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# HYDRO ALUMINIUM KURRI KURRI SMELTER DECOMMISSIONING, DEMOLITION AND REMEDIATION

# REMEDIATION WORKS ENVIRONMENTAL MANAGEMENT PLAN

RAMBOLL

# HYDRO ALUMINIUM KURRI KURRI SMELTER DECOMMISSIONING, DEMOLITION AND REMEDIATION
# REMEDIATION WORKS ENVIRONMENTAL MANAGEMENT PLAN

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| Checked by | **S Taylor** |
| Approved by | **F Robinson** |
| Description | **Ramboll was engaged by Hydro Aluminium Kurri Kurri Pty Ltd to prepare an Environmental Management Plan to describe the environmental management system and procedures for the decommissioning, demolition and remediation activities at the former Hydro Aluminium Kurri Kurri aluminium smelter at Hart Road Loxford, NSW.** |

**Document Revision history**

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| Final Rev 1 | 25/01/2021 | Revised EMP submitted to the Department of Planning, Industry and Environment on 25 January 2021 to reflect final consent conditions. |
| Final Rev 2 | 10/08/2023 | EMP revision in response to Modification 1 (MOD 1) and Modification 2 (MOD 2) to SSD 6666. |

Ramboll Australia
Level 2, Suite 18
50 Glebe Road
PO Box 435
The Junction
NSW 2291
Australia
T +61 2 4962 5444
www.ramboll.com

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**Appendix F**
Work Health and Safety Management Plan

# ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| BC Act | *Biodiversity Conservation Act 2016* |
| CCMP | Containment Cell Management Plan |
| DA | Development Application |
| DPIE | Department of Planning, Industry and Environment |
| EIS | Environmental Impact Statement |
| EMP | Environmental Management Plan |
| EP&A Act | *Environmental Planning and Assessment Act 1979* |
| EPA | Environment Protection Authority |
| EPBC Act | Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* |
| EPL | Environment Protection Licence |
| GCL | Geosynthetic Clay Liner |
| HDPE | High-Density Polyethylene |
| HVNL | Heavy Vehicle National Law 2015 |
| Hazards and Resilience SEPP | *State Environmental Planning Policy (Hazards and Resilience) 2021* |
| Hydro | Hydro Aluminium Kurri Kurri Pty Ltd |
| JSERA | Job Safety Environmental Risk Assessment |
| LEP | Local Environmental Plan |
| LGA | Local Government Area |
| LLDPE | Linear low-density Polyethylene |
| LLS Act | *Local Land Services Act 2013* |
| MOD 1 | Modification 1 to SSD 6666 |
| MOD 2 | Modification 2 to SSD 6666 |
| NPWS Act | *National Parks and Wildlife Act 1974* |
| NV Act | *Native Vegetation Act 2003* |
| OEH | Office of Environment and Heritage |

| | |
|---|---|
| PIRMP | Pollution Incident Response Management Plan |
| POELA Act | *Protection of the Environment Legislation Amendment Act 2011* |
| POEO Act | *Protection of the Environment Operations Act 1997* |
| RAP | Remedial Action Plan |
| RWEMP | Remediation Works Environmental Management Plan |
| SEE | Statement of Environmental Effects |
| SEPP 33 | State Environmental Planning Policy No 33 – Hazardous and Offensive Development (repealed) |
| SEPP 55 | State Environmental Planning Policy No 55 – Remediation of Land (repealed) |
| SSD | State Significant Development |
| SWMS | Safe Work Method Statement |
| TSC Act | *Threatened Species Conservation Act 1995* |
| WARR Act | *Waste Avoidance and Resource Recovery Act 2001* |
| WHS | Workplace Health and Safety |
| WHS Act | *Workplace Health and Safety Act 2011* |
| WHSMP | Work Health and Safety Management Plan |
| WM Act | *Water Management Act 2000* |
| WOC | Walk Observe Communicate |

# GLOSSARY

| | |
|---|---|
| Council | Cessnock City Council |
| Department | Department of Planning, Industry and Environment |
| Hydro | Hydro Aluminium Kurri Kurri Pty Ltd |
| Hydro Land | The land owned by Hydro Aluminium Kurri Kurri Pty Ltd which includes the Smelter and surrounding land |
| Remediation | Remediation of contaminated land and soils at the Smelter and on Hydro Land, including the construction of a Containment Cell as addressed in the State Significant Development application to the Department of Planning, Industry and Environment SSD 6666 |
| Stage 1 Demolition | Demolition of Smelter buildings addressed in the development application to Cessnock City Council 8/2015/399/1 |
| Stage 2 Demolition | Demolition of Smelter buildings, three concrete stacks, a water tower, subsurface structures to 1.5 m below ground surface and operation of a concrete crushing plant addressed in the development application to Cessnock City Council 8/2018/46/1 |
| The Smelter | The former Hydro Aluminium Kurri Kurri Pty Ltd aluminium smelter at Hart Road, Loxford |

# 1. BACKGROUND

## 1.1 Introduction

This Remediation Works Environmental Management Plan (RWEMP) for Hydro Aluminium Kurri Kurri Pty Ltd (Hydro) provides a system and procedures to establish and maintain controls to manage potential environmental impacts during post closure activities of the former Hydro Kurri Kurri Aluminium Smelter ('the Smelter') located at Hart Road Loxford, New South Wales (NSW).

Hydro is committed to completing the demolition, remediation and divestment of the Smelter and the surrounding land owned by Hydro ('Hydro Land') in a manner that conforms to relevant regulatory and legislative requirements.

It is Hydro's strategic vision for the Hydro Land to play a key role in allowing the Hunter Region to achieve the economic, employment and environmental objectives identified in the NSW State Plan 2021 and the Hunter Regional Action Plan. Hydro aims to achieve this strategic vision by facilitating the rezoning and development of the Hydro Land for employment, residential, and biodiversity conservation purposes.

Hydro is undertaking a number of activities at the Smelter to achieve this vision. This includes decommissioning and removal of Smelter equipment, management of waste, contaminated soils and materials, demolition of the Smelter buildings and remediation of the Smelter and Hydro Land. In addition, Hydro is committed to continuing the management of the Hydro Land surrounding the Smelter until such time as the land is divested.

Hydro is committed to minimising the environmental impacts of these activities at the Smelter and within Hydro Land. This RWEMP is the key mechanism for achieving Hydro's commitment.

Hydro is committed to the proper implementation of the RWEMP, and to monitoring the adequacy of the RWEMP in achieving the site environmental objectives. Through this process of constant review, Hydro can ensure continual environmental improvement.

## 1.2 Overview of the Project

### 1.2.1 Locality

The Smelter is located approximately three kilometres (km) north of the Kurri Kurri central business district (CBD), approximately 10 km south of the Maitland CBD and approximately 33 km to the northwest of the Newcastle CBD at Hart Road in Loxford, NSW. The Smelter and the majority of the Hydro Land is within the Cessnock local government area (LGA). A small portion of Hydro land to the northeast of the Smelter is located within the Maitland LGA.

The established residential townships of Kurri Kurri, Weston and Heddon Greta are located to the south of the Hydro Land, while the growing residential areas of Gillieston Heights and Cliftleigh are located to the northeast and east respectively. Other areas to the north, east and west are predominantly rural and rural-residential land uses.

The area owned and managed by Hydro covers approximately 2,000 hectares (ha) (refer to **Figure 1-1** and **Figure 1-2**). For the purpose of the RWEMP, the Hydro Land is in two sections:

- The former Smelter and immediate surrounds (referred to as 'the Site' or 'the Smelter'). This area formerly contained the production, administration, laboratory and maintenance facilities of the former smelting operations. It also includes the adjoining car parks and sporting fields developed for smelter employees. Within the Smelter, spent pot lining has been stored in purpose built sheds. A Capped Waste Stockpile is in the eastern section of the Smelter site, which contains mixed smelter waste. Immediately to the west of the Smelter site is the clay borrow pit, an area that was historically used to source clay used as capping for the Capped Waste Stockpile. More recently, the site of the clay borrow pit has become the approved location for the Containment Cell. Refer to **Figure 1-2** for the existing Smelter layout.
- The land surrounding the Smelter that formed part of the buffer zone to the Smelter.

The Hydro land surrounding the Smelter includes bushland, grazing land, rural residences and recreational facilities. The Hunter Expressway passes through the south-western corner of the Hydro land, and the South Maitland Railway passes through the eastern section of the Hydro land. Refer to **Figure 1-1** for the Hydro Land layout.

### 1.2.2 Site History

Operations commenced at the Smelter in 1969. Smelting activities ceased at the Site in September 2012 and in May 2014 Hydro formally announced the closure of the Smelter. The Smelter has been under care and maintenance since this time.

In 2015, a Statement of Environmental Effects (SEE) was prepared to support a Development Application (DA) to Cessnock City Council (Council) for 'Stage 1 Demolition' of the Site (DA 8/2015/399/1). Council granted development consent for Stage 1 Demolition in March 2016. Stage 1 Demolition commenced in July 2017.

An Environmental Impact Statement (EIS) was prepared in 2016 to assess the remediation of contaminated soils and waste management, including a Containment Cell and 'Stage 2 Demolition' (subject of SSD 6666). Due to delays to the approval of State Significant Development SSD 6666, a separate application (DA 8/2018/46) for Stage 2 Demolition was submitted to Council in January 2018 and was approved on 9 May 2018.

The activities associated with Stage 2 Demolition were subsequently withdrawn from SSD 6666 however, the remediation of contaminated soils, the Containment Cell construction and acceptance of waste remained the subject of the SSD 6666.

Modification 1 ('MOD 1') to SSD 6666 was submitted to the Department in June 2021. The MOD 1 application sought the construction and operation of an onsite Temporary Water Treatment Plant (TWTP) and associated infrastructure. MOD 1 was accepted by the Department in September 2021.

Modification 2 ('MOD 2') to SSD 6666 was submitted to the Department in September 2021. The MOD 2 application sought an amendment to the Site boundary to reduce the overall project footprint. The reduced project footprint resulted in a reduction in the area of native vegetation required to be cleared for the Project and therefore required a recalculation of the biodiversity credit requirements specified in Condition B41 of SSD 6666. In addition, MOD 2 sought the removal of Condition B38 of SSD 6666 which described an area within the Site as potentially archeologically significant which since has been proven to be an area of historical fill placement, including some contaminated material. Discussions with the Department resulted in the Project boundary remaining unchanged, but the required/ approved area of vegetation clearance was reduced as proposed. MOD 2 was accepted by the Department in March 2022.

The approved activities under DA 8/2015/399/1, DA 8/2018/46 and SSD 6666 (including MOD 1 and MOD 2) are collectively referred to as the 'Project'.

### 1.2.3 Outline of Activities

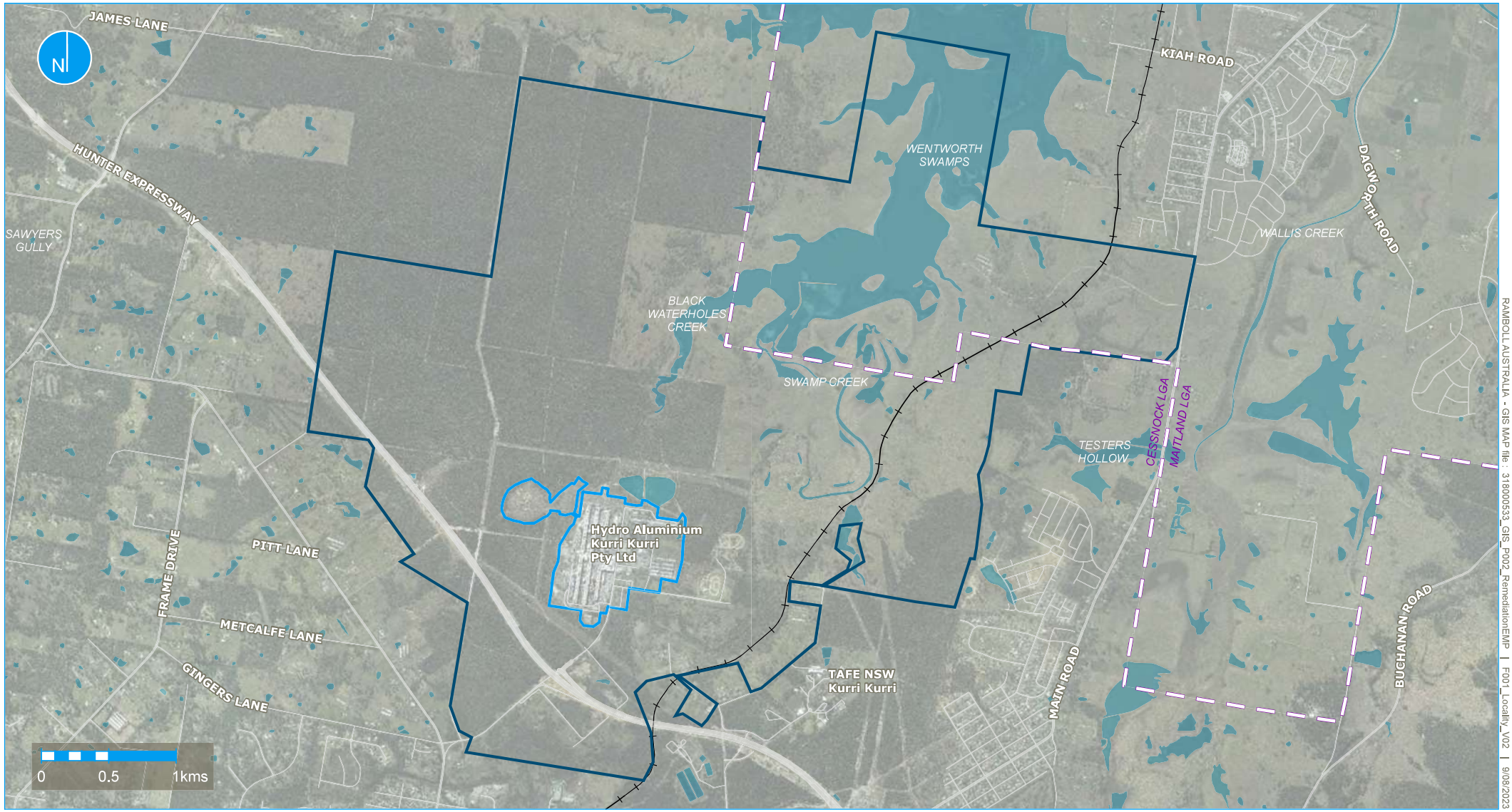
The current and scheduled care and maintenance, decommissioning, demolition and remediation activities include:

- Management and maintenance of the existing infrastructure (such as the drainage and stormwater management infrastructure; and managing damaged buildings and structures).
- Salvage and sale of reusable machinery and equipment.
- Waste management (including waste oils, wastewater, hazardous materials and non-reusable materials, machinery and equipment).
- Pre-demolition activities within Smelter buildings, including removal of asbestos and other hazardous waste materials.
- The removal of Smelter process materials from the Smelter to an approved facility.
- Preparation of other buildings for use as temporary storage areas for waste materials.
- Preparation for future off-site recycling of spent pot lining inclusive of onsite preparation works.
- Stockpiling of contaminated soils (from the Hydro Land).

- Staged demolition activities (Stage 1 and Stage 2) (**Figure 2-1**).
- Containment Cell construction, material emplacement and capping of the cell (**Figure 2-2**).
- Capped Waste Stockpile removal and management (**Figure 2-2**).
- Removal of known contaminated soils within the Smelter to the Containment Cell (**Figure 2-2**).
- Leachate treatment and management by use of a temporary water treatment plant (TWTP).
- Rehabilitation and stabilisation of disturbed areas.
- Hydro land management (such as weed control, waste management, management of leased residences).

These activities are described in more detail in **Section 2.1**.

The RWEMP, including the monitoring, management and reporting requirements, will be reviewed and revised as required as additional activities commence at the Smelter.




RAMBOLL AUSTRALIA - GIS MAP file: 318000533_GIS_P002_RemediationEMP | F001_Locality_V02 | 9/08/2023



**Legend**

- Hydro owned land
- Project site
- LGA boundary

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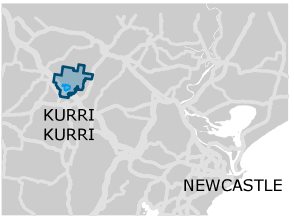
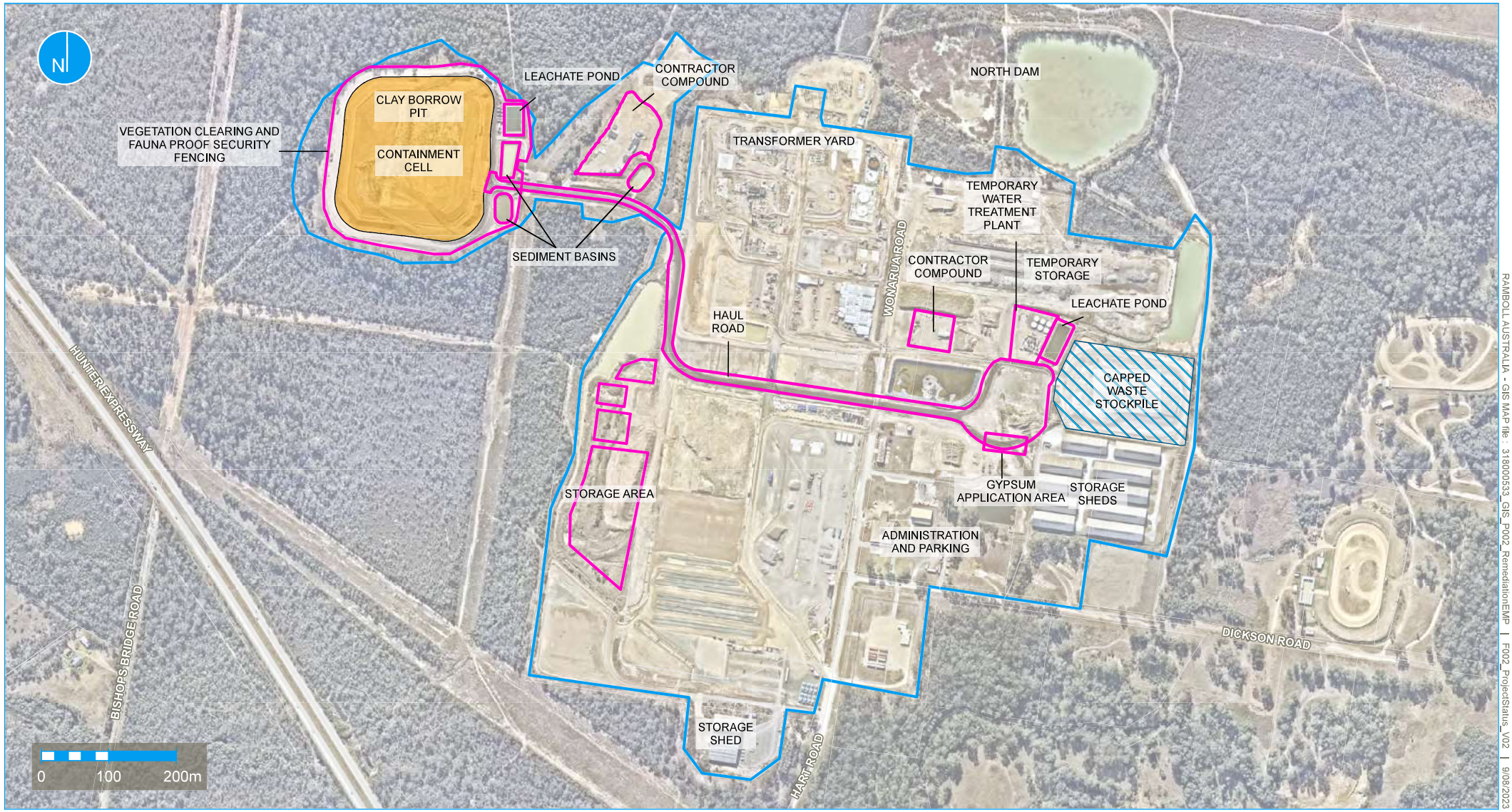



**Figure 1-1 | Smelter and Hydro Land Locality Plan**




Aerial photography by Nearmap, flown 01.07.2023

RAMBOLL AUSTRALIA - GIS MAP file : 318000533_GIS_P002_RemediationEMP | F002_ProjectStatus_V02 | 9/08/2023

**Legend**

- Project site
- Status of project activities
  - Completed and under operation
  - Under removal
  - Under construction

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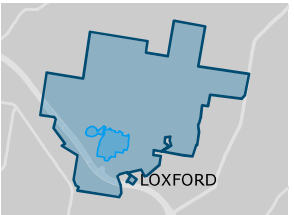



**Figure 1-2 | Status of Project Activities**

## 1.3 RWEMP Context

### 1.3.1 Scope of the RWEMP

In accordance with Condition C2 of SSD 6666, Hydro is required to prepare a Remediation Works Environmental Management Plan (RWEMP) for the Project. However, to facilitate holistic environmental management of the site, this RWEMP has been prepared to include both remediation and demolition activities associated with the Project.

As such, this RWEMP has been prepared with consideration of the following:

- The existing Smelter and Hydro Land management, maintenance and monitoring activities
- The existing and scheduled decommissioning, pre-demolition, demolition and remediation activities
- DA 8/2015/399/1 granted by Council in March 2016 and supported by the *Demolition of Former Aluminium Smelter Buildings at Kurri Kurri: Statement of Environmental Effects* (Ramboll Environ, 2015) (referred to as 'Stage 1 Demolition')
- DA 8/2018/46 granted by Council in January 2018 and supported by *Former Hydro Aluminium Kurri Kurri Smelter Stage 2 Demolition* (Ramboll, 2018) (referred to as 'Stage 2 Demolition')
- State Significant Development (SSD) 6666 consent granted by the Department of Planning, Industry and Environment (DPIE) on 23 December 2020 and supported by *Environmental Impact Statement Former Hydro Aluminium Kurri Kurri Smelter Demolition and Remediation* (Ramboll Environ, 2016) (the EIS) and *Response to Submissions Report: Former Hydro Aluminium Kurri Kurri Smelter Remediation* (Ramboll 2019) (the RTS)
- MOD 1 to SSD 6666 for the construction and operation of a TWTP for leachate management granted by DPIE on 13 September 2021. MOD 1 was supported by the *Statement of Environmental Effects: Modification 1 to SSD 6666 – Temporary Water Treatment System* (Ramboll 2021) (referred to as 'MOD 1 SEE')
- MOD 2 to SSD 6666 for the amendment of vegetation clearance areas and associated biodiversity credits, as well as the removal of condition B38 relating to an area of high archaeological sensitivity that was incorrectly classified granted by the DPIE on 4 March 2022. MOD 2 was supported by the *Statement of Environmental Effects: Modification 2 to SSD 6666: Project Boundary and Aboriginal Heritage Amendments* (Ramboll 2021) (rereferred to as 'MOD 2 SEE')
- The Smelter and various Hydro Land Remedial Action Plans (RAPs)
- The *Containment Cell Design Report* (GHD, 2018)
- Hydro's Environment Protection Licence (EPL) No. 1548

### 1.3.2 Purposes of the RWEMP

The purposes of the RWEMP are to:

- Provide an easily interpreted reference document that ensures that environmental commitments, safeguards and management measures are being implemented, monitored, audited and improved.
- Document the hazard and risk identification and management process for the activities, and to document the systematic process of implementing controls to minimise the potential impacts of the decommissioning, demolition and remediation activities on the environment.
- Address the environmental management requirements of: relevant legislation, regulation and planning instruments; Hydro's Environment Protection Licence; and commitments made in the *Statement of Environmental Effects: Modification of Development Consent for Upgrades to the Waste Storage Facilities at Hydro Aluminium Kurri Kurri* (ENVIRON, 2015); S*tatement of Environmental Effects: Demolition of Smelter Buildings at Kurri Kurri* (Ramboll Environ, 2015); *Environmental Impact Statement: Stage 2 Demolition* (Ramboll, 2018); *Environmental Impact Statement: Former Aluminium Kurri Kurri Smelter Demolition and Remediation* (Ramboll Environ, 2016); *Response to Submissions Report: Former Aluminium Kurri Kurri Smelter Remediation* (Ramboll, 2018); *Statement of Environmental Effects: Modification 1 to SSD 6666 – Temporary Water Treatment System* (Ramboll 2021);

*Statement of Environmental Effects: Modification 2 to SSD 6666: Project Boundary and Aboriginal Heritage Amendments* (Ramboll 2021)and associated documentation.

### 1.3.3 Requirements for the RWEMP

The specific requirements of the RWEMP are provided in Condition C2 and Condition C3 of SSD 6666 and are listed in **Table 1-1**, along with an indication of where each has been addressed.

Part C Condition C1 of SSD 14_666 also provides those requirements relevant to management plans generally and is also included in **Table 1-1**.

**Table 1-1: RWEMP Requirements and Where Addressed**

| Con | Requirement | Where Addressed |
|---|---|---|
| C1 | **Management Plan Requirements**<br>Management plans required under this consent must be prepared in accordance with relevant guidelines, and include: | |
| a | detailed baseline data; | Refer to relevant sub-plans |
| b | details of: | |
| | (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions); | **Section 2.2** to **Section 2.4** |
| | (ii) any relevant limits or performance measures and criteria; and | Refer to relevant sub-plans |
| | (iii) 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; | Refer to relevant sub-plans |
| c | a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria; | **Section 4** |
| d | a program to monitor and report on the: | |
| | (i) impacts and environmental performance of the development; and<br>(ii) effectiveness of the management measures set out pursuant to paragraph (c) above; | **Section 3.5** and **5.1** |
| e | a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible; | **Section 5.4** |
| f | a program to investigate and implement ways to improve the environmental performance of the development over time; | **Section 5** |
| g | a protocol for managing and reporting any: | |
| | (i) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria); | **Section 3.5.4** |
| | (ii) complaint; | **Section 3.5.5** |
| | (iii) failure to comply with statutory requirements; and | **Section 5.4** |
| h | a protocol for periodic review of the plan. | **Section 5.5** |
| | ***Note:*** *the Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.* | |

| Con | Requirement | Where Addressed |
|---|---|---|
| C2 | **REMEDIATION WORKS ENVIRONMENTAL MANAGEMENT PLAN**<br>The Applicant must prepare a Remediation Works Environmental Management Plan (RWEMP) in accordance with the requirements of Condition C1 and to the satisfaction of the Planning Secretary. The RWEMP must: | |
| a | be approved by the Planning Secretary prior to the commencement of remediation works; | Noted |
| b | identify the statutory approvals that apply to the development; | **Section 2.2**, Section **2.3** and **Section 2.4** |
| c | outline all environmental management practices and procedures to be followed during remediation works associated with the development; | **Section 4.2** |
| d | describe all activities to be undertaken on the site during remediation works, including a clear indication of construction stages; | **Section 2.1** |
| e | detail how the environmental performance of the remediation works will be monitored, and what actions will be taken to address identified adverse environmental impacts; | **Section** 4, **Section 5** and **Appendix B to Appendix J** |
| f | describe the roles and responsibilities for all relevant employees, consultants and contractors involved in remediation works associated with the development; and | **Section 3.2** |
| g | include the management plans required under Condition C3 of this consent. | As listed below |
| C3 | As part of the RWEMP required under Condition C2 of this consent, the Applicant must include the following: | |
| a | Containment Cell Management Plan (see Condition B5); | **Appendix A** |
| b | Erosion and Sediment Control Plan (see Condition B17); | **Appendix C** |
| c | Air Quality Management Plan (see Condition B30); | **Appendix B** |
| d | Biodiversity Management Plan (see Condition B42); | **Appendix D** |
| e | Health and Safety Plan (see Condition B14); and | **Appendix E** |
| f | Community Consultation and Complaints Handling. | **Appendix F** and **Section 3.5.5** |

## 1.4 Structure of the RWEMP

The structure of this RWEMP consists of the main RWEMP document plus a series of specialist management plans. The specialist management plans (refer to **Section 4.1**) document the aspects, impacts, safeguards and monitoring requirements for each key environmental element, and also nominate who is responsible for implementing those controls together with the frequency/timing of implementation.

This RWEMP has the following structure:

- **Section 1. Introduction**: Provides background information on the Project and Hydro and introduces the RWEMP purpose and structure.
- **Section 2. Basis of Environmental Management**: Describes the context for environmental management at the Site and summarises the legislative and regulatory requirements that apply to the Project.
- **Section 3. Environmental Management**: Describes the overall environmental management system.

- **Section 4. Implementation**: Outlines the process for the implementation of the environmental management system.
- **Section 5. Monitoring and Review**: Describes the monitoring and review processes to be implemented at the Site for continual improvement.
- **Section 6 and Section 7. References and Limitations**: Lists the references used in the preparation of this RWEMP and the document limitations.
- **Appendices**: Specialist management plans (refer to **Section 4.1**) and supporting information to the RWEMP.

## 1.5 Structure of Environmental Management

This RWEMP provides a system and procedures to establish and maintain controls to manage potential environmental impacts during post closure activities of the Smelter. In addition it addresses the requirements of the development consent for SSD 6666, as described in **Section 1.3.3**.

**Section 3.2** of this RWEMP identifies the roles and responsibilities for environmental management within the Project Team, including the responsibilities of Hydro personnel, Hydro's consultants, the Demolition Contractor and the Remediation Contractor. In addition, **Section 4** and **Section 5** of this RWEMP and the supporting specialist plans (which form appendices to this RWEMP) identify the specific environmental management, monitoring and reporting requirements for Hydro personnel, Hydro's consultants, Demolition Contractor and the Remediation Contractor.

The contractors have been required to prepare a Demolition Environmental Management Plan (DEMP) and a Remediation Environmental Management Plan (REMP) as applicable. These plans (and supporting specialist management plans) detail the specific procedures and processes that the Demolition Contractor and the Remediation Contractor will implement to comply with the requirements of this RWEMP and (for remediation activities) the development consent for SSD 6666.

As such the hierarchy of environmental management documentation for the Project is:

- The requirements of the planning approvals described in **Section 2.2** (including the conditions described in **Section 1.3.3**) and the licences described in **Section 2.3**
- This RWEMP and the supporting specialist plans
- For demolition activities, the Demolition EMP and supporting specialist plans. These plans were submitted to Cessnock City Council
- For remediation activities, the Remediation EMP and supporting plans. These plans will be submitted to the Department to supplement this RWEMP and the supporting specialist plans

For the purpose of addressing Condition C2 of SSD 6666, **Section 4.1** identifies where the Remediation Contractor has prepared a plan that complements this RWEMP or supporting specialist plans.

# 2. BASIS OF ENVIRONMENTAL MANAGEMENT

## 2.1 Description of Activities

### 2.1.1 Existing and Programmed Activities

**Table 2-1** outlines the existing and scheduled activities to be undertaken at the Smelter and on Hydro Land.

**Table 2-1: Description of Activities**

| Activity | Description |
|---|---|
| **THE SMELTER** | |
| **Facility Management** | • Management of drainage, stormwater and sewer infrastructure.<br>• Building safety maintenance, to protect personnel and contractors from damaged structures. |
| **Salvage of Reusable Machinery and Equipment** | • Removal of a range of equipment and machinery.<br>• Identification of opportunities for machinery and equipment reuse at operational aluminium smelters.<br>• Equipment or machinery that is not acquired for reuse would be made available for metal recyclers. |
| **Removal of Smelter Process Materials** | • Preparations for recycling and reuse of the following materials:<br>  • Spent pot lining stored in buildings.<br>  • Ahead of Schedule (AOS) anode butts.<br>  • Baked and green anodes.<br>  • Crushed cathode blocks.<br>  • Pot shutdown butts.<br>  • Anode cover material (approximately 40-50% alumina in cryolite).<br>  • Ledge bath material (approximately 10-20% alumina in cryolite). |
| **Disconnection of Unnecessary Services** | • Removal of redundant infrastructure throughout the Smelter including electricity, telecommunications, water, sewer and gas infrastructure.<br>• Implementation of the Smelter servicing strategy, to retain services for buildings to be occupied during the Project, as well as maintaining and protecting services required for decommissioning and subsequent demolition activities. |
| **Decommissioning Activities** | • Removal of accessible hazardous materials. This includes removal of asbestos containing materials and synthetic mineral fibres and accessible excessive accumulated fines. This would be undertaken by hazardous materials removal contractors licensed with SafeWork NSW.<br>• Temporary storage of removed hazardous materials, including storage of Spent Pot Lining in the former anode baking furnace. |
| **Demolition Activities** | • Demolition of Smelter buildings and structures to a depth of 1.5 m below ground level including structures requiring demolition by detonation.<br>• Completion of hazardous materials removal.<br>• Management of demolition materials including operation of a mobile crushing plant.<br>• Grading of former building footprints.<br>• Further description of demolition activities is provided in **Section 2.1.2**. |

| Activity | Description |
|---|---|
| **Contamination Remediation** | • Investigations to determine the location, level and extent of contamination.<br>• Removal of contaminated material and transportation for stockpiling and environmental management within designated stockpiling areas of the Smelter prior to containment within the Containment Cell.<br>• Construction of, and placement of material within, the Containment Cell.<br>• Removal of the Capped Waste Stockpile and remediation of footprint.<br>• Leachate and groundwater treatment, management and monitoring.<br>• Further description of remediation activities is provided in **Section 2.1.3**. |
| **HYDRO LAND** | |
| **Contamination Remediation** | • Investigations to determine the location, level and extent of contamination.<br>• Removal of contaminated material and transported for stockpiling and environmental management at the Smelter prior to containment within the Containment Cell.<br>• Construction, management and monitoring of the Containment Cell.<br>• Leachate and groundwater treatment, management and monitoring.<br>• TWTP construction and operation.<br>• Further description of remediation activities is provided in **Section 2.1.3**. |
| **Demolition of Former Residences and Buildings** | • Hazardous materials management for buildings with known hazards.<br>• Stockpiling and disposal of demolition materials as required.<br>• Further description of demolition activities is provided in **Section 2.1.2**. |
| **Land Management** | • Mowing of grasses along Hart Road and on leased properties.<br>• Weed removal and management.<br>• Native vegetation restoration.<br>• Monitoring of illegal dumping and other unauthorised activities on Hydro Land. |
| **Environmental Monitoring** | • Continuation of environmental monitoring and reporting program (as described in this RWEMP). |

### 2.1.2 Demolition

Following completion of the decommissioning tasks described in **Section 2.1.1**, demolition of the Smelter buildings and structures has progressed in two stages.

**Figure 2-1** shows the location of the buildings that have been, and are remaining to be, demolished.

**Demolition to ground level of the buildings shown in Figure 2-1**

Figure 2-1 commenced first (Stage 1 Demolition), followed by demolition of the remaining buildings and structures, and below ground level across the Smelter site (Stage 2 Demolition).

Demolition typically involves the following steps (where applicable and safe to do so):

**Step 1: Pre-Demolition Activities**

- Establishment of the Demolition Contractor's compound within the demountable office and amenities buildings to the east of Pot Room 1 identified as Building 50A. **Figure 2-1** shows the location of the demolition support facilities.
- Delivery and mobilisation of plant and equipment.
- Delivery and establishment of the concrete and brick crushing plant.
- Establishment of the initial stockpile area. This would provide an area for stockpiling initial demolition material. The available area would increase as demolition progresses and part of the demolition footprint can be used for a larger stockpile area.
- Installation of temporary fencing and signage to delineate the Demolition site from surrounding areas. This would include establishing alternative vehicular and pedestrian access controls for non-demolition activities.
- Removal of landscaped areas.
- Installation of environmental controls, including: establishment of erosion and sediment controls; monitoring equipment; waste management and tracking protocols; and a water cart filling station. Environmental controls would continue to be inspected, managed and maintained throughout demolition in accordance with the RWEMP.

**Step 2: Demolition**

- Undertake preparatory works to the structure to facilitate the safe induced collapse.
- Removal of remaining hazardous materials by approved licensed contractors. There is the potential that some identified hazardous materials can only be removed following demolition of part of the structure. If such situations arise, demolition in this area would cease, the discovery of hazardous material reported to the Hydro Construction Manager and hazardous material removal would occur in controlled conditions by licensed removal contractors.
- There is potential for previously unidentified hazardous materials to be encountered (only becoming visible after removal of structural elements).
- Demolition of concrete structures with large excavators implementing induced collapse techniques, demolishing the structure to ground level in a safe and controlled manner.
- Where it is not safe to use controlled induced collapse techniques, systematic dismantling would be undertaken.
- Excavators with shear, hammer and pulveriser attachments would be used to separate metals from concrete. Hand held tools may also be required to assist.
- Demolition via detonation is required for three concrete stacks and a water tower. The blasting (detonation) activities would be undertaken by a specialist contractor in a safe and controlled manner.
- Demolition materials (concrete and bricks; ferrous and non-ferrous metals; non-recyclable wastes) would be transported to the designated stockpile areas.
- Establishment and operation of a concrete and refractory mobile crushing plant.

Demolition commenced in the western section of the Smelter to facilitate the establishment of a larger materials stockpile area.

### 2.1.3 Remediation

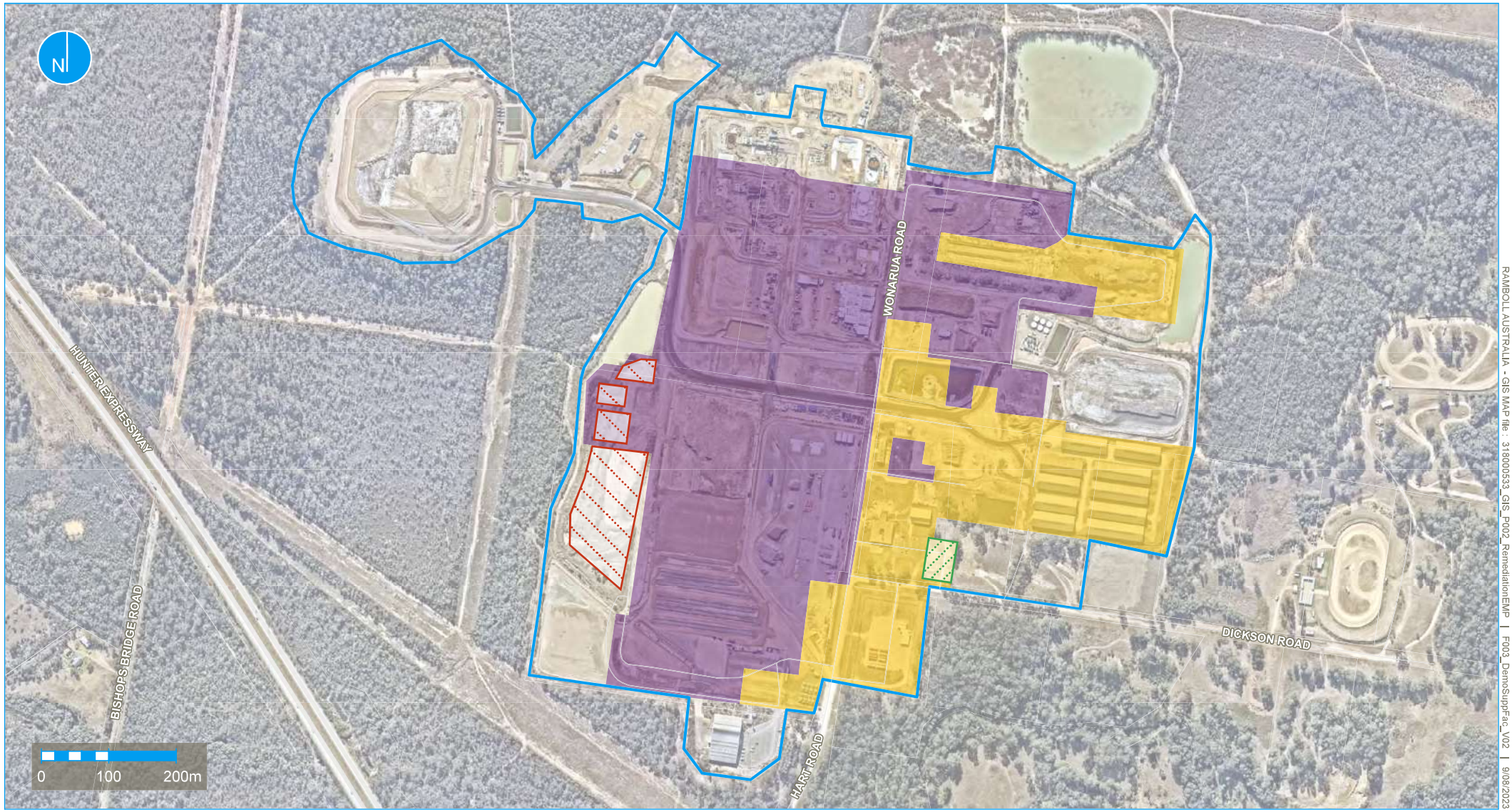
Progression of the demolition activities described in **Section 2.1.2** would enable commencement of the remediation activities as shown in **Figure 2-2**. This would include construction of the Containment Cell and remediation of the Smelter site through material emplacement within the Containment Cell. Remediation activities would be undertaken over a maximum period of four years from commencement in accordance with Condition A6 of SSD 6666 and would typically involve the following steps:

**Step 1: Pre-Remediation Activities**

- Establishment of the Remediation Contractor's compound and the contractor ancillary facilities within the confines of the Smelter. The Remediation Contractor will establish demountable office and amenities buildings in the south of the Smelter adjacent to the carpark. New services to the demountable buildings would be provided by the Remediation Contractor. **Figure 2-2** shows the location of the proposed remediation support facilities at the commencement of remediation. A secondary smaller compound would be located adjacent to the Containment Cell with the provision of

services.

- Delivery and mobilisation of plant and equipment.
- Establishment of stockpile areas. The stockpile area used for storage of demolition wastes would be utilised for the temporary stockpiling of contaminated soils generated by Category 2 remediation works in the Hydro Land and storage of topsoil and material to be reused in the capping of the Containment Cell. In addition, a soil storage area would be established in the north of the Smelter, immediately north of the haul road or an alternative location that would not impact on remediation activities.
- Installation of temporary fencing and signage to delineate the Remediation site from surrounding areas. This would include establishing alternative vehicular and pedestrian access controls for non-remediation activities.
- Installation of environmental controls, including: establishment of erosion and sediment controls; fencing of no-go areas including the area of potential archaeological significance and vegetation clearance limits; monitoring equipment; waste management and tracking protocols; and water cart filling stations. Environmental controls would continue to be inspected, managed and maintained throughout demolition in accordance with the EMP.




RAMBOLL AUSTRALIA - GIS MAP file: 318000533_GIS_P002_RemediationEMP | F003_DemoSuppFac_V02 | 9/08/2023

Aerial photography by Nearmap, flown 01.07.2023

**Legend**

- Project site
- Compound (demolition contractor)
- Stockpile area
- Stage 1 (above ground) and Stage 2 (below ground) - complete
- Stage 2 (Above and below ground) - ongoing

A4
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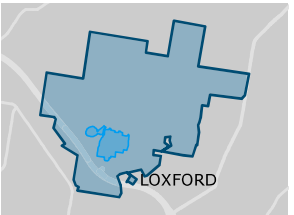



**Figure 2-1 | Demolition Support Facilities**

**Step 2: Site Preparation**

- Removal of the known Aboriginal relic located within the footprint of the Containment Cell in accordance with the *Aboriginal Heritage Management Plan* (Ramboll, 2020).
- Construction of the haul road between the Capped Waste Stockpile and Containment Cell including a crossing of the unnamed watercourse.
- Clearance of native vegetation, and installation of security fencing and environmental controls.
- Topsoil would be scraped and transported to the long term soil stockpile area and saved for reuse in the Containment Cell capping.
- Excavation of subsurface materials not to be used in Containment Cell construction. These would be stockpiled at the adjacent stockpile area.
- Construction of a perimeter access track. This would be constructed in the alignment of the long term service road.
- Construction of temporary water storage dams adjacent to the Containment Cell, comprised of three sediment detention basins and two Leachate storage ponds. This construction will include the provision of swales for directing stormwater runoff into the sediment detention basins.
- Construction of an onsite Temporary Water Treatment Plant (TWTP) for leachate management in the vicinity of the Capped Waste Stockpile for the treatment of leachate that is generated during the Works.

**Step 3: Containment Cell Construction**

Following completion of the site preparation activities, construction of the first stage of the Containment Cell would proceed based on the Containment Cell detailed design (GHD, 2018). The first stage includes all works required to complete the Cell to enable the placement of materials that are to be transferred from the Smelter for long term storage.

The Containment Cell Management Plan (CCMP) prepared in accordance with Condition B5 of SSD 6666 is provided in **Appendix 1**.

**Step 4: Capped Waste Stockpile Remediation**

Removal of the Capped Waste Stockpile would commence once the first stage of the Containment Cell has been constructed. Remediation of the Capped Waste Stockpile would include the following activities:

- Site establishment including ancillary stockpile and processing areas. Materials from the Capped Waste Stockpile are proposed to be directly loaded into trucks and transported to the Containment Cell, or temporary stockpile areas.
- Establishment of environmental controls including erosion and sedimentation measures.
- Cap removal and management. Cap removal would be undertaken to maximise segregation of the varying material types to allow for appropriate reuse.
- Once the required section of the capping has been removed, the contents of the Capped Waste Stockpile would be removed and transported for placement in the Containment Cell.
- Gypsum would be added to each load of material at the prescribed rate of 10% by weight using suitable plant with a weighing system with a specified tolerance.
- Trucks would be transported along the established haul road for placement within the Containment Cell.
- Trucks would transport the material under a material tracking system to maintain a record of the type and volume of materials removed.
- Material removal would continue until an inspection concludes that waste materials have been removed and natural soils are exposed and validated to meet the remediation criteria.
- Collection of leachate from the Capped Waste Stockpile and transfer to the TWTP
- Discharge of treated leachate to the existing Smelter water management system.
- Investigations into the contamination of the natural soils within the footprint of the Capped Waste Stockpile (including the temporary stockpile area and processing areas) would be required. Based on the results of the investigations, appropriate excavation of the soils and transportation to the Containment Cell would occur.
- Backfilling of the void with ENM soil.

**Step 5: Contamination Remediation**

As identified in **Figure 2-2**, known locations of contaminated soils occur within the Smelter land which include soils at or below surface that have been contaminated by Smelter activities, and stockpiled soils derived from Category 2 remediation works within the Hydro Land. These soils would be excavated, transported to and placed within the Containment Cell.

Some of these soils are contaminated by asbestos containing materials. These materials would be handled in accordance with applicable SafeWork NSW requirements to protect site personnel health and safety, while environmental controls would be implemented to avoid spillage of materials.

A material tracking system would be implemented throughout the contaminated soils transportation process.
Where required to facilitate the final landform, suitable (environmentally and geotechnically) material (such as crushed concrete and/ or soils) would be used to fill the resulting void from the removal of the contaminated soils.

**Step 6: Containment Cell Cap Construction**

Following completion of the material transfer and placement the Containment Cell capping would be constructed in accordance with the Containment Cell Detailed Design (GHD 2018).

**Step 7: Containment Cell Completion**

Upon completion of construction of the Containment Cell cap, the following activities would be undertaken:

- Construction of a service road (including drainage and safety structures) around the perimeter of the Containment Cell. Safety barrier fencing/ bollards would be provided between the service road and the Containment Cell, and a secured gate would limit access to authorised vehicles to undertake the maintenance (such as mowing) and required monitoring.
- Upgrade of the Containment Cell diversion drain. The diversion drain used during construction of the Containment Cell would be reconstructed to be a permanent structure and linked to the unnamed creek via a swale.
- Removal of the three sediment dams and the leachate dams and the reinstatement of the surrounding ground surface.

**Step 8: Rehabilitation and Stabilisation**

Rehabilitation and stabilisation would be a progressive activity, undertaken as soon as practical following completion of demolition and fill placement within an area, and once it is no longer required for vehicle access or material storage and stockpiling. Activities would include:

- Resulting voids from subsurface structures would be filled with crushed concrete and refractory bricks and suitably compacted to enable future land uses.
- Surfaces would be graded consistent with the final approved Landform Plan for the Project Site.
- Immediately following completion of grading, areas would be grass seeded.
- The existing surface water drainage system would be retained with modification.
- The haul road and selected sealed internal roads would remain as part of the final landform.
- The TWTP is expected be decommissioned after three years of operation until 2025, or if leachate generation at the site is greatly reduced during this time the TWTP may be decommissioned sooner.

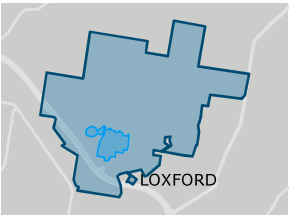
As of July 2023, Steps 1 through to 3 (pre-remediation activities, site preparation and Containment Cell construction) have been completed and Step 4 (capped waste stockpile remediation) and Step 5 (Contamination Remediation) are underway.


Aerial photography by Nearmap, flown 01.07.2023

**Legend**

- Project site
- AEC (Area of Ecological Concern)
- Stockpiled contaminated soil
- Gympsum application area - under operation
- Gympsum storage
- Compound (remediation contractor)

A4
1:8,000




RAMBOLL AUSTRALIA - GIS MAP file : 318000533_GIS_P002_RemediationEMP | F004_RemediationSuppFac_V02 | 9/08/2023

**Figure 2-2 | Remediation Support Facilities**

## 2.2 Planning Approvals

The Smelter is subject to several existing approvals granted under the *Environmental Planning and Assessment Act 1979* (EP&A Act). These relate both to the former smelting activities and recent post-operation activities that have required development approval.

**Table 2-2** identifies the development approvals under the EP&A Act that apply to the Smelter and the key elements of those approvals. This RWEMP describes how Hydro and its contractors would comply with the requirements of these development approvals.

**Table 2-2: Existing Planning Approvals**

| Consent Authority and Date | Key Elements |
|---|---|
| Department of Environment and Planning, 1981 | • Smelter expansion (construction of Potline 3 and increased production capacity).<br>• (Modification 1) Amendment to environmental monitoring reporting requirements. |
| Cessnock City Council, 1993 | • Capping of the spent cathode pile (now the Capped Waste Stockpile).<br>• Construction and operation of the spent pot lining storage sheds.<br>• Rehabilitation of the clay borrow pit.<br>• (Modification 1) Temporary storage of spent pot lining in the former anode baking furnace. |
| Department of Planning, 2002 | • Structural floor repairs to buildings and installation of Greenmix scrubber.<br>• Construction and operation of a new Anode Baking Furnace and upgrades of Potlines 2 and 3.<br>• Upgrade of Potline 1 and an increase in anode size across all potlines.<br>• (Modification 1) Construction and operation of a mechanised crucible cleaning plant.<br>• (Modification 2) Increase in the size of the crucible cleaning plant footprint. |
| Cessnock City Council | • Demolition of various properties:<br>  ○ Residences (8 Bowditch Avenue, 22 Bowditch Avenue, 12 Horton Road, 2 Dawes Avenue, 4 Dawes Avenue, 8 Dawes Avenue, Lot 444 Scales Avenue, 12 Bowditch Avenue, 16 Bowditch Avenue, 3 McLeod Avenue, 5 McLeod Avenue and 78 Hart Road.<br>  ○ Chicken shed (18 Bowditch Avenue)) |
| Cessnock City Council, 2016 | • Stage 1 Demolition (DA 8/2015/399/1) |
| Cessnock City Council, 2018 | • Stage 2 Demolition (DA 8/2018/46) |
| Maitland City Council, 2016 | • Demolition of two chicken sheds (Wangara) |
| Department of Planning, Industry and Environment, 2020 | • Remediation of the Smelter, including construction and management of the Containment Cell (SSD 14-6666)<br>• MOD 1 to SSD 6666 for the construction and operation of the TWTP<br>• MOD 2 to SSD 6666 for amendment to vegetation clearance areas and archaeologically sensitive area requirements. |

## 2.3 Licences

The Smelter's licences are issued and administered by the Environment Protection Authority (EPA). **Table 2-3** identifies the licences that apply to the Smelter and parts of the Hydro Land, and the key elements of those licences.

**Table 2-3: Existing Licences**

| Consent Authority and Date | Key Elements |
|---|---|
| Environment Protection Licence (*Protection of the Environment Operations Act 1997*) | The EPL No. 1548 includes the following key elements:<br>• The following scheduled activities:<br>  ○ Chemical storage >100 tonnes annual volume of waste generated or stored<br>  ○ Contaminated soil treatment |

| Consent Authority and Date | Key Elements |
|---|---|
| | The requirement for continued operation of the groundwater interception trench and leachate management system at the Capped Waste Stockpile.<br>• Ground water monitoring requirements.<br>• Management requirements for effluent irrigation and waste handling.<br>• The requirement for removal or treatment of all spent pot lining that is stored on the premises by 31 December 2021 (excluding any spent pot lining within the Capped Waste Stockpile). |
| Chemical Control Order Licence (*Environmentally Hazardous Chemicals Act 1985*) | The key requirements of the Chemical Control Order and licence are:<br>• Materials kept on site must be: secured so that no waste and/ or leachate can escape from the site; in a facility that is maintained in good condition; and in a secure manner that prevents unauthorized access.<br>• Materials can be processed: to research environmentally acceptable methods that reduce levels of leachable fluoride and/or cyanide; at the Smelter for the recovery of components, the making of other products, or to reduce levels of leachable fluoride and/or cyanide; at the Smelter with waste, water or other materials (except those with leachable fluoride and/or cyanide) to facilitate disposal.<br>• Materials can be conveyed (following EPA approval) to another location for treatment to reduce levels of leachable fluoride and/or cyanide.<br>• Materials can be disposed: if certified as approved aluminium smelter waste (which is smelter waste that does not contain leachable fluoride or leachable cyanide); and in accordance with the POEO Act. |

## 2.4 Legislative and Regulatory Requirements

**Table 2-4** is a register of the key applicable legislation, regulations and environmental planning instruments, and their impact on the works addressed by this RWEMP.

**Table 2-4: Key Legislation, Regulation and Planning Instruments**

| Action, Regulation or Instrument | Applicability to Hydro |
|---|---|
| *Biodiversity Conservation Act 2016* | Any new application for development consent or modification to one of the existing development consents will be subject to the biodiversity assessment requirements of the *Biodiversity Conservation Act 2016*.<br><br>Ecological assessments prepared for the Hydro Land and the SSD 6666 development application identified threatened biodiversity species habitat and endangered ecological communities listed under the repealed *Threatened Species Conservation Act 1995* and EPBC Act. The Biodiversity Management Plan (**Appendix D**) includes details on the locations of species and ecological communities, and the procedures to be implemented to avoid or minimise potential impacts. |
| *Contaminated Land Management Act 1997* (CLM Act) | Section 60 of the CLM Act requires landowners to notify the EPA if their activities have resulted in significant contamination of the land. Hydro has previously consulted with the EPA and the EPA determined that the Smelter and Hydro Land does not warrant regulation under the CLM Act. |
| *Environmentally Hazardous Chemicals Act 1985* (EHC Act) | The EHC Act establishes the procedure for the declaration and management of environmentally hazardous chemicals and chemical wastes. The EPA can make and implement a Chemical Control Order for such declared chemicals or wastes. A Chemical Control Order has been issued under the EHC Act that is applicable to aluminium smelter waste containing fluoride and/ or cyanide. As discussed in **Section 2.3** Hydro has a licence (Licence No. 5) issued under the CCO. |
| *Environmental Planning and Assessment Act 1979* (EP&A Act) | The EP&A Act establishes the planning approval process for activities within NSW. The process is implemented through the act, regulations and environmental planning instruments, including:<br>• *Environmental Planning and Assessment Regulation 2000*.<br>• *Cessnock Local Environmental Plan 2011* and *Maitland Local Environmental Plan 2011*.<br>• State Environmental Planning Policies.<br><br>As discussed in **Section 2.2** a number of activities at the Smelter and on the Hydro Land are to be undertaken in accordance with development consents issued under the EP&A Act. |
| Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) | The EPBC Act is the principal piece of legislation protecting Matters of National Environmental Significance and Commonwealth land. The EPBC Act requires proponents attain approval from the Minister of the Environment if a project is considered a 'controlled activity' due to potential significant impacts on Matters of National Environmental Significance. A referral was submitted to the Department of the Environment and Energy and it was determined that remediation was not a controlled activity.<br><br>The Biodiversity Management Plan (**Appendix D**) includes details on the locations of species and ecological communities listed under the EPBC Act, and the procedures to be implemented to avoid or minimise potential impacts. |
| *Fisheries Management Act 1994* (FM Act) | Permits are required under section 201 (for dredging or reclamation works), 205 (harm to marine vegetation) or 219 (blockage of fish passageway) of the FM Act.<br><br>The crossing of the unnamed watercourse under SSD 6666 does not require approval under the FM Act Any other works not subject to the development consent of SSD 6666 within watercourses that would require blockage of flows may require a permit under the FM Act. |

| Action, Regulation or Instrument | Applicability to Hydro |
|---|---|
| *Local Land Services Act 2013* (LLS Act) | The LLS Act regulates the management of native vegetation in rural zoned lands within specific local government areas, including Cessnock.<br>The LLS Act does not apply to the vegetation clearance approved under SSD 6666. Any other native vegetation clearing associated with environmental protection works (such as remediation) and/or associated with an activity that does not require development consent (such as Category 2 remediation works) does not require approval. |
| *National Parks and Wildlife Act 1974* (NPWS Act) | The NPWS Act is a broad piece of legislation that covers a number of different areas including reserving lands, managing certain reserved lands, the protection of Aboriginal objects and places, the protection of fauna and the protection of native vegetation.<br>The removal of the Aboriginal item known within the Containment Cell footprint does not require approval under the Act prior to its removal as it is included within SSD 6666. An Aboriginal Heritage Impact Permit under section 90 of the Act would be required for any other works not subject to SSD 6666 that would disturb Aboriginal sites or relics.<br>The Aboriginal Heritage Management Plan (Ramboll, 2020) includes details on the locations of recorded Aboriginal heritage sites, and the procedures to be implemented prior to undertaking activities to consider and manage potential impacts on unrecorded Aboriginal sites. |
| *Protection of the Environment Operations Act 1997* (POEO Act) | The POEO Act requires any person carrying out scheduled activities to obtain an environment protection licence (EPL) that authorises that work to be carried out at the premises. Scheduled activities are defined in Schedule 1 of the POEO Act.<br>As discussed in **Section 2.3** Hydro has EPL No. 1548 which applies to the premises. |
| *Roads Act 1993* | Section 138 of the Act requires that a person obtain the consent of the appropriate roads authority for the erection of a structure, or the carrying out of work in, on or over a public road, or the digging up or disturbance of the surface of a public road. None of the activities described in the RWEMP require works that impact on public roads.<br>The traffic generation on the public road network associated with the decommissioning, demolition and remediation activities would be managed by the Traffic Management Plan (Ramboll, 2020). |
| *Waste Avoidance and Resource Recovery Act 2001* (WARR Act) | The WARR Act establishes a hierarchy of waste management (avoid, recover, dispose) encouraging efficient use of resources and minimising waste. Waste materials generated during the Project would be managed in accordance with the principles of the waste management hierarchy referred to in the Act.<br>The Waste Management Plan (Ramboll, 2020) has been developed with consideration of the waste management hierarchy described in the WARR Act. |

| Action, Regulation or Instrument | Applicability to Hydro |
|---|---|
| *Water Management Act 2000* (WM Act) | The WM Act controls the extraction of water in areas subject to a Water Sharing Plan. This includes how water can be used, the construction of works such as dams and weirs, and the carrying out of activities on or near water sources in NSW. |
| *Water Act 1912* | A water use approval may be required under Section 89, a water management work approval under Section 90 or an activity approval (other than an aquifer interference approval) under section 91 of the WM Act. The *Water Act 1912* governs water management and the issuing of water licences in areas not subject to a Water Sharing Plan. The leachate interception trench that operates at the base of the Capped Waste Stockpile operates in accordance with a Groundwater Licence issued under Part 5 of the *Water Act 1912*.<br>The activities described in this RWEMP do not require interception of groundwater, the extraction of water or undertaking activities in or within 40 metres of a watercourse (excluding those activities authorised by existing approvals). In addition the works subject to SSD 6666 do not require the approvals under the WM Act identified above. |
| *Work Health and Safety Act 2011* (WHS Act) | The WHS Act is the principle piece of legislation governing health and safety in the workplace.<br>Hydro has prepared a Work Health and Safety Management Plan (WHSMP) that outlines the human health and safety management requirements for the current activities at the Smelter and Hydro Land in accordance with the WHS Act and WHS Regulation 2017. The WHSMP is provided in **Appendix E**.<br>Activities and/or incidents could potentially have both environmental and health and safety impacts (i.e. removal of hazardous materials), as such WHS requirements are also addressed in this RWEMP. |
| Australian Dangerous Goods Code | No dangerous goods, as classified by the Australian Dangerous Goods Code (Australian Code for the Transport of Dangerous Goods by Road & Rail), would be handled at the TWTP in quantities that could result in significant offsite impacts.<br>A Preliminary Hazard Analysis (PHA) has been prepared in accordance with *Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis* (DoP, 2011a), and *Multi-Level Risk Assessment* (DoP, 2011b) for the demolition and remediation activities. The resulting risk level and management for demolition and remediation activities is medium which can be managed with standard measures described in this RWEMP, including the WHSP. |
| *State Environmental Planning Policy (Resilience and Hazards) 2021* | The objective of the Resilience and Hazard SEPP is to encourage the remediation of contaminated land for the purpose of reducing the risk of harm to human health and the environment. This includes specifying remediation activities that require development consent.<br>Remediation activities under SSD 6666 are deemed Category 1 remediation works. Remediation activities not subject to SSD 6666 would be category 2 remediation as defined by the Resilience and Hazards SEPP, able to proceed without development consent. |
| Heavy Vehicle National Law 2015 (HVNL) | The objective of the HVNL is to regulate heavy vehicle operations, including road access, safety, compliance and notification requirements.<br>Proposal vehicles which do not meet overall dimensions as defined by legislation may not have general access to the road network and may have access restrictions placed upon them. Approval from RMS may be required for oversize vehicles that do not meet requirements. |

## 2.5 Environmental Aspects and Impacts

Aspects and impacts at the Smelter are identified in consideration of the activities being undertaken, as well as project approvals, licences and legislative requirements.

**Table 2-5** lists: the key environmental aspects; where the aspect could be an issue (the Smelter, the Hydro Land, or both); the potential environmental impacts; and where these potential impacts are addressed in this RWEMP.

**Table 2-5: Environmental Aspects and Potential Impacts and Issues**

| Aspect | Area | Potential Impacts or Issues | Where Addressed |
|---|---|---|---|
| Site Access | Smelter | • Increased onsite traffic generation, access restrictions | Demolition and Remediation Access Plan (Ramboll, 2020) |
| Traffic | Off Site | • Increased offsite traffic generation, heavy and oversize vehicle haulage | Traffic and Access Management Plan |
| Air Quality | Smelter | • Dust generation and airborne contaminants resulting from demolition (including blasting activities), earthworks, remediation activities and transport of materials to/from site<br>• Issues relating to human health and contaminant exposure (odour, air contaminants, soil and water contaminants) are addressed in the Work Health and Safety Management Plan | **Appendix B** |
| Noise and Vibration | Smelter and Off Site | • Demolition noise and vibration (including blasting activities), sleep disturbance, road traffic noise<br>• Remediation noise and vibration including operation of a mobile crushing plant, earthworks and transportation of waste materials to Containment Cell<br>• Operational noise of the TWTP | Noise and Vibration Management Plan |
| Soil, Surface Water and Groundwater | Entire Site | • Runoff from demolition and remediation areas and associated stockpiles<br>• Stormwater and wastewater management<br>• Potential interception of groundwater<br>• Potential impacts on surface water and groundwater quality<br>• Contaminated soils<br>• Contaminated groundwater management<br>• Leachate management via TWTP<br>• Malfunction or damage to the TWTP or transfer pipeline resulting in uncontrolled discharge of leachate | Soil and Water Management Plan<br>**Appendix C**<br>Temporary Water Treatment Plant Management Plan<br>Irrigation Management Plan |
| Waste | Smelter | • Storage and containment of wastes<br>• Recycling and reuse of waste<br>• Hazardous materials management | Waste Management Plan |
| Energy and Greenhouse | Smelter | • Emissions from demolition and remediation plant and equipment | Energy Efficiency Management Plan |
| Biodiversity | Entire Site | • Disturbance or removal of native vegetation or habitat<br>• Encounter or potential injury to native animals<br>• Weeds and pest management | **Appendix D** |

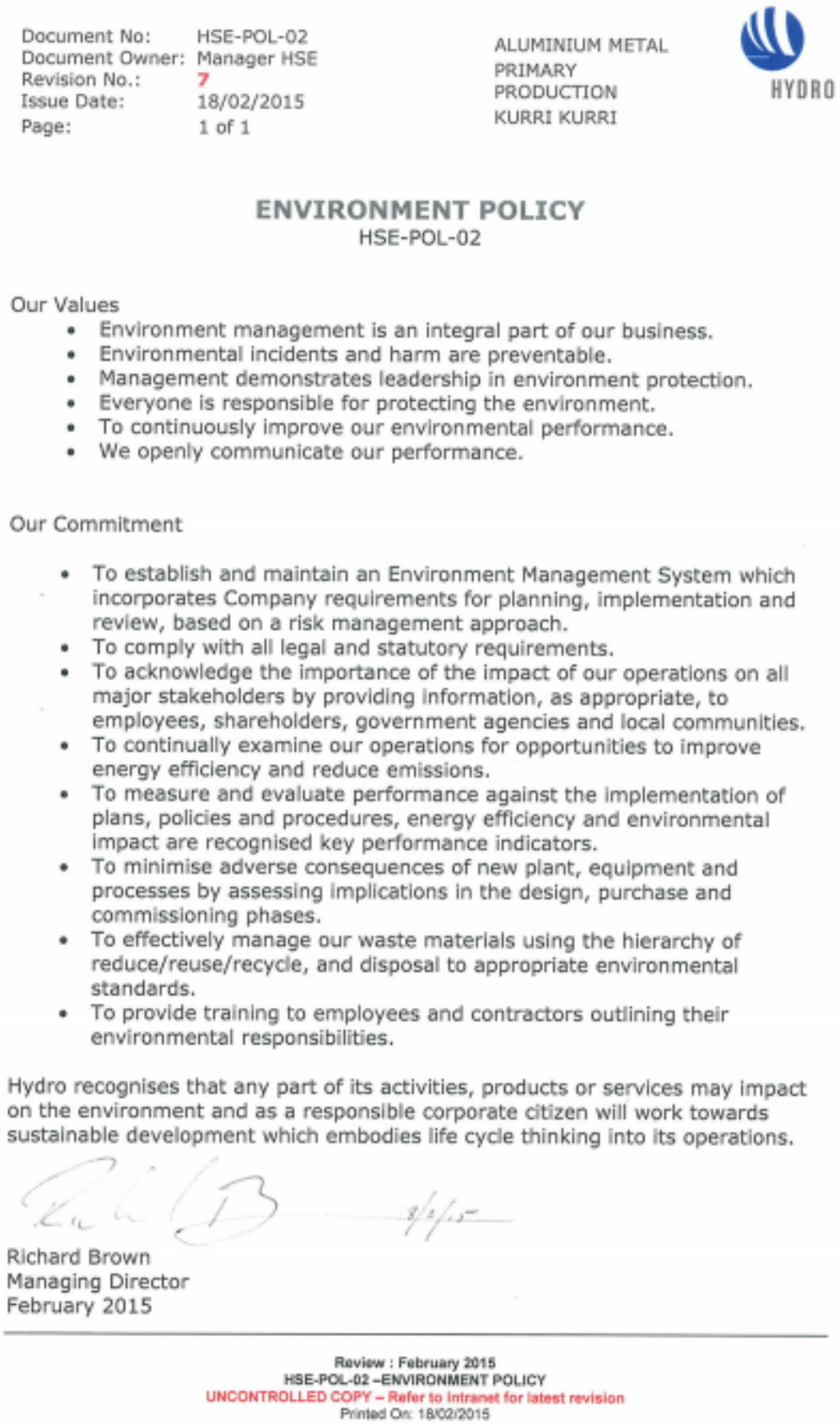
| Aspect | Area | Potential Impacts or Issues | Where Addressed |
|---|---|---|---|
| Aboriginal Heritage | Entire Site | • Disturbance of cultural heritage sites and/or areas | Aboriginal Heritage Management Plan |
| Non-Indigenous Heritage | Smelter | • Demolition of Smelter buildings (local social significance) | **Section 4.3** |
| Community Impacts | Smelter | • Visual amenity, dust, noise and vibration | **Appendix F** and **Section 4.2** |
| Hazardous Materials | Entire Site | • Potential health impacts<br>• Potential soil contamination | **Section 4.3** |

# 3. ENVIRONMENTAL MANAGEMENT

## 3.1 Environmental Policy

Hydro will seek to ensure that the environmental policy is understood, implemented and maintained by personnel at all levels. Hydro has made a specific commitment to protection of the environment, which is outlined in the Hydro Environmental Policy, and endorsed by the Managing Director. The commitments outlined in the Environmental Policy will be implemented through this RWEMP.

A copy of the Hydro Environmental Policy is shown in



Document No: HSE-POL-02
Document Owner: Manager HSE
Revision No.: 7
Issue Date: 18/02/2015
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ALUMINIUM METAL PRIMARY PRODUCTION KURRI KURRI

HYDRO

**ENVIRONMENT POLICY**
HSE-POL-02

Our Values

- Environment management is an integral part of our business.
- Environmental incidents and harm are preventable.
- Management demonstrates leadership in environment protection.
- Everyone is responsible for protecting the environment.
- To continuously improve our environmental performance.
- We openly communicate our performance.

Our Commitment

- To establish and maintain an Environment Management System which incorporates Company requirements for planning, implementation and review, based on a risk management approach.
- To comply with all legal and statutory requirements.
- To acknowledge the importance of the impact of our operations on all major stakeholders by providing information, as appropriate, to employees, shareholders, government agencies and local communities.
- To continually examine our operations for opportunities to improve energy efficiency and reduce emissions.
- To measure and evaluate performance against the implementation of plans, policies and procedures, energy efficiency and environmental impact are recognised key performance indicators.
- To minimise adverse consequences of new plant, equipment and processes by assessing implications in the design, purchase and commissioning phases.
- To effectively manage our waste materials using the hierarchy of reduce/reuse/recycle, and disposal to appropriate environmental standards.
- To provide training to employees and contractors outlining their environmental responsibilities.

Hydro recognises that any part of its activities, products or services may impact on the environment and as a responsible corporate citizen will work towards sustainable development which embodies life cycle thinking into its operations.

Richard Brown
Managing Director
February 2015

Review : February 2015
HSE-POL-02 –ENVIRONMENT POLICY
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**Figure** 3-1. The Environmental Policy is displayed at the Smelter site and on the Hydro intranet.

| | |
|---|---|
| Document No: | HSE-POL-02 |
| Document Owner: | Manager HSE |
| Revision No.: | 7 |
| Issue Date: | 18/02/2015 |
| Page: | 1 of 1 |

ALUMINIUM METAL PRIMARY PRODUCTION KURRI KURRI

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Richard Brown
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**Figure 3-1: Environmental Policy**

## 3.2 Environmental Management Structure

### 3.2.1 Project Team

Key personnel responsible for environmental management are outlined in the Hydro Organisational Chart.

**Table 3-1** identifies the Project team members with key environmental management roles and their responsibilities.

**Table 3-1: Hydro Personnel and Environmental Management Responsibilities**

| Position | Responsibilities |
|---|---|
| **OVERALL SITE MANAGEMENT** | |
| Managing Director | • Make certain that the Hydro Team and contractors are implementing this plan and associated plans and procedures; and have attained and are complying with applicable development approvals and permits.<br>• Provide adequate resources and funding for the implementation of this plan and associated plans and procedures.<br>• Review and approve RWEMP and sub-plans.<br>• Review and approve environmental reports prior to submission to relevant authorities.<br>• Liaise with government and community stakeholders regarding the Project activities.<br>• Coordinate and provide adequate and appropriate resources for incident response and investigation, risk assessments, and complaints management.<br>• Provide adequate resources and funding for the monitoring and auditing of: the implementation of this plan and associated plans and procedures; and overall environmental performance.<br>• Assign environmental roles and responsibilities to personnel.<br>• Make certain that activities that were the potential source of an environmental incident do not recommence until the incident outcome is controlled, the source of the incident confirmed, and appropriate corrective actions undertaken. |
| Principal Environmental Consultant | • Provide advice on and assistance in implementation, monitoring and auditing of environmental management and performance.<br>• Review and modify the RWEMP as directed by the Managing Director and/or Project Manager.<br>• Review the contractors' environmental management documentation prior to commencement of activities and provide feedback to the Project Manager.<br>• Undertake the compliance reporting requirements of SSD 6666 |
| Principal Communications Consultant | • Implementation of the Stakeholder Engagement Plan (**Appendix E**).<br>• Inform the community and other stakeholders of activities at the Project site<br>• Manage the mechanisms available for the community to receive information and to make enquiries or complaints about activities |
| **SMELTER DECOMISSIONING, DEMOLITION AND REMEDIATION ACTIVITIES** | |
| Project Manager | • Make certain that any proposed works or changes to existing activities, that may have an impact on the environment or the community, have the necessary legislative approval prior to the commencement of works.<br>• Make certain that the environmental aspects and issues, associated with proposed works or changes to existing activities, are adequately addressed in the RWEMP.<br>• Review and approve the RWEMP and sub-plans on an annual basis or when changes to Project activities occur.<br>• Assist in the response and investigation of environmental incidents and implement corrective actions (as required) arising from environmental incidents and audits relating to activities at the Smelter.<br>• Facilitate implementation of the RWEMP.<br>• Scheduling and general oversight of TWTP operation, maintenance, and progress activities. |

| Position | Responsibilities |
|---|---|
| Construction Manager | • Verify that the work of contractors and Hydro personnel on the Project are undertaken in accordance with this RWEMP, relevant environmental management plans, procedures and standards.<br>• Advise the Managing Director and/or Project Manager of the need to stop work in the event of an environmental incident.<br>• Provide appropriate training to contractors and Hydro personnel on the Project regarding environment and community requirements and responsibilities.<br>• Review and approve the contractors' environmental management documentation prior to commencement of activities and inform contractors of changes to the RWEMP.<br>• Assist in the response and investigation of environmental incidents and implement corrective actions arising from environmental incidents and audits. |
| Contract Administrator | • Provide relevant environmental legislative, regulatory and management requirements in tender documentation.<br>• Verify that the work of contractors is undertaken in accordance with this RWEMP and other relevant environmental procedures and standards.<br>• Undertake environmental background checks of potential contractors prior to procurement, and/or during the tender process. |
| Workplace Health and Safety (WHS) Manager | • Provide Hydro personnel with the necessary tools and training to enable effective implementation of the RWEMP.<br>• Implement and maintain an induction package to be provided to all personnel working at the Smelter and Hydro Land, which will include information relevant to the environmental and community management.<br>• Maintain a record of personnel induction and training records.<br>• Coordinate the response and investigation of environmental incidents and implement corrective actions arising from environmental incidents and audits.<br>• Review a contractors' environmental management documentation prior to commencement of activities and provide feedback to the Project Manager.<br>• Undertake a weekly inspection of the Project activities at the Smelter, for the duration of the Project.<br>• Verify that the work of contractors and Hydro personnel at the Smelter are undertaken in accordance with this RWEMP and other relevant environmental procedures and standards.<br>• Make certain that activities that were the potential source of an environmental incident cease until the incident outcome is controlled, the source of the incident confirmed and appropriate corrective actions undertaken. |
| Environmental Site Auditor | • Verify and sign-off on remediation activities. |
| Demolition Contractor | • Comply with the requirements of this RWEMP as it applies to Smelter demolition activities.<br>• Implement the environmental measures and actions as described in this RWEMP and the relevant sub-plans through a Demolition EMP, sub-plans and specific procedures.<br>• Develop and implement procedures for self-checking environmental management compliance with the Demolition Contractor's EMP, plans and procedures and this RWEMP.<br>• Report potential or actual environmental incidents associated with demolition activities at the Smelter, and assist as required in the investigation, implementation of corrective actions and recording of the incident. |

| Position | Responsibilities |
|---|---|
| Remediation Contractor | • Comply with the requirements of this RWEMP as it applies to Smelter and relevant Hydro Land remediation activities.<br>• Implement the environmental measures and actions as described in this RWEMP and the relevant sub-plans through a Remediation EMP, sub-plans and specific procedures.<br>• Develop and implement procedures for self-checking environmental management compliance with the Remediation Contractor's EMP, plans and procedures and this RWEMP.<br>• Report potential or actual environmental incidents associated with remediation activities at the Smelter and relevant Hydro Land, and assist as required in the investigation, implementation of corrective actions and recording of the incident. |
| **CARE, MAINTENANCE AND HYDRO LAND MANAGEMENT ACTIVITIES** | |
| Commercial Manager | • Coordinate environmental background checks to determine whether potential contractors have been involved in court proceedings or have been issued with environmental penalty notices from Government Departments.<br>• Coordinate the inclusion of relevant environmental legislative, regulatory and management requirements in tender and procurement documentation. |
| Environmental Officer/ Hydro Land Manager | • Coordinate and implement the environmental monitoring program.<br>• Make certain that activities that were the potential source of an environmental incident cease until the incident outcome is controlled, the source of the incident confirmed, and appropriate corrective actions undertaken.<br>• Advise the Managing Director and/or Project Manager of an actual or potential environmental incident within the Hydro Land and the immediate action that has been undertaken.<br>• Assist in the response and investigation of environmental incidents and implement corrective actions (as required) arising from environmental incidents and audits relating to activities on Hydro Land.<br>• Verify that the work of contractors and Hydro personnel on Hydro Land are undertaken in accordance with this RWEMP and relevant environmental procedures and standards.<br>• Undertake a weekly inspection of activities on the Hydro Land that would occur for two weeks or more. |
| **ALL OTHER AREAS AND ACTIVITIES** | |
| Contractors | • Comply with the requirements of the RWEMP as it applies to site environmental management and control.<br>• Implement the environmental measures and actions as described in the RWEMP and the relevant sub-plans through procedures and management plans that comply with this RWEMP and the relevant sub-plans.<br>• Develop and implement procedures for self-checking environmental management compliance with Contractor's procedures and this RWEMP.<br>• Report potential or actual environmental incidents associated with activities at the Smelter or on Hydro Land, and assist as required in the investigation, implementation of corrective actions and recording of the incident. |
| All Personnel | • Implementation of the relevant environmental measures described in this RWEMP applicable to their activities.<br>• Stop work in the event of an actual or potential environmental incident.<br>• After ceasing the activity that is the known or potential source, report potential or actual environmental incidents associated with activities at the Smelter or on Hydro Land, and assist as required in the investigation, implementation of corrective actions and recording of the incident. |

### 3.2.2 Contractors

There will be a number of contractors undertaking activities described in **Section 2.1**. One principal contractor is responsible for the demolition activities described in **Section 2.1.2** (the

Demolition Contractor), and one principal contractor is responsible for the remediation activities described in **Section 2.1.3** (the Remediation Contractor). This RWEMP refers to the responsibilities of all contractors however also specifically identifies individual responsibilities of the Demolition Contractor and the Remediation Contractor where required.

All contractors are responsible for environmental performance and were made aware of these responsibilities through the tender process and (when appointed) the Smelter induction process, as outlined in **Section 3.3.2**.

All contractors and their employees would be required to comply with the requirements of this RWEMP as it applies to site environmental management and control. This will be achieved through employees being informed of the requirements of the Demolition EMP or Remediation EMP, as applicable, through inductions and toolbox meetings.

The Construction Manager or WHS Manager (as appropriate for the contractor's activities) is responsible for monitoring the work of contractors on site. This includes development and implementation of a standard monitoring form that will be used to assess the effectiveness of the contractors' environmental protection measures and compliance with the requirements of the RWEMP.

The contractors engaged by Hydro have the following responsibilities regarding the environmental performance of the contract:

- Implementing the environmental measures and actions as described in the RWEMP and the relevant sub-plans. All site contractors are required to develop and implement procedures and management plans that comply with this RWEMP and the relevant sub-plans. These would need to be reviewed and approved by the Hydro Project Manager and Construction Manager (with inputs from the Principal Environmental Consultant as required) prior to commencement of activities
    - As discussed in **Section 1.5** the Demolition Contractor and Remediation Contractor are each required to prepare a Demolition EMP and Remediation EMP, respectively. These plans describe the specific measures to be implemented to manage the environmental effects of their specific activities, consistent with this RWEMP. These are reviewed for consistency with this RWEMP by the Project Manager and the Principal Environmental Consultant prior to the commencement of activities
- Advising the Hydro Project Manager or Construction Manager (as appropriate) of any environmental incidents that occur as a result of their activities.

## 3.3 Resources and Training

### 3.3.1 Resources

Hydro is committed to providing resources for the following activities:

- Development, implementation, upgrade and review of this RWEMP.
- Monitoring and inspection of site environmental controls.
- Development, implementation, upgrade and review of environmental sub-plans (refer to the appendices to this RWEMP) and incorporation of requirements of the RWEMP in work activities methodology, procedures and works instructions.
- Document control of environmental documents, legislation, standards and filing of environmental records.
- Environmental monitoring and auditing of environmental performance.

The resources for implementing environmental controls include the personnel identified in **Section Table 3-1**.

### 3.3.2 Inductions and Training

Site personnel will be provided with general environmental awareness information (including the relevant contents and requirements of this RWEMP) as part of the site induction process. This will provide site workers with the appropriate level of awareness and competence appropriate to their

assigned activities. Additional training may be required for specific tasks and will be undertaken on an as needs basis.

The Hydro WHS Manager, and relevant representatives of the Demolition Contractor and Remediation Contractor, will maintain a record of personnel induction and training records. Training records will include details of:

- Name of the person who was trained
- Date the training was completed
- Name of the trainer
- A general description of the training content
- Date when refresher training is required.

### 3.3.3 Contractor and Subcontractor Requirements

All contractors and their subcontractors are required to comply with this RWEMP. As noted in **Table 3-1** The Demolition Contractor and Remediation Contractor were required to prepare a Demolition EMP and Remediation EMP respectively and submit for Hydro review and approval prior to commencing activities. Hydro is to be provided a revised copy of the EMP in the event of any amendments.

Prior to commencing work onsite, subcontractors are required to undertake the appropriate induction (by the Demolition Contractor, Remediation Contractor or the Smelter induction), and provide the Hydro Construction Manager or Hydro Site Services Manager (as appropriate) with Safe Work Method Statements (SWMS) or Job Safety Environmental Risk Assessments (JSERA) that incorporate the relevant requirements of this RWEMP.

## 3.4 Emergency Contacts and Response

The Hydro Workplace Health and Safety Plan provided in **Appendix E** describes the procedures to be implemented in the event that an emergency occurs at the Smelter. This includes the organisations to be contacted and their contact details.

## 3.5 Reporting

### 3.5.1 Environmental Reporting

Existing internal environmental reporting is undertaken in accordance with Environment Report Database maintained by the Hydro Environmental Officer. The Database is used to track reporting requirements, due dates and responsibilities for all statutory reporting. To ensure compliance, records of report submission are kept to verify that reporting requirements have been completed.

Internal reports that include environmental information are:

- Environmental Incident Reports
- Inspection Reports. This is discussed further in **Section 5.2**
- Internal auditing reports. This is discussed further in **Section 5.3**

Hydro has a statutory requirement to prepare the reports listed in

**Table** 3-2**.**

**Table 3-2: External Reporting**

| Document | Frequency | Statutory Requirement/s |
|---|---|---|
| Annual Environmental Management Report | Annual | Condition 7.5 of DA No. 73-3-2002 |
| EPL Annual Return | Annual | Condition R1.2 of EPL No. 1548 |
| Annual Waste Management Report | Annual | Condition R1.8 of EPL No. 1548 |
| Compliance Reporting | Refer to **Section 3.5.1.1** | Condition C11 and C12 of SSD 6666 |

#### 3.5.1.1 Remediation Compliance Reporting

As required by Condition C14 of SSD 6666, Hydro will undertake compliance reporting for the duration of the remediation activities. The audits will:

- Be prepared in accordance with the *Compliance Reporting Post Approval Requirements* (DPIE 2018)
- Be conducted at the times described in the Compliance Monitoring and Reporting Program as submitted to the Secretary of the Department
- Assess the environmental performance of the development and whether it is complying with the requirements in this consent and the EPL
- Be made publicly available within 60 days of their submission to the Department

The Compliance Monitoring and Reporting Program requires reports to be prepared and submitted to the Department in accordance with the following:

- Within three months from the commencement of remediation
- Every 12 months from submission of the original Compliance Report

### 3.5.2 Remediation Validation Reporting

The remediation activities are subject to reporting requirements at different stages of the remediation process to validate activities have been undertaken in accordance with SSD 6666 and the Smelter RAP (Ramboll, 2018) and the Dickson Road Landfill RAP (Ramboll, 2018). These are provided as part of the Contaminated Soil Management Plan that is in the Soil and Water Management Plan (**Appendix F** of this RWEMP).

Validation criteria, processes and reporting are contained within the Smelter RAP (Ramboll, 2018). In addition to the commitments within the RAP, SSD 6666 requires the reporting detailed in **Table 3-3**.

**Table 3-3: Validation Reporting required by SSD 6666**

| Reporting requirement | Timing | Condition Reference |
|---|---|---|
| Remediation Validation Report | Within 6 months of completion of the remediation works or another timeframe agreed by the Planning Secretary | B10 |
| Site Audit Report and Site Audit Statement | Within six months of submission of the Validation Report required under Condition B7 or another timeframe agreed by the Planning Secretary | B11 |

### 3.5.3 Auditing

#### 3.5.3.1 Internal Audits

The Hydro Construction Manager or WHS Manager (as appropriate for the contractor's activities) is responsible for monitoring the work of contractors on site. This includes development and implementation of a standard monitoring form that will be used to assess the effectiveness of the contractors' environmental protection measures and compliance with the requirements of this RWEMP. This is discussed further in **Section 5**.

#### 3.5.3.2 Remediation Independent Environmental Audit

As required by Condition C13 of SSD 6666, Hydro will commission an Independent Environmental Auditor to undertake one audit within one year of commencing the remediation works, and every two years thereafter. The audits will:

- Be prepared in accordance with the *Independent Audit Post Approval Requirements* (DPIE 2020)
- Be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary of the Department
- Assess the environmental performance of the development and assess whether it is complying with the requirements in this consent and the EPL
- Be reviewed and responded to by Hydro
- Be made publicly available within 60 days of their submission to the Department

### 3.5.4 Environmental Incidents

The Definitions section of the Development Consent for SSD 6666 defines "incidents" as "*An occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance*".

In turn it defines "material harm" as *harm that:*

*(a) involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial, or*

*(b) results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000, (such 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)*"

Similarly, EPL 1548 refers to the definition of material harm provided in Section 147 of the POEO Act, which states:

*(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.*

Section 147(2) also states that *"For the purposes of this Part, it does not matter that harm to the environment is caused only in the premises where the pollution incident occurs."*

In accordance with the Protection of the *Environment Legislation Amendment Act 2011* (POELA Act) holders of an EPL are required to prepare and implement a pollution incident response management plan (PIRMP). The Pollution Incident and Emergency Response Management Plan (Hydro, 2020) has been prepared to satisfy this requirement for EPL No. 1548 and is to be consulted in the event of an environmental incident/ emergency.

An environmental incident may include a spillage or leak, failure of a pollution control device such as a bund or basin, major settlement, collapse of bank or embankment, catastrophic events (i.e. flood or fires), or unauthorised damage to protected vegetation or heritage items.

Notifiable incidents may include, but are not limited to:

- Monitoring results which show an exceedance of regulatory conditions
- Events which have or had the potential to cause significant on site or off site environmental impacts (material harm)
- Events which caused more than $10,000 worth of damage (including the costs for labour, machinery costs and materials to remediate)
- Events which are visible to the community.

The types of incidents that require notification depend on the extent of harm or potential damage to the environment. To ensure a consistent approach to environmental incident reporting, the Hydro Environmental Officer or Hydro WHS Manager, in consultation with the Project Manager, Construction Manager and Managing Director, will take responsibility for determining whether the incident is notifiable to the EPA and/ or the Department.

#### 3.5.4.1 Incident Response and Reporting

##### 3.5.4.1.1 Environment Protection Licence

In accordance with the POEO Act, if a pollution incident occurs in the course of an activity so that material harm to the environment is caused or threatened, licensees must immediately implement the PIRMP (section 153F, POEO Act).

The POEO Act requires immediate notification of any incident which causes actual or potential harm to the health or safety of human beings or ecosystems is not minor; or if actual or potential loss or property damage (including clean-up costs) associated with a pollution incident exceeds $10,000, to the following organisations:

- The appropriate regulatory authority (EPA for scheduled activities; Council for non-scheduled activities)
- Ministry of Health (via the Public Health Unit)
- SafeWork NSW
- Council (for scheduled activities)
- Fire and Rescue NSW

The Hydro Project Manager and Hydro Construction Manager are to be immediately notified of all potential and actual environmental incidents. All appropriate and safe actions should be undertaken to address the source of the potential environmental incident and mitigate its impacts. Details regarding incident response are outlined in the Emergency Services Cooperation Agreement.

##### 3.5.4.1.2 SSD 6666 Development Consent

In accordance with Condition C7 of SSD 6666 the Department must be notified in writing immediately after (and within seven days) Hydro becomes aware of an incident. The notification must identify the development (SSD 6666 and Hydro Remediation Project) and the following:

- Details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident)
- How the incident was detected
- When Hydro became aware of the incident
- Any actual or potential non-compliance with conditions of consent
- Describe what immediate steps were taken in relation to the incident
- Further action(s) that will be taken in relation to the incident
- A project contact for further communication regarding the incident.

#### 3.5.4.2 Incident Investigation and Reporting

##### 3.5.4.2.1 Environment Protection Licence

All environmental incidents will be investigated and documented, with investigations conducted to determine and manage the cause of the incident. All personnel are encouraged to report incidents or near misses, to ensure continual improvement of procedures, training or equipment.

An incident investigation includes the following key tasks:

- Identification of the cause, extent and responsibility for the incident
- Identification and implementation of the corrective action (short term and long term)
- Identification of the personnel responsible for the corrective action
- Implementation of controls and/or modification of existing procedures to avoid a repeat of the incident
- Documentation of any changes to existing procedures
- Advising the EPA of the incident (if the reporting requirements of the EPL are triggered).

Environmental incidents and the outcomes of investigations will be recorded on the on-line internal Hydro Incident Reporting System. Where appropriate the RWEMP will be revised to include any relevant findings from incident investigations and/or corrective actions implemented as a result.

##### 3.5.4.2.2 SSD 6666 Development Consent

In accordance with Condition C7 and Appendix 4 of SSD 6666 a detailed Incident Report must be provided to the Department (and any relevant public authorities as determined by the Department) within 30 days of the date on which the incident occurred (or as otherwise agreed to by the Department).

The Incident Report must include:

- A summary of the incident
- Outcomes of an incident investigation, including identification of the cause of the incident
- Details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence
- Details of any communication with other stakeholders regarding the incident.

The Incident Report would be structured to address the requirements of both EPL 1548 and Condition C7 of SSD 6666 and would be provided concurrently to both the Department and the EPA.

### 3.5.5 Non-Compliance

Condition C8 of SSD 6666 requires the Department to be notified within seven days after Hydro becomes aware of any non-compliance.

In accordance with Condition C9 of SSD 6666 a non-compliance notification must:

- Reference SSD 6666 and the Hydro Remediation Project
- Identify the condition of consent that the development is non-compliant with
- Describe the way in which it does not comply and the reason/s for the non-compliance (if known)
- What actions have been, or will be, undertaken to address the non-compliance

Where appropriate the RWEMP will be revised to include any relevant findings from non-compliance investigations and/or corrective actions implemented as a result.

### 3.5.6 Complaints

In accordance with Condition M3 of EPL No. 1548 and described in **Section 4.3**, Hydro maintains a telephone complaints line and other communication methods for receiving complaints from community members:

- Telephone: 1800 066 243
- Email: community.kurri@hydro.com
- Mail: Hydro Aluminium Kurri Kurri Pty Ltd
  PO Box 1
  Kurri Kurri NSW 2327

Community Complaints are considered environmental incidents and are investigated and documented accordingly. Investigations are conducted by the Environmental Officer, which includes provision of feedback to the complainant. Corrective actions are documented and regularly reviewed until completion and sign off.

Correspondence relating to community complaints are filed by the Hydro Project Manager or Hydro Environmental Officer through the on-line Hydro Incident Reporting System.

## 3.6 Record Keeping

Record keeping is required to ensure evidence of compliance with environmental legislation, approvals and licences. Environmental record keeping requirements are also outlined in relevant licences and approvals. All environmental records are to be maintained in accordance with the QMS and relevant statutory requirements.

Complaint records will be kept for a minimum of four years in accordance with Condition M3.1 of the EPL.

As discussed in **Section 3.3.2** the Hydro WHS Manager will maintain a record of personnel induction and training records.

### 3.6.1 Document Control

All controlled documents issued to employees and contractors are recorded via the document transmittal system. Documents located on the Hydro intranet are generally considered controlled copies. Printed copies are uncontrolled and identified as being so within the header or footer.

# 4. IMPLEMENTATION

## 4.1 Environmental Management Activities and Controls

Environmental management relies on the effective implementation of environmental management measures, which are the controls that will be implemented to mitigate risk and environmental impact. **Table 4-1** identifies the environmental management measures for mitigating potential environmental issues. As discussed in **Section 1.5**, for the purpose of addressing Condition C2 of SSD 6666 **Table 4-1** also identifies where the Remediation Contractor has prepared a plan that complements this RWEMP or supporting specialist plans.

Specialist management plans have been prepared for certain environmental aspects. If an environmental aspect has a specialist management plan, the management measures will be outlined within the relevant document.

The management plans required by the development consent for SSD 6666 have been included in this RWEMP as appendices. The other management plans form part of the demolition and remediation environmental management requirements that Hydro places upon its contractors.

These management plans include:

- Containment Cell Management Plan (**Appendix A**)
- Smelter Access Plan (Ramboll)
- Traffic Management Plan (Ramboll)
- Air Quality Management Plan (**Appendix B**)
- Noise and Vibration Management Plan (Ramboll)
- Erosion and Sediment Control Plans (**Appendix C**)
- Soil and Water Management Plan (Ramboll)
- Waste Management Plan (Ramboll)
- Energy Efficiency Management Plan (Ramboll,)
- Biodiversity Management Plan (**Appendix D**)
- Aboriginal Heritage Management Plan (Ramboll)
- Stakeholder Engagement Plan (**Appendix E**)
- Work Health and Safety Management Plan (**Appendix F**)

In addition, the Pollution Incident and Emergency Response Management Plan describes the procedures to be implemented in the event that a pollution incident occurs at the Smelter.

## 4.2 Environmental Management Procedures

As discussed in **Section 4**, work procedures developed and implemented by Hydro personnel and contractors are to incorporate as appropriate the environmental management requirements of this RWEMP.

## 4.3 Enquiries and Information

A Stakeholder Engagement Plan is included in **Appendix E**. The Plan describes:

1. How the community (nearby residents, the wider community, Council and other government agencies) would be informed of activities, including the activities program and key activities.
2. The methods available for the community to make a complaint, comment or enquiry regarding activities.
3. The process for recording, responding to and addressing any community complaints, comments or enquiries. As discussed in **Section 3.5.5** complaints are to be investigated using the incident investigation procedure described in **Section 3.5.1.1**.

In accordance with Condition C16 of SSD 6666, Hydro will make the following information available on the Project website:

- The documents referred to in Condition A2 of SSD 6666
- Current statutory approvals for the development
- All approved strategies, plans and programs required under SSD 6666
- Regular reporting on the environmental performance of the development
- A summary of the monitoring results of the development

- A summary of the current stage and progress of the development
- Contact details to enquire about the development or to make a complaint
- A complaints register, updated monthly
- The Compliance Report of the development
- Independent Audit Reports and Hydro's response to any recommendations
- Any other matter required by the Planning Secretary.

**Table 4-1: Environmental Management Activities**

| Issue/ Objective | Environmental Management Control | Relevant Management Plan | Person/s Responsible | Remediation Contractor Documentation |
|---|---|---|---|---|
| **Site Access** | | | | |
| Maintain safe and efficient access throughout the site during demolition and remediation activities | Implementation of the Demolition and Remediation Access Plan. | Demolition and Remediation Access Plan | Construction Manager<br>Demolition Contractor<br>Remediation Contractor | |
| **Traffic and Access** | | | | |
| Minimise impacts on local traffic | Implementation of the Traffic Management Plan. | Traffic Management Plan | Construction Manager / Project Manager<br>Demolition Contractor<br>Remediation Contractor | Remediation Traffic Management Plan |
| **Air Quality** | | | | |
| Minimise dust generation and off-site air quality impacts | Implementation of the Air Quality Management Plan. | Air Quality Management Plan (**Appendix B**) | Construction Manager/ Project Manager<br>Demolition Contractor<br>Remediation Contractor | Remediation Air Quality Management Plan |
| **Noise and Vibration** | | | | |
| Minimise noise and vibration impacts to off-site receptors | Implementation of the Noise and Vibration Management. | Noise and Vibration Management Plan | Construction Manager/ Project Manager<br>Demolition Contractor<br>Remediation Contractor | Remediation Noise and Vibration Management Plan |
| **Soil and Water** | | | | |
| Protection of water quality and local hydrology | Implementation of the Soil and Water Management Plan. | Soil and Water Management Plan | Construction Manager/ Project Manager<br>Demolition Contractor<br>Remediation Contractor | Remediation Soil and Water Management Plan |

| Issue/ Objective | Environmental Management Control | Relevant Management Plan | Person/s Responsible | Remediation Contractor Documentation |
|---|---|---|---|---|
| Minimise the potential impacts of soil erosion | Implement the Erosion and Sediment Control Plans<br>Implementation of the Soil and Water Management Plan | Erosion and Sediment Control Plans (**Appendix C**)<br>Soil and Water Management Plan | Construction Manager/ Project Manager<br>Demolition Contractor<br>Remediation Contractor | Remediation Soil and Water Management Plan |
| Minimise the potential impacts from contaminated soil remediation | Implementation of the requirements of the applicable Remediation Action Plans, as described in the Contaminated Soils Management Plan and the Leachate Management Plan that form part of the Soil and Water Management Plan. | Soil and Water Management Plan | Construction Manager/ Project Manager<br>Remediation Contractors | Remediation Soil and Water Management Plan |
| Minimise the potential impacts from leachate generation | Implementation of the TWTP Management Plan and the TWTP Water Quality Monitoring Program | TWTP Management Plan<br>TWTP Water Quality Monitoring Plan | Project Manager<br>Site Manager and Operator | Remediation Soil and Water Management Plan |
| **Waste** | | | | |
| Minimise waste generation and the amount of waste requiring landfill disposal | Implementation of the Waste Management Plan | Waste Management Plan | Construction Manager/ Project Manager<br>Demolition Contractor<br>Remediation Contractor | Remediation Waste Management Plan |
| **Energy Efficiency** | | | | |
| Maximise energy efficiency and minimise greenhouse gas generation | Implementation of the Energy Efficiency Management Plan. | Energy Efficiency Management Plan | Construction Manager/ Project Manager<br>Demolition Contractor<br>Remediation Contractor | Remediation EMP |
| **Biodiversity** | | | | |
| Minimise the potential impacts on Biodiversity | Implementation of the Biodiversity Management Plan provided in **Appendix D**. | Biodiversity Management Plan (**Appendix D**) | Project Manager<br>Demolition Contractor<br>Remediation Contractor | Remediation EMP |
| **Aboriginal Heritage** | | | | |

| Issue/ Objective | Environmental Management Control | Relevant Management Plan | Person/s Responsible | Remediation Contractor Documentation |
|---|---|---|---|---|
| Minimise the potential impacts on Aboriginal heritage | Implementation of the Aboriginal Heritage Management Plan. | Aboriginal Heritage Management Plan | Project Manager<br>Demolition Contractor<br>Remediation Contractor | Remediation EMP |
| **Non-Indigenous Heritage** | | | | |
| Collect records of the Smelter buildings for future reference | In the event that a potential non-indigenous heritage item is unearthed during activities works would cease at that location and the Office of Environment and Heritage would be notified. | RWEMP | Construction Manager<br>Demolition Contractor<br>Remediation Contractor | Remediation EMP |
| | Photographs are to be taken of Smelter buildings prior to demolition. | RWEMP | Construction Manager<br>Demolition Contractors | N/A |
| | Photographs are to be taken of Smelter buildings during demolition. | RWEMP | Construction Manager<br>Demolition Contractors | N/A |
| | Photographs and drawings (from construction, operation and demolition) of the Smelter would be made available to interested historical societies or community groups. | Stakeholder Engagement Plan (**Appendix E**) | Construction Manager<br>Demolition Contractors | N/A |
| **Stakeholder Engagement** | | | | |
| Inform the community and other stakeholders of activities at the site | Implementation of the Stakeholder Engagement Plan provided in **Appendix E**. | Stakeholder Engagement Plan (**Appendix E**) | Managing Director<br>Principal Communications Consultant | N/A |
| Provide mechanisms for the community to request information and to make enquiries or complaints about activities | | | Managing Director<br>Principal Communications Consultant | N/A |

| Issue/ Objective | Environmental Management Control | Relevant Management Plan | Person/s Responsible | Remediation Contractor Documentation |
|---|---|---|---|---|
| **Emergency Response** | | | | |
| Minimise the potential impacts in the event of an emergency | Implementation of the Emergency Services Cooperation Agreement. | Pollution Incident and Emergency Response Management Plan | Construction Manager/ Site Services Manager<br>Demolition Contractor<br>Remediation Contractor<br>WHS Manager | Remediation Emergency Response Management Plan |
| **Health and Safety** | | | | |
| Minimise the potential impacts on site personnel, occupants of neighbouring properties and public road users | Implementation of this RWEMP and supporting sub-plans. | RWEMP | Construction Manager/ Site Services Manager<br>Demolition Contractor<br>Remediation Contractor<br>WHS Manager | Remediation Integrated Project Management Plan |
| | Implementation of the Work Health and Safety Plan provided in **Appendix F**. | Work Health and Safety Plan (**Appendix F**) | | Remediation Integrated Project Management Plan |
| **Hazardous Materials** | | | | |
| Minimise the potential health and environmental impacts associated with the removal and handling of hazardous materials | Prior to the commencement of decommissioning or demolition activities, the Hazardous Materials Register is to be inspected to determine if hazardous materials are present. | Hazardous Materials Register | Construction Manager/ Site Services Manager | N/A |
| | Hazardous materials are to be removed in accordance with a Hazardous Materials Management Plan reviewed and approved by the Hydro Project Manager. | RWEMP<br>Hazardous Materials Register | Construction Manager/ Site Services Manager<br>Demolition Contractor<br>Remediation Contractor | Remediation Asbestos Removal Procedure |
| | Removed hazardous materials are to be stored and/ or disposed in accordance with the Waste Management Plan. | Waste Management Plan | Construction Manager/ Site Services Manager<br>Demolition Contractor<br>Remediation Contractor | Remediation Asbestos Removal Procedure |

| Issue/ Objective | Environmental Management Control | Relevant Management Plan | Person/s Responsible | Remediation Contractor Documentation |
|---|---|---|---|---|
| | Demolition contractors are to prepare (prior to commencement of demolition) and implement (if required) an Unexpected Hazardous Materials Protocol. | RWEMP<br>Hazardous Materials Register | Construction Manager/ Site Services Manager<br>Demolition Contractors | Remediation Waste Management Plan |

# 5. MONITORING AND REVIEW

## 5.1 Monitoring

Hydro will undertake regular monitoring to ensure that activities at the Smelter and on Hydro Land are not causing a detrimental environmental impact and to maintain compliance with relevant approvals and licences.

Environmental monitoring will be undertaken by suitably qualified and experienced personnel, in accordance with relevant procedures and guidelines, including but not limited to:

- *Approved Methods for Sampling and Analysis of Water Pollutants in NSW* (EPA, 2004).
- Australian Standard AS 5667.1:1998 *Water Quality – Sampling – Part 1: Guidance on the Design of Sampling Programs, Sampling Techniques and the Preservation and Handing of Samples* (Standards Australia, 1998).
- AS/NZS 5667.11:1998. *Water Quality - Sampling - Guidance on Sampling of Groundwaters*
- *Draft Environmental Guidelines: Solid Waste Landfills* (EPA, 2015).
- *Standard Methods for the Examination of Water and Waste Water*, 20th Edition, section 1060 (American Public Health Association, 1998).
- *Approved Methods for Sampling of Air Pollutants in New South Wales Guideline* (DEC, 2007).
- *Ambient Air Quality Goals: Fluoride* (ANZECC, 1990)
- *Industrial Noise Policy* (EPA, 2000).
- AS 1055 – 1997: *Acoustics – Description and Measurement of Environmental Noise* (Parts 1-3) (Standards Australia, 1997).

## 5.2 Inspections

A weekly inspection would be undertaken by the Hydro WHS Manager of the Smelter and by the Hydro Environmental Officer of activities in the Hydro Land (which would occur for greater than one month). The Hydro WHS Manager and the Hydro Environmental Officer would undertake a visual inspection to assess environmental performance and complete the Environmental Inspection Form.

Additional inspections are required by some of the sub-plans (such as the Soil and Water Management Plan requiring an inspection of erosion and sediment controls after a rain event). These would use the relevant sections of the Environmental Inspection Form.

In the event that observations of concern are identified, the Hydro WHS Manager and the Hydro Environmental Officer would implement the environmental incident procedures in **Section 3.5.4.2**.

The contractors are required to undertake daily inspections of their work activities and complete Weekly Environmental Inspections. Observations and (where required) issues and responses are to be required in an inspection checklist.

## 5.3 Environmental Auditing and Compliance

Internal and external audits will be conducted on a regular basis as required by regulatory and statutory requirements, policies and procedures.

### 5.3.1 Internal Audits and Compliance Reviews

Audits undertaken by Hydro at the Smelter include:

- Walk Observe Communicate (WOC) audits are undertaken by management to observe and record the working environment for compliance with WHS and environmental requirements. Findings from the WOC are reviewed and forwarded to the applicable Contractor for actioning.
- Monthly Environmental audits of contractors will be undertaken to measure compliance with this RWEMP as well as their own work specific EMP.

The Principal Environmental Consultant, in conjunction with Hydro and the Remediation Contractor, will complete the Compliance Reporting as described in **Section 3.5.1.1**.

### 5.3.2 External Audits and Compliance Reviews

As discussed in **Section 3.5.3.2**, an Independent Environmental Audit will be commissioned to assess the environmental performance of the remediation activities. The Independent Environmental Audits will be undertaken in accordance with Conditions C13 to C15 of SSD 6666 and as agreed with the Planning Secretary.

The Independent Environmental Audit reports will be made publicly available no later than 60 days after submission to the Department, and the Department will be notified in writing at least seven days before this is done.

## 5.4 Corrective Action

The need for preventative or corrective action arises from the identification of non-compliance with environmental legal requirements, Hydro environmental requirements or the potential for non-compliances to occur.

Corrective actions can arise out of the following:

- Incident investigations
- Audit findings
- Non-compliance with licence conditions
- Public complaints or inquiries
- Directives from a regulatory authority
- Environmental studies and reports
- Determinations from meetings
- Unpredicted environmental impacts
- Recommendations from Hydro employees, contractors or visitors that are considered to warrant an investigation.

The Hydro Project Manager and the Hydro Construction Manager (as appropriate) are to ensure that corrective and preventative actions have been implemented and that there is a systematic follow-up to ensure completion of actions. Environmental corrective actions will be coordinated by the Hydro WHS Manager and the Hydro Environmental Officer (as appropriate), usually by allocating responsibility to the relevant personnel. Actions in response to an environmental incident are undertaken as part of the incident investigation process.

Non-conformances will be resolved and reported back through the on-line Hydro Incident Reporting System.

Any non-compliances with the conditions of SSD 6666 will be reported to the Department within seven days after Hydro becomes aware of the non-compliance. The notification will include a description of the non-compliance, relevant conditions to which the non-compliance relates, and the completed or proposed corrective actions to rectify the non-compliance.

## 5.5 RWEMP Review and Improvement

Continual improvement of the RWEMP will be achieved by the continual evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement.

The Hydro Environmental Officer is responsible for undertaking a regular review of the RWEMP. The RWEMP will be reviewed on an as needs basis if changes to existing operations occur (subject to the approval process described in **Section 5.6**).

In accordance with Condition C5 of SSD 6666, the RWEMP will be revised within three months of:

(a) the submission of a Compliance Report under Condition C12
(b) the submission of an incident report under Condition C7
(c) the submission of an Independent Audit under Condition C14
(d) the approval of any modification of the conditions of this consent; or
(e) the issue of a direction of the Planning Secretary under Condition A2(b) which requires a review.

The Department will be notified in writing that a review is being carried out.

RWEMP revisions will be recorded in the document control section of this plan.

### 5.6 Remediation Project and RWEMP Modification

In the event that changes to the Remediation Project as approved by SSD 6666 are proposed, the Principal Environmental Consultant will prepare a Consistency Report that:

- Describes the proposed change, including any changes to environmental management measures (if required) and proposed amendments to the RWEMP
- Includes an environmental assessment that determines that the change would be of minimal environmental impact and therefore not require modification of SSD 6666
- Submit the Consistency Report to the Department.

The Department would review the Consistency Report and advise:

- That they agree with the findings of the Consistency Report, and that the RWEMP can be amended as required
- That they do not agree with the findings of the Consistency Report, and that either: the changes required (including additional environmental management) for the activity to be considered minimal environmental impact; or, due to the degree of environment impact, the proposed change requires submission of a Modification Application to the Department
- The Principal Environmental Consultant will prepare the Modification Application in consultation the Department, the EPA (where applicable), Hydro and the relevant contractor.

In the event that the Consistency Report or Modification Application requires amendment to the RWEMP (including sub-plans), the revised plan/s would be submitted to the Department and provided to relevant Hydro and contractor personnel.

# 6. REFERENCES


Cessnock City Council (1993) *Development Consent No. 118/692/102 – Upgrades to Waste Storage Facilities on Portions 318, 413 & 414, Hart Road, Loxford*

Cessnock City Council (2016) *Development Application No. 8/2015/399/1 – Demolition of Former Aluminium Smelter, Temporary Use of Ancillary Crushing Plant and Temporary Establishment of Contractor Facilities and Stockpile Area*

Cessnock City Council (2018) *Development Application 8/2018/46/1 – Demolition, including the Detonation of Three (3) Buildings of Hydro Aluminium Plant and the Operation of Mobile Crushing Plant*

Department of Infrastructure, Planning and Natural Resources (2004) *Guideline for the Preparation of Environmental Management Plans*

Department of Environment and Planning (1981) D*evelopment Consent - Proposed Expansion of an Existing Aluminium Smelter at Kurri Kurri*

Department of Planning (2002) *Development Consent No. N91/00033 – Smelter Upgrade and Retrofit (SURF) Project*

Department of Planning (2011a) *Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis*

Department of Planning (2011b) *Multi-Level Risk Assessment*

ENVIRON (2015) *Statement of Environmental Effects: Modification of Development Consent for Upgrades to the Waste Storage Facilities at Hydro Aluminium Kurri Kurri*

Hydro (2020) *Kurri Kurri Aluminium Smelter Decommissioning, Demolition and Remediation: Pollution Incident and Emergency Response Management Plan*

Ramboll Environ (2015) *Statement of Environmental Effects - Demolition of Former Aluminium Smelter Buildings at Kurri Kurri*

Ramboll Environ (2016) *Environmental Impact Statement: Former Hydro Aluminium Kurri Kurri Smelter Demolition and Remediation*

Ramboll (2018) *Environmental Impact Statement: Former Hydro Aluminium Kurri Kurri Smelter Stage 2 Demolition*

*Ramboll (2020) Response to Submissions Report: Former Aluminium Kurri Kurri Smelter Remediation*

Ramboll (2020) *Kurri Kurri Aluminium Smelter Decommissioning, Demolition and Remediation: Smelter Access Plan*

Ramboll (2020) *Kurri Kurri Aluminium Smelter Decommissioning, Demolition and Remediation: Traffic and Access Management Plan*

Ramboll (2020) *Kurri Kurri Aluminium Smelter Decommissioning, Demolition and Remediation: Noise and Vibration Management Plan*

Ramboll (2023) *Kurri Kurri Aluminium Smelter Decommissioning, Demolition and Remediation: Soil and Water Management Plan*

Ramboll (2020) *Kurri Kurri Aluminium Smelter Decommissioning, Demolition and Remediation: Waste Management Plan*

Ramboll (2020) *Kurri Kurri Aluminium Smelter Decommissioning, Demolition and Remediation: Energy Efficiency Management Plan*

Ramboll (2023) *Kurri Kurri Aluminium Smelter Decommissioning, Demolition and Remediation: Aboriginal Heritage Management Plan*

# 7. LIMITATIONS

Ramboll Australia Pty Ltd prepared this report in accordance with the scope of work as outlined in our proposal to Hydro Aluminium Pty Ltd dated 20 July 2018 and in accordance with our understanding and interpretation of current regulatory standards.

Site conditions may change over time. This report is based on conditions encountered at the site at the time of the report and Ramboll Australia Pty Ltd disclaims responsibility for any changes that may have occurred after this time.

The conclusions presented in this report represent Ramboll Australia Pty Ltd's professional judgment based on information made available during the course of this assignment and are true and correct to the best of Ramboll Australia Pty Ltd's knowledge as at the date of the assessment.

Ramboll Australia Pty Ltd did not independently verify all of the written or oral information provided to Ramboll Australia Pty Ltd during the course of this investigation. While Ramboll Australia Pty Ltd has no reason to doubt the accuracy of the information provided to it, the report is complete and accurate only to the extent that the information provided to Ramboll Australia Pty Ltd was itself complete and accurate.

This report does not purport to give legal advice. This advice can only be given by qualified legal advisors.

## 7.1 User Reliance

This report has been prepared exclusively for Hydro Aluminium Pty Ltd. It may not be relied upon by any other person or entity without Ramboll Australia Pty Ltd's express written permission.

# APPENDIX A
# CONTAINMENT CELL MANAGEMENT PLAN

# APPENDIX B
# AIR QUALITY MANAGEMENT PLAN

# APPENDIX C
# EROSION AND SEDIMENT CONTROL PLANS

# APPENDIX D
# BIODIVERSITY MANAGEMENT PLAN

# APPENDIX E
# STAKEHOLDER ENGAGEMENT PLAN

# APPENDIX F
# WORK HEALTH AND SAFETY MANAGEMENT PLAN