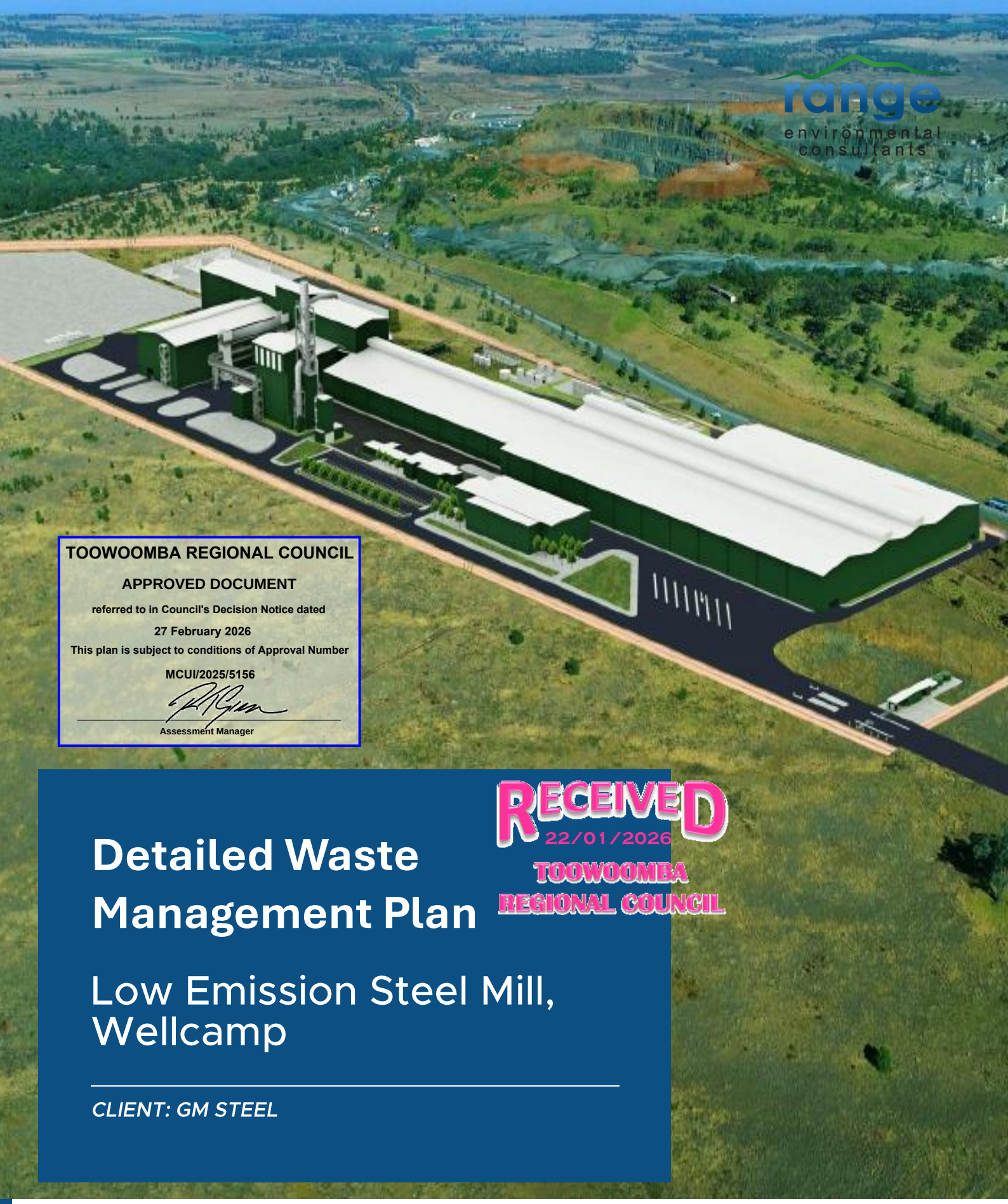


range environmental consultants

TOOWOOMBA REGIONAL COUNCIL

APPROVED DOCUMENT

referred to in Council's Decision Notice dated

27 February 2026

This plan is subject to conditions of Approval Number

MCUI/2025/5156

Assessment Manager

RECEIVED
22/01/2026
TOOWOOMBA
REGIONAL COUNCIL

Detailed Waste Management Plan

Low Emission Steel Mill, Wellcamp

CLIENT: GM STEEL

PROJECT NO.	**J002643**
STATUS	**FINAL**
DATE	**21/01/2026**
VERSION	**2**

rangeenviro.com.au

Disclaimer

Range Environmental provides this report directly and exclusively to GM Steel (the client) for their sole use and solely for the specific purpose for which it is supplied. This report is not to be distributed to any other party without the consent of Range Environmental and Range Environmental will not be liable to any other entity other than the Client in relation to any matters dealt with in this report. Third parties (including, but not limited to, successors or assigns of the Client) may not rely on anything contained in this report whatsoever. The Client indemnifies Range Environmental against any claim, loss, expense, damage or the like arising from any third party which results from the Client providing this report to that third party without the prior knowledge or consent of Range Environmental.

This report has been prepared based on the information, documentation and representations given by the Client to Range Environmental. The Client releases Range Environmental from any claim for damage, cost, loss, expense or the like which is caused or contributed to by the incorrect, inaccurate, false, misleading or deceptive information, documentation or representations given by the Client to Range Environmental. The validity and comprehensiveness of any information given by the Client has not been independently verified by Range Environmental and, for the purposes of this report, it is assumed that the information provided to Range Environmental is both complete and accurate.

Where site inspections, testing, surveying or fieldwork have taken place, this report is based on the site conditions and information made available by the Client or their agents or nominees during the visit, the visual observations and any subsequent discussions with regulatory authorities. It is further assumed that normal activities were being undertaken at the site on the day of the site visit(s), unless explicitly stated otherwise.

The Client acknowledges that this Report and all information and content in it shall at all times be and remain the property of Range Environmental and must not be disclosed to any third party at any time, except with the prior consent of Range Environmental or where the Client is required by statute, rule, regulation, judicial process or in connection with any litigation to which it is a party.

Document Control

Version	Purpose	Lead Author	Reviewer	Approved by	Date
1.	Final Report	MJW	LMT	LMT	14/11/2025
2.	Final Report	LMT	LMT	LMT	21/01/2026

Table of Contents

Tables

Appendices

1 Introduction

Range Environmental Consultants Pty Ltd (Range Environmental) was engaged by GM Steel to develop a detailed Waste Management Plan (WMP) for their proposed Low Emission Steel (LES) mill within the Wellcamp Business Park (WBP). The LES mill would be located on a 20.8932 hectare (ha) leased portion (Proposed Lot 162) (hereafter 'the site') of a property inside the WBP that is formally described as Lot 10 SP296105 (refer to Appendix A).

This WMP was developed in accordance with the following:

- Performance Outcome (PO) PO_{28} of the Environmental Standards Code (Toowoomba Regional Planning Scheme 2012 (v28)).
- Toowoomba Regional Council's (TRC) Technical Guidelines for New Developments Waste Storage and Collection Requirements (2016) (hereafter 'TRC guideline').

1.1 Purpose

The purpose of this WMP is to provide a waste management framework for the proposed development to:

- Identify, characterise, and properly manage wastes.
- Guide waste management for a facility that will have varying waste management demands based on site operational requirements.
- Implement the waste management hierarchy.
- Minimise environmental harm by managing general, recyclable, and regulated wastes correctly and minimising waste generation and disposal where practicable.
- Develop site and activity specific waste management procedures as required during the operation of the site.

1.2 Scope

This WMP provides an overview of the strategy, methods, and controls that shall be implemented at the site to manage waste. Specifically, this WMP:

- Identifies the types of wastes expected to be generated by the operation of the site.
- Describes the waste management framework.
- Describes the waste management hierarchy which shall be applied to the wastes generated.

This WMP is to be implemented by all personnel responsible for carrying out works that generate, transport, store, treat, and/or dispose of wastes through the operation of the site.

1.3 Related Documents

This WMP must be read in conjunction with the latest version of the Site Based Management Plan (SBMP) for the facility. At the time of preparation of this WMP, the current SBMP for the facility was:

- Range Environmental. 2026. Site Based Management Plan - Low Emission Steel Mill, Wellcamp. Report prepared for GM Steel. Job no. J002643. Version 5.

2 Project Description

2.1 Site Description

The site is within the WBP and shall be accessed from a yet unconstructed and unnamed road at the northern boundary of the parent land parcel that will connect the site to Cecil Plains Road.

The site is zoned as Medium and High Impact Industry under the Toowoomba Regional Planning Scheme (Version 28) and is currently vacant. The site has been subject to significant ground disturbance from historic cultivation and contouring activities.

2.2 Overview of LES Mill

The LES mill will receive approximately 380,000 tonnes of scrap metal per year to produce a maximum of 350,000 tonnes of steel products per annum.

2.2.1 Key Elements

The proposed LES mill will include the following key elements. Development plans are provided at Appendix A.

- Processing locations comprising an enclosed Meltshop, Rolling Mill, and Finishing Area for the sorting of received scrap steel, melting and impurity removal, casting, rolling and cutting, and packing for export.
- Slag disposal area for the storage of slag generated from the fluxing process.
- High voltage sub-station used to power the facility.
- Water treatment plant for the treatment of process water for cooling, descaling and other essential operations.
- Administration, amenities, and general warehouse/maintenance shop.

2.2.2 Staffing

The site is expected to operate with a total of 193 employees working across three (3) shift periods. The maximum number of staff onsite at any one time is expected to be 122 (during shift changeover overlap).

2.2.3 Operating Hours

The site is proposed to operate 24 hours, 7 days per week across three (3) shift periods:

- 8:00am to 5:00pm (including office/administration personnel).
- 4:00pm to 12:00am.
- 12:00am to 8:00am.

Actual annual plant production hours are estimated as 7600 hours per annum.

3 Legal and Other Requirements

- *Environmental Protection Act 1994* and Environmental Protection Regulation 2019.
- *Waste Reduction and Recycling Act 2011* and Waste Reduction and Recycling Regulation 2023.
- Development Approval.
- Environmental Authority.

4 Waste Streams and Quantities

A summary of marketable by-products and the key waste streams from the proposed LES mill is provided at Table 1. Detailed descriptions of the by-products and key waste streams expected to be generated by the proposed LES mill are provided in the following sub-sections.

It is noted that where waste quantities are provided these are best estimates only, as waste generation by the facility will vary based on the nature of operations. For example, during shut downs and maintenance works it would be expected that waste generation rates will increase.

Table 1 Summary of by-products and key waste streams

Category	Type	Management strategy	Waste Storage
Marketable by-product	Slag	Transported offsite to third parties for reuse in accordance with End of Waste (EOW) Code EOWC010002626	Stored within the covered slag storage bay
Solid wastes	Scrap steel for the plant (received at the site)	Transported to site for processing in the LES mill.	Stockpiled in the scrap storage area
	General wastes from staff offices/amenities and general workshop activities	Transported offsite for disposal	Covered bins
	Recyclable wastes from staff offices/amenities and general workshop activities	Transported offsite for recycling	Covered bins
	Dust generated from the Electric Arc Furnace (EAF)	Transported offsite for disposal as Regulated Waste	Storage silo
	Dried filter cake from the Water Treatment Plant	Transported offsite for disposal as Regulated Waste	Skip bin inside Water Treatment Plant
	Miscellaneous regulated wastes from plant maintenance and operation (e.g., oily rags, filters, etc.)	Stored indoors and removed as Regulated Waste	Covered bins, 205 litre drums or 1000 litre IBCs
	Miscellaneous general wastes from plant maintenance and operation.	Transported offsite for disposal	Covered bins
Liquid wastes	Sewage from staff amenities	Directed to WBP's existing Sewage Treatment Plant (STP) infrastructure.	
	Liquid wastes from the Water Treatment Plant (brine, cooling water blowdown and clarifier effluent).	Discharged as Trade Waste to the WBP's existing STP.	
	Skimmed oil that is removed by the Water Treatment Plant. Oil and other liquid wastes from plant maintenance activities.	Stored indoors in a bunded area/on a bunded pallet and removed as Regulated Waste	205 litre drums or 1000 litre IBCs

4.1 Marketable By-product

Approximately 45,000 tonnes of slag will be generated at the site per annum. It shall be stored within the covered slag storage bay to protect it from rainfall and stormwater. The slag is a regulated waste, however this will be managed and transported offsite to third parties for reuse in accordance with EOW Code EOWC010002626. When reused in accordance with the EOW code this waste becomes a resource. Initially, the slag is likely to be supplied to the adjacent Wellcamp Quarry for reuse in accordance with the EOW code.

4.2 Non-process Area Wastes

Table 2 shows the estimated waste generation calculations for general and recyclable wastes based on Table 18 of the TRC guideline from the non-process areas at the facility. Sewage from staff amenities (bathrooms, kitchens etc) shall be directed to the WBP's existing Sewage Treatment Plant (STP) infrastructure.

Table 2 General and Recyclable Waste Generation Estimates

Development Area	Estimated General Waste Rate	Estimated Recyclable Waste Rate	Estimated General Waste Rate	Estimated Recyclable Waste Rate
General Warehouse & Maintenance Shop (GFA = 1944m^2)[1]	50L/100m^2/day	50L/100m^2/day	6804 L/week	6804 L/week
Admin, Engineering & Operations Building (GFA = 912m^2)[2]	30L/100m^2/day	40L/100m^2/day	1915 L/week	2554 L/week
Offices & Auditorium (GFA = 294m^2)[2]	30L/100m^2/day	40L/100m^2/day	617 L/week	823 L/week
TOTAL	-	-	**9337 L/week**	**10,181 L/week**

[1] Waste generation rates taken from 'Warehouse' under the TRC guideline.

[2] Waste generation rates taken from 'Office building' under the TRC guideline.

4.3 Process Area Wastes

Process area waste streams from the facility are described in Table 3.

Table 3 Process Wastes

Type	Description	Waste Category	Management Strategy
Solid waste	Approximately 380,000 tonnes of scrap metal will be received at the site per year for processing in the LES mill.	General	Scrap steel that is free from feedstock impurities shall be stockpiled on an outdoor impervious pad within a Controlled Drainage Area (CDA) to exclude external catchments. The CDA will drain to a lined retention pond. Captured stormwater in the retention pond shall be reused in the plant after RO treatment in the Water Treatment Plant.
Solid waste	Approximately 7000 tonnes of EAF dust will be generated and captured within the bag filters and axial cyclone at the site per annum.	Category 2 Regulated Waste	This dust will be gathered by chain conveyors and transferred to a storage silo prior to being discharged through a screw conveyor into a truck for transportation offsite as Regulated Waste as required.
Solid waste	Hydrocarbon contaminated wastes (e.g., oily rags, filters, etc.) generated from plant maintenance and operations. Waste quantities will vary based on operational requirements.	Category 2 Regulated Waste	Stored in covered bins, 205 litre drums or 1000 litre IBCs. Waste containers shall be kept indoors and removed by a Regulated Waste contractor as required.
Solid waste	Miscellaneous general wastes from plant maintenance and operation. Waste quantities will vary based on operational requirements.	General	These wastes shall be stored in covered bins and removed for offsite disposal.
Solid waste	Dried filter cake from the Water Treatment Plant (45-65% dried solid content) will be produced at an estimated rate of 654 t per year[3] (approximately 1.8t/day or 1.5m^3/day).	Category 1 Regulated Waste	This waste shall be stored in a skip bin inside the Water Treatment Plant building. It shall be transported offsite for disposal by a Regulated Waste contractor as required.
Liquid waste	Oils/hydrocarbons and other liquid wastes from plant maintenance and oil that is skimmed off wastewater by the Water Treatment Plant. Waste quantities will vary based on operational requirements.	Category 2 Regulated Waste	Stored in 205 litre drums or 1000 litre IBCs. Waste containers shall be kept indoors in a bunded area/on a bunded pallet and removed by a Regulated Waste contractor as required.
Liquid waste	Liquid wastes from the Water Treatment Plant (brine, cooling water blowdown and clarifier effluent). Quantities and quality of these liquid waste streams will be determined at detailed design and used to inform Trade Waste applications.	Category 1/2 Regulated Waste	Discharged as Trade Waste to the WBP's existing STP.

[3] Based on 7600 hours of plant operating time per year and an estimated dried filter cake production rate of 86 kg/hr.

5 Refuse Storage Areas

5.1 Slag Storage Bay

Slag from the steel mill shall be stored inside a covered bay that will include a roof, partial walls and a bunded slab with a blind sump (Refer to Appendix A). The slag will not be exposed to rainfall or stormwater. Any liquids that accumulate within the covered slag bay shall be contained by the slab, bunding and blind sump.

5.2 Scrap Steel Stockpile

Scrap steel shall be stockpiled on an impervious pad within a CDA that will drain to a lined retention pond (Refer to Appendix A). Captured stormwater in the retention pond shall be reused in the plant after RO treatment in the Water Treatment Plant.

5.3 Bulk Bin Storage Areas

Indicative refuse storage areas for bulk bins are shown on site plans (Appendix A). The location, number, size and design of refuse storage areas at the proposed LES mill shall be confirmed during the detailed design stage and align with TRC's (2016) *Technical Guideline for New Developments Waste Storage and Collection Requirements*.

5.4 On-plant Waste Storage Areas

Other waste storage areas will be included within the plant itself. On-plant waste storage shall include:

- A skip bin inside the water treatment plant for dried filter cake.
- Drums and/or IBCs with secondary containment for oils or other liquid wastes inside buildings.
- Covered bins, drum or IBCs for solid wastes.
- EAF dust stored in a silo.

6 Waste Streams Summary and Waste Collection Schedule

Table 4 summarises the types of waste which would be transported offsite, the estimated frequency of collection, and truck numbers (where these can be reasonably estimated). Wastes would be removed from the site under a private waste service arrangement/s. Swept path diagrams for the facility (Appendix A) show that waste vehicles will be able to adequately service the site.

Wastewaters (sewage from staff amenities and liquid wastes from the Water Treatment Plant plant) disposed of to the existing WBP sewer and STP are not included below.

Table 4 Waste collection schedule and strategy

Type of waste	Waste Classification under EP Regulation 2019	Frequency of collection	Estimated number of trucks
General waste from staff offices/amenities, general workshop activities and process plant	General waste	At least weekly	To be confirmed (TBC)
Recyclable waste from staff offices/amenities, general workshop activities and site	General waste	At least weekly	TBC
Slag	Resource (Category 2 Regulated waste – to be reused under an EOW code)	As required	TBC
Dust generated from the EAF	Category 2 Regulated Waste	As required	TBC
Dried filter cake from the Water Treatment Plant	Category 1 Regulated Waste	As required	TBC
Skimmed oil that is removed by the Water Treatment Plant. Oil and other liquid wastes from plant maintenance activities	Category 2 Regulated waste	As required	TBC

7 Waste Management Strategy

7.1 Objective

To minimise environmental harm by managing all wastes correctly and minimising waste generation and disposal where practicable.

7.2 Waste Management Hierarchy

The waste and resource management hierarchy below is from the *Waste Reduction and Recycling Act 2011*. It lists the preferred order in which waste and resource management options should be considered:

a. AVOID unnecessary resource consumption.

b. REDUCE waste generation and disposal.

c. RE-USE waste resources without further manufacturing.

d. RECYCLE waste resources to make the same or different products.

e. RECOVER waste resources, including the recovery of energy.

f. TREAT waste before disposal, including reducing the hazardous nature of waste.

g. DISPOSE of waste only if there is no viable alternative.

Waste management for the site shall adhere to the waste management hierarchy.

7.3 Performance Targets

The performance targets for the site are as follows:

- Wastes correctly segregated and stored to minimise the risk of environmental harm.
- Compliance with trade waste permit conditions for wastewaters released to the WBP sewer.
- All wastes transported by appropriately licensed transporters to facilities/users that are legally able to receive/use/dispose of the wastes.
- Slag supplied to third parties for reuse in accordance with EOW Code (EOWC010002626)
- All regulated waste tracking documents and receipts retained.

7.4 Management Actions, Monitoring and Reporting

The management actions, monitoring, and reporting requirements for the site are outlined in Table 5.

Table 5 Management actions, monitoring, and reporting

Management Actions	Responsibility	Timing
Mitigation Measures		
Waste storage and management requirements will be confirmed at detailed design and then updated as required to reflect site operational requirements.	General Manager	At detailed design and then ongoing for life of plant.
Waste storage areas shall be kept in a clean and hygienic state.	All persons	At all times
The Controlled Drainage Area (CDA) of the scrap steel storage area shall be maintained to exclude external catchments and direct all runoff to the lined retention pond.	Maintenance Manager	At all times
Slag shall only be stored inside the covered slag storage bay.	All persons	At all times
Dried filter cake shall be stored in a skip inside the Water Treatment Building.	All persons	At all times
Liquid waste containers shall be stored indoors with secondary containment.	All persons	At all times
Pest and vermin controls (e.g., mice/rats, insects, etc.) shall be implemented in waste storage areas by appropriately licensed pest controllers.	Maintenance Manager	As required
Covered bins shall be provided to prevent access by vermin, contact with rainfall and to minimise odour emissions.	Maintenance Manager	At all times
The WTP shall be operated within the design specifications and routinely monitored and maintained to minimise odour emissions and maintain the required quality of effluent that is released to sewer as trade waste.	Maintenance Manager	At all times
All wastes removed from the site shall be transported by appropriately licensed transporters to facilities/users that are legally able to receive/use/dispose of the wastes.	Maintenance Manager	At all times
Spills of liquid or solid wastes shall be cleaned up immediately.	All persons	At all times
Personnel shall be trained in spill prevention and spill response/control procedures.	HSE Manager	At all times
Spill kits shall be located on-site. Ensure that spill clean-up kits are stocked and replenished appropriately and are in the correct location for use.	HSE Manager	At all times
Any liquid spills that occur are removed using 'dry' cleaning methods (e.g., use of absorbent materials, sweeping). The use of degreasers, detergents, and hosing down of areas is prohibited. All used absorbent materials shall be managed and disposed of as regulated waste.	All persons	At all times
No onsite disposal of wastes shall be permitted.	All persons	At all times
Monitoring		
Undertake inspections of waste storage areas to identify any compliance issues or maintenance requirements.	Maintenance Supervisor	Monthly

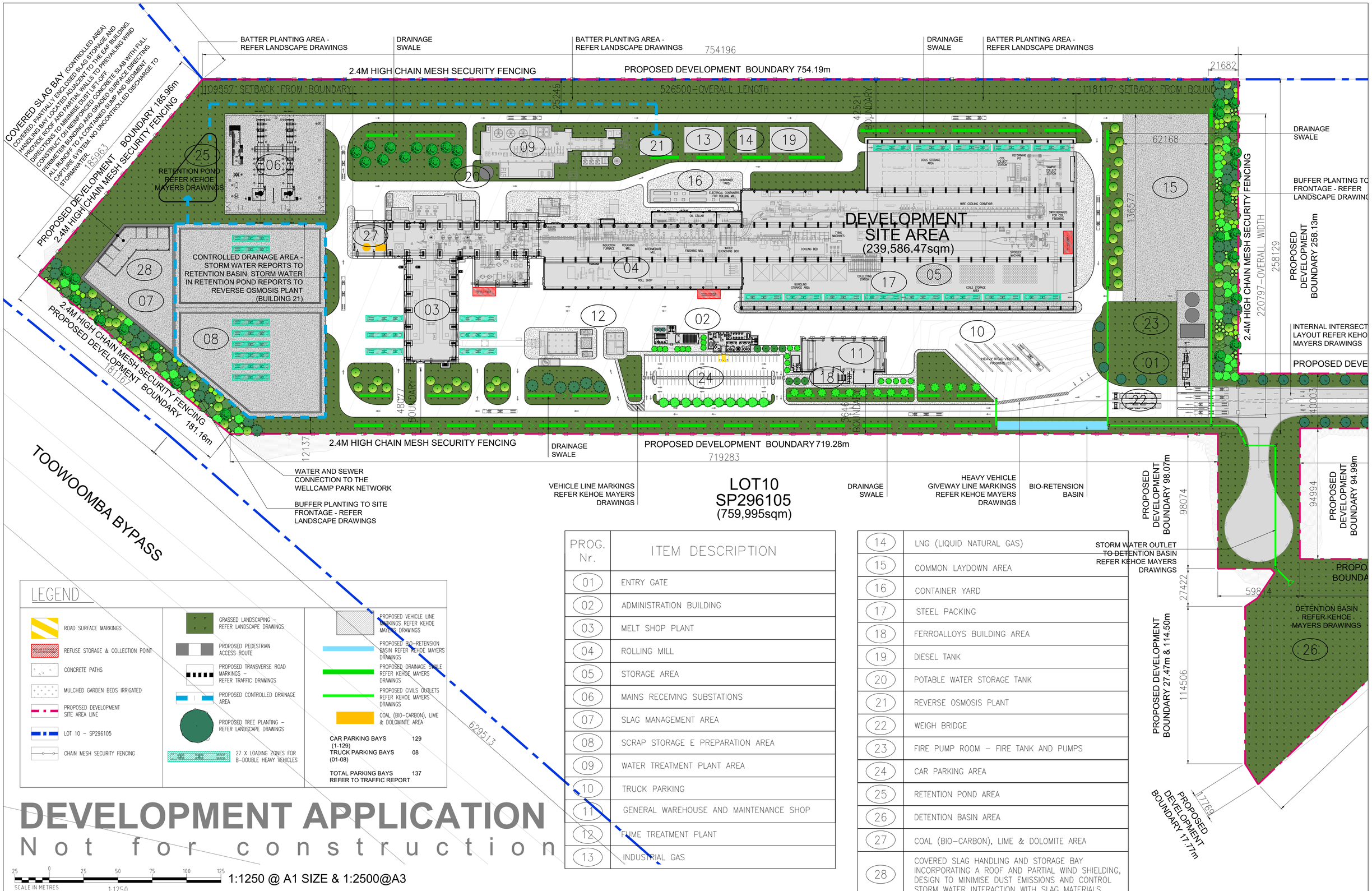
Undertake a review of site waste management practices to identify opportunities to improve waste management practices in line with the waste management hierarchy.	General Manager	Annually
Reporting		
Near misses or non-compliances shall be reported to the General Manager.	All persons	As required
All required records required under the Trade Waste permit shall be retained for at least 5 years.	General Manager	At all times
All regulated waste tracking forms shall be retained and kept or an Agents Agreement with the nominated regulated waste contractor shall be entered into. Records shall be retained for at least 5 years.	General Manager	At all times
Corrective Actions		
Incidents shall be investigated to identify the necessary corrective actions for implementation.	General Manager	As required
Review and Improvement		
The WMP shall be reviewed: • During detailed design. • Following the issue of all approvals and permits. • Annually during operations to identify opportunities to improve waste management. • As required to reflect changes to site operational requirements, legislative changes, waste related incidents etc.	General Manager	At detailed design, annually and on an as required basis for the life of plant.

8 References

Toowoomba Regional Council. 2016. Technical Guideline for New Developments Waste Storage and Collection Requirements.

Appendices

Appendix A Site Plans



LEGEND

- ROAD SURFACE MARKINGS
- REFUSE STORAGE & COLLECTION POINT
- CONCRETE PATHS
- MULCHED GARDEN BEDS IRRIGATED
- PROPOSED DEVELOPMENT SITE AREA LINE
- LOT 10 – SP296105
- CHAIN MESH SECURITY FENCING
- GRASSED LANDSCAPING – REFER LANDSCAPE DRAWINGS
- PROPOSED PEDESTRIAN ACCESS ROUTE
- PROPOSED TRANSVERSE ROAD MARKINGS – REFER TRAFFIC DRAWINGS
- PROPOSED CONTROLLED DRAINAGE AREA
- PROPOSED TREE PLANTING – REFER LANDSCAPE DRAWINGS
- 27 X LOADING ZONES FOR B-DOUBLE HEAVY VEHICLES
- PROPOSED VEHICLE LINE MARKINGS REFER KEHOE MAYERS DRAWINGS
- PROPOSED BIO-RETENSION BASIN REFER KEHOE MAYERS DRAWINGS
- PROPOSED DRAINAGE SWALE REFER KEHOE MAYERS DRAWINGS
- PROPOSED CIVILS OUTLETS REFER KEHOE MAYERS DRAWINGS
- COAL (BIO-CARBON), LIME & DOLOMITE AREA

CAR PARKING BAYS (1-129)	129
TRUCK PARKING BAYS (01-08)	08
TOTAL PARKING BAYS	137

REFER TO TRAFFIC REPORT

PROG. Nr.	ITEM DESCRIPTION
01	ENTRY GATE
02	ADMINISTRATION BUILDING
03	MELT SHOP PLANT
04	ROLLING MILL
05	STORAGE AREA
06	MAINS RECEIVING SUBSTATIONS
07	SLAG MANAGEMENT AREA
08	SCRAP STORAGE E PREPARATION AREA
09	WATER TREATMENT PLANT AREA
10	TRUCK PARKING
11	GENERAL WAREHOUSE AND MAINTENANCE SHOP
12	FUME TREATMENT PLANT
13	INDUSTRIAL GAS
14	LNG (LIQUID NATURAL GAS)
15	COMMON LAYDOWN AREA
16	CONTAINER YARD
17	STEEL PACKING
18	FERROALLOYS BUILDING AREA
19	DIESEL TANK
20	POTABLE WATER STORAGE TANK
21	REVERSE OSMOSIS PLANT
22	WEIGH BRIDGE
23	FIRE PUMP ROOM – FIRE TANK AND PUMPS
24	CAR PARKING AREA
25	RETENTION POND AREA
26	DETENTION BASIN AREA
27	COAL (BIO-CARBON), LIME & DOLOMITE AREA
28	COVERED SLAG HANDLING AND STORAGE BAY INCORPORATING A ROOF AND PARTIAL WIND SHIELDING, DESIGN TO MINIMISE DUST EMISSIONS AND CONTROL STORM WATER INTERACTION WITH SLAG MATERIALS

DEVELOPMENT APPLICATION

Not for construction

25 0 25 50 75 100 125
SCALE IN METRES
1:1250

1:1250 @ A1 SIZE & 1:2500@A3

NOTES:
ALL DISCREPANCIES ARE TO BE REPORTED TO DESIGNER PRIOR TO THE COMMENCEMENT OF ANY WORK ON SITE.
THE CONTRACTOR MUST VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING ANY WORK OR THE MAKING OF ANY SHOP DRAWINGS.
ALL SCALED DIMENSIONS MUST BE VERIFIED ON SITE.
THIS DRAWING IS COPYRIGHT AND REMAINS THE PROPERTY OF DEZINEID.
DO NOT SCALE OR AMEND DRAWING MANUALLY.

DATE	REV	NOTE	BY
23 12 25	4	UPDATE SLAG AREA & ISSUE FOR DEVELOPMENT APPROVAL	IB
22 10 25	3	ISSUE FOR DEVELOPMENT APPROVAL	IB
24 08 25	2	ISSUE FOR DEVELOPMENT APPROVAL	IB
03 07 25	1	ISSUE FOR DEVELOPMENT APPROVAL	IB

GM Steel

NOTE:
1. THIS DRAWING IS BASED ON CAD DRAWINGS PROVIDED TO DEZINEID @ 310625 BY KEHOE MYERS CONSULTING ENGINEERS PTY LTD .

GM STEEL WELLCAMP DEVELOPMENT FLOOR PLAN
CEICIL PLAINS RD, TOOWOOMBA, QLD, 4350.
DEVELOPMENT APPROVAL

DEZINE ID.

GM STEEL WELLCAMP Job Number: 1123/25
DEVELOPMENT FLOOR PLAN

REVISION DATE	SCALE
23/12/25	1:1250 @ A1
REVISION 4	DWG NO DA 01

www.rangeenviro.com.au

BRISBANE
Units 7-8, 200 Evans Road
Salisbury Qld 4107

TOOWOOMBA
Office A, 189 Hume St
Toowoomba QLD 4350

T 07 4588 6711
E admin@rangeenviro.com.au