmania and supports the waste hierarchy.

The proposed shed will be integral to ensuring the site remains a state of the art metal recycling facility, accepting material from throughout Tasmania. The proposed development is consistent with the approved use of the site for 'Recycling and Waste Disposal'.

2. Map and site plan

The site is defined by title 155461/1 located on land zoned General Industrial and partially within the Bushfire Prone Area overlay (see Figure 4). The site is known as 256 George Town Road, Rocherlea , with a site area of approximately 5.8 ha and a 70 m frontage onto George Town Road. Existing access onto George Town Road is provided via two Crown Land parcels (Acquired Road identified as CT 32241/1 and CT 32241/2).

Figure 4 Site plan showing the Bushfire Hazard Overlay and frontage onto George Town Road

Operational activities will operate in accordance with the specified emissions targets as per the approved Noise Report (dated July 2015) in Appendix E.

Details of the site stormwater drainage plan including the location of bunds, aprons, sumps, oil interceptor pits, sediment traps and any other key system components are provided in Appendix F.

Details of the site fire management plan are included in Appendix G.

3. Proposal location

The land is zoned General Industrial and the site is surrounded by industrial land to the north west, south and south east. Land further to the north is zoned Rural Resource, with land south of George Town Road being a mix of General Industrial and Community Purpose (refer Figure 5).

The community purpose land to the south is occupied by Brooks High School; while the land to the east of the site is occupied by Department of Health (mental health facility). The latter abuts the site along the south east boundary and is located between the subject site and land zoned Recreation approximately 200 m further to the north east. The nearest land zoned General Residential is approximately 450 m to the south of the proposed Building 3 location on the site.

The entire area is well serviced by road corridors within the Utilities Zone (yellow areas in Figure 5). Vehicles travelling to and from the site primarily travel on highways and major distributor roads. To access the subject site trucks generally travel along the East Tamar

Highway and then turn into George Town Road, similarly when leaving the site George Town Road provides the connectivity into the State's highway network.

The land slopes gently from the 99 m elevation in the south eastern corner down to an elevation of 87 m in the north west corner of the site. A drop of 12 m over a distance of approximately 338 m or a slope of approximately 2 degrees.

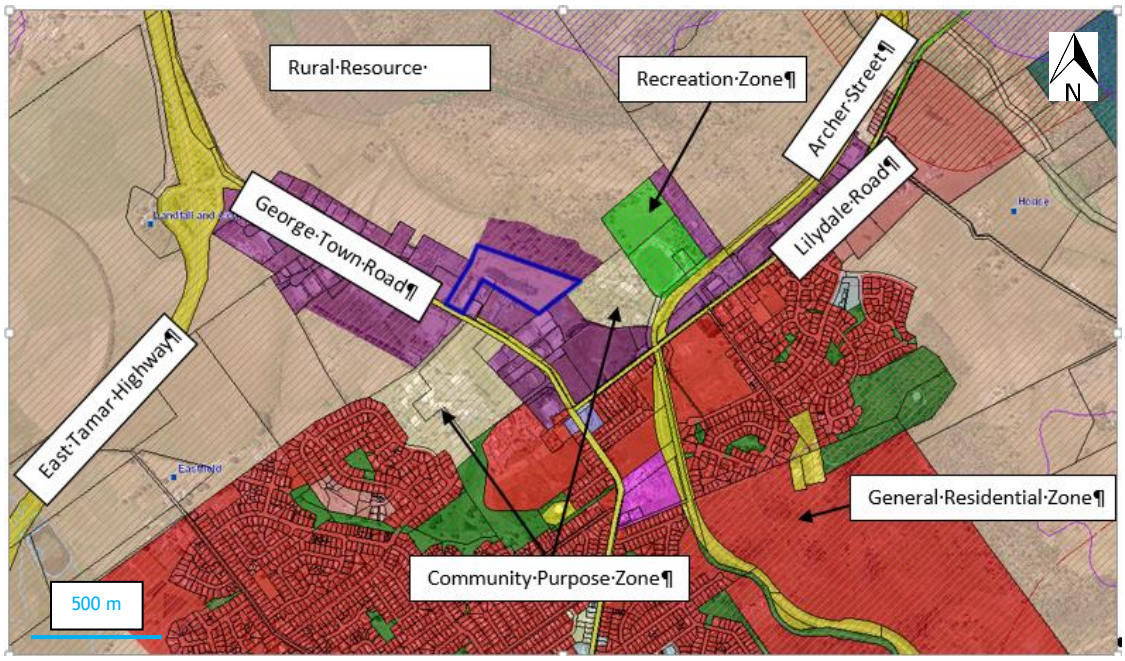


Figure 5 Existing land zoning context of the proposed development site (outlined in blue) (Source LISTmap)

The climate is temperate, with average summer temperatures between 20 and 25 degrees Celsius (see Figure 6)
Figure 6.

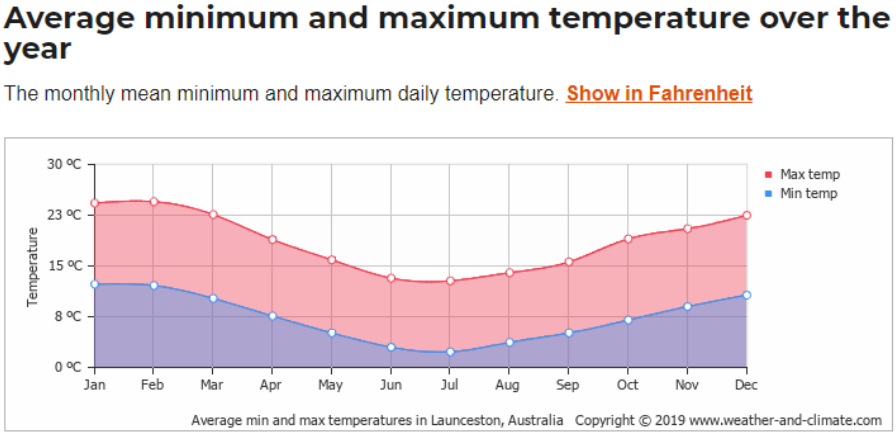


Figure 6 Launceston Annual temperature variations (source https://weather-and-climate.com/average-monthly-Rainfall-Temperature-Sunshine,george-town-tasmania-au,Australia)

The wettest months tend to be July and August Figure 7.

Prevailing winds and impact on surrounding users has been extensively covered in the Noise Report approved as part of Planning Permit DA0302/15, refer Appendix E.

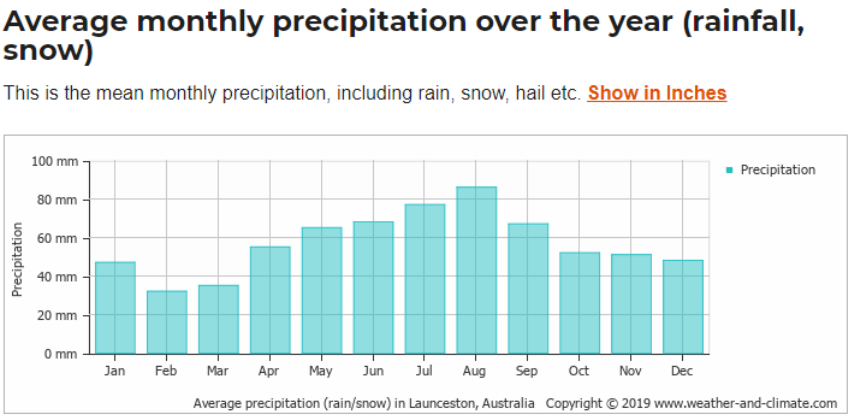


Figure 7 Launceston average annual rainfall variations (source https://weather-and-climate.com/average-monthly-Rainfall-Temperature-Sunshine,george-town-tasmania-au,Australia)

The Stormwater Management Report, prepared by Accent Environmental in April 2020 (from here on referred to as the SMP), provides details of the existing on-site stormwater infrastructure in Figure 3 on p 17 (refer Appendix F), and demonstrates that stormwater infrastructure required to service Building 3 exists, and that the site will be able to accommodate the anticipated stormwater.

Based on the aerial LISTmap image, the stormwater discharge is generally located in an area defined by a trapezoid as follows:

GDA94 MGA55

510242E	5419823N	1:425
510252E	5419823N	1:425
510249E	5419809N	1:425
510245E	541911N	1:425

The subject site is owned by Doubt Free Investments Pty Ltd and title information is provided in Appendix I.

4. Rationale and alternatives

The proposed larger Building 3 will provide the capacity to accommodate the necessary equipment required to automatically sort the non-ferrous materials produced by the magnetic sorter (previously approved via planning permit DA0302/2015 – Noise Source 3). Hence, the equipment(previously approved via planning permit DA0302/2015 – Noise

Source 2) needs to be widened and lengthened with some further new technology for better sorting. In addition, the sorting machine's computer is being programmed to recognise and sort a broader variety of materials. Some material will need to be batched and re-run through the machine, and this material will need to be stored in bins and manoeuvred into place by a fork lift. These process and equipment changes are the reason for the current application (DA 0538/2019) to increase the size of the previously approved Building 3. Appendix C provides a diagrammatic overview of the types of machinery to be housed in Building 3.

The previous approvals allowed for around 5,000 tonnes of materials to be received for processing per month. The site is currently receiving around 3,000 tonnes of new materials per month; by operating at full capacity, the opportunity exists to make inroads into the current temporary stockpile, by allocating around 2,000 tonnes of the total monthly processing volume to the task of 'stockpile reduction'. At the proposed rate of processing, and assuming the current inflow of materials remains stable, the stockpile will be removed within 12 to 18 months, post equipment commissioning. To achieve this projected reduction, it is imperative that a larger Building 3 is constructed, so that the equipment required can be ordered, shipped, and installed.

For Tasmania, the proposal represents a $12.5 Million investment in innovative state of the art technology and the capacity to enhance recycling facilities in the state. The only alternative is to ship the material to mainland Australia for on-processing there. The latter would increase the carbon footprint for metal recycling operations as a whole and once again make Tasmania less self-sufficient and represent a backward step in promoting recycling.

5. Planning information

A planning permit application has been lodged with Launceston City Council, refer Appendix H to this EER.

The use class has been assessed as Recycling and waste disposal. In the General Industrial Zone, the use is a Permitted Use as per Table 25.2 Use Table.

The existing use at the site can be classified as a Disposal Site (transfer station – except very large stations) as per Table E11.1.

The proposed Building 3 does not change the existing use at the site and does not alter the existing attenuation distance of 150m that applies to the site. The potential impacts from the proposal include noise and visual impact.

The nearest sensitive receivers within the attenuation distance are the occupants of the mental health facility at 3 Archer Street, Rocherlea (CT 154546/1).

It is anticipated that the proposed machinery to be located in Building 3 will operate in accordance with the specified emissions targets as per the approved Noise Report (dated July 2015) in Appendix E. Furthermore, as the machinery is to be housed inside the proposed Building 3, it is considered that the building itself will provide additional screening between the sensitive receivers and existing and proposed operations at the site.

6. Existing activity

The proposed development is associated with an existing activity. As shown in Table 2 the site has been progressively developed to provide for the operational requirements of the metal recycling facility; see also

Figure 2.

Appendix B shows that Planning Permit DA0302/2015 provided approval for the use and the construction of Building 3, albeit a smaller version.

Figure 1 provides an overview of structures and operational uses on the site.

The site is currently subject to an Environmental Protection Notice No. 10216/1 issued in July 2019 (refer Appendix I).

The existing operations at the site are managed in accordance with the approved Environmental Management Plan (Appendix D) and Noise Report (Appendix E).

The SMP (Appendix F) provides details of the current stormwater management on site, including operational practices and infrastructure (Figure 3 p9, and pages 12 to 15 of the SMP).

The operations on site are not in contravention of environmental law.

3. Part C – Potential environmental impacts

The following details are provided to enable an assessment of potential environmental impacts, from the proposed larger Building 3 and the operational processes to be undertaken within Building 3.

3.1 Air Quality

Recycal visited 20 sites utilizing the type of sorting equipment proposed for installation in Building 3. Of these, only one site made use of dust extraction mechanisms. Recycal has been advised by the equipment manufacturer that such mechanisms are not required, and accordingly the proposal does not include them.

The proposed activity (i.e. material sorting to be undertaken in Building 3) is considered unlikely to result in the emission of pollutants such as dust and odours to air. Any dust generated from the material sorting process will be contained within Building 3.

Hence, there are no anticipated impacts that will need to be managed, however Recycal will monitor the situation and reassess as required.

Any impact on air quality during the construction of Building 3 would be managed via normal building practices.

The proposal for Building 3 is considered consistent with the Tasmanian Environment Protection Policy (Air Quality) 2004.

The proposed larger Building 3 is not anticipated to impact on Air Quality.

3.2 Water quality (Surface, Discharge and Groundwater)

The SMP in Appendix F provides the volume and quality of stormwater likely to be discharged from the site and assesses the receiving environment and potential impacts on it. The SMP also assesses the current stormwater impact mitigation measures (including existing infrastructure and processes) and where appropriate commits Recycal to implementing improvements to existing measures and employing additional measures.

The SMP notes that Recycal *"already has comprehensive processes, infrastructure and equipment in place to minimise the potential for environmental harm and/or nuisance associated with stormwater discharge. Processes in place include the inspection of vehicles prior to being accepted on site, and the appropriate handling storage and disposal of any potentially hazardous materials such as fuels, oils and batteries. Infrastructure and equipment in place includes a captive stormwater drainage system and the use of oil-water separators, stormwater entry pits, triple-interceptor-traps, a bunded chemical storage, spill kits and a Humeceptor"* (p v).

The SMP provides recommendations for improvements to existing measures, predominantly focussed on *"formalising site procedures, training site personnel and documenting the outcomes of inspection and monitoring"* (p v).

It is considered that the incremental increase to the impervious surface area on the site, resulting from the proposed larger Building 3, is capable of being accommodated in the existing stormwater infrastructure on the site. Stormwater from the larger Building 3 will be delivered to the Humeceptor STC9 located in the northern corner of the site.

The following assessment as to the impact of the proposed development was undertaken by Geoff Brayford (Senior Civil Engineer -JMG).

…"*the functionality of the Humes interceptor relies on removing contaminants from small flows. Major flows must bypass the cleansing system. This approach is based on research that indicates that up to 90% of contaminates are exported in storm events of 1 year ARI or smaller.*

On this basis the change in roof area will not increase but decrease contaminants (as the roof is not contaminated). Direct runoff from roofs and sealed areas will be delivered quickly to the interceptor and will be processed during low storm events.

Non direct areas that many include leachates form storage piles (if any) will be delivered much more slowly and will likely be fully processed.

We do note however that the original design considered a catchment area of some 3.9 Ha at 90%. This is less than the whole site (the rear lot comprises some 4.5 Ha) but is sufficiently representative of the operation area of the rear lot.

No change to this interceptor is considered necessary for the proposed changes in impervious area of an extended roof".

The material sorting process to be undertaken in Building 3 (see Appendix C) is a dry process, hence there is no discharge from the sorting processes to be undertaken in Building 3 that require discharge to the sewer. The proposed larger Building 3 will not have any impact on groundwater.

Accordingly it is considered that the proposed larger Building 3, is able to be accommodated by the existing on-site stormwater management infrastructure (refer Figure 3 p9 of SMP). The SMP recommended procedural changes (p v) and conclusion (p vi – reproduced below) relate to the overall site management, rather than any specific requirement due to the proposed larger Building 3.

"The on-site controls are currently providing strong protection of human health guideline values for primary contact at the outflow point. The controls also provide good protection of ecosystems at the outflow point, although there is some potential for minor impacts on aquatic ecosystems along the ephemeral creek prior to reaching Archers Dam.

As the catchment of the Recycal site is a small fraction (estimated to be 0.078%) of the catchment of Archers Dam, the impact of discharge from the HumeCeptor on water quality within the dam, even if little dilution or attenuation occurs in the ephemeral creek, is likely to be insignificant. If compliance can be achieved (as expected) with the proposed stormwater discharge compliance values, then it is expected that the ecosystems in Archers Dam along with any potential primary human contact will be strongly protected from the risk of harm associated with stormwater release from the Recycal site."

3.3 Combustion Risk Management

The material stockpile on site at present is an exception to the normal operating practices for the site. The proposed larger Building 3 is a direct response to reduce this abnormal operational situation.

Recycal is not in the business of stockpiling materials and the objective is to process materials as quickly as possible and on sell the recovered metal and other materials. Based on advice from Mr. Gabriel Barnes (author of the FMP), it is noted that operations within sheds, including the proposed Building 3, generate some dust so that smoke detectors are inappropriate devices for such sites.

Therefore, the key strategy to reduce the current temporary stockpile and maintain it at normal operating levels is to erect the larger Building 3 to house the non-ferrous sorting equipment as quickly as possible. Presently, materials waiting to be processed (generally referred to as Floc) are stored in Building 2, to ensure spatial separated from the designated 'hot works' area on the site (refer Site Diagram in Appendix 1 of the FMP).

The Fire Management Plan prepared by Metrics Groups Building Surveyors, dated June 2020 (from here on referred to as the FMP) is included in Appendix G. This plan provides details of the existing operational practices and infrastructure at the site to minimise fire and respond to potential fire instances, including:

- Physical management of potentially combustible materials, including volumes stored on site, location and physical separation of materials;
- Site security measures, including 24/7 camera surveillance;
- Residual current devices installed throughout the plant;
- Signage to identify risk areas for 'hot works' on the site;
- Training of staff, appointment of Fire Warden and Deputy Fire Warden;
- Fire fighting practices including evacuation procedures, quarantine area for burnt waste from small fire events, retention procedures;
- Fire Hydrants and Fire Hose Reels strategically placed around the site (see Appendix 1 in FMP);
- Fire Extinguishers and
- Proximity to the Rocherlea Fire Station at 226 George Town road; the station is manned 24 hours 365 days of the year; firefighting staff have the ability access the site. Furthermore, gates to the site can be operated remotely from anywhere in Australia to facilitate or prevent access.

In the event of a fire, emergency fire fighting discharge can be contained on site, there are solid steel blanks or blankets to place over the stormwater grates located around the site and the rear of the sloping site has a large retention area. The FMP recommend that contract trade waste pump trucks are to be on standby to pump fire fighting contaminated water as needed if volumes are likely to exceed detention limits (FMP p13).

Presently, to ensure spatial separation from the designated 'hot works' area on the site materials waiting to be processed (generally referred to as Floc) are stored in Building 2 (see Figure 1). The FMP does not identify the need for any additional fire fighting provisions as a result of the proposed larger Building 3.

Tasmanian Fire Service personnel (David Casteller, Michael Watkins, Neil McEachen) have visited the site and have not raised any major concerns with Recycal.

Accordingly, the proposal is considered to be in alignment with the FMP for the site.

3.4 Noise emissions

A noise report was approved as part of Planning Permit DA0302/2015 and is contained in Appendix E of this report. Figure 1 shows the location of the noise generating equipment approved by previous planning permits. The site has been operating within the parameters of this noise report and no evidence has been provided to the contrary by any third party.

The proposed operational changes are also considered able to comply with these approved parameters and the hours of operation will remain unchanged as previously detailed in this report. Once built, Building 3 will decrease the noise emissions from the site. The equipment to be housed in proposed Building 3 includes a walking floor, vibrating sizing conveyors, chain of conveyors with various separating technologies such as Xray, sensor, size, colour, libs, etc. (Appendix C).

The technology to be employed in the proposed non-ferrous extraction processes is continually changing and the machinery will be adapted and modified to meet the local operations. Recycal undertook extensive research, including visiting 20 recycling sites/plants around the world. Eight of these sites undertook the sorting operations within buildings and there was no negative impact on staff operating within the buildings.
The proposed sorting and separating machinery is not high impact and intrinsically less noisy. It is anticipated that activities within Building 3 will conform with OH&S requirements and target emissions (previously approved Noise Report 2015) as detailed below:

The daytime background noise has been calculated at 42.9 dBA (refer Appendix E) which is considered *"reflective of the industrial interface" typical of the surrounding businesses on George Town Road. The Noise report states " the allowable source noise limit of 52.9 dBA at the nearest receiver accommodation unit is considered reasonable for daytime noise exposure. A daytime noise source of 10dBA above the background should not create a nuisance for daytime activity. This limit of 52.9 [dBA] is well below the recommended level of 65 to 70 dBA for an existing urban/industrial interface as recommended by the NSW Industrial Noise Policy. The limit at the received of 52.9 [dBA] is also lower than the Tasmanian Indicator Levels for an outdoor living area of 55dBA. The limit of 52.9dBA given all these factors is considered appropriate and reasonable."* (p7)

The proposed Building 3 will fully enclose the non-ferrous metal sorting operations. Wall material will be a combination of precast concrete panels and metal sheeting as shown in the Proposal plans (Appendix A). In addition, building 3 will act as a further buffer to noise emissions from the existing machinery in the north west corner of the site.

Accordingly, noise from the sorting machinery will not create exceedances for sensitive receivers beyond the site, however given the adapting process continued monitoring of noise impacts can be undertaken whilst the proposed machinery is operational.

3.5 Solid wastes

The proposal for the larger Building 3 in and of itself will not produce solid wastes. The larger building is required to enable the previously "on-shipped"[5] materials to be further sorted on site prior to being transported off site for further smelting, refining by others.

[5] Exportation of this material, referred to as Floc (EPA), is now banned.

Any residual materials remaining after this process (i.e. dust and other non-metal materials) will then be collected and disposed of at the appropriate waste facilities, including land fill.

The other waste materials produced on site relate to the normal operations of the office and these are also disposed of via waste collection services or landfill.

The proposed additional processing stages do not materially change the EMP or the philosophy of how the site will operate.

3.6 Environmentally Hazardous substances

As previously outlined in this report, the approved EMP (refer Appendix D) includes details of site procedures including:

- there are a number of spill kits (specifically 6 as detailed in the SMP – Appendix F) on site to deal with and respond to accidental spillage or escape of hazardous substances;
- the site is a metal recycling facility and does not accept controlled waste; and
- incidental controlled waste may be present in metal waste delivered to the site. For example, on checking the metal deliveries, operational staff have at times found batteries and small amounts of residual diesel and oil in very small quantities, as well as an old paint tin here or there in car boots etc. In addition to these small volumes, the on-site operation involves use of hydraulic oil, touch up paints for the bins, ad blue, LPG and Oxy.

Hazardous chemicals and fuels present on the site relate to those used by site plant and operating vehicles and are stored in bunded areas within the workshop (Building 1). Chemicals and fuels drained during the routine maintenance and servicing of site plant and operating vehicles is stored in intermediate bulk containers at the site before being taken back by the supplier or disposed off site by a licenced waste disposal contractor (SMP p17 – Appendix H).

The proposed larger Building 3 does not alter the operational processes with regards to management of environmentally hazardous substances.

3.7 Natural values

Not Applicable.

3.8 Marine areas and Coastal zone

Not Applicable.

3.9 Weeds, Pests and Pathogens

Not Applicable.

3.10 Greenhouse Gas Emissions and Climate Change Management

The proposal for a larger Building 3 to house the sorting machine will be integrated into the site's energy environment. Existing operations employ the following energy saving devises/mechanism:

- flicker control;
- surge protection arrestors; and
- balancing technologies on our switchboards with a new energy efficient transformer.

An electric crane has been installed at the site, and a project to install approximately 1000m^2 of solar panels has recently been completed, as shown in Figure 4, to further improve the site's energy credentials.

The increased sorting functionality to be provided by the improved sorting technology will ensure that a greater variety of materials can be sorted for recycling. Hence, reducing the volumes of waste going to land fill and thereby contributing to the reduction of greenhouse gases produced from land fill sites.

Vehicles currently used on site or used to transport materials to and from site, undergo regular maintenance regimes to ensure that they operate efficiently. The proposal makes no change to the current greenhouse gas emission from transport activities.

3.11 Site contamination (historical)

The site has been used as a recycling plant since at least 2005, as indicated by the historic permit information shown in Table 3 below.

Table 3 List of Planning Permit approvals at the site prior to Recycal commencing operations in 2014

Date	*Permit Reference*	*Description of Approval*
01 July 2008	DA0198/2008	Level 1 Activity – Recycling Plant – Construction of a fenced storage yard
24 April 2008	DA0137/2008	Construction of a building (extension to existing offices)
15 April 2005	DA0048/2005	Extension to Building & Change of use to Level 1 Activity – Recycling Plant
12 Sep 1991	DA.03.91.310	Extension to existing building and use as a General Industry
7 April 1989	DA.03.89.078	To be used for the purpose of Light Engineering Workshop (General Industry) and endorsed plans [the current office and main building on the site]

The SMP in Appendix F provides information on previous environmental assessments of the site, including a Contamination Site Assessment (Tier 1 – Screening Level) undertaken by Geoton Pty Ltd in November 2014. The SMP (p 20) summarises the Geoton findings as follows:

"…the potential uses of the site were not limited to commercial/industrial use, and the results were below the thresholds for Residential A, Residential B and Recreational C HILs and HSLs. Geoton states that there were no indications for any requirements for further testing or remediation actions required for the site"

The SMP goes on to state *"Accent observed nothing on site to contradict the Geoton findings"* (p20).

The land in the proposed location of the larger Building 3, is not contaminated as it was clean fill cut from other areas on the site.

The earthworks will only be to the extent required for the building foundations and any soil excavated will be used on the site. If the soil contains metal, it will be processed through the shredder and over the magnets before being repositioned on the site.

Eventually the entire site will be concreted, as per the original permit site plans, thereby avoiding future soil contamination or exposure to such.

No additional soil testing is proposed to be undertaken at this time.

Accordingly, it is considered that any earthworks (building foundations) associated with the proposed larger Building 3 can be undertaken without any specific measures required for the disposal of potentially contaminated soil.

3.12 Other off-site impacts

Not Applicable.

3.13 Environmental Impacts of Traffic

Not Applicable.

3.14 Monitoring

Recycal is operating as per the conditions of approved planning permits, including the regular sampling of stormwater. Recycal has implemented a stormwater plan for the site and since 2017 undertakes testing of the stormwater samples and provides written reports. Samples for testing are taken at the stormwater discharge point located in the north of the site.

The SMP provides details of the current water quality analysis and control measures in place (Appendix F pages 28 to 30) and concludes *"based on the assessment of stormwater management controls and the sampling results, it is considered that the on-site controls are providing strong protection of human health guideline values for primary contact at the outflow point. The controls also provide good protection of ecosystems at the outflow point, although there is some potential for minor impacts on aquatic ecosystems along the ephemeral creek prior to reaching Archers Dam".*

The SMP includes recommended improvement focusing on *"formalis[ing] the process in a documented procedure and ensur[ing] all appropriate training is implemented".*

The proposed larger Building 3 will not have any impact on the existing stormwater monitoring activities, or the SMP recommendations.

3.15 Decommissioning and Rehabilitation

The proposal does not involve the decommissioning of any machinery at the site.

Recycal has invested over $30 Million in the facility and intend to operate a state of the art metal recycling facility at the site for the next fifty years.

Should unanticipated circumstances arise beyond Recycal' s control, that would require the cessation of activities at the site, Recycal will undertake appropriate actions including, but not limited to:

- notification of the EPA Director;
- development of a Closure Plan outlining specific actions for a staged approach to site decommissioning and rehabilitation as required; and
- ongoing environmental practices until the site is fully closed and the remediation plan is implemented.

Notwithstanding the intent to operate the site for a further 50 years, the "decommissioning" activity would be very dependent on the proposed future uses of the site. Therefore, it is not possible to be specific at this time.

For example, if Recycal sought to cease operating the site, it is likely that another operator may be interested in taking it over. If that were the case, then nothing much is anticipated to change.

If a use other than metal recycling was proposed by the future owner/operator of the site, then likely steps would include:

- Selling the metals on site and removing them from the site;
- Any recycling materials not sold would be transferred to landfill;
- Temporary stores of oils etc. would be disposed of to appropriate waste transfer stations;
- As the site will be fully concreted, it is not considered that there would be any contamination to remediate;
- Any chattels (including vehicles, and potentially metal sorting machinery) would be offered for sale.
- Any fixtures and fittings, including buildings and the weighbridge would remain on site.

Given the EPA director will be notified in the event of the operations ceasing, it is considered the level of detailed sought would then be included in the Closure Plan.

4. Part D – Summary of proposed management measures

As previously described in this report; the proposal is for a larger Building 3 to house sorting machinery that will be capable of handling the non-ferrous material that was once on-shipped for processing off site. The proposed development is required to enable Recycal to reduce the temporary stockpile of recyclables on site, which has resulted from the changes to global commercial recycling arrangements.

As previously outlined the proposed development in and of itself requires no particular changes to existing onsite infrastructure or management practices.

The recommendations of the Stormwater Management Plan (Appendix F) and Fire Management Plan (Appendix G) will be incorporated into the Environmental Management Plan (Appendix D) for the site.

The proposed Building 3 will fully enclose the sorting operations. Construction material will be a combination of precast concrete panels and metal sheeting as shown in the proposal plans (Appendix A).

The proposal will result in further separation of metal material which was previously on-shipped from the site for further off site processing. The proposal is aligned with the site's existing operation as a metal recycling facility, any non-metal and non-recyclable materials produced as by-products will be disposed of to appropriate waste facilities, including landfill.

5. Part E – Public and stakeholder consultation

Consultation has taken place with the EPA, Launceston City Council and all neighbours who are well aware of what Recycal does, as most are its clients.

The proposal is a discretionary planning permit application; with the EPA call in of the proposal application, further public notification and engagement will occur as part of the statutory assessment process.

APPENDIX A

PROPOSAL PLANS

APPENDIX B

APPROVED PLANING PERMIT DA302/2015

APPENDIX C

INDICATIVE DIAGRAMS OF SORTING MACHINERY TO BE HOUSE IN BUILDING 3

APPENDIX D

APPROVED ENVIRONMENTAL MANAGEMENT SITE PLAN - APPROVED 2015

APPENDIX E

NOISE REPORT – APPROVED 2015

APPENDIX F

STORMWATER MANAGEMENT REPORT/PLAN 2020

APPENDIX G

FIRE MANAGEMENT REPORT/PLAN 2020

APPENDIX H

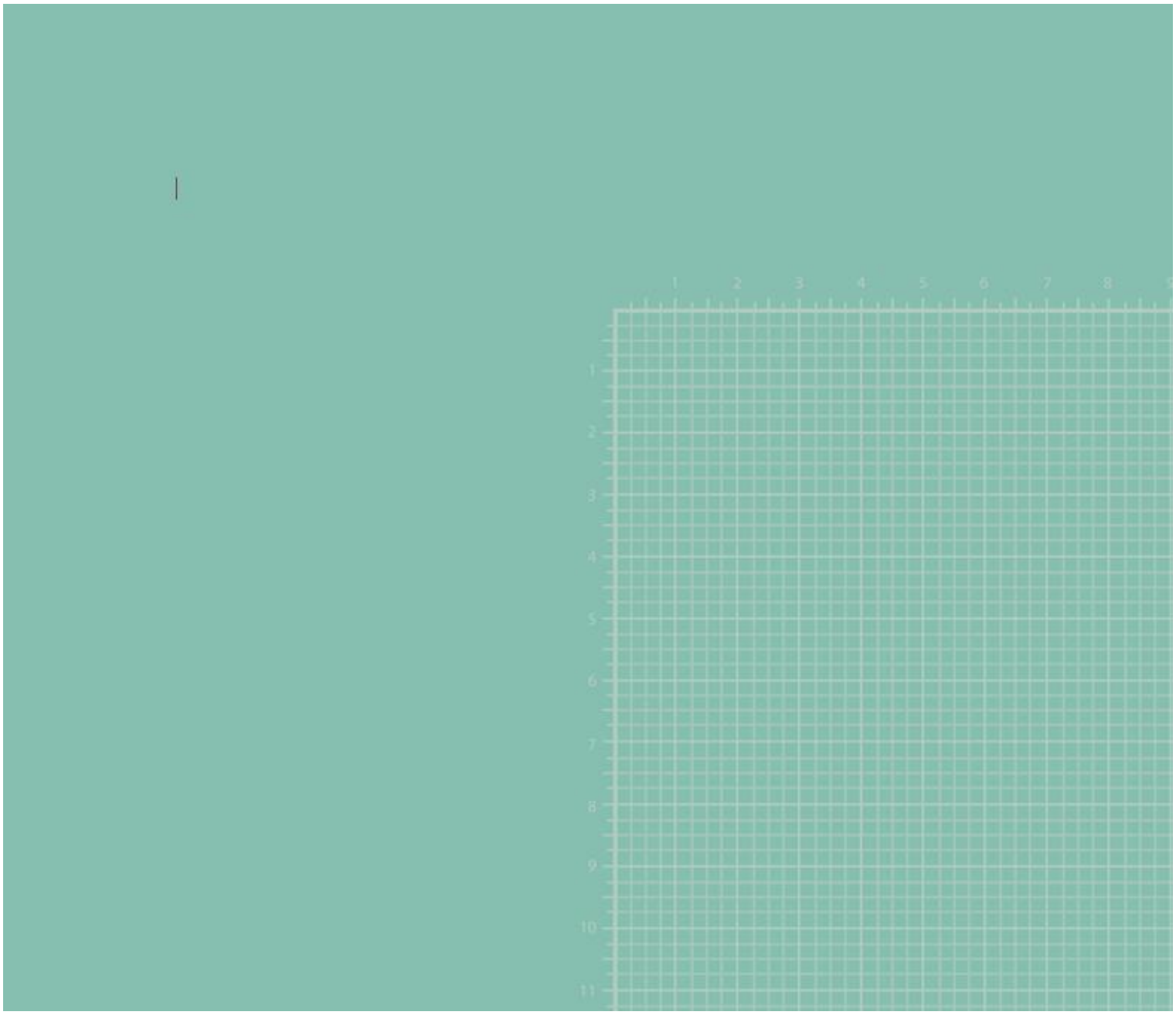
COPY OF CURRENT PLANNING PERMIT APPLICATION DA0538/2019 (Planning Report align with EER, Retrospective Approval with Appendices)

APPENDIX I

EPN No. 10216/1 ISSUED 30 JULY 2019

APPENDIX J

TITLE INFORMATION



Johnstone McGee & Gandy Pty Ltd

ABN 76 473 834 852 ACN 009 547 139

www.jmg.net.au

HOBART OFFICE
117 Harrington Street
Hobart TAS 7000
Phone (03) 6231 2555
infohbt@jmg.net.au

LAUNCESTON OFFICE
49-51 Elizabeth Street
Launceston TAS 7250
Phone (03) 6334 5548
infoltn@jmg.net.au

Engineers & Planners