BALRANALD MINERAL SANDS PROJECT

Traffic Management Plan (Construction Phase)

June 2023

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Abbreviations

Abbreviation	Full Title
BSC	Balranald Shire Council
Consent	Development Consent SSD-5285
CoR	Chain of Responsibility
DCCEW	Department of Climate Change, Energy the Environment and Water
DPE	Department of Planning and Environment
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EMS	Environmental Management Strategy
EPA	NSW Environment Protection Authority
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
HMC	Heavy mineral concentrate
HSEC	Health, Safety, Environment and Community
HVNL	Heavy Vehicle NH Law
Iluka	Iluka Resources Limited
ISO	International Standard Organisation
LCC	Lost Control Card
LOM	Life of Mine
MOD1	Development Consent Modification 1
NHVR	National Heavy Vehicle Permit
NSW	New South Wales
OSOM	Oversize and/or overmass vehicles
PAX	Potassium amyl xanthate
PIRMP	Pollution Incident Response Management Plan
RMP	Radiation Management Plan
RTP	Road Transport Protocol
TfNSW	Transport for NSW
TMP	Traffic Management Plan
WA	Western Australia
WCP	Wet concentrator plant
WHIMS	Wet high intensity magnetic separator

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1. Introduction

1.1. Purpose and scope

This Traffic Management Plan (TMP) has been prepared by Iluka Resources Limited (Iluka) to satisfy the requirements of Schedule 3, Condition 27 of NSW Development Consent (SSD-5285). This TMP has been prepared using the Departments *Guideline for the preparation of Environmental Management Plans* (DIPNR 2004) and the management plan requirements in Schedule 5, Condition 3 of NSW Development Consent (SSD-5285).

The TMP is staged in accordance with Schedule 2, Condition 17 of Development Consent (SSD-5285) and is applicable to construction activities for the underground mining trial at the Balranald west mine including those consistent with the NSW Development Consent (SSD-5285). The TMP does not cover exploration activities outside the approved Project boundary or mining leases.

Prior to the commencement of operations and transport of heavy mineral concentrate a revised TMP for operational and transport management will be submitted to the Secretary of the DPE for approval in accordance with Schedule 2, Condition 17 of Development Consent (SSD-5285).

Should Iluka undertake construction of the open cut mining at West Balranald Mine or at the Nepean deposit, a revised TMP will be prepared prior to commencement of construction to include management measures relevant to the site for approval by DPE, in accordance with Schedule 2, Condition 17 of Development Consent (SSD-5285).

The conditions of consent to which the TMP relates to and where they are addressed in the TMP is presented in Table 2.

1.2. Objectives

The primary objectives of this TMP are to:

- Ensure safe transport and traffic management during construction activities and ensure transport is carried out in accordance the Heavy Vehicle National Law (HVNL) and applicable regulations, codes of practice and guidelines.
- Reduce the potential for traffic or transport associated incidents by establishing a Road Transport Protocol (RTP) for drivers.
- Ensure only approved transport routes are used during the construction phase.
- Limit the impact on local roads and interruption to the local community and traffic.

1.3. Environmental Policy

The Iluka HSEC policy is publicly available at https://www.iluka.com/ and provides a declaration of the importance Iluka places on conducting its business safely, without detrimental health effects and with regard to the community and the value of the natural environment.

2. Project description

2.1. Project overview

Iluka have approval to develop a mineral sands mine in south-western New South Wales (NSW), known as the Balranald Mineral Sands Project (the Balranald Project). It includes construction, open-cut mining, primary processing, and rehabilitation of two linear mineral sand deposits, known as the West Balranald and Nepean deposits, located approximately 12 kilometres (km) and 66 km north-west of the town of Balranald, respectively. The Balranald Project also included undertaking an approved bulk sampling activity at the West Balranald deposit with the removal of up to 100,000 tonnes (t) of mineral ore to trial the use of underground mining methods.

Development consent (SSD-5285) was granted for the Balranald Project by a delegate of the NSW Minister for Planning under the EP&A Act on 5 April 2016 (herein referred to as the consent). Approval was also granted under the EPBC Act (EPBC 2012/6509) by a delegate of the Commonwealth Minister for the Environment on 6 January 2017 (herein referred to as the Commonwealth approval).

Iluka has undertaken some of the approved bulk sampling activity involving the extraction of the mineral ore from depth using trial underground mining within the approved disturbance area of the West Balranald deposit.

The outcome of the bulk sampling activity confirmed the effectiveness of the underground mining method, validated key elements of the mining unit design and have been used to help guide future life-of-mine (LOM) operational conditions and inform the potential suitability (commerciality and potential reduced environmental impacts) of underground mining as an alternative method for resource extraction.

On 21 December 2022, Iluka were granted approval to modify the consent (MOD1) to expand the underground mining trial which includes an additional area of disturbance to the approved Balranald Project area to enable primary processing of the ore into heavy mineral concentrate (HMC) and transport of HMC offsite for secondary processing at Iluka's facilities in Victoria and/or Western Australia (WA).

Iluka intend to construct and operate the underground mining trial for up to six years as approved, at the completion of the underground mining trial Iluka would either seek a life of mine approval for underground mining, cease operations and rehabilitate or develop the open cut mining method to extract the remainder of the ore deposit.

2.2. Site location plan

The regional setting and conceptual site layout for the Balranald Project is presented in Figure 1 and Figure 2 respectively.

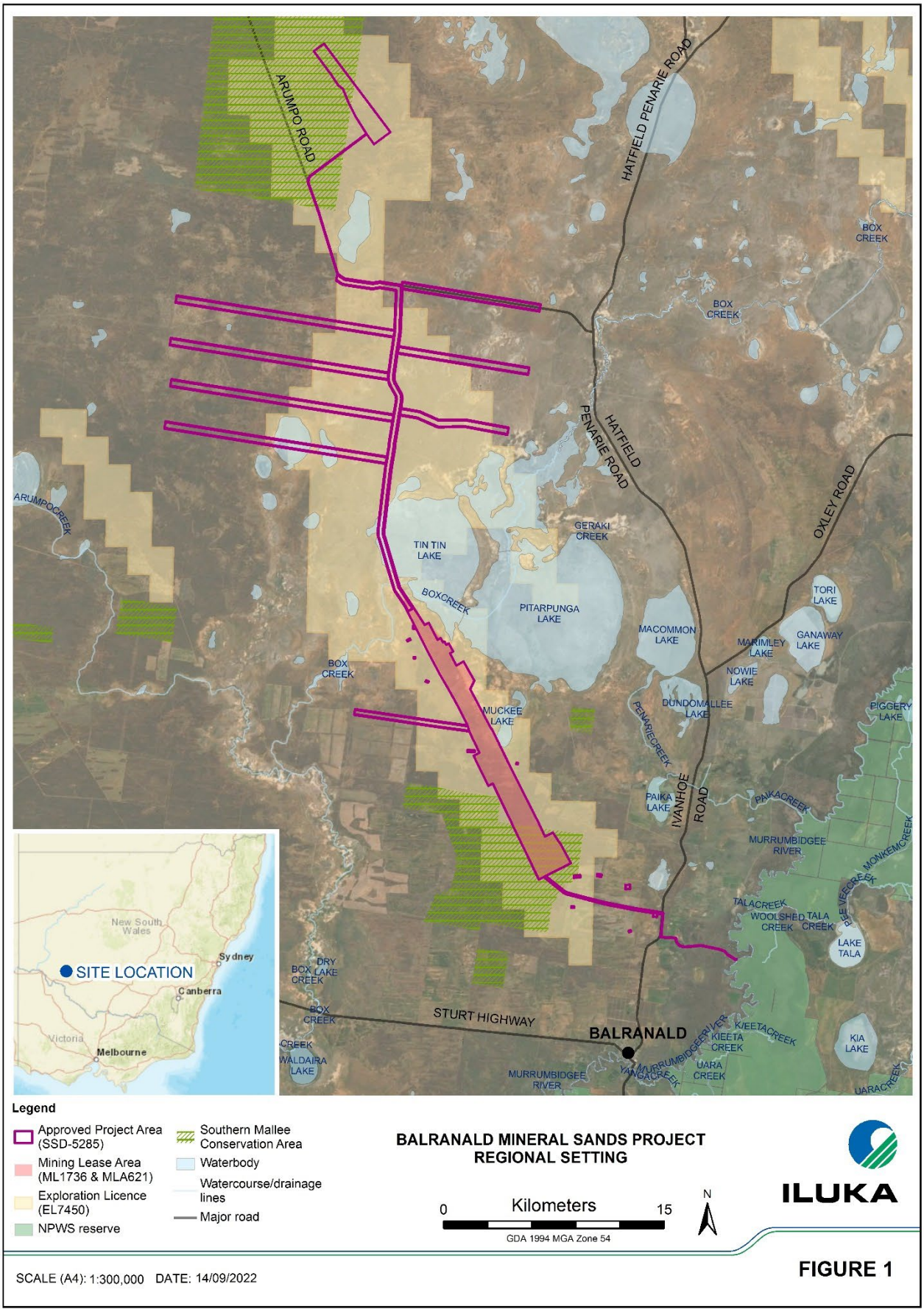


Figure 1- Regional setting

Figure 2- Conceptual site layout

2.3. Scope of works

All works will be carried out in accordance with Iluka's EMS and TMP (Section 4) to manage traffic and transport risks associated with the construction of the West Balranald mine underground mining trial. An indicative list of plant and equipment that will be used or constructed in the construction phase of the underground mining trial is:

- surface mobile equipment (SME) e.g. dozers, graders, scrapers, tractor scoops, excavators, haul trucks, rollers, water trucks and loaders;
- lifting equipment (cranes, telehandlers and forklifts);
- mining plant (drill rigs, groundwater bores and lighting plants); and
- processing plant (wet concentrator plant, floatation plant, WHIMS plant, conveyors, pumps and stackers).

2.3.1. Existing road network

A description of the existing road network that will be utilised during the construction phase of the project is described below. (Refer Figure 6)

Balranald-Ivanhoe Road

Balranald-Ivanhoe Road is classified as a Main Road (MR 67) and is under local (BSC) jurisdiction. It is known as Mayall Street within Balranald town, and the town section is under the control of the BSC and is not an approved B Double route. The Balranald-Ivanhoe Road runs for approximately 230 km from the Sturt Highway at Balranald, generally north via Hatfield, to the Cobb Highway at Ivanhoe. An 11 km section of Balranald-Ivanhoe Road to the south of its intersection with Burke and Wills Road would be used by Balranald Project traffic and has one lane in each direction, with no edge markings and no sealed shoulders.

Balranald-Ivanhoe Road is an approved B-Double route north of McCabe Street, and has a 100 km/hr speed limit outside Balranald town (north of McCabe Street) and the section North of McCabe Street is proposed to be used for construction.

Sturt Highway

The Sturt Highway is classified as a Highway (A20) and is under State (TfNSW) jurisdiction. It extends from the Hume Highway at Lower Tarcutta through Wagga Wagga, Narrandera, Hay, Balranald, Euston and Buronga to the bridge over the Murray River at Mildura. This road is an approved B-Double route. The Sturt Highway is known as Market Street within Balranald town.

Sections of the Sturt Highway to the west and east of Balranald will be used by Balranald Project workforce and delivery truck traffic via approved BSC routes only

The Sturt Highway has a good alignment in the vicinity of Balranald with one lane each direction and sealed shoulders. It is subject to a speed limit of 110 km/hr outside Balranald town, reducing to 50 km/hr along Market Street.

Burke and Wills Road

Burke and Wills Road is located to the west of the Balranald-Ivanhoe Road, approximately 15 km north of Balranald town, and is under local (BSC) ownership and jurisdiction. With the exception of the approach to the intersection with Balranald-Ivanhoe Road which is sealed, the remaining 46 km length of Burke and Wills Road is generally a formed, un-sealed road, signposted as suitable for dry weather use only.

The road width is variable with two trafficable lanes generally for the southern 22 km section and a single trafficable lane for the remaining 24 km section to the intersection with Marma Box Creek Road. There is a short sealed section where there is a bend along the route, approximately 4 km west of the intersection of Burke and Wills Road and Balranald-Ivanhoe Road. There is no sign-posted speed limit for Burke and Wills Road, which indicates that the normal rural speed limit of 100 km/hr applies.

Sections of Burke and Wills Road will be used to provide temporary access for traffic during the early stages of construction prior to the establishment of the West Balranald access road.

Piper Street

Piper Street in Balranald town forms the western boundary of the town and runs north from the Sturt Highway to O'Connor Street West. Piper Street is a local road under local (BSC) ownership and jurisdiction. It has a narrow two lane seal with no road markings and vegetation growing along its shoulders. The road provides direct access to a mix of residential and industrial properties. This road is an approved BSC, B-Double route between the Sturt Highway and O'Connor Street West. A 50 km/hr urban speed limit for Balranald applies to Piper Street and O'Connor Street West.

The route via Piper Street and O'Connor Street West, west of Moa Street will be used during the Balranald Project construction as an oversize vehicle access route and general vehicle access route around the town of Balranald. (Refer Figure 6)

Moa Street

Moa Street is a local road under local (BSC) ownership and jurisdiction. It runs north from the Sturt Highway through to the Balranald-Ivanhoe Road. The road is two lanes wide with a variable sealed width. It is wider at its southern end towards the Sturt Highway. There are generally no road markings or sealed shoulders. This road is not an approved B-Double route between the Sturt Highway and Balranald-Ivanhoe Road.

A 50 km/hr urban speed limit applies to Moa Street south of O'Connor Street West, and increases to 80 km/hr between O'Connor Street West and Balranald-Ivanhoe Road.

Moa Street is proposed to be used during the construction phase of the Balranald Project as an oversize and general vehicle access route around the town of Balranald. (Refer Figure 6)

O'Connor Street West

O'Connor Street West is a local road under local (BSC) ownership and jurisdiction that links Piper Street to Moa Street. It comprises a narrow two lane wide seal with no road markings or sealed shoulders. The road provides access to the BSC Maintenance Depot, located approximately mid-way along its length. It is an approved B-Double route between Piper Street and Moa Street. A 50 km/hr urban speed limit for Balranald applies to O'Connor Street West.

O'Connor Street West, west of Moa Street is proposed to be used during the Balranald Project construction phase as an oversize vehicle and general vehicle access route around the town of Balranald. (Refer Figure 6)

McCabe Street

McCabe Street is a local road under local (BSC) ownership and jurisdiction. It runs to the south-east of Balranald town providing access to industrial areas and the Balranald Multi Purpose Health Service located in the south-east of the town. The road is generally two lanes wide with no lane marking or sealed shoulders.

The road is an approved B-Double route between the Sturt Highway and Balranald-Ivanhoe Road, and is also used as a heavy vehicle bypass route for traffic travelling to and from destinations via the Sturt Highway and Balranald Tooleybuc Road, south and east of Balranald. An 80 km/hr urban speed limit for Balranald applies to McCabe Street.

2.3.2. Road upgrades

Within 12 months of commencement of construction of the West Balranald Mine, unless the Secretary agrees otherwise, Iluka is to implement the road upgrade works detailed in Table 8 of Development Consent (SSD-5285).

2.3.3. Road maintenance agreement

Prior to the commencement of construction of the West Balranald Mine, unless the Secretary agrees otherwise, Iluka shall enter into a road maintenance agreement with Balranald Shire Council (BSC) to provide contributions towards the maintenance of local roads relative to the proportion of project-related traffic on the roads. The contributions shall be calculated generally in accordance with Council's Road Maintenance Costing Model Framework (see Appendix 7 of Development Consent (SSD-5285).

Prior to the establishment of the West Balranald access road Iluka may require temporary access via Burke and Wills Road for traffic during the early stages of construction.

Iluka would ensure a minimum 8 m wide two lane unsealed road is provided on all sections of the Burke and Wills Road required for any Balranald Project construction access with sections regraded to address induced damage and minimise corrugations, potholes and other surface defects.

2.3.4. Construction

Construction involves the initial vegetation clearing and soil stripping within the approved Balranald Project footprint, with the following infrastructure proposed to be located within this area:

- processing plant infrastructure, comprising WCP, flotation plant and WHIMS plant;
- product and tails pad(s);
- process water, potassium amyl xanthate (PAX) and fines dams;
- underground mining infrastructure;
- temporary stockpiles (topsoil, subsoil and overburden);

- timber stockpiles (felled vegetation);
- hardstand and laydown areas;
- site offices, warehousing, workshops, amenities and carparking;
- services and utilities infrastructure;
- fuel storage and dispensing area;
- telecommunications tower;
- mine access road and accommodation camp; and
- internal access tracks and roadways.

2.4. Timing of activities

The Balranald mine includes a construction period of approximately 18 months followed by an operational phase of approximately six years to extend underground mining trials. Year 1 of the operational phase overlaps with the completion of the construction phase by approximately four months. The site would operate 24 hours per day, seven days per week during construction, mining, processing and transport activities. The indicative planned sequencing of activities is presented in Figure 3.

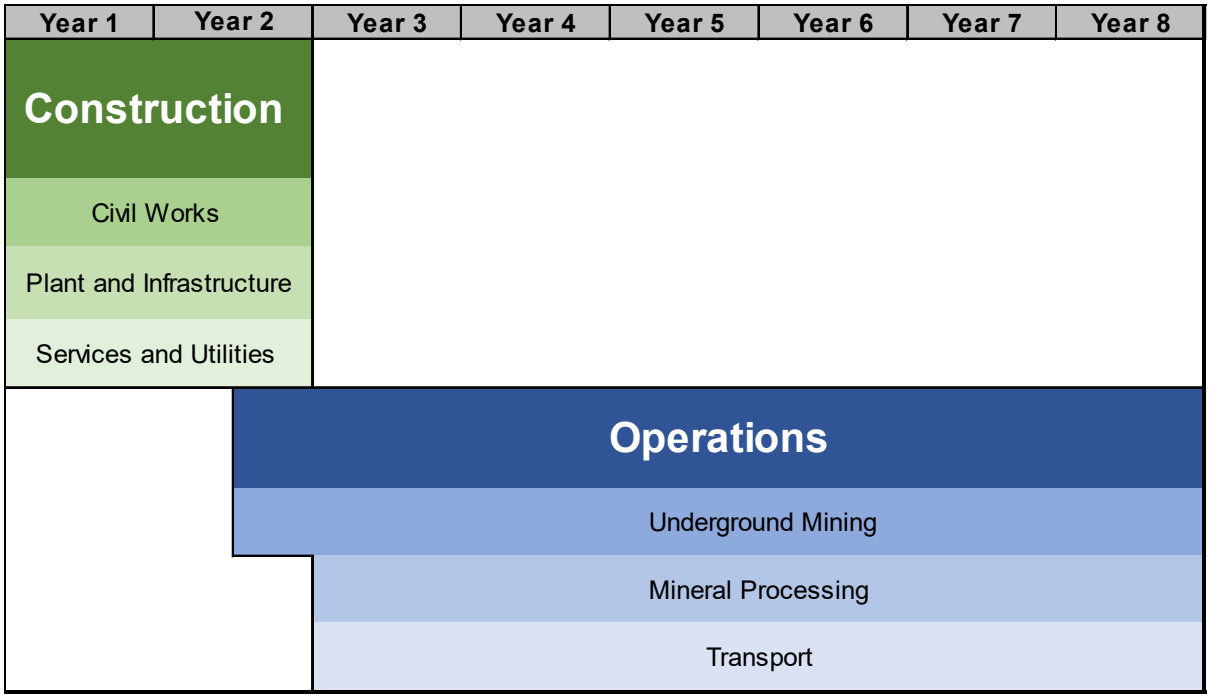


Figure 3- Sequence of site activities

3. Community and stakeholder engagement

3.1. Consultation for the preparation of the TMP

Iluka has prepared the construction TMP in consultation with the Transport for NSW (TfNSW) and Balranald Shire Council (BSC) as required by Schedule 3, Condition 27(a) of Development Consent (SSD-5285).

Consultation for the development of the TMP was requested by Iluka to BSC and TfNSW on 17 January 2023 via the NSW Major Projects Portal, BSC responded on 18 January 2023 and provided a marked up version of the TMP. TfNSW responded on 24 March providing a letter outlining requested changes to the TMP. Details of this consultation are provided in (Appendix A).

Iluka have consulted with local bus operators Moore's Bus lines and Dyson Group to understand bus routes, pickup points, timetables and UHF communications to minimise impacts of construction traffic on school bus schedules.

3.2. Communication

In accordance with Schedule 5, Condition 10 of NSW Development Consent (SSD-5285), the Iluka website will be maintained as a tool for the provision of information to stakeholders and interested parties about the environmental and community performance of the Project .

Information available on the Iluka website will kept up to date to the satisfaction of the Secretary of the DPE.

Stakeholder engagement is also managed in accordance with Iluka's Social Management Plan.

Engagement with stakeholders should be conducted in a meaningful, transparent, collaborative and consistent manner. External stakeholder interactions are recorded in Iluka's database to ensure a record of stakeholder interactions is maintained for the life of the operation.

3.2.1. Communicating local traffic interruptions

Iluka will keep the community up to date with local traffic impacts during the construction stage of the project to minimise community disruptions.

Traffic interruptions will be communicated before and during works and may include but not limited to the following:

- local newspapers;
- Iluka community engagement hub;
- local notice boards;
- social media;
- digital display boards;
- detour signage;

- changed traffic condition signage; and
- Balranald Shire Council Media

Iluka will provide a weekly movement / delivery schedule during the construction phase via email to be sent to CNC.South@transport.nsw.gov.au and development.western@transport.nsw.gov.au.

3.3. Complaints

Iluka will maintain an enquiries and community complaints hotline for the Balranald Project (Phone 1800 305 993 or email balranald.community@iluka.com). The community hotline will be publicly advertised on the Iluka website Balranald engagement hub.

Community complaints will be managed in accordance with Iluka's Social Management Plan and Social Performance standard *(Group Standard 02 – Social Performance)*.

Iluka's Social Management Plan for the Balranald operation provides additional requirements regarding stakeholder engagement and consultation.

In the event a complaint or inquiry is made by an external party the nominated Iluka employee (dependent on the nature of the complaint) will be directed on the course of action in consultation with the Senior Manager.

A record of the event will be entered into the HSEC electronic management system. Any actions arising from the event will be tracked to ensure the event is dealt with appropriately.

Community inquires and complaints will be recorded. The following information will be captured:

- the date and time ;
- the method by which the complaint or inquiry was made;
- any personal details of the complainant if provided;
- the nature of the complaint or inquiry;
- the action taken by Iluka in relation to the complaint or inquiry, including any follow-up contact with the proponent; and
- if no action was taken by Iluka, the reasons why no action was taken.

The record will be kept for at least 4 years.

The Social Management Plan includes a grievance resolution process to enable Iluka to respond appropriately and respectfully to any issues raised by stakeholders (including internal stakeholders). The grievance resolution process is summarised in Figure 5.

A complaints and inquiry register is available on the Iluka community engagement hub website https://www.iluka.com/engage/balranald and kept up to date on a monthly basis.

3.4. Dispute resolution

In the event of a disagreement between Iluka and a member of the community, the nominated Iluka employee (dependent on the nature of the complaint) will be directed on the course of action in consultation with the Senior Manager. Iluka will undertake the liaison to reach a resolution. Should resolution of the dispute not be reached through this primary process, either party may refer the matter to the Secretary of the DPE for resolution.

A flow diagram summarising the dispute resolution process is presented in Figure 4.

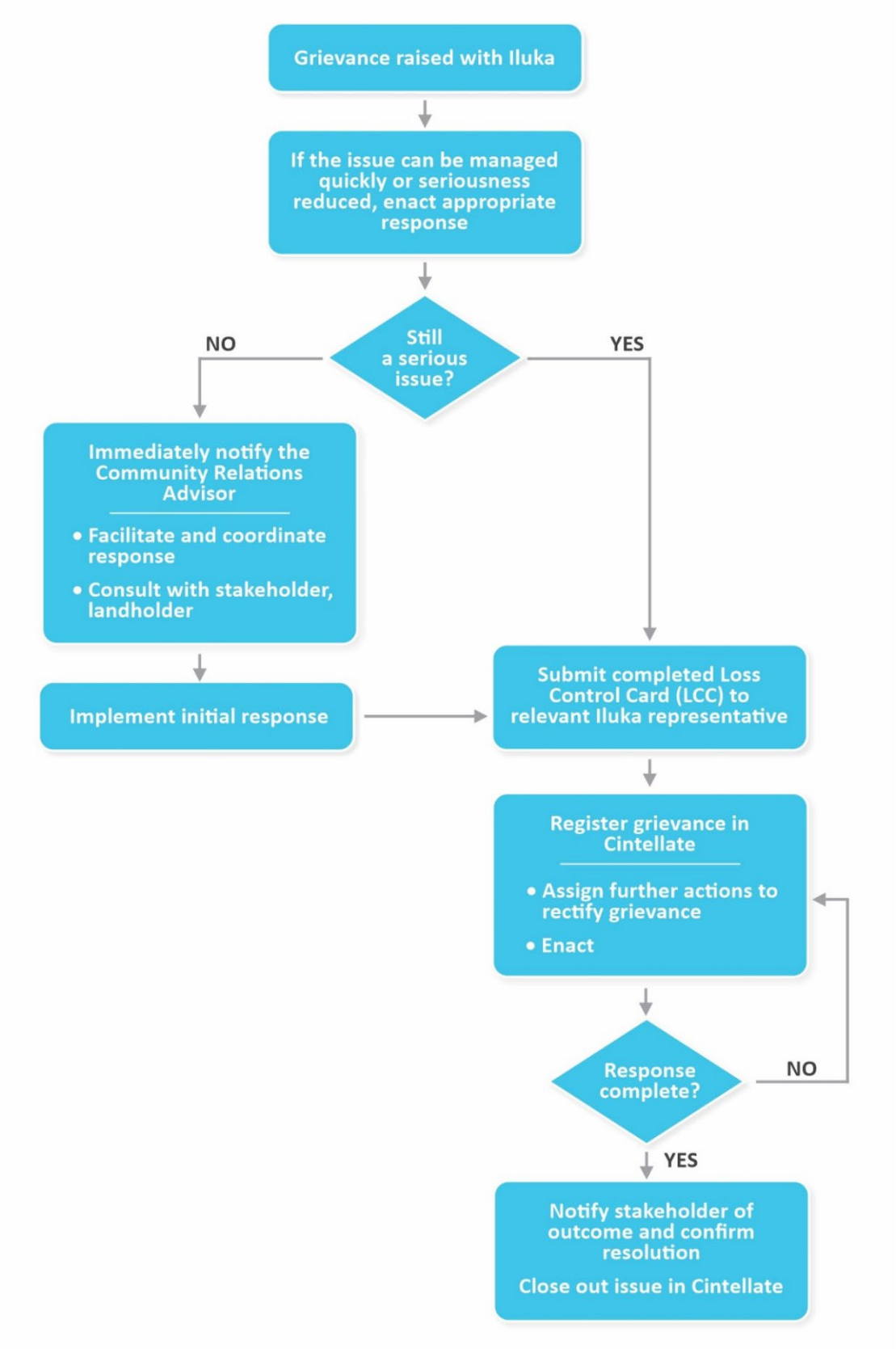


Figure 4- Summary of grievance resolution process

4. Environmental management framework

4.1. Relationship to existing EMS

Iluka's EMS has been developed to fulfil the relevant conditions in the NSW Development Consent (SSD-5285 and Commonwealth Approval (EPBC Act 2012/6509) by providing a strategic framework for environmental management of the Project including all environmental management plans (EMPs), strategies and programs prepared for the Project . The EMS establishes the overarching framework for the monitoring and environmental management of activities undertaken for the Project . The EMS incorporates the principals of continuous improvement and is consistent with the five pillars of International Standard Organisation (ISO) 14001: Environmental Management Systems. This TMP is a subordinate of Iluka's EMS.

4.2. Environmental management structure and responsibilities

All persons undertaking activities on the site are responsible for environmental management and are accountable for the following:

- complying with relevant legislation;
- complying with the EMS;
- communicating any information they become aware of in relation to environmental management; and
- taking actions to prevent and mitigate environmental impacts.

All employees and contractors within Iluka are held accountable for promoting and displaying behaviours consistent with the Iluka Plan. Table 1 defines HSEC and EMS related accountabilities.

Table 1- Roles and responsibilities for HSEC management

Role	Accountabilities
Operations Manager	• Ensure business plans align with wider sustainability objectives and targets. • Promote a culture of accountability and risk awareness, ensuring corrective and preventive actions are completed. • Promote active participation in Environment & Community matters in general. • Provide effective resources to implement the management system within the operation / function. • Ensure overall compliance to the EMS & HSECMS within the operation / function. • Ensure the Traffic Management Plan is implemented and complied with.
Environment, Rehabilitation and Community Relations (ERCR) Superintendent	• Provide advice/support to the operation for achievement of ongoing environmental compliance. • Inform, investigate and provide advice for environmental issues, non-compliances and incidents to the Operations Manager. • Support the preparation of environmental reports in compliance with corporate and regulatory requirements.

	• Review and oversee the implementation of the EMS, EMPs and procedures in accordance with corporate and regulatory requirements. • Ensure regular review environmental risk assessments with operational team members and other stakeholders as required. • Oversee rehabilitation planning and implementation. • Respond to and report on community complaints in consultation with the Operations Manager. • Conduct internal compliance audits of applicable regulatory approvals, licences and other legislation for the project. • Liaise with government regulators and other stakeholders on environment and community matters. • Develop procedures required for effective environmental management of the operation. • Oversee the implementation of the Traffic Management Plan and report non-compliances to the Operations Manager.
Environmental Specialist	• Manage the environmental monitoring database. • Collate data and prepare written reports for environmental and community performance reporting. • Implement and review the EMS, EMPs and procedures in accordance with corporate and regulatory requirements. • Assist and provide advice to the Environmental Technician in collection of environmental monitoring data. Inform the creation of procedures required for effective environmental management of the operation. • Conduct site environmental inspections and audits to identify issues and report findings to the ERCR Superintendent. • Assist in achieving compliance with regulatory requirements related to environmental management as required by the ERCR Superintendent. • Participate in the review and development of environmental risk assessments. • Conduct internal compliance audits of applicable regulatory approvals, licences and other legislation for the project and advise the ERCR Superintendent of any non-compliances. • Manage site waste removal and treatment requirements.
Environmental Technician	• Conduct the environmental monitoring required by the approved EMPs for the project. • Follow procedures for environmental monitoring accurately and consistently. • Collect and record raw data accurately and consistently for all compliance monitoring. • Maintain calibration records of all equipment and ensure within manufacturers specifications. • Conduct site environmental inspections and report issues identified to ERCR Superintendent. • Assist with on ground environmental improvement works.

Rehabilitation Specialist	• Coordinate the planning and implementation of the rehabilitation in accordance with the Rehabilitation Management Plan and applicable procedures. • Coordinate the rehabilitation monitoring programs including engagement of specialised consultants. • Ensure that rehabilitation resources are managed effectively to ensure the success of the rehabilitation. • Prepare rehabilitation related documents and maintain the spatial data base. • Liaise with government regulators and other stakeholders on all rehabilitation matters.
Site Employees and Contractors	• Understand and comply with the Iluka EMS, HSEC policy and supporting standards. • Accept accountability to ensure personal safety and the health and safety of others, and protect the environment. • Identify, assess and control risks prior to undertaking any activity. • Actively challenge or refuse to work in unsafe conditions or where unacceptable impact to the environment or community may occur. • Intervene to prevent incidents. • Actively participate in HSEC meetings, initiatives, risk assessments and monitoring programs. • Report all incidents and near hits immediately. • Correct or isolate hazardous situations in the workplace. • Understand and follow the local emergency procedures. • Comply with and suggest improvements to site documentation, processes and procedures. • Comply with the Traffic Management Plan and Road Transport Protocol.

4.3. Legal and compliance requirements

The relevant legal and compliance requirements as well as policies, standards and guidelines and where they are referenced in this TMP are provided in Table 2.

Table 2- Legal and compliance requirements relevant to the TMP

NSW Development Consent (SSD-5285)	TMP Section
Sc.3(C.26) The Applicant must ensure that no project-related traffic uses local roads to access or egress the site, other than those roads that form part of the designated access routes, except: *(a) in an emergency to avoid loss of life, property and/or to prevent environmental harm;* *(b) infrequent use of the roads for consultation, environmental monitoring and/or inspection and maintenance of nearby infrastructure;* *(c) for any employees or contractors that may reside on a local road that does not form part of the haulage route; or* *(d) infrequent and temporary use during construction of the development, where this use has been approved as part of the traffic management plan.*	Section 4.6.3

Sc.3(C.27) The Applicant must prepare a Traffic Management Plan for the development to the satisfaction of the Secretary. This plan must: *(a) be prepared in consultation with TfNSW and Council;*	Section 3.1 & Appendix A
(b) include: *(i) details of all transport routes and traffic types to be used for project-related traffic;*	Section 2.
(ii) a program to monitor and report on the: o *amount of mineral concentrate transported from the site; and* o *amount of MSP process waste returned to the site;*	NA for construction phase
(iii) a description of the measures that would be implemented to address the relevant requirements in the Code of Practice for the Safe Transport of Radioactive Materials (ARPANSA, 2001, or its latest version);	NA for construction phase
(iv) details of reasonable and feasible measures that would be implemented to minimise traffic safety issues and disruption to local users of the transport route/s during construction and decommissioning of the development, including: o *temporary traffic controls, including detours and signage;* o *notifying the local community about project-related traffic impacts;* o *a traffic management system for managing over-dimensional vehicles;* o *measures to ensure loose surface road material generated by project-related traffic does not cause nuisance or hazard to other road users; and* o *provision of hard stand areas for parking of transport vehicles if required; and*	Section 4.6.2 Section 3.2.1 Section 4.6.4 Section 4.6.5 & 4.6.6 Section 4.6.7
(v) a Road Transport Protocol for all drivers transporting materials to and from the site with measures to ensure: o *heavy vehicles adhere to the designated haulage routes;* o *all vehicles transporting mineral concentrate are completely covered whilst in transit;* o *the staggering of heavy vehicle departures to minimise impacts on the road network, where practicable;* o *no disruption to school bus timetables;* o *the management of worker fatigue during trips to and from the site;* o *appropriate driver behaviour including adherence to speed limits, safe overtaking and maintaining appropriate distances between vehicles (i.e. a Driver Code of Conduct); adherence to drug and alcohol policies;* o *appropriate vehicle maintenance and safety;* o *contingency plans when the haulage route is disrupted due to low visibility or closed due to wet weather;* o *emergency response plans;* o *the safe transportation of MSP process wastes; and* o *compliance with and enforcement of the protocol.* *Following approval, the Applicant shall carry out the development in accordance with this plan.*	(Appendix C) Road Transport Protocol
Sc.3(C.30) The Applicant must ensure that the storage, handling, and transport of dangerous goods is done in accordance with the relevant Australian Standards, particularly AS1940 and AS1596, and the Australian Code for the Transport of Dangerous Goods by Road and Rail.	Section 4.6.8
Sc.2(C.15) Unless the Applicant and the applicable authority agree otherwise, the Applicant must: *(a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and* *(b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.*	Section 4.6.9

This condition does not apply to the upgrade and maintenance of the road network, which is expressly provided for in the conditions of this consent.	
Sc.5 (C.3) The Applicant must ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include: *(a) detailed baseline data;*	NA
(b) a description of: • *the relevant statutory requirements (including any relevant approval, licence or lease conditions);* • *any relevant limits or performance measures/criteria;* • *the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;*	Section 4.3 Table 2 Section 4.7
(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;	Section 4.6
(d) a program to monitor and report on the: • *impacts and environmental performance of the development;* • *effectiveness of any management measures (see c above);*	Section 4.7 Section 4.11
(e) a contingency plan to manage any unpredicted impacts and their consequences;	Section 4.15.2
(f) a program to investigate and implement ways to improve the environmental performance of the development over time;	Section 4.15.3
(g) a protocol for managing and reporting any: • *incidents;* • *complaints;* • *non-compliances with statutory requirements; and* • *exceedances of the impact assessment criteria and/or performance criteria; and*	Section 4.14.1 Section 3.3 Section 4.11.1 Section 4.11.1
(h) a protocol for periodic review of the plan.	Section 4.16
Environment Protection Licence 20795	
(O2.1) All plant and equipment installed at the premises or used in connection with the licensed activity: *a) must be maintained in a proper and efficient condition; and* *b) must be operated in a proper and efficient manner.*	(Appendix C) Road Transport Protocol
(O3.1) Activities occurring in or on the premises must be carried out in a manner that will minimise the generation, or emission from the premises, of wind-blown or traffic generated dust.	Section 4.6.6
Other Legislation, Policies, Standards and Guidelines	
Heavy Vehicle National Law Act 2013	
Road Transport Act 2013	
Work Health and Safety Act 2011	
Dangerous Goods (Road and Rail Transport) Act 2008	
Heavy Vehicle National Law Regulation 2013	
Road Transport (Mass Loading and Access) Regulation 2005	
Road Transport (General) Regulation 2021	
Work Health and Safety Regulation 2017	
Dangerous Goods (Road and Rail Transport) Regulation 2008	
Australian Code for the Transport of Dangerous Goods by Road & Rail 2018	
AS1940 (Storage and Handling of Flammable and Combustible Liquids)	
AS1596 (Storage and Handling of LP Gas)	

4.4. Training and awareness

Iluka have a standard for training and awareness *(Group Standard 3:Training and Awareness)* to ensure employees and contractors are appropriately trained and are competent to perform their work.

Inductions (excluding visitor induction) shall be undertaken every two years or more frequently as required. The Iluka induction and a Project specific induction shall be undertaken prior to commencement of works.

Processes and procedures are developed and implemented by the operation to identify, prioritise and plan the fulfilment of training needs commensurate with HSEC risks. Processes shall include (at a minimum):

- development of a training needs analysis, including the identification of training needs for all employees and contractors within the area, operations, Project or function;
- delivery of training and maintaining currency;
- methods and criteria for the determination of competency; considering training, education, skills and experience; and
- evaluation of the effectiveness of training processes and programs.

Training attendance, inductions and competency shall be recorded. Employee and contractor records shall be maintained and attendance recorded in the Iluka Training Management System.

Iluka maintain a training platform , which requires employees to undertake specific training programs periodically.

4.4.1. Driver training

Contractors and employees employed for driving of heavy vehicles are to be accredited licence holders and have training including driver observation and driver assessment, HR Licence, heavy combination or multi combination. Drivers must be trained and competent to operate the specific equipment.

Prior to the commencement of work, contractors and employees are required to supply copies of licences and appropriate training records for inclusion in the Project's training records.

4.5. Environmental risk assessment

A risk assessment has been undertaken to quantify environmental and community risk. Mitigation measures have been identified to minimise impacts to be as low as reasonably practicable during all the construction phases of the Project. The risk assessment will be reviewed regularly throughout different stages of the Project. A copy of the traffic and transport risk assessment has been included in Appendix B.

4.6. Transport and traffic management program

The management measures and controls that will be implemented for Project related traffic are outlined in Table 3 and detailed in the sections below.

4.6.1. Road Transport Protocol

The Road Transport Protocol (RTP) has been prepared for all drivers transporting material to and from site to minimise transport and traffic related incidents and to minimise impact on the community and local traffic. The RTP is described in Appendix C.

4.6.2. Temporary traffic controls

Iluka will minimise traffic safety issues and disruption to local traffic users during the construction phase of the project by implementing the following temporary measures:

- early notification of road works and intersection upgrades (Refer Section 3.2.1)
- signage and/or digital display boards to advise of road works and changes to traffic conditions;
- traffic control (i.e. portable traffic lights, qualified traffic controllers); and
- appropriate detours where required.

4.6.3. Approved transport routes

Only approved transport routes (Refer Figure 6) will be used for any project related traffic during the construction phase of the project. Schedule 3, Condition 26 of Development Consent (SSD-5285) specifies when exceptions can be made to use other local roads as follows:

No project-related traffic is to use local roads to access or egress the site, other than those roads that form part of the designated access routes, except:

(a) in an emergency to avoid loss of life, property and/or to prevent environmental harm;

(b) infrequent use of the roads for consultation, environmental monitoring and/or inspection and maintenance of nearby infrastructure;

(c) for any employees or contractors that may reside on a local road that does not form part of the haulage route; or

(d) infrequent and temporary use during construction of the development, where this use has been approved as part of the traffic management plan.

4.6.4. Oversize and overmass vehicles

During the Balranald Project construction phase, oversize and/or overmass vehicles (OSOM) may transport mining machinery and equipment to the project area with National Heavy Vehicle Permit (NHVR) approval.

As the existing Tooleybuc Bridge is only one lane wide, OSOM vehicles are to travel via the Murray Valley Highway Bridge at Robinvale, and the Sturt Highway between Robinvale/Euston to Balranald (Refer Figure 5 and Figure 6)

In the vicinity of Balranald, other route restrictions such as overhead power lines would constrain these vehicles to use a designated oversize vehicle access route via Piper Street, O'Connor Street West and Moa Street, when travelling between the Sturt Highway west of Balranald and the Balranald-Ivanhoe Road to the project area.

OSOM vehicles will be used to move large plant and equipment to the Balranald Project. The oversize route has been determined by the constraints of the existing road network, including road width and weight restrictions of bridges across the Murray River from Victoria to NSW.

OSOM vehicles will enter NSW from Robinvale, Victoria, and will access the Balranald Project using the following roads with NHVR permit approval:

- Sturt Highway from Robinvale/Euston;
- Piper Street;
- O'Connor Street West;
- Moa Street between O'Conner Street West and Balranald-Ivanhoe Road; and
- Balranald-Ivanhoe Road.

Operators are required to check the Live Traffic website (Live Traffic NSW) to identify any roadwork sites that may impact their journey and contact the on-site representative or the Customer & Network Operations Coordinator for the South (mcnc.south@transport.nsw.gov.au) prior to OSOM movement.

4.6.5. Road surface hazards

To avoid loose surface road material generated by construction related traffic causing nuisance or hazard to other road users, Iluka will adopt the following measures:

- heavy vehicles leaving site to dust off wheels prior to entering Balranald-Ivanhoe Road at a dedicated dust off area;
- road maintenance program in place for the mine access road;
- road maintenance agreement with BSC to ensure a minimum of 8m wide two lane unsealed road along Burke and Wills Road (Project related sections) to continue during the life of the consent (unless the mine is placed in care and maintenance);
- road inspection program to identify any hazardous road conditions during the construction phase; and
- all road upgrades required will be completed to the satisfaction of the applicable roads authority.

4.6.6. Dust control

Iluka will ensure that dust is effectively controlled and managed through the construction phase and where employees and contractors use local roads to minimise negative impacts on the local community and environment and mitigate possible negative health impacts. The aim is to reduce airborne dust particle generation and achieve as close to a dust-free operation as possible by:

- watering down internal roads and the Haul Road during adverse weather conditions (i.e. hot, dry and windy);
- conducting air quality monitoring in accordance with the Air Quality Management Plan.
- ensure temporary soil stockpiles are adequately protected during adverse weather conditions from wind erosion including if necessary the application of dust suppression products (i.e. polymers)
- sealing of the mine access road from the Balranald-Ivanhoe Road intersection;
- ensuring drivers are adhering to the Road Transport Protocol, particularly speed limits on unsealed roads; and

- loads to be covered when transporting material where there is potential for dust generation from the load on public roads.

4.6.7. Hardstand areas

Hardstand areas will be established at specific locations (i.e. onsite and access road) during construction to allow safe parking for transport vehicles for unloading and loading materials. Dust off areas will also be established at strategic locations for transport vehicles to drop dust prior to entering the sealed public road network.

4.6.8. Dangerous goods

Dangerous goods that are transported, stored or handled onsite will be in accordance with the Australian Code for the Transport and Dangerous Goods by Road and Rail and relevant Australian Standards, particularly AS1940 (Storage and Handling of Flammable and Combustible Liquids) and AS1596 (Storage and Handling of LP Gas).

4.6.9. Public infrastructure

Iluka will compensate the relevant public authority for any damage to public infrastructure incurred by the development by repairing or paying the full cost of repairs.

Infrastructure that requires to be relocated as a result of the development will be relocated by Iluka or the full cost paid for relocation.

The aforementioned does not apply to the upgrade and maintenance of the road network, which is expressly provided for in the conditions of Development Consent (SSD-5285).

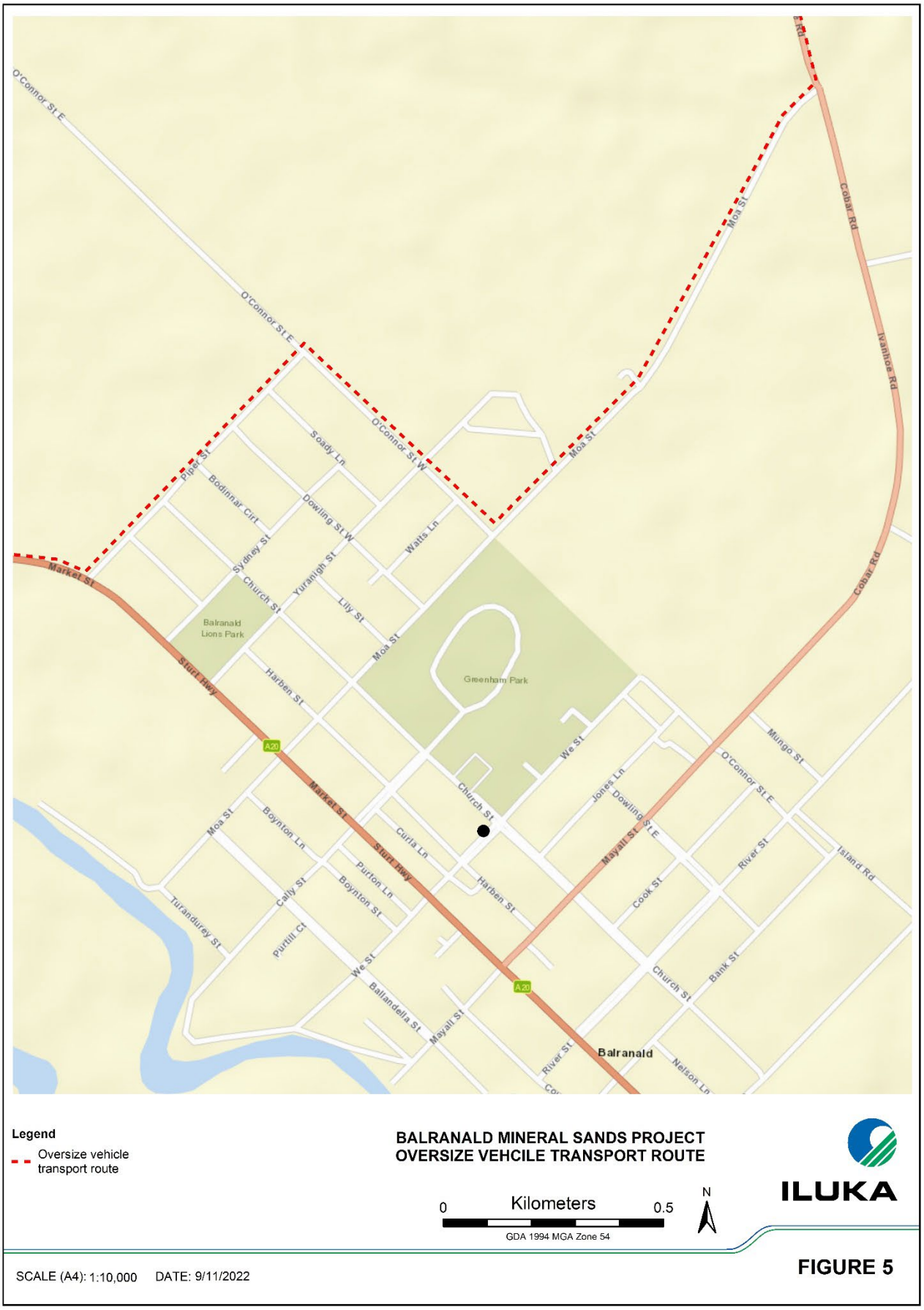


Figure 5- Oversize vehicle transport route

Table 3- Traffic management measures and controls

No.	Traffic management measures	Phase	Timing/frequency	Location	Responsibility	Source/reference	Evidence/documentation
T1	Notification of road works to be communicated to the community ahead of works commencing.	Construction	2 weeks prior to works commencing.	Balranald local community and BSC	Community advisor	Development Consent (SSD-5285)	Community consultation records
T2	Implement traffic control during road construction and upgrade works (Signage, traffic, traffic controllers, detours)	Construction	Prior to commencement of road works.	Balranald local community and BSC	Road construction contractor	Development Consent (SSD-5285)	Pre-works inspection, risk assessment
T3	All transport drivers and operators licenced, trained and competent to operate the vehicle or equipment being used.	Construction	Prior to operating vehicle or equipment onsite.	Mining Lease	Contract owner/Contract terms/Contractor	Safety Management Plan	Copies of licences and accreditations.
T4	All transport drivers and operators inducted to site.	Construction	Prior to operating vehicle or equipment onsite.	Mining Lease	Learning and Development officer	Safety Management Plan	Training records
T5	Drivers and operators to be familiar and adhere to Road Transport Protocol and Traffic Management Plan requirements.	Construction	Always	Regional	Contract owner/Contract terms/Contractor	Development Consent (SSD-5285)	Training records, and Audits
T6	Only approved routes to be used for transport.	Construction	Always	Regional	Contract owner/Contract terms/Contractor	Development Consent (SSD-5285)	Training records, Traffic Management Plan, BSC approval for other local roads
T7	Only approved routes for oversize/overmass loads to be used. Oversize loads to be communicated appropriately and conducted in accordance with National and State legislation.	Construction	Always	Regional	Contract owner/Contract terms/Contractor	Development Consent (SSD-5285)	Training records, Traffic Management Plan, NHVR permit approval

No.	Traffic management measures	Phase	Timing/frequency	Location	Responsibility	Source/reference	Evidence/documentation
T8	Trucks leaving the mine site access road to dust off at dedicated dust off point prior to entering the sealed public road network.	Construction	Always	Mine access road and Balranald-Ivanhoe Road	Contract owner/Contract terms/Contractor	Development Consent (SSD-5285)	Road transport audits
T9	Unsealed roads to be maintained.	Construction	As per maintenance program schedule	Mine access road, Burke and Wills Road	Earthworks Supervisor	Development Consent (SSD-5285)	Road inspection reports
T10	Dust suppression to unsealed roads and stockpiles.	Construction	As required	Unsealed roads and stockpiles	Earthworks Supervisor	Development Consent (SSD-5285)	Road inspection reports
T11	Loads to be covered when there is potential for dust generation.	Construction	As required	Regional	Earthworks Supervisor	Development Consent (SSD-5285)	Audits
T12	Awareness communication and/or training for Mallee fowl presence.	Construction	During induction to site	Mining Lease	Environmental	Biodiversity Management Plan	Training records, Communication records, Signage
T13	Air quality monitoring	Construction	Monthly	Karra Homestead (R5)	Environmental	Air Quality Management Plan	Monitoring records and reports
T14	Noise monitoring	Construction	Quarterly	Sensitive receptors	Environmental	Noise Management Plan	Monitoring records and reports
T15	Respond to and follow-up on community complaints & inquiries	Construction	As required	Local community	Community advisor	Environmental Management Strategy	Complaint register, Incident reports, Consultation records
T16	Complete the required road upgrades for the construction phase of the project.	Construction	Prior to construction of the Balranald West Mine	Regional	Project Manager	Development Consent (SSD-5285)	Endorsement by applicable roads authority, Completion reports

No.	Traffic management measures	Phase	Timing/frequency	Location	Responsibility	Source/reference	Evidence/documentation
T17	Public infrastructure to be protected	Construction	As required	Regional	Project Manager	Development Consent (SSD-5285)	Inspection reports and audits
T18	Dangerous goods are to be managed in accordance with the applicable legislation and codes of practice.	Construction	Always	Mining Lease	Transport operators/Safety Advisor	Development Consent (SSD-5285)	Consignments notes, Audits

4.7. Environmental Inspections

Environmental inspections will be carried out to identify environmental hazards and to assess the effectiveness of traffic management measures and controls.

Table 4 outlines the inspection program that will be implemented during the construction of the Project .

Inspections will be documented in the form of a checklist and any hazards or non-conformances will be reported using Iluka's inspection management system. Any actions arising from the inspections will be allocated as soon as reasonably practical and tracked using the Iluka inspection management system until closed out.

Table 4- Traffic management inspection program

Inspection area	Details of inspection	Timing/frequency	Responsibility
Project road network	• Road surface traffic hazards • Visibility issues • Road maintenance – wear, visual markers • Transport drivers adhering to RTP • Appropriate signage and detours in place • Dust generation levels acceptable	Weekly	Community advisor
Temporary stockpiles	• Stockpiles stable and constructed to plan • Not generating dust • Dust suppression chemicals (if any) still effective	Weekly	Site Supervisor

4.8. Traffic monitoring program

No specific monitoring of traffic will be conducted during the construction phase of the project. Air quality and noise monitoring will be undertaken in accordance with the Air Quality Management Plan and Noise Management Plan to monitor sensitive receptors and assess against the applicable criteria during construction activities.

4.9. Environmental control maps and plans

Figure 6 shows the approved transport routes and oversize routes during the construction phase.

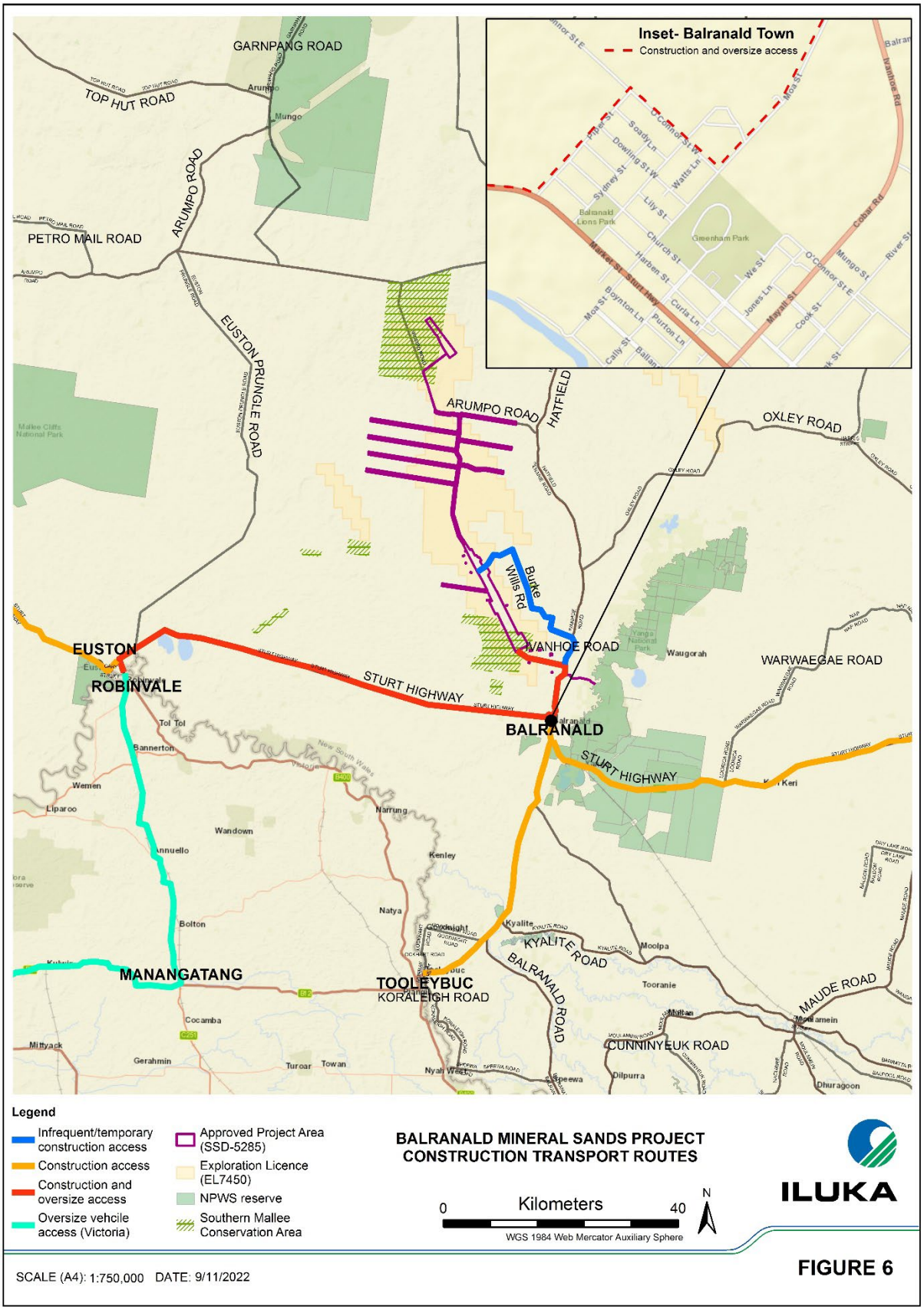


Figure 6- Approved transport routes for construction

4.10. Environmental management documents

The environmental management documents and electronic database systems that will be used to record and report environmental management measures for traffic and transport include:

- Environmental site inspection checklist;
- Incident alert forms;
- HSEC system (Hazard, Incident and inspection management);
- Environmental monitoring database
- Complaints register;
- Monitoring reports; and
- Annual Review

4.11. Compliance monitoring and reporting

4.11.1. Compliance monitoring

Compliance for the Project is to be achieved by:

- adherence to conditions of the Development Consent, EPA Licence, Mining Lease conditions and corporate policies;
- annual compliance reporting in the Annual Review;
- review of the EMPs within 3 months of an Annual Review, a reportable incident, an Independent Environmental Audit or modifications to the conditions of the Consent;
- regular compliance auditing (both internal and external)
- revision of risk assessments periodically or after a reportable incident or a new hazard is identified;
- identification of performance against criteria and/or performance measures; and
- implementation of corrective measures to rectify a non-compliance or performance issue.

Compliance with all approvals, plans and procedures will be the responsibility of all personnel (staff and contractors) employed on or in association with the Project .

Iluka maintains an electronic database system for the management of obligations, stakeholder interactions and compliance monitoring. Each compliance source and its associated obligations are periodically audited for compliance by the responsible person. Actions can be assigned to any obligation to ensure compliance is met, automatic email alerts prompt the actioners to undertake the required tasks.

Iluka also maintains an electronic database system for the storage and management of environmental monitoring data. Compliance reports can be generated from the database and compared against known performance criteria or trigger levels. Monitoring schedules and alerts can be setup to notify environmental staff of required monitoring events.

Iluka environmental staff undertake scheduled environmental inspections of work areas to identify environmental hazards, which are reported and managed via Iluka's electronic inspection management system.

In accordance with Schedule 5, Condition 6A of the Consent, non-compliances will be reported to DPE within seven (7) days of becoming aware of the non-compliance. Notification will be in writing via the Departments Major Projects Website and detail the reasons for the non-compliance and what actions have been, or will be, undertaken to address the non-compliance.

4.11.2. Environmental reporting

Annual Review

In accordance with Schedule 5, Condition 4 of the Development Consent (SSD-5285), Iluka will conduct an Annual Review before 31 March each year.

The Annual Review will specifically address the following aspects of Condition 4, which directly relate to traffic management:

- include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, which includes a comparison of these results against:
    - the relevant statutory requirements, limits or performance measures/criteria;
    - the monitoring results of previous years; and
    - the relevant predictions in the EIS;
- identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
- identify any trends in the monitoring data over the life of the development;
- identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and
- describe what measures will be implemented over the next year to improve the environmental performance of the development.

Annual EPA Return

Environment Protection Licence (20795) requires the inclusion of a monitoring and complaints summary in Iluka's Annual Return that is completed and supplied to the EPA not later than 60 days after the end of each reporting period.

Information included in the Annual Return includes:

- a statement of compliance;
- a monitoring and complaints summary including;
    - an analysis and interpretation of monitoring results; and
    - actions to correct identified adverse trends.

The Annual Review and Annual EPA Return and any monitoring results will be published on the Iluka website in accordance with Schedule 5, Condition 10 of the Development Consent (SSD-5285).

4.12. Environmental auditing

Within 1 year of the commencement of construction and every three years thereafter, a full Independent Environmental Audit will be undertaken, as required by Schedule 5, Condition 8 of NSW Development Consent (SSD-5285). The Independent Environmental Audit will include consultation with all relevant agencies and will be conducted by a suitably qualified experienced and independent team of experts whose appointment has been endorsed by the Secretary of the DPE.

The Independent Environmental Audit will:

- assess the environmental performance of the Project and assess whether it complies with the requirements of all relevant approvals;
- review the adequacy of any approved strategy, plan or program required under all relevant approvals; and
- recommend measures or actions to improve the environmental performance of the Project and/or any strategies, plans or programs required under the relevant approvals.

A copy of the Independent Environmental Audit along with the response to any recommendations contained in the audit report, will be provided to the Secretary of the DPE and made available on the Iluka website.

4.13. Other environmental reporting

In accordance with Schedule 5, Condition 3 of NSW Development Consent (SSD-5285), Iluka has developed protocols for managing and reporting the following:

- incidents;
- complaints;
- non-compliances with statutory requirements; and
- exceedances of the impact assessment criteria and/or performance criteria.

Environmental reporting requirements including timing, submission and distribution methods are summarised in Table 5.

In accordance with Schedule 5, Condition 7 of NSW Development Consent (SSD-5285), Iluka will provide regular reporting on the environment and community performance of the Project on the Iluka website community engagement hub (https://iluka.com/engage/balranald)

Table 5- Environmental reporting requirements

Report	Frequency	Distribution	Distribution Method
Incident Report	Notification as soon as practicable and written report within 7 days of the date of the incident.	DPE and any relevant agencies	DPE Portal/ Email

Report	Frequency	Distribution	Distribution Method
Annual Review	Annually by 31 March each year.	DPE and any relevant agencies	DPE Portal/Iluka website
Annual Return	Annually by 8 August (60 days from end of reporting period)	NSW EPA	eConnect EPA/Iluka website
Independent Environmental Audit Report	Every 3 years (Commencing within 1 year of the commencement of construction)	DPE	DPE Portal/Iluka website
Annual Rehabilitation Report & Forward Program	Annually by 1 March (60 days from end of reporting period)	NSW Resources Regulator	Regulator Portal/Rehabilitation Portal/Iluka website

4.14. Environmental incident and emergency management

4.14.1. Environmental incidents

An incident is defined as a set of circumstances that causes or threatens to cause material harm to the environment, and/or breaches or exceeds the limits or performance measures/criteria in NSW Development Consent (SSD-5285).

Following the Group Guideline -Hazard Incident Emergency Classification (GUI1135), incidents of serious actual or potential consequence must be immediately notified to the Environment, Rehabilitation and Community Relations (ERCR) Superintendent (or equivalent environment representative) and site Operations Manager or their delegate.

The ERCR Superintendent (or equivalent environment representative) shall then:

- Determine if the incident is a 'notifiable incident' for notification to a Regulator.
- Consult with the Operations Manager or their delegate and the Environment Manager to agree on incident classification and notification requirements.
- Complete the notification within the legislated timeframes.
- Determine if the incident is a 'reportable incident' for inclusion in reports to the Regulator.

The reporting of incidents will be conducted in accordance with Schedule 5, Condition 6 of NSW Development Consent (SSD-5285) and in accordance with the protocol for industry notification of pollution incidents under Part 5.7 of the Protection of the *Environment Operations Act, 1997*.

Iluka will immediately notify the Department and any other relevant agencies immediately after the authorised person becomes aware of the incident and set out the location and nature of the incident. The DPE can be notified of incidents via the Major Projects Website https://pp.planningportal.nsw.gov.au/major-Projects and the NSW EPA can be notified by telephoning the hotline on **131 555.**

The incident report will:

- describe the date, time and nature of the exceedance/incident;
- identify the cause (or likely cause) of the exceedance/incident;
- describe what action has been taken to date; and

- describe the proposed measures to address the exceedance/incident.

4.14.2. Environmental emergencies

Iluka will maintain a Pollution Incident Response Management Plan (PIRMP) for the Project in accordance with Condition R1.1 of Environment Protection Licence 20795. The PIRMP outlines the process for responding to environmental emergencies in a timely and effective manner and adopting appropriate measures for the control and recovery from emergencies. Where appropriate, environmental emergency response procedures will be integrated with the Balranald Project Emergency Control and Response Plan.

Preparedness for emergencies by staff, personnel, contractors and service providers will be undertaken in accordance with on-site training requirements whereby personnel will be appropriately trained in the use of emergency response equipment and procedures, and will be made aware of their responsibilities should such an event occur. A list of external agencies that may be required in the event of an emergency is presented in Table 6.

Table 6- External agency contact details

Name	Contact details	Location
Police	000 03 5898 4980	Balranald
Ambulance	000	Balranald
NSW Rural Fire Service	000	Balranald
Fire and Rescue NSW	000 03 5020 1577	Balranald
Hospitals	03 5071 9800	Balranald Multi-Purpose Health Service
	03 5033 9300	Swan Hill District Hospital (emergency)
	03 5022 3333	Mildura Base Hospital (emergency)
NSW State Emergency Service	13 25 00	www.ses.nsw.gov.au
NSW Poisons Information Centre	13 11 26 (24-hour hotline)	www.poisonsinfo.nsw.gov.au
NSW Environment Protection Authority(EPA)	13 15 55	www.epa.nsw.gov.au
NSW Resources and Energy – ResourcesRegulator	1300 814 609	www.resourcesregulator.nsw.gov.au
SafeWork NSW	13 10 50	www.safework.nsw.gov.au
Balranald Shire Council	03 5020 1300	Balranald

4.15. Corrective and preventative actions

4.15.1. Incident assessment

Traffic related incidents will be assessed to determine the likely cause of the incident using information regarding prevailing climatic conditions, the nature of activities taking place and any monitoring results or inspection outcomes.

An assessment will be conducted to determine:

- timing of incident;
- general location of the incident;

- climatic conditions at the time of the elevated dust levels (i.e. wind speed, wind direction, rainfall, dust storms);
- potential contributing factors; and

If the above assessment determines that an incident has occurred, then the management strategies detailed in Section 4.15.2 to help prevent recurrence may be implemented in an effort to reduce traffic related impacts.

The incident will be reported in accordance with the provisions for incident reporting outlined in Section 4.14.1.

4.15.2. Contingency plan

In the event that a traffic incident occurs, the following contingency plan will be implemented:

1. Iluka will apply adaptive management and incident response procedures outlined in Sections 4.15.1 and 4.15.3.
2. The incident will be reported in accordance with 4.14.1.
3. The Site Supervisor and/or the Environmental Superintendent will report the incident to the Senior Manager who will decide on course of action.
4. An appropriate course of action and contingency measures will be developed in consultation with specialist or DPE as necessary.
5. On request submit the proposed course of action to the DPE for approval.
6. Implement the course of action to the satisfaction of the DPE.

4.15.3. Adaptive management

In accordance with Schedule 5, Condition 2 of NSW Development Consent (SSD-5285), over the life of the Project Iluka will assess and manage risks to ensure that there are no exceedances of the criteria and/or performance measures outlined in Schedules 3 of NSW Development Consent (SSD-5285). Where any exceedance of these criteria and/or performance measures occurs, at the earliest opportunity Iluka will:

- take all reasonable and feasible measures to ensure that the exceedance ceases and does not recur;
- consider all reasonable and feasible options for remediation and a submit a report to the DPE describing these options and preferred remediation measures; and
- implement remediation measures as directed by the Secretary of the DPE.

4.16. EMP review and revision process

In accordance with Schedule 5, Condition 5 of Development Consent (SSD-5285), the TMP will be reviewed within 3 months of the submission of:

- the Annual Review;
- an reportable incident report;
- an Independent Environmental Audit; and
- any modification to the conditions of the Consent.

Where the review leads to revisions in any document, a revised document will be submitted to the Secretary of the DPE within 4 weeks of the revision occurring.

5. References

DIPNR 2004, *Guideline for the preparation of Environmental Management Plans*

EMM 2015, *Balranald Mineral Sands Project Transport Assessment*

Appendix A- Record of consultation

BALRANALD SHIRE COUNCIL

ALL COMMUNICATIONS
MUST BE ADDRESSED TO
THE GENERAL MANAGER

Contact: KJ:NMR:D22.78307

70 Market Street, Balranald NSW 2715
PO Box 120, Balranald NSW 2715
Tel: 03 5020 1300
Fax: 03 5020 1620
Email: council@balranald.nsw.gov.au
Web: www.balranald.nsw.gov.au

18 January 2023

DPE Energy, Resources & Industry Assessments
4 Parramatta Square 12 Darcy St
PARRAMATTA NSW 2150
(Via Planning Portal upload)

To Whom It May Concern,

RE: SSD 5285 Mod 1 – Balranald Mineral Sands Project – Post Approval Referral – Traffic Management Plan (For Construction)

Thank you for the opportunity to make comment in relation to the Traffic Management Plan (For Construction) for the Balranald Mineral Sands Project.

Council have reviewed the plan and wish to provide the comments marked in red within the attached document.

Should you require additional information in relation to these matters, please do not hesitate to make contact at your convenience.

Yours faithfully,

Kerry Jones
Acting General Manager

Transport for NSW

WST22/00055/04 | SF2022/064093

Resource Assessments
Department of Planning & Environment
Locked Bag 5022
PARRAMATTA NSW 2150

Attention: Brittany Golding

Review of Traffic Management Plan (Construction Phase) for Balranald Mineral Sands Project

20 March 2023

Dear Brittany,

Reference is made to the Traffic Management Plan (TMP) submitted via the Major Projects Planning Portal for Transport for NSW (TfNSW) consideration in accordance with the consent condition 27 of Notice of Determination for SSD-5285 issued 5 April 2016 and as modified by approval issued 21 December 2022.

TfNSW has reviewed the TMP prepared by Iluka P/L, dated January 2023, for the management of traffic associated with the construction activities only at the Balranald west mine. While the content in the plan is generally acceptable, TfNSW provides the following comments:

- The Traffic Management Plan is to be amended to include a requirement for the operator to check the Live Traffic website to identify any roadwork sites that may impact their journey and contact on-site representative or the Customer & Network Operations Coordinator for the South (cnc.south@transport.nsw.gov.au) prior to OSOM movement.
- The Traffic Management Plan, Figure 6 refers to the approved transport routes for construction and highlights Burke Wills Road as a route for infrequent /temporary construction access during the early stages of construction prior to the establishment of the West Balranald access road. Figure 14 (Construction Access Routes) of the current development consent does not highlight this route. Council should be satisfied with the proposed temporary route.
- Safety around school buses is important and should be appropriately addressed. Appendix C of the Traffic Management Plan (Road Transport Protocol) should be updated to clarify if construction traffic peaks and school bus schedules overlap. Opportunities to avoid overlapping schedules for heavy vehicle transport during the scheduled school bus periods could be considered.
- The Traffic Management Plan needs to be updated to include Appendix A (Record of Consultation) as this is currently missing from the document.
- The Traffic Management Plan is required to be amended to include a commitment to providing a weekly movement / delivery schedule via email to be sent to CNC.South@transport.nsw.gov.au and development.western@transport.nsw.gov.au

Transport for NSW

Please note that TfNSW has not considered the following document:

- Workforce Accommodation Plan – TfNSW notes that the document has not been provided for review however acknowledges that Council is the relevant local authority to assess matters affecting local accommodation and employment impacts as per Condition 10 of the development consent.

If you wish to discuss this matter further, please contact Hayley Sarvanandan on ph. 02 9983 2372.

Yours faithfully,

Alexandra Power
Team Leader Development Services (Renewable Resources)
West Region | Community and Place
Regional and Outer Metropolitan

cc. Brendan Isaacs via E. brendan.isaacs@iluka.com

Appendix B- Transport & Traffic Risk Assessment

				Residual risk		
Aspect	**Applicable project phase**	**Risk definition**	**Management measures/controls**	**L'hood**	**Cons**	**Rating**
Transport	Construction	Transport accident causing serious injury or death.	-All drivers to be appropriately licenced, trained and competent to operate the vehicle or equipment being used. -Drivers to adhere to the Road Transport Protocol (Speed limits, fatigue, drug & alcohol policy, vehicle maintenance, emergency response load limits and restraints)	Rare	Major	Medium
Transport	Construction	Transport vehicle not using approved route.	-All drivers inducted and aware of TMP requirements including the approved transport routes to be used.	Rare	Minor	Low
Transport	Construction	Oversize vehicle using incorrect route.	-Oversize loads to be communicated appropriately and via the approved oversize route as specified in the TMP.	Unlikely	Minor	Medium

				Residual risk		
Aspect	**Applicable project phase**	**Risk definition**	**Management measures/controls**	**L'hood**	**Cons**	**Rating**
Transport	Construction	Transport vehicles causing road hazards from loose material or dust on public roads.	-Trucks to dust off prior to entering the sealed public road network. -Drivers to adhere to Road Transport Protocol. -Road maintenance program for unsealed roads. -Dust suppression on unsealed roads during adverse weather conditions (hot & dry). -Road inspection program to identify road hazards. -Road upgrades completed to satisfaction of roads authorities. -Covered loads where potential for material to generate dust.	Unlikely	Negligible	Low
Transport	Construction	Transport vehicle spills load onto public road.	-Drivers to adhere to Road Transport Protocol (Emergency response). -Emergency response to be initiated and clean up in consultation with applicable authorities.	Unlikely	Negligible	Low

				Residual risk		
Aspect	**Applicable project phase**	**Risk definition**	**Management measures/controls**	**L'hood**	**Cons**	**Rating**
Transport	Construction	Transport vehicles impact threatened fauna (Mallee fowl)	-Induction to include awareness of Mallee fowl in the area. -Drivers to adhere to Road Transport Protocol (Speed limits, approved routes) -Mallee fowl warning signs on roads where intersecting Mallee fowl habitat. -Comply with approved Biodiversity Management Plan requirements.	Rare	Moderate	Low
Traffic	Construction	Local traffic adversely impacted through road and intersection upgrades.	-Notification of road works to be communicated to the local community prior to commencement of works. -Effective traffic control measures put in place during road works to minimise disruption to local road network (Signage, detours, traffic controllers)	Almost certain	Negligible	Medium
Community	Construction	Community complaint related to noise emissions from project related traffic.	-Adherence to approved Noise Management Plan including monitoring at sensitive receptors. -Apply contingency measures if Noise criteria is exceeded at receptor locations. -Respond to community complaints in accordance with approved EMS and Social Management Plan.	Possible	Negligible	Low

				Residual risk		
Aspect	**Applicable project phase**	**Risk definition**	**Management measures/controls**	**L'hood**	**Cons**	**Rating**
Community	Construction	Community complaint related to air emissions from project related traffic.	-Adherence to approved Air Quality Management Plan including monitoring at sensitive receptors. -Apply contingency measures if Air criteria is exceeded at receptor locations. -Respond to community complaints in accordance with approved EMS and Social Management Plan.	Possible	Negligible	Low
Community	Construction	Public infrastructure damaged or impacted by project related activities.	-Road upgrades plans approved by roads authority prior to works commencing. -Road upgrade works completed to satisfaction of roads authority. -Iluka to compensate Council for any public infrastructure damaged or relocation as required by Development Consent Schedule 2 Condition 15.	Unlikely	Negligible	Low

Appendix C- Road Transport Protocol

1. Road Transport Protocol

The Road Transport Protocol for the Balranald Mineral Sand Project has been prepared to provide drivers and operators with the required information for them to operate within the conditions of Iluka's project approvals and to address Schedule 3, Condition 27 (v) of Development Consent (SSD-5285) where relevant to the construction phase the project.

1.1. Designated haulage routes

In accordance with Schedule 3, Condition 26 of Development Consent (SSD-5285), project related traffic are not to use local roads to access or egress the Balranald site other than those roads that form part of the designated access routes, except:

(a) in an emergency to avoid loss of life, property and/or to prevent environmental harm;

(b) infrequent use of the roads for consultation, environmental monitoring and/or inspection and maintenance of nearby infrastructure;

(c) for any employees or contractors that may reside on a local road that does not form part of the haulage route; or

(d) infrequent and temporary use during construction of the development, where this use has been approved as part of the traffic management plan.

The designated haulage routes during the construction phase of the project are listed below and shown in Figure 1.

- Balranald-Ivanhoe Road (MR67);
- Sturt Highway (A20);
- Balranald-Tooleybuc Road (MR694);
- Murray Valley Highway;
- Robinvale-Sea Lake Road;
- Burke and Wills Road;
- Piper Street, Balranald;
- Moa Street between O'Conner Street West and Balranald-Ivanhoe Road, Balranald;
- O'Connor Street West, Balranald; and
- McCabe Street, Balranald

1.2. Oversize and/or overmass vehicles

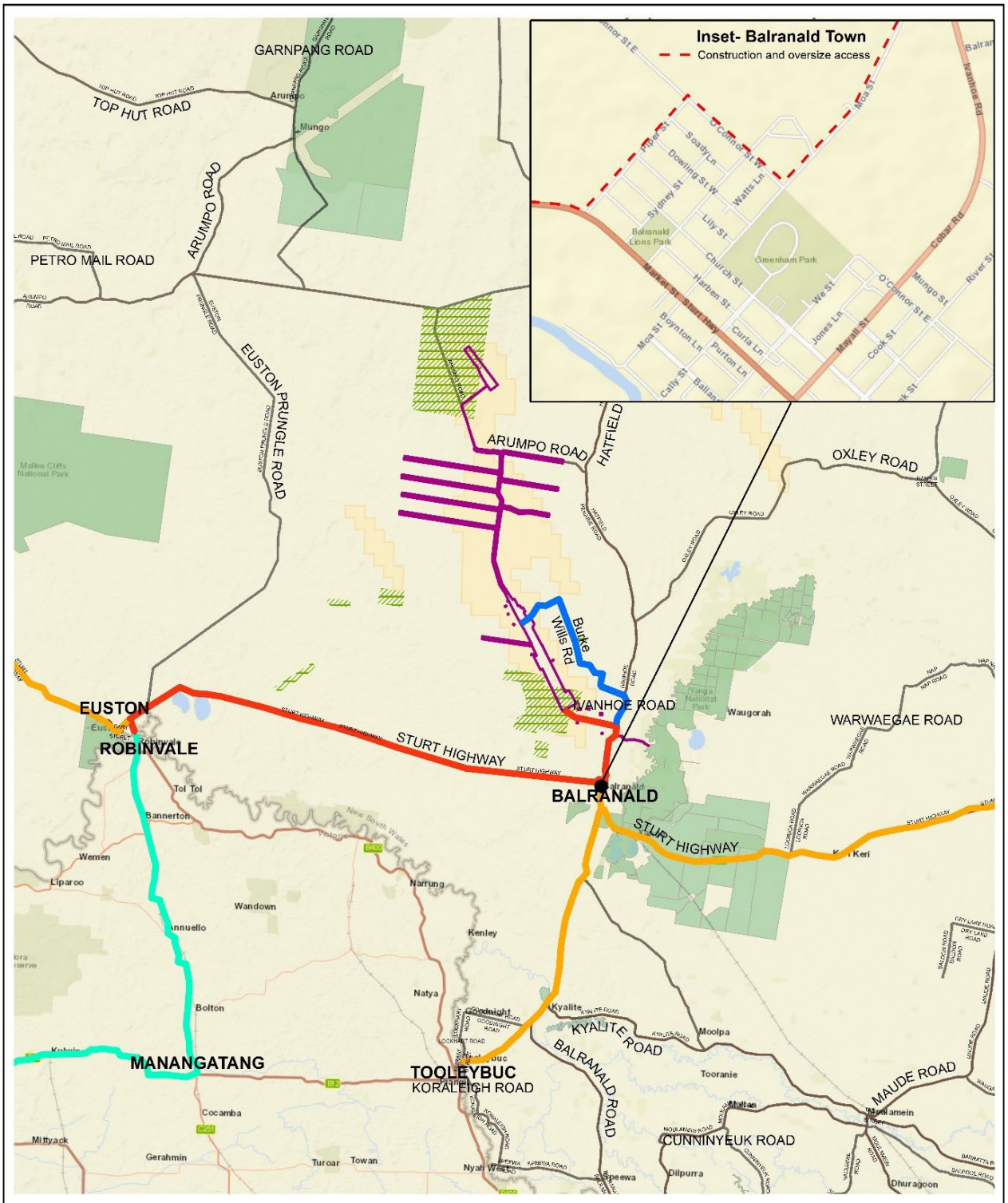
Oversize and/or overmass (OSOM) vehicles will be used to move large plant and equipment to the Balranald Project. The oversize route has been determined by the constraints of the existing road network, including road width and weight restrictions of bridges across the Murray River from Victoria to NSW.

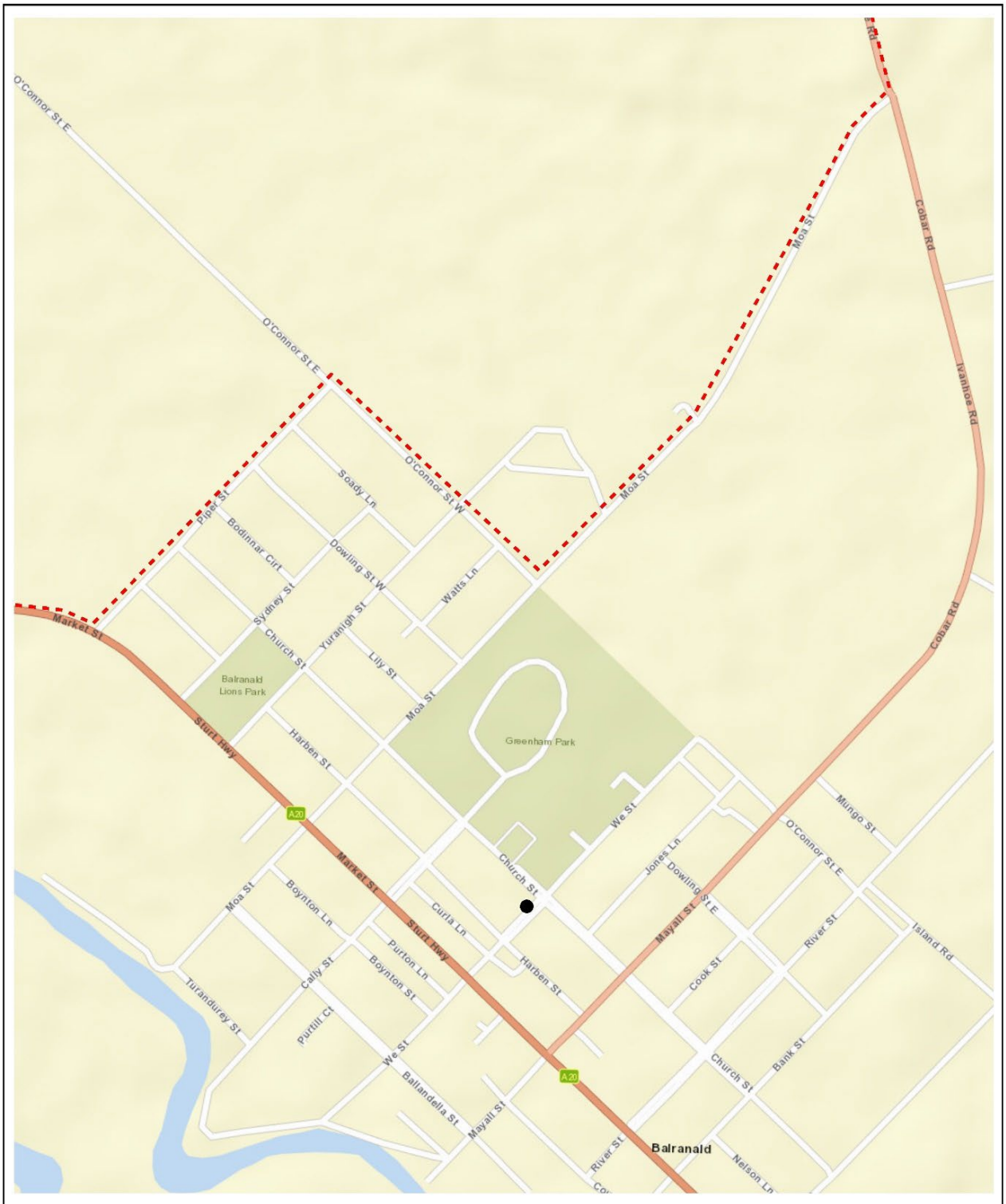
OSOM vehicles will enter NSW from Robinvale, Victoria, must access the Balranald Project using the following roads listed below and shown in Figures 1 and 2 only with NHVR permit approval.

- Sturt Highway from Robinvale/Euston;
- Piper Street;
- O'Connor Street West;
- Moa Street; and

OSOM vehicles must operate in accordance with National and State law including the *National Transport Commission (Road Transport Legislation — Oversize and Overmass Vehicles Regulations) Regulations 2006.* OSOM vehicles must obtain NHVR approved permit.

Operators are required to check the Live Traffic website (Live Traffic NSW) to identify any roadwork sites that may impact their journey and contact the on-site representative or the Customer & Network Operations Coordinator for the South (mcnc.south@transport.nsw.gov.au) prior to OSOM movement.


Inset- Balranald Town
Construction and oversize access
GARNPANG ROAD
TOP HUT ROAD
ARUMPO ROAD
PETRO MAIL ROAD
EUSTON PRUNGLE ROAD
ARUMPO ROAD
HATFIELD
OXLEY ROAD
Burke
Wills Rd
IVANHOE ROAD
EUSTON
ROBINVALE
STURT HIGHWAY
BALRANALD
WARWAEGAE ROAD
STURT HIGHWAY
MANANGATANG
TOOLEYBUC
KORALEIGH ROAD
KYALITE ROAD
BALRANALD ROAD
MAUDE ROAD
CUNNINYEUK ROAD
Legend
Infrequent/temporary construction access
Construction access
Construction and oversize access
Oversize vehcile access (Victoria)
Approved Project Area (SSD-5285)
Exploration Licence (EL7450)
NPWS reserve
Southern Mallee Conservation Area
BALRANALD MINERAL SANDS PROJECT
CONSTRUCTION TRANSPORT ROUTES
0
Kilometers
40
N
GDA 1994 MGA Zone 54
ILUKA
SCALE (A4): 1:750,000 DATE: 9/11/2022
FIGURE 1



Legend

Oversize vehicle transport route

BALRANALD MINERAL SANDS PROJECT
OVERSIZE VEHCILE TRANSPORT ROUTE

0 Kilometers 0.5

N

GDA 1994 MGA Zone 54

ILUKA

SCALE (A4): 1:10,000 DATE: 9/11/2022

FIGURE 2

1.3. Covered haulage vehicles

All loads must be covered when there is potential for loads to generate dust or spill material onto public roads.

1.4. Staggering of heavy vehicle departures

Construction activities will be carried out up to 24 hours a day, seven days a week, however, will generally be conducted between 7:00 am and 7:00 pm. Vehicle trips will be spread evenly to minimise impacts on the road network.

1.5. Avoidance of school bus disruptions

A school bus service operates along the Balranald-Ivanhoe Road which forms part of the approved transport route for the project. The bus transports those students living in rural areas to the north of Balranald, there are no formal bus stops as the bus makes stops at the driveways of properties along the Balranald-Ivanhoe Road where required to pick up and drop off students. A map of pickup and drop off locations along the transport route is shown in Figure 3.

This Balranald school bus service is operated by Dyson's Group, they can be contacted by phone on 0406 616 358 or email deniliquin@dysongroup.com.au. All buses are fitted with UHF radios and operate on **UHF channel 3**.

Another bus service run by Moores Bus Lines operates between Balranald and Swan Hill via Yanga Way and between Balranald and Euston via the Sturt Hwy.

This bus services is operated by Moore's Bus Lines of 36 Court Street Balranald, they can be contacted by phone on (03) 5020 1447 or email mooresbuses@outlook.com. All buses are fitted with UHF radios and operate on **UHF channel 1**.

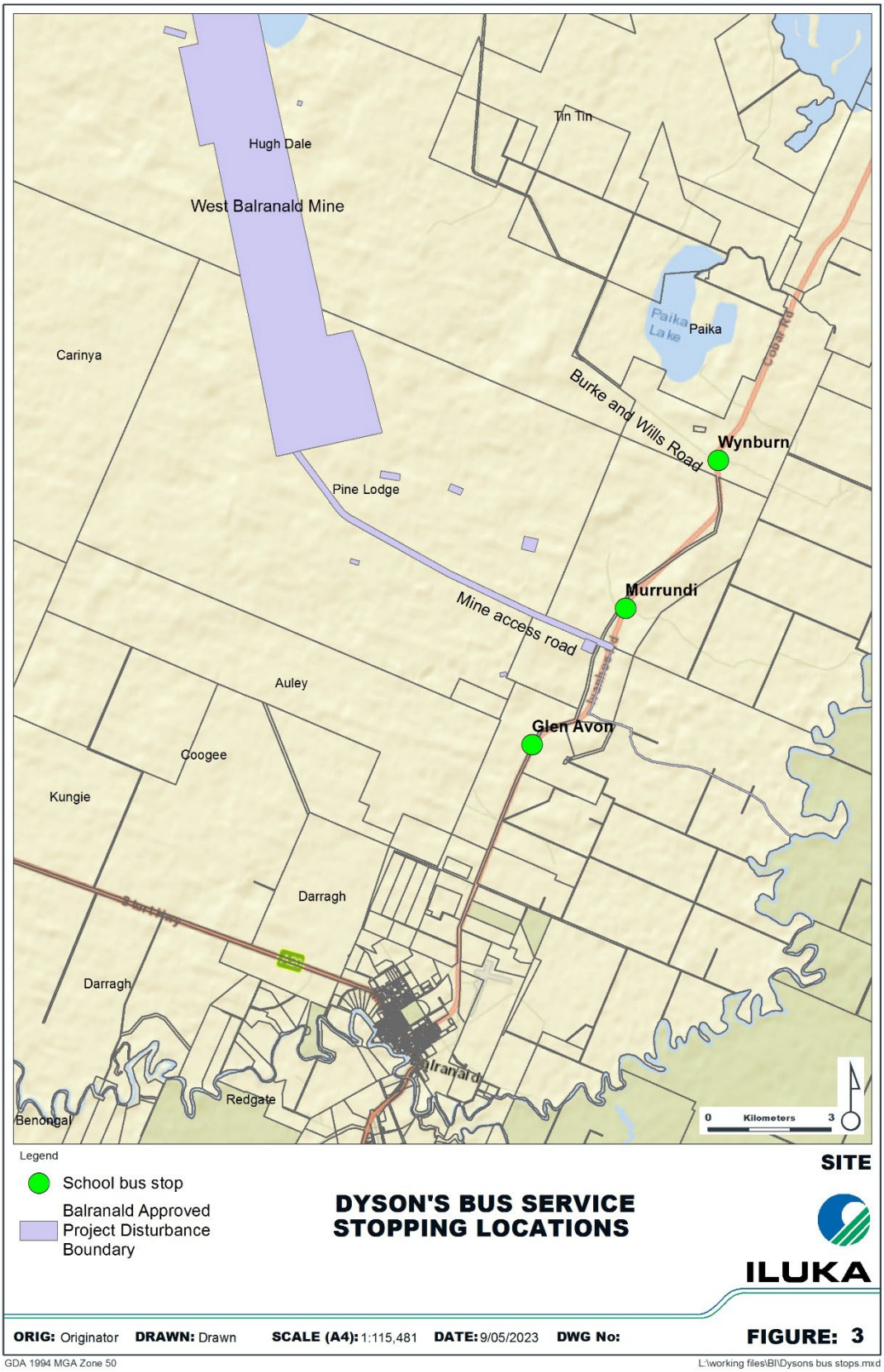
Transport operators will be made aware of the school bus service schedules, pickup and drop off points and UHF channels during site inductions and should ensure positive communication is maintained with bus operators via UHF radio at all times. The Balranald school bus service timetable is shown in Table 1.

If construction traffic peaks and school bus schedules overlap then Iluka, in consultation with transport operators, will make attempts to avoid heavy vehicle transport for construction during the scheduled school bus periods where possible. Avoiding school bus schedules may include scheduling deliveries outside school bus hours and staggering transport delivery departure times where possible to minimise impacts to school bus schedules.

Table 1- Balranald school bus service timetable

Balranald school bus service timetable					
Bus Operator	**Operating Days**	**Departure Time (Balranald town)**	**Route**	**Arrival Time (Balranald town)**	**UHF Channel**
Dyson's	School days	6:55am	Balranald-Ivanhoe Road (MR67)	8:30am	3
Dyson's	School days	3:00pm	Balranald-Ivanhoe Road (MR67)	4:15pm	3

Schedule of school bus stops along transport route		
Location	**Time (AM)**	**Time (PM)**
Wynburn	8:05	3:20
Murrundi	8:10	3:15
Glen Avon	8:15	3:10


Hugh Dale
West Balranald Mine
Tin Tin
Paika Lake
Paika
Carinya
Burke and Wills Road
Wynburn
Pine Lodge
Murrundi
Mine access road
Auley
Glen Avon
Coogee
Kungie
Darragh
Darragh
Balranald
Redgate
Benongal
0 Kilometers 3
Legend
School bus stop
Balranald Approved Project Disturbance Boundary
SITE
DYSON'S BUS SERVICE STOPPING LOCATIONS
ILUKA
ORIG: Originator DRAWN: Drawn SCALE (A4): 1:115,481 DATE: 9/05/2023 DWG No:
FIGURE: 3
GDA 1994 MGA Zone 50
L:\working files\BI\Dysons bus stops.mxd

1.6. Road closures

No roads are to be used that have been closed by the relevant roads authority as displayed on road signs or road condition reports published on the Balranald Shire Council website.
https://balranald.nsw.gov.au/infrastructure/roads-condition-report/

Operators are required to check the Live Traffic website (Live Traffic NSW) to identify any roadwork sites or road closures that may impact their journey.

When roads are closed by Council, it is an offence to travel on those roads and disregard for road closures may lead to penalties under Section 115 of the NSW Roads Act 1993.

Iluka will monitor both public and private road conditions and notify employees and contractors of any expected road closures by either the roads authority in the case of a public road or Iluka in the case of the private mine access roads.

During times when rain events or dust storms are occurring it would be prudent to contact the Iluka contract manager or representative for an update on road conditions before departure as access to the site may be refused.

In the event of road closures, construction traffic and deliveries may need to be re-scheduled when road conditions improve and roads re-open.

1.7. Fatigue management and Chain of Responsibility

Drivers and operators shall identify the issue of Fatigue Management within their EH&S Plan and must subsequently address how they will address the following issues:

- work hours – normal and maximum;
- shift and roster arrangements;
- fatigue prevention strategies; and
- identification and management of fatigue impaired persons.

The Contracting Company has a responsibility to ensure its employees have rested adequately before commencing a shift on the Project. This includes resting prior to mobilisation and on specified rest days.

The consecutive days worked on a non-Iluka Project by the individual shall be taken into account and added to their consecutive total days worked. If the total of **13 consecutive days** has been reached a full working day's rest is required.

All parties in the Chain of Responsibility (CoR) must take all reasonable steps to manage the risks of driver fatigue. Section 26A of the *Heavy Vehicle National Law (NSW) No 42a of 2013* outlines the principals of the CoR.

26A Principle of shared responsibility

(1) The safety of transport activities relating to a heavy vehicle is the shared responsibility of each party in the chain of responsibility for the vehicle.

(2) The level and nature of a party's responsibility for a transport activity depends on—

(a) the functions the person performs or is required to perform, whether exclusively or occasionally, rather than—

(i) the person's job title; or

(ii) the person's functions described in a written contract; and

(b) the nature of the public risk created by the carrying out of the transport activity; and

(c) the party's capacity to control, eliminate or minimise the risk.

When am I a party in the CoR?

You are a party in the CoR when you perform any of the following 10 functions:

1. employ a heavy vehicle driver (employer)
2. engage someone to drive a heavy vehicle under a contract for services (prime contractor)
3. direct the control and use of a heavy vehicle (operator)
4. schedule the transport of goods and passengers in a heavy vehicle, or schedule a driver's work and rest hours (scheduler)
5. consign goods for transport by a heavy vehicle (consignor)
6. receive goods delivered by a heavy vehicle (consignee)
7. pack or assemble goods for transport in a heavy vehicle (packer)
8. manage premises where five or more heavy vehicles are loaded or unloaded each day (loading manager)
9. load a heavy vehicle (loader)
10. unload a heavy vehicle (unloader)

You are a CoR party because of a function you perform, not because of a title or job description, or the words of a contract. If you engage in any of the above activities, you or your business are accountable for heavy vehicle safety according to your primary duty.

More than half the CoR functions relate to people and businesses that do not own or operate a heavy vehicle. A good rule of thumb is that when your business sends or receives goods via a heavy vehicle, it's a party in the CoR.

1.8. Code of conduct for drivers

All drivers of light and/or heavy vehicles that have been engaged by Iluka for transport movements associated with the construction phase of the Project must adhere to the following Code of Conduct for Drivers while travelling on the public road network and Iluka private access roads:

- Obey all the laws and regulations that apply to vehicles on public and private roads, including posted speed limits;
- Respect the rights of others, including drivers and pedestrians, to use and share the road space;

- Maintain a safe following distance between vehicles;
- Keep the vehicle clean and in good mechanical condition to reduce environmental impacts;
- Follow the designated access routes for the Project;
- Abide by all New South Wales (NSW) / interstate road rules and vehicle regulations;
- Display a high level of courtesy, such as:
    - Pulling over to the side of the road (if safe to do so) to let built-up traffic pass; and
    - Allowing sufficient space for passing vehicles along the approved access routes (i.e. not straddling centre lines).
- Turn off flashing/rotating beacons when on public roads, with the exception of vehicles used for road works; and
- Only enter and exit public roads in a forward direction.

The code of conduct based on the guidelines as indicated above forms part of the transport contractual arrangements entered into by Iluka. Iluka will carry out necessary measures to inform transport contractors, as well as audit for compliance to this code of conduct. This may be via various information forums such as driver inductions, training and toolbox talks.

1.9. Adherence to Iluka's fitness for work policy

The nature of our work means that alcohol and drugs are treated very seriously at Iluka. You must be free from the influence of alcohol and drugs as this is critical to everyone's safety.

Iluka conducts testing for alcohol and drugs. You must have a **0.00** breath alcohol limit at all times at all sites. You must also be free from any illegal drug. Any legal drugs known to impair alertness or function must be used safely in accordance with doctor's advice and there may be a requirement to report what you are taking.

Iluka does not allow possession or use of alcohol or illegal drugs at any site. The only time alcohol use is allowed is when approved by the Operations Manager (or equivalent) such as for a company event, or at camp facilities where alcohol is served. Even in those circumstances alcohol must be used responsibly, and the consumption of alcohol will not be an excuse for inappropriate behaviour.

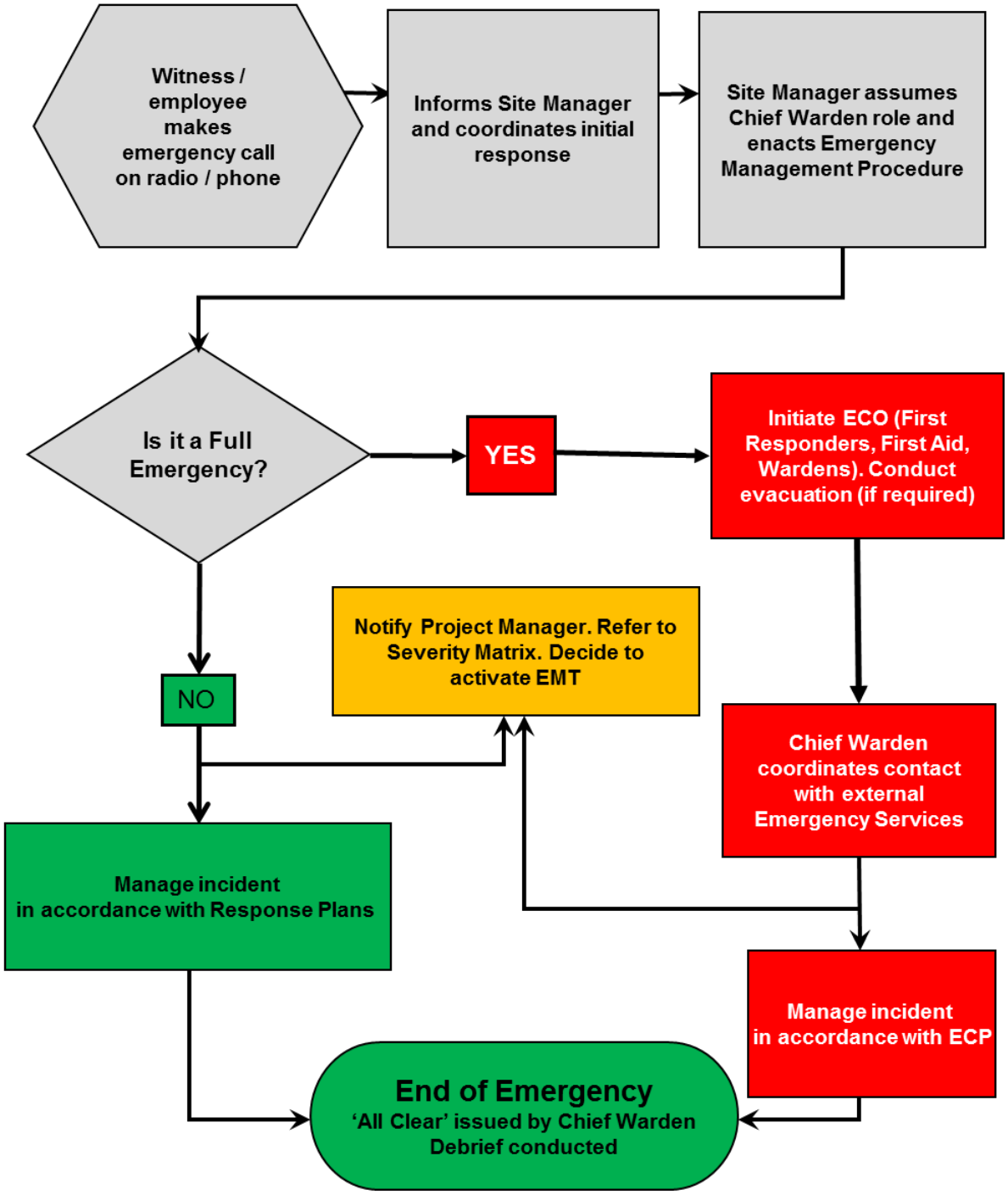
1.10. Vehicle maintenance and safety

All vehicles used for the Project will be subject to regular maintenance and compliance with all relative safety guidelines, and meet the minimum safety requirements outlined in Iluka's Pre-operational Inspections for light vehicles, heavy vehicles and mobile plant.

1.11. Emergency response plan

Emergency response for the Balranald Project will be carried out in accordance with the Balranald Project Emergency Control and Response Plan (See emergency response flowchart). Emergency response is covered in the Iluka site induction for all employees and contractors.

Emergency response flowchart



1.12. Enforcement of the Road Transport Protocol

Compliance with all approvals, plans and procedures will be the responsibility of all personnel (staff and contractors) employed on or in association with the construction phase of the Project.

The Iluka responsible person or process owner for the area will be responsible for undertaking regular inspections, internal audits and initiate directions identifying any remediation/rectification work required, and areas of actual or potential non-compliance.

Iluka will notify the Secretary of the DPE and any other relevant agencies of any material incident associated with the Project as soon as practicable after Iluka becomes aware of the material incident. Within seven days of the date of the incident, Iluka will provide the Secretary of the DPE and any relevant agencies with a detailed report on the incident.

A review of Iluka's compliance with all conditions of the Development Consent, mining leases and all other approvals and licences will be conducted prior to (and included within) each Annual Review. The Annual Review will be made publicly available on the Iluka website.