

# RAVENSWORTH OPERATIONS

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GLENCORE



## Pollution Incident Response Management Plan

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# 1. Introduction

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## 1.1 Background and Scope

The *Protection of the Environment Legislation Amendment Act 2018* (PELA) received assent on 16 November 2011 resulting in changes to the *Protection of the Environment Operations Act 1997* (POEO Act). The intent of the PELA is to improve the way pollution incidents are reported and managed. Provisions include a requirement for holders of Environmental Protection Licences (EPLs) to prepare, keep, test and implement a Pollution Incident Response Management Plan (PIRMP). The specific requirements for PIRMPs are set out in Part 5.7A of the POEO Act and the *Protection of the Environment Operations (General) Regulation 2009* (POEO (G) Regulation). In summary, this legislation requires the following:

- holders of EPLs must prepare a pollution incident response management plan (section 153A, POEO Act);
- the plan must include the information detailed in the POEO Act (section 153C) and the POEO(G) Regulation (clause 98C) and be in the form required by the POEO(G) Regulation (clause 98B);
- licensees must keep the plan at the premises to which the EPL relates (section 153D, POEO Act);
- licensees must test the plan at least every 12 months and after a pollution incident in accordance with the POEO(G) Regulation (clause 98E); and
- if a pollution incident occurs in the course of an activity so that material harm to the environment is caused or threatened within the meaning of Part 5.7 of the POEO Act, licensees must immediately implement the plan (section 153F, POEO Act).

As the holder of EPL 2652, Ravensworth Operations, incorporating Ravensworth Open Cut (ROC), Ravensworth Coal Handling and Preparation Plant (RCHPP), and Ravensworth Underground Mine (RUM) and collectively referred to as **Ravensworth Operations (RO)**, is required to comply with the POEO Act; as such, this document has been developed to satisfy the PIRMP requirements documented above.

This document also details the procedures for notification of pollution incidents resulting in or having the potential to cause material harm to the environment. **The notification of environmental incidents under this PIRMP is only required for those incidents causing or threatening to cause material environmental harm (a material harm incident) as defined in the POEO Act (see Section 5.1).**

## 1.2 Regulatory Requirements

Specific detail is required for inclusion in the PIRMP. **Table 1-1** lists information mandated under Section 153C of the POEO Act and clause 98C of the POEO (G) Regulation and details where this information is located in this document.

## 1.3 Definitions

### Emergency

An emergency is a situation that is developing, or has developed, that poses a threat to Life, the Environment and Property, which necessitates immediate action.

### Pollution Incident

Pollution incident means an incident or set of circumstances during or as consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise.

A pollution incident is required to be notified if there is a risk of 'material harm to the environment', which is defined in section 147 of the POEO Act as:

(a) harm to the environment is material if:

(i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or

(ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations), and

(b) loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.

*Table 1-1 - Compliance reference to information mandated under Section 153C of the POEO Act and clause 98C of the POEO (G) Regulation*

<b>Section 153C</b>	<b>Detail required</b>	<b>Location in document</b>
(a)	The procedures to be followed by the holder of the relevant EPL in notifying a pollution incident to:  (i) The owners or occupiers of premises in the vicinity of the premises to which the EPL relates or the direction under sections 153B relates, and  (ii) The local authority for the area in which the premises to which the EPL or the direction under section 153B relates and any area affected, or potentially affected, by the pollution, and  (iii) Any persons or authorities required to be notified by Part 5.7 (of the POEO Act)	<b>Section 5.3</b>  <b>Section 5.2</b>  <b>Section 5.2</b>
(b)	A detailed description of the action to be taken, immediately after a pollution incident, by the holder of the relevant EPL to reduce or control any pollution, by the holder of the relevant environment protection licence, or the occupier of the relevant premises, to reduce or control any pollution,	<b>Section 4.0</b>
(c)	The procedures to be followed for co-ordinating, with the authorities or persons that have been notified, any action taken in combating the pollution caused by the incident and, in particular, the persons through whom all communications are to be made,	<b>Section 5.2</b>
(d)	Any other matter required by the Protection of the Environment Operations (General) Regulation 2009 (as set out below):  <i>98C (1)(a)</i>	<b>Section 2.2</b>

Section 153C	Detail required	Location in document
	<i>A description of the hazards to human health or the environment associated with the activity to which the licence relates (the “relevant activity”).</i>	
	<p>98C (1)(b)</p> <p><i>The likelihood of any such hazards occurring, including details of any conditions or events that could, or would, increase that likelihood.</i></p>	<b>Section 2.2</b>
	<p>98C (1)(c)</p> <p><i>Details of the pre-emptive action to be taken to minimise or prevent any risk of harm to human health or the environment arising out of the relevant activity.</i></p>	<b>Section 4.1</b>
	<p>98C (1)(d)</p> <p><i>An inventory of potential pollutants on the premises or used in carrying out the relevant activity.</i></p>	<b>Section 2.3 Appendix B</b>
	<p>98C (1)(e)</p> <p><i>The maximum quantity of any pollutant that is likely to be stored or held at particular locations (including underground tanks) at or on the premises to which the licence relates.</i></p>	<b>Section 2.3 Appendix B</b>
	<p>98C (1)(f)</p> <p><i>A description of the safety equipment or other devices that are used to minimise the risks to human health or the environment and to contain or control a pollution incident.</i></p>	<b>Section 4.0</b>
	<p>98C (1)(g)</p> <p><i>The names, positions and 24-hour contact details of those key individuals who:</i></p> <ul style="list-style-type: none"> <li><i>(i) are responsible for activating the plan, and</i></li> <li><i>(ii) are authorised to notify relevant authorities under section 148 of the POEO Act, and</i></li> <li><i>(iii) are responsible for managing the response to a pollution incident.</i></li> </ul>	<b>Section 3.2 Section 5.2</b>
	<p>98C (1)(h)</p> <p><i>The contact details of each relevant authority referred to in section 148 of the POEO Act.</i></p>	<b>Section 5.2</b>
	<p>98C (1)(i)</p> <p><i>Details of the mechanisms for providing early warnings and regular updates to the owners and occupiers of premises in the vicinity of the premises to which the licence relates or where the scheduled activity is carried on.</i></p>	<b>Section 5.3</b>
	<p>98C (1)(j)</p>	

Section 153C	Detail required	Location in document
	<i>The arrangements for minimising the risk of harm to any persons who are on the premises or who are present where the scheduled activity is being carried on.</i>	<b>Section 4.0</b>
	<i>98C (1)(k) A detailed map (or set of maps) showing the location of the premises to which the licence relates, the surrounding area that is likely to be affected by a pollution incident, the location of potential pollutants on the premises and the location of any stormwater drains on the premises.</i>	<b>Figure 2.3</b>
	<i>98C (1)(l) A detailed description of how any identified risk of harm to human health will be reduced, including (as a minimum) by means of early warnings, updates and the action to be taken during or immediately after a pollution incident to reduce that risk.</i>	<b>Section 4.0 Section 4.1</b>
	<i>98C (1)(m) The nature and objectives of any staff training program in relation to the plan.</i>	<b>Section 6.1</b>
	<i>98C (1)(n) The dates on which the plan has been tested and the name of the person who carried out the test.</i>	<b>Section 6.2 Appendix E</b>
	<i>98C (1)(o) The dates on which the plan is updated.</i>	<b>Section 6.2 Section 7.3</b>
	<i>98C (1)(p) The manner in which the plan is to be tested and maintained.</i>	<b>Section 6.2</b>

## 2. Premises Details

### 2.1 Site Details

Ravensworth Operations is located between the townships of Singleton and Muswellbrook, in the Upper Hunter Valley region of New South Wales (NSW). A number of company entities are responsible for managing the operations, these respective entities are collectively be referred to as Ravensworth Mine Complex.

Project Approval (PA 09\_0176) and Development Consent 104/96 has provided for the integration of construction and operational aspects of the mining operations in the area, allowing for a consistent and integrated approach to environmental management and mine planning.

The surrounding area which may potentially be impacted by a pollution incident occurring at RO in addition to the premises itself may include the following:

- landholders adjacent to the mine complex
- downstream water courses (including inundation areas and adjacent landholders): Davis Creek, Emu Creek, Bowmans Creek and Bayswater Creek, which subsequently flow into the Hunter River; and
- nearby townships of Camberwell village, Singleton and Muswellbrook

## 2.2 Major Hazards

The potential major hazards which have been identified at RO include:

- spills (e.g. hydrocarbon, hazardous chemicals etc.) resulting in land contamination;
- spills (e.g. hydrocarbon, hazardous chemicals, saline or sediment laden water, etc.) resulting in water contamination;
- blast fume (e.g. blast fume containing NOx) leaves EPL Boundary;
- major water or tailings discharge (for example dam failure);
- fire (for example spontaneous combustion fires associated with coal stockpiles, fume plume from ammonium nitrate fire);
- explosions (e.g. blasting activities);
- climate change related events, such as natural disasters (bushfires, floods or major storm events);
- Unauthorised access / sabotage of infrastructure.

## 2.3 Risk Management

The likelihood of environmental hazards occurring at RO has been captured through the **Broad Brush Risk Assessments** (BBRA) undertaken at each operation. The purpose of the BBRA is to identify significant environment and community aspects and impacts across the complex, the risk they pose to operations and the controls necessary to effectively manage them. Management of impacts is prioritised according to the level of risk each aspect is assigned. These documents are prepared and reviewed in accordance with **GCAA-625378177-2844** Risk Management and **RAVOC-258458278-15246** Risk Management Plan.

The systematic identification, assessment and management of foreseeable catastrophic (core) hazards is undertaken utilising the adopted GCAA Sustainable Development Guideline for catastrophic (core) hazard management **GCAA-625378177-13271 Catastrophic Hazards** and the procedure for catastrophic (core) hazard assurance monitoring **GCAA-625378177-9980 13.0 Assurance**.

This process includes:

- identifying foreseeable hazards associated with operations at RO;
- assessing Sustainable Development risks using recognised analysis and evaluation methodologies; and
- implementing controls necessary to eliminate or reduce identified catastrophic (core) risks in accordance with the established hierarchy of controls for environmental management.

RO has adopted the **GCAA Fatal Hazards Protocol**. The protocol includes nominated control measures to manage foreseeable catastrophic (core) hazards. The **GCAA Fatal Hazards Protocol** includes hazards that could result in either:

- multiple fatalities;
- irreversible, severe environmental damage; or
- a health or community issue that causes significant long-term harm.

Each operation maintains a **Catastrophic Hazard Register**. The register includes nominated control measures to manage foreseeable catastrophic (core) hazards. The site **Catastrophic Hazard Register** is reviewed annually and lodged with GCAA.

## 2.4 Chemical and Potential Pollutants

All chemicals at RO are included in a central register available at key locations around the complex. All chemicals are accompanied by the relevant Material Safety Data Sheets as required by work health and safety regulations.

Diesel is stored at a number of locations at ROC, with an approximate total storage capacity of 1,375,000 litres. The majority of diesel stored on site is located at the Mining Infrastructure Area (MIA) which has a maximum storage capacity of 930,000 litres. All oils, coolants, greases and detergents stored on-site are either stored in double walled tanks or contained within bunded, covered concrete storage areas. There are approximately 240,000 litres of oils, coolants and greases stored on the site at any one time.

The RCHPP stores diesel in a number of locations, with the capacity for approximately 64,000 litres to be stored. All oils, coolants, greases and detergents stored on-site are either stored in double walled tanks or contained within bunded, covered concrete storage areas. There are approximately 74,000 litres of oils, coolants and greases stored on the site at any one time.

Diesel fuel at RUM is stored in a 2,000 litre self-bunded tank located on the pit top hardstand area and if required is transported underground in 1,000 litre self-bunded containers.

Solcenic, a biodegradable, 96% water solution, is stored in tanks at RUM near Ventilation Shaft Number 3. Solcenic is stored in a compartmentalised tank, which is set inside a bunded area, with a catch dam located downslope. As RUM is currently in Care and Maintenance there is no Solcenic being stored onsite.

The facilities that store fuel, oil and hazardous chemicals have been designed in accordance with Australian Standard 1940 – 2004.

RO stores dangerous goods above the specified threshold. The **Dangerous Goods Licence** (No. NDG011740) covers the storage of these materials. No explosives are stored on site at RUM.

Ravensworth Open Cut shares responsibility for the management of the Narama Dam to Dam 22 Pipeline with a neighbouring Glencore site. The stretch of pipeline from Narama Dam to the southern extent of the New England Highway is managed by Ravensworth Open Cut. As such, all pollution incidents that may arise from this section (i.e. burst or leaking pipeline) will be managed in accordance with **GCAA-625378177-10394 Incident Reporting and Investigation**. All incidents north of the New England Highway to Dam 22 will be managed under the applicable sites PIRMP. See **Figure 1** for the pipeline location.

**Appendix B** contains a register of the known potential pollutants at Ravensworth Operations.

Potential pollutants created as part of mining operations, and thus excluded from registers, include:



- mine tailings;
- mine water (extracted from underground and open cut mine workings);
- sediment laden surface water runoff from disturbed areas; and
- effluent waste.

These materials are in a constant state of flux as a result of mining operations. Risks associated with these potential pollutants are incorporated into the risk register detailed discussed above.

**Figure 1** and **Figure 2** in **Appendix C** displays the location of potential pollutants including tailings dams, mine water storage dams, underground tanks and fuel storage locations.

## 3. Management and Responsibilities

### 3.1 Legal Duty to Notify

All RO employees and contractors are responsible for alerting management personnel to all environmental incidents or hazards which may result in an environmental incident, regardless of the nature or scale.

Notification responsibilities are detailed in the POEO Act (Section 148), which encompasses all site personnel, including contractors and sub-contractors. These can be categorised broadly as:

- the duty of an employee or any person undertaking an activity:
  - Any person engaged as an employee or undertaking an activity (at RO) must, immediately after becoming aware of any potential incident, notify their relevant manager of the incident and all relevant information about it. This is to be undertaken as per **Section 5.2**; and
- the duty of the employer or occupier of a premises to notify:
  - An employer or occupier of the premises on which the incident occurs, who is notified (or otherwise becomes aware of) a potential pollution incident, must undertake notification to the appropriate regulatory authority of any “**material harm incidents**”, including relevant information. Notification shall be undertaken by the Environment and Community Manager or Operations Manager as per **Section 5.2**.

As per guidance provided by the EPA, the decision on whether to notify the incident in accordance with Part 5.7 of the POEO Act should not delay immediate actions to provide the safety of people or contain a pollution incident. However, incident notification will be made as soon as it is safe to do so<sup>1</sup>.

### 3.2 PIRMP Contact Details

The specific responsibilities associated with the management and implementation of the PIRMP at ROC, RCHPP and RUM is outlined in **Table 3.1** below.

*Table 3-1 - PIRMP Management Responsibilities*

1. EPA, *Frequently Asked Questions Regarding the Duty to Notify of a Pollution Incident* (March 2012) <<http://www.environment.nsw.gov.au/legislation/poefagsnotify.htm>>

Name	Contact details	Position	Responsibility
Thomas Hubert	0476 812 674	Operations Manager	<p>Responsible for authorising the PIRMP and all subsequent updates</p> <p>Responsible for ensuring adequate resourcing for implementation of the PIRMP</p> <p>Authorised to liaise with the relevant authority</p>
Oliver Wallace	0447 453 712	Mine Manager	<p>Responsible for managing the response to a pollution incident</p> <p>Responsible for facilitating regulator inspections following an incident relevant to this plan</p> <p>Authorised to liaise with the relevant authority</p>
Daniel Hallam	0429 405 345	CHPP Manager	<p>Responsible for managing the response to a pollution incident</p> <p>Responsible for facilitating regulator inspections following an incident relevant to this plan</p> <p>Authorised to liaise with the relevant authority</p>
Klay Marchant	0400 239 291	Environment and Community Manager	<p>Responsible for undertaking notification as defined in this PIRMP</p> <p>Responsible for managing the response to a pollution incident</p> <p>Responsible for facilitating regulator inspections following an incident relevant to this plan</p> <p>Authorised to liaise with the relevant authority</p>

Name	Contact details	Position	Responsibility
Brent Frondall	0436 109 532	Environment and Community Coordinator	<p>Responsible for undertaking notification as defined in this PIRMP</p> <p>Responsible for managing the response to a pollution incident</p> <p>Responsible for coordinating testing and updating of the PIRMP</p> <p>Responsible for coordinating notification and training of PIRMP</p> <p>Responsible for coordinating communications with affected community members</p> <p>Responsible for providing assistance in the event of regulator inspections following an incident relevant to this plan</p> <p>Authorised to liaise with the relevant authority</p>

## 4. Incident Management

In compliance with **GCAA – 625378177 - 9992 Incident**, the actions to be implemented at RO in the event of an incident include the following:

1. Secure the scene and contain the incident.
2. Gather information (i.e. environmental monitoring).
3. Determine the investigation level.
4. Commence an Incident Cause Analysis Method (if required).
5. Review and classify information and determine actions.
6. Complete corrective/preventative actions.
7. Trend analysis reports.

Arrangements, including description and location of safety equipment, for minimising risk of harm to people and the environment as result of a pollution incident, and for containing or controlling a pollution incident, is outlined for ROC in **RAVOC-258458278-8391 Emergency Response Management Plan**, and for RUM in **RAVUG – 1057118485-1489 Emergency Response Control Plan**.

Incident management at RO focuses on actions to:

- secure and assign necessary tactical response resources, including equipment and/or personnel, to minimise the environmental impacts associated with the incident;
- establish that tactical response operations are carried out in a safe, well-organised, legal and effective fashion;
- provide for the safety and welfare of all responders, employees, contractors and visitors;
- continuously assess the incident to determine the adequacy of tactical response operations and the need for assistance from the Glencore Coal Assets Australia (GCAA) Crisis Management Team;
- manage stakeholders arriving at site;
- minimise effects on people, the environment, property, production, and company reputation;
- implement an environmental monitoring program to quantify impacts as a result of the incident as well as to be used as the basis to notify adjacent landholders and downstream water users as to whether avoidance or remediation measures are required; and
- interact, as appropriate, with GCAA personnel.

Emergency Management at RO is undertaken in accordance with the site specific Emergency Response Plans described above. With regards to the specific major hazards identified in **Section 2.2**, Trigger Action Response Plans (TARPS) have been identified to manage these hazards. **Table 4.1** below provides reference to the procedures and TARPS which will be implemented in the event that a hazard requires an emergency response to be initiated.

*Table 4.1 – Hazards and Emergency Response Documentation.*

### Hazard and Emergency Response Documentation

#### Ravensworth Open Cut - Hazards and Emergency Response Documentation

Spills (e.g. hydrocarbon, hazardous chemicals, tailing etc.) resulting in land and or water contamination.	<p><b>RAVOC-258458278-8391 Emergency Response Management Plan</b> (Duty Cards located in Section 7.3.2)</p> <p><b>RAVOC – 258458278-7331 Emergency Response Manual</b> (Section 5.15, Section 5.16)</p>
Major water discharge (e.g. dam failure, unauthorised discharge, floods and storm events).	<p><b>RAVOC-258458278-8391 Emergency Response Management Plan</b> (Duty Cards located in Section 7.3.2)</p> <p><b>RAVOC-258458278-8391 Emergency Response Management Plan</b> (Duty Cards located in Section 7.3.2)</p> <p><b>RAVOC-1007099517-67 Operational Water Management Plan</b></p> <p><b>RAVOC258458278-1894 Inrush Management Plan</b></p>
Fire (including spontaneous combustion fires associated with coal stockpiles and bushfires).	<p><b>RAVOC-258458278-8391 Emergency Response Management Plan</b> (Duty Cards located in Section 7.3.2)</p> <p><b>RAVOC – 258458278-7331 Emergency Response Manual</b> (Section 5.4)</p> <p><b>RAVOC – 25845827-2756 Fire and Explosion Management Plan</b></p> <p><b>RAVOC-258458278-8391 Bushfire Management Plan</b></p>
Explosions	<p><b>RAVOC-258458278-8391 Emergency Response Management Plan</b> (Duty Cards located in Section 7.3.2)</p> <p><b>RAVOC – 258458278-7331 Emergency Response Manual</b> (Section 5.8)</p>
Blast Fume Exposure	<p><b>RAVOC-1536591325-3699 Post Blast Fume Management Procedure</b></p> <p><b>RAVCX – 307024981-4092 Blast Management Plan</b></p>

#### Ravensworth CHPP - Hazards and Emergency Response Documentation

Spills (e.g. hydrocarbon, hazardous chemicals, etc.) resulting in land and or water contamination;	<p><b>RAVOC-258458278-8391 Emergency Response Management Plan</b> (Duty Cards located in Section 7.3.2)</p> <p><b>RAVOC – 258458278-7331 Emergency Response Manual</b> (Section 5.15)</p>
Major water discharge (e.g. dam failure, unauthorised discharge)	<p><b>RAVOC-258458278-8391 Emergency Response Management Plan</b> (Duty Cards located in Section 7.3.2)</p> <p><b>RAVOC – 258458278-7331 Emergency Response Manual</b> (Section 5.15)</p> <p><b>RAVOC258458278-1894 Inrush Management Plan</b></p>
Fire (including spontaneous combustion fires associated with coal stockpiles)	<p><b>RAVOC-258458278-8391 Emergency Response Management Plan</b> (Duty Cards located in Section 7.3.2)</p> <p><b>RAVOC – 258458278-7331 Emergency Response Manual</b> (Section 5.4)</p> <p><b>RAVOC – 25845827-2756 Fire and Explosion Management Plan</b></p> <p><b>RAVOC-1007099517-67 Bushfire Management Plan</b></p>

## Hazard and Emergency Response Documentation

### Ravensworth Underground Mine Hazards and Emergency Response Documentation

Spills (e.g. hydrocarbon, hazardous chemicals, etc.) resulting in land and or water contamination.	<b>RAVUG – 1057118485-1489 Emergency Response Control Plan</b> <b>RAVOC-258458278-8391 Emergency Response Management Plan (Duty Cards located in Section 7.3.2)</b>
Major water discharge (e.g. dam failure, unauthorised discharge, floods and storm events)	<b>RAVOC-258458278-8391 Emergency Response Management Plan (Duty Cards located in Section 7.3.2)</b> <b>RAVOC258458278-1894 Inrush Management Plan</b>
Fire (including spontaneous combustion fires associated with coal stockpiles and bushfires)	<b>RAVOC-258458278-8391 Emergency Response Management Plan (Duty Cards located in Section 7.3.2)</b> <b>RAVOC – 25845827-2756 Fire and Explosion Management Plan</b> <b>RAVOC-1007099517-67 Bushfire Management Plan</b>
Explosions	<b>RAVOC-258458278-8391 Emergency Response Management Plan (Duty Cards located in Section 7.3.2)</b> <b>RAVOC – 258458278-7331 Emergency Response Manual (Section 5.8)</b>

## 4.1 Pre-emptive controls

Ravensworth implement a number of controls to manage the Major Hazards as identified in **Section 2.2**. Some of these controls include, but are not limited to:

- All Ravensworth employees and contractors receive emergency preparedness and response training during their site familiarisation induction.
- Ravensworth maintains a dedicated emergency response team who undergo regular training and operational drills;
- Ravensworth has accessible personal protective equipment for staff and contractors;
- Spill containment/control equipment including:
  - emergency spill kits, with correct PPE;
  - portable pumping infrastructure;
  - earth moving plant;
  - floating booms and silt curtains; and
  - erosion and sediment control materials.
- Fire control systems, including water carts;
- Fire suppression on relevant mobile and fixed infrastructure;
- Hydrocarbon and chemical storage as per relevant Australian Standards;

- Real time leak detection and monitoring for high risk pipelines;
- Real time water level monitoring and alarm capabilities on high risk dams; and
- Pre-blast environmental assessment process utilising predictive forecasting for blasting activities.
- An environmental incident kit is stored onsite outside of the Environment and Community Department offices in the Environmental Library cabinet. The kit contains environmental sampling equipment and instructions on the appropriate methods of conducting samples in the event of a pollution incident.
- Stakeholder Engagement Strategy with relevant contact details of nearby receptors.

Ravensworth has limited authority to undertake pollution management activities on private property, or outside the site boundary and in such cases where incident require response outside of Ravensworth owned land, Ravensworth will liaise directly and provide appropriate assistance to the relevant authority and emergency services.

## 5. Notification Procedures

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### 5.1 Determination of Material Harm

Following containment of the incident, immediate action must be taken to determine if the incident can be classified as a **'material harm incident'**, i.e. considered to be causing or threatening material harm. As defined by Section 147 of the POEO Act, a **material harm incident** has occurred if the incident:

- involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial; or
- results in actual or potential loss (including all reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment) or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations).

It is possible for a **material harm incident** to occur on land that is within the boundary of the EPL.

The determination to notify of a potential **material harm incident** will be made by the Operations Manager in consultation with the Environment and Community Manager. If the Operations Manager is not available immediately, the determination will be made by the Environment and Community Manager.

### 5.2 Internal and External Notification

As discussed in **Section 3.1**, notification of an environmental incident is the responsibility of all site and contractor personnel. In the event of an incident, response and notification must be undertaken as per **Table 5-1**, which contains the following important information:

- the local government authority for the area in which the EPL is issued;
- the persons and authorities to be notified by Part 5.7 of the POEO Act; and

- the contact details of each relevant authority referred to in section 148 of the POEO Act, refer to **Table 5-1**.

The agencies listed in **Table 5-1** must be contacted in the order outlined below. Agencies will be contacted by phone, with email follow up as required.

*Table 5-1: Agency Notification Contact Details*

Agency	Contact details	Email Details
Fire and Rescue	000 (To be contacted ONLY, and first, if the incident presents an immediate threat to human health or property and emergency services are required. If emergency services are required contact EPA first)  1300 729 579 (To be utilised if emergency response not required)	N/A
EPA	131 555	Jenny Lange <a href="mailto:hunter.region@epa.nsw.gov.au">hunter.region@epa.nsw.gov.au</a> or <a href="mailto:Jenny.Lange@epa.nsw.gov.au">Jenny.Lange@epa.nsw.gov.au</a>
Ministry of Health	02 4924 6477 (ask for Public Health Officer on call)	N/A
Safe Work NSW	131 050	N/A
Singleton Council	02 6578 7290 (office hours) or 02 6572 1400 (after hours)	<a href="mailto:council@singleton.nsw.gov.au">council@singleton.nsw.gov.au</a> .
Additional reporting requirements required by Project Approval 09_0176, DA 104/96 and Mining Lease(s) conditions		
Resource Regulator	(02) 4063 6714 2 or 0455 330 589	Megan Hobbs <a href="mailto:megan.hobbs@planning.nsw.gov.au">megan.hobbs@planning.nsw.gov.au</a> .
Department of Planning, and Environment	(02) 6575 3413; 0400 245 170	Jennifer Sage <a href="mailto:jennifer.sage@dpie.nsw.gov.au">jennifer.sage@dpie.nsw.gov.au</a> .

In accordance with the Ravensworth Complex Environmental Incident Response Notification Process, in the instance of identification of an environmental incident or hazard, the personnel will report the issue immediately to their manager, who in turn shall report it to the Environment and Community Manager, or any member of the environmental team. Immediately is taken to mean 'promptly and without delay'.

**As per guidance provided by the EPA, the decision on whether to notify the incident in accordance with Part 5.7 of the POEO Act should not delay immediate actions to provide the safety of people**



or contain a pollution incident. However, incident notification will be made as soon as it is safe to do so<sup>2</sup>.

In addition to being detailed in this document, procedures for undertaking internal and external notification are included in Ravensworth Complex:

- **RAVCX-1962359669-15 Environmental Management Strategy;**
- **RAVOC – 258458278-8395 Hazard or Incident Reporting and Investigation;**
- **RAVOC-258458278-8391 Emergency Response Management Plan;**
- **RAVOC – 258458278-7331 Emergency Response Manual; and**
- **RAVUG – 1057118485-1489 Emergency Response Control Plan.**

Record keeping of incident details, including investigations and outcomes, will be undertaken in accordance with **GCAA-625378177-10394 Incident Reporting and Investigation**.

After initial notification of any **material harm incident**, it will be the responsibility of the Environment and Community Manager to liaise with any authority listed in **Table 5.1** that requests additional information or is providing directions for management of the **material harm incident**. This may include incident investigation reports and ongoing environmental monitoring results.

### 5.3 Notification to Local Landholders & Community

Community notification shall be undertaken at the determination of the Environment and Community Manager, or as directed by the EPA. Names and contact details of stakeholders, including local and downstream residents are included in the **Ravensworth Complex Stakeholder Engagement Strategy**. The following notification methodology is proposed to be utilised as required:

- early warnings: same day telephone notification to landholders whom may be affected by the incident over the subsequent 24 hour period; and
- updates: follow up phone calls to all landholders whom may have been notified by the initial early warning. Updates are to be provided to the broader local community in affected areas via information sheets or newsletters, Community Consultative Committee meetings, Ravensworth website, media statements or any other strategy as defined in the **Ravensworth Complex Stakeholder Engagement Strategy**.

Priority will be granted to notification of sensitive premises in close proximity such as schools, pre-schools, nursing homes and hospitals. Information provided to the community will be relevant to the incident and may include the following details:

- type of incident that has occurred (for example dam failure);
- potential impacts local landholders and the community
- potential impacts to Aboriginal and Cultural Heritage sites and ;
- site contact details; and
- advice or recommendations based on the incident type and scale.

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<sup>2</sup> EPA, *Frequently Asked Questions Regarding the Duty to Notify of a Pollution Incident* (April 2017) <<http://www.epa.nsw.gov.au/legislation/poefaqnotify.htm>>

## 5.4 Environment, Social and Economic Context

RO have developed a Dam - Emergency Response Plan (ERP) for Narama Dam, Cumnock 1 & 2 TSF and Cumnock 3 TSF. The ERP defines responsibilities and procedures for responding to conditions which may endanger the integrity of the Dam(s) and affect the population and surrounding environment at risk. In the unlikely event of possible, impending, or actual failure of the dam, the ERP documents:

- The appropriate Ravensworth Operations (RO) staff and external authorities to be notified so that timely warning is provided.
- Provide relevant information for use in the emergency response to the situation.
- Provide relevant information on environment, social and economic context.

## 6. Review and Improvement

### 6.1 Training

All personnel affected by the content of this document will receive instruction or explanation on the relevant parts of the document as per **RAVOC-258458278-15975 Training and Competency Management Plan**.

Incident and emergency response shall be included in all GCAA Generic and RO Complex site inductions.

Routine training of the PIRMP is undertaken. Training formats may include (but are not limited to):

- Toolbox talks;
- Formal staff training and assessments;
- Desktop scenario exercises; and/or
- Field and/or incident exercises.

### 6.2 Testing, Review and Maintenance

The testing of the PIRMP will be undertaken to check that the information is accurate and current and that the plan is capable of being implemented in a workable and effective manner. Testing will include all components of the plan, including training requirements. Testing shall be undertaken in the following ways:

1. Testing is taken to be either a desktop review or
2. A practical environmental emergency drill that also covers social incidents (e.g. dam failure and impact on downstream properties/users, or impacts to Aboriginal and Cultural heritage sites)

PIRMPs **must** be tested routinely at least once every 12 months and within one month of any pollution incident occurring. The review will be undertaken in light of the incident or test, to ensure the information included in the plan is accurate and up to date and the plan is still capable of being implemented in a workable and effective manner.

Records will be kept in accordance with **RAVOC – 258458278-3885 Document Control Procedure**. Information to be retained regarding PIRMP testing includes:

- the manner in which the test was undertaken;
- dates when the plan has been tested;
- the person who carried out the testing; and
- the date and description of any update of or amendment to the plan.

PIRMP Test Record **Appendix E** provides further detail on PIRMP tests.

### 6.3 Availability of the PIRMP

The PIRMP shall be kept in written form at the EPL premises and shall be made available to all personnel responsible for implementing the plan, and to an authorised officer (as defined in the POEO Act) on request.

The PIRMP will be made publicly available within 14 days of finalisation (taken to be authorisation of the PIRMP by the Operations Manager) via the Ravensworth Operations website, in a prominent position and on a publicly available page.

No personal information (within the meaning of the *Privacy and Personal Information Protection Act 1998*) will be made publicly available as part of the PIRMP.

## 7. Document Information

Relevant legislation, standards and other reference information must be regularly reviewed and monitored for updates and should be included in the site management system. Related documents and reference information in this section provides the linkage and source to develop and maintain site compliance information.

### 7.1 Related Documents

Related documents, listed in **Table 7-1**, are internal documents directly related to or referenced from this document.

*Table 7-1: Related documents*

Number	Title
GCAA-625378177-2844	Risk Management
RAVOC-258458278-15246	Risk Management Plan
GCAA-625378177-13271	Catastrophic Hazard
GCAA-625378177-9980	Assurance

Number	Title
RAVOC – 258458278-8395	Hazard or Incident Reporting and Investigation
RAVOC – 258458278-7331 Emergency	Emergency Response Manual
RAVCX-1962359669-15	Environmental Management Strategy
RAVOC258458278-1894	Inrush Management Plan
RAVOC – 25845827-2756	Principal Hazard Management Plan for Fire and Explosion
RAVOC-1007099517-67	Bushfire Management Plan
RAVCX – 307024981-4092	Blast Management Plan
RAVOC-1536591325-3699	Post Blast Fume Management
RAVOC – 258458278-2834	Training and Competency Management Plan
RAVOC – 258458278-3885	Document Control Procedure
GCAA-625378177-10394	Incident Reporting and Investigation
GCAA – 625378177 - 9992	Incident and Hazard Management
RAVOC-258458278-8391	Emergency Response Management Plan
RAVUG – 1057118485-1489	Emergency Response Control Plan.
RAVOC-1007099517-67	Operational Water Management Plan

## 7.2 Reference Information

Reference information, **Table 7-2** below provides a list of reference documents containing information that is directly referred to for the development of this document.

*Table 7-2: Reference information*

Reference	Title
NSW EPA	<i>Protection of the Environment Operations Act 1997 (POEO Act)</i>
NSW EPA	<i>Protection of the Environment Operations (General) Regulation 2009 (POEO (G) Regulation)</i>
NSW EPA	Environmental Guidelines: Preparation of Pollution Incident Response Management Plans
NSW EPA	Protocol for industry notification of pollution incidents

## 7.3 Change Information

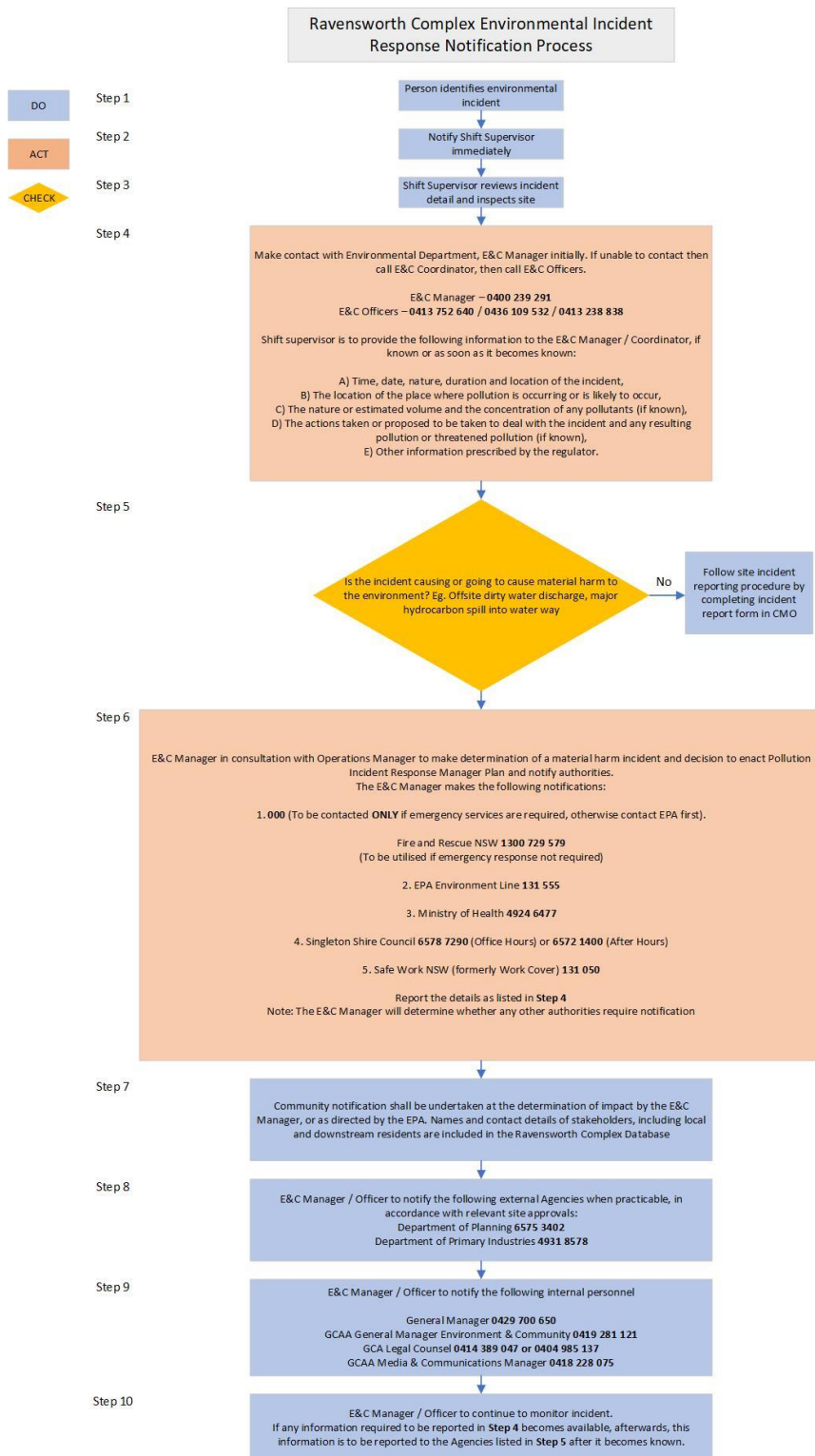
Full details of the document history are recorded in the document control register, by version. A summary of the current change is provided in *Error! Reference source not found.* below. Example detail shown below.

*Table 7-3: Change Information*

Version	Date	Review team (consultation)	Change Details
1.0	24/08/12	S Pigott, A Kelly	Initial document
2.0	25/09/12	S Pigott, A Kelly	Updates made to document owner
3.0	22/03/13	G Newton	Updated phone contact details for Fire and rescue
4.0	19/04/13	S Pigott	Updated to incorporate EPL 2652 Consolidation Changes
5.0	06/08/13	J Barben	Updated contact details for CHPP
6.0	07/02/14	S Pigott	Updated contact details and pollutant registers
7.0	27/03/4	S Pigott	Included reference to Narama pipeline and added notification process flowchart
8.0	03/07/14	C Smith	Replaced references of <i>RAV SD PRO 0032 Environmental Incident Reporting</i> to <i>RAV SD ANN 0001 Hazard and Incident Reporting and Investigation</i> arising from systems consolidation and updated revision history table to reflect version changes.

Version	Date	Review team (consultation)	Change Details
9.0	16/12/14	G Newton	Updated contacts details for RUM and RCHPP and references to documents to current references
10.0	04/05/15	N/A	Updated contact details for internal and external notifications, new Glencore template
11.0	20/07/15	G Newton	Updated (review detail not provided)
12.0	28/10/15	G Newton	Updated (review detail not provided)
13.0	12/04/16	B Hubert	Update to include most recent PIRMP Test record
14.0	12/04/17	M Pereira	Updated contacts details, notification process flowchart and included most recent PIRMP Test record.
15.0	12/04/18	B Hubert	Updated Contact Details/ document ID numbers, Maps and most recent PIRMP Test Record.
16.0	25/05/19	S Palmer	Updated Contact Details/ document ID numbers.
17.0	13/03/20	S Palmer	Updated Contact Details, document references
18.0	20/11/20	S Palmer	Update hydrocarbon storages, insert test record
19.0	16/02/21	K Marchant	Update site contact details, contact details for internal and external notifications, document records, new Glencore template, Section 1.3, Section 2.2, Section 4.1, Section 6
20.0	02/11/21	K Marchant	Insert test record
21.0	31/10/22	K Stephenson-Banks	Update site contact details, contact details for internal and external notifications, document records, insert test record.
22.0	31/03/23	K Marchant	Updated to include social and environmental context in accordance with GCAA HSEC and HR Standards
23.0	11/09/2023	B Frondall	Updated PIRMP Updated Section 2.1 and Section 6.1.
23.1	28/09/2023	B Frondall	Updated PIRMP test record

# Appendix A - Ravensworth Complex Incident Response Notification Process



## Appendix B - Pollutant Register

<b>ROC</b>		
<b>Location</b>	<b>Pollutant</b>	<b>Storage Capacity (L)</b>
MIA Diesel Tank 1	Diesel	481650
MIA Diesel Tank 2	Diesel	150000
MIA Diesel Tank 3	Diesel	150000
MIA Diesel Tank 4	Diesel	150000
MIA Engine Oil Tank	Engine Oil	44400
MIA Final Drive Oil Tank	Drive Oil	26000
MIA Hydraulic Oil Tank 1	Hydraulic Oil	26000
MIA Hydraulic Oil Tank 2	Hydraulic Oil	8980
MIA Hydraulic Oil Tank 3	Hydraulic Oil	9000
MIA Hydraulic Oil Tank 4	Hydraulic Oil	9000
MIA Waste Oil Tank	Waste Oil	31876
MIA Waste Coolant Tank	Waste Coolant	9115
MIA Coolant Tank	Coolant	9115
MIA Transmission Oil Tank 1	Transmission Oil	11400
MIA Transmission Oil Tank 2	Transmission Oil	11400
Rav Nth Crib Shed Diesel Tank 1	Diesel	94500
Rav Nth Crib Shed Diesel Tank 2	Diesel	94500
Rav West Crib Shed Diesel Tank	Diesel	94500
Service Cart Oil Tank	Oil	4500
Service Cart Oil Tank	Oil	4500
Service Cart Waste Oil Tank	Waste Oil	4500
Grease Tank	Grease	10000
LV Refuel Tank	Diesel	69000
HV Refuel Tank (Bay 1)	Oil	2200
HV Refuel Tank (Bay 1)	Oil	2200
HV Refuel Tank (Bay 1)	Oil	2200



HV Refuel Tank (Bay 1)	Oil	4000
HV Refuel Tank (Bay 2)	Engine Oil	1800
HV Refuel Tank (Bay 2)	Coolant	1800
HV Refuel Tank (Bay 2)	Grease	4000
HV Refuel Tank (Bay 2)	Oil	4000
Orica Compound Tank	Diesel	94000
<b><u>RUM/RCCP</u></b>		
<b>Location</b>	<b>Pollutant</b>	<b>Storage Capacity (L)</b>
Soclenic Storage Area	Soclenic	Varies
RUM Diesel Tank	Diesel	2000
RCCP Diesel Tank	Diesel	32500
RCCP Oil Storage Shed	Oil	10000
Flotation Plant Diesel Tank	Diesel	62300
RCHPP Frother tank	MIBC	32000
RCHPP Collector tank	Diesel	32000

# Appendix C - Pollution Storage Locations

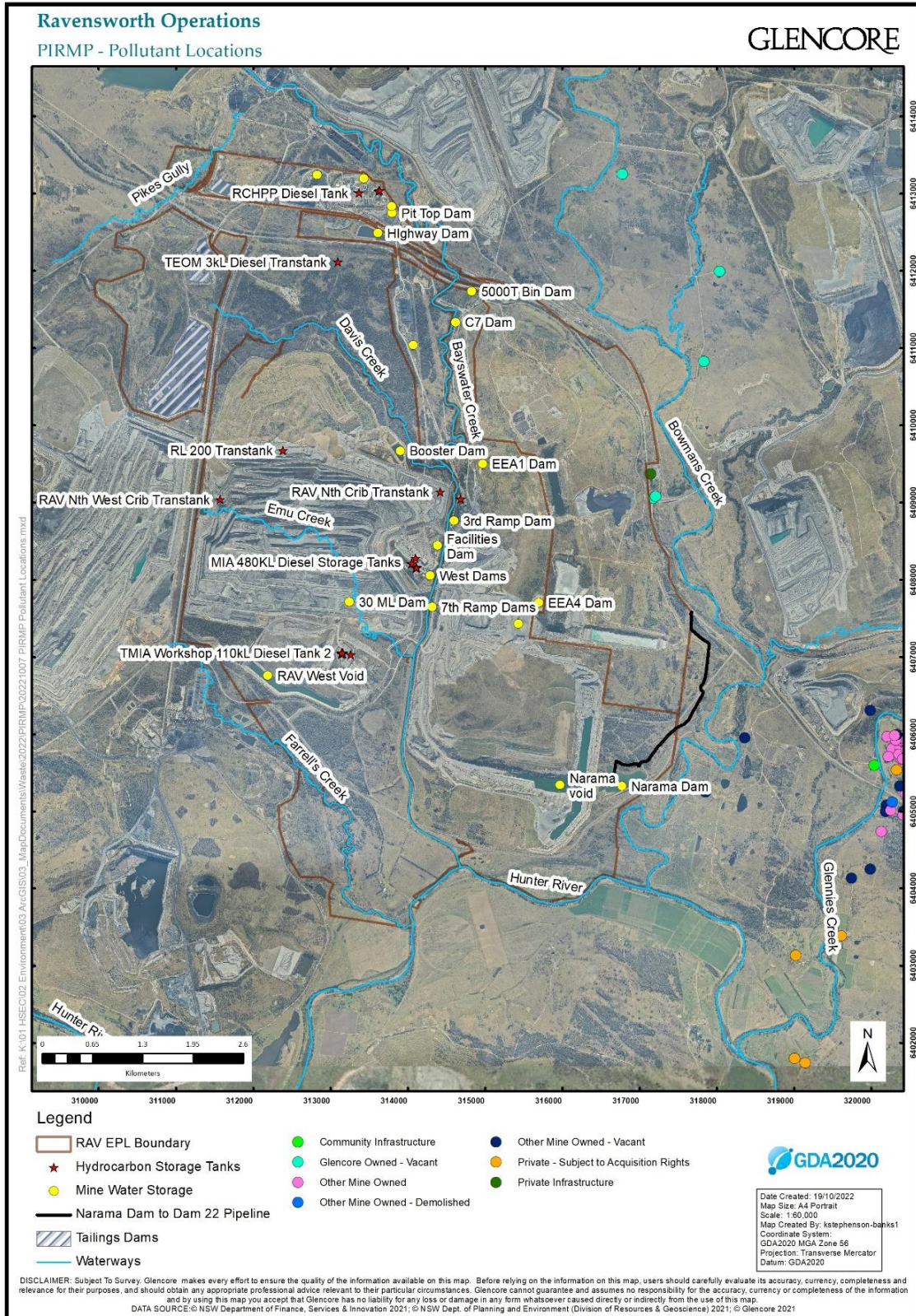


Figure 1: Pollution Source Locations



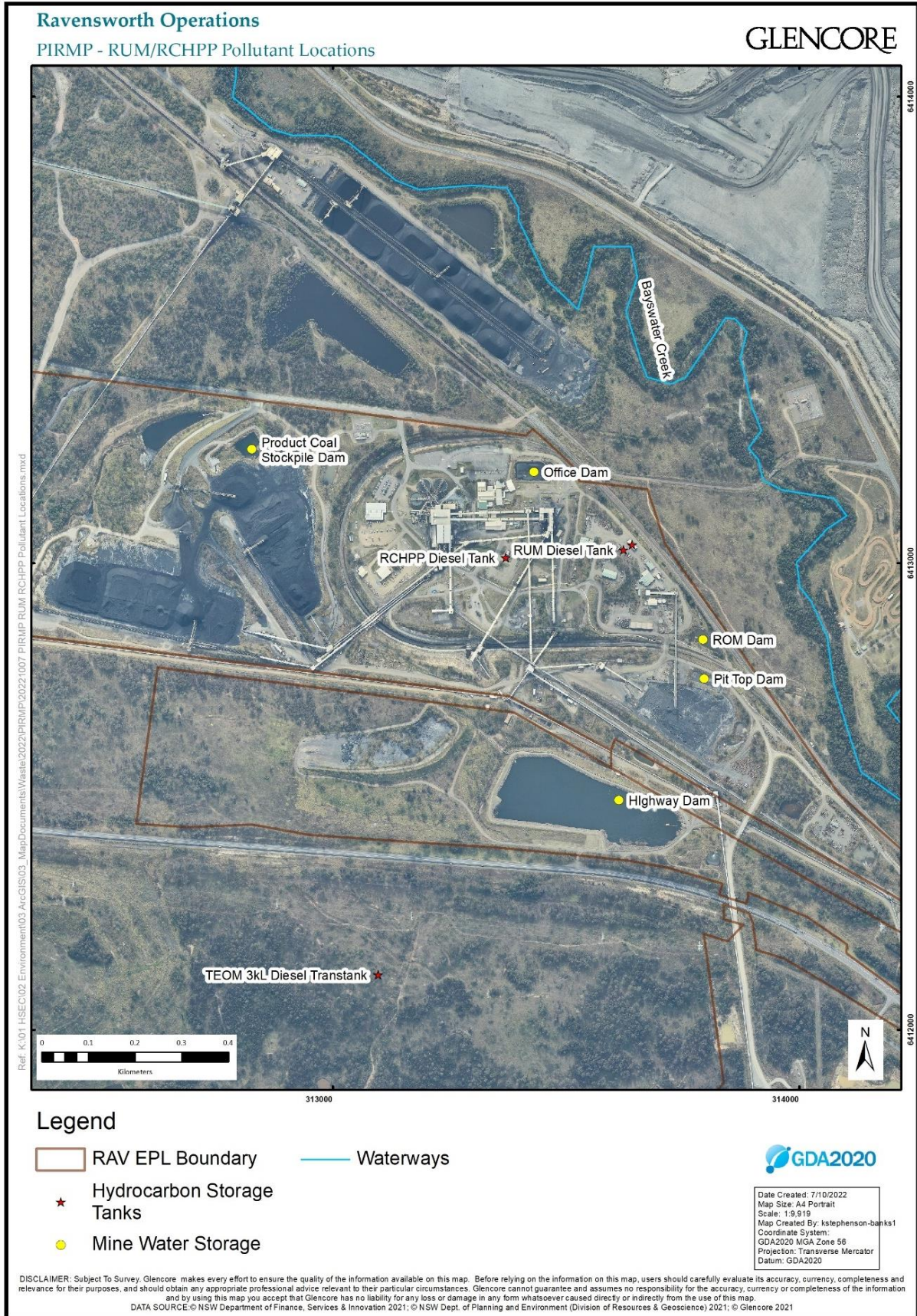


Figure 2: RUM/RCHPP Pollutant Locations

## Appendix D - Stakeholder Register

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# Appendix E - PIRMP Test Record

## PIRMP Test Record Form

COAL ASSETS AUSTRALIA

GLENCORE

Instructions			
<p>As required in the Protection of the Environment Operations (POEO) Act 1979, each operations Pollution Incident Response Management Plan (PIRMP) must be tested within 30 days of an incident causing or threatening material harm to the environment occurring.</p> <p>GCAA's NSW operations are required to test their PIRMP within 30 days of any reportable environmental incident to the EPA or DPE. In addition to this requirement all PIRMPs must be tested annually, either through a desktop analysis or an environmental emergency drill.</p>			
PIRMP Test Record			
Person completing this record:	Brent Frondall		
Is the PIRMP being tested as a result of an incident?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Incident Date:	N/A	CMO Event ID:	N/A
Is the PIRMP being tested as part of an environmental emergency drill?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Emergency Drill Date:	28/09/2023	CMO Event ID:	202309283530
Description of incident:			
<p>A desk top simulation was undertaken on 28 September 2023 with representatives from the Supervisors from Pit Services and Maintenance.</p> <p>Simulation involved a mine water pipeline leaking into Bayswater creek and a subsequent grass fire as a result of responding to the incident.</p>			
Is the PIRMP readily available?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Are all procedures associated with the PIRMP readily available?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Are all procedures associated with the PIRMP current?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Is all internal contact information in the PIRMP correct (including appendices)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Is all external contact information in the PIRMP correct (including appendices)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Has the stakeholder register been reviewed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
If yes, when was the stakeholder register reviewed? 28/09/2023			

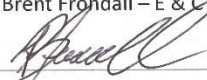

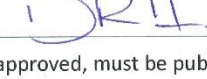
Number: GCAA-625378177-10354      Status: Approved      Effective: 27/01/2021      Page 1 of 2  
 Owner: Manager-Environment and Climate Change      Version: 4.0      Review: 27/01/2024

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Glencore Coal Assets Australia

PIRMP Test Record Form

PIRMP Amendments or updates			
Please list below any amendments or updates required in the PIRMP as a result of this testing.			
Action	Responsible	Completed	Due
Update test record in PIRMP	Brent Frondall	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	3/10/2023
Provide updated copies of PIRMP to Dept. managers (printed)	Brent Frondall	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	3/10/2023
		<input type="checkbox"/> Yes <input type="checkbox"/> No	
		<input type="checkbox"/> Yes <input type="checkbox"/> No	
		<input type="checkbox"/> Yes <input type="checkbox"/> No	
		<input type="checkbox"/> Yes <input type="checkbox"/> No	
		<input type="checkbox"/> Yes <input type="checkbox"/> No	
		<input type="checkbox"/> Yes <input type="checkbox"/> No	
		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Actions from this review that cannot be completed immediately must be captured in CMO action tracking to ensure completion.			
Test Record Sign off			
Person Completing the Testing:	Brent Frondall – E & C Coordinator 	Date:	28/09/2023
Approval of Testing:	Klay Marchant – E&C Manager 	Date:	28/9/23
Operations Managers Approval:		Date:	29/9/23
This record form, once completed and approved, must be published on the site Intranet and attached to the CMO Event Record to ensure the record is stored securely			

Number: GCAA-625378177-10354  
 Owner: Manager-Environment and Climate Change

Status: Approved  
 Version: 4.0

Effective: 27/01/2021  
 Review: 27/01/2024

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