



ILUKA

BALRANALD MINERAL SANDS PROJECT

Pollution Incident Response Management Plan

May 2024

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DOCUMENT REVISION HISTORY			
Date	Version	Description	Author
27/6/2023	1	Development of PIRMP for project execution phase	B.Isaacs
27/5/2024	2	Update contact details, roles, flowchart and inventory of pollutants.	B.Isaacs

Table of Contents

1	Purpose of the Pollution incident response management plan	3
2	Environment Protection Licence (EPL) details	4
3	Pollution incident – person/s responsible.....	5
4	Notification of relevant authorities.....	5
5	Notification of neighbours and the local community	6
6	Description and likelihood of hazards.....	6
7	Pre-emptive actions to be taken	8
8	Inventory of pollutants.....	8
9	Safety equipment	10
10	Communicating with neighbours and the local community	10
11	Minimising harm to persons on the premises	11
12	Site maps.....	11
13	Actions to be taken during or immediately after a pollution incident.....	14
13.1	Detection of a pollution incident.....	14
13.2	Responding to a pollution incident.....	14
13.3	Post a pollution incident.....	14
14	Coordinating with persons.....	17
14.1	Crisis management team (CMT)	17
14.2	Site incident response team (SIRT).....	17
14.3	Emergency services	17
14.4	Emergency management team (EMT).....	17
14.5	Internal emergency services.....	17
14.6	Site incident response team (SIRT) responsibilities.....	18
14.6.1	First responders	18
14.6.2	Site Incident Response Team (SIRT) Leader	18
15	Staff training.....	19
16	Testing and updating of the PIRMP.....	19

Table of figures

Figure 1-	Regional site plan and EPA licence area.....	12
Figure 2-	Site layout and potential location of pollutants.....	13

1 Purpose of the Pollution incident response management plan

Licence number: 20795

Approved by: Philip Lazzari

Signature: 
Philip Lazzari (Jun 5, 2024 15:49 GMT+8)

Position/Title: Project Manager

Date:

Iluka Resources Limited holds an Environment Protection Licence with the NSW Environment Protection Authority (EPA) for the Balranald Mineral Sands Mine. As per the *Protection of the Environment Operations Act 1997* (the POEO Act), the holder of an Environment Protection Licence must prepare, keep, test and implement a pollution incident response management plan (PIRMP) that complies with Part 5.7A of the POEO Act in relation to the activity to which the licence relates.

If a pollution incident occurs in the course of an activity so that material harm to the environment (within the meaning of section 147 of the POEO Act) is caused or threatened, the person carrying out the activity must **immediately** implement this plan in relation to the activity required by Part 5.7A of the POEO Act.

A copy of this plan must be kept at the licensed premises, or where the activity takes place in the case of mobile plant licences, and be made available on request by an authorised EPA officer and to any person who is responsible for implementing this plan.

Parts of the plan must also be available either on a publicly accessible website, or if there is no such website, by providing a copy of the plan to any person who makes a written request. The sections of the plan that are required to be publicly available are set out in section 74 of the *Protection of the Environment Operations (General) Regulation 2022*.

Note: This plan must be developed in accordance with the *Protection of the Environment Operations Act 1997* and the *Protection of the Environment Operations (General) Regulation 2022*. Licensees should also refer to the EPA's Guideline: Pollution incident response management plans.

2 Environment Protection Licence (EPL) details

Name of licensee: Iluka Resources Limited
ACN: 008675018

EPL number: 20795

Premises name and address: Balranald Mineral Sands Mine
Karra Station
Balranald NSW 2715

Company or business contact details **Name:** Brendan Isaacs
Position or title: Environmental Rehabilitation & Community Relations Superintendent
Business hours contact number/s: 0455 470 233
After hours contact number/s: 0455 470 233
Email: brendan.isaacs@iluka.com

Website address: [Http://www.iluka.com](http://www.iluka.com)

Scheduled activity/activities on EPL: Mineral processing
Mining for minerals
Road construction

Fee-based activity/activities on EPL: Mineral processing >500,000-2,000,000 T annual processing capacity.

Mining for minerals >500,000-2,000,000 T annual production capacity.

Road construction (>= 50,000T & road to be constructed >10km & <30km) >500000-2000000 Remaining extraction or processing.

3 Pollution incident – person/s responsible

PIRMP activation

Name of person responsible: John Edmunds
Position or title: Site Manager
Business hours contact number/s: 0418 885 327
After hours contact number/s: 0418 885 327
Email: john.edmunds@iluka.com

Name of alternative person responsible: Tony Peterson
Position or title: Site Supervisor
Business hours contact number/s: 0457 579 060
After hours contact number/s: 0457 579 060
Email: tony.peterson@iluka.com

Notifying relevant authorities

Name of person responsible: Brendan Isaacs
Position or title: Environmental Rehabilitation & Community Relations (ERCR) Superintendent
Business hours contact number/s: 0455 470 233
After hours contact number/s: 0455 470 233
Email: brendan.isaacs@iluka.com

Managing response to pollution incident

Name of person responsible: Chris Brown
Position or title: Construction Manager (EPCM)
Business hours contact number/s: 0414 636 652
After hours contact number/s: 0414 636 652
Email: Chris.D.Brown@worley.com

Name of alternative person responsible: Rodney Boyd
Position or title: Deputy Construction Manager
Business hours contact number/s: 0415 577 214
After hours contact number/s: 0415 577 214
Email: Rodney.Boyd@worley.com

4 Notification of relevant authorities

Fire and Rescue NSW / Rural Fire Service	Contact number/s:	03 5020 1577 000 (Emergency)
NSW EPA	Contact number/s:	131 555
NSW/VIC Health	Relevant Area Health Service:	Balranald NSW Multi-Purpose Health Service
	Contact number/s:	03 5071 9800
	Relevant Area Health Service:	Swan Hill District Hospital

	Contact number/s:	03 5033 9300 000 (Emergency)
	Relevant Area Health Service:	Mildura Base Hospital
	Contact number/s:	03 5022 3333 000 (Emergency)
SafeWork NSW	Contact number/s:	131 050
Balranald Shire Council	Contact number/s:	03 5020 1300
NSW Resources Regulator	Contact number/s:	1300 814 609
NSW Department of Planning & Environment	Contact number/s:	1300 420 596

5 Notification of neighbours and the local community

In the event of an incident of actual or potential material harm the community will be notified by the following procedures:

- Information provided to the community will include the following details specific to the incident:
 - The type of incident that has occurred;
 - Potential impacts to the community;
 - Contact details for the site and relevant authorities; and
 - Advice or recommendations based on the incident.

Neighbouring properties near or on the activity site are private landholders primarily used for cropping and livestock. The Landholder contact details are maintained by the Senior Community Relations Advisor- Land & Stakeholder Management. All required landholder communications are through this position.

A local muster point is detailed on the site evacuation plan. The muster point on site is shown on Figure 2 and is signed posted and site personnel shall be made aware of the location during the site induction.

6 Description and likelihood of hazards

Iluka has undertaken risk assessment workshops to identify the risks for construction, mining operations, processes and rehabilitation and closure associated with the activity (including any risks during care and maintenance periods).

The risk assessments have been undertaken using Iluka's PRC6806: *Risk Assessment Procedure*, which is generally in accordance with the requirements of the AS/NZS ISO 3100:2009 *Risk Management - Principles and Guidelines*.

The potential environmental hazards identified for the activity site include:

- Naturally occurring radioactive material (NORM) from HMC stockpiles;
- Process water dam / fines dam release of saline water or sediments;
- Saline water leaks from bores and piping to soil;
- Acid Mine Drainage (AMD) generated from HMC and tails stockpiles
- Further subsidence above underground mined cavities resulting in loss of topsoil and erosion;
- Hydrocarbon spills from fixed or mobile storage tanks; and
- Raw sewage spills from treatment plants or storage tanks.

Risk Matrix

	Consequence				
	1 Negligible	2 Minor	3 Moderate	4 Significant	5 Major
5 Almost certain	Medium	High	Very High	Extreme	Extreme
4 Likely	Medium	High	High	Very High	Extreme
3 Possible	Low	Medium	High	High	Very High
2 Unlikely	Low	Medium	Medium	High	High
1 Rare	Low	Low	Low	Medium	Medium

Risk Assessment

Potential impact	Likelihood	Consequence	Risk Ranking
NORM			
Windblown movement of naturally occurring radioactive material (NORM) to sensitive areas.	2 (Unlikely)	2 (Minor)	(Medium)
Saline water/sedimentation			
Process water dam/fine tails dam leak or failure and release offsite.	2 (Unlikely)	2 (Minor)	(Medium)
Leaks from bores or pipes resulting in release of saline water to undisturbed ground or offsite.	3 (Possible)	2 (Minor)	(Medium)
AMD			
Acid generation from HMC or tails stockpiles	2 (Unlikely)	2 (Minor)	(Medium)
Subsidence			
Further subsidence above underground mined cavities resulting in loss of topsoil	2 (Unlikely)	3 (Moderate)	(Medium)

and erosion.

Hydrocarbons

Spill of hydrocarbons to soil from SME or storage tanks.	3 (Possible)	2 (Minor)	(Medium)
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Raw sewage

Release of raw sewage from sewage treatment plant or sewage storage tank.	3 (Possible)	2 (Minor)	(Medium)
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7 Pre-emptive actions to be taken

Iluka has developed and implemented the following pre-emptive actions and procedures for potential emergency and pollution incidents at the site:

- Monthly site inspections to ensure site infrastructure and stockpiles are maintained in a safe and stable condition.
- Provision of adequate safety and pollution control equipment onsite including spill kits, access to a water and firefighting equipment.
- Established clear evacuation routes, assembly points and procedures.
- Personal protective equipment (PPE) required for all personnel and visitors on the site.
- Pre-mobilisation inspection of plant and equipment prior to accessing site.
- Dangerous goods review in accordance with SafeWork NSW requirements.

8 Inventory of pollutants

Location/tank	Max. quantity	Contents	Comments
HMC Stockpile	3,000m ³	Naturally Occurring Radioactive Material (NORM) Metal sulphides	Potential for release of airborne particulates and transport of material into sensitive areas Oxidation of metal sulphides may lead to Acid Mine Drainage (AMD)
Tailings Stockpile	16,000m ³	Metal sulphides	Oxidation of metal sulphides may lead to Acid Mine Drainage (AMD)
Fines dams (x2)	3,000m ³ each	Metal sulphides Hyper saline water	Oxidation of metal sulphides may lead to Acid Mine Drainage (AMD) Potential for release of hyper saline water to surface

Process water dam	11,000m3	Brackish water	Potential for release of brackish water to surface
Diesel bulk storage (T3 office generator)	1,500L	Diesel	Spills from fixed storage tanks.
Diesel bulk storage (T3 communication tower generator)	1,000L	Diesel	Spills from fixed storage tanks.
Diesel bulk storage (B1B bore pump generator)	3,000L	Diesel	Spills from fixed storage tanks.
Diesel bulk storage (Potters site office generator 05)	30L	Diesel	Spills from fixed storage tanks.
Diesel bulk storage (Potters site office generator 01)	100L	Diesel	Spills from fixed storage tanks.
Service truck (Potters FT05)	22,000L 200L	Diesel Grease	Spills from mobile tanks.
Service truck (Potters FT04)	10,000L 200L 200L	Diesel Grease Hydraulic oil	Spills from mobile tanks.
LV fuel pod (Potters PE05)	300L	Diesel	Spills from mobile tanks.
Sewage Treatment Plants (STP)	5,000L	Raw sewage	Release of raw sewage from T3 site STP.

9 Safety equipment

Safety equipment or other devices used to minimise risks to the environment and human health and to contain or control a pollution incident at the site is outlined below.

Safety equipment	Description	Location
Communication systems		
Site access	The access of all individuals to the project site shall be in accordance with the Balranald Project <i>Site Access Procedure</i> (PRC7414). Visitors shall complete a visitor's induction and be accompanied by a fully inducted person at all times while on the project site.	To be completed by all personnel prior to accessing site.
UHF and mobile and telephones	These will permit communications with outside emergency services.	All vehicles
Firefighting equipment		
Fire extinguishers	These are to be used in combating minor fires.	Fire extinguishers of appropriate types and capacities are carried in all vehicles.
Firefighting trailer	1000L capacity mobile fire trailer.	T3 site carpark
First aid equipment		
First aid	First aid kits shall be maintained in all vehicles. Systems shall be in place to periodically check first aid equipment with a record of which must be maintained.	All vehicles and First Aid room at T3 site.
Pollution control equipment		
Spill kit	Spill kit and absorbent matting to be used in the event of a mechanical failure resulting in a hydrocarbon spill.	Hydrocarbon storage areas and service trucks.

10 Communicating with neighbours and the local community

Neighbouring properties near or on the activity site are private landholders primarily used for cropping and livestock. The Landholder contact details are maintained by the Senior Community Relations Advisor- Land & Stakeholder Management. All required landholder communications are through this position. This Advisor will contact neighbouring properties if a credible pollution threat exists to these neighbouring properties.

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.

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.

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

11 Minimising harm to persons on the premises

The following actions and arrangements are in place to minimise the risk of harm to persons on the premises should a pollution incident occur:

- Emergency evacuation procedure;
- Emergency isolation and shutdown systems for all plant machinery;
- Emergency Control and Response Plan;
- Clearly signposted emergency assembly point; and
- Training for staff in the event of an emergency.

12 Site maps

A regional site plan showing the extent covered by the EPA licence is presented on

Figure 1. A detailed site plan showing the general site layout and potential pollutants is presented on Figure 2.

Construction of the processing plant infrastructure, mining infrastructure, camp and haul road commenced in August 2023. These plans will be updated when any new infrastructure is constructed or new pollutant sources are identified.

Figure 1- Regional site plan and EPA licence area

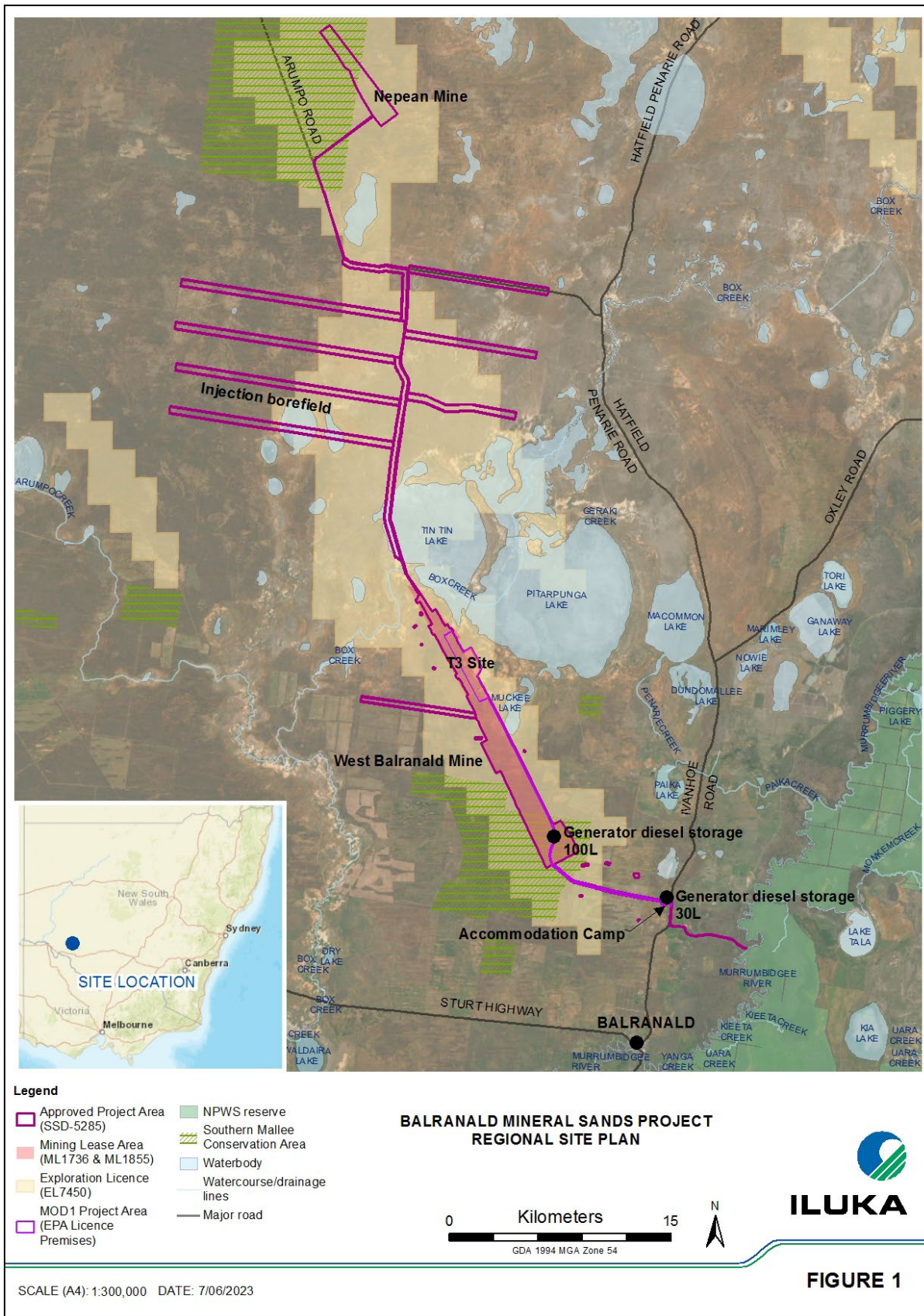
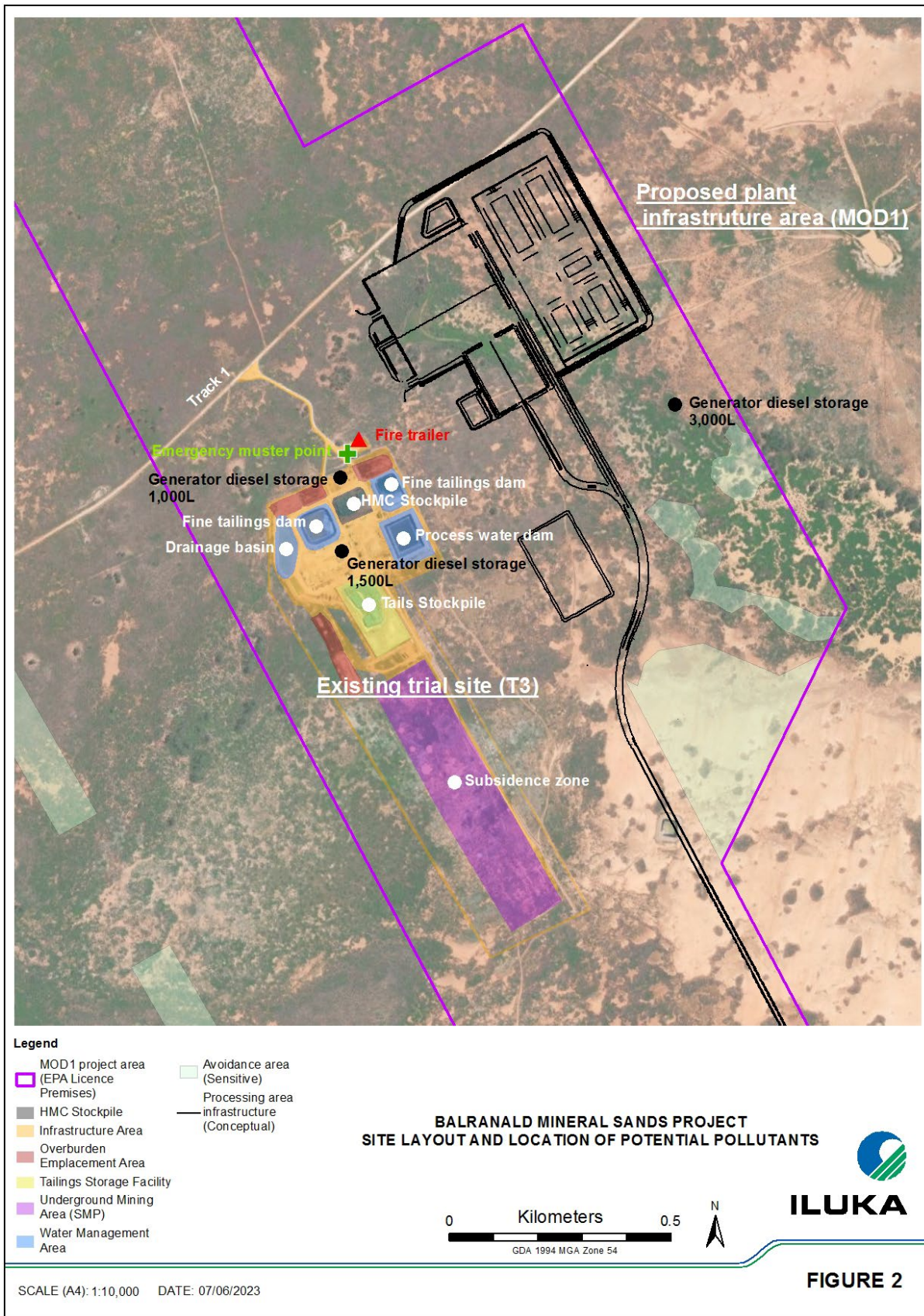


Figure 2- Site layout and potential location of pollutants



13 Actions to be taken during or immediately after a pollution incident

13.1 Detection of a pollution incident

On detection of a pollution incident which may endanger personnel, property or the environment and cannot be immediately controlled by the observer, the observer shall:

- Alert Iluka Site Manager or Supervisor to the location and nature of the pollution incident; and
- Commence appropriate action as detailed in this PIRMP (without compromising their own safety).

13.2 Responding to a pollution incident

All pollution incident responses will be responded to as an emergency alert in accordance with the Balranald Project *HSEC Management Plan* and *Emergency Control and Response Plan*.

When an emergency alert is received, the person receiving the report shall:

- Assume the role and responsibilities of the Site Incident Response Team (SIRT) Leader until relieved or instructed otherwise;
- Alert the EPCM (Worley SIRT Team Leader)
- Alert anyone in the affected area ;
- Proceed to the muster point if safe to do so;
- Ensure the incidents are managed in accordance with the Project Emergency Control and Response Plan;
- Handover control to Emergency Services on arrival and assist as directed.

Iluka's incident response flowchart is shown on Figure 3.

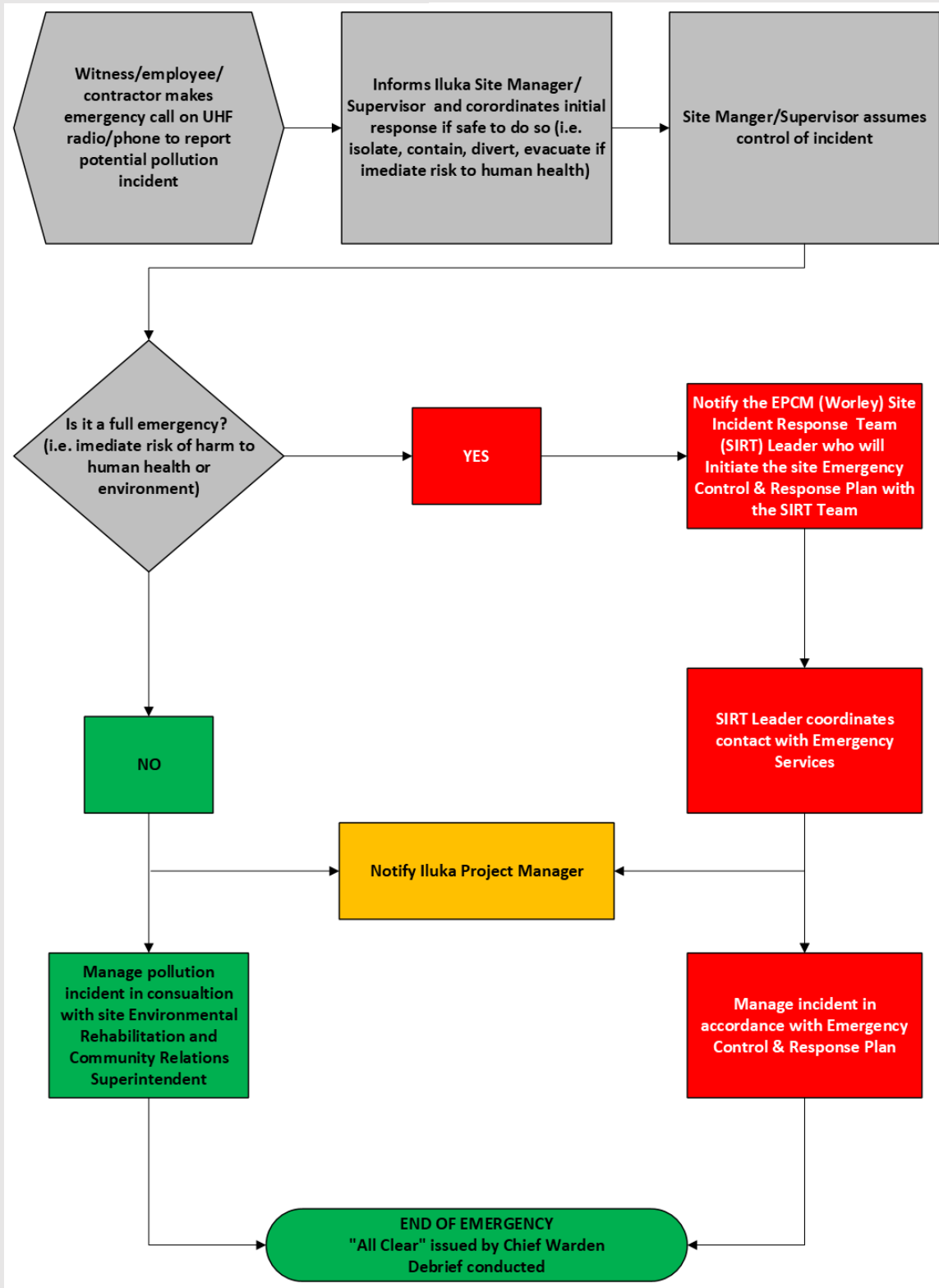
13.3 Post a pollution incident

The following steps will be taken following a pollution incident:

- A debrief is to be held by the site incident response team and others involved with the incident response;
- Identify what went well with the response and what could be improved;
- Ensure the wellbeing of personnel involved in the incident response;
- Clean up plan to be developed in consultation with the Project Manager, Site Supervisor/Manager, ERCR Superintendent and external agencies or consultants as required;
- An incident report is to be logged in the Iluka incident reporting system;

- Any actions for future prevention or remediation are to be logged and tracked until completed; and
- The PIRMP is to be tested and updated (if required) within one month of the incident occurring.

Figure 3- Incident response flowchart



14 Coordinating with persons

14.1 Crisis management team (CMT)

The role of the CMT is to provide support to Iluka's operations in the event of a major incident/issue that has the potential to affect the company's commercial position or shareholder value and to ensure the issues are managed in a way that protects Iluka's business. The CMT manages all corporate wide issues, outcomes and stakeholders to ensure good corporate citizenship and business continuity for Iluka Resources. The CMT is based in Perth, Western Australia.

The CMT will also establish an Emergency Management Team (EMT) and Site Incident Response Team (SIRT) with the authority to implement these emergency procedures.

In accordance with AS 3745-2010, *Planning for Emergencies in Facilities*, the Project Manager and Health & Safety Manager from the Balranald EMT shall be responsible for establishing and maintaining the *HSEC Management Plan* and the appointment of adequately trained SIRT personnel with the authority to override normal management during an emergency.

14.2 Site incident response team (SIRT)

The role of the Balranald SIRT is to be able to respond safely and effectively manage a range of emergency incidents that could reasonably be expected to occur on site. The SIRT is made up of functions including Team Leader, Communications Officer, Wardens and Occupational First Aid trained personnel.

14.3 Emergency services

The Emergency Services (police, fire brigade, ambulance, State Emergency Service) should be contacted immediately by the Chief Warden when an emergency requires external support. In these circumstances, SIRT will act in a support role under the overall command of the Emergency Services Incident Controller. The SIRT Team Leader will be the main contact with the responding Emergency Services Incident Controller.

14.4 Emergency management team (EMT)

The Balranald Emergency Management Team (EMT) are the site-based response team responsible for providing support to the Site Incident Response Team (SIRT), managing wider local response issues (other than the first response) and communicating with the Iluka CMT.

14.5 Internal emergency services

The remaining personnel on site shall constitute the Internal Emergency Services. They shall operate under the direction of the SIRT Team Leader and shall be responsible for performing the following tasks- in accordance to everyone's training, skill, competency and qualification and **ONLY IF SAFE TO DO SO:**

- Provide appropriate emergency services in accordance with the detailed emergency procedures outlined in Iluka's Balranald Project HSEC Mgt Plan and Emergency Control and Response Plan. This may include extinguishing fires, temporary repairs or spill containment as examples.
- Perform search and rescue and administer first aid to any person requiring assistance.

They shall continue to act in this capacity until the 'All Clear' is given or they are relieved by outside emergency services.

14.6 Site incident response team (SIRT) responsibilities

14.6.1 First responders

This role is filled by the first person onsite at the time of the pollution incident. Duties include:

- Being prepared to take on the role and responsibilities of a First Responder;
- Knowing the fire response procedure;
- Wearing the correct Personal Protective Equipment;
- Maintaining competency by participating in First Responder training and exercises;
- being familiar with the site layout, including exits, paths of travel and the location of any site hazards;
- Acting under the direction of the Chief Warden and emergency services;
- Being ready to take control of a designated incident scene (e.g. fire suppression);
- Prevent unauthorised access to nominated areas;
- Control access to nominated areas;
- Providing assistance and safeguard anyone in danger;
- Being able to operate the methods of communication used at the site;
- Referring all media comment to the Balranald Project Manager; and
- Participating in post-incident debriefs.

14.6.2 Site Incident Response Team (SIRT) Leader

Iluka's Engineering, Procurement and Construction Manager (EPCM) Construction Manger or their delegate will fulfil the role of SIRT Leader during a full emergency. As the SIRT Leader, the EPCM Manager shall:

- Pre-Incident:
 - Be fully conversant with the requirements of this PIRMP;
 - Communicate the requirements of the PIRMP to, employees and contractors during pre-shift and toolbox meetings;
 - Ensure there is an adequate number of first respondents available; and
 - Ensure emergency response facilities such as fire response and first aid are available.
- During Incident:

- Ensure the emergency is responded to, commensurate with the skills and qualifications of the workgroup;
 - Ensure the appropriate persons are notified in the event of incident including the Iluka Project Manager, local neighbours and other workgroups working in the area;
 - Contact the required Emergency Services; and
 - Coordinate the incident response in accordance with the Site Emergency Response Plan.
- Post Incident:
 - Ensure a debrief if conducted and recorded.

15 Staff training

Iluka will hold personnel training to enable implementation and testing of this PIRMP. The objectives of the staff training will ensure:

- That staff have an adequate understanding of incident management and emergency procedures to enable effective implementation of this PIRMP;
- All staff are aware of their responsibilities in the event of a pollution incident; and
- All personnel have a full knowledge and understanding of instructions relating to relevant emergency and pollution incidents with reference to those covering firefighting, and procedures for dealing with spillage.

16 Testing and updating of the PIRMP

It is a legal requirement to test the plan every 12 months and within one month of any pollution incident that caused or threatened material harm to the environment.

PIRMP testing details

Date tested	Tested by (to include the names of all people involved in testing)	Details of test (e.g. nature of the test, involvement of other agencies) Note: Testing must cover all components of the plan.	Finding of test, including issues identified	Next scheduled testing date (must be within 12 months from current test)

01.06.23	Brendan Isaacs, Senior Environmental Specialist	Desktop simulation – Dam wall breach resulting in hyper saline water release offsite.	Site personnel contact details incorrect. Maps outdated. PIRMP not in format of EPA guideline.	01.06.24
26.05.24	Brendan Isaacs Jenni MacPherson, Chris Brown, Andy Lomas, Shayne Hoger, Tony Peterson	Scenario test- Service truck roll over resulting in large hydrocarbon spill and trapped person. i	Communication equipment limitations.	26.05.2025
PIRMP update details				
Date update occurred	Reason for update (e.g. address issues identified in testing, contact details/personnel have changed)	Details of updates (nature of changes to PIRMP)	Date the updated version uploaded to website (if applicable)	Date of completion
12.07.23	Outdated items identified in annual testing, commencement of new project	Contact details, map and pollutant inventory updated, new document format.	21.07.23	21.07.23
27.05.24	Contact details changed, flow chart outdated, additional hydrocarbons stored at premises.	Contact details updated, flow chart updated with responsible persons, inventory updated, map of hazardous chemical storage updated.	28.05.24	28.05.24









PIRMP_v2

Final Audit Report

2024-06-05

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