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Environmental Impact Statement
Rutherford Tyre Recyclers
Tyre Recycling Facility
9 Burlington Place, Rutherford

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This Environmental Impact Statement has been prepared by the following staff of Jackson Environment and Planning Pty Ltd, Suite 102, Level 1, 25-29 Berry St, North Sydney NSW 2060.

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We declare that:
This Environmental Impact Statement contains all available information that is relevant to the environmental assessment of the development, activity or infrastructure to which the statement relates, and the information contained in this plan is neither false nor misleading.

The Environmental Impact Statement has been prepared to comply with the assessment requirements and meet the minimum form and content requirements of Clauses 190 and 192 of the *Environmental Planning and Assessment Regulation* 2021.

Report version	Authors	Date	Reviewer	Approved for issue	Date
DRAFT V1	V. Wilson	13/06/2024	Dr M. Jackson	Dr M. Jackson	14/06/2024
FINAL V2	V. Wilson	19/06/2024	Dr M. Jackson	Dr M. Jackson	19/06/2024

Executive Summary

This Environmental Impact Statement has been prepared for a proposed tyre recycling facility at 9 Burlington Place, Rutherford, NSW 2320 (Lot 3005 DP1040568). The tyre recycling facility will receive and process up to 4,500 tonnes of tyres per year and the operating hours are 5am to 6pm on weekdays, 8am to 1pm on Saturdays. The Site will remain closed on Sundays and Public Holidays (the Proposal).

The Proposal involves a change of use and minor amendments to the existing industrial shed on site. These building amendments will ensure that the industrial shed is suitable to house the tyre recycling facility and will include:

- Building works to enclose the open awning towards the rear of the Site, removing the dividing wall and installing two roller doors. These amendments will create a larger, fully enclosed industrial shed on Site;
- Change of use for the existing shed from storage to a tyre recycling facility;
- Installation of a waste tyre recycling production line;
- Installation of a rubber tiles production line;
- Installation of a 9m portable above ground weighbridge located near the Site entrance;
- Line marking of one loading bay and overnight parking for two heavy rigid vehicles (HRVs);
- Internal storage area to store delivered whole used tyres;
- Internal storage area to store recovered materials from tyre recycling and rubber mats/tiles produced on-site; and
- Additional fire protection measures, including installation of:
    - Fire extinguishers;
    - Three fire hydrants;
    - A windsock to assist Fire & Rescue NSW to determine the prevailing wind direction in the unlikely event of a fire;
    - Full firewater containment bunding around the Site;
    - Stormwater isolation valve (to contain firewater in the unlikely event of a fire);
    - Carbon dioxide alarms;
    - Storage areas 3m clear from roof; and
    - Manual call points in clearly visible locations. These small red boxes are linked to the fire alarm system to allow occupants to trigger the alarm manually in the event of a fire.

The Facility will accept used waste tyres from the Proponents other business, Rutherford Tyres & More, as well as from other local retailers in the region.

Purpose of this Environmental Impact Statement

This Environmental Impact Statement (EIS) has been prepared by Jackson Environment and Planning Pty Ltd on behalf of Rutherford Tyre Recyclers. It presents the findings of a comprehensive environmental evaluation which has been undertaken to establish the potential impacts associated with the proposed Tyre Recycling Facility.

The EIS study evaluates the social, environmental and economic impacts and benefits of the Proposal. The EIS defines the context of the Proposal, and examines those issues considered to be relevant. This EIS considers the potential environmental effects of the Proposal during construction and operation, and proposes mitigation measures to prevent, reduce or offset adverse impacts on the environment.

The aims of this EIS are to:

- Identify all constraints affecting future development on the subject site;
- Consider the economic, social and environmental impacts of the Proposal; and
- Assess the capability of the subject site to support the Proposal.

It is noted that the Proposal is located approximately 257m from a nearby residential dwelling, Oak Tree Retirement Village, and triggers Designated Development under Clause 45(4)(f) of Schedule 3 of the *Environmental Planning and Assessment Regulation* 2021. As a result, an EIS is required to support the Development Application.

An application for an Environment Protection Licence will be sought from the NSW EPA under Clause 42(3)(b), Schedule 1 of the *Protection of the Environment Operations Act* 1997 given the Site will store more than 5 tonnes of waste tyres on the premises at any time.

The industrial shed on site is currently approved to be used for storage. A change of use if proposed as part of the Proposal to be used as a tyre recycling facility.

This EIS report addresses the NSW Department of Planning and Environment's (DPE) Secretary's Environmental Assessment Requirements (SEAR 1810), issued on 29th of September 2023 by Mr Chris Ritchie, Director, Industry Assessments, DPE, as a delegate of the Secretary. Maitland City Council and TfNSW have noted additional environmental considerations as a part of the SEARs requirements.

Planning and approval pathway

Rutherford Tyre Recyclers also operate a tyre retailing and fitting business located at 14 Racecourse Road, Rutherford (Tyres and More). This facility operates Monday to Friday 8am to 5pm and Saturday 9am to 12pm. The business is closed on Sunday. Tyres & More will supply some of the used tyres for the tyre recycling facility, as well as other tyre retailers in the region.

The proposed tyre recycling facility is considered to be Designated Development under Schedule 3 of the *Environmental Planning and Assessment Regulation* 2021. The development Proposal requires an EIS to be submitted with the Development Application.

The Development Application will be assessed by the Maitland Local Council and determined by the Hunter and Central Coast Regional Planning Panel.

Overview of the existing approval and the Proposal

The existing site (the Site) covers an area of 1,655m^2 and has a 2.5m wide stormwater drainage easement running along the eastern boundary of the lot. The Site has one existing shed, an open awning, a concrete sealed hardstand and a small amount of landscaping located at the front and rear of the Site. The existing shed is ~638m^2, with a ~35 m^2 office attached, as well as two bathrooms, an office and a foyer. The existing development was approved in 2003 under DA03/1383. The current use of the industrial shed is for the storage of earth moving equipment/crane and general fabrication.

The development proposal will involve minor alterations to the existing shed building, and the fit out of the shed with advanced plant and equipment for the recycling of tyres and production of crumb rubber and rubber tiles. Alterations to the building will involve the enclosing of the awnings, removal of the dividing wall and installation of two roller doors to create a large fully enclosed industrial shed on site.

The shed will then be fit out with an advanced tyre recycling plant. This will include a Waste Tyre Recycling Line, a Rubber Tiles Production Line and two storage areas located within the shed. The storage areas are located towards the rear of the shed, with one used for storing whole tyres and the other for storing crumb rubber, residual material in bulka bags and rubber mats/tiles. Trucks will enter the Site via Burlington Place in a forward direction, with incoming whole tyres weighed on the above ground weighbridge. Trucks will proceed to the loading area where whole tyres will be unloaded and placed in the tyre storage area within the shed on-site. The truck will be backloaded with material processed on site, which could consist of crumb rubber, scrap metal and cotton, rubber tiles, rubber pavers and residual waste (in bulka bags). These materials are stored temporarily on-site in the designated Crumb Rubber Storage Area located at the rear of the shed. To exit the Site, the truck will proceed

further onto the site before turning and reversing back through the middle roller doors and into the shed. The truck will manoeuvre out of the shed, turning right to proceed towards the Site exit, be weighed on the above ground weighbridge to log outgoing material weight and then proceed to exit the Site in a forward direction onto Burlington Place.

The whole tyres will then be processed via the Waste Tyre Recycling Line on-site. The rubber crumb output will be stored in bulka bags and then sold as an input into asphalt production, where the addition of crumb rubber into asphalt mixes can substantially increase the life of road pavements. Alternative markets include the use of crumb rubber in children playground surfacing.

Some crumb rubber produced from the recycled tyres will be processed via the Rubber Tiles Production line to produce rubber tiles and rubber pavers. These will be sold to wholesalers, where they will be used as sustainable tiles in gymnasiums and various flooring applications. Excess crumb rubber will be stored in 1 tonne bulka bags in the crumb rubber storage area before being transported from Site and sold into market.

The site is located in an E4 General Industrial zone. The Site is in close proximity to the RE2 Private Recreational zone and is located at a distance of ~875m from the nearest R1 residential zone and is separated by a strip of RE1 Public Recreation zone and Racecourse Road. Racecourse Road merges into the New England Highway, a major arterial road connecting the Site via road infrastructure. Additionally, the Main Northern Railway Line towards the Southern end of the Site connects the Site via rail infrastructure. The RE2 Private Recreation zone to the south-east corner of the Site is developed as Oak Tree Retirement Village and is at a distance of approximately 257m. The nearest water courses are two intermittent tributaries of Stony Creek are located at a distance of ~220m and ~225m from the eastern boundary of the Site. Stony Creek flows west-east at a distance of ~720m to the South of the Site.

The proposed operating hours are 5am-6pm Monday – Friday, 8am-1pm on Saturday and closed on Sunday and public holidays.

The Proposal has been designed to comply with best practice requirements for tyre recycling facilities in accordance with Fire & Rescue NSW's *Fire Safety Guideline – Guideline for Bulk Storage of Rubber Tyres*[1]*:*

- Tyres will be stored in a marked and designated storage area not exceeding a floor area of 24m^2 and a maximum height of 3.5m with appropriate spacing from shed walls;
- Crumb rubber will be stored in a marked and designated storage area not exceeding a floor area of 24m^2 and a maximum height of 3.5m;
- Ensuring there is a hardstand surface for the full site to ensure all weather operations;
- Ensuring all operations of the tyre recycling facility and rubber tile/mat production occur indoors. No operational activity will occur outside over than loading and unloading of tyres and recovered material; and
- Additional fire protection measures, including:
  - Fire extinguishers;
  - Three fire hydrants;
  - A windsock to assist Fire & Rescue NSW to determine the prevailing wind direction in the unlikely event of a fire;
  - Carbon dioxide alarms;
  - Full firewater containment bunding around the site;
  - Stormwater isolation valve (to contain firewater in the unlikely event of a fire);
  - Storage areas 3m clear from roof; and

[1] Fire & Rescue NSW (2014). *Fire Safety Guideline – Guideline for Bulk Storage of Rubber Tyres.* Published December 2014. Internet publication: https://www.fire.nsw.gov.au/gallery/files/pdf/guidelines/rubber_tyres.pdf.

- Manual call points in clearly visible locations. These small red boxes are linked to the fire alarm system to allow occupants to trigger the alarm manually in the event of a fire.

Summary of environmental issues

Hazard and Risk

A preliminary hazard and risk screening assessment has been performed to identify key potential impacts of the Proposal, as well as potentially offensive or hazardous issues that need to be considered as part of the EIS process.

The preliminary hazard and risk screening assessment considered likely worst-case scenarios, including appropriate risk prevention, treatment and detection measures. The assessment found that with these measures implemented, all risks identified were moderate or low. The Proposal is not considered a potentially hazardous development as per the SEPP33 Guidelines.

Fuels and chemicals

The facility does not accept trackable liquid wastes or dangerous and hazardous goods. All non-acceptable materials received at the facility are immediately rejected and sent to appropriate licensed facilities for disposal.

A small range of fuels, oils and fluids will be stored on site for cleaning and minor maintenance purposes. Glue and pigment will also be stored on site to facilitate the production of rubber tiles and pavers. Major repairs and maintenance of the vehicles and trucks is carried out off-site. This practice reduces the need to store larger quantities of fuels and chemicals on-site.

To mitigate any impacts from incidental spills or causing pollution, storage of all chemicals and fuels will be stored in accordance with the Australian Dangerous Goods Code. The impact of the chemicals and fuels to be stored on site will be negligible when storage and handling protocols are strictly adhered as per the *Australian Dangerous Goods Code* and *SafeWork NSW's Code of Practice*. Furthermore, the Site will be fully bunded to ensure that any spills that do occur do not leave the site, and can be efficiently cleaned up.

Waste

A Waste Minimisation and Management Plan has been developed for the Proposal. The Waste Minimisation and Management Plan assessed how waste will be managed in the most environmentally sustainable manner in accordance with the *Waste Avoidance and Resource Recovery Act* 2001.

The development phase of the project involves very minor demolition of an existing industrial shed wall. It is anticipated that waste generated at this stage will be minimal. Construction waste is expected to be minimal as well. A detailed waste minimisation and management plan has been developed to avoid and minimise waste generation during the operational phase. The facility will have an estimated recovery rate of 98% of all incoming waste tyres (~ 4,411 tonnes of waste tyres per annum) when operating at full capacity. Recovered material and rubber tiles and mats produced on-site will be backloaded into the delivery truck and taken off-site to be sold. All residual waste will be sent to a licensed facility. Provisions for the recycling of waste from the office has also been made in the plan.

Air Quality and Odour Impacts

Air Quality and Odour Impact Assessment has been performed to evaluate the impacts of the Proposal on local air quality. The Site does not accept any putrescible wastes or odour generating wastes. The recycling of tyres was identified as possibly generating dust.

Site-specific meteorological data was generated using a prognostic model, The Air Pollution Model (TAPM), with these results used as inputs to AERMET – AERMOD's meteorological pre-processor. AERMET uses the TAPM data, along with land-use data, to calculate mixing heights and velocity scaling parameters.

The results showed that the predictions for $PM_{2.5}$, PM_{10} and dust during operations were all below the applicable criteria. As such, it is expected that the air quality impacts from the Proposal would be negligible and likely insignificant.

Noise and Vibration

The Noise and Vibration Impact Assessment has been performed to evaluate the impacts on the sensitive receptors from noise and vibration during the construction and operational phases of the development.

An ambient noise survey was undertaken as part of the noise and vibration impact assessment to characterize the existing acoustic environment. The impact assessment was split into three parts: the operational on-site noise, generated road traffic noise and construction noise and vibration.

The EPA's *Noise Policy for Industry* (2017) and SoundPlan noise modelling software were used to assess the operational on-site noise, with findings showing that the noise emissions will not exceed the trigger levels. The predictions also indicate that nighttime noise events will not exceed the EPA's *Noise Policy for Industry* (2017) maximum noise trigger levels.

To assess the noise and vibration impact from generated road traffic, the *NSW EPA Road Noise Policy* and daily traffic flows as outlined within the Traffic Impact Assessment of 12-13 vehicles per day were used. The assessment determined that traffic from the Proposal would be inaudible and so not adversely impact any residential receiver. Noise is compliant with the objectives of the *NSW EPA Road Noise Policy.*

Noise and vibration compliance during construction was assessed using the *NSW EPA Interim Construction Noise Guideline.* Additionally, vibration goals for the amenity of nearby land users were those recommended by the EPA document *Assessing Vibration: A technical guide*. The *German standard DIN 4150-3 - Vibrations In Buildings - Part 3: Effects On Structures* was also used in the assessment. The analysis indicated that no noise threshold will be exceeded at any of the sensitive receivers and that the construction impact of the industrial premises to the surrounding residential receivers will be minimal.

The Proposal is not expected to exceed noise limits or adversely impact any sensitive residential receiver.

Traffic and Transport

A Traffic Impact Assessment has been undertaken to evaluate the impacts of the development on the local road network. On site traffic and parking requirements have also been considered.

The overall Traffic Impact Assessment determined that the Proposal is estimated to generate four (4) daily trips by trucks each day, alongside 5 staff vehicles movements (in) per day, generating a total of 18 vehicle movement each day. As a result, the Proposal will have minimal impact on the local and regional road network and is well within the capacity of the road network.

The Site currently contains five parking spaces on site. There are four parallel parking spaces and a single 90 degree parking space. Given there will be a maximum of five (5) staff on site, the provision of five parking spaces on site is therefore considered appropriate for the change of use. This is compliant with the parking requirements outlined in the Maitland City Councils DCP '*Maitland DCP* 2011 - *Appendix A – Car Parking Requirements for Specific Land Uses*. The Proposal has also allowed for the overnight parking on site of two Heavy Rigid Vehicles (HRV's).

Biodiversity

A preliminary Biodiversity Impact Assessment has been conducted to assess the likelihood of the Proposal causing fauna and flora impacts on or off site. This is to fulfil the SEARs requirement to include a description of any potential vegetation clearing needed to undertake the Proposal and any impacts on flora and fauna.

The Proposal site has historically been cleared and contains no areas with biodiversity values of significance. No further vegetation or tree clearing is required as a part of the building alterations. The area of the Site to be concreted is currently gravel, so no removal of vegetation is required.

The assessment of the Site found that the areas of vegetation contain no areas of biodiversity values. Additionally, the Site is not mapped as having biodiversity value, with the closest area highlighted as containing biodiversity value located ~681m to the South of the Site.

Given the very limited amount of vegetation existing on the Site, the distance from the closest identified area of biodiversity value and operations occurring within a fully enclosed shed, no mitigation measures are required for this Proposal. As a consequence, no further assessments are required. The upgraded site will continue to comply with the current regulations and standards for biodiversity conservation.

Soil and Water

The Soil and Water Impact Assessment has been carried out to review the impacts of the Proposal on soils, surface and ground water.

The development is not expected to impact negatively on the surrounding surface water environment, flow regimes, quantity, features, or local or regional hydrology. The Proposal meets water sensitive urban design (WSUD) requirements for stormwater quality and the proposed new external pavement meets the Council's stormwater detention requirements.

In the unlikely event of a fire, full bunding around the site will contain all firewater. A stormwater isolation valve is also proposed to facilitate the containment of all firewater. Existing stormwater pits within the shed building will be sealed, and all stormwater pits will be fitted with Ocean Protect OceanGuard™ gross pollutant filters to improve stormwater quality.

Bush Fire Threat and Fire Safety

A Fire Compliance Assessment and Bushfire Threat Study for the existing site operations has been carried out to assess compliance with the National Construction Code (NCC) and NSW Fire & Rescue's *Fire Safety Guidelines - Fire Safety in Waste Facilities* (2020) and the *Fire Safety Guideline – Guideline for Bulk Storage of Rubber Tyres* (2014).

The Site currently has one existing industrial shed that will have minor alterations and a small section of the Site to be concreted to extend the hardstand area. The materials used for the building alterations will be metal colourbond sheeting for the walls and roof and metal roller doors. Tyres will be stacked on metal shelving and crumb rubber will be stored in 1-tonne bulka bags within the designated storage area. The two storage areas are 24m^2 in area.

Several mitigation requirements will be in place to ensure a best practice fire management system operates on-site. Three main categories for mitigation measures include storage limitations, operational procedures and equipment and infrastructure. All storage dimensions will be in compliance with *NSW Fire Safety Guideline – Guideline for Bulk Storage of Rubber Tyres.* Tyres will be stacked no higher than 3.5m to ensure a 3m roof clearance and crumb rubber will be stored in bulka bags. All products and operational activities occur inside the industrial shed.

The fire assessment determined that through the fire risks identified and mitigation measures associated with these, the risks of fire at the site will be minimised.

The Bushfire Assessment found that the Proposal is compliant with *Planning for Bush Fire Protection* (2019) and is not mapped as bushfire prone land. There is limited potential for bushfire attack at this Site and *National Construction Code* 2019 Structural Fire Safety requirements are adequate to reduce that risk.

Aboriginal and Cultural Heritage

No Aboriginal or culturally significant items have been found on or within 200 m of the site. As the construction works proposed are minor, no mitigation measures are required for carrying out the proposed upgrades.

Visual Impacts

This assessment identifies the visual characteristics of the existing landscape and the likely consequences of the development. A Visual Impacts Assessment (VIA) is a requirement under Part 3A of the *Environmental Planning and Assessment Act* 1979 and is a requirement in the *Maitland DCP* 2011. The Proposal is required to align with the Objectives and Controls of the *Maitland DCP* 2011 – *C.5, 2, 2. Landscaping* which outlines the landscaping requirements for Industrial Land.

The entire process to recycle waste tyres received onsite will be carried out indoors, with no activities occurring outside. This eliminates any adverse visual impacts of the operations. Minor building alterations to the existing industrial building will have no adverse visual impact. No mitigation measures are therefore required.

Landscaping Impacts

This assessment identifies the landscaping characteristics of the existing landscape and the likely consequences of the development. A Landscaping Concept Plan (LCP) is a requirement in the *Maitland DCP* 2011. The Proposal is required to align with the Objectives and Controls of the *Maitland DCP* 2011 – *Section C5.2.2 Landscaping.* This section outlines that a detailed landscaping plan is required for the development application and is to show the location and species of all planting and all other landscaping in screening parking areas.

Existing landscaping to the front of the Site will be embellished and improved to enhance street appeal.

Conclusion

The Proposal seeks to establish a tyre recycling facility within an existing industrial shed to increase the local recycling capacity for used tyres in the Hunter Region. The Proposal will involve a change of use and building alterations to the existing industrial shed to create a larger, fully enclosed industrial shed that will house advanced tyre recycling equipment. The tyre recycling facility will include a tyre recycling area, rubber tiles press area and two storage areas, one for used tyres and the other for recovered and produced materials on-site. All activities will be within the full-enclosed industrial shed and will have minimal impact on people and the environment in the immediate vicinity of the development and the surrounding area.

The Proposal will create an additional five new full time operational jobs, helping to support local employment and economic growth within the region. The estimated development cost is $1,686,273.60 (inc. GST). The development will also assist the Hunter Valley region meet the 80% recycling target of the NSW Government by 2030 as defined in the *NSW Waste and Sustainable Materials Strategy 2041, Stage 1 Plan: 2021-2027*. The Proposal will make a positive contribution to the local environment, community and economy, and is therefore recommended for approval.

Table of Contents

1 Introduction

1.1 Project Overview

This Environmental Impact Statement has been prepared for a proposed tyre recycling facility at 9 Burlington Place, Rutherford, NSW 2320 (Lot 3005 DP1040568). The tyre recycling facility will receive and process up to 4,500 tonnes of tyres per year and the operating hours are 5am to 6pm on weekdays, 8am to 1pm on Saturdays. The Site will remain closed on Sundays and Public Holidays (the Proposal).

The Proposal involves a change of use and minor amendments to the existing industrial shed on site. These building amendments will ensure that the industrial shed is suitable to house the tyre recycling facility and will include:

- Building works to enclose the open awning towards the rear of the Site, removing the dividing wall and installing two roller doors. These amendments will create a larger, fully enclosed industrial shed on Site;
- Change of use for the existing shed from storage to a tyre recycling facility;
- Installation of a waste tyre recycling production line;
- Installation of a rubber tiles production line;
- Installation of a 9m portable above ground weighbridge located near the Site entrance;
- Line marking of one loading bay and overnight parking for two heavy rigid vehicles (HRVs);
- Internal storage area to store delivered whole used tyres;
- Internal storage area to store recovered materials from tyre recycling and rubber mats/tiles produced on-site; and
- Additional fire protection measures, including installation of:
    - Fire extinguishers;
    - Three fire hydrants;
    - A windsock to assist Fire & Rescue NSW to determine the prevailing wind direction in the unlikely event of a fire;
    - Full firewater containment bunding around the site;
    - Stormwater isolation valve (to contain firewater in the unlikely event of a fire);
    - Carbon dioxide alarms;
    - Storage areas 3m clear from roof; and
    - Manual call points in clearly visible locations. These small red boxes are linked to the fire alarm system to allow occupants to trigger the alarm manually in the event of a fire.

The Facility will accept used waste tyres from the Proponents other business, Rutherford Tyres & More, as well as from other local retailers in the region. Rutherford Tyres & More is located at 14 Racecourse Road, Rutherford, only ~975m away from the Proposal site.

1.2 Purpose of the Report

This Environmental Impact Statement has been prepared for a proposed tyre recycling facility at 9 Burlington Place, Rutherford, NSW 2320. The purpose of this EIS is to:

- Identify all constraints affecting future development on the subject site;
- Consider the economic, social, and environmental impacts of the Proposal; and
- Assess the capability of the subject site to support the Proposal.

The development is considered a Designated Development under Clause 45(4)(f) of Schedule 3 of the *Environmental Planning and Assessment Regulation* 2021 due to the Oak Tree Retirement Village being located ~257m from the Site. Given the proximity, it is recognised that the Proposal could have potential impacts in relation to noise and air quality

for residents of the retirement village, so a conservative planning approach has been taken with the assessment of this Proposal. The development is also considered Regionally Significant Development under Clause 7(c), Schedule 6 of the *State Environmental Planning Policy (Planning Systems)* 2021.

An application for an Environment Protection Licence will be sought from the NSW EPA under Clause 42(3)(b), Schedule 1 of the *Protection of the Environment Operations Act* 1997 given the Site will store more than 5 tonnes of waste tyres on the premises at any time.

1.3 The Site

The Site covers an area of 1,655m^2 and has a 2.5m wide stormwater drainage easement running along the eastern site side. The Site has one existing shed, an open awning, a concrete sealed hardstand and a small amount of landscaping located at the front and back of the site. The existing shed, as approved under DA03/1383 is ~290m^2, with a ~35 m^2 office attached, as well as two bathrooms, an office and a foyer. The entire site is sealed hardstand, except some landscaping at the entrance of the site and a small gravel area at the rear, eastern side of the Site. This gravel area will be replaced with concrete to expand the hardstand area. The concrete sealed hardstand is used for truck manoeuvring, weighbridge installation, loading area and staff parking. Minimal construction works are proposed with the enclosing of the awnings, removal of the dividing wall and installation of two roller doors to create a large fully enclosed industrial shed on site. The tyre storage and crumb rubber storage areas are to be located within the industrial shed, with a weighbridge installed outside the shed close to the site entrance.

The Site is located approximately 875m from the closest residential zone and 257m away from a RE2 Private Recreational zone (where the Oak Tree Retirement Village is located). Due to the RE2 Private recreational Zone housing permanent residents within Oak Tree Retirement Village, that site is treated as a residential zone for the purposes of this Development Application.

All operations are proposed to be carried out within the shed. The storage of incoming tyres will be located in a designated tyre storage space located at the eastern side of the shed, occupying a floor area not more than 24m^2. The storage of products produced on site will be located in the crumb storage area located at the back, eastern side of the shed, occupying a floor area not more than 24m^2.

An aerial view of the general locality of the site is shown in Figure 1.1. The Site is within land use zone E4 General Industrial as shown in Figure 1.2. The proposed site plan is shown in Figure 1.3.

1.4 Site History and Approvals

The Site received development approval in 2003 for an industrial shed, with development consent issued under DA03/1383. The Site contains a single storey industrial shed with vehicular access. There is an outdoor concrete hardstand covering most of the Site with landscaping at the front of the Site and a small gravel area at the back of the Site.

A summary of the development approvals currently applying to the property are listed in Table 1.1.

Table 1.1. Development consents granted for the property at 9 Burlington Place, Rutherford (Lot 3005, DP1040568).

DA number	Description	Date approved	DA status
DA03/1383	Industrial Building and First Use Storage of Earth Moving Equipment/Crane and General Fabrication	2003	DA implemented

1.5 Easements and Covenants

The Site contains a 2.5m wide stormwater drainage easement running the full length of the eastern site boundary.

No covenants apply to the land.

1.6 Project Team

In preparing this EIS, Jackson Environment and Planning Pty Ltd has undertaken all statutory planning assessments, as well as prepared the following sections of the EIS:

- Architectural designs;
- Hazard and risk assessment;
- Waste minimisation and management;
- Fuels and chemicals;
- Aboriginal and non-indigenous heritage;
- Visual impacts assessment; and
- Community consultation.

Jackson Environment and Planning Pty Ltd supported Rutherford Tyre Recyclers in delivering the Community Consultation Plan and we engaged with the following stakeholders:

- Neighbouring properties;
- Maitland City Council;
- Department of Planning and Environment;
- NSW Environment Protection Authority; and
- Transport for NSW.

We also engaged a project team to undertake the design and specialist investigations for the EIS. The role/s of each team member is given below:

- Air Quality Impact Assessment – RWDI;
- Noise And Vibration Impact Assessment – Acoustic Logic;
- Traffic Impact Assessment – SECA Solution;
- Landscape Concept Plan – Terras Landscape Architects;
- Fire Incident Management: Riskcon Engineering;
- Bushfire Threat Study – Newcastle Bushfire Consulting;
- Soil and Water Study and stormwater design – Eclipse; and
- Cost of Development – MDA Australia.

A letter of owners consent for the Proposal is provided in Appendix 15.

1.7 SEARs Requirements Compliance Table

A scoping report was prepared and submitted to the Department of Planning and Environment and we requested the Secretary's Environmental Assessment requirements in August 2023. The SEARs requirements were issued on 29 September 2023 by Mr Chris Ritchie, Director, Industry Assessments, DPE, as a delegate of the Secretary. This EIS report addresses the NSW Department of Planning and Environment's Secretary's Environmental Assessment Requirements (SEAR 1810). Table 1.2 below outlines how the SEAR's requirements have been addressed in this EIS.

Table 1.2. Overview of how the SEARs requirements have been addressed in this EIS.

Secretary's Environmental Assessment Requirements	Description of SEARs Requirement	EIS Section where this requirement is addressed
General requirements	The Environmental Impact Statement (EIS) must comply with the assessment requirements and meet the minimum form and content requirements in sections 190 and 192 of the *Environmental Planning and Assessment Regulation* 2021.	This EIS.
Key Issues	The EIS must include an assessment of all potential impacts of the proposed development on the existing environment (including cumulative impacts if necessary) and develop appropriate measures to avoid, minimise, mitigate and/or manage these potential impacts. As part of the EIS assessment, the following matters must also be addressed:	Refer to Sections 7 – 19.
	Strategic and statutory context – including:	
	• a detailed justification for the proposal and suitability of the site for the development	Refer to Section 21.
	• a demonstration that the proposal is consistent with all relevant planning strategies, environmental planning instruments, development control plans (DCPs), or justification for any inconsistencies	Refer to Section 3.
	• a list of any approvals that must be obtained under any other Act or law before the development may lawfully be carried out	Refer to Section 3.1.4.
Key Issues	Fire and incident management – including:	
	• an assessment of bushfire risks and asset protection zones (APZ) in accordance with NSW Rural Fire Service guidelines	Refer to Section 16 and Appendix 10.
	• technical information on the environmental protection equipment to be installed on the premises such as air, water and noise controls, spill clean-up equipment, fire management (including the location of fire hydrants and water flow rates at the hydrants) and containment measures	Refer to Section 15 and Appendix 9.
	• details of the size and volume of stockpiles and their arrangements to minimise fire spread and facilitate emergency vehicle access	Refer to Section 15 and Appendix 9.
	• the measures that would be implemented to ensure that the proposed development is consistent with the aims, objectives and guidelines in the NSW Fire and Rescue guideline *Fire Safety in Waste Facilities dated 27 February 2020*	Refer to Section 15 and Appendix 9.
Key Issues	Waste management – including:	
	• details of the type, quantity and classification of waste to be received at the site	Refer to Section 9 and Appendix 4.
	• details of the resource outputs and any additional processes for residual waste	Refer to Section 9 and Appendix 4.
	• details of waste handling including, transport, identification, receipt, stockpiling and quality control	Refer to Section 9 and Appendix 4.

Secretary's Environmental Assessment Requirements	Description of SEARs Requirement	EIS Section where this requirement is addressed
	• the measures that would be implemented to ensure that the proposed development is consistent with the aims, objectives and guidelines in the NSW Waste Avoidance and Sustainable Materials Strategy 2041.	Refer to Section 4.2 and Section 21.1.2.
Key Issues	Hazards and risk – including:	
	• a preliminary risk screening completed in accordance with State Environmental Planning Policy (Resilience and Hazards) 2021, Chapter 3 and Applying SEPP 33 (DoP, 2011), with a clear indication of class, quantity and location of all dangerous goods and hazardous materials associated with the development. Should preliminary screening indicate that the project is "potentially hazardous" a Preliminary Hazard Analysis (PHA) must be prepared in accordance with Hazardous Industry Planning Advisory Paper No. 6 - Guidelines for Hazard Analysis (DoP, 2011) and Multi-Level Risk Assessment (DoP, 2011).	Refer to Section 7.
Key Issues	Air quality and odour – including:	
	• a quantitative assessment of the potential air quality, dust and odour impacts of the development, during both construction and operation, in accordance with relevant Environment Protection Authority guidelines	Refer to Section 10 and Appendix 6.
	• an air quality impact assessment in accordance with relevant Environment Protection Authority guidelines	Refer to Section 10 and Appendix 6.
	• a description and appraisal of air quality and odour impact mitigation and monitoring measures, in line with International best practice.	Reer to Section 10 and Appendix 6.
Key Issues	Noise and vibration – including:	
	• a description of all potential noise and vibration sources during construction and operation, including road traffic noise	Refer to Section 11 and Appendix 5.
	• a noise and vibration assessment in accordance with the relevant Environment Protection Authority guidelines	Refer to Section 11 and Appendix 5.
	• a description and appraisal of noise and vibration mitigation and monitoring measures.	Refer to Section 11 and Appendix 5.
Key Issues	Soil and water – including:	
	• a description of local soils, topography, drainage and landscapes	Refer to Section 14 and Appendix 8.
	• details of water usage, potential impacts on surface water, and any proposed mitigation measures	Refer to Section 14 and Appendix 8.
Key Issues	Traffic and transport – including:	
	• details of road transport routes and access to the site	Refer to Section 12 and Appendix 7.
	• road traffic predictions for the development during construction and operation	Refer to Section 12 and Appendix 7.

Secretary's Environmental Assessment Requirements	Description of SEARs Requirement	EIS Section where this requirement is addressed
	• an assessment of impacts to the safety and function of the road network and the details of any road upgrades required for the development.	Refer to Section 12 and Appendix 7.
Key Issues	Biodiversity – including:	
	• a description of any potential vegetation clearing needed to undertake the proposal and any impacts on flora and fauna.	Reer to Section 13.
Key Issues	Community and stakeholder – including:	
	• details of community and stakeholder engagement and how the development responds to issues raised	Refer to Section 6 and Appendix 3.
Key Issues	Visual – including:	
	• including an impact assessment at private receptors and public vantage points.	Refer to Section 18 and Appendix 12.
Key Issues	Heritage – including:	
	• including Aboriginal and non-Aboriginal cultural heritage.	Refer to Section 17 and Appendix 11.
Environmental Planning	The EIS must assess the proposal against the relevant environmental planning instruments, including but not limited to:	Refer to Section 3.
	• State Environmental Planning Policy (Planning Systems) 2021	Refer to Section 3.2.1.
	• State Environmental Planning Policy (Transport and Infrastructure) 2021	Refer to Section 3.2.4.
	• State Environmental Planning Policy (Resilience and Hazards) 2021	Refer to Section 3.2.3.
	• Maitland Local Environmental Plan 2011	Refer to Section 3.3.1.
	• Relevant development control plans and section 7.11 plans.	Refer to Section 3.3.2.
Guidelines	During the preparation of the EIS you should consult the Department's Register of Development Assessment Guidelines which is available on the Department's website at https://www.planning.nsw.gov.au/Assess-and-Regulate/Development-Assessment/Industries. Whilst not exhaustive, this Register contains some of the guidelines, policies, and plans that must be taken into account in the environmental assessment of the proposed development.	Noted.

Secretary's Environmental Assessment Requirements	Description of SEARs Requirement	EIS Section where this requirement is addressed
Consultation	During the preparation of the EIS, you must consult the relevant local, State and Commonwealth government authorities, service providers and community groups, and address any issues they may raise in the EIS. In particular, you should consult with the: • Environment Protection Authority • Fire & Rescue NSW • Mindaribba Local Aboriginal Land Council • Maitland Council • the surrounding landowners and occupiers that are likely to be impacted by the proposal. Details of the consultation carried out and issues raised must be included in the EIS.	Refer to Section 6.
Further consultation after 2 years	If you do not lodge an application under Section 4.12(8) of the Environmental Planning and Assessment Act 1979 within 2 years of the issue date of these SEARs, you must consult with the Planning Secretary in relation to any further requirements for lodgement.	Not applicable for this EIS.

1.8 Maitland City Council's Pre-lodgement Requirements Compliance Table

Feedback was sought from Maitland City Council on 28 February 2024, with a response received via email on 28 February 2024. The feedback received by Maitland City Council is provided in Appendix 16. The pre-lodgement notes outline matters that need to be taken into consideration in the EIS. All matters as raised by Council have been addressed and are summarized in Table 1.3 below.

Table 1.3. Overview of how Maitland City Council's pre-lodgement requirements have been addressed in this EIS.

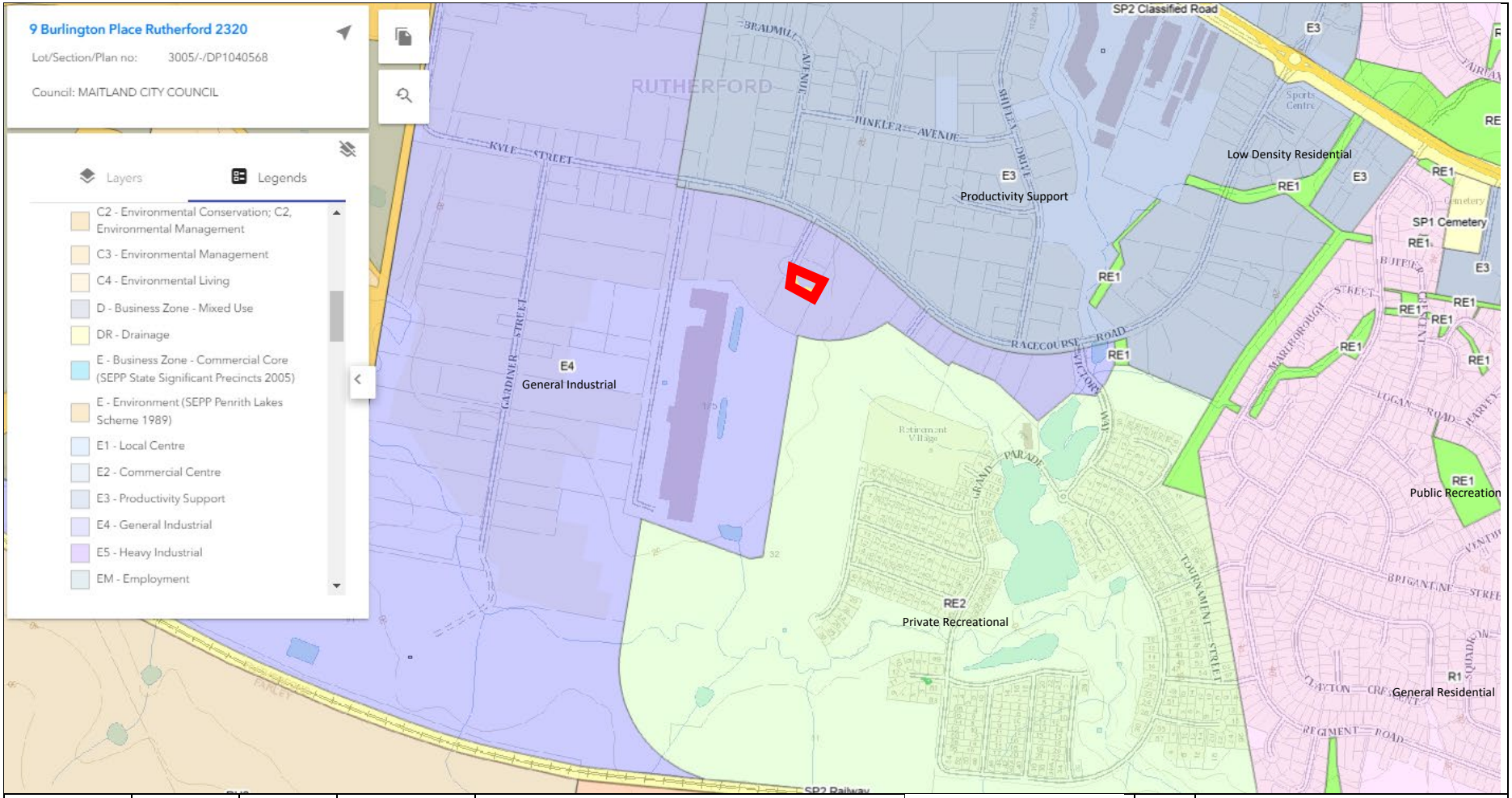
Maitland City Council Pre-lodgement Requirement	Summary of Requirement (see Appendix 16 for full notes)	EIS Section where this requirement is addressed
The Proposal	The proposed tyre recycling facility is to be located entirely within the confines of the existing industrial building at the subject property.	This is mentioned throughout the EIS.
Odour and Air Quality	An Odour Impact and Air Quality Report is to be prepared by a suitably qualified professional and shall be submitted with the EIS	Refer to Section 10.
Noise	Acoustic impacts of the development must be fully addressed as part of the EIS with an acoustic report provided. Hours of operation shall be clearly defined within this report, along with recommendations for appropriate noise attenuation measures	Refer to Section 11.
Contamination	Preliminary Site Investigation	Noted. Please refer to SEPP (Resilience and Hazards) 2021 in Section 3.2.3.
Traffic	A Traffic Impact Assessment, detailing the movement of large vehicles to and from the Site shall be provided with the EIS. Internal manoeuvring plan for all vehicles shall be provided. The manoeuvring of cars, trucks and pedestrians shall be separated.	Refer to Section 12.

Maitland City Council Pre-lodgement Requirement	Summary of Requirement (see Appendix 16 for full notes)	EIS Section where this requirement is addressed
Stormwater	A Stormwater Management Plan is required within the EIS. This should include details on how stormwater will be managed independently from wastewater that may be generated by the production line.	Refer to Section 14.
Waste Management	A detailed waste management plan shall be submitted with the EIS, outlining the quantities and types of waste estimated to be generated by the proposal, and the appropriate disposal and management of these waste products.	Refer to Section 9.
Fire Safety	Fire safety plan detailing how the building/site, following the proposed alterations, would satisfy the National Construction Code requirements, noting the Category 1 Fire Safety Provisions that may be applicable for industrial uses having over 500m^2 gross floor area.	Refer to Section 15.

Figure 1.1. Aerial map of site location at 9 Burlington Place Rutherford NSW 2320 (Lot 3005 / DP1040568). Approximate Lot boundaries are shown in red.

Date	Revision	Drawn By	Site description	Jackson Environment and Planning Pty Ltd		Client	Rutherford Tyre Recyclers
22/09/2023	Revision A	V. Wilson	9 Burlington Place Rutherford NSW 2320 (Lot 3005 / DP1040568)	Strategy | Infrastructure | Compliance | Procurement A: Suite 102, Level 1, 25-29 Berry St, North Sydney NSW 2060 E: admin@jacksonenvironment.com.au T: 02 8056 1849 W: http://www.jacksonenvironment.com.au		Project	Environmental Impact Statement
						Title	General Locality Aerial Map
						Scale	As shown
						Source	Nearmaps

Figure 1.2. Land use zoning of the Site and locality under Maitland City Council. Approximate Lot boundaries are shown in red. Extracted from ePlanning Spatial Viewer.



Date	Revision	Drawn By	Site description
22/09/2023	Revision A	V. Wilson	9 Burlington Place Rutherford NSW 2320 (Lot 3005 / DP1040568)

Jackson Environment and Planning Pty Ltd
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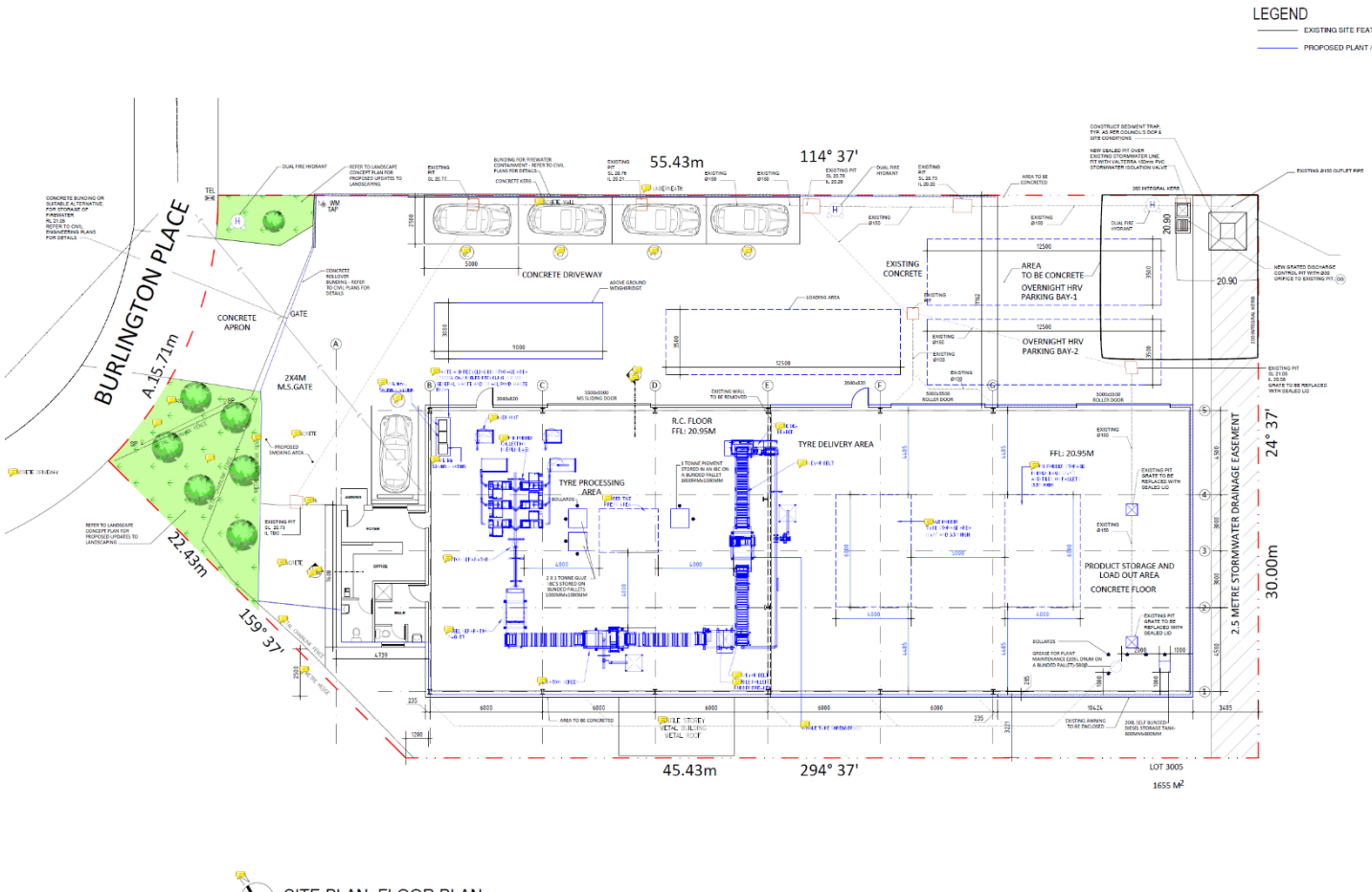
Client	Rutherford Tyre Recyclers
Project	Environmental Impact Statement
Title	Land uses, ePlanning Spatial Viewer
Scale	As shown
Source	Department of Planning and Environment - Eplanning Spatial Viewer

Figure 1.3. Proposed site plan for 9 Burlington Place Rutherford NSW 2320 (Lot 3005 / DP1040568). Note that the Proposal will involve alterations to the existing shed to create a larger fully enclosed industrial shed.



Date	Revision	Drawn By	Site description
29/05/2024	Revision A	V. Wilson	9 Burlington Place Rutherford NSW 2320 (Lot 3005 / DP1040568)

Jackson Environment and Planning Pty Ltd
Strategy | Infrastructure | Compliance | Procurement
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E: admin@jacksonenvironment.com.au
T: 02 8056 1849
W: http://www.jacksonenvironment.com.au

Client	Rutherford Tyre Recyclers
Project	Environmental Impact Statement
Title	Approved site plans
Scale	As shown
Source	Jackson Environment and Planning

2 Description of the Proposal

The Proposal will involve the fit out of the existing shed with plant and equipment for tyre recycling. The tyre recycling process consists of shredding and granulation of waste tyres. A thermomoulding process will be used to produce rubber matting and rubber pavers on the premises from the crumb rubber. The recovered products from waste tyre are crumb rubber, recovered steel and cotton. The Proposal will create a range of materials which will be sold into a range of markets. The materials produced will be crumb rubber, recovered steel, cotton, rubber pavers and rubber matting.

The Site contains an existing shed that will be used to house the tyre recycling production line. This shed contains an industrial area, office area and staff amenities area. Currently this shed is being used for storage with a proposed change of use to become a tyre recycling facility. The existing shed will require minimal alterations as part of the Proposal. The industrial shed has an open awning towards the back. This will be enclosed, the dividing wall removed, and two roller doors installed to create a larger fully enclosed industrial shed on site. The new industrial shed will be ~638m^2, increased from ~290m^2.

The proposed process line overview is shown in Figure 2.1. This production line would be capable of producing 1,000kg of rubber crumb per hour. The overview of what will be involved for the waste tyre production line is outlined in Section 2.2. It is envisaged that the facility will receive and process up to 4,500 tonnes of tyres per year.

Rutherford Tyres Recyclers have been working to identify a way they can recycle used tyres into crumb rubber. Additionally, materials that can be created on-site from this newly generated crumb rubber have been identified as rubber matting and tiles. Various other end users for crumb rubber have also been identified, as well as the waste nylon/cotton and steel retrieved during the processing of tyres. Crumb rubber is useful in asphalt production and soft-fall material for children's playgrounds. The recovered steel can be recycled by steel manufacturers, and the recovered nylon can be used in glue production.

In 2019, the Council of Australian Governments (COAG) agreed to ban the export of a range of waste types including whole tyres (except truck, bus and aviation tyres being exported for re-treading) commencing on 1 December 2021. The ban increases the volume of waste tyres remaining in the country that need to be recycled and repurposed and also aims to boost innovation and job creation within the waste management sector. As a result of the ban on tyre exports, there is an immediate need to develop local tyre recycling infrastructure.

Rutherford Tyre Recyclers are seeking to develop rubber tyre recycling infrastructure for the Hunter. The plant will sit in an existing industrial shed alongside a whole tyre storage area, crumb rubber storage area and a rubber tiles production line. The crumb rubber production plant and rubber tiles production line are located in the front half of the shed. The whole tyre storage space will occupy not more than 24m^2 of floor areas and will located adjacent to the crumb rubber production line towards the middle of the shed. Crumb rubber will be stored in 1 tonne bulka bags within the designated crumb rubber storage area, located towards the back of the shed within an area not exceeding 24m^2. Both storage areas will be marked out on the concrete floor using hard wearing paint. All rubber tiles and mats produced on-site will be stored on pallets in the designated crumb rubber storage area to a maximum height of 3.5m. These are temporarily stored on-site before being sold and transported from the Site. Refer to Figure 2.2. and Appendix 1 for the location of the production and storage areas mentioned above.

Incoming waste tyres will be received from Tyres & More in Rutherford and other tyre retailers in the region.

Figure 2.1. Process flow chart for the existing operation. No change to operations are proposed as part of the development.

2.1 Acceptable and non-acceptable waste materials

The only waste materials that will be accepted on site are whole used tyres. The Site will not accept hazardous, restricted or the following wastes:

- Soil;
- Rocks;
- Plastics;
- Metal;
- Food;
- Chemicals;
- Paint;
- Tyres; and
- Batteries.

2.2 Waste Tyre Recycling Production Line

The crumb rubber production plant will have an efficiency of 98%, with all outputs having markets (including rubber crumb, steel and cotton). The proposed tyre recycling process comprises seven steps to produce tyre crumb from whole tyres[2]. Refer to Figure 2.1 for the operational process flow chart and Appendix 1 for the plans of the tyre recycling production line within the existing shed.

2.2.1 Step 1: Tyre De-Beader

The first step in tyre recycling is de-beading, which is the process of removing the bead wires from inside the tyre's sidewalls. This is an important step because it allows the shredding process later down the production line to produce a cleaner product. Another benefit of de-beading is that the shredder is not having to shred metal material, resulting in less wear.

The proposed machine for this development is a single hook tire de-beader which has a capacity of 20-40 tyres an hour, capable of a maximum tyre diameter of 1200mm. The dimensions are length - 4500mm, width – 900mm and height – 2350mm.

2.2.2 Step 2: Tyre Strip Cutter

Once the tyre has been de-beaded, the tyre cutter machine is used to cut the tyre into a long rubber strip with a width of between 3-8mm.The machine is comprised of two circle knives that are capable of cutting through the tyre, creating one long rubber strip.

2.2.3 Step 3: Whole Tire Shredder

The whole tyre shredder machine has input and output conveyor belts. The tyres are placed on the input conveyor belt to be transported into the whole tyre shredder machine. The proposed machine will result in 60x60mm rubber chip.

The shredder has a production capacity of 3,500-4,000kg/hour. The conveyor belts are 8,000m in length and 550mm in width.

[2] Tyre Recycling Machines (2023). Internet Publication:https://tirerecyclingmachines.com/product/Hydraulic-Tire-Debeader.html

2.2.4 Step 4: Double Roller Rubber Breaker (Crusher)

This stage of the recycling process involves crushing the rubber chips into mesh rubber powder. This is achieved by two rollers within the machine rotating at different velocities, with the size of the rubber powder dependent on the roll gap.

The machine to be used for the tyre crushing stage is able to process input tyre rubber size of 60x60mm and output between 1-30 mesh. The dimensions of the plant are: 5,470mm long, 2,180mm wide and 1,960 mm high.

2.2.5 Step 5: Vibration Screen

The vibration screen is used to separate the different sized pieces of rubber crumb. This process occurs immediately after the crusher machine.

2.2.6 Step 6: Magnetic Separator

A magnet separator machine is used to separate the small steel wire from the mixed rubber granules. A larger separator is used first, followed by a smaller one for further separation. Once the rubber powder has gone through both magnetic separators, all steel wire will be completely removed from the rubber powder.

2.2.7 Step 7: Fiber Separator

To improve the purity of crumb rubber, a fiber separator is used to separate fiber and fluff from the rubber crumb. To achieve this, the rubber powder is fed from the smaller magnetic separator into the fan which drives the powder along the feeding pipe and into the material tank. This material tank is above the fiber separator before entering into the separator. The high speeds of the fans create negative pressure, resulting in the fluff rising and the rubber crumb falling down. One outlet is for the tyre crumb, another for the fiber and fluff collected.

2.2.8 Final Product: Rubber Crumb

The final product from the tyre recycling production line will be a pure rubber crumb.

2.3 Rubber Tiles Production Line

A small thermal-moulding process will also be used to convert crumb rubber into rubber matting and rubber pavers. Once the crumb rubber production is complete, this material will be used to produce rubber matting and rubber pavers on the premises. Refer to Figure 2.1 for location of rubber tiles production line.

2.3.1 Step 1: Rubber Mixer

The first step in producing rubber mats and pavers is using a rubber mixing machine to mix the rubber crumb together with glue. This is for the bottom of the rubber tile.

The Rubber Mixer is round, with an 850mm diameter and 320mm depth.

2.3.2 Step 2: Barrel Mixer

The second stage uses a barrel mixer to create the top part of the rubber tile. The materials involved in this are the crumb rubber, pigment and glue.

The Barrel Mixer has a 50L per batch capacity with the ability to use four (4) barrels to mix different colours.

2.3.3 Step 3: Vulcanizing Machine

The application of this is to produce rubber tile. The machine creates vulcanized rubber tiles by compressing the rubber into dense, ultra-durable, non-porous rubber tiles. The machine contains two set of molds in each working layer, which alternate with vulcanization, allowing improved productivity efficiency.

2.3.4 Rubber Tile Molds

The type of rubber mold depends on the type of rubber tiles being made. The rubber floor mats will have overall dimensions of either 1000x1000x25mm or 500x500x25mm. Interlocking rubber floor mats will have dimensions of 500x500x25mm and rubber floor tiles will have dimensions of 200x160x25mm.

2.4 Proposed Operating Hours

The proposed operating hours for this development are 5am to 6pm on weekdays, 8am to 1pm on Saturdays and closed on Sundays and Public Holidays. A breakdown of the weekly operation is as follows:

- Crumb Rubber Production:
    - Monday – Friday: 5am – 6pm;
    - Saturday: 8am – 1pm; and
    - Sunday & Public Holidays – Closed.
- Tyre Delivery (and load out of tyre products):
    - Monday – Friday: 7am – 6pm;
    - Saturday: 8am – 1pm; and
    - Sunday & Public Holidays – Closed.

These operating hours have been proposed to enable the utilisation of off-peak electricity rates, with electricity necessary to drive the tyre recycling production line. As part of the proposed operating hours for crumb rubber production fall within 'nighttime' period (between 5am – 7am period), a noise and vibration study assessment has been performed to demonstrate that the crumb rubber production does not exceed noise criteria as per the NSW EPA's *Noise Policy for Industry* (2017)[3].

2.5 Quantities of Waste Tyres to be Stored

Waste tyres will be brought to site from Tyres & More and other tyre retailers in the region. No other forms of waste are brought on to the Site. The tyres will be stored in the tyre storage space located at the eastern side of the shed, stored on the concrete floor in an area not exceeding 24m^2.

The output products are expected to be 92% crumb rubber, 6% steel and 2% cotton. Output materials produced by the tyre recycling process will be stored in the Crumb Rubber Storage Area for a short time before being backloaded onto trucks and taken off site to be sold to market. These materials include crumb rubber, recovered steel, cotton, rubber pavers and rubber matting material. Expected amounts of the materials and their respective storage areas are as per Table 2.1.

[3] NSW (2017). *Noise Policy for Industry.* Internet publication: https://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/noise-policy-for-industry-(2017)

The Proposal will store tyres in a designated Whole Tyre Storage Area with a maximum 24m^2 amount of space available in accordance *with NSW Fire and Rescue 2014 Fire Safety Guideline – Guideline for Bulk Storage of Rubber Tyres*[4]. Fire and safety requirements relating to responsible tyre stacking can be found in Section 3.4.1.

Table 2.1. Breakdown of material type, estimated quantities and storage information.

Flow of material	Materials	Type of material	Waste Classification	Estimated tonnes per annum	Maximum storage at any one point in time (m^3)	Maximum storage at any one point in time (tonnes)	Storage Area	Type of storage
Input	Whole Tyres	Input material	Special Waste	4,500	84	25.2	Whole Tyre Storage Area	Stacked tyre storage area
Output	Crumb Rubber	Output material	Not applicable	4,057.2	36.75	36.75	Crumb Rubber Storage Area	1 tonne bulka bags
Output	Recovered Steel	Output material	Not applicable	266.4	5.25	2.63	Crumb Rubber Storage Area	1 tonne bulka bags
Output	Cotton	Output material	Not applicable	88.2	5.25	1.827	Crumb Rubber Storage Area	1 tonne bulka bags
Output	Residual Waste	Output material	General solid waste (non-putrescible)	88.2	5.25	1.827	Crumb Rubber Storage Area	1 tonne bulka bags
Output*	Rubber Pavers	Output material	Not applicable	415	15.75	12.6	Crumb Rubber Storage Area	Stacked on Pallets
Output*	Rubber Matting Material	Output material	Not applicable	415	15.75	12.6	Crumb Rubber Storage Area	Stacked on Pallets
Total				**4,500**	**168 m^3**	**93.43**		

*Output uses crumb rubber, a material produced on-site.

2.6 Vehicles entering the Site

Vehicles entering the Site will include staff vehicles and two medium rigid vehicle (MRV) for tyre deliveries each day. These same MRVs will load out recycled products to market, including crumb rubber, rubber pavers and mats, cotton and recovered steel. There will be 5 employees onsite each day, 3x onsite and 2x truck driver. Daily vehicle movements are estimated as follows:

- A maximum of 4,500 tonnes of tyres delivered to site each year;

[4] NSW Fire & Rescue 2014 Fire Safety Guideline - Guideline for bulk storage of rubber tyres https://www.fire.nsw.gov.au/gallery/files/pdf/guidelines/rubber_tyres.pdf

- The facility shall operate 6 days per week, 51 weeks per year = 299 days per year (allowing for public holidays/Christmas break);
- Average MRV (inbound used tyres and backload out of finished products) maximum load weight of 7.5 tonnes per trip anticipated;
- Equates to 4 truck deliveries per day;
- Plus five (5) staff vehicle movements (in) per day;
- One HRV (12.5m long) waste collection vehicle will collect waste once per week; and
- Total vehicle movements (in and out) are therefore 18.4 per day (10 of which are staff vehicles, 8 are MRVs and 0.4 for the HRV).

All vehicles will enter from Burlington Place via the access driveway onto site. The Site has five car parking spaces for staff and visitor vehicles along the northern boundary of the site. To exit the Site, vehicles will reverse into the industrial shed via the middle roller doors, refer to Figure 2.2 and Figure 2.3 for site plans, manoeuvre over the weighbridge then exit the Site onto Burlington Place in a forward direction. Refer to Figure 2.4 for the swept path showing the vehicle entering the Site in a forward direction and Figure 2.5 for the swept path showing the vehicle exiting the Site in a forward direction. Refer to Appendix 1 for high resolution swept paths.

A 9m portable above ground weighbridge will be located near the site entrance. A 12.5m long loading area is proposed to be located outside between the front and middle sliding door (see Figure 2.2). Tyres will be offloaded outside and brought into the shed to be placed in the Whole Tyre Storage Area towards the eastern side of the shed, refer to Figure 2.2 and Appendix 1.

The MRV will arrive with whole used tyres and leave site with the recycled products produced on site. This will include crumb rubber, cotton, steel and rubber pavers and mats. Backloading will allow for less vehicles being needed on site, reducing traffic.

2.7 Staffing

There will be five (5) employees onsite each day comprising of one office staff member, two operations staff and two truck drivers.

2.8 Plant and equipment

The following plant and equipment will be used onsite.

- Tyre recycling equipment as outlined in Section 2.2;
- One (1) diesel forklift; and
- Two 7.5 tonne MRVs (with parking overnight on site in designated truck parking bays).

Waste tyres will be received on site using two (2) 7.5 tonne MRVs. Recovered products and products produced on-site will be backloaded into these trucks. An MRV will collect any residual waste and transport this to a licensed landfill facility.

2.9 Parking

The development is classified as an industrial development and therefore the car parking requirements apply as per the Maitland DCP 2011, refer to Section 3.3.2. The number of car parks required for this Proposal is determined using the ‘change of use’ criteria. This involves subtracting the number of car spaces required for the Proposal away from

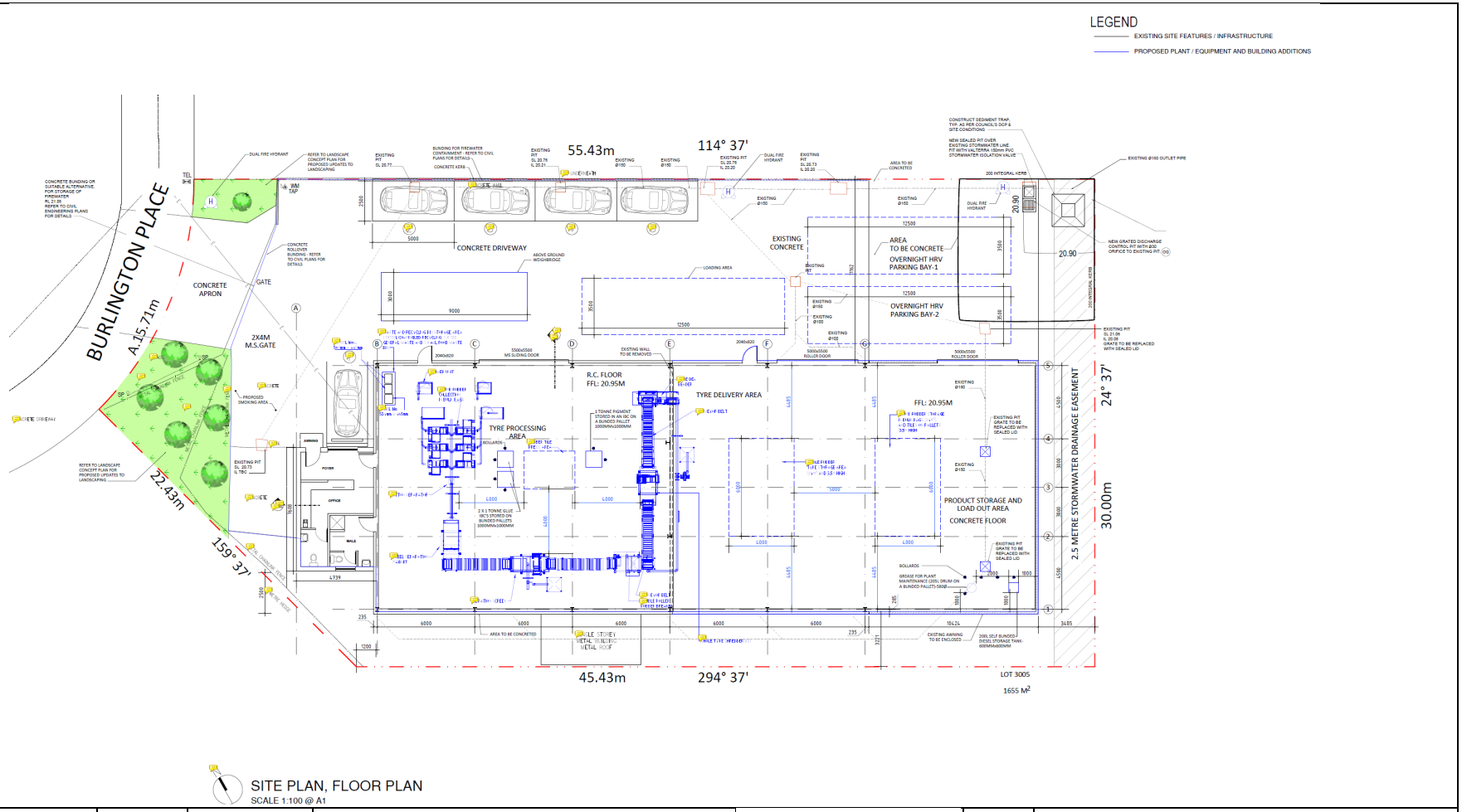
the number required for the existing use of the Site. This difference provides the number of additional car spaces required as part of the development.

Vehicles entering the Site will include employee personal vehicles and a truck for deliveries and pick up. There are five (5) car spaces on the Site to cater to the staff parking needs. The delivery truck has a designated loading area where the truck will stop to unload whole tyres or be loaded with recovered materials produced on site. There will be five employees on site each day, three working within the industrial building and two truck drivers.

The Site has five car parking spaces; four of the car spaces are located along the northern boundary of the Site, with an additional space located adjacent to the office section of the industrial shed. The location of the car spaces ensures that there is access for the truck to enter and manoeuvre around the Site. This allows for ease of access to the weighbridge, loading area and industrial shed roller doors. The largest vehicle is expected to be a heavy rigid vehicle (HRV).

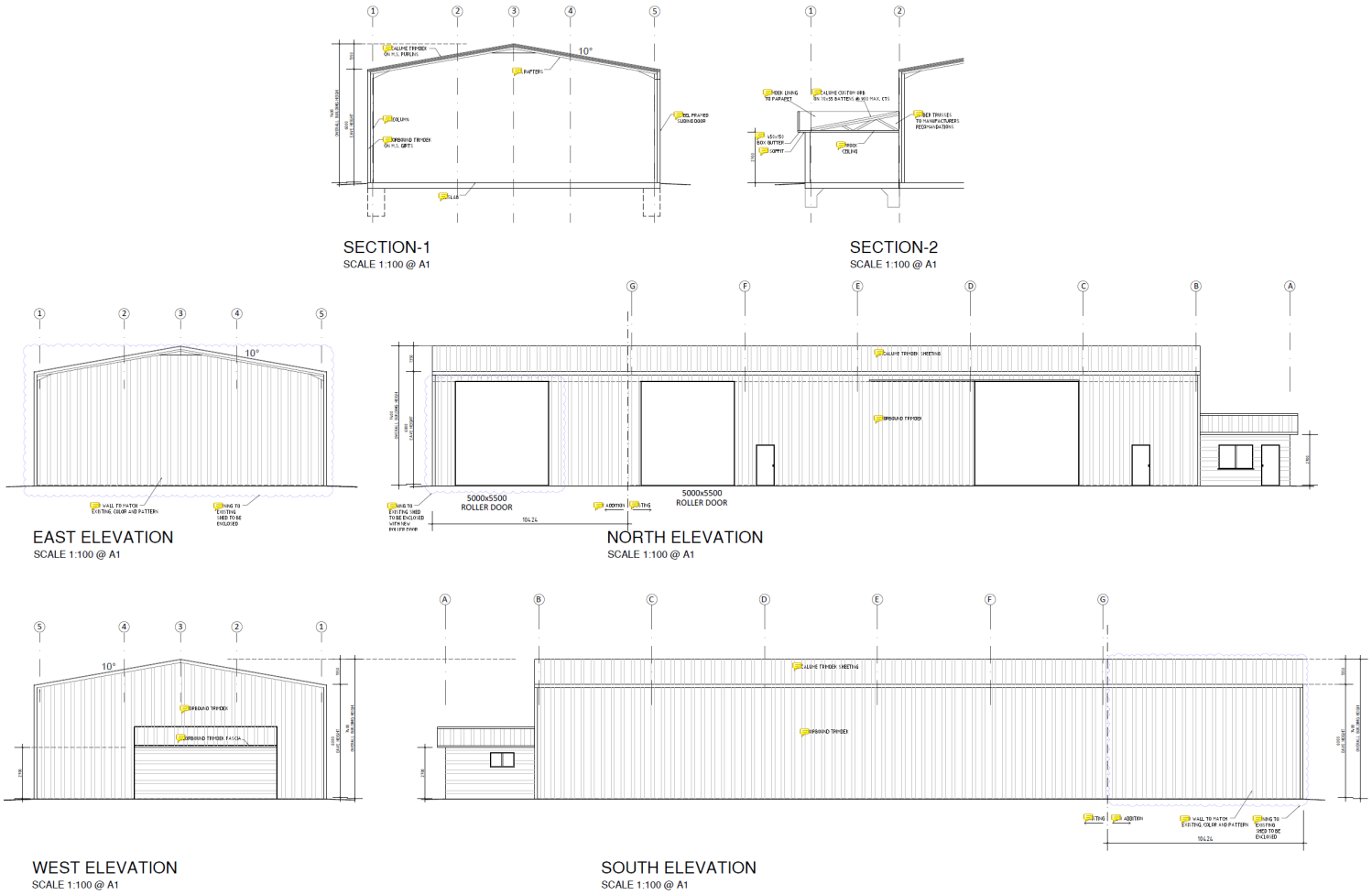
The parking arrangements are detailed in Figure 2.2. Parking space for a total of 5 staff and two MRVs (for overnight storage only) are accommodated within the proposed plan. No additional parking spaces will be required.

Figure 2.2. Site plans showing the tyre recycling plant equipment layout and separate storage areas as well as staff parking, the loading area and above ground weighbridge. Site changes are shown in blue.



Date	Revision	Drawn By	Site description	Jackson Environment and Planning Pty Ltd		Client	Rutherford Tyre Recycling Facility
29/05/2024	Revision A	V.Wilson	9 Burlington Place Rutherford NSW 2320 (Lot / 3005 DP1040568)	Strategy | Infrastructure | Compliance | Procurement A: Suite 102, Level 1, 25-29 Berry St, North Sydney NSW 2060 E: admin@jacksonenvironment.com.au T: 02 8056 1849 W: http://www.jacksonenvironment.com.au		Project	Environmental Impact Statement
						Title	Site concept layout plan
						Scale	1:100
						Source	Jackson Environment and Planning

Figure 2.2. Proposed site elevation plans.



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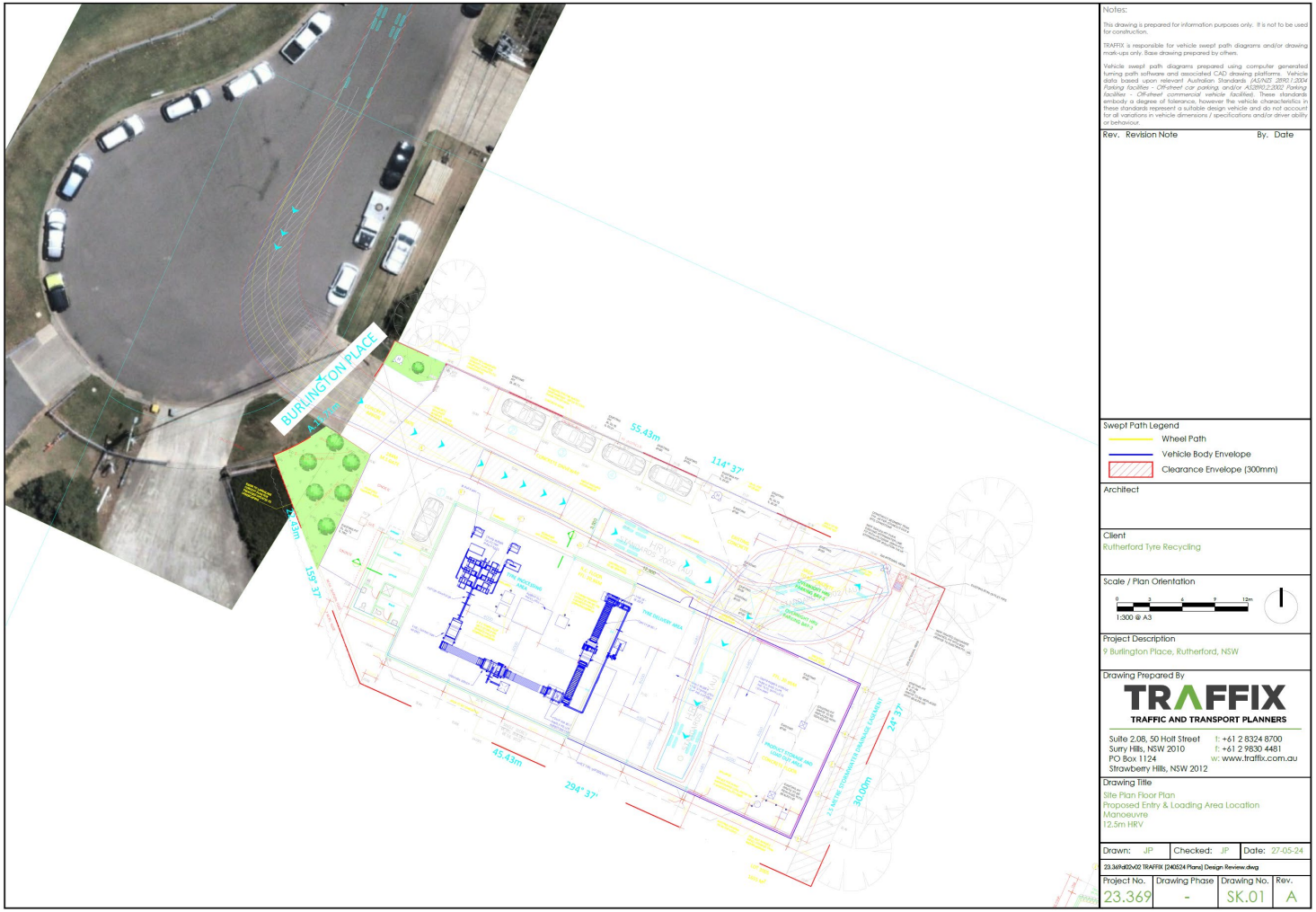
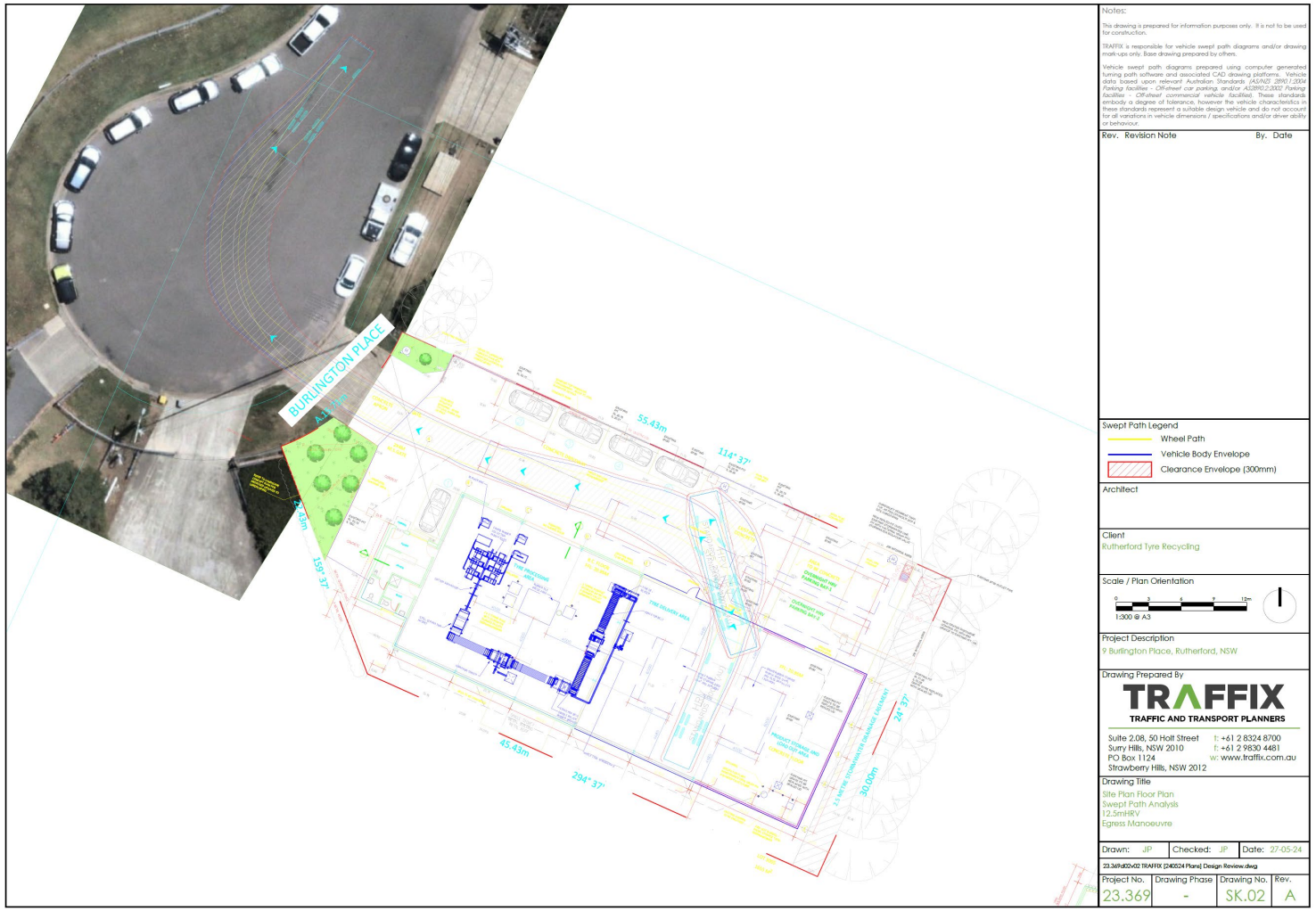
						Title	Site Elevation Plans
						Scale	As shown
						Source	Jackson Environment and Planning

Figure 2.4. Swept path showing the largest vehicle (12.5m HRV) entering the Site in a forward direction.



Date	Revision	Drawn By	Site description	Jackson Environment and Planning Pty Ltd		Client	Rutherford Tyre Recycling Facility
27/05/2024	Revision A	Traffix	9 Burlington Place Rutherford NSW 2320 (Lot 3005 / DP1040568)	Strategy | Infrastructure | Compliance | Procurement A: Suite 102, Level 1, 25-29 Berry St, North Sydney NSW 2060 E: admin@jacksonenvironment.com.au T: 02 8056 1849 W: http://www.jacksonenvironment.com.au	JACKSON ENVIRONMENT AND PLANNING STRATEGY | INFRASTRUCTURE | COMPLIANCE | PROCUREMENT	Project	Environmental Impact Statement
						Title	Swept path – vehicle entering site
						Scale	As shown
						Source	Traffix

Figure 2.5. Swept path showing vehicle exiting the Site in a forward direction.



Date	Revision	Drawn By	Site description	Jackson Environment and Planning Pty Ltd		Client	Rutherford Tyre Recycling Facility
27/05/2024	Revision A	V.Wilson	9 Burlington Place Rutherford NSW 2320 (Lot 3005 / DP1040568)	Strategy | Infrastructure | Compliance | Procurement A: Suite 102, Level 1, 25-29 Berry St, North Sydney NSW 2060 E: admin@jacksonenvironment.com.au T: 02 8056 1849 W: http://www.jacksonenvironment.com.au		Project	Environmental Impact Statement
						Title	Swept path – vehicle exiting site
						Scale	As shown
						Source	Traffix

3 Planning and legislative requirements

The tyre recycling facility is considered a "Waste or Resource Management Facility". The *Maitland Local Environmental Plan* 2011[5] defines a waste or resource management facility as any of the following:

(a) *A resource recovery facility*
(b) *A waste disposal facility*
(c) *A waste or resource transfer station*
(d) *A building or place that is a combination of any of the things referred to in paragraphs (a)-(c)*

The Proposal meets the definition of a Resource Recovery Facility. This is defined under the Maitland LEP as:

> *'…a building or place used for the recovery of resources from waste, including works or activities such as separating and sorting, processing or treating the waste, composting, temporary storage, transfer or sale of recovered resources, energy generation from gases and water treatment, but not including re-manufacture or disposal of the material by landfill or incineration.'*
>
> *Note—Resource recovery facilities are a type of waste or resource management facility.*

Under the *Maitland Local Environmental Plan* 2011, resource recovery facilities are permitted with consent within E4 General Industrial zoned areas. It is noted that a 'waste resource management facility' is permitted with consent as 'any other development not specified in item 2 or 4'.

The following sections outline the statutory planning, legislation and strategy that are applicable to the Site and the Proposal.

3.1 Commonwealth Planning Instruments and Policy

3.1.1 Commonwealth Environment Protection and Biodiversity Conservation Act 1999

The Commonwealth *Environment Protection and Biodiversity Conservation Act* 1999 (EPBC Act) came into force from 16 July 2000. The EPBC Act requires actions which are likely to have a significant impact on matters of National Environmental Significance, or which have a significant impact on Commonwealth land, to be referred to the Commonwealth Minister for the Environment for approval.

The nine matters of National Environmental Significance protected under the EPBC Act are:

- World heritage properties;
- Nation/al heritage places;
- Wetlands of international importance (listed under the ramsar convention);
- Listed threatened species and ecological communities;
- Migratory species protected under international agreements;
- Commonwealth marine areas;
- The great barrier reef marine park;
- Nuclear actions (including uranium mines); and
- A water resource, in relation to coal seam gas development and large coal mining development.

[5] Maitland Local Environmental Plan 2011 - NSW Legislation

No National Environmental Significance matters would be impacted by the Proposal.

3.1.2 Environmental Planning and Assessment Act 1979

Section 5 of the *Environmental Planning and Assessment Act* 1979 (EP&A Act) and the accompanying Regulation provide the framework for environmental planning in NSW. It includes provisions to ensure that proposals which have the potential to impact the environment are subject to detailed assessment and to provide opportunity for public involvement.

The Proposal is consistent with the overall objectives of the *Environmental Planning and Assessment Act* 1979 and is considered capable of fulfilling the statutory requirements. The preliminary environmental assessment of the Site has determined that the Proposal will not result in any significant negative impacts that cannot be adequately mitigated or managed.

3.1.3 Environmental Planning and Assessment Regulation 2021

While the EP&A Act provides the overarching framework for the planning system in NSW, the *Environmental Planning and Assessment Regulation* 2021 (the EP&A Regulation) came into effect from 18 February 2021 and supports the day-to-day requirements of this system. It supplements the broader provisions of the Act and covers matters such as local environmental plans and development control plans, which are used by councils to manage growth and development through the use of land use zoning, development standards and other planning mechanisms. It also contains key operational provisions relating to the development assessment and consent process, requirements associated with development contributions, and fees for planning services.

The proposal is located 257m from the Oak Tree Retirement Village, situated within an RE2 Private Recreation Zone. Given residents live permanently in these dwellings, for the purposes of this assessment, this RE2 Private Recreation Zone is considered to be a form of residential zone. It is further noted that an R1 General Residential Zone is located ~875m east of the Proposal.

It is noted that the Proposal is located less than 500m from a Residential Zone. The Proposal is likely to trigger designated development under Clause 45(4)(f) of Schedule 3 of the *Environmental Planning and Assessment Regulation* 2021. This clause is outlined as follows (underlined for emphasis):

> (4) Development for the purposes of a waste management facility or works is designated development if the facility or works are located—
>
> *(a) in or within 100 metres of a natural waterbody, wetland, coastal dune field or environmentally sensitive area of State significance, or*
>
> *(b) in an area of high water table, highly permeable soils, acid sulfate, sodic or saline soils, or*
>
> *(c) in a drinking water catchment, or*
>
> *(d) in a catchment of an estuary where the entrance to the sea is intermittently open, or*
>
> *(e) on a floodplain, or*
>
> *(f) <u>within 500 metres of a residential zone</u> or 250 metres of a dwelling not associated with the development and, in the consent authority's opinion, considering topography and local meteorological conditions<u>, are likely to significantly affect the amenity of the neighbourhood because of noise, visual impacts, vermin, traffic or air pollution, including odour, smoke, fumes or dust.</u>*

Whilst it is expected that the Proposal will not '*…significantly affect the amenity of the neighbourhood because of noise, visual impacts, vermin, traffic or air pollution, including odour, smoke, fumes or dust*', the designated

development pathway is considered appropriate given the sensitive receptors located in area surrounding the Proposal.

3.1.4 Protection of the Environment Operations Act 1997

The *Protection of the Environment Operation Act* 1997 (POEO Act) prohibits any person from causing pollution of waters, or air and provides penalties for air, water and noise pollution offences. Section 48 of the Act requires a person to obtain an Environment Protection Licence from the NSW Environment Protection Authority before carrying out any of the premise-based activities described in Schedule 1 of the Act.

Schedule 1, Part 1 (34) of the Act lists 'Resource recovery' including 'recovery of waste tyres' as an activity. 'Recovery of waste tyres' *means the receiving of waste tyres from off site and their processing, otherwise than for the recovery of energy.*

A Resource Recovery activity is declared to be a scheduled activity if it meets the following criteria:

> *"…if the premises are in the regulated area—*
>
> > *(a) involves having on site at any time more than 1,000 tonnes or 1,000 cubic metres of waste, or*
> >
> > *(b) involves processing more than 6,000 tonnes of waste per year if the premises are outside the regulated area-*
> >
> > > *(a) involves having on site at any time more than 2,500 tonnes or 2,500 cubic metres of waste, or*
> > >
> > > *(b) involves processing more than 12,000 tonnes of waste per year."*

Schedule 1 of the Act (Clause 42) details "Waste Storage" as an activity. Waste storage means the receiving from off site and storing (including storage for transfer) of waste.

A waste storage activity is declared to be a scheduled activity if it meets the following criteria:

> *(c) more than 5 tonnes of waste tyres or 500 waste tyres is stored on the premises at any time (other than in or on a vehicle used to transport the tyres to or from the premises);*

The Proposal will trigger the requirement for an EPA license because the waste storage activity will exceed 5 tonnes of waste tyres stored on the premises at any time. The Proposal will be under the limit for resource recovery and so not require an EPA license for this part of the Proposal.

3.1.5 Protection of the Environment Operations (Waste) Regulation 2014

During 2013-14 the EPA carried out an extensive review and consultation process on NSW's waste regulatory framework. The result was the *Protection of the Environment Operations (Waste) Regulation* 2014 (the Waste Regulation).

The Waste Regulation improves the EPA's ability to protect human health and the environment and paves the way for a modern and fair waste industry in NSW. The EPA rolled out the new rules stipulated under the Waste Regulation in stages over 2014-2017.

These changes include amended thresholds for environment protection licences and reforms to the waste levy system.

The Waste Regulation is supported by the Waste levy guidelines. These guidelines specify how to measure waste to calculate waste levy liability, the deductions waste operators can claim, and the EPA's requirements for records, surveys and reports. All licensed processing, disposal, recycling and storage facilities within the metropolitan levy area or regional levy area are subject to the levy system.

As the Proposal is considered a scheduled waste facility, a weighbridge is required under Clause 36 of the Waste Regulation. A 9m portable above ground weighbridge will be located near the Site entrance.

All of the above matters are addressed in this EIS.

3.2 NSW Environmental Planning Instruments and Policies

3.2.1 State Environment Planning Policy (Planning Systems) 2021

The *State Environmental Planning Policy* (Planning Systems) 2021[6], effective from 01 March 2022 incorporates and repeals the provisions of the *State Environmental Planning Policy (State and Regional Development)* 2011, *State Environmental Planning Policy (Aboriginal Land)* 2019 and the *State Environmental Planning Policy (Concurrences and Consents)* 2018.

The aim of this consolidated *State Environmental Planning Policy* (Planning Systems) 2021 is to ensure that the development Proposal meets with the current legislative and regulatory requirements of the Proposal, in a simplified and effective manner.

The proposed resource recovery facility is a 'Particular Designated Development' and is therefore Regionally Significant Development under Clause 7(c) of Schedule 6 of *State Environmental Planning* Policy *(Planning Systems)* 2021. The consent authority for the Proposal is therefore the Hunter and Central Coast Regional Planning Panel.

3.2.2 State Environmental Planning Policy (Biodiversity and Conservation) 2021

The aim of the *State Environmental Planning Policy (Biodiversity and Conservation)* 2021 is to:

- Protect the biodiversity values of trees and other vegetation in non-rural areas of the State, and to preserve the amenity of non-rural areas of the State through the preservation of trees and other vegetation.

The proposal is not located in an area of biodiversity value.

3.2.3 State Environmental Planning Policy (Resilience and Hazards) 2021

The aim of this Policy is to promote an integrated and co-ordinated approach to land use planning for *SEPP 33 - Hazardous and Offensive Development*; and *SEPP 55 - Remediation of Land.*

The clauses of *SEPP (Resilience and Hazards)* 2021 that apply to this designated development are noted to be:

1) Chapter 3 Part 3 Clause 3.10 - Potentially hazardous or potentially offensive development
2) Chapter 4 Clause 4.1 - Object of this Chapter

Chapter 3 Hazardous and offensive development

[6] Available at: Consolidation of state environmental planning policies; Last accessed 23-May-2022.

The Chapter outlines the requirements for a Preliminary Hazard Analysis screening test, required to be undertaken for hazardous and potentially hazardous industries under Chapter 3 Part 3 of *SEPP (Resilience and Hazards)* 2021.

Part 3 Potentially hazardous or potentially offensive development

3.10 Development to which Part 3 applies.

(1) This Part applies to

(a) development for the purposes of a potentially hazardous industry, and
(b) development for the purposes of a potentially offensive industry, and
(c) development notified, for the purposes of this Part, by the Director in the Gazette as being a potentially hazardous or potentially offensive development.

This screening procedure will determine if the Proposal triggers the requirements of Clause 3.11 which would require a Preliminary Hazard Analysis to be prepared.

The material stored on site are not classified as hazardous wastes and so exempt from the considerations of Chapter 3 of *SEPP (Resilience and Hazards)* 2021.

Chapter 4 Remediation of land

Applicants for consent must carry out a preliminary site investigation for any development consent sought on land previously used for activities that may cause contamination.

SEPP (Resilience and Hazards) 2021 requires the approval authority to have regard to certain matters before granting approval. These matters must align with the *Clause 4.1 Objects of this Chapter* and include:

- Whether the land is contaminated;
- Whether the land is, or would be, suitable for the purpose for which development is to be carried out; and
- If remediation is required for the land to be suitable for the proposed purpose, whether the land will be remediated before the land is used for that purpose.

4.1 Object of this Chapter

(1) The object of this Chapter is to provide for a Statewide planning approach to the remediation of contaminated land.
(2) In particular, this Chapter aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment—
  (a) by specifying when consent is required, and when it is not required, for a remediation work, and
  (b) by specifying certain considerations that are relevant in rezoning land and in determining development applications in general and development applications for consent to carry out a remediation work in particular, and
  (c) by requiring that a remediation work meet certain standards and notification requirements.

SEPP (Resilience and Hazards) 2021 also imposes obligations in *Clause 4.14 Guidelines and notices: all remediation work* to carry out any remediation work in accordance with relevant contaminated land planning guidelines under the *Contaminated Lands Management Act* 1997 and to notify the relevant council of certain matters in relation to any remediation work. However, the EPA list of notified contaminated sites does not list the subject site as contaminated land.

The Proposal will involve an extension of the existing concrete hardstand and the construction of two small new stormwater below ground pits. Very little soil disturbance will occur as a result of conducting these works. As per the

Waste Minimisation and Management Plan (refer to Appendix 4), any minor amount of soil removed during the paving and installation of these pits will be tested and classified in accordance with EPA's *Waste Classification Guidelines*. Given the very minor works associated with the Proposal, and the ongoing continued industrial use of the Site, a preliminary site investigation is not required.

3.2.4 State Environment Planning Policy (Transport and Infrastructure) 2021

The aim of the *State Environmental Planning Policy (Transport and Infrastructure)* 2021 is to facilitate the effective delivery of infrastructure across NSW by improving regulatory certainty and efficiency through a consistent planning regime for infrastructure and the provision of services, and by providing greater flexibility in the location of infrastructure and service facilities.

The consolidated SEPP incorporates and repeals the provisions of four SEPPs of *SEPP (Infrastructure)* 2007; *SEPP (Educational Establishments and Childcare Facilities)* 2017; *SEPP (Major Infrastructure Corridors)* 2020; and *SEPP (Three Ports)* 2013.

Other key aims of the *SEPP (Transport and Infrastructure)* 2021 are to allow for the efficient development, redevelopment or disposal of surplus government owned land, and identify the environmental assessment category into which different types of infrastructure and services development falls under, including identifying certain development of minimal environmental impact as exempt development.

The Proposal is permissible with consent under clause 2.152 of the *SEPP (Transport and Infrastructure)* 2021.

Schedule 3 of *SEPP (Transport and Infrastructure)* 2021 also seeks referral to Transport for NSW TfNSW) for any traffic generating development. This Proposal is traffic generating development application and requires to be referred to TfNSW as per Column 3 where a waste or resource management facility referral is required for any size or capacity.

3.2.5 State Environment Planning Policy (Industry and Employment) 2021

The aim of *State Environmental Planning Policy (Industry and Employment)* 2021, Chapter 3, is to ensure that signage (including advertising) is compatible with the desired amenity and visual character of an area, provides effective communication in suitable locations and is of a high-quality finish and design. SEPP (Industry and Employment) 2021 also aims to regulate signage (but not content) under Part 4 of the Act, provide time-limited consents for the display of certain advertisements, regulate the display of advertisement in transport corridors and to ensure that public benefits may be derived from advertising in and adjacent to transport corridors.

This Chapter does not regulate the content of signage and does not require consent for a change in the content of signage.

Part 3.6, Chapter 3 of *SEPP (Industry and Employment) 2021* details the requirements that a consent authority must be satisfied with prior to granting development consent:

> *A consent authority must not grant development consent to an application to display signage unless the consent authority is satisfied:*
>
> *(a) that the signage is consistent with the objectives of this Policy as set out in clause 3.1 (1)(a), and*
> *(b) that the signage the subject of the application satisfies the assessment criteria specified in Schedule 5.*

Part 3.3, Chapter 3 of *SEPP (Industry and Employment) 2021* details advertisements to which this Part applies and states:

> *This Part applies to all signage to which this Policy applies, other than the following:*
>
> *(a) business identification signs,*
> *(b) building identification signs,*
> *(c) signage that, or the display of which, is exempt development under an environmental planning instrument that applies to it,*
> *(d) signage on vehicles*

SEPP (Industry and Employment) 2021 does not apply to the Proposal, as the only signage installed will be a business identification sign.

3.3 Maitland Environmental Planning Instruments and Policies

3.3.1 Maitland Local Environmental Plan 2011[7]

The Maitland Local Environment Plan 2011 aims to make local environment planning provisions for land in Maitland in accordance with the relevant standards environmental planning instrument under Section 3.20 of the Act.

The objectives of the E4 General Industrial zoning where the Proposal is to be located are:

- *To provide a range of industrial, shed, logistics and related land uses.*
- *To ensure the efficient and viable use of land for industrial uses.*
- *To minimise any adverse effect of industry on other land uses.*
- *To encourage employment opportunities.*
- *To enable limited non-industrial land uses that provide facilities and services to meet the needs of businesses and workers.*

The Maitland LEP defines a waste or resource management facility as any of the following:

(a) *A resource recovery facility*
(b) *A waste disposal facility*
(c) *A waste or resource transfer station*
(d) *A building or place that is a combination of any of the things referred to in paragraphs (a)-(c)*

The Proposal meets the definition of a Resource Recovery Facility. This is defined under the Maitland LEP as:

> *A building or place used for the recovery of resources from waste, including works or activities such as separating and sorting, processing or treating the waste, composting, temporary storage, transfer or sale of recovered resources, energy generation from gases and water treatment, but not including re-manufacture or disposal of the material by landfill or incineration*.
>
> *Note—Resource recovery facilities are a type of waste or resource management facility.*

Under the *Maitland Local Environmental Plan* 2011, resource recovery facilities are permitted with consent within E4 General Industrial zoned areas.

[7] Maitland Local Environmental Plan 2011
https://legislation.nsw.gov.au/view/whole/html/inforce/current/epi-2011-0681#pt-cg1.Zone_E4

3.3.2 Maitland Development Control Plan 2011

The *Maitland Development Control Plan* 2011 (Maitland DCP) came into effect on 16 December 2011, is in accordance with the provisions of the *Environmental Planning and Assessment Act* 1979 and associated Regulations. It is consistent with the provisions of the Maitland LEP 2011. The purpose of this DCP is to provide detailed provisions for development within the Maitland LGA. These provisions supplement the legal framework contained in the Maitland LEP 2011.

The aims of this DCP are:

(a) To provide a detailed planning document that outlines requirements for development which meets community expectations and addresses the key environmental planning issues of the Local Government Area; and

(b) To identify certain development as advertised development and to detail public notification requirements in accordance with Section 3.43 of the *Environmental Planning and Assessment Act* 1979.

The provisions of the Maitland DCP relevant to the Proposal are described in Table 3.1. Relevant sections of the Maitland DCP include:

- Section B6 – Site Waste Minimisation & Management;
- Section C5 – Industrial Lands;
- Section C6 – Signage; and
- Section C11 – Vehicular Access & Parking.

It should be noted that the Proposal seeks to change the use of the existing shed for use as a tyre recycling facility. There are small changes proposed for the existing shed, primarily the enclosure of the existing awning towards the back of the Site. The wall between the existing shed and awning will be removed to create a larger fully enclosed shed. Two roller doors will be added to the existing awning with dimensions of 5000 x 5500mm. Aside from the removal of the wall, the existing shed and office space will remain unchanged. The small, gravel area at the back of the Site will be changed to concrete. All changes to the Site are minimal.

An assessment of how the Proposal complies with relevant planning controls under the Maitland DCP is outlined in Table 3.1.

Table 3.1. Relevant controls of the Maitland DCP and Proposal compliance.

Chapter	Controls	Compliance
Part B – Environmental Guidelines[8]		
B6 - Waste Not – Site Waste Minimisation & Management		
1.1.	All applications relating to residential developments, as well as commercial and industrial premises are to include a Site Waste Minimisation and Management Plan (SWMMP) as part of documentation submitted to Council. The development plans should also clearly indicate the location of waste management facilities, including recycling bins and the like.	Complies. Site Waste Minimisation and Management Plan prepared (Appendix 4) and site plans show the location of waste storage (Appendix 1).
1.1 (a)	A SWMMP (WMMP) outlines measures to minimise and manage waste generated during demolition and construction processes, as well as the ongoing use of the site. The WMMP it to nominate the following:	
	The volume and type of waste and recyclables to be generated;	Complies. Refer to the Site Waste Minimisation and Management Plan prepared (Appendix 4).
	The storage and treatment of waste and recyclables on site;	Complies. Refer to the Site Waste Minimisation and Management Plan prepared (Appendix 4).
	The disposal of residual waste and recyclables; and	Complies. Refer to the Site Waste Minimisation and Management Plan prepared (Appendix 4).
	The operational procedures for ongoing waste management once the development is completed, including the nominated waste management service provider.	Complies. Refer to the Site Waste Minimisation and Management Plan prepared (Appendix 4).
1.2	When implementing the WMMP, the applicant must ensure:	
	Roads, footpaths, public reserves and street gutters are not used as places to store demolition waste or materials of any kind;	Complies. Refer to the Site Waste Minimisation and Management Plan prepared (Appendix 4).
	Any material moved offsite is transported in accordance with the requirements of the *Protection of the Environment Operations Act* 1997 and relevant Regulations;	Complies. Refer to the Site Waste Minimisation and

[8] Maitland DCP – Part B – Environmental Guidelines
https://www.maitland.nsw.gov.au/sites/default/files/documents/public-exhibition/part_b_final_1.pdf

<table>
<tr><th>Chapter</th><th>Controls</th><th>Compliance</th></tr>
<tr><td></td><td></td><td>Management Plan prepared (Appendix 4).</td></tr>
<tr><td></td><td>Waste is only transported to a place that can lawfully be used as a waste facility, and by contractors who are aware of the legal requirements of the disposal of waste;</td><td>Complies.

Refer to the Site Waste Minimisation and Management Plan prepared (Appendix 4).</td></tr>
<tr><td></td><td>Generation, storage, treatment and disposal of hazardous, offensive or special waste (including asbestos) is conducted in accordance with relevant waste legislation and relevant agencies;</td><td>Complies.

Refer to the Site Waste Minimisation and Management Plan prepared (Appendix 4).</td></tr>
<tr><td></td><td>Evidence of compliance with any specific industrial waste laws and protocols, such as the Protection of the Environment Operations Act 1997 and relevant Regulations.</td><td>Complies.

Refer to the Site Waste Minimisation and Management Plan prepared (Appendix 4).</td></tr>
<tr><td></td><td>Materials which are to be disposed of and those which are to be reused/recycled are to be separated through the demolition and construction process; and</td><td>Complies.

Refer to the Site Waste Minimisation and Management Plan prepared (Appendix 4).</td></tr>
<tr><td></td><td>Materials that have existing reuse or recycling markets should not be disposed of in landfill when possible.</td><td>Complies.

Refer to the Site Waste Minimisation and Management Plan prepared (Appendix 4).</td></tr>
<tr><td>1.3</td><td>The following waste generation rates shall apply:<table><tr><td>Type of Premises</td><td>Waste Generation</td><td>Recycling Generation</td></tr><tr><td>Offices</td><td>10L / 100m^2 floor area /day</td><td>10L / 100m^2 floor area /day</td></tr></table></td><td>Complies.

Refer to the Site Waste Minimisation and Management Plan prepared (Appendix 4).</td></tr>
<tr><td>2.1</td><td>Demolition of Buildings and Structures</td><td>Complies.

Refer to the Site Waste Minimisation and Management Plan prepared (Appendix 4).</td></tr>
<tr><td>2.1 (a)</td><td>An area shall be allocated for the storage of materials for use, recycling and disposal, giving consideration to slope, drainage, location of waterways, stormwater outlets, vegetation and access and handling requirements;</td><td>Complies.

Refer to the Site Waste Minimisation and Management Plan prepared (Appendix 4).</td></tr>
<tr><td>2.1 (b)</td><td>Waste and recycling materials are to be separated; and</td><td>Complies.

Refer to the Site Waste Minimisation and</td></tr>
</table>

Chapter	Controls	Compliance
		Management Plan prepared (Appendix 4).
2.1 (c)	Measures are to be implemented to prevent damage, minimise health and order risks, and windborne litter.	Complies. Refer to the Site Waste Minimisation and Management Plan prepared (Appendix 4).
3.1	Construction of Buildings and Structures.	Complies. Refer to the Site Waste Minimisation and Management Plan prepared (Appendix 4).
3.1 (a)	An area shall be allocated for the storage of materials for use, recycling and disposal, giving consideration to slope, drainage, location of waterways, stormwater outlets, vegetation and access and handling requirements. Signage is to be incorporated into this area in order for the clear definition of the space;	Complies. Refer to the Site Waste Minimisation and Management Plan prepared (Appendix 4).
3.1 (b)	Waste and recycling materials are to be separated. Signage shall clearly indicate which bins or disposal units are for waste and those for recycling;	Complies. Refer to the Site Waste Minimisation and Management Plan prepared (Appendix 4).
3.1 (c)	Measures are to be implemented to prevent health and odour risks, and windborne litter; and	Complies. Refer to the Site Waste Minimisation and Management Plan prepared (Appendix 4).
3.1 (d)	The use of prefabricated components and recycled materials should be considered when possible.	Complies. Refer to the Site Waste Minimisation and Management Plan prepared (Appendix 4).
4.3	Industrial Development (Operational Phase)	Complies. Refer to the Site Waste Minimisation and Management Plan prepared (Appendix 4).
4.3 (a)	The waste area should provide separate containers for the separation of general waste from recyclables; and	Complies. Refer to the Site Waste Minimisation and Management Plan prepared (Appendix 4).
4.3 (b)	If Council is not the provided waste contractor, then a valid contract with a licensed waste facility is to be kept by the premises or the body corporate managing the site for the collection of waste and recyclables.	Complies. Refer to the Site Waste Minimisation and

Chapter	Controls	Compliance
		Management Plan prepared (Appendix 4).
Part C – Design Guidelines		
C.5 – Industrial Lands		
1 Scale of Development	Scale of Development Proper consideration of industrial development Proposals relies on an understanding of what actually is involved and what is the real nature of hazards and risks. It is essential, and in the applicant's interests, to fully describe the proposed development. This may include quantities and particular qualities of raw materials and finished products, particularly in terms of:	Complies. Refer to Section 2. Project will be identified as a 'designated development'.
	• Toxic qualities	Complies. Refer to Section 2. Project will be identified as a 'designated development'.
	• Handling procedures	Complies. Refer to Section 2. Project will be identified as a 'designated development'.
	• Manufacturing processes involved	Complies. Refer to Section 2. Project will be identified as a 'designated development'.
	• By-products in the event of fire	Complies. Refer to the Fire and Incident Management Report prepared (Appendix 9). Project will be identified as a 'designated development'.
	• Risks in the event of flood	Not applicable, site not located in a flood zone.
	• Cumulative Risks associated with quantities, and with good stored in adjoining development	Complies. Refer to Section 7 and Section 8. Project will be identified as a 'designated development'.
	• Procedures required by occupational health and safety regulations	Complies.

Chapter	Controls	Compliance
		Refer to Section 7 and Section 8. Project will be identified as a 'designated development'.
	• Measures required for safe storage (e.g. bunding etc.)	Complies. Refer to the Site Waste Minimisation and Management Plan prepared (Appendix 4). Project will be identified as a 'designated development'.
	• Volumes to be transported, manner of transport and probably routes	Complies. Refer to the Traffic and Transport Report (Appendix 7). Project will be identified as a 'designated development'.
	• The amount and nature of waste to be generated and the proposed means of disposal	Complies. Refer to the Site Waste Minimisation and Management Plan prepared (Appendix 4). Project will be identified as a 'designated development'.
	• Fire safety measures in buildings and storage area	Complies. Refer to the Fire and Incident Management Report prepared (Appendix 9). Project will be identified as a 'designated development'.
	• Whether any other licence or approval is required under other legislation, and the measures proposed in the development to obtain that licence or approval	Not Applicable – no license required
	An accurate description of the proposed development will assist the applicant and Council in defining the use and establishing the overall scale of the development.	Compliant. Refer to Section 2. Project will be identified as a 'designated development'.
	1. Design and Appearance of Buildings	

Chapter	Controls	Compliance
2. Development Guidelines	(a) The external walls of industrial buildings shall be of profiled colour-treated cladding or masonry materials, or a combination of both;	Compliant. Refer to the Visual Impact Assessment prepared (Appendix 12).
	(b) Particular consideration shall be given to the design and use of the above materials in the street elevation of industrial buildings, particularly where such buildings are in close proximity to residential or commercial neighbourhoods or front main roads.	Compliant. Refer to the Visual Impact Assessment prepared (Appendix 12).
	(c) Where the side or rear elevation of an industrial building is visible from residential areas, colours and wall profiles should be selected to minimise their visual impact.	Compliant. Refer to the Visual Impact Assessment prepared (Appendix 12).
	(d) Buildings should be designed to be energy efficient through the use of insulation, correct orientation on the Site, passive solar design and other energy saving technologies.	Compliant. Refer to the Visual Impact Assessment prepared (Appendix 12).
	(e) Where the Site is liable to flooding, accurate information on ground and building levels should be provided. This should be related to proposed measures for evacuation, safe storage and hazard reduction in the event of a flood.	Not applicable – site is not within a flood zone and not liable to flooding
	2. Landscaping	
	(a) The following areas of the Site shall be landscaped: i) The front setback area to a minimum depth of 5 metres; ii) The side and rear setbacks if visible from residential areas or a public place; iii) The perimeters of open storage areas are to be landscaped as necessary to provide screening from public view; [MAITLAND DEVELOPMENT CONTROL PLAN] December 2011 Part C – Design Guidelines – Industrial Land Page 115 iv) Car parking areas are to be landscaped to provide shade and to soften the visual impact of parking facilities (refer to diagram).	Compliant. Refer to the Landscape Concept Plan prepared (Appendix 13).
	(b) A physical barrier of kerb is to be constructed between all landscaped and grassed areas, and areas for the standing or manoeuvring of vehicles on the site.	Compliant. Refer to the Landscape Concept Plan prepared (Appendix 13).
	(c) Where practicable, parking areas in the front of building could be constructed at a lower level, to increase the effect of frontage mounding and landscaping in screening parking areas.	No new parking spaces proposed.
	(d) A detailed plan is to be submitted with the development application and is to show the location and species of all planting and all other landscaping works to be carried out. In this regard Australian native plants will grow faster and require less attention than introduced	Compliant. Refer to the Landscape Concept Plan prepared (Appendix 13).

Chapter	Controls	Compliance
	species. A brochure of suitable species for the Maitland area is available from Council.	
	(e) Landscaping treatment should be designed to complement any existing vegetation and any landscaping of roads and other public spaces.	Compliant. Refer to the Landscape Concept Plan prepared (Appendix 13).
	3. Vehicular Access	
	(a) Access drives shall have a minimum width of 6 metres (Note: Major traffic generating developments may require a greater access width, divided at the property line)	Complies. Refer to the Traffic and Transport Report (Appendix 7).
	(b) Access drives shall not be located in close proximity to an intersection.	Complies. Refer to the Traffic and Transport Report (Appendix 7).
	(c) Loading and unloading facilities appropriate to the particular development are to be provided on site such that service vehicles are located wholly within the site, and do not create conflicts with parking areas. *NOTE: Should developers require more detailed technical information regarding vehicular movements to, from and within the site their attention is drawn to the Traffic Authority of New South bales publication "Policy and Guidelines" which is available for perusal at Council's Town Planning Department.*	Complies. Refer to the Traffic and Transport Report (Appendix 7).
	4. Parking	
	(a) See C.11: Vehicular Access and Parking for number of parking spaces required.	Complies. Refer to the Traffic and Transport Report (Appendix 7).
	(b) All car parking facilities shall be located behind the front 5 metre landscaped area;	Complies. Refer to the Traffic and Transport Report (Appendix 7).
	(c) Where it is proposed to locate parking facilities behind an industrial building or to the rear of an industrial site, separate provision for visitor parking shall be made in front of the building and behind the front 5 metre landscaped area.	Complies. Refer to the Traffic and Transport Report (Appendix 7).
	(d) Car parking bays are to have a minimum construction standard of a two-coat bitumen seal, be clearly delineated, and have dimensions of 2.6m width x 5.5m length.	Complies. Refer to the Traffic and Transport Report (Appendix 7).

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	5. Setbacks *(a)* Front building setback shall be determined on the following criteria: *i) Provision of landscaped area to a minimum depth of 5 metres;* *ii) Provision of car parking facilities;* *iii) Building height, bulk and layout;* *iv) The nature and needs of the industrial activity;* *v) The general streetscape.* (b) Side and rear setbacks shall be as specified by Ordinance 70.	Complies. Refer to Section 2.9 and Figure 2.2.
	6. Storage Areas (a) External storage areas are to be located to the rear or the Site and be screened from public view by means of fencing and/or landscaping.	Not applicable – no external storage areas
	7. Advertising Signs (a) Advertising signs and structures shall be of a size, colour and design which is compatible with the building to which they relate and is streetscape; (b) Advertising signs and structures maybe be located as follows: i. Single occupant Industrial Sites: ○ One free standing advertising structure may be constructed within the front 5 meter landscaped area of the Site; and ○ One advertising sign may be placed on the façade of the building roof line.	Advertising signs in same location, within the landscaped area and on façade of building roof line
	8. Drainage (a) On-site detention of stormwater is required in accordance with Council's Manual of Engineering Standards, to restrict the discharge rate of stormwater runoff. The methods may include tanks (either underground or aboveground) or surface storage areas such as driveways. (b) Ultimate discharge for collected stormwater runoff should be to a street drainage system, to an inter allotment drainage line, or by approval to a public area. The system should be gravity-drained. Pumping of stormwater is not permitted. (c) Pollutants carried in stormwater runoff, generated from building activity, vehicle parking, manoeuvring, and hardstand areas should be assessed for the potential adverse effects of sediment movement (by wind, water and wheeltracking), and vehicle-sources hydrocarbon pollution. Appropriate measures must be taken to contain pollutants, both during construction and long term permanent treatments. Reference should be made to Landcom/Department of Housing guidelines "Managing Urban Stormwater". An Erosion and Sediment Control Plan should be prepared as part of the drainage design for the Site.	Complies. Refer to the Soil and Water Impact Assessment (Appendix 8).
	9. Security Fencing (a) Security fencing, wherever possible, it to be located within or behind the front 5 metre landscaped area	Complies. Refer to Site Plan (Figure 2.2).

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	10. Compatibility (a) Windows, doors and other wall openings should be arranged to minimise noise impacts on residences, where an industry is located within 400 metres of a residential zone; (b) External plant such as generators, air conditioning plant and the like should be enclosed to minimise noise nuisance; (c) External and security lighting should be directed and shielded to avoid light spillage to adjoining residential areas; (d) Driveways should be arranged or screened to avoid leadlight glare on residential windows; (e) Hours of operation may be limited if extended operation is likely to cause a nuisance to adjoining residential areas (including nuisance from traffic).	Complies. Refer to Figure 2.2 Refer to the Noise and Vibration Impact Assessment (Appendix 5), Traffic and Transport Report (Appendix 7) and the Visual Impact Assessment (Appendix 12).
C.6 - Signage	Guidelines for Signage 1) Signs should be simple, clear and concise. In some cases graphic symbols may be more effective than words. 2) Signs should fit the structure of the building and be complementary to the building. 3) Historic buildings and places should be treated with sympathy and signs should not obscure or overwhelm the architectural features of the building or place. Traditional sign materials of the era should be used rather than plastics, Styrofoam, opalescence and similar materials. 4) Signs in rural and environmental protection zones should only advertise facilities, activities or services located on the land or be directional signs to tourist or historical interest. 5) Multi-tenancy development signage to be uniform size, shape and of similar construction. 6) Wall signs shall be restricted to 25% of the visible wall surface. 7) Signs resembling road or traffic signs are prohibited. 8) Signs are to be properly maintained. 9) Footpath signs are prohibited. 10) Rationalisation of signage is encouraged. 11) Temporary signs and banners are generally not encouraged but when allowed, are subject to strict conditions of approval and removal following the event. 12) Signs requiring substantial supporting structure may require detail design plans from a practising Structural Engineer. Signs Not Acceptable: (a) Signs in rural, residential and environmental protection zones where they do not relate to activities and development situated on that land with the exception of directional signs to place of tourist on historical interest. (b) Signs which project from the building facade and obstruct the view of the streetscape. (c) Signs fixed to trees, light poles or the like. (d) Signs that interfere with traffic lights or signs, obstruct lines of sight or signs that are inconsistent with RTA requirements. (e) Signs that are unsightly, objectionable on injurious to the amenity of the locality. (f) Signs attached to parked vehicles/trailers or the like. (g) Portable signs on public footways/road reserves. (h) Numerous small and cluttered signs duplicating information. (i) Signs not on land to which they relate other than in commercial/industrial zones.	No new signs proposed, existing signs in compliance.

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	For licensing strategy, fee structure & Enforcement see page 121 in the Maitland DCP	
C.11 – Vehicular Access & Parking	*1.1 General Requirements* In determining the parking and traffic requirements for a development Proposal, the following principles shall be followed: • the minimum standards as set out in this plan; • the likely demand for off-street parking generated by the development; • the availability of public transport in the vicinity to service the proposed development; • the probable mode of transport to be used by employees and/or customers; • the likely peak times of usage of the proposed development; • the existing traffic volumes on the surrounding street network including, where relevant, the potential future traffic volumes; and • the equity of requiring of-street parking for individual developments within areas such as Maitland City Centre and Morpeth, where historical parking deficiencies have occurred	Complies. Refer to Figure 2.2. Refer to the Traffic and Transport Report prepared (Appendix 7).
	1.2 Calculation of Parking Requirements *d. Change of Use (relevant option)* Where the use of an existing building is to be changed, or where an existing building is to be replaced with a new building, the following method of calculation shall apply: I. The parking requirements of the previous or existing premises is to be determined in accordance with Appendix A of this policy; II. The parking requirement of the proposed development is to be determined in accordance with Appendix A of this policy; III. Subtract the number of spaces determined in (a) above from the number of spaces calculated in (b) above; IV. The difference calculated in (c) above represents the total number of parking spaces to be provided in addition to the existing of-street carparking. Where an existing building is to be replaced by a new building which has a floor area not exceeding the floor area of the existing building, and no change of use is proposed, no additional parking is required to be provided. Notwithstanding the above, nothing in this plan requires the provision of additional parking in conjunction with the conversion of an existing approved office or business premises or a shop, to either a shop or a restaurant or cafe, within business zones of the Maitland City Centre (refer to Map). Appendix A – Car Parking Requirements for Specific Land Uses • Industry	Complies. Refer to Figure 2.2. Refer to the Traffic and Transport Report prepared (Appendix 7).

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	○ 1 space per 75m^2 GFA or 1 space per 2 employees WHICHEVER IS THE GREATER ○ This requirement may increase if retailing is permitted on the Site, or the office space component is in excess of 20% of the floor area.	
	2. Guidelines for the design, layout and construction of access and parking areas 2.1 Access To The Site A development should be designed to provide adequate on-site manoeuvring and circulating areas to ensure that all vehicles can enter and leave the Site in a forward direction. Access to or from a Site shall be located where it causes the least interference to vehicular and pedestrian traffic on the road frontage. Access will generally not be permitted in the following locations: (a) close to traffic signals, intersections or roundabouts where sight distance is considered inadequate by Council; (b) opposite other developments generating a large amount of traffic (unless separated by a median island); (c) where there is heavy and constant pedestrian movement along the footpath; (d) where right turning traffic entering the facility may obstruct through traffic; and (e) where traffic using the driveways interferes with, or blocks the operations of bus stops, taxi ranks, loading zones or pedestrian crossings. (f) Direct access onto a major road is to be avoided wherever possible. Auxiliary lanes, (deceleration and acceleration lanes), may need to be provided to minimise conflicts between entering/leaving traffic with through traffic. In many cases, right turn movements into a site are unlikely to be supported, unless an exclusive right turn bay is provided. Council may designate areas over the street frontage of the development where no stopping or no parking sign posting is to be installed to facilitate the entry/exit of vehicles and the safe movement of cyclists and pedestrians. Any on-street signage would be required in accordance with Australian Road Rules requirements as identified by Council's Local Traffic Committee.	Complies. Refer to Figure 2.2. Refer to the Traffic and Transport Report prepared (Appendix 7).
	2.2 Sight Distances Consideration must be given to maintaining adequate sight distances for all access driveways. Any vehicle entering or leaving the driveway must be visible to approaching vehicles and pedestrians. AS 2890.1 Off-Street Car Parking gives minimal and desirable sight distances for a range of road frontage speeds.	Complies. Refer to Figure 2.2. Refer to the Traffic and Transport Report prepared (Appendix 7).
	2.3 Entrance/Exit to the Site The entry and exit requirements for parking areas may vary in relation to: • the size of vehicles likely to enter the proposed development; • the volume of traffic on the streets serving the proposed development; and • the volume of traffic generated by the development. The driveway standards recommended by the Roads and Traffic Authority of NSW Guide To Traffic Generating Developments (the guide) are adopted for the purpose of this Plan. Requirements specified within 'the guide' are summarised in Tables 1 and 2 in Appendix B, and in general the following shall apply:	Complies. Refer to Figure 2.2. Refer to the Traffic and Transport Report prepared (Appendix 7).

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	• separate entrance and exit driveways should be provided for developments requiring more than 50 car parking spaces or where the development generates a high turnover of traffic such as a service station or other drive in retail facilities; • entry and exit driveways shall be clearly signposted; • the number of access points from a development site to any one street frontage should be limited to one ingress and one egress; and • the potential for on-street queuing should be minimised by ensuring that adequate standing areas are available for vehicles entering the car park and loading areas.	
	2.4 Location of Parking Areas Parking facilities for visitors and customers shall be provided where clearly visible from the street so their use is encouraged. Parking spaces for employees and for longer duration parking may be located more remotely from the street. Within the development site, the location of the parking area should be determined having regard to: (a) site conditions such as slope and drainage; (b) visual amenity of the proposed and adjacent development; (c) the relationship of the building to the parking area; and (d) the proximity of the parking area to any neighbouring residential areas	Complies. Refer to Figure 2.2. Refer to the Traffic and Transport Report prepared (Appendix 7).
	2.5 Parking Space and Aisle Dimensions Greater dimensions than minimum is required when: • a parking space which has a wall or obstruction on one side – an additional 300mm width to that shown is required; and, • for the end space in a blind aisle, the width is to be increased to 3.6 metres. See Appendix 3 for typical parking space dimensions.	Complies. Refer to Figure 2.2. Refer to the Traffic and Transport Report prepared (Appendix 7).
	2.6 Construction Requirements In general, all car parking areas, manoeuvring areas and unloading areas shall be constructed with a base course of adequate depth to suit design traffic, and shall be sealed with either bitumen, asphaltic concrete, concrete or interlocking pavers. In choosing the most suitable pavement type, consideration should be given to: • anticipated vehicle loads; • run-off gradients and drainage requirements; and, • construction constraints. The works are to be maintained to a satisfactory standard throughout the term of development and/or use of the land for which the facilities are provided. Particular consideration needs to be given to the appearance of car parking areas within Heritage Conservation Areas, or associated with or adjacent to, listed Heritage Items, where large areas of bitumen surfaced car parking are not recommended. In these circumstances alternative treatments should be discussed with Council's Planning staff. A combination of landscaping and choice of sympathetic materials (eg pavers, faux brick or in certain circumstances stabilised gravel finish) is generally recommended as the most practical solution.	Complies. Refer to Figure 2.2. Refer to the Traffic and Transport Report prepared (Appendix 7).
	2.7 Landscaping Parking areas shall be appropriately landscaped to achieve a satisfactory appearance, particularly for those car parks with large areas of bitumen, to provide shade and to provide a buffer between neighbouring land uses. Landscaping should be used throughout the car park and on the perimeters. In general, there should be no more than 10 parking bays before a break with planting.	Complies. Refer to the Traffic and Transport Report (Appendix 7), the Visual Impact Assessment (Appendix 12) and the

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	Species should be selected and located to avoid maintenance problems, so that they do not hinder visibility at entry or exit points and so that they do not cause damage to paved areas by root systems or create excessive leaf or branch litter. Trees with large surface roots, excessive girth, brittle limbs, fruits which drop and trees which attract large numbers of birds should be avoided in parking areas. In most cases landscaping can be integrated into parking layouts without the need for additional area or loss of car parking spaces. Wheel stops are to be provided along the front of parking bays to prevent vehicles from damaging landscaped areas, buildings and/or fencing and other vehicles.	Landscape Concept Plan (Appendix 13).
	2.8 Directional Signs and Marking Parking areas are to be clearly signposted and line-marked. Entry and exit points are to be clearly delineated and parking spaces for specific uses(disabled visitors, employees etc) clearly signposted. “One way” markings must be clearly set out on the pavement in such a manner as to be easily readable and understandable to users of the car park. Council may designate areas within the car park where no stopping or no parking signposting is to be installed to facilitate the free movement of vehicles and pedestrians.	Existing signs compliant.
	2.9 Principles for Crime Prevention Effective design can be used to assist in the reduction of crime opportunities. The following design principles will be considered by Council in the assessment of applications. How they apply to each development application will depend on the nature of the development Proposal and prevailing crime risk in the area. The aim of these principles is to ensure that Council does not approve developments that create or exacerbate crime risk. Design of car parking areas should consider the principles of effective lighting. Lighting is to be provided in off-street car parks in accordance with the requirements of AS 2890.1, 2004 – Parking Facilities Off Street Parking. Lighting may also be required over the street frontage of the development, particularly at entry or exit points in accordance with AS/NZS 1158, Lighting for Roads and Public Places. (a) Provision of clear sightlines between public and private places; (b) Landscaping that makes the car park attractive but does not provide offenders with a place to hide or entrap victims; (c) In some cases restricted access to the car park, particularly after business hours through the use of physical barriers should be considered; (d) Design with clear transitions and boundaries between public and private space through the provision of clear access points; (e) Clear design cues on who is to use the space and what it is to be used for – care should be taken to ensure that gates and enclosures do not make public areas into private areas and consideration should be given to suitable signage (e.g. need to lock vehicles); (f) Strategies to prevent vandalism through appropriate design, e.g. durable lighting materials and minimisation of exposed walls; (g) Management strategies for site cleanliness, rapid repair of vandalism and graffiti, the replacement of burned out lighting, the removal or refurbishment of decayed physical elements and the continued maintenance of landscaped areas.	Partially complies. Refer to the Traffic and Transport Report (Appendix 7). Comment: CCTV and lighting will be considered as part of the detailed design

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	3. Loading/Unloading Requirements 3.1 General On-site loading and unloading facilities must be provided for **all** businesses, commercial, industrial, retail and storage uses and any other where regular deliveries of goods are made to or from the Site.	Complies. Refer to Figure 2.2. Refer to the Traffic and Transport Report (Appendix 7).
	4.2 Number and Size of Loading Bays The number and dimensions of the on-site loading bays must be designed having regard to the nature and scale of the proposed development, the estimated frequency of deliveries, the type of delivery vehicle likely to be involved and the types of goods being loaded/unloaded. Accordingly, these details are required to be submitted with the Development Application for Council's consideration. As a guide, for small and medium-sized shops or commercial premises, restaurants or small-scale industrial development likely to involve the use of vans, utilities or small trucks only, one loading bay will usually be sufficient.	Complies. Refer to Figure 2.2. Refer to the Traffic and Transport Report (Appendix 7).
	Design and Layout of Loading Bays The loading areas must be designed to ensure that standard design vehicles can manoeuvre into and out of all loading areas without causing conflict to the movement of traffic on-site or in the adjacent streets. It is not possible to specify dimensions for service areas which would be appropriate for all situations. The dimensions of the service bay will depend, in part, on the type of vehicle to be accommodated. The loading bay(s) should be a physically defined area (by signposting and/or pavement marking) which is not used for other purposes such as customer parking or the storage of goods and equipment. The loading areas must be designed to ensure that vehicles stand entirely within the Site during all loading and unloading operations. Where existing buildings are being redeveloped, all of the above design criteria may not be achievable. However, every effort must be made to ensure that public safety is not compromised. In addition to the above requirements, the Roads and Traffic Authority's "Guide to Traffic Generating Developments" details recommended dimensions for loading areas based on the various types of service vehicles and other requirements for ramps, internal roadway etc (refer to Table 1 in Appendix B) Council's Planning and Environmental Group should be contacted if further information is required.	Complies. Refer to Figure 2.2. Refer to the Traffic and Transport Report (Appendix 7).
	4. Car Parking for Persons with a Disability Special parking spaces for persons with a disability are to be made available in the provision of car parking facilities, in accordance with Australian Standard AS2890.1 – 2004. In general, where 10 or more vehicle spaces are required, one designated parking space for people with disabilities is required per 100 (or part thereof) car spaces provided. Council has adopted the 'enhanced' requirements for land uses where there is a higher demand for disabled facilities. For example, for retail shopping complexes, community facilities and medical centres, parking provisions for people with disabilities should be increased to 2 to 3 % of the overall parking requirements. Council's enhanced car parking standards are as follows: • medical services, including community health centres – 1 space per two to five surgeries (or equivalent), 2 spaces for six or more surgeries (or equivalent) • entertainment facilities clubs and public halls, large retail complexes (ie>100 spaces) and railway stations – 3 spaces per 100 car parking spaces The location of spaces designated for persons with a disability should be close to an entrance to a building or facility with access	Not applicable – less than 10 parking spaces and not open for public access.

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	from the car space by ramps and/or lifts. These spaces should be clearly signposted for the convenience of their users and to discourage other drivers from using such spaces. The spaces should be a minimum of 2.4 metres wide with an adjoining shared space 2.4 metres wide to assist movement into and out of parked vehicles	
6. Bicycle Parking	Provision is to be made for cyclists via the installation of bicycle parking facilities in accordance with Australian Standard AS 2890.3-1993 – Bicycle Parking Facilities and Austroads Guide to Traffic Engineering, Part 14.	Bicycles will be parked within the industrial shed.

3.4 Other applicable legislation or strategies

3.4.1 Fire and Rescue NSW – Guideline for bulk storage of rubber tyres[9]

The Fire & Rescue NSW guidelines (the Guidelines) for the bulk storage of rubber tyres provides guidelines for managers of any new facility which intends to store new or used tyres and related subsidiary products. It is a requirement that all facilities storing more than 5 tonnes or 500 waste tyres or processing more than 5,000 tonnes of waste tyres per year, are required to hold an environment protection licence issued by the NSW Environment Protection Authority.

The Proposal will trigger the requirement for an EPA license because the waste storage activity will exceed 5 tonnes of waste tyres stored on the premises at any time. The Proposal will be under the limit for resource recovery and so not require an EPA license for this part of the Proposal.

All tyres will be stored inside the existing unsprinklered shed. The designated tyre storage area is located towards the back of the shed. The building floor area is approximately 673m^2 meaning the Proposal does not trigger requirements for the building to have a sprinkler system or smoke and heat vents, as per Section 7.1 of the Guidelines:

> *"Buildings which have a floor area of 2,000m^2 or more and contain more than 20 tonnes of tyres should have a sprinkler system complying with AS 2118.1.*
>
> *Buildings which have a floor area of 2,000m^2 or more and contain more than 10 tonnes of tyres should have smoke and heat vents complying with specification E2.2c of the BCA (Volume one).*
>
> *Individual tyre stacks within buildings or structures should not exceed 3.7m in height and 30m^2 in area.*
>
> *Stored tyres must remain at least 1m clear in all directions from the underside of the building's roof or ceiling, roof structural members, lights (includes light fixtures) and sprinkler heads.*
>
> *A minimum clearance of 1m must be maintained along paths of travel to required exits and firefighting equipment (e.g. hose reels, extinguishers, hydrants). The paths of travel must be kept clear and unobstructed at all times."*

Additionally, Section 7.2 of the Guidelines outlines the requirements of unsprinklered buildings:

> *"A minimum clearance of 3m should be provided between stacks in an unsprinklered building.*
>
> *A minimum clearance of 3m should be provided between tyre stacks and any building structural member in an unsprinklered building."*

The two storage areas, one for whole tyres and the other for recovered products, will not exceed a maximum height of 3.7m and or a floor area of 30m^2. A minimum clearance of 3m is also provided between stacks given the building is unsprinklered. Given these restrictions, the maximum storage dimensions for the Proposal are a maximum of 24m^2 in area and 3.5m in height. All tyres will be stored inside the unsprinklered shed. The Waste Tyre Storage Area and Crumb Rubber Storage Area are located on the eastern side of the industrial shed, refer to Figure 2.2.

[9] NSW Government (2014). *Fire & Rescue NSW – Guideline for bulk storage of rubber tyres.* Available online: https://www.fire.nsw.gov.au/gallery/files/pdf/guidelines/rubber_tyres.pdf (Last accessed 11 January 2024).

4 Strategic Drivers

4.1 NSW EPA Strategic Plan 2021-24

NSW Environmental Protection Authority (The EPA) has the ambitious plan to be a world class regulator. The plan describes environmental stewardship and use of the regulatory tool to protect and enhance the environment for today and future. The EPA has identified five focus areas for the next three years to provide services in collaboration with stakeholders, promoting a learning mindset, outcomes orientated focus, responsive and adaptive approach, and purpose and people-centred values. The five focus areas are:

1. Ecologically Sustainable Development
   - Champion sustainable approaches to mitigate the cumulative impacts of industry on local communities and environments.
2. Waste
   - Take action to reduce the harmful impact of waste and drive behaviours that create a circular economy.
3. Water Quality
   - Take action to ensure sustainable and safe water for the community, ecosystems and for economic prosperity and to support cleaner waterways.
4. Legacy and emerging contaminants
   - Take action to prevent harm by targeting our efforts on high-risk legacy, current and emerging contaminants.
5. Climate Change
   - Take action to reduce emissions, mitigate climate change impacts and build greater environmental and community resilience aligned with the principles in the NSW Net Zero Plan.

The Proposal will help contribute to the achievement of this plan by beneficially recycling tyres, contributing to ecologically sustainable development and supporting the circular economy.

4.2 NSW Waste and Sustainable Materials Strategy 2041

This strategy updates NSW's previous strategy: the *Waste Avoidance and Resource Recovery Strategy* 2014–2021.

NSW Waste and Sustainable Materials Strategy 2041: Stage 1 – 2021-2027 outlines the actions NSW will take over the next six years – the first phase of the strategy – to deliver on a set of long-term objectives. The strategy is by $356 million in funding to help deliver priority programs and policy reforms, including:

- Phasing out problematic single-use plastic items;
- Financial incentives for manufacturers and producers to design out problematic plastics;
- Having government agencies preference recycled content and invest in research and pilots for recycling innovation;
- Introducing tighter environmental controls for energy from waste in NSW, with further consideration of planning and infrastructure needs underway;
- Mandating the source separation of food and garden organics for households and selected businesses; and
- Incentivising biogas generation from waste materials.

Specific targets focus on the environmental benefits and economic opportunities in how we manage our waste, and includes the following:

- Reduce total waste generated by 10% per person by 2030;

- Have an 80% average recovery rate from all waste streams by 2030;
- Significantly increase the use of recycled content by governments and industry;
- Phase out problematic and unnecessary plastics by 2025;
- Halve the amount of organic waste sent to landfill by 2030;
- Reduce litter by 60% by 2030 and plastics litter by 30% by 2025; and
- Triple the plastics recycling rate by 2030.

To complement this strategy, NSW also released the following documents:

- *NSW Plastics Action Plan*, which sets out how we will phase out problematic plastics, tackle litter from plastic items like cigarette butts, and support innovation and research; and
- *NSW Waste and Sustainable Materials Strategy: A guide to future infrastructure needs*, which sets out the investment pathway required for NSW to meet future demand for residual waste management and recycling.

Rutherford Tyre Recyclers proposes to recycle tyres into crumb rubber, helping to avoid the landfill disposal of tyres, and will contribute to the NSW recycling targets. The activity is aligned with the *NSW Waste and Sustainable Materials* Strategy and will contribute to providing new recycling infrastructure for end of life tyres.

4.3 NSW Waste and Sustainable Materials Strategy: A guide to future infrastructure needs

The *NSW Waste and Sustainable Materials Strategy: A guide to future infrastructure needs* supplements the *NSW Waste and Sustainable Materials Strategy 2041*, which sets out the long-term vision for managing waste, planning for infrastructure, reducing carbon emissions, creating jobs, and refocusing the way NSW produces, consumes and recycles products and materials. This strategy is backed by $356 million in funding to help deliver priority programs and policy reforms.

This strategy updates NSW's priorities for waste and resource recovery to reflect the NSW Circular Economy Policy Statement, the *Net Zero Plan Stage 1:2020–2030* and the *National Waste Policy Action Plan*.

A key focus of this strategy is ensuring the right infrastructure is available to process the material expected to enter the waste stream over the next two decades, and plan for NSW's waste and circular economy infrastructure, including leveraging private sector and government investment. There are three key areas of focus in the strategy that include residual waste, organics, and plastics.

Tyre recycling is recognised as a NSW Waste and circular economy infrastructure need within this strategy. With a processing capacity gap of ~100,000 tonnes of tyres per annum anticipated in 2030, this Proposal will aid the State in expanding tyre recycling capacity and achieving circular economy goals.

4.4 The National Waste Policy 2018

The *2018 National Waste Policy: Less waste, more resources* provides the framework for collective action by businesses, governments, communities and individuals until 2030. The 2018 National Waste Policy focuses on waste avoidance, improved material recovery and use of recovered materials.

Strategy 7 of the policy aims to increase industry capacity through identifying and addressing opportunities across municipal solid waste, commercial and industrial waste, and construction and demolition waste streams for improved collection, recycling and energy recovery, to deliver ongoing improvements in diversion from landfill, improved quality of recycled content and use of the waste hierarchy.

The Proposal is aligned with the 2018 National Waste Policy to increase industry capacity through identifying and addressing opportunities for improved collection and delivering on improvements in diversion from landfill of tyres.

4.5 Council of Australian Governments Waste Export Ban

In 2019, the Council of Australian Governments (COAG) agreed to establish a ban on the export of waste plastic, paper, glass and tyres and take steps to build Australia's recycling and waste processing industries. The schedule for implementation commences on 1 January 2021 with the banning of export of unprocessed glass. From 1 December 2021 the export of whole used tyres, including baled tyres will be banned. As a result, there is a need to significantly improve Australia's capacity to process waste tyres.

4.6 Sustainability

4.6.1 Environmental

The facility will support the *NSW Waste and Sustainable Materials Strategy 2041: Stage 1 – 2021-2027*, the approved waste strategy for NSW. It sets out the long-term vision for managing waste, planning for infrastructure, reducing carbon emissions, creating jobs, and refocusing the way NSW produces, consumes and recycles products and materials. The strategy will be used to track, review and measure NSW's progress toward meeting the targets set out in the National Waste Policy Action Plan. The targets are to:

- Reduce total waste generated by 10% per person by 2030;
- Have an 80% average recovery rate from all waste streams by 2030;
- Significantly increase the use of recycled content by governments and industry;
- Phase out problematic and unnecessary plastics by 2025; and
- Halve the amount of organic waste sent to landfill by 2030.

In addition to the above targets, NSW has committed to:

- Introduce a new overall litter reduction target of 60% by 2030 and a plastic litter reduction target of 30% by 2025, as set out in the NSW Plastics Action Plan;
- Set a goal to triple the plastics recycling rate by 2030, as set out in the *NSW Plastics Action Plan*;
- Reaffirm our commitment to the goal of net zero emissions from organic waste by 2030, as laid out in the *NSW Net Zero Plan Stage 1: 2020–2030*;
- Establish new indicators to help us track our progress on infrastructure investment and the cost of waste services; and
- Develop a new measure of the emissions performance of our waste and materials management. This will help us to track our performance across the lifecycle of materials.

A major focus area of the strategy is to increase waste infrastructure and services to meet our future needs. The highest priority is to extend the life of existing landfills by reducing the volumes of waste being sent to landfill. Whilst the main focus is on waste avoidance, improving recycling capacity is an important aspect of waste management. This Proposal will contribute towards the recycling targets of NSW and help achieve a more circular economy through recycling and re-using of materials. The facility will help facilitate the use of recycled materials in the making of roads and other rubber products, replacing the use of virgin materials.

4.6.2 Social and Economic Benefits

Increased investment in resource recovery infrastructure is good for public health and the economy. The resource recovery sector creates jobs and stimulates innovative technology. Successfully meeting diversion targets as set in the

NSW Waste and Sustainable Materials Strategy 2041: Stage 1 – 2021-2027 will create more jobs and build better communities.

It is anticipated that the Proposal will employ five (5) people.

5 Estimated Cost of Development

Minor capital works are proposed as part of this Proposal. This will include:

- Building works to enclose the open awning towards the rear of the Site, removing the dividing wall and installing two roller doors. These amendments will create a larger, fully enclosed industrial shed on Site;
- Installation of a waste tyre recycling production line;
- Installation of a rubber tiles production line;
- Installation of a 9m portable above ground weighbridge located near the Site entrance;
- Line marking of one loading bay and overnight parking for two heavy rigid vehicles (HRVs);
- Internal storage area to store delivered whole used tyres;
- Internal storage area to store recovered materials from tyre recycling and rubber mats/tiles produced on-site; and
- Additional fire protection measures, including installation of:
  - Fire extinguishers;
  - Three fire hydrants;
  - A windsock to assist Fire & Rescue NSW to determine the prevailing wind direction in the unlikely event of a fire;
  - Full firewater containment bunding around the site;
  - Stormwater isolation valve (to contain firewater in the unlikely event of a fire);
  - Carbon dioxide alarms;
  - Storage areas 3m clear from roof; and
  - Manual call points in clearly visible locations. These small red boxes are linked to the fire alarm system to allow occupants to trigger the alarm manually in the event of a fire.

The individual quotations obtained for these works are as per the Table 5.1 to inform an estimated development cost for the Proposal.

Figure 5.1. The estimated development cost.

	Description of works	Cost of works excludes GST ($)
1.	Demolition, Excavation & Site Preparation	14,151.00
2.	Substructure, Columns, External Wall & Upper Floors	61,602.00
3.	Staircases	n/a
4.	Roof	n/a
5.	Windows, Internal Walls, Doors and Screens	37,157.00
6.	Surface Finishes	123,480.00
7.	Fitments	25,523.00
8.	Special Equipment	328,875.00
9.	Building Services	385,041.00
10.	External Works	53,903.00
11.	NET CONSTRUCTION COSTS (EX. GST)	1,029,732.00
12.	Preliminaries, Overheads & Profit	205,947.00
13.	Contingency	154,460.00
14.	TOTAL CONSTRUCTION COST (EX. GST)	1,390,139.00
15.	Professional Fees	139,014.00
16.	Long Service Levy	3,823.00
17.	ESTIMATED DEVELOPMENT COST (EX. GST)	1,532,976.00

The estimated total development cost is $1,532,976.00 (ex. GST). An Estimated Development Cost report is provided in Appendix 2.

6 Consultation

A Community and Stakeholder Engagement Program has been undertaken to assist in the preparation of the EIS. This section provides an overview of stakeholder engagement and community consultation done for the Proposal, a description of the stakeholder engagement activities undertaken and a summary of the findings that have been incorporated into this EIS.

6.1 SEARs Consultation Requirements

The NSW Department of Planning and Environment's Secretary's Environmental Assessment Requirements (SEAR 1810) (Appendix 17) states direct consultation is required to support the development application:

> *"Unfortunately, the Environment Protection Authority and Fire & Rescue NSW were unable to respond in time. You must undertake direct consultation with them and address their requirements in the EIS.*
>
> *If other integrated approvals are identified before the Development Application (DA) is lodges, you must undertake direct consultation with the relevant agencies, and address their requirements in the EIS."*

Consultation was particularly requested in the SEARs with:

- Environment Protection Authority;
- Fire and Rescue NSW;
- Mindaribba Local Aboriginal Land Council;
- Maitland Council; and
- The surrounding landowners and occupiers that are likely to be impacted by the proposal.

A Community and Stakeholder Engagement Report was prepared to inform the stakeholder and community consultation (Appendix 3), providing details of the stakeholder engagement method. The Community and Stakeholder Engagement Report notes the level of engagement and responses from the stakeholders that are to be addressed in this EIS document.

6.2 Government Consultation

Consultation was undertaken with the required Government agencies during the preparation of this EIS to seek any additional agency requirements and to seek feedback on the Proposal. Each agency was sent a letter of invitation to provide input on key matters that requirement assessment. Agencies were provided with a copy of:

1) SEARs Scoping Report (Attachment 4 of Appendix 3);
2) Factsheet to provide information about Rutherford Tyre Recyclers Development Proposal (Attachment 1 of Appendix 3); and
3) Given the opportunity to organise a videoconference.

The SEARs Scoping Report and the Factsheet are attached within the Community and Stakeholder Engagement Report (Appendix 3). The sections below summarise the key requirements outlined in both the SEARs and further comments provided because of further consultation.

6.2.1 NSW Department of Planning and Environment

The Department of Planning and Environment (DPE) required that an EIS be prepared, which specifically addressed the following issues:

- Strategic context;
- Suitability of the site;
- Waste management;

- Hazards and risks;
- Air quality and odour;
- Noise and Vibration;
- Soil and water;
- Traffic and transport;
- Fire and Incident management;
- Biodiversity;
- Visual impact.
- Heritage
- Environmental Planning Instruments and other policies;
- Guidelines; and
- Consultation.

As mentioned previously, DPE listed the key stakeholders to be consulted during the preparation of the EIS, with these listed in Section 6.1. An overview of the responses received by the key stakeholders is provided in Sections 6.2.2 – Section 6.2.9. Additional detail is provided in the Community and Stakeholder Engagement Report, refer to Appendix 3.

6.2.2 NSW Environment Protection Authority

The NSW Environment Protection Authority (EPA) did not provide feedback during the SEARs phase and so were contacted on 8 February 2024 as part of the consultation engagement phase.

A response was received from the EPA via email on 12 February 2024, informing that the EPA has no comments on the Proposal at this stage. The EPA advised that comment would be provided in due course to the relevant planning authority as per the *Environmental Planning and Assessment Act* 1979. This letter can be found as an Appendix to Community and Stakeholder Engagement Report, attached to this report as Appendix 3.

6.2.3 Fire & Rescue NSW

Fire & Rescue NSW did not provide feedback during the SEARs phase and so were contacted on 8 February as part of the consultation engagement phase.

A response was received by Fire and Rescue NSW via email between 9 February 2024 and 13 February 2024. Fire and Rescue informed in their email response that they will not be providing comment at this stage. The email correspondence can be found as an Appendix to Community and Stakeholder Engagement Report, attached to this report as Appendix 3.

6.2.4 Transport for NSW

Transport for NSW (TfNSW) required that a traffic impact study be prepared by a suitably qualified person/s in accordance with the *Austroads Guide to Traffic Management Part 12*, the complementary *TfNSW Supplement and Roads and Maritime Guide to Traffic Generating Developments*.

As a result of the further consultation, on 16 February 2024, TfNSW re-iterated the issues raised in the SEARs response letter and provided an additional document outlining issues that need to be considered in the EIS. Refer to Appendix 18 for the document.

6.2.5 Maitland Council

Maitland City Council was consulted by the DPE to assist in the formulation of the SEARS for the project, however no comments were received from Council in relation to the Proposal. An email was sent to Maitland City Council on 8 February 2024 via email, with a response received on 28 February 2024. Council's requirements have been duly

addressed. A summary of how Council's requirements have been addressed is summarised in Section 1.8. A copy of the pre-lodgement notes from Council is provided in Appendix 16.

6.2.6 Hunter Joint Organisation

This organisation was contacted due to the work they do within the local area relating to environmental protection. Feedback was sought on 8 February 2024, with a response from Hunter Joint Organisation on 1 March 2024 informing that they will not be providing feedback at this stage of the development. They noted their interest in being kept informed through the Development Application stage.

6.2.7 Mindaribba Local Aboriginal Council

The Mindaribba Local Aboriginal Council were contacted as part of the community and agency consultation period on 8 February 2024. No response was received from this organisation.

6.2.8 Hunter Community Environment Centre

The Hunter Community Environment Centre was contacted as part of the community and agency consultation period on 8 February 2024. No response was received from this organisation.

6.2.9 Neighbours Consulted

During the development of the EIS, consultation was undertaken to facilitate engagement between the project team and key community stakeholders. This engagement served to:

- Identify key community issues for consideration in the EIS and associated technical studies; and
- Create broad awareness of the proposal to any remove uncertainty around the proposal.

The community consultation program was undertaken for a period of 28 days, from 8 February 2024 to 7 March 2024. Consultation activities undertaken included:

- Development and publication of a dedicated webpage (www.jacksonenvironment.com.au/proposed-tyre-recycling-facility) that offered general information about the proposal, along with the links to:
  - Factsheet;
  - SEARs Scoping Report;
  - A contact number; and
  - The project email address (admin@jacksonenvironment.com.au) was provided as a central point of contact for any community enquiries.

An information pack as mentioned above was posted to all properties within 300m of the site comprising of a covering letter and the factsheet. The information pack was also sent to the management team at Oak Tree Retirement Village who are located ~257m away from the Site. A total of 40 letters with factsheets were delivered out to businesses, residents and the community seeking feedback on the Proposal.

A webinar was hosted to inform the stakeholders of the Proposal on 21 February 2024. The webinar was hosted by Jackson Environment and Planning on behalf of Rutherford Tyre Recyclers. The Owner and one staff from both the organisations of Jackson Environment and Planning and Rutherford Tyre Recyclers were present. The webinar was recorded and posted via the dedicated web page (as above) for those members of the community that could not attend. During the webinar, 0 (zero) members of the community logged on to participate. Recording and later publication of the webinar online was therefore considered important to enable community access to information on the Proposal and to seek more information when convenient to them.

To ensure robust stakeholder engagement and provide an opportunity for these stakeholders to raise any concerns, a phone call was made to one manager of Oak Tree Retirement Village located to the southeast of the Proposal. This

stakeholder group was selected because although the land is not zoned as residential, there are residents who live within Oak Tree Retirement Village. Despite a phone call attempt, correspondence with this stakeholder occurred via email, with the manager of Rutherford Oak Tree Retirement Village advising no feedback was provided. They stated that they assume no impacts will be felt by their residents and were not concerned by the Proposal.

The factsheet provided a brief overview of the project and advised receivers to visit the project website to gain more information and advised where to send comments, issues and feedback. The webpage, factsheet and list of recipients can be found in the Community Consultation and Stakeholder Engagement in Appendix 3.

6.2.10 Consultation findings

The findings of the Community Consultation and Stakeholder Engagement are given in Appendix 3. The Community and Stakeholder Engagement Report includes feedback from all stakeholders. The stakeholders are broadly categorised as residents, businesses, local community group and government agencies.

The feedback received from the stakeholders and community is summarised in Table 6.1.

Figure 6.1. Summary of feedback received from the stakeholders and the response on how it will be addressed.

Stakeholder	Feedback type	No. of Feedback	Feedback received	Response to feedback
Oak Tree Retirement Village	Written submissions	None	n/a	n/a
	Webinar	None	n/a	n/a
	Website	None	n/a	n/a
	Phone calls	1	Yes – via email	No concerns.
Caravan Park Owners	Written Submission	None	n/a	n/a
	Webinar	None	n/a	n/a
	Website	None	n/a	n/a
	Incoming phone call	None	n/a	n/a
	Outgoing phone call	None	n/a	n/a
Businesses	Written submissions	None	n/a	n/a
	Webinar	None	n/a	n/a
	Website	None	n/a	n/a
	Phone call	None	n/a	n/a
Local Community Group	Written submissions	None	n/a	n/a
	Webinar	None	n/a	n/a
	Website	None	n/a	n/a
	Phone call	None	n/a	n/a
Government Agencies	Written submissions	2	Comments to address specific impacts within the EIS	Refer to Section 6.2.11
	Webinar	None	n/a	n/a
	Website	None	n/a	n/a
	Phone call	None	n/a	n/a

6.2.11 The Issues Raised and How These Will Be Addressed

Feedback was received by Transport for NSW and Maitland City Council. Transport for NSW responded via email on 16 February 2024 and Maitland City Council responded via email on 28 February 2024, with their responses provided in the Community Consultation and Stakeholder Engagement, Appendix 3. It is important to note that this list provides a summary of the key points within the feedback and does not necessarily include all the details provided. Refer to Table 6.2 for an overview of issues raised during the Consultation and Engagement Program.

Table 6.2. Issues raised during the consultation and engagement program.

Key issues of concern	How issues are to be addressed	Section of EIS where the issue has been addressed
Traffic Impacts	Preparation of a Traffic Impact Assessment	Refer to Section 12
Traffic Management	Preparation of a Traffic Management Plan	Refer to Section 12
Odour and Air Quality	Preparation of an Air Quality and Odour Report	Refer to Section 10
Stormwater Management	Preparation of a Stormwater Management Plan	Refer to Section 14
Waste Management	Preparation of a Waste Management Plan	Refer to Section 9
Fire Safety	Preparation of a Fire Safety Plan	Refer to Section 15
Noise	Preparation of a Noise and Vibration Impact Assessment	Refer to Section 11
Site Investigation	Submit a Preliminary Site Investigation	Refer to Section 3.2.3
Trade Waste	Submit for a Sec. 50 Compliance Certificate and seek advice from Hunter Water Corporation regarding trade waste agreement.	No discharge to sewer is required.

6.2.12 Conclusions

A comprehensive program of local community and agency engagement was undertaken to identify key issues for assessment of the Proposal. Local stakeholders from businesses within 300m distance of the Proposal were targeted to participate in the community engagement program. Contact with all relevant agencies was made to establish whether there were any additional matters which required assessment, in addition to the SEARs requirements.

There was no feedback provided on the Proposal by local businesses, despite the letters, fact sheet and webinar engagement completed. Direct contact with Oak Tree Retirement Village resulted in no feedback or concerns submitted for the Proposal. Two government agencies identified some additional matters to SEARs due to not making comment prior to SEARs being issues. No other responses or concerns were raised by the remaining stakeholder and community groups.

Given the limited response received by the community, evidence suggested that the surrounding community had no particular concerns in relation to the Proposal. However, open communication is recommended with all neighbouring businesses and the Oak Tree Retirement Village following commencement to ensure that any issues are identified and resolved early to avoid impacts on neighbours.

7 Hazards assessment

A Preliminary Hazard Analysis and Environmental Risk Assessment has been performed to identify key potential impacts of the development, as well as potentially offensive or hazardous issues that need to be considered as part of the EIS process. This is a requirement of SEARs, which outlined that:

> *" a preliminary risk screening completed in accordance with State Environmental Planning Policy (Resilience and Hazards) 2021, Chapter 3 and Applying SEPP 33 (DoP, 2011), with a clear indication of class, quantity and location of all dangerous goods and hazardous materials associated with the development. Should preliminary screening indicate that the project is "potentially hazardous" a Preliminary Hazard Analysis (PHA) must be prepared in accordance with Hazardous Industry Planning Advisory Paper No. 6 - Guidelines for Hazard Analysis (DoP, 2011) and Multi-Level Risk Assessment (DoP, 2011)."*

The preliminary risk screening has been completed in accordance with the *State Environmental Planning Policy (Resilience and Hazards)* 2021, Chapter 3 and the *Hazardous and Offensive Development Application Guidelines - Applying SEPP 33* (NSW Department of Planning, 2011)[10].

The assessment has also been performed according to AS/NZS ISO 31000: 2018 *Risk Management – Principles and Guidelines* and the Preliminary Hazardous Analysis has been informed by the *Hazardous and Offensive Development Application Guidelines - Applying SEPP 33* (NSW Department of Planning, 2011). We have also considered the following guidelines published by the NSW Department of Planning in 2011:

- *Hazardous Industry Planning Advisory Paper No 2 - Fire Safety Study Guidelines*[11]
- *Hazardous Industry Planning Advisory Paper No 3 - Risk Assessment*[12]
- *Hazardous Industry Planning Advisory Paper No 4 - Risk Criteria for Land Use Safety Planning*[13]
- *Hazardous Industry Planning Advisory Paper No 6 - Hazard Analysis*[14].

7.1 Scope

The assessment has been performed to identify the risks posed to people, property and the environment, and to identify potential hazardous and offensive issues that need to be addressed as part of the development to ensure compliance with *State Environmental Planning Policy (Resilience and Hazards)* 2021. The assessment also considers off-site risks to people, property and the environment (in the presence of controls) arising from atypical and abnormal hazardous events and conditions (i.e. equipment failure, operator error and external events). The hazard treatment measures that have been proposed assist in producing a 'low' level of risk in accordance with the risk acceptance criteria.

[10] NSW Department of Planning (2011). Hazardous and Offensive Development Application Guidelines - Applying SEPP 33. Published by the NSW Department of Planning. Internet publication: https://www.planning.nsw.gov.au/sites/default/files/2023-03/hazardous-and-offensive-development-application-guidelines-applying-sepp-33.pdf (Last accessed 28 December 2023).

[11] NSW Department of Planning (2011). Hazardous Industry Planning Advisory Paper No 2 - Fire Safety Study Guidelines. Published by the NSW Department of Planning. Internet publication: https://www.planning.nsw.gov.au/sites/default/files/2023-03/hazardous-and-offensive-planning-advisory-paper-no-2-fire-safety-study-guidelines.pdf (Last accessed 28 December 2023).

[12] NSW Department of Planning (2011). Hazardous and Offensive Development Application Guidelines- Environmental Risk Impact Assessment Guidelines. Published by NSW Department of Planning. Internet publication: https://www.planning.nsw.gov.au/sites/default/files/2023-03/hazardous-industry-planning-advisory-paper-no-3-risk-assessment.pdf (Last accessed 28 December 2023).

[13] NSW Department of Planning (2011). Hazardous Industry Planning Advisory Paper No 4 - Risk Criteria for Land Use Safety Planning. Published by the NSW Department of Planning. Internet publication: https://www.planning.nsw.gov.au/sites/default/files/2023-03/hazardous-industry-planning-advisory-paper-no-4-risk-criteria-for-land-use-safety-planning.pdf (Last accessed 28 December 2023).

[14] NSW Department of Planning (2011). Hazardous Industry Planning Advisory Paper No 6 - Hazard Analysis. Published by NSW Department of Planning. Internet publication: https://www.planning.nsw.gov.au/sites/default/files/2023-03/hazardous-industry-planning-advisory-paper-no-6-hazard-analysis.pdf (Last accessed 28 December 2023).

7.2 Methodology

The NSW Department of Planning (2011) in the *Hazardous and Offensive Development Application Guidelines - Applying SEPP 33* sets out a process for screening potentially hazardous materials that are stored on site as part of a Proposal.

Potential risk typically of holding certain types of hazardous materials on site depends on:

- The properties of the substance(s) being handled or stored;
- The conditions of storage or use;
- The quantity involved;
- The location with respect to the site boundary; and
- The surrounding land uses.

Risk screening needs to be undertaken as part of the SEPP 33 guidelines based on an estimate of the consequences of fire, explosion or toxic release from material(s) being handled. It takes into account information from the proponent on the properties of the materials, quantity, type of storage or use, and location.

The methodology used to inform preliminary hazard analysis and environmental risk assessment has included the following steps:

- Identify and screen the hazards associated with the project;
- Examine the maximum reasonable consequence of identified events;
- Qualitatively estimate the likelihood of events;
- Proposed risk treatment measures;
- Qualitatively assess risks to the environment, member of the public and their property arising from atypical and abnormal events and compare these to applicable qualitative criteria;
- Recommend further risk treatment measures if considered warranted; and
- Qualitatively determine the residual risk assuming the implementation of the risk treatment measures.

It is important to note that this preliminary hazard analysis and environmental risk assessment has been undertaken at an early stage of the Proposal to help inform key issues to be considered in the EIS. All hazards need to be identified, and an assessment of the resultant risk levels on a cumulative basis is also undertaken as part of the study.

7.2.1 Risk Management

The environmental risk assessment has been informed by AS/NZ 31000: 2018 *Risk Management Principles and Guidelines* and *Hazardous Industry Planning Advisory Paper No 6 - Hazard Analysis* (NSW Department of Planning, 2011). The risk management process has been informed by the following elements:

- Establish the context;
- Identify the risks;
- Analyse the risks;
- Evaluate the risks; and
- Treat risks.

7.2.2 Risk Criteria

The following principles have been adopted to identify and assess risk in this study. This has been informed by the *Hazardous Industry Planning Advisory Paper No. 4 – Risk Criteria for Land Use Safety Planning* (NSW Department of Planning, 2011).

- The avoidance of all avoidable risks;
- The risk from a major hazard should be reduced wherever practicable, even where the likelihood of exposure is low;
- The effects of significant events should, wherever possible be contained within the site boundary; and
- Where the risk from an existing installation is already high, further development should not pose any incremental risk.

7.2.3 Qualitative measurement of consequence, likelihood and risk

To undertake a qualitative risk assessment, it is useful to describe the levels of consequence of a particular event, and the likelihood or probability of such an event occurring. Risk assessment criteria have been developed in AS/NZS ISO 31000: 2018 which allows the risk assessor to develop risk criteria during the establishment of the context.

In according with AS/NZS ISO 31000: 2018, Table 7.1 and Table 7.2 have been reviewed as part of establishing the context of the project. These tables were considered to be consistent with the specific objectives of the preliminary hazard analysis and environmental risk assessment.

Table 7.1. Qualitative measures of probability.

Event	Likelihood	Description
A	Almost certain	Happens often
B	Likely	Could easily happen
C	Possible	Could happen and has occurred elsewhere
D	Unlikely	Has not happened yet but could
E	Rare	Conceivable, but only in extreme circumstances

Table 7.2. Qualitative measures of maximum reasonable consequence.

Event	People	Environment	Asset / Production
1	Multiple fatalities	Extreme environmental harm (e.g. widespread catastrophic impact on environmental values of an area)	More than $1B loss or production delay
2	Permanent total disabilities, single fatality	Major environmental harm (e.g. widespread substantial impact on environmental values of an area)	$100M to $1B or production delay
3	Minor injury or health effects (e.g. major lost workday case / permanent disability)	Serious environmental harm (e.g. widespread and considerable impact on environmental values of an area)	$5M - $100M loss or production delay
4	Minor injury or health effects (e.g. restricted work or	Material environmental harm (e.g. localised and considerable impact on	$250K to $5M loss or production delay

Event	People	Environment	Asset / Production
	minor lost workday case)	environmental values of an area)	
5	Slight injury or health effects (e.g. first aid / minor medical treatment needed)	Minimum environmental harm (e.g. minor impact on environmental values of an area)	Less than $250K or production delay

Combining the probability and consequence tables, Table 7.3 provides a qualitative risk analysis matrix to assess risk levels.

Table 7.3. Qualitative risk analysis matrix used in this preliminary hazard analysis and environmental risk assessment.

Consequence	Probability[1]					
		A	B	C	D	E
	1	1 (H)	2 (H)	4 (H)	7 (M)	11 (M)
	2	3 (H)	5 (H)	8 (M)	12 (M)	16 (L)
	3	6 (H)	9 (M)	13 (M)	17 (L)	20 (L)
	4	10 (M)	14 (M)	18 (L)	21 (L)	23 (L)
	5	15 (M)	19 (L)	22 (L)	24 (L)	25 (L)

[1] Legend – L: low; M: Moderate; H: high; Risk numbering: 1 – highest; 25 – lowest risk. Colour coding: Green: tolerable risk; orange: ALARP – as low as reasonably practicable; red: intolerable risk.

Risk acceptance criteria for the project have been formulated following consideration of the *Hazardous Industry Planning Advisory Paper No 4 - Risk Criteria for Land Use Safety Planning* (NSW Department of Planning and Environment, 2011d) and AS/NZS ISO 31000 2018 – *Risk Management Principles and Guidelines.*

In assessing the tolerability of risk from potentially hazardous development, both qualitative and quantitative aspects need to be considered. Relevant general principles considered in this study as documented in the *Hazardous Industry Planning Advisory Paper No 4 - Risk Criteria for Land Use Safety Planning* (NSW Department of Planning, 2011):

- The avoidance of all avoidable risks;
- The risk from a major hazard should be reduced wherever practicable, even where the likelihood of exposure is low;
- The effects of significant events should, wherever possible be contained within the site boundary; and
- Where the risk from an existing installation is already high, further development should not pose any incremental risk.

7.3 Materials stored on site

Risk screening needs to be undertaken as part of the SEPP 33 guidelines based on an estimate of the consequences of fire, explosion or toxic release from material(s) being handled. It takes into account information from the proponent on the properties of the materials, quantity, type of storage or use, and location.

A risk screening analysis for the proposed materials to be stored on site is given in Table 7.4 below.

The Facility will be designed and operated to not exceed the thresholds for waste storage.

Table 7.4. Risk screening analysis of potentially hazardous materials held on site as part of the Proposal.

Material / potential pollutant	Storage location	Dangerous Goods Class[1]	Packing Group[2]	Maximum quantity on site	Screening method[3]	Threshold[4]	Notes
Whole Tyres	Whole Tyre Storage Area	Special Waste	n/a	25.2 tonnes	n/a	n/a	Not a dangerous good
Crumb Rubber	Crumb Rubber Storage Area	Special Waste	n/a	36.75 tonnes	n/a	n/a	Not a dangerous good
Recovered Steel	Crumb Rubber Storage Area	n/a	n/a	2.63 tonnes	n/a	n/a	Not a dangerous good
Cotton	Crumb Rubber Storage Area	n/a	n/a	1.83 tonnes	n/a	n/a	Not a dangerous good
Rubber Pavers	Crumb Rubber Storage Area	n/a	n/a	12.6 tonnes	n/a	n/a	Not a dangerous good
Rubber Mats	Crumb Rubber Storage Area	n/a	n/a	12.6 tonnes	n/a	n/a	Not a dangerous good
Diesel	South-eastern corner of the industrial shed	3	III	200L	Refer to Figure 9 of *Hazardous and Offensive Development Application Guidelines - Applying* SEPP 33.	Proposal is storing less than 5 tonnes so not applicable. No further assessment required.	Class 3 dangerous good
Glue - Polyurethane resin (used in rubber tile / mat production)	Eastern side of the industrial shed	n/a	n/a	2000kg	n/a	n/a	Not a dangerous good
Pigments (used in rubber tile / mat production)	Eastern side of the industrial shed	n/a	n/a	1000kg	n/a	n/a	Not a dangerous good
Grease drum cartridges	South-eastern corner of the industrial shed	n/a	n/a	205L	n/a	n/a	Not a dangerous good.

[1] Dangerous Good Class:

- Class 2.1 Dangerous Goods are classified as 'flammable gases';
- Class 2.2 Dangerous Goods are classified as 'non-flammable, non-toxic gases';
- Class 3 Dangerous Goods are classified as 'flammable liquids';
- Class 6 Dangerous Goods are classified as 'toxic substances'

- Class 7 Dangerous Goods are classified as 'radioactive';
- Class 8 Dangerous Goods are classified as 'corrosive';
- Class 9 Dangerous Goods are classified as 'miscellaneous dangerous goods and articles';

[2] Packing Group

- Packing Group I is a group of dangerous goods that are classified as 'substances presenting high danger'
- Packing Group II is a group of dangerous goods that are classified as 'substances presenting medium danger'
- Packing Group III is a group of dangerous goods that are classified as 'substances presenting lower danger'

[3] Screening method is the methodology used to assess dangerous goods in the NSW Department of Planning (2011) *Hazardous and Offensive Development Application Guidelines - Applying SEPP 33*.

[4] Where dangerous goods are stored on-site which exceed the nominated thresholds as per Department of Planning (2011) *Hazardous and Offensive Development Application Guidelines - Applying SEPP 33*, the proposed development is considered to be hazardous and requires detailed assessment under SEPP 33.

7.4 Further hazard identification, scenarios, consequence, likelihood analysis and risk assessment

To help understand further hazards possible as part of the Proposal, a series of potential worst-case scenarios have been assessed to determine possible consequences, likelihood and risk. The NSW Department of Planning's (2011) *Hazardous Industry Planning Advisory Paper No 6 - Hazard Analysis* has been used to assist in guiding this analysis.

As per the above guidelines, this assessment has qualitatively assessed the impacts of the largest possible event on people, plant and the environment. The worst-case scenarios reflect any foreseeable factors that could exacerbate the severity of an accident, including abnormal process conditions, out of hours manning levels, and the potential for control measures to be disabled or rendered inoperable by the accident.

The worst-case scenarios we have assessed include the following:

- Fire within the industrial shed caused by combustion of tyres, crumb rubber, rubber pavers and/or rubber mats;
- Vehicle collision on entry to the site, resulting in fire and possible death;
- Leaks / spills on vehicle entry to the site, with potential impacts on stormwater and fire risk;
- Vehicle theft and malicious damage, leading to equipment failure and injury to person(s);
- Leaks / spills in processing Facility, with potential impacts on stormwater and fire risk;
- Vehicle theft and malicious damage in processing Facility, leading to equipment failure and injury to person(s);
- Vehicle collision between delivery vehicles with other on-site vehicles through driver error, or pedestrian, resulting in possible fire or death near the product storage shed;
- Build-up of electrostatic electricity, or electrical fault, causing spark and fire;
- Equipment breakdown and excess stock stored in the facility increases risk of vehicle collision or fire;
- Leakage of fuel and oil containers in workshop, potentially igniting and/or moving into stormwater, through human error or malicious act;
- Fire caused by ignition source (e.g. cigarette) and combustible materials in workshop (e.g. tyres, crumb rubber) catch fire due to spark from cigarette; and
- A fire in the industrial building leading to the explosion of the glue containers or diesel storage.

Prevention and treatment measures to reduce the likelihood and resulting consequences from these worst-case scenarios are mapped out in Table 7.5 below. Note that a risk rating category has been prepared to understand the significance of these risks – on the environment and human health. Note that the risk ratings estimated as part of the qualitative analysis are specified after implementation of the risk prevention, treatment and detection measures.

Table 7.5. Hazard identification, scenario, consequence, prevention/treatment measures and risk rating table.

Facility / event	Cause / comment	Possible scenarios, results & consequences	Prevention, Treatment Measures and Detection Protection Required	Likelihood	Consequence	Risk rating and category (after treatment measures)[1]
Entry to site						
Vehicle collision	Possible collision of delivery vehicles with other on-site vehicles through driver error, or pedestrian, resulting in possible fire or death	Fire possible outside of the Facility, potentially spreading across the site. Possible impacts on stormwater from discharge of fire water into	• Ensure vehicle speed limits and regular driver education • Firefighting equipment • Emergency management / response plan • Pollution incident response management plan / Environmental management plan • Traffic management plan • Work health and safety plan • Hazardous material management plan • Operator and driver training • Spill response equipment and training • Contact emergency services (NSW Fire Service)	Possible (C)	3	13 (Moderate risk)
Leak / spill	Vehicle collision / damage causes spill / leak of hazardous material	Collision causes leakage of vehicle fuel or oil onto handstand and possible stormwater impacts and a fire risk	• Ensure vehicle speed limits and regular driver education • Firefighting equipment • Emergency management / response plan • Pollution incident response management plan / Environmental management plan • Traffic management plan • Work health and safety plan • Hazardous material management plan • Operator and driver training • Spill response equipment and training • Emergency response • Communications	Possible (C)	5	22 (Low risk)

Facility / event	Cause / comment	Possible scenarios, results & consequences	Prevention, Treatment Measures and Detection Protection Required	Likelihood	Consequence	Risk rating and category (after treatment measures)[1]
			• Spill containment and sweeping of hardstand • Contact emergency services (NSW Fire Service)			
Vehicle theft / malicious damage	Vehicle or material within truck stolen	Components of a truck are stolen and leads to equipment failure and possible safety risk to staff	• Ensure staff compliance with site security measures • Emergency management / response plan • Traffic management plan • Work health and safety plan • Contact emergency services (Police) • Site security / limited access	Possible (C)	5	22 (Low risk)
Within the Facility						
Leak / spill	Vehicle collision / damage causes spill / leak of hazardous material	Collision causes leakage of vehicle fuel or oil onto handstand and possible stormwater impacts and a fire risk	• Ensure vehicle speed limits and regular driver education • Firefighting equipment • Emergency management / response plan • Pollution incident response management plan / Environmental management plan • Traffic management plan • Work health and safety plan • Hazardous material management plan • Operator and driver training • Spill response equipment and training • Emergency response • Communications • Spill containment and sweeping of hardstand • Contact emergency services (NSW Fire Service)	Possible (C)	5	22 (Low risk)

Facility / event	Cause / comment	Possible scenarios, results & consequences	Prevention, Treatment Measures and Detection Protection Required	Likelihood	Consequence	Risk rating and category (after treatment measures)[1]
Theft / malicious damage	Vehicle or material within truck stolen	Components of a truck are stolen and leads to equipment failure and possible safety risk to staff	• Ensure staff compliance with site security measures • Emergency management / response plan • Traffic management plan • Work health and safety plan • Contact emergency services (Police) • Site security / limited access • Contact emergency services (NSW Police)	Unlikely (D)	5	24 (Low risk)
Vehicle collision	Possible collision of delivery vehicles with other on-site vehicles through driver error, or pedestrian, resulting in possible fire or death	Fire possible in Facility, potentially spreading to other parts of the site	• Ensure vehicle speed limits and regular driver education • Firefighting equipment • Emergency management / response plan • Pollution incident response management plan / Environmental management plan • Traffic management plan • Work health and safety plan • Hazardous material management plan • Operator and driver training • Spill response equipment and training • Contact emergency services (NSW Fire Service)	Possible (C)	3	13 (Moderate risk)
Combustion of tyres	Fire caused by spark that ignites the tyres, crumb rubber, rubber tiles and/or rubber mats	Spark through electrical fault or spark from recycling equipment	• Ensure regular electrical maintenance • Regular machinery maintenance and safety inspections • Firefighting equipment • Emergency management / response plan • Pollution incident response management plan / Environmental management plan	Possible (C)	3	13 (Moderate risk)

Facility / event	Cause / comment	Possible scenarios, results & consequences	Prevention, Treatment Measures and Detection Protection Required	Likelihood	Consequence	Risk rating and category (after treatment measures)[1]
			• Traffic management plan • Work health and safety plan • Special and hazardous material management plan • Operator and driver training • Spill response equipment and training • Contact emergency services (NSW Fire Service)			
Equipment breakdown and excess stockpiling	Excess stock increases stored in Facility increases risk of vehicle collision or fire	Collision of vehicles due to constrained operational area, possible fire as a result	• Cease receipt of waste on the site and divert trucks to other facilities • Firefighting equipment • Emergency management / response plan • Pollution incident response management plan / Environmental management plan • Traffic management plan • Work health and safety plan • Hazardous material management plan • Operator and driver training • Spill response equipment and training • Contact emergency services (NSW Fire Service)	Unlikely (D)	5	24 (Low risk)
Storage of fuels and hydrocarbons	Leakage of fuel	Spill of fuel, and potentially ignite and/or move into stormwater, through human error or malicious act	• Ensure fuels stored in fully bunded container. • Staff training on safe storage of fuel. • Emergency management / response plan • Pollution incident response management plan / Environmental management plan • Traffic management plan • Work health and safety plan • Hazardous material management plan	Possible (C)	4	18 (Low risk)

Facility / event	Cause / comment	Possible scenarios, results & consequences	Prevention, Treatment Measures and Detection Protection Required	Likelihood	Consequence	Risk rating and category (after treatment measures)[1]
			• Spill response equipment and training • Emergency response • Communications • Spill containment and sweeping of hardstand • Contact emergency services (NSW Fire Service)			
Fire	Fire caused by ignition source (e.g. cigarette)	Flammable waste is ignited through contact with an ignition source (e.g. cigarette, battery spark etc.)	• Ensure strict non-smoking policy is enforced at all times • Firefighting equipment • Emergency management / response plan • Pollution incident response management plan / Environmental management plan • Traffic management plan • Work health and safety plan • Hazardous material management plan • Operator and driver training • Spill response equipment and training • Contact emergency services (NSW Fire Service)	Possible (C)	3	13 (Moderate risk)
Glue	Health Hazard	Accidental ingestion may be harmful, entry into blood stream via a cut may lead to harmful effects and contact with eyes can lead to eye irritation	• Ensure product is stored safely • Ensure gloves and eye protection are worn at all times when using the product • Emergency management / response plan • Work health and safety plan • Hazardous material management plan • Use in well-ventilated space	Unlikely (D)	2	12 (Moderate Risk)

Facility / event	Cause / comment	Possible scenarios, results & consequences	Prevention, Treatment Measures and Detection Protection Required	Likelihood	Consequence	Risk rating and category (after treatment measures)[1]
Glue	Fire Hazard	If the product comes into contact with water, a chemical reaction will occur. Carbon dioxide is emitted and water-insoluble polyurea is produced which has a high melting point and emits a lot of heat.	• Ensure product is stored in a water tight storage area away from all water sources • Emergency management / response plan • Firefighting equipment • Work health and safety plan • Hazardous material management plan • Keep away from heat/sparks/open flames / hot surfaces	Unlikely (D)	1	7 (Moderate Risk)
Glue	Explosion Hazard	Containers may explode when heated.	• Ensure product is stored in a heat proof storage area • Emergency management / response plan • Firefighting equipment • Work health and safety plan • Hazardous material management plan	Unlikely (D)	1	7 (Moderate Risk)
Pigment	Health Hazard	Dust in high concentrations may irritate the respiratory system, ingestions may cause discomfort if swallowed, powder may irritate skin if in contact, eye irritation and smarting may occur if particles get into eyes.	• Ensure gloves and ear protection are used at all times when handling product • Face mask should be worn to avoid inhaling powder • Emergency management / response plan • Work health and safety plan •	Unlikely (D)	3	17 (Low Risk)

7.5 Conclusion

As a result of this analysis, it is suggested that the worst-case scenarios modelled with risk prevention, treatment and detection measures, are all risks were found to be moderate or low. All risks are low except those which involve fire caused by vehicle collisions, excess dust, chemical handling and storage and forms of ignition.

The Proposal is not considered a potentially hazardous development as per the SEPP 33 Guidelines, therefore, no further Preliminary Hazard Analysis or Multi-Level Risk Assessment is required.

8 Fuels and Chemicals

8.1 Existing Environment

A small range of fuels, oils and fluids will be stored on site for cleaning and minor maintenance purposes. Glue and pigment (not classified as dangerous goods) will also be stored on site to facilitate the production of rubber tiles and pavers. Major repairs and maintenance of the vehicles and trucks is to be carried out off-site. The type, volumes and quantities of chemicals stored on site are as per Table 8.1.

Figure 8.1. Chemicals stored on site for general maintenance and operational activities.

Liquid chemicals	Container Size	Container Units
Engine Oil (Diesel	600mm x 600mm (200 L)	1
Grease drum cartridges	205L drum	1
Glue	1000mm x 1000mm (1 tonne)	2
Pigments	1000mm x 1000mm (1 tonne)	1

As per the Maitland LEP, the Proposal site is not located in a flood prone area. Given this, there are no requirements relating to the height of chemical storage within the industrial shed.

8.2 Impact assessment

The small volumes of diesel, grease, glue and pigment will be stored on site securely. Diesel will be stored in a 200L metal self-bunded storage tank, protected by traffic bollards (to avoid damage from moving plant). This storage tank will be compliant with Australian Standards AS1692-2006, AS1940-2004. The location of where the chemicals will be stored is shown in to Figure 8.1. Glue and pigment will be stored on the eastern side of the shed in close proximity to the rubber tile press. Diesel and grease will be stored in the south-eastern corner of the shed.

Vehicle repairs are carried out at an off-site workshop. This removes the requirement to store oils and hydrocarbons in larger quantities. Risk Analysis of hazardous materials undertaken in Section 7 (Table 7.5) to identify risks associated with storage of hazardous materials on site show that risk of harm to environment and human health is low.

8.3 Mitigation measures

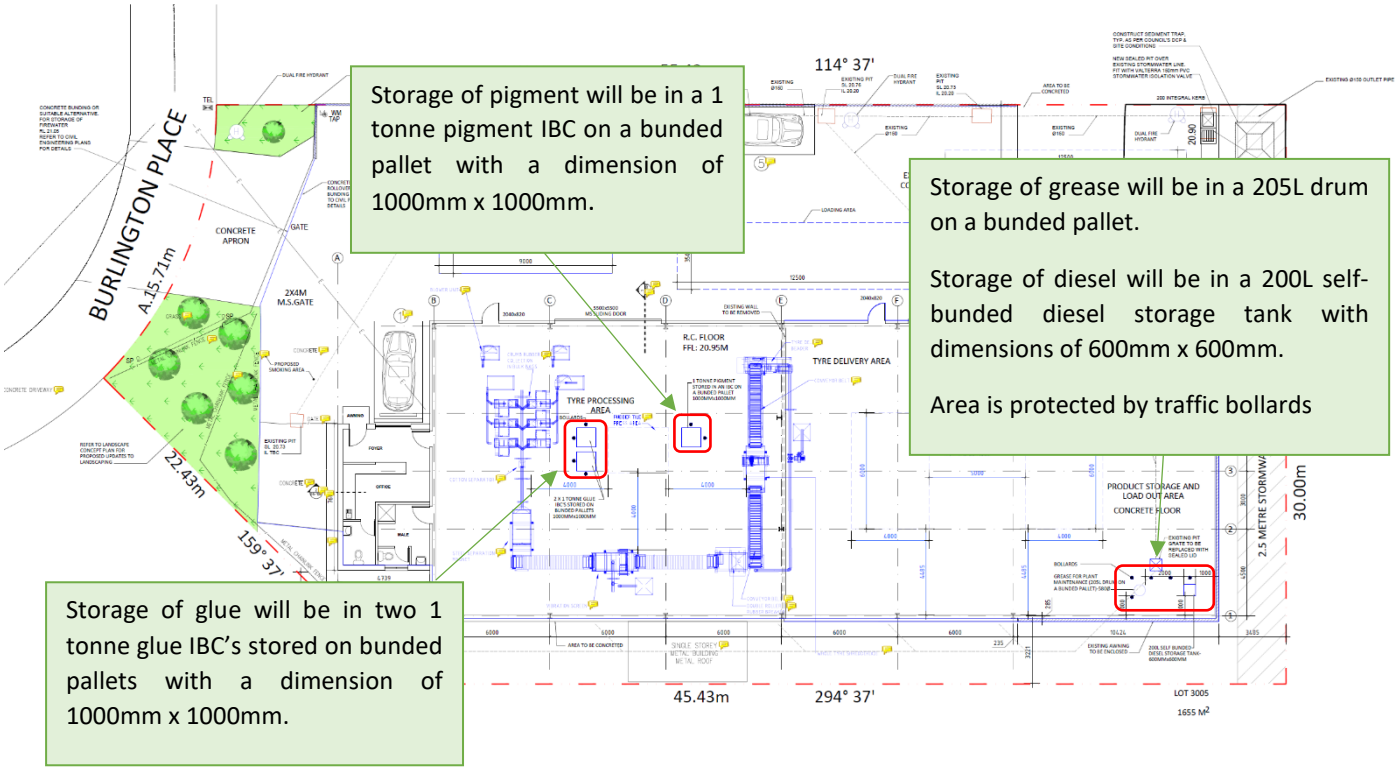
To minimise harm to the environment, from leaks and spills of chemicals stored on the Site, recommended mitigation measures include:

- Store chemicals in a cool, dry place and in accordance with the Australian Dangerous Goods Code;
- MSDS sheets, where available, to be readily accessible for all chemicals on site;
- Chemical spill kits to be kept on site and readily accessible near any liquid waste and chemical storage; and
- Firefighting equipment to be accessible and regularly inspected.

These chemicals are stored in a cool, shaded area of the workshop as per the requirements of the Australian Dangerous Goods Code and Safe Work NSW Code of Practice[15].

[15] SafeWork NSW (2022). *Code of Practice: Managing risks of hazardous chemicals in the workplace.* Internet publication: https://www.safeworkaustralia.gov.au/doc/model-code-practice-managing-risks-hazardous-chemicals-workplace.

Figure 8.1. Chemical storage locations are circled in red.



8.4 Conclusion

Storage of all chemicals and fuels will be stored in accordance with the Australian Dangerous Goods Code. The impact of the chemicals and fuels to be stored on site will be negligible when storage and handling protocols are strictly adhered as per the Australian Dangerous Goods Code and SafeWork NSW's Code of Practice.

9 Waste Minimisation and Management Plan

A Waste Minimisation and Management Plan (WMP) was prepared by Jackson Environment and Planning Pty Ltd. A brief summary of the plan is provided in this Section. The full Waste Minimisation and Management Plan is provided as Appendix 4. A WMP was a requirement under SEARS, which outlined the necessary information to be included, which are:

- *"details of the type, quantity and classification of waste to be received at the site*
- *details of the resource outputs and any additional processes for residual waste*
- *details of waste handling including, transport, identification, receipt, stockpiling and quality control*
- *the measures that would be implemented to ensure that the Proposal is consistent with the aims, objectives and guidelines in the NSW Waste Avoidance and Sustainable Materials Strategy 2041."*

Waste management practices outlined below address the environmental and human health safety requirements during the operational phase. These improved waste management practices realise the triple bottom line benefits including financial efficiencies, sustainable construction methods and a safe work site for the duration of the construction process.

These positive outcomes will be achieved through thorough planning and procurement of exacting measurements reducing upfront costs of construction and preventing the generation of waste.

The benefits of the management practices outlined in the plans will be realised from the outset by both the business and the broader community in the form of reduced costs of disposal, reduced costs of legal liability and common good through:

- Maximising recovery of valuable resources;
- Exercising due diligence for safe disposal of waste; and
- Providing a safe worksite.

9.1 Methodology

The Waste Minimisation and Management Plan was compiled using the following steps:

- Estimate waste stream types and amounts based on the site activities – for operations phase;
- Identify management options for each waste stream suitable within the regulatory framework; and
- Select most appropriate waste management option for the building wastes and garden organics stream, aiming to recover as much resource as possible.

9.2 Existing environment

The current Site contains a single storey industrial shed that will have minor alterations to create a larger, fully enclosed industrial shed on site. There are currently no formal waste, recycling storage or collection points provided on the premises.

9.3 Impact assessment

9.3.1 Demolition phase

The Proposal will require minor demolition works to remove one dividing wall between the existing shed and open awning to allow for a larger, fully enclosed industrial shed to be built.

Minor amounts of concrete, metal sheeting, litter and food waste will be generated during these works. The wastes will be segregated to maximise recycling and stored separately in hook lift bins and will be transported off-site for recycling at a lawful facility. A breakdown of the estimated waste to be generated during the demolition phase is provided in Table 9.1.

Table 9.1. Breakdown of the waste from the demolition phase.

Waste Type	Waste Identified	Waste Description	Disposal Method	Suggest Receiving Facility	Volume (Tonnes)	Volume of bin(s) required	Recycling rate
General Solid Waste (non-putrescible)	Concrete	Concrete footings from existing dividing wall	Off-site recycling	Newcastle Recycling Pty Ltd Environment Protection Licence 20585	5	$10m^3$ skip bin	100%
	Metal Sheeting	Colourbond metal sheet wall panels	Off-site recycling	Newcastle Recycling Pty Ltd Environment Protection Licence 20585	1		100%
	Litter and Residual Waste	Non-recyclable rubbish from across site	Off-site disposal	Mount Vincent Road Waste Landfill Facility Environment Protection Licence 6116	0.1	120L bin	0%
General solid waste (putrescible)	Food waste	Staff meals	Off-site disposal	Awaba Waste Disposal Facility Environment Protection Licence 5873	0.1	120L bin	100%
TOTAL Amount of waste generated (tonnes)						6.2	
TOTAL Amount of waste recycled (tonnes)						6.1	
Overall recycling rate						98%	

The overall waste recovery rate during the demolition phase will be approximately 98%.

9.3.2 Construction Phase

The Proposal will require minor construction works to enclose the existing open awning and install two roller doors to create a large, fully enclosed industrial shed on-site. This will involve some excavation for the placement of wall posts and panels. All excavated material will be transported to an appropriate licensed facility for disposal. No construction work is required for the installation of the new crumb rubber plant, rubber tile press or internal storage areas. Other construction activities include:

- Building works to enclose the open awning towards the rear of the Site, removing the dividing wall and installing two roller doors. These amendments will create a larger, fully enclosed industrial shed on Site;
- Change of use for the existing shed from storage to a tyre recycling facility;
- Installation of a waste tyre recycling production line;
- Installation of a rubber tiles production line;
- Installation of a 9m portable above ground weighbridge located near the Site entrance;
- Line marking of one loading bay and overnight parking for two heavy rigid vehicles (HRVs);
- Internal storage area to store delivered whole used tyres;
- Internal storage area to store recovered materials from tyre recycling and rubber mats/tiles produced on-site; and
- Additional fire protection measures, including installation of:
  - Fire extinguishers;

- Three fire hydrants;
- A windsock to assist Fire & Rescue NSW to determine the prevailing wind direction in the unlikely event of a fire;
- Full firewater containment bunding around the site;
- Stormwater isolation valve (to contain firewater in the unlikely event of a fire);
- Carbon dioxide alarms;
- Storage areas 3m clear from roof; and
- Manual call points in clearly visible locations. These small red boxes are linked to the fire alarm system to allow occupants to trigger the alarm manually in the event of a fire.

Waste generated during the construction phase is expected to be similar to that generated during the demolition phase due to a similar scale in work and type of materials used. A breakdown of the estimated waste to be generated during the construction phase is provided in Table 9.2.

During both the demolition and construction phases, a waste collection area will be set up along the northern boundary where the Site is flat, away from vegetation, drainage and waterways as well as allowing easy access for storing and navigating waste.

Table 9.2. Breakdown of expected waste to be generated during the Construction Phase.

Waste Type	Waste Identified	Waste Description	Disposal Method	Suggest Receiving Facility	Volume (Tonnes)	Volume of bin(s) required	Recycling rate
General Solid Waste (non-putrescible)	Concrete	Waste concrete from footings	Off-site recycling	Newcastle Recycling Pty Ltd Environment Protection Licence 20585	5	5m^3 skip bin	100%
	Metal Sheeting	Colourbond metal sheet wall panels	Off-site recycling	Newcastle Recycling Pty Ltd Environment Protection Licence 20585	1	5m^3 skip bin	100%
	Soil	Soil from installation of stormwater pits and new hardstand footings	Off-site recycling	Newcastle Recycling Pty Ltd Environment Protection Licence 20585	1.65	5m^3 skip bin	100%
	Litter and Residual Waste	Non-recyclable waste from across site	Off-site disposal	Mount Vincent Road Waste Landfill Facility Environment Protection Licence 6116	0.1	120L bin	0%
General solid waste (putrescible)	Food waste	Staff meals	Off-site disposal	Awaba Waste Disposal Facility Environment Protection Licence 5873	0.1	120L bin	100%
TOTAL Amount of waste generated (tonnes)					7.85		
TOTAL Amount of waste recycled (tonnes)					7.75		
Overall recycling rate					99%		

The overall waste recovery rate during the construction phase will be approximately 99%.

Residual waste will be collected in a separate bin and regularly removed from the site for disposal in a licensed landfill. Other recovered materials will be sent to EPA licenced recycling facilities in the region. All soil will be tested and validated prior to disposal in accordance with the EPA's *Waste Classification Guidelines*, refer to Section 3.2.3.

9.3.3 Operational Phase

The Site's office operations generate very little waste itself. Whole waste tyres are the only form of waste brought to the Site and are received directly from tyre retailers. As the tyres are separated from other waste types at the source, there is virtually no contamination in the loads brought to site.

The Proposal will involve the recycling of up to 4,500 tonnes of waste tyres that will result in three recovered products: crumb rubber, steel and cotton. Some of the crumb rubber produced will be used in the production of rubber tiles and mats on-site. Refer to Table 9.3 for additional product storage information. The overall waste recovery rate during the operational phase is estimated to be 98%. The breakdown of this is provided in Table 9.4.

Figure 9.3. Breakdown of material type, estimated quantities and storage information.

Flow of material	Materials	Type of material	Waste Classification	Estimated tonnes per annum	Maximum storage at any one point in time (m^3)	Maximum storage at any one point in time (tonnes)	Storage Area	Type of storage
Input	Whole Tyres	Input material	Special Waste	4,500	84	25.2	Whole Tyre Storage Area	Stacked tyre storage area
Output	Crumb Rubber	Output material	Not applicable	4,057.2	36.75	36.75	Crumb Rubber Storage Area	1 tonne bulka bags
Output	Recovered Steel	Output material	Not applicable	266.4	5.25	2.63	Crumb Rubber Storage Area	1 tonne bulka bags
Output	Cotton	Output material	Not applicable	88.2	5.25	1.827	Crumb Rubber Storage Area	1 tonne bulka bags
Output	Residual Waste	Output material	General solid waste (non-putrescible)	88.2	5.25	1.827	Crumb Rubber Storage Area	1 tonne bulka bags
Output*	Rubber Pavers	Output material	Not applicable	415	15.75	12.6	Crumb Rubber Storage Area	Stacked on Pallets
Output*	Rubber Matting Material	Output material	Not applicable	415	15.75	12.6	Crumb Rubber Storage Area	Stacked on Pallets
Total				**4,500 t**	**168 m^3**	**93.43 t**		

Table 9.4. Waste and recycling measures for waste generated by office operations.

Key Waste Stream	Volume of waste generated per day per 35m^2 floor area (for offices) (m^3)	Weekly waste generation (based on a 6-day working week and office floor area of 35m^2) (m^3)	Density (t/m^3)	Estimated tonnages per year (tonnes)	Segregation Areas / Containers	Reuse / Recycling / Disposal Method	Waste Type (NSW EPA Pre-classified Waste)	Suggested Receiving Facility	Recycling rate (%)
Co-mingled recycling: plastic / glass containers / metal cans / paper and cardboard	0.01	0.06	0.7	2.1	120L Recycling Bin (serviced weekly)	Off-site recycling	General waste (non-putrescible)	Newcastle Recycling Pty Ltd Environment Protection Licence 20585	100%
General waste (non recyclable residual waste)	0.003	0.001	0.8	0.04	120L General Waste Bin (serviced fortnightly weekly)	Off-site disposal	General waste (non-putrescible)	Mount Vincent Road Waste Landfill Facility Environment Protection Licence 6116	0%
Food waste	0.006	0.0002	0.6	0.06	60L Food Bin	Off-site recycling	General waste (putrescible)	Awaba Waste Disposal Facility Environment Protection Licence 5873	100%
Waste generated (tonnes per year)				2.2					
Waste recycled (tonnes per year				2.16					
Overall recycling rate				98.1%					

9.3.4 Waste materials not accepted

The Site will not accept hazardous, restricted or the following wastes:

- Soil;
- Rocks;
- Plastics;
- Metal;
- Food;
- Chemicals;
- Paint;
- Tyres; and
- Batteries.

9.3.5 Products recovered

The facility will recycle an expected 98% of all incoming tyres (4,411 tonnes per annum). The remainder of the waste received will be disposed at a lawful landfill (90 tonnes per annum).

The following products are produced through the recycling process:

- Crumb Rubber – crumbs can be produced in various sizes to suit different uses, e.g. soft-fall in playgrounds, asphalt production;
- Steel – steel is removed from tyres either using the bead removal machine or magnetically during the crumb rubber process. Recovered steel is sent to steel manufacturers; and
- Cotton – Cotton is recovered from inside the rubber tyre. Recovered cotton will be sent to a material recycler for manufacturing into glue products.

The processing of waste tyres generates very small amounts of residual waste. Crumb rubber production can recover and recycle 98% of the tyre, with the remaining 2% going to licensed landfill.

9.3.6 Waste storage, identification, and stockpile heights

There will be two storage areas located within the industrial shed, both towards the eastern side of the Site.

The whole tyre storage area is used for storing the incoming used whole tyres and has a maximum storage capacity of 24m^2 (of floor area) and a stacking height of 3.5m. The crumb rubber storage area is used for storing recovered materials from the recycling process and the rubber tiles and rubber mats produced on-site. Crumb rubber will be stored in 1 tonne bulka bags. The maximum storage capacity will be 30m^3 and a stacking height of 3.5m. Both storage areas will be compliant with *NSW Fire and Rescue 2014 Fire Safety Guideline – Guideline for Bulk Storage of Rubber Tyres*[16].

All material will be stored inside the industrial building, there will be no storage externally.

The incoming loads of waste tyres will be unloaded from the loading bay and taking directly to the whole tyre storage area. Rubber crumb produced within the facility will be immediately stored in the crumb rubber storage area. Recovered material and rubber tiles and mats produced on-site will be backloaded into the delivery truck and taken off-site to be sold.

[16] NSW Fire & Rescue 2014 Fire Safety Guideline - Guideline for bulk storage of rubber tyres. Accessed online: https://www.fire.nsw.gov.au/gallery/files/pdf/guidelines/rubber_tyres.pdf

A breakdown of the maximum storage of material is provided in Table 9.3. The total amount of waste stored on site at one point in time will be 93.43 tonnes.

9.3.7 Maximum amount of waste and product stored on site (authorised amount)

Under Schedule 1, Part 1 (42) of the *Protection of the Environment Operations Act* 1997 states that storing more than 5 tonnes of waste tyres or 500 waste tyres on site at any one time triggers the requirement for an Environmental Protection Licence (EPL). This is referred to as the 'Authorised Amount'.

The Authorised Amount is typically an EPA licence condition. Exceedance of the Authorised Amount triggers the requirement for payment of the Waste and Environment Levy for tonnages of waste and product held on site (above the Authorised Amount). This regulatory measure encourages operators of resource recovery facilities to manage the inventory of waste and products held on site to avoid potential risks and hazards to people and the environment.

The Proposal will trigger the requirement for an EPA license because the waste storage activity will exceed 5 tonnes of waste tyres stored on the premises at any time. The Proposal will be under the limit for resource recovery and so not require an EPA license for this part of the Proposal.

9.3.8 Environmental risk assessment

A risk assessment has been undertaken to identify the level of risk that operational activities may present to waste management.

The following points summarise the key activities identified in the risk assessment relevant to waste management for operation of the Facility:

- Litter (e.g. food waste, packaging) from site amenities reaching local waterways;
- Dust from crumb rubber production leaving the site;
- Leakage of vehicles duration loading and unloading;
- Fuel and oil spills during operational plant and equipment maintenance; and
- The location and storage of waste on site prior to reuse or disposal.

9.4 Mitigation Measures

The risks identified in the previous section are mitigated by ensuring:

- Site induction for all new employees including truck drivers;
- Training staff to employ correct procedures for receiving, sorting and transportation of separated recyclables and residual wastes;
- Housekeeping requirements to maintain cleanliness of the site;
- Assigning roles and responsibilities for tasks;
- Signages for storage of separated materials;
- Updating risk registers;
- Regular reviews of procedures to incorporate any changes;
- Waste will be disposed of to an appropriate licensed facility. A Waste Management Register of all waste collected for disposal and / recycling, including amounts, data and time and details and location of disposal will be maintained at all times;
- All waste being transported off site must be covered. The transportation must be appropriately licensed to carry that material;

- Any material contaminated by spills i.e. fuel, oil, lubricants etc., including empty fuel, oil and chemical containers, to be stored in a sealed secure container and will be transported to a waste disposal site approved by the NSW EPA to accept such material; and
- Storage areas for recyclable materials will be compliant with the *NSW Fire and Rescue 2014 Fire Safety Guideline – Guideline for Bulk Storage of Rubber Tyres.*

Table 9.5 provides the environmental control measures and safeguards that will be implemented in order to minimise waste generated during the construction and operation phases of the Facility.

Figure 9.5. Environmental control measures for waste management.

Control Measures and Safeguards	Timing	Responsibility
Waste management and minimisation will form part of the induction program (which includes environmental due diligence training). All personnel will be trained in the requirements of this document including minimising wastes, recognising which types of materials are recyclable and their obligations to use recycling facilities provided on site.	Prior to starting on site / Ongoing	Operations Manager
Clearly assign and communicate responsibilities to ensure that all personnel are aware of their responsibilities in relation to the waste management plan	Prior to starting on site / Ongoing	Operations Manager
Engage and educate personnel on how the various elements of the waste management plan will be implemented	Prior to starting on site / Ongoing	Operations Manager
Specific locations for waste management (e.g., recycling bin locations, stockpile locations) to be signposted appropriately.	Weekly checks	Operations Manager
Processing and hardstand areas will be adequately managed to prevent sediment runoff and dust generation.	Daily	Operations Manager
Spill kit to be present on site in the case of any fuel leaks of plant and equipment	Ongoing	Operations Manager
Segregated waste disposal containers for the collection and recycling/disposal of all waste streams generated during operations will be provided onsite. Waste disposal containers will have clear signage and instructions for use to avoid cross-contamination. No rubbish shall be disposed of on site.	Daily	Operations Manager
Waste will be disposed to an appropriate licensed facility. A Waste Management Register of all waste collected for disposal and / recycling, including amounts, data and time and details and location of disposal will be maintained at all times.	Daily	Operations Manager
All waste being transported off site must be covered. The transportation must be appropriately licensed to carry that material.	Daily	Operations Manager

Control Measures and Safeguards	Timing	Responsibility
Storage of all tyres and tyre products will be stores in line with requirements of the Fire & Rescue NSW – Guideline for bulk storage of rubber tyres.	Daily	Operations Manager
Any hazardous materials will be managed and handled by an appropriately licensed contractor and transported for disposal to a licensed facility approved site.	As required	Operations Manager
Any material contaminated by spills i.e. fuel, oil, lubricants etc., including empty fuel, oil and chemical containers, will be stored in a sealed secure container within a bunded area and will be transported to a waste disposal site approved by the NSW EPA to accept such material.	Daily	Operations Manager
Incompatible wastes will not be mixed.	Daily	Operations Manager
Storage areas would be located away from waterways and the stormwater system.	Daily	Operations Manager
Biodegradable products will be used wherever practicable.	Daily	Operations Manager
Regular collection of wastes will ensure air emissions are at a satisfactory level. Inappropriate waste and wastewater management systems will be regularly inspected and audited.	Daily	Operations Manager
Conduct regular litter patrols to ensure litter is effectively controlled on site.	Daily	Operations Manager
Daily housekeeping to include sweeping and dust removal around crumb rubber plant to minimise offsite movement of dust	Daily	Operations Manager

9.5 Conclusion

The Proposal aims to maximise the recovery of recyclable materials from building wastes, concrete and garden organics indoors within an existing best-practice waste transfer station. It is estimated that approximately 98% of materials will be recovered and recycled during the demolition phase and approximately 99% during the construction phase. During operations, the Proposal will recycle 98% of all waste materials received. Recovered materials will be backloaded onto the delivery truck, taken off site and sold to market. Residual waste will be transported off-site to EPA licenced processing facilities for disposal.

10 Air Quality and Odour

RWDI Australia Pty Ltd was engaged to conduct an Air Quality and Odour Impact Assessment (AQOIA) for the Proposal. The report has been prepared to address the SEARs for air quality and odour in relation to the Proposal. The air quality and odour related SEARs requirements state the need for:

- A quantitative assessment of the potential air quality, dust and odour impacts of the development, during both construction and operation, in accordance with relevant Environment Protection Authority guidelines;
- An air quality impact assessment in accordance with relevant Environment Protection Authority guidelines; and
- A description and appraisal of air quality and odour impact mitigation and monitoring measures, in line with International best practice.

A brief summary of the plan with recommended actions is provided in this Section. The full Air Quality and Odour Impact Assessment (AQIOA) study is provided as Appendix 6.

10.1 Existing Environment

The Proposal seeks to receive and process up to 4,500 tonnes of tyres per annum. This will involve alterations to the existing building, the fit out of the amended building with plant equipment for tyre recycling and production of rubber tiles and mats using a thermomoulding process.

Air emissions are likely during the construction and operation of the Proposal. Given the construction works are minimal, only minor dust emissions (non-significant quantities) are expected from the construction phase. During the operational phase, the dust/particulate emissions associated with the Proposal were identified to come from loading/unloading of material, tyre recycling process emissions, truck movements on paved roads, rubber tyre production emissions and diesel exhaust from mobile plant. Odour sources are expected during the rubber tile production process. A detailed AQOIA study has been conducted to identify the impacts on air quality and odour from operational activities.

The closest long term meteorological data is available from Bureau of Meteorology station (BoM) is an Automatic Weather Station (AWS) at Williamtown RAAF. The long-term statistics of this area indicate that January is the hottest months of the year, with a mean daily maximum temperature of 28.3°C. July is the coolest month with a mean daily minimum temperature of 6.5°C. There are, on average, 86 rain days per year, delivering 1,125mm of rain.

The nearest meteorological station is at the Beresfield meteorological station, located approximately 17km south-east of the Proposal site.

10.2 Impact Assessment

10.2.1 Odour

The Site does not accept any putrescible wastes or odour generating wastes on-site. Odour sources associated with the operation of the Proposal are individual odorous VOC emissions during the rubber tile production process. The maximum VOC impacts of Carbon Disulfide, Cumene. Methyl Ethyl Ketone, Methyl Isobutyl Ketone, Phenol, Styrene, Toluene and Xylene at the nearest sensitive receptors are shown in Table 10.1.

Table 10.1 Predicted Highest 1-Hour Average Concentrations at Sensitive Receptors.

Pollutant	Unit	Highest Predicted Concentration	Average Time	Criteria
Carbon Disulfide	µg/m^3	1	1 Hour	70

Pollutant	Unit	Highest Predicted Concentration	Average Time	Criteria
Cumene	µg/m^3	0.04	1 Hour	21
Methyl Ethyl Ketone	µg/m^3	0.12	1 Hour	3200
Methyl Isobutyl Ketone	µg/m^3	2.73	1 Hour	230
Phenol	µg/m^3	0.08	1 Hour	20
Styrene	µg/m^3	0.1	1 Hour	120
Toluene	µg/m^3	1.5	1 Hour	360
Xylene	µg/m^3	3.39	1 Hour	190

The results indicate that the operational activities would likely be unnoticeable to nearby recreational and residential receptors.

10.2.2 Air Quality

Predictive modelling was carried out by the specialists to identify the future impacts on the air quality due to increase in the operations of the Site and associated vehicle movements. Vehicle movements included trucks and staff cars on the site.

No meteorological observation data is available for the Proposal Site. Therefore, site-specific meteorological data was generated using a prognostic model, The Air Pollution Model (TAPM), developed and distributed by the Commonwealth Scientific and industrial Research Organisation (CSIRO). The TAPM results, including predictions of wind speed, wind direction, temperature, humidity, cloud cover, solar radiation and rainfall, were used as inputs to AERMET – AERMOD's meteorological pre-processor. AERMET uses the TAPM data, along with land-use data, to calculate mixing heights and velocity scaling parameters.

The results showed that the predictions for $PM_{2.5}$, PM_{10} and dust during operations were all below the applicable criteria, refer to Table 10.2.

Table 10.2. Predicted Air Modelling Results.

Pollutant	Unit	Highest Predicted Concentration (Incremental Impact)	Highest Predicted Concentration (Cumulative Impact)	Average Time	Criteria
PM_{10}	µg/m^3	9.43	43.48	24 Hours	50
	µg/m^3	2.27	20.04	Annual	25
$PM_{2.5}$	µg/m^3	4.63	21.42	24 Hours	25
	µg/m^3	1.12	7.97	Annual	8
TSP	µg/m^3	3.96	44.35	Annual	90
Dust	g/m^2/month	<0.01	2.22	Annual	4.0

The data in the table indicates that the air quality complies by a large margin. Compliance is expected for the tyre recycling facility at all times.

10.3 Mitigation Measures

Best practice management measures will be implemented as part of the Proposal, regardless of the assessment of potential air quality and dust impacts will have a negligible risk on sensitive receivers. Some of the best management practices recommended include:

- Proper management, supervision and training for process operations;
- Proper use of equipment;

- Effective preventative maintenance on all plant and equipment concerned with the control of emissions to air;
- Ensuring that spares and consumables are held on site so that plant breakdowns can be rectified rapidly;
- Avoiding unnecessary idling of truck engines on-site;
- Ensuring truck maintenance is up to date;
- Paving of all operating, storage, unloading and loading areas; and
- Sealing roads if dust is considered likely to be an issue.

Although impacts on receptors would be unlikely, it is recommended to keep records of any dust and odour complaints from neighbouring receptors and the responses to these complaints. Responses should be prompt and responsive to the complaints.

10.4 Conclusion

The AQOIA concluded that the construction phases would be adequately managed so that the short-term and temporary dust related impacts would be negligible risk. The results of the dispersion modelling indicate that most pollutants concentrations (dust and odour from VOCs) due to the operation of the Proposal would comply with the established criteria at nearby sensitive receptors.

As such, it is expected that the air quality impacts from the Proposal would be negligible and likely insignificant.

11 Noise and Vibration

A Noise and Vibration Impact Assessment was conducted by Acoustic Logic Pty Ltd. The objective of the study was to assess the noise and vibration impacts of the Proposal in relation to the noise and vibration SEARs requirements. The SEARs states that the following be assessed:

- A description of all potential noise and vibration sources during construction and operation, including road traffic noise;
- A noise and vibration assessment in accordance with the relevant Environmental Protection Authority guidelines; and
- A description and appraisal of noise and vibration mitigation and monitoring measures.

The assessment is based on plans and information relating to the Proposal and has been conducted in general accordance with the:

- *NSW EPA Noise Policy for Industry* (NPfI) (NSW EPA, 2017);
- *NSW EPA Road Noise Policy* (NSW EPA, 2011)*;*
- *NSW EPA Interim Construction Noise Guideline* (ICNG) (Department of Environment and Climate Change, 2009);
- *ISO 9613-2:1996 "Acoustics – Attenuation of Sound During Propagation Outdoors – Part 2: General Method of calculation";*
- NSW EPA *Assessing Vibration: A technical guide* (Department of Environment and Climate Change, 2006); and
- *German standard DIN 4150-3 - Vibrations In Buildings - Part 3: Effects On Structures* (Deutsches Institut für Normung, 2016).

This chapter summarises the findings of the Noise and Vibration Impact Assessment. The full report is attached as Appendix 5.

11.1 Existing Environment

The Proposal Site is located within an E4 – General Industrial zone and surrounded by other sites also zoned as E4 – General Industrial. There is an existing approval for the Proposal Site under DA03/1383, which includes the existing industrial building and storage of earthmoving equipment/crane and general fabrication.

Given the location and nature of the Proposal Site, the noise and vibration report undertook a survey of ambient noise to characterise the existing acoustic environment. This provides background data of what pre-existing noise conditions exist at each sensitive receptor prior to the development.

Table 11.1 lists the adjacent properties that could be directly impacted by the increase in operations.

The Site is located approximately 875m from the closest residential zone (Receiver 2) and 257m away from a RE2 Private Recreational zone (Receiver 1 - Oak Tree Retirement Village). Across the road from the Proposal Site is an RSPCA NSW Shelter and there are numerous industrial warehouses surrounding the site.

Table 11.1. Sensitive receptors located around the Proposal.

Receiver	Receiver Type	Address	Main Activity
1	Residential	3 Discovery Way	Aged Care Development
2	Residential	Victory Way	Residential Receivers
3	Residential	Grevillia Avenue	Residential Receivers
4	Commercial	6 Burlington Place	RSPCA NSW Shelter
5	Industrial	Burlington Place	Surrounding industrial warehouse activity

11.2 Impact Assessment

The Impact Assessment was undertaken in three main parts: operational on-site noise, construction on-site noise and traffic related noise as a result of the Proposal.

11.2.1 Operational On-Site Noise

Criteria to assess noise emissions from the operation of the Proposal have been developed using the EPA's *Noise Policy for Industry* (2017). SoundPlan noise modelling software (version 8.0) has been used to predict noise impacts from the subject site to the receivers.

Multiple factors were included in this assessment such as meteorological conditions, ground absorption of 0.6, worst period traffic movements, sound power levels of typical automative movements, machinery sound power level assumptions and mitigation measures outlined in Section 11.3.

The modelling produced predicted noise levels that were assessed against the project trigger levels as outlined in the EPA's *Noise Policy for Industry* (2017). The receiver noise predictions indicate that with the complying mitigations incorporated, noise emissions will not exceed the trigger levels. The predictions also indicate that nighttime noise events will not exceed the EPA's *Noise Policy for Industry* (2017) maximum noise trigger levels.

11.2.2 Road Traffic Noise

The impact of additional traffic generated by the Proposal has been assessed using the *NSW EPA Road Noise Policy* and daily traffic flows as outlined within the Traffic Impact Assessment of 12-13 vehicles per day split equally inbound and outbound.

The increase in noise levels have been predicted based on the FHWA noise prediction model. This considered the predicted vehicle movement numbers, vehicle speed of 50km/hr, hard ground between the source and the measurement location and neutral weather conditions.

The predicted increase in the L_{eq} noise level is <1dB(A). As the increase in road traffic noise levels are predicted to be <2dB, it is concluded that any increase in road traffic noise as a result of the Proposal would be inaudible, would not adversely impact any residential receiver, and is compliant with the objectives of the *NSW EPA Road Noise Policy.*

11.2.3 Construction Noise and Vibration

A quantitative evaluation of the proposed works has been undertaken to identify those activities that have the potential to adversely impact nearby properties. The assessment uses site specific noise and vibration management levels developed using the *NSW EPA Interim Construction Noise Guideline.* Vibration goals for the amenity of nearby land users are those recommended by the EPA document *Assessing Vibration: A technical guide*. The *German standard DIN 4150-3 - Vibrations In Buildings - Part 3: Effects On Structures* also provided a guideline for the acceptable levels of vibration velocity in building foundations.

Construction noise levels at the surrounding receivers have been predicted based on the plant sound powers indicated in Appendix C of the Noise and Vibration Impact Assessment, corrections for source to receiver distance attenuation including air absorption, barrier or directivity attenuation where present, source heights and source locations.

The analysis indicated that no noise threshold will be exceeded at any of the sensitive receivers and that the construction impact of the industrial premises to the surrounding residential receivers will be minimal.

11.3 Mitigation Measures

The site specific mitigation measures recommended for this Proposal are as follows:

- The scheduling of construction activities should be undertaken to reasonably minimise noise impact to all surrounding land uses (e.g. highly noise intrusive works such as hammering should not take place prior to 8am;
- Trucks to use a non-tonal reversing beacon;
- Avoid careless dropping of construction materials into empty trucks;
- Trucks, trailers and concrete trucks should turn off their engines during idling (unless truck ignition needs to remain on during concrete pumping);
- Where high noise generating demolition is proposed to be undertaken, respite hours should be implemented to reduce the impact on surrounding receivers; and
- An after hours contact number is to be displayed outside the building site.

Vibration specific mitigation measures recommended include the following:

- Obtaining separate structural or specialist advice for critical or fragile structures as to the levels of damage risk;
- Selection of processes that minimise structure and ground vibration;
- Use smallest plant that is able to efficiently undertake the work activity;
- Lay vibration absorption mats to cushion impacts from falling debris;
- Time scheduling works to minimise amenity impacts; and
- Communicating with affected receivers.

These recommended actions are predicted to mitigate all nighttime noise levels (i.e. before 7:00 AM) and reduce the sleep disturbance trigger levels below the recommended levels.

11.4 Conclusion

Construction and operational impacts have been assessed within the noise and vibration impact assessment. The outcomes are:

- An assessment of operational noise emissions has been undertaken using the Noise Policy for Industry guideline. Site noise emissions from the development have been predicted and assessed against criteria adopted from the trigger levels determined using the guidelines and found to be compliant;
- With implementation of the mitigation measures recommended, construction noise emissions from the Proposal will comply with noise criteria established for the Site; and
- Additional road traffic noise generated by the Proposal has been assessed using the EPA “Road Noise Policy” and found to be compliant.

The Proposal is not expected to exceed noise limits or adversely impact any sensitive residential receiver.

12 Traffic and Transport

A Traffic and Transport study was conducted by SECA Solution. The objective of the study was to assess the traffic and transport impacts of the Proposal in relation to the SEARs requirements relating to traffic. The SEARs states that the following information be assessed:

- Details of road transport routes and access to the Site;
- Road traffic predictions for the development during construction and operation; and
- An assessment of impacts to the safety and function of the road network and the details of any road upgrades required for the development.

The change of use from a storage shed to a tyre recycling facility is proposed, with the facility receiving and processing up to 4,500 tonnes of tyres per year. The operating hours are 5am – 6pm on weekdays, 8am-1pm on Saturdays and closed on Sundays and Public Holidays. Tyre deliveries will be between 7am-6pm weekdays, 8am – 1pm on Saturdays and no deliveries on Sunday and Public Holidays.

The facility will accept waste from predominantly Tyres & More and other tyre companies within the Hunter Region.

12.1 Existing environment

12.1.1 Road network

The subject site is located at the end of Burlington Place, a cul de sac with access from Racecourse Road within the industrial area in Rutherford, south of New England Highway.

The road network surrounding the subject site consists of Burlington Place, Kyle Street, Racecourse Road and New England Highway.

The New England Highway forms part of the State Road network and runs predominantly in an east-west-south direction. This is located to the north of the industrial area and in the general vicinity of the subject site provides two lanes of travel in both directions, with key intersections controlled by roundabouts.

All of the roads highlighted within the surrounding area of the subject site are nominated as B-Double routes and are suitable for 4.6m High Vehicles (subject to travel conditions along the New England Highway).

12.1.2 Parking

The Site currently contains five parking spaces on site. There are four parallel parking spaces and a single 90 degree parking space. The Maitland DCP allows for the following rate for industry:

> *1 space per 75m^2 GFA or 1 space per 2 employees (whichever is greater).*

Applying the DCP rate to the 640m^2 would require parking for 8.5 spaces. Applying the rate of 1 space per 2 employees would require 2 spaces. Given there are 5 staff on site, the provision of 5 parking spaces on site is therefore considered appropriate for the change of use.

12.2 Impact assessment

12.2.1 Daily traffic flows

With no current traffic data published in the general location of the subject site, traffic data was collected in the AM and PM peaks on Tuesday 19 March 2024 and Tuesday 24 March 2024. Traffic data was collected at the intersections of:

- New England Highway and Racecourse Road / Denton Park Drive;
- Racecourse Road and Burlington Place; and
- New England Highway and Kyle Street.

Flows are primarily inbound towards the industrial precinct in the AM and outbound in the PM with flows on Burlington Place much lower but similar in destination.

Daily traffic flows east of the Racecourse Road roundabout and could be in order of 25,300 vehicles per day 2-way. Racecourse Road carries daily flows east of Burlington Place of 4,300 vehicles per day 2-way.

12.2.2 Peak hour impact

Peak hours are considered as 7:00 - 10:00 AM and 3:00 – 6:00 PM on weekdays, with the traffic surveys completed between these times at the intersections highlighted previously.

The current 2-way flows on Racecourse Road south of the New England highway are 532 in the AM peak and 628 in the PM peak 2-way. East of the intersection with Burlington Place flows are lower being 350 2-way in the AM and 502 in the PM. The additional traffic during the peaks, including the inbound truck movement between the two sites along Racecourse Road, could be in the order of 4 vehicles 2-way (3 inbound / 1 outbound) in the AM and 3 outbound in the PM.

12.2.3 Traffic impact

The additional traffic flows associated with the project shall have a minor and acceptable impact upon the base level of operation for the roundabout controlled intersection of Racecourse Road with the New England Highway.

Sidra modelling (Chapter 3) shows that the impact of the development traffic upon the operation of the roundabout is minimal and acceptable with no change to queue lengths or Level of Service, for both the current (2024) year as well as the future 2034 design year (+2% growth on all movements).

The intersection of Racecourse Road and Burlington Place also operates well with no delays / queues and as such the additional traffic movements associated with the project shall have an acceptable impact.

Based on the AUSTROADS Guide to Traffic Management, given that the volumes on Racecourse Road are below 500vph and on Burlington Place are less than 50, including development, a detailed analysis to demonstrate adequate capacity is not necessary.

The construction work associated with the project shall involve internal modifications to the existing shed along with the installation of the weighbridge. The impact of this shall be minimal and similar to the proposed demands for the operations on site (being 5 staff and two trucks accessing the site per day).

With the processing of 4,500 tonnes of tyres per year, it is estimated that a total of 8 truck trips per day (4 inbound and 4 outbound) and 10 staff vehicle movement (10 inbound and 10 outbound).

The key findings of the traffic assessment for the proposed project are:

- The Proposal is estimated to generate 18 daily trips by trucks each day, alongside 5 staff vehicles movements (in) per day;
- The proposed change of use is expected to generate less traffic than it would have historically operated on site;

- The daily traffic flows associated with the project are less than the Site historically may have generated, being in the order of 18 vehicles per day split equally inbound and outbound. This is well within the vehicle per hour rate for both Racecourse Road and Burlington Place;
- The development does not propose any changes to the site access layout and provides adequate car parking and is considered to be fit for entry-exit requirement to service vehicles;
- Swept paths for the largest vehicles to access the Site (12.5m HRVs) demonstrate that these trucks can safely enter (Figure 12.1) and exit (Figure 12.2) the premises in a forward direction; and
- Parking is compliant with AS2890.1 and AS2890.2 with regard to grades and parking layout form.

12.2.4 Parking

The Proposal is classified as an industrial development and therefore the car parking requirements apply as per the table in the *Maitland DCP* 2011, *Appendix A – Car Parking Requirements for Specific Land Uses*[17].

As no major changes to the site layout or infrastructure are proposed, the Proposal remains consistent with the Australian Standards AS2890 for parking facilities. The site layout is considered to be able to allow for entry-exit of the required service vehicles to-from the Site. It is noted that the Proposal is supported by one loading bay for HRVs and two overnight parking spaces for HRVs.

12.3 Mitigation measures

All servicing needs, truck turning paths, parking spaces for trucks and cars will meet with the requirements of the Australian Standards AS2890 and the *Maitland DCP* 2011, *Appendix A – Car Parking Requirements for Specific Land Uses.*

12.4 Conclusion

From the site work undertaken and the review of the development proposal and associated plans against the requirements of the Guide to Traffic Generating Developments published by TfNSW, it is considered that the Proposal will have minimal impact upon the surrounding road network.

There are typically four heavy vehicle deliveries (MRV) per day with the empty delivery trucks picking up whole tyres from retailers on the return trip to the Site. This backfill of trucks reduces overall trip numbers with the outbound truck movement connecting to the arterial road network (New England Highway) being four (4) trucks per day.

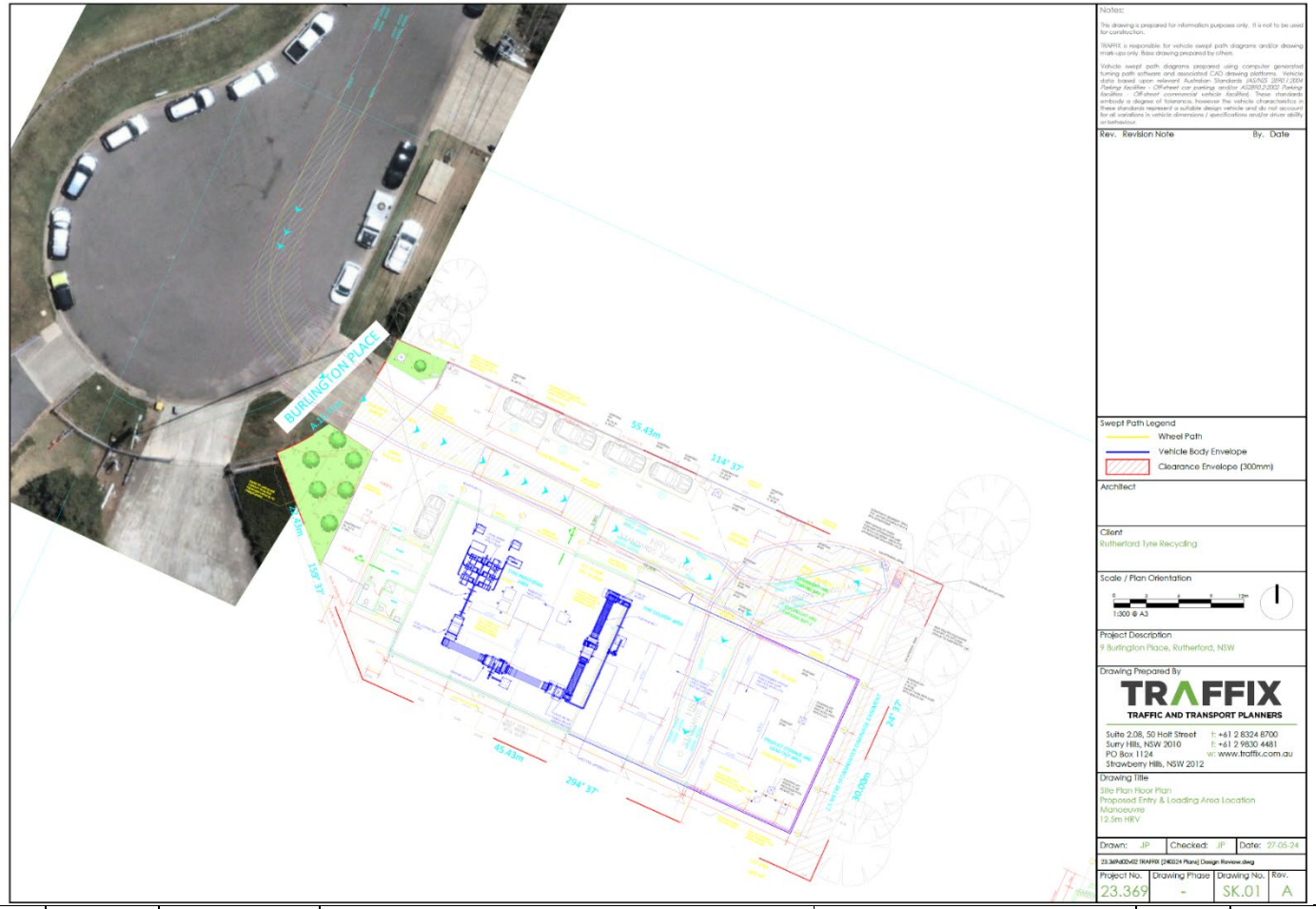
Staff numbers are low with five (5) light vehicles approaching or departing the Site across two hours in the morning or afternoon.

The impact of this traffic on the local and regional road network is minimal and well within the capacity of the road network.

The existing parking provision is sufficient to cater for the proposed use. Access and circulation for the Site is appropriate for the development, with the swept path analysis for heavy vehicles demonstrating that there is sufficient manoeuvring within the Site to ensure they can enter and exit in a forward direction.

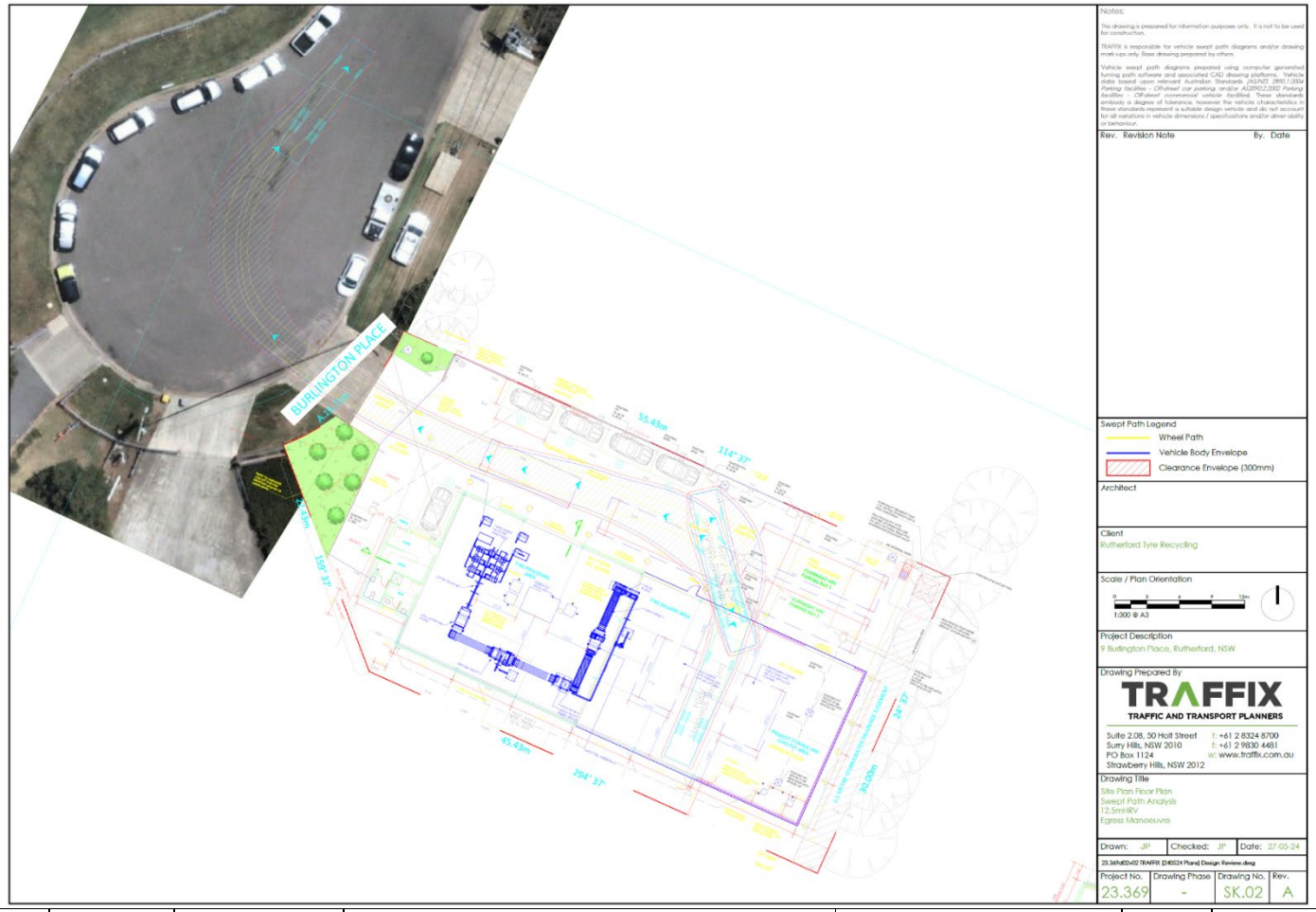
[17] Maitland City Council, 2011. *Maitland Development Control Plan, Part C Design Guidelines*. Available online: https://www.maitland.nsw.gov.au/sites/default/files/documents/public-exhibition/part_c_final_1.pdf (Last accessed 21 May 2024).

Figure 12.1. Swept path showing the largest vehicle (12.5m HRVs) entering the Site in a forward direction. Refer to Appendix 1 for high resolution swept paths.



Date	Revision	Drawn By	Site description	Jackson Environment and Planning Pty Ltd		Client	Rutherford Tyre Recyclers
04/06/2024	Revision A	Traffix	9 Burlington Place Rutherford NSW 2320 (Lot 3005 / DP1040568)	Strategy | Infrastructure | Compliance | Procurement A: Suite 102, Level 1, 25-29 Berry St, North Sydney NSW 2060 E: admin@jacksonenvironment.com.au T: 02 8056 1849 W: http://www.jacksonenvironment.com.au	JACKSON ENVIRONMENT AND PLANNING STRATEGY | INFRASTRUCTURE | COMPLIANCE | PROCUREMENT	Project	Rutherford Tyre Recycling Facility WMMP
						Title	Swept Paths Inbound to Site
						Scale	Not to Scale
						Source	Traffix

Figure 12.2. Swept path showing the largest vehicle (12.5m HRVs) exiting the Site in a forward direction. Refer to Appendix 1 for high resolution swept paths.



Date	Revision	Drawn By	Site description	Jackson Environment and Planning Pty Ltd		Client	Rutherford Tyre Recyclers
04/06/2024	Revision A	Traffix	9 Burlington Place Rutherford NSW 2320 (Lot 3005 / DP1040568)	Strategy | Infrastructure | Compliance | Procurement A: Suite 102, Level 1, 25-29 Berry St, North Sydney NSW 2060 E: admin@jacksonenvironment.com.au T: 02 8056 1849 W: http://www.jacksonenvironment.com.au		Project	Rutherford Tyre Recycling Facility WMMP
						Title	Swept Paths Outbound from Site
						Scale	Not to Scale
						Source	Traffix

13 Biodiversity Impact Assessment

An assessment of biodiversity impacts has been conducted to assess the likelihood of the Proposal causing fauna and flora impacts on or off site. This is to fulfil the SEARs requirement of:

> *Including a description of any potential vegetation clearing needed to undertake the proposal and any impacts on flora and fauna.*

The Proposal for this Site involves enclosing part of the industrial shed and fitting this out with a trye recycling facility. There will be no vegetation clearing required on Site.

13.1 Existing Environment

The Site contains an existing industrial shed along the southern boundary of the Site, with a hardstand surface covering the remaining site surface. As a result, there is minimal existing vegetation on the Site. A small area of landscaping exists as a nature strip along the western boundary of the Site. This is separated by the access driveway onto Site. The nature strip is predominately grass, with some trees and shrubs also present. At the back eastern boundary of the Site there is a strip of vegetation running along the existing drainage easement, with this consisting of well-established trees.

13.2 Impact Assessment

The impact of the Proposal was assessed as desktop assessment and analysis. The impacts were assessed in two categories of threatened ecological communities (TEC):

- Vegetation Effects; and
- Threatened Species Effects.

The assessment of the Site found that the areas of vegetation contain no areas of outstanding biodiversity values. Additionally, the Site is not marked as having biodiversity value, with the closest area highlighted as containing biodiversity value located ~681m to the South of the Site.

However, there is a potential to pollute groundwater, soil and surrounding waterbodies and vegetation resulting from accidental release of pollutants from site operations, especially given the eastern site boundary containing a drainage easement. However, all operations will occur inside the enclosed warehouse and so there are no anticipated impacts to flora and fauna on, or off, the Site. The Site will be fully sealed with concrete bunding around the perimeter of the Site, which will further help to protect on-site soils and vegetation.

13.3 Mitigation Measures

Given the very limited amount of vegetation existing on the Site, the distance from the closest identified area of biodiversity value and operations occurring within a fully enclosed warehouse, no mitigation measures are required for this Proposal.

13.4 Conclusion

The SEAR's 1810 required a description of potential vegetation clearing needed to undertake the proposal, of which there is none. Given the very limited amount of vegetation existing on the Site, the distance from the closest identified area of biodiversity value and operations occurring within a fully enclosed warehouse, no flora and fauna impacts are expected on or off site. As a consequence, no further assessments are required. The upgraded site will continue to comply with the current regulations and standards for biodiversity conservation.

14 Soil and Water Impact Assessment

The Soil and Water Impact Assessment (SWIA) for the Site was conducted by Eclipse Consulting Engineers. The objective of the investigation was to assess the impacts of the Proposal on soils, surface water and ground water. This is SEARs requirements which stated that the following be included in the EIS:

- A description of local soils, topography, drainage and landscapes; and
- Details of water usage, potential impacts on surface water, and any proposed mitigation measures.

The assessment is based on plans and information relating to the Proposal and has been conducted to comply with the objectives of:

- *Protection of The Environment Operations Act* 1997;
- *Water Management Act* 2000;
- *Water Act* 1912;
- NSW Department of Climate Change, Energy, the Environment and Water – Water Quality Objectives;
- *Australia and New Zealand Guidelines for Fresh and Marine Water Quality* (*ANZECC*, 2000);
- *Australian Drinking Water Guidelines* – NHMRC;
- Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ, 2004);
- *NSW Water Quality and River Flow Objectives* (1999);
- *Managing Urban Stormwater Volume 1 – the Blue Book* (*Landcom,* 2004);
- Maitland City Council's *Maitland Development Control Plan* 2011; and
- Maitland City Council's *Manual of Engineering Standards – Stormwater.*

This chapter summarises the findings of the SWIA. The full report is attached as Appendix 8.

14.1 Existing Environment

The Proposal involves the change of use for the existing industrial shed on site and minor alterations. The Site covers an area of 1,655m^2 and is located at the southern side of Rutherford's industrial area, with industrial land uses to the east, west and north. The Site gradually slopes from the western boundary to the eastern boundary with the industrial building surrounded by concrete driveways, footpaths and parking areas, totaling an approximate area of 519m^2. The remaining site area consists of landscaping with an approximate area of 411m^2.

Currently stormwater runoff is directed by a pit and pipe drainage system to a drainage easement at the eastern boundary of the Site. This is the legal point of discharge for the development, which is assumed to discharge into an existing natural waterbody.

The existing stormwater management system on site involves roof water runoff directed via gutter and downpipe system to below-ground drainage reporting to the stormwater system. The surface water runoff from the hardstand areas is conveyed by a pit and pipe stormwater network in an easterly direction across the Site. Discharges from the pit and pipe network report directly to the existing drainage system operated by Maitland City Council.

14.2 Potential surface water impacts

The most common surface water pollutants generated in catchments characterised by industrial use are Total Suspended Solids (TSS), Total Nitrogen (TN), Total Phosphorus (TP), Gross Pollutants (GP), Heavy Metals, and Hydrocarbons. These pollutants are associated with pedestrian activities and vehicle movements on hardstand surfaces and capture of rainwater on roofs.

14.3 Impact Assessment

A DRAINS model has been prepared to assess the performance of the proposed above-ground detention basin at restricting downstream flows for the new portion of pavement only. Pre- and post-development peak flows for the 50% AEP to 1% AEP rainfall events as reported by the DRAINS model are shown in Table 14.1 below.

Table 14.1. DRAINS model output.

Rainfall Event AEP	Pre-Development Flow (L/s)	Post-Development Flow (L/s)	Storage Volume Required (m^3)	Top Water Level (mAHD)
50%	31	32	0.7	20.89
20%	45	45	1.3	20.91
10%	56	55	1.9	20.93
5%	66	64	2.5	20.94
2%	81	78	3.3	20.95
1%	95	89	4.2	20.96

14.4 Mitigation Measures

The existing development does not make use of any existing stormwater management assets to reduce stormwater pollution before discharging stormwater downstream. The Proposal includes the installation of an Ocean Protect OceanGuard™ filters in the existing surface inlet pits to assist in improvements to the downstream stormwater quality for both the existing site and the proposed pavement extension. Installation and maintenance of the OceanGuard™ filters is to be undertaken in accordance with documentation provided by the manufacturer.

Additionally, bunding will be installed as part of the Proposal to ensure that 162m^3 of potentially contaminated firewater (in the unlikely event of a fire) can be stored on site without entering the downstream stormwater system. A stormwater isolation valve will also be fitted into the existing pit at the northeastern corner of the development site to further ensure that contaminated fire water does not enter the downstream stormwater system.

Two existing pits that are currently located under the awning on site will become enclosed within the industrial building once the building alterations are complete. To avoid contamination with possible spills in the shed, these two pits will have grates replaced with concrete or steel lids that will effectively seal to prevent the ingress of any liquids or spills.

14.4.1 Sediment and Erosion Control Measures

Minor sediment and erosion control measures are required for the Site, including the installation of sediment fences and a sediment trap at the low point of the proposed works. These are documented in the sediment and erosion control plans in the civil drawings within the Soil and Water Impact Assessment, Appendix 8.

14.4.2 Groundwater Management and Risk Assessment

The proposed change of use proposes the sealing of a small area which is currently unsealed. This would reduce the ability of groundwater resources to recharge through infiltration of rainwater in this location. The total area to be sealed to an impervious state is 114 m^2. As such, it is expected that there will be minimal impacts on groundwater associated with the approval of the Proposal works.

14.5 Site water balance

The Site's water usage and strategies adopted to manage wastewater is to minimise the potable water usage. No water balance systems have been identified for the existing development. The assessment does not consider the effects of evaporation, groundwater seepage and potable water consumption for drinking water and showers. The

only water usage considered to assess the site water balance is the use for toilet flushing and irrigation. The demands for this were found to total approximately 0.53 kL/day. The Proposal does not intend to reuse any captured rainwater or greywater.

14.5.1 Monitoring and Maintenance Activities

A summary of key indicators to be monitored and the maintenance actions required are provided for each stormwater quality improvements device in Section 7 of the Soil and Water Impact Assessment. In general, it is recommended that all listed inspections be carried out at three-monthly intervals for the first year of operation. Any major problems encountered during this time should be documented and communicated to the owner of the device to seek appropriate action. It is also recommended that inspections take place as soon as possible after heavy rainfall or major storm events. All inspection and maintenance records must be kept on-site for inspection by the approval authority if necessary.

All maintenance actions should be conducted every 6 months at a minimum and after major storm events. More frequent maintenance of proprietary treatment devices may be required dependent on the manufacturer's recommendations.

14.6 Conclusion

The development is not expected to impact negatively on the surrounding surface water environment, flow regimes, quantity, features, or local or regional hydrology. The Proposal meets WSUD requirements for stormwater quality and the proposed new external pavement meets the site's stormwater detention requirements. Fire water storage via bunding, including a stormwater isolation valve, has been designed to allow for on-site storage of contaminated fire water (in the unlikely event of a fire).

Adoption of regular monitoring and maintenance practices will ensure the proposed devices within the stormwater management system function as designed.

15 Fire and Incident Management

A Fire Impact Management Plan was completed by Riskcon Engineering as required by SEARs. The SEARs includes the following requirements:

- An assessment of bushfire risks and asset protection zones (APZ) in accordance with NSW Rural Fire Service guidelines;
- Technical information on the environmental protection equipment to be installed on the premises such as air, water and noise controls, spill clean-up equipment, fire management (including the location of fire hydrants and water flow rates at the hydrants) and containment measures;
- Details of the size and volume of stockpiles and their arrangements to minimise fire spread and facilitate emergency vehicle access; and
- The measures that would be implemented to ensure that the Proposal is consistent with the aims, objectives and guidelines in the NSW Fire and Rescue guideline *Fire Safety in Waste Facilities* dated 27 February 2020.

The applicable regulations and guidelines considered for the preparation of the assessment include:

- *National Construction Code 2019 – Volume 1 Amendment 1* (ABCB, 2020);
- FRNSW's *Fire Safety Guide: Fire safety in waste facilities* (FRNSW, 2020);
- RFS NSW *Planning for Bushfire Protection* 2019 (NSW Rural Fire Service, 2019);
- FRNSW *Fire Safety Guideline: Access for fire brigade vehicles and firefighters* (2020); and
- FRNSW *Fire Safety Guideline: Emergency services information package and tactical fire plans* (2019).
- HIPAP No.2
- *NSW Fire Safety Guideline – Guideline for Bulk Storage of Rubber Tyres*.

The Fire and Incident Management Report is attached as Appendix 9 and summarised within Section 15. The bushfire risks and APZs were analysed in a separate Bushfire Report. Refer to Section 16 and Appendix 10 for the Bushfire Assessment.

15.1 Existing Environment

The Site currently has one existing industrial shed on Site, approximately 638m^2 in area, with an attached office space of 35m^2. The existing fire safety equipment within the industrial shed consists of one (1) portable fire extinguisher in the office and four (4) in the industrial shed. No other fire services are present.

15.2 Impact Assessment

Although the risk of fire is low in this area, the potential consequences and challenges of extinguishing a tyre fire have been considered. The risks of fire were analysed through the hazard identification process, with the following hazardous scenarios focused on with the report:

- Ignition of diesel or grease, combustible liquid fire;
- Tyre ignition in MRV, tyre fire in whole tyre / product and waste storage area;
- Tyre contamination, tyre fire in whole tyre / product and waste storage area;
- Tyre fire in the tyre delivery area and outgoing storage area;
- Smoke dispersion in the tyre delivery area and outgoing storage area;
- Production line fault, tyre fire in the tyre processing area; and
- Rubber fire, potentially contaminated fire water and environmental damage.

Each identified scenario has been assessed, with identified mitigation measures provided. The incidents identified as having potential impacts off-site were:

- Ignition of diesel or grease, combustible liquid fire;
- Tyre fire in the tyre delivery area and outgoing storage area;
- Heavy smoke dispersion in the tyre delivery area and outgoing storage area; and
- Production line fault, tyre fire in the tyre processing area.

A summary of materials stored on-site with respective volume, weight and fuel load is provided in Table 15.1.

Figure 15.1. Summary of goods stored and handled on-site.

Material / potential pollutant	Storage location	Dangerous Goods Class[1]	Packing Group[2]	Maximum quantity on site	Threshold[4]	Type of Storage
Whole Tyres	Whole Tyre Storage Area	Special Waste	n/a	25.2 tonnes	n/a	Stacked tyres
Crumb Rubber	Crumb Rubber Storage Area	Special Waste	n/a	36.75 tonnes	n/a	Bulka bags
Rubber Pavers	Crumb Rubber Storage Area	n/a	n/a	15.75 tonnes	n/a	On pallets
Rubber Mats	Crumb Rubber Storage Area	n/a	n/a	13.3 tonnes	n/a	On pallets
Diesel	South-eastern corner of the industrial shed	3	III	200L	Proposal is storing less than 5 tonnes so not applicable. No further assessment required.	200L self-bunded steel tank
Glue - Polyurethane resin (used in rubber tile / mat production)	Eastern side of the industrial shed	n/a	n/a	2000kg	n/a	2 x 1 tonnes IBC's on a bunded pallet
Pigments (used in rubber tile / mat production)	Eastern side of the industrial shed	n/a	n/a	1000kg	n/a	1 tonne stored in an IBC on a bunded pallet
Grease drum cartridges	South-eastern corner of the industrial shed	n/a	n/a	205L	n/a	Not a dangerous good.

15.3 Mitigation Measures

To ensure best practice fire management system onsite, recommendations to improve upon current practices have been categorised in three main areas of:

1. Storage Limitations;
2. Operational procedures; and
3. Equipment and infrastructure;

With these measures are implemented in full, the Proposal will fully comply with the National Construction Code and Fire & Rescue NSW guidelines.

15.3.1 Storage Limitations

The stockpile storage area dimensions and storage methods have been determined by the FRNSW specific guidelines for the bilk storage of tyres, aiming to facilitate easier control and extinguishing of fires. These guidelines dictate the arrangement of stockpiles to enhance manageability, which for this project are for an unsprinklered building.

The guidelines highlight that a minimum distance of 3m between the top of the tyre stack and the building roof is required, as well as the sides of the trye stack to the building walls. The *Fire Safety Guidelines for Bulk Storage of Rubber Tyres* (GBSRT) limits tyre stockpiles to 3.7m in height, however given the building height and roof shape, the stacked height for this project will be limited to 3.5m. The proposed floor area for the tyre stockpile will be 4 m and the length is 6m, resulting in an area of 24m^2. This storage area is below the maximum allowable area specified in the GBSRT of 30m^2.

Mitigation measures for the stockpiling of crumb rubber includes storing crumb rubber in one tonne bulka bags are proposed to reduce individual stockpiles. Given height restrictions, a total of 3.5m height for crumb rubber will reduce the fire risks associated with crumb rubber stored on site.

15.3.2 Operational Procedures

To improve upon the current practice and reduce the risk of fire hazard, updating the operational procedures has been recommended. This includes:

- Control of ignition sources;
- Inspection of tyre stacks;
- Maintaining high standards of housekeeping;
- Work practices such as availability of safety data sheets, first aid fire equipment and training;
- Compliance with *Work Health and Safety Regulation* 2017;
- Maintain site security;
- Stockpile limits with storage areas will be marked;
- The Site shall host FRNSW as part of a site familiarisation to highlight the potential for tyre fires and potential for toxic smoke formation;
- Designated smoking area at the site;
- Develop a hot work permit system to control any hot work undertaken at the site;
- Install CCTV monitoring for intruders at the Site;
- The evacuation signal shall include words such as “Fire” and “Evacuate” inserted in the period provided in ISO 8201, or a site-specific voice message as provided for in AS 4428.16;
- A fire engineer is to review the site and the current smoke exhaust system of the warehouse;
- Assessing tyres for contamination and washed off if contamination is suspected;
- Keeping an eye on tyres during unloading and the storage areas for any signs of fire; and
- Crumb rubber, pavers and matting will be cooled prior to stockpiling.

15.3.3 Equipment and Infrastructure

In the unlikely event of a fire, FRNSW would need to extinguish the fire using water from street hydrants, with pressure availability guaranteed by Hunter Water. It is expected that the water provided by the street hydrants shall be sufficient. This water could become contaminated by the particles released from burning rubber and so to prevent the release of contaminated water, bunding will be installed to ensure the fire water is fully contained.

The fire assessment determined that three fire hydrant hoses would suffice to combat fire in both the storage and operational areas. This takes into account that the industrial building lacks sprinkler protection. It has been estimated that it would take 90 minutes of firewater to suppress, cool and contain the fire. As a result, bunding will be installed on site to contain a minimum of 162m^3 of potentially contaminated water within the site boundaries.

The fire safety systems at the site can be split into four main categories:

1. Fire Prevention – systems installed to prevent the conditions that may result in initiating fire;
2. Fire Detection – systems installed to detect fire and raise alarms so that emergency response can be affected (both evacuation and firefighting).
3. Fire Protection – systems installed to protect against the impacts of fire or explosion (e.g. firewalls);
4. Fire Mitigation – systems installed to minimise the impacts of fire and to reduce the potential damage (e.g. fire water application)

An overview of fore safety recommendations for this site are provided below:

- Bollards around the Combustible Liquid Storage Area to reduce the risk of a collision from a loading truck;
- Grease drum stored on a bunded pallet and the diesel stored in an integrally bunded tank to protect against spills and collisions;
- Installation of carbon dioxide alarms;
- Installation of manual call points in clearly visible locations. These small red boxes are linked to the fire alarm system to allow occupants to trigger the alarm manually in the event of a fire.;
- Installation of suitable fire extinguishers; and
- Installation of three fire hydrants.
- A Spill kit is to be located adjacent to the combustible liquids storage area;
- The diesel storage tank is to comply with AS1692;
- Two powder-type extinguishers are to be located within15m of the grease and diesel store;
- Stockpile limits within the storage areas will be marked;
- That crumb rubber, pavers and matting are to be cool before being stockpiled;
- The Site shall host FRNSW as a part of a site familiarisation to highlight the potential for tyre fires and potential for toxic smoke formation;
- A windsock shall be installed at the Site to assist FRNSW in identifying the wind direction such that they do not establish a command centre downwind of the fire that may release toxic gases (i.e. Sulfur dioxide);
- Identify a designated smoking area at the site and provide this on the site layout;
- Develop a hot work permit system to control any hot work undertaken at the Site;
- Install CCTV monitoring for intruders at the site;
- An Emergency Response Plan (ERP) shall be developed for the Site in accordance with the Hazardous Industry Planning Advisory Paper No. 2;
- An Emergency Services Information Pack (ESIP) shall be developed for the Site in accordance with the Fire & Rescue NSW fire safety guideline “Emergency Service Information Pack and Tactical Fire Plans”;
- Carbon dioxide detection shall be installed in the production area and in the storage area(s) to identify potential tyre fires;
- Detection of carbon dioxide at the Site shall result in a local alarm at the Site and shall be sent to site personnel that can enact a response after hours (i.e. notify FRNSW);
- Manual call points are to be installed and be located in clearly visible locations;
- The evacuation signal 1 shall include words such as “Fire” and “Evacuate” inserted in the period provided in ISO 8201, or a site-specific voice message as provided for in AS 4428.16;
- A suitable fire extinguisher shall be available within 10 m of any area where rubber products are stored, sorted, or handled;

- The Site is to have three dual fire hydrants installed, as per Figure 6.1 of the Fire and Incident Management Report (refer to Appendix 9), sourcing water from the main supply;
- The facility and / or site boundaries shall be capable of containing 162 m^3 which may be contained within the building footprint, site stormwater pipework, and any recessed docks or other containment areas that may be present as part of the site design;
- The civil engineers designing the site containment shall demonstrate the design is capable of containing at least 162 m3;
- An isolation system that will prevent the external discharge of potentially contaminated fire water is to be installed;
- A fire engineer is to review the site and the current smoke exhaust system of the warehouse;
- A fire hydrant system shall comply with Clause E1.3 of the BCA and the relevant provisions of AS 2419.1:2021. A fire engineer is to review fire systems and confirm compliance and performance solutions required;
- A fire hose reel system shall comply with Clause E1.4 of the BCA and the relevant provisions of AS 2441:2005. A fire engineer is to review fire systems and confirm compliance and performance solutions required; and
- Portable fire extinguishers shall comply with Clause E1.6 of the BCA and the relevant provisions of AS 2444:2001. A fire engineer is to review fire systems and confirm compliance and performance solutions required.

15.3.4 Documentation

An Emergency Response Plan will be prepared in accordance with AS 3745-2010.

Additionally, it is recommended to develop an Emergency Services Information Package (ESIP) which is readily accessible to firefighters in times of an emergency. These documents will be developed post-approval.

15.4 Conclusion

The Fire Impact Management Plan has been developed for the Site at 9 Burlington Place, Rutherford (Lot 3005 DP1040568) in accordance with HIPAP No. 2, *Fire Safety Guidelines for Bulk Storage of Rubber Tyres* and *Fire Safety Guidelines in Waste* facilities as part of the requirements in the SEARs to satisfy the fire and incident management requirements for the Site.

The analysis performed in the FIMP was based on credible fire scenarios to assess whether the protection measures at the Site were adequate to combat the hazards associated with the quantities and types of commodities being stored. Based on the review, the fire risks were identified and recommendations were made to be incorporated into the design to minimize the fire risks at the site.

16 Bushfire Assessment

A Bushfire Assessment was completed by Newcastle Bushfire Consulting. The applicable regulations and guidelines considered for preparing the assessment include:

- *Planning for Bush Fire Protection* (2019); and
- AS3959 (2018) *Construction of buildings in bushfire-prone areas*.

The Bushfire Assessment report is attached as Appendix 10. A bushfire assessment was completed to respond to the SEARs request 'for an assessment of bushfire risks and asset protection zones (APZ) in accordance with NSW Rural Fire Service guidelines.'

16.1.1 Existing Environment

The Proposal Site is not located within bushfire prone land and there is no mapped bushfire prone land within 500 metres of the Site. Aerial mapping and inspection of the site was completed, which revealed that the potential bushfire hazards as identified from Maitland Council's Bushfire prone mapping is reasonably accurate with the current conditions.

16.1.2 Impact Assessment

The major vegetative threats were determined using *Planning for Bushfire Protection* (2019). The primary vegetation structures were found to be minimal, with some grassland located over 100m south of the Site and punctuated with the storage of industrial equipment. The Site is also surrounded by both a 50m and 140m building buffer.

The bushfire attack levels for the Proposal Site have been determined to a LOW for the North, East, South and West of the Site. Asset protection zones have been determined in accordance with *Planning for Bush Fire Protection* and will be maintained for the life of the development.

16.1.3 Mitigation Measures

The ongoing maintenance for the life of the development is recommended to ensure landscaping is managed in a way to avoid flammable vegetation being located directly under windows. Ground fuels also require regular maintenance to ensure these are removed regularly. The following recommendations are also made:

1. The Site is not bushfire prone land and is located a considerable distance from mapped bushfire prone land.
2. Any building modifications shall comply with *National Construction Code* 2019 Structural Fire Safety requirements.

16.1.4 Conclusion

The Proposal is compliant with *Planning for Bush Fire Protection* (2019) and is not bushfire prone land. There is limited potential for bushfire attack at this Site and *National Construction Code* 2019 Structural Fire Safety requirements are adequate to reduce that risk.

17 Aboriginal and Cultural Heritage Impacts

There are no identified Local and State Environmental Heritage items of Aboriginal or Cultural significance identified on or within 200m of the Site. The proposed works are unlikely to have any impact on the heritage items or areas. AHIMS search result attached as Appendix 11 shows there are no Aboriginal Sites recorded or any Aboriginal places declared at or near this location.

Given no Aboriginal or Cultural heritage significance is identified at, or within 200m of this site, the likelihood of impacts is very small and no further assessment is required.

18 Visual

A Visual Impact Assessment (VIA) was completed for the Proposal by Terras Landscape Architects in response to the SEARs request for 'an impact assessment at private receptors and public vantage points.' The objectives of the report are to identify and describe the existing visual/landscape environment, identify typical viewpoints and determine the likely impacts the Proposal may have on the visual/landscape quality of the area. This assessment identifies the visual characteristics of the existing landscape and the likely consequences of the development.

The VIA is a requirement under Part 3A of the *Environmental Planning and Assessment Act* 1979 and is a requirement in the *Maitland DCP* 2011. The Proposal is required to align with the Objectives and Controls of the *Maitland DCP* 2011 – *C.5, 2, 2. Landscaping* which outlines the landscaping requirements for Industrial Land. The VIA is given in Appendix 12.

18.1 Existing visual landscape setting

The Site is located within Rutherford and is surrounded by other industrial sites similar in building size and form. There are exact replicas of the Proposal industrial shed on each side boundary along with some large industrial buildings in the immediate surroundings. A street view is extracted from Google Maps and is attached in the VIA report to show the existing landscape at the Site. The street frontage consists of existing grass and a small specimen tree along with an existing hedgerow along the South-west boundary.

The locations for each Viewpoint in the VIA were selected based on locations where the potential for views of the Proposal would occur. A viewpoint was included from Oak Tree Retirement Village to demonstrate that no view of the Proposal exists from this location. Identified viewpoints are shown in Figure 18.1.

18.2 Impact Assessment

The Proposal will involve the change of use and alterations to the existing industrial building. The exterior of the building is to be altered by removing the existing dividing wall and enclosing the existing awning with the addition of two roller doors. There are no additional buildings to be added to the Site.

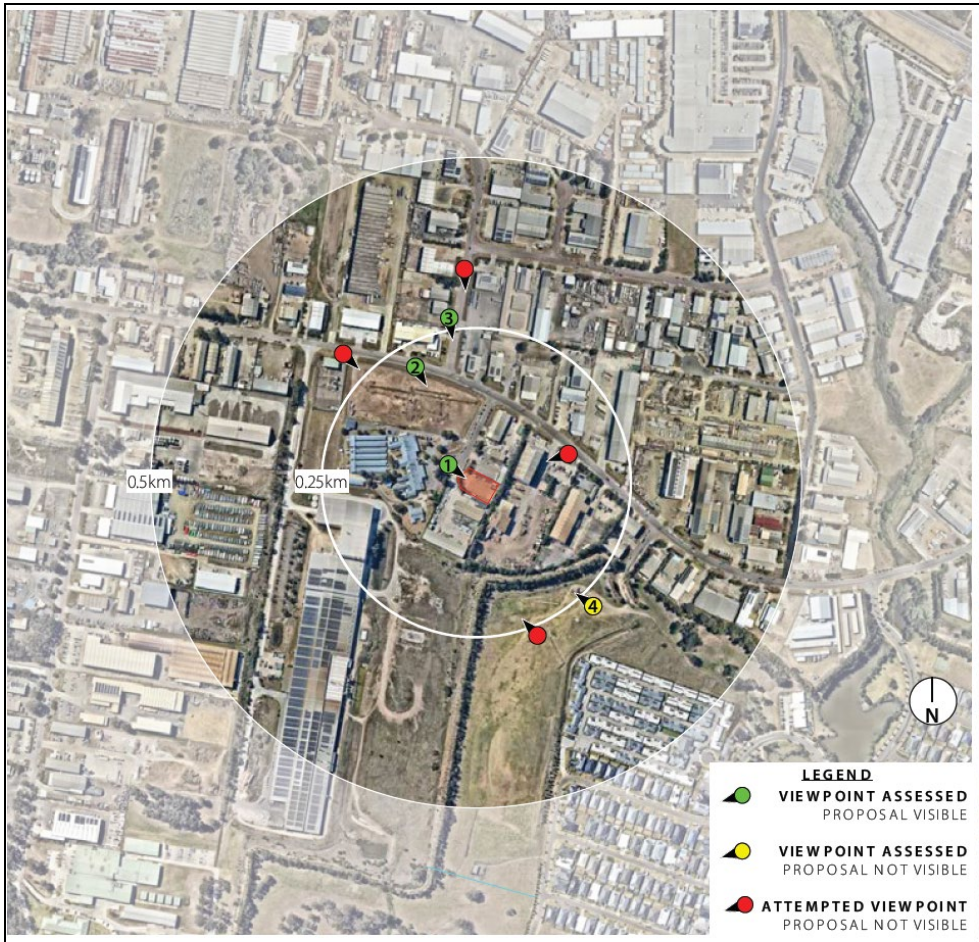
The Proposal Site neighbours a Private Recreation zone which has been characterised as a residential zone due to the permanent residents within Oak Tree Retirement Village. All operations and material storage will be within the fully enclosed industrial shed.

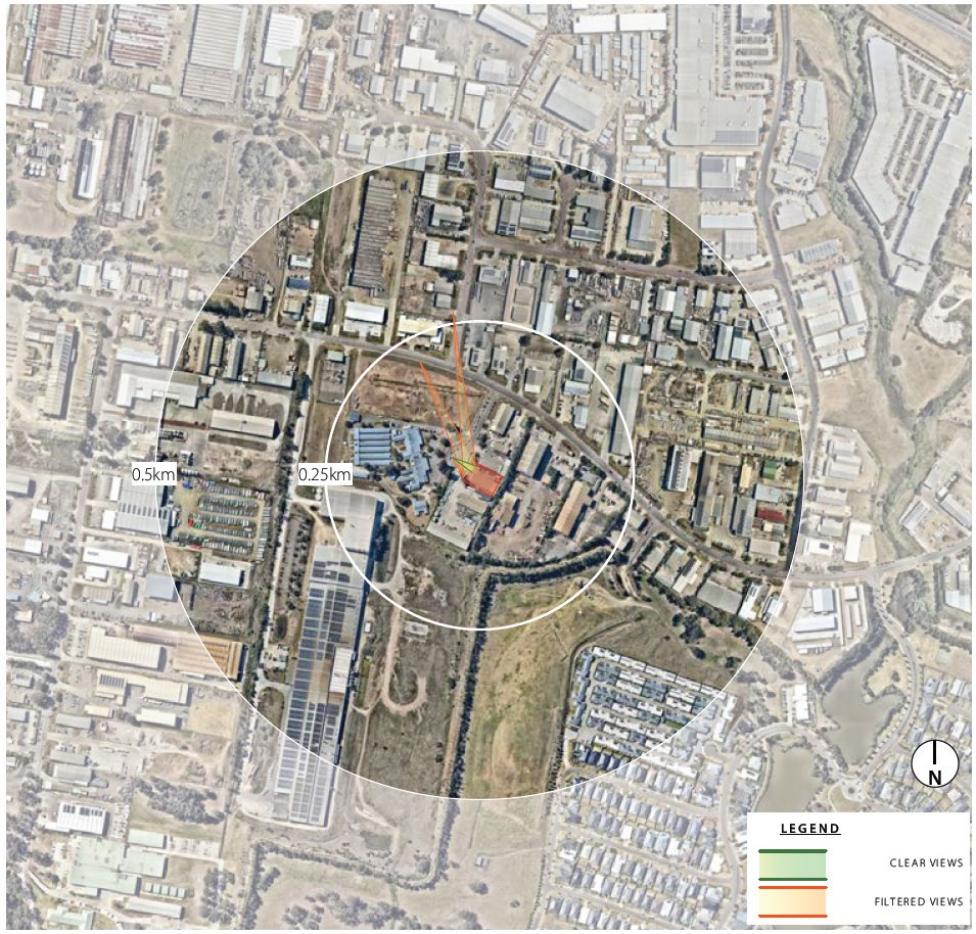
A Visual Impact Assessment was undertaken to assess the changes in appearance of the landscape and the visual quality of an area with regards to visual sensitivity and visual effect. Visual impact may be positive (beneficial) or negative (detraction). On completion of the Visual Impact Assessment, the Proposal was assessed as Low. Additional assessment was also provided in the Visual Evaluation for selected viewpoints as listed in Figure 18.1.

A 0.9m diameter helium filled red balloon was positioned in the approximate centre of the study area. The balloon was released to the maximum height of the proposed building (3.1 metres above existing ground level) and tightly secured. This balloon was then used to identify (or attempted to view) the proposal from various points within the subject locality.

Three viewpoints were selected for a Visual Evaluation Criteria, Viewpoint 1 with a view east towards the Site, Viewpoint 2 south-east towards the Site and Viewpoint 3 also south-east towards the Site. Viewpoint was determined to have a negligible/Very Low visual impact. Both Viewpoint 2 and 3 were determined to have Nil visual impact. Viewpoint 4 was included in the assessment to assess the view from the Oak Tree Retirement Village. This viewpoint found that there was no view of the Proposal from this location.

Figure 18.1. Maps showing viewpoint analysis and viewshed diagram.





Date	Revision	Drawn By	Site description
03/04/2024	Revision A	V. Wilson	9 Burlington Place Rutherford NSW 2320 (Lot 3005 / DP1040568)

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Client	Rutherford Tyre Recyclers
Project	Tyre Recycling Facility
Title	Viewpoints from Visual Impact Assessment
Scale	As shown
Source	Terras

The Proposal will involve minor alterations to the existing building, however these proposed changes were found to not be viewable from the viewpoints. The Proposal will therefore have nil additional impacts on visual amenity. All tyre recycling activities will be undertaken inside the building, eliminating any adverse visual impacts associated with operations.

18.3 Mitigation Measure

A Landscape Concept Plan has been completed to mitigate and soften the street frontage view of the Site. Viewpoint 1 is considered to have the highest visual impact due to the close proximity to the Site, it is unlikely that there would be much viewer access to the Site and all viewer access would be within a vehicle and for a short viewing time. The viewpoint is assessed as a Very Low impact rating due to proposed building alterations being partially visible, however the bulk of the built form is not changing.

Viewpoint 4 demonstrates that there will be no viewer access, effect, sensitivity or impact from the Oak Tree Retirement Village due to the Proposal not being seen from this location. As a result, this viewpoint could not be assessed and so it is determined that no visual impacts will be felt by the Oak Tree Retirement Village.

No mitigation measures are required given the overall low impact rating from the visual impact assessment.

18.4 Conclusion

The Proposal will have a Very Low accumulative visual impact on the surrounding area. It is noted that the Proposal is an existing building that will have several alterations proposed. All proposed alterations will not be seen from viewpoints other than the street frontage. The Proposal is consistent with the surrounding industrial buildings. Although the visual impacts of the Proposal are assessed as very low, the proposed planting will provide visual relief to increase the Site's visual appeal.

The site amenity complies with the current *Maitland DCP 2011* requirements under *Section C.5 Industrial Land; Development Guidelines; Section 2.a.i – Landscaping*.

Minor building alterations to the Site will have no adverse visual impact on the local amenity from the Site. Minor changes are recommended to improve the visual amenity of the Site. Refer to the Landscape Concept Plan in Section 19 for additional detail.

19 Landscape Concept Plan

Under the *Maitland DCP 2011* Section C.5 – Industrial Land – 2. Development Guidelines – 2. Landscaping, there are requirements listed in relation to landscaping. A detailed landscaping plan is required for the Development Application and is to show the location and species of all planting and all other landscaping in screening parking areas. The full detailed Landscape Concept Plan is provided in Appendix 13.

19.1 Existing Landscape

The existing landscape on site is very minimal. Most of the landscaped area is located at the front of the Site, either side of the access way from Burlington Place and a 1.5m easement running the eastern Site boundary. Most of the Site consists of a concrete hardstand surface.

19.2 Mitigation Measures

There are very minimal changes proposed for the landscaping on Site, with these confined to the areas of existing landscape. The minimal changes are recommended as a way to improve the aesthetics of the Site. No changes proposed relate to the change of use or alterations as proposed for the development. Refer to Figure 18.1 and Figure 18.2 for a map showing the landscaped areas.

An overview of the landscaping concept plan includes the follow:

- Planting of native shrubs and grass mix to contribute towards appearance of streetscape and screen views from the road;
- Maintenance of existing callistemon hedgerow along boundary on adjoining property with protection fencing proposed to be installed at the boundary at the time of construction;
- Keeping the existing Bougainvillea on the street frontage;
- Keeping the existing trees along back boundary of the Site;
- Loss mass planted Chrysocephalium Apiculatm to foreground;
- Tree protection fencing for existing trees to be calculated during the construction certificate stage;
- Keeping the lomandra longifolia; and
- Planting Westringia ‘Zena’ to 1m high to maintain security sight in.

19.3 Conclusion

The proposed site alterations do not require to be installed on any of the landscaped area of the Site. The area on the Site proposed to be concreted is already void of any vegetation. All other infrastructure changes are within the building and do not impact existing landscaping.

Figure 18.1. Layout of the site plan showing the landscaping area. The blue box marks the image shown in Figure 18.2.

Date	Revision	Drawn By	Site description	Jackson Environment and Planning Pty Ltd		Client	Rutherford Tyre Recyclers
03/04/2024	Revision A	V. Wilson	9 Burlington Place Rutherford NSW 2320 (Lot 3005 / DP1040568)	Strategy | Infrastructure | Compliance | Procurement A: Suite 102, Level 1, 25-29 Berry St, North Sydney NSW 2060 E: admin@jacksonenvironment.com.au T: 02 8056 1849 W: http://www.jacksonenvironment.com.au	JACKSON ENVIRONMENT AND PLANNING STRATEGY | INFRASTRUCTURE | COMPLIANCE | PROCUREMENT	Project	Tyre Recycling Facility
						Title	Landscaping area on Site
						Scale	As shown
						Source	Terras

Figure 18.2. Landscaped area located at the front of the Site with vegetation listed.

Date	Revision	Drawn By	Site description	Jackson Environment and Planning Pty Ltd		Client	Rutherford Tyre Recyclers
03/04/2024	Revision A	V. Wilson	9 Burlington Place Rutherford NSW 2320 (Lot 3005 / DP1040568)	**Strategy | Infrastructure | Compliance | Procurement** **A: Suite 102, Level 1, 25-29 Berry St, North Sydney NSW 2060** **E:** admin@jacksonenvironment.com.au **T: 02 8056 1849** **W:** http://www.jacksonenvironment.com.au		Project	Tyre Recycling Facility
						Title	Front of Site landscaping area
						Scale	As shown
						Source	Terras

20 Compilation of Mitigation Measures

A wide range of mitigation measures to prevent or minimise environmental impacts that may be generated by the Proposal have been detailed throughout this EIS. This section compiles those considered necessary to minimise impacts and maximise positive outcomes on the physical, social and economic environments of the local area and wider region.

The recommended mitigation measures and strategies will be implemented and managed so that the Proposal complies with statutory obligations under EPA licenses and approvals. This includes environmental management and cleaner production principles in the planning, design, establishment, and operation of the Proposal.

20.1 Cleaner Production Principles

Cleaner production is a practical method for protecting human and environmental health. This is achieved through the continuous application of an integrated, preventive environmental strategy towards processes, products and services. Cleaner production increases the overall efficiency of products and services and reduces damage and risks to humans and the environment. A proactive approach to reduce initial risks and consequences of impacts will assist in lowering reliance on reactive environmental mitigation measures.

The cleaner production techniques applicable to the ongoing operations of the project include:

- Selecting and using the most appropriate methodology to improve processes and minimise the amount of residual waste generated;
- Employing processes that are efficient in their consumption of energy, materials and natural resources and reduce greenhouse gas emissions;
- Selecting energy efficient plant and equipment for use in the facility; and
- Safely disposing of any residual wastes and process residues.

When cleaner production principles cannot further remove environmental risk or consequence, mitigation strategies must be considered to ensure the remaining potential environmental harm is reduced to the lowest risk level possible.

20.2 Mitigation Measures and Strategies

Table 18.1 summarises the mitigation measures and strategies identified in this EIS to minimise impacts and safeguard the environment so that the desired environmental outcomes are achieved for the design, construction and operation of the Proposal. Implementation of these measures will ensure the Proposal minimises or eliminates potential impacts on the physical, social and economic environments of the local area and wider region.

Table 18.1. Summary of mitigation measures and strategies.

Issue	Mitigation Strategy
Hazards assessment	Ensure vehicle speed limits to avoid collision
	Regular driver education to ensure safe driving practices
Fuels and chemicals	All chemicals to be stored in the designated areas inside the industrial warehouse and in line with the Australian Dangerous Goods Code
	MSDS sheets, where available, to be readily accessible for identification of appropriate processes for clean-ups
	Chemical spill kits to be kept on site and readily accessible near liquid waste and chemical storage
	Firefighting equipment to be accessible and regularly inspected
Waste	Site induction for all new employees including truck drivers
	Training staff to employ correct procedures for receiving, sorting and transportation of separated recyclables and residual wastes
	Housekeeping requirements to maintain cleanliness of the site
	Assigning roles and responsibilities for tasks
	Signages for storage of separated materials
	Updating risk registers
	Regular reviews of procedures to incorporate any changes
	Waste will be disposed to an appropriate licensed facility. A Waste Management Register of all waste collected for disposal and / recycling, including amounts, data and time and details and location of disposal will be maintained at all times
	Weighbridge will accurately track the quantity of incoming tyres to ensure that the authorised amount and annual limits are not exceeded.
	All waste being transported off site must be covered. The transportation must be appropriately licensed to carry that material
	Any material contaminated by spills i.e. fuel, oil, lubricants etc., including empty fuel, oil and chemical containers, to be stored in a sealed secure container and will be transported to a waste disposal site approved by the NSW EPA to accept such material
	Storage area for waste tyres and recovered materials will be inside the industrial shed
Air Quality	Proper management, supervision and training for process operations

Issue	Mitigation Strategy
	Proper use of equipment
	Effective preventative maintenance on all plant and equipment concerned with the control of emissions to air
	Ensuring that spares and consumables are held on site so that plant breakdowns can be rectified rapidly
	Avoiding unnecessary idling of truck engines on-site
	Ensuring truck maintenance is up to date
	Paving of all operating, storage, unloading and loading areas
	Sealing roads if dust is considered likely to be an issue
Noise and Vibration	The scheduling of construction activities should be undertaken to reasonably minimise noise impact to all surrounding land uses (e.g. highly noise intrusive works such as hammering should not take place prior to 8am
	Trucks to use a non-tonal reversing beacon
	Avoid careless dropping of construction materials into empty trucks
	Trucks, trailers and concrete trucks should turn off their engines during idling (unless truck ignition needs to remain on during concrete pumping)
	Where high noise generating demolition is proposed to be undertaken, respite hours should be implemented to reduce the impact on surrounding receivers
	An after hours contact number is to be displayed outside the building site
	Obtaining separate structural or specialist advice for critical or fragile structures as to the levels of damage risk
	Selection of processes that minimise structure and ground vibration
	Use smallest plant that is able to efficiently undertake the work activity
	Lay vibration absorption mats to cushion impacts from falling debris
	Time scheduling works to minimise amenity impacts
	Communicating with affected receivers
Traffic and Transport	Maximum size of trucks permitted on site are 12.5 tonne HRVs.

Issue	Mitigation Strategy
	Minimum number of car park spaces required is five (5)
	Two truck parking bays for overnight parking on-site
Biodiversity	Nil
Soil and water	Installation of Ocean Protect OceanGuard™ stormwater system
	Installation of fire water storage via bunding
	Installation of stormwater isolation valve
	Two lids to be fitted on internal drains
Fire Compliance & Bushfire Threat Assessment – Equipment & Infrastructure	Two powder-type extinguishers to be located within 15m of grease and diesel store
	Install three dual fire hydrants that comply with AS 2419.1:2021
	Spill kit to be located adjacent to the combustible liquids storage area
	Diesel tank storage to comply with AS1692
	Install a windsock to identify wind direction
	Install CCTV
	Install carbon dioxide alarm
	Install manual call points in clearly visible locations
	Install manual alarm points near each fire door exit
	All staff to undergo annual training for use of fire hose reels and fire extinguishers; and
	Install appropriate signage and markings for 'No smoking area, evacuation pathway, evacuation muster points, quarantine area, stockpile limits, etc.
	Suitable fire extinguisher located within 10m of rubber products
Fire Compliance & Bushfire Threat Assessment - Documentation	Regular updates to Emergency Response Plan – will be developed post-approval
	Regular updates to Emergency Services Information Pack – will be developed post-approval
	Regular updates to Operational Plan

Issue	Mitigation Strategy
Fire Compliance & Bushfire Threat Assessment - Operational procedures	Crumb rubber, pavers and matting to be cooled before being stockpiled
	Host FRNSW as part of site familiarisation
	Regularly maintain all machinery and equipment
	Regularly clean the site
	Supervisor to conduct site inspection at the end of each shift
	Regular and mandatory trainings for all staff
	Mandate strict 'No smoking' policy inside the buildings
	Maintain site security
	Maintain distances between stockpiles/storge bins
	Enforce safety protocols for hot work on site
	Materials to be stored in their designated marked up areas
	Conduct regular inspections of the fire equipment and safety standards
	Ensure clear driveway and vehicle paths
	Identify a designated smoking area
	Develop a hot work permit system
Aboriginal and Cultural Heritage	No heritage items are within ~200 m of the site boundary. No mitigation measures are required to be implemented.
Visual Impacts	The minor infrastructure changes to the Site does not change the visual impact of the Site and continues to be aligned with the local environment. However, a Landscape Concept Plan has been developed to aid any minor visual impacts identified from the Visual Impact Assessment,

20.3 Environmental Management System

Adopting an Environmental Management System (EMS) and a monitoring program, for both the operational phase, is an important component of the Proposal to demonstrate the proponent's commitment to implementing the measures outlined in this EIS.

To ensure an integrated approach, the EMS will include Environmental Management Plans (EMPs), specifically created to address the management and mitigation of the following environmental issues, as compiled in the table above. These sub plans will include:

- Hazards Assessment;
- Fuels & Chemicals;
- Waste Management;
- Air Quality and Odour Impacts;
- Noise and Vibration;
- Traffic and Transport;
- Biodiversity;
- Soil and Water;
- Fire compliance and bushfire threat;
- Aboriginal and Cultural Heritage; and
- Visual Impacts.

The key objectives of the EMPs will be to ensure:

- Works are carried out in accordance with relevant environmental statutory requirements and relevant non-statutory policy, as detailed throughout this EIS;
- Works are carried out in accordance with the goals and requirements presented in this EIS;
- Works are carried out in such a way as to minimise the likelihood of environmental degradation;
- Works are carried out in such a way as to manage the impact of the works on neighbouring properties;
- All employees engaged in the works comply with the terms and conditions of the EMPs;
- Clear procedures for management of environmental impacts, including corrective actions;
- Continual improvement of environmental management; and
- Responsibilities and reporting requirements to ensure compliance with the EMP.

The EMPs will be prepared following assessment and approval of the Project and will serve as working documents to be used throughout the detailed design, construction and operational stages. They will be integrated into proponent's existing management systems, procedures and plans for its activities within the facility, to ensure consistency in approach.

Each EMP developed for the Site will contain, but not be limited to, the following information:

- Goals and objectives;
- Licenses, permits, approvals and statutory requirements;
- Lists of required actions, timing and responsibilities (including relevant environmental authorities);
- Operational procedures for preventing environmental impacts;
- Reporting requirements and procedures;
- Corrective and preventative action procedures;
- Procedures and forms for documentation and reporting of issues;
- Standard specifications for incorporating environmental safeguards;
- Environmental awareness and environmental management training and education requirements

- Guidelines for emergencies;
- Surveillance, review and auditing procedures for modification of the EMPs;
- Complaint procedures; and
- Maintenance and monitoring programs.

Adherence to the EMPs will enable environmental safeguards and mitigation measures to be effectively implemented and sustainable work practices adopted for the entire Project. This also demonstrates the proponent's commitment to preventing environmental pollution, minimising the impact of the Proposal on the environment and complying with all relevant legislation.

20.4 Environmental monitoring and reporting

Environmental monitoring will be a fundamental component of the Operational EMPs for the Proposal. Monitoring programs will be developed and presented in an Environmental Management Plan (EMP) and relevant subplans in accordance with the conditions of approval and licence requirements. Proposed environmental monitoring is given in Table 18.2.

Table 18.2. Environmental monitoring recommended for the Proposal.

Environmental Issue	Monitoring	Purpose	Proposed limit conditions
Waste	Weighbridge records for all incoming waste materials and outgoing products and waste exported by the Site	For monthly reporting to the EPA for compliance with proposed Authorised Amount and annual processing limits	Annual processing limit of 4,500 tonnes per year
	Monitoring of incoming wastes received	To reject non-acceptable loads of incoming wastes	Visual assessment only of the incoming wastes
	Monitoring of stockpile heights	All tyres to be stacked in accordance with FRNSW guidelines in an area no larger than 24m^2 and a height maximum of 3.5m. These storage limitations will also apply to te storage of recovered products and residual waste.	Stockpiles of waste materials in the designated waste storage area will be limited to 3.5m.
Air Quality and Odour	Visually monitoring dust generation from work zones to ensure that excessive dust is not being produced.	Eliminate excess build-up of dust during operations, and spark through electrostatic electricity. To comply with relevant impact assessment criteria. Minimise air quality impacts associated with the Site.	Visible dust is not leaving the boundaries of the Site

Monitoring and maintenance procedures have also been updated to ensure plant and equipment systems remain fit for purpose and are in good working order to ensure they will remain effective.

Operational monitoring may also result from:

- Investigative monitoring in response to specific complaints about noise or odour complaints; and
- Regulatory compliance monitoring to comply with the licensing conditions of the approval.

Environmental performance reporting is a key decision support tool that provides management with the information to make meaningful and positive change. Reporting requirements are detailed in the EMPs.

The identification of actual and potential non-conformities contributes to continual improvement of the environmental management system through corrective action and preventive action, respectively. If the reports identify any shortcomings in the way that the operational activities are being conducted, or in the performance of environmental control structures, necessary changes will be made to the EMP to reflect these changes. The NSW EPA will receive all relevant reports and prompt notification of any incidents or deviations in performance as well as updated EMP as required. In particular, Pollution Incident Response Management Plan and Emergency Management Plans are recommended to be updated to ensure compliance of the Environmental Management Systems with the relevant laws and its regulatory instruments.

21 Project Justification

This Chapter presents a justification for the Proposal. An examination of ecologically sustainable development as related to the proposed upgrades to the site operations are noted. We also present a short assessment of alternative sites considered in preparing this development proposal.

21.1 Strategic Drivers

21.1.1 NSW EPA Strategic Plan 2021-24

NSW Environmental Protection Authority (The EPA) has an ambitious plan to be a world class regulator. The plan describes environmental stewardship and use of the regulatory tool to protect and enhance the environment for today and future. The EPA has identified five focus areas for the next three years to provide services in collaboration with stakeholders, promoting a learning mindset, outcomes orientated focus, responsive and adaptive approach, and, purpose and people-centred values. The five focus areas are:

1. Ecologically Sustainable Development (ESD)
   - Champion sustainable approaches to mitigate the cumulative impacts of industry on local communities and environments
2. Waste
   - Take action to reduce the harmful impact of waste and drive behaviours that create a circular economy
3. Water Quality
   - Take action to ensure sustainable and safe water for the community, ecosystems and for economic prosperity and to support cleaner waterways.
4. Legacy and emerging contaminants
   - Take action to prevent harm by targeting our efforts on high-risk legacy, current and emerging contaminants.
5. Climate Change
   - Take action to reduce emissions, mitigate climate change impacts and build greater environmental and community resilience aligned with the principles in the NSW Net Zero Plan.

The Proposal will achieve improved operational efficiency within the current footprint and provide employment opportunities in the local area that is aligned to ESD principles. The operations of the facility as a resource recovery facility includes receiving and recycling of used waste tyres and creating rubber matting and rubber tiles from the crumb rubber produced from tyre recycling on-site. The resource recovery rate of the facility is close to 100% which reduces the amount of waste tyres being sent to landfill and new materials required for rubber product manufacturing. This further contributes to ESD and the circular economy. This will help EPA achieve the aims and objectives of a circular economy and building environmental resilience. Thus, the Proposal is fully aligned with the objectives of the NSW EPA's Strategic Plan.

21.1.2 NSW Waste and Sustainable Materials Strategy 2041

This strategy updates NSW's previous strategy: the *Waste Avoidance and Resource Recovery Strategy* 2014–2021.

The NSW Waste and Sustainable Materials Strategy 2041 - Stage 1, prioritises the way we manage our wastes for environmental benefits and economic opportunities, while being resource efficient. It outlines the actions NSW will take over the next six years – the first phase of the strategy – to deliver on a set of long-term objectives. The strategy is by $356 million in funding to help deliver priority programs and policy reforms, including:

- Phasing out problematic single-use plastic items;
- Financial incentives for manufacturers and producers to design out problematic plastics;

- Having government agencies preference recycled content and invest in research and pilots for recycling innovation;
- Introducing tighter environmental controls for energy from waste in NSW, with further consideration of planning and infrastructure needs underway;
- Mandating the source separation of food and garden organics for households and selected businesses; and
- Incentivising biogas generation from waste materials.

Specific targets focus on the environmental benefits and economic opportunities in how we manage our waste, and includes the following:

- Reduce total waste generated by 10% per person by 2030;
- Have an 80% average recovery rate from all waste streams by 2030;
- Significantly increase the use of recycled content by governments and industry;
- Phase out problematic and unnecessary plastics by 2025;
- Halve the amount of organic waste sent to landfill by 2030;
- Reduce litter by 60% by 2030 and plastics litter by 30% by 2025; and
- Triple the plastics recycling rate by 2030.

To complement this strategy, NSW also released the following documents:

- *NSW Plastics Action Plan*, which sets out how we will phase out problematic plastics, tackle litter from plastic items like cigarette butts, and support innovation and research; and
- *NSW Waste and Sustainable Materials Strategy: A guide to future infrastructure needs*, which sets out the investment pathway required for NSW to meet future demand for residual waste management and recycling.

Rutherford Tyre Recyclers proposes to recycle tyres into crumb rubber, helping to avoid the landfill disposal of tyres, and will contribute to the NSW recycling targets. The activity is aligned with the *NSW Waste and Sustainable Materials Strategy* and will contribute to maximising the use of current infrastructure for a larger throughput. Recovering resources from wastes contributes to sustainability and in achieving the target of 80% recovery rate from all waste streams by 2030.

21.1.3 NSW Waste and Sustainable Materials Strategy: A guide to future infrastructure needs

The *NSW Waste and Sustainable Materials Strategy: A guide to future infrastructure needs* supplements the *NSW Waste and Sustainable Materials Strategy 2041*, sets out the long-term vision for managing waste, planning for infrastructure, reducing carbon emissions, creating jobs, and refocusing the way NSW produces, consumes and recycles products and materials. This strategy is backed by $356 million in funding to help deliver priority programs, policy reforms and investment in new and improvements to recovery and recycling facilities.

The NSW Waste and Sustainable Materials Strategy: A guide to future infrastructure needs, sets out the investment pathway required for NSW to meet future demand for residual waste management and recycling; and establish new indicators to help the NSW governments to track progress on infrastructure investment and the cost of waste services. A need for additional investment in new or upgraded recovery and recycling facilities by 2030 has been identified to prevent shortfalls in keeping up with the increasing amounts of wastes generated.

A key focus of this strategy is ensuring the right infrastructure is available to process the material expected to enter the waste stream over the next two decades, and plan for NSW's waste and circular economy infrastructure, including leveraging private sector and government investment. There are three key areas of focus in the strategy that include residual waste, organics, and plastics.

Tyre recycling is recognised as a NSW waste and circular economy infrastructure need within this strategy. With a recycling capacity gap of ~100,000 tonnes of tyres per annum anticipated in 2030, this Proposal will aid the State in expanding tyre recycling capacity and achieving circular economy goals.

21.1.4 The National Waste Policy 2018

The 2018 National Waste Policy provides a framework for collective action by businesses, governments, communities and individuals until 2030. The 2018 National Waste Policy focuses on waste avoidance, improved material recovery and use of recovered materials.

Strategy 7 of the policy aims to increase industry capacity through identifying and addressing opportunities across municipal solid waste, commercial and industrial waste, and construction and demolition waste streams for improved collection, recycling and energy recovery, to deliver ongoing improvements in diversion from landfill, improved quality of recycled content and use of the waste hierarchy.

The Proposal is aligned with the 2018 National Waste Policy to increase industry capacity through identifying and addressing opportunities for improved collection and deliver on improvements in diversion from landfill of waste tyres.

21.1.5 Council of Australian Governments Waste Export Ban

In 2019, the Council of Australian Governments (COAG) agreed to establish a ban on the export of waste plastic, paper, glass and tyres and take steps to build Australia's recycling and waste processing industries. The schedule for implementation commences on 1 January 2021 with the banning of export of unprocessed glass. From 1 December 2021 the export of whole used tyres, including baled tyres will be banned. As a result, there is a need to significantly improve Australia's capacity to process waste tyres.

21.2 Sustainability drivers

21.2.1 Environmental

Rutherford Tyre Recyclers aims to help NSW achieve their ambitious net zero emissions target of zero by 2030 as outlined in the *Net Zero Plan Stage 1: 2020-2030*.

The mission of Rutherford Tyre Recyclers is to recover material from used tyres that can be used to produce a multitude of products. By re-using materials that exist within used tyres, this helps to recover maximum value from discarded resources and reduce the dependency on obtaining virgin materials from the environment.

By using the recovered resources generated by vehicles, Rutherford Tyre Recyclers are helping NSW transition to a circular economy. The facility will also generate a product onsite using the recovered crumb rubber generated from the onsite tyre recycling facility. These rubber tiles and mats have many purposes, such as gym flooring and various floor applications.

21.2.2 Ecologically Sustainable Development

The NSW Government is committed to encouraging Ecologically Sustainable Development, and this is a key objective of the State's environmental laws. The *Protection of the Environment Administration Act* 1991 defines ecologically sustainable development under Section 6(2) as: 'ecologically sustainable development requires the effective integration of economic and environmental considerations in decision-making processes.'

The *Protection of the Environment Administration Act* 1991 highlights four key principles of ecologically sustainable development under Section 6(2) (a)-(d). These principles are:

- Precautionary principle – namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent

environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by:

(i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment; and

(ii) an assessment of the risk-weighted consequences of various options.

- Intergenerational equity – namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations.
- Protecting Biodiversity – conservation of biological diversity and ecological integrity-namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration.
- Improved valuation – including pricing and incentive mechanisms should be promoted to ensure the full costs, including the cost to environmental and social systems, are included in the final valuation of the product or service. Environmental factors should be included in the valuation of assets and services, such as:

(i) polluter pays-that is those who generate pollution and waste should bear the cost of containment, avoidance or abatement;

(ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste; and

(iii) environmental goals, having been established, should be pursued in the most cost-effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.

The Proposal has been designed to minimise impacts and where possible, improve the natural, social and economic environment of the region. This includes ensuring the protection and management of air quality as well as the appropriate storage and management of waste tyres, materials produced on site and hazardous substances. Impacts on social systems, such as noise, vibration, traffic and transport, water quality and fire have been managed and improved through the proposed mitigation measures.

The recycling capacity of the facility will result in social and economic benefits at both the local and regional level. Currently tyres are being sent out of the Hunter Valley for processing and recycling. The facility will be able to recycle up to 4,500 tpa of waste tyres from the Hunter Valley region.

The development is consistent with land use controls, will enable material to be received, sorted and recycled by the facility to improve recycling outcomes for the region. The facility upgrades will assist in creating jobs within the region.

21.2.3 Social and Economic Benefits

Rutherford Tyre Recyclers seeks to provide improved recycling services for waste tyres for the Hunter Valley region of NSW.

A total of five (5) employees will be employed to work at the tyre recycling facility including three (3) onsite managing the tyre recycling line, rubber tile production line and administration, and two (2) truck drivers delivery waste tyres and collecting recovered materials from the Site. Rutherford Tyre Recyclers proposes employment from the local region to support the local economy.

The Proposal will also result in a capital investment of $1,686,273.60 (inc. GST). and will require skilled tradespeople to assist in plant installation, testing and commissioning, which will help to further support the local economy.

21.3 Alternative Sites Considered

The Rutherford Tyre Recycling Proposal is centred on providing new tyre capabilities in the Hunter Region. This region currently has limited recycling infrastructure, but numerous tyre retailers in the area, and so the Proposal will aid in the recycling of used tyres. The Proposal site has been chosen due to its close proximity to other tyre retailers as well as numerous markets for the tyre derived products produced on site, including crumb rubber and rubber tiles.

Multiple existing industrial buildings around Rutherford were considered for the establishment of the tyre recycling operations due to this proximity, as well as the nearby transport routes allowing for the efficient transport of tyres to the facility and transport of product to market. Rutherford Industrial Estate was a particular focus given the potential properties with existing buildings suitable for the fit out for a tyre recycling facility and compatible zoning for this purpose.

Initially, an alternative site was identified at 11 Burlington Place, Rutherford. This Lot was available for lease and has an existing building on site that was suitable for the fit out into a tyre recycling facility. However, through further investigations, this building was deemed unsuitable due to being part of a shared complex, with other leases occupying the same premises. The potential for heavy vehicle movement conflicts at 11 Burlington Place led to the decision that 9 Burlington Place (as a standalone property) was a more appropriate location for the Proposal.

9 Burlington Place was ultimately chosen given the compatible land zoning, existing industrial shed on-site, distance from residential receptors and independent Lot not accessed by other leases. The risk for heavy vehicle movement conflicts was therefore reduced significantly. 9 Burlington Place is ideally located close to major transport connections with New England Highway located a reasonable distance away from sensitive receptors. All of these factors combined has resulted in 9 Burlington Place being considered a suitable location for the Proposal.

21.4 Precautionary Approach

A precautionary approach to the identification and management of environmental issues has been taken throughout the preparation of this EIS. In some instances, where information was not fully obtainable for reasons outside the control of Jackson Environment and Planning Pty Ltd, a precautionary approach has been taken to ensure all appropriate measures were employed to prevent any associated environmental degradation.

21.5 Benefits to Current and Future Generations

The benefits to future generations include the protection and improved environmental management, increased employment opportunity, improved recycling infrastructure to respond to increasing demand (and community expectations) for efficient and effective resource recovery and recycling facilities. Benefits also include the subsequent economic and social benefits which will be vital for the sustainable expansion and growth of the Hunter Valley region.

The environmental and social costs with the Proposal have been minimised through the proposed mitigation measures, while it is expected that the Proposal will create four new and ongoing local employment positions within the community.

The Proposal seeks to develop and operate a small tyre recycling facility that will increase the local recycling capacity of waste tyres for the sustainable management of waste tyres in the Hunter Valley region. The Proposal will involve an efficient tyre recycling plant and also a rubber tile/rubber mat production line to create products from the crumb rubber produced on-site. Given the 2021 ban on exporting waste tyres, this facility will aid towards reducing the number of waste tyres being sent to landfill, and increase the production of rubber materials from recycled crumb rubber. The facility will be fully enclosed to ensure minimal impact on people and the environment in the immediate vicinity of the development and surrounding area.

The Proposal will create an additional five (5) new full time operational job, helping to support local employment and contributing towards economic growth in the region. The development will also assist the NSW Government with their

80% recycling target by 2030 as defined in the *NSW Waste and Sustainable Materials Strategy 2041, Stage 1 Plan: 2021-2027*. The Proposal will make a positive contribution to the local environment, community and economy, and is therefore recommended for approval.

22 Appendices

Appendix 1 – Architectural Plans, Site Surveys and Swept Paths

Appendix 2 – Estimated Development Cost

Appendix 3 – Community and Stakeholder Engagement Plan

Appendix 4 – Waste Minimisation and Management Plan

Appendix 5 – Noise and Vibration Impact Assessment

Appendix 6 – Air Quality and Odour Impact Assessment

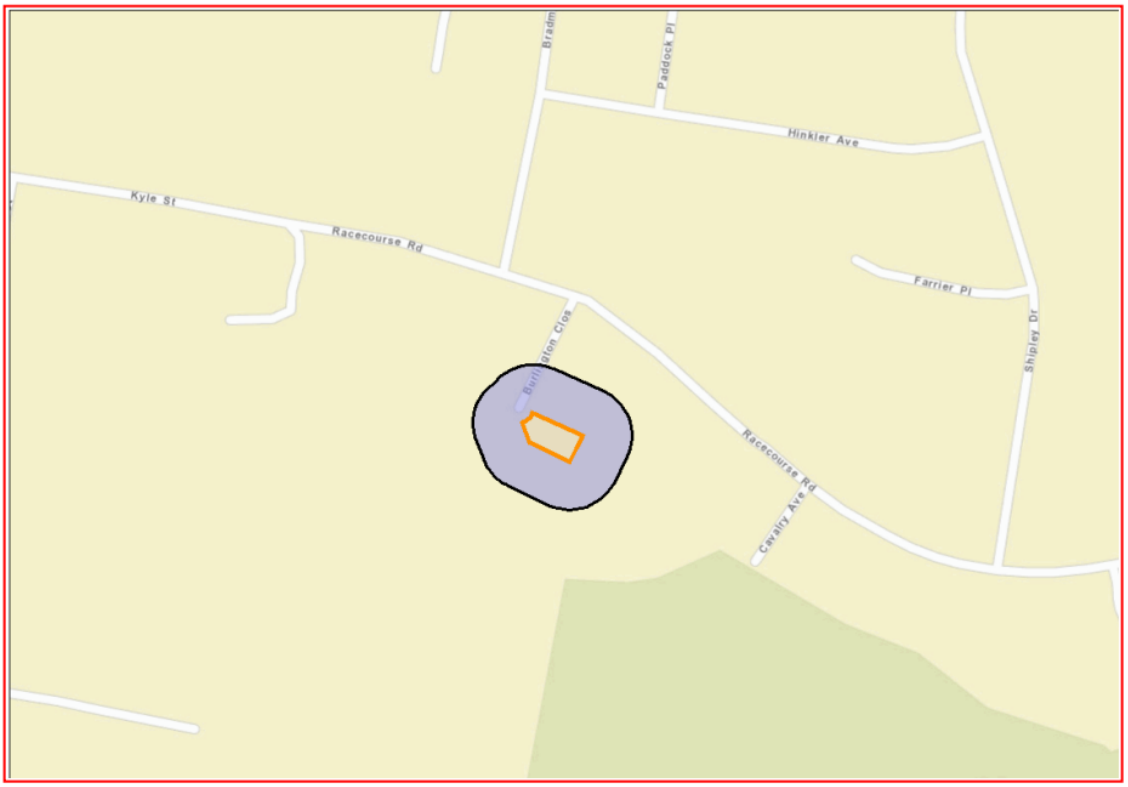
Appendix 7 – Traffic and Transport Study

Appendix 8 – Soil and Water Management

Appendix 9 – Fire and Incident Management Report

Appendix 10 – Bushfire Report

Appendix 11 – Aboriginal and Cultural Heritage



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	**Aboriginal sites are recorded in or near the above location.**
0	**Aboriginal places have been declared in or near the above location. ***

Appendix 12 – Visual Impact Assessment

Appendix 13 – Landscape Concept Plan

Appendix 14 – Planning Certificates

Appendix 15 – Owners Consent

Appendix 16 – Maitland City Council Pre-lodgement Notes

Appendix 17 – SEARs Requirements

Appendix 18 – TfNSW SEARs Response