

Appendix 3  
Draft Environmental  
Management Plan  
ML7024 and ML6024  
February 2012



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## 1. INTRODUCTION

### 1.1 The Project

The name of the Project is the South of Embley (SoE) Project. The project number is RTA701. RTA Weipa Pty Ltd (RTA) is currently mining the East Weipa and Andoom bauxite deposits located on ML7024 north of the Embley River. An environmental authority (mining activities) is held for the existing operations north of the Embley River (MIN100939109). These reserves are gradually depleting and, with continuing demand for bauxite, RTA have identified significant bauxite reserves on the portion of ML7024 that lies south of the Embley River, which could sustain a mining operation for about 40 years, depending on annual production rates.

The Project consists of the construction and operation of a bauxite mine and associated processing facilities, a barge/ferry terminal and a port on mining leases held by RTA. The mine would be capable of producing a maximum of 50 million dry product tonnes per annum (Mdptpa). The initial production capacity is subject to ongoing feasibility studies but is likely to be 22.5Mdptpa. Actual production rates and the timing and size of capacity expansions would depend on market conditions.

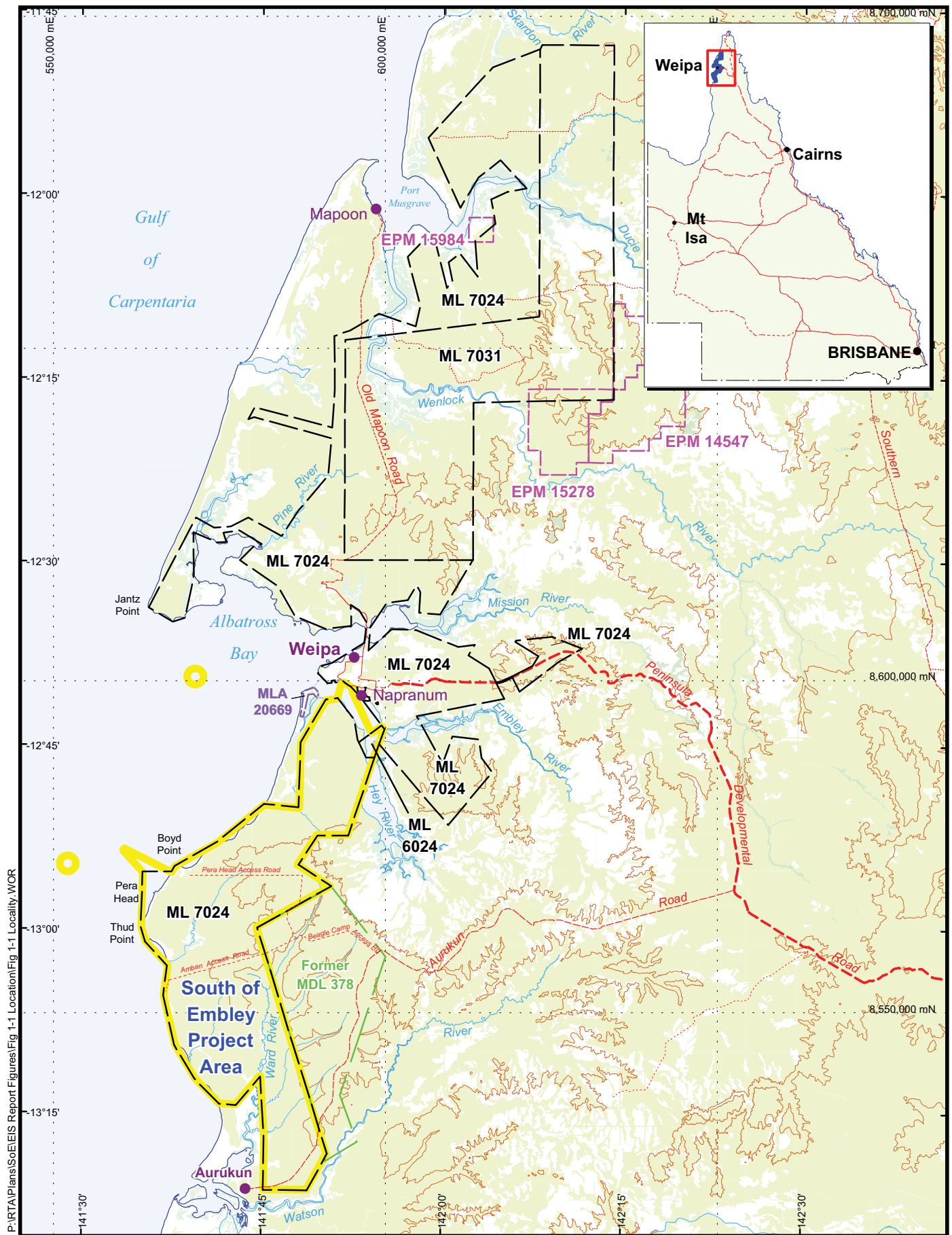
In addition, a ferry terminal would be located at Hornibrook Point, a barge terminal at Humbug Point and a tug berth at Lorim Point, however these facilities are not on the mining lease. All three locations are on Strategic Port Land within the Port of Weipa and administered by the North Queensland Bulk Ports Corporation Limited (NQBP)

and are therefore not covered by this Environmental Management (EM) Plan. Part of the dredging for the Port is also located off the mining lease and is therefore not covered by this Environmental Management Plan. Dredging would be addressed through separate Dredge Management Plans for the port and river facilities.

### 1.2 Location

The Project is situated on the western side of Cape York on the Gulf of Carpentaria. The Boyd port and mine infrastructure area (MIA) are approximately 40km south-west of Weipa and 40km north of Aurukun, with the closest mining areas being 4km from Napranum, 15km from Aurukun, and 50km from the nearest cattle station homesteads (refer **Figure 1**).

The Project is predominantly located on the portion of ML7024 that is south of the Embley River, and on ML6024. Mining activities would take place on ML7024. A barge/ferry terminal would be located on the western bank of the Hey River on ML6024. The northern end of the Project is bounded by the Embley and Hey Rivers and the southern end by the ML7024 boundary, north of the Watson River. The Gulf of Carpentaria abuts the western boundary of ML7024, which extends over submerged land between Thud and Boyd Points. The eastern side of ML7024 adjoins the Aurukun bauxite resource, a designated "restricted area" pursuant to part 188 of the *Mineral Resources Regulation 2003*. The gross extent of the Project area is approximately 106,000ha.



- RTA Mining Lease boundary
- South of Embley Project Area
- Oresome Australia Pty Ltd Mineral Sands Project
- Former MDL 378
- Cape Alumina Pty Ltd's Pisolite Hills Project
- Township
- Drainage
- Road/track
- 50m Topographic contour

## South of Embley Project

**Fig. 1: Locality Map**



10 0 10km

Datum/Projection: GDA94/MGA Zone 54

Date: 13/12/2011

### 1.3 Project Description

The Project activities covered by this EM Plan consist of construction and operation of the following:

- a bauxite mine;
- two bauxite processing (beneficiation) plants and associated tailings storage facilities (TSFs);
- product bauxite stockpiles;
- port and ship-loading facilities, and associated dredging;
- ancillary infrastructure – diesel-fuelled power generation, workshops, warehouse, administration facilities, package sewage treatment plants, waste storage and disposal facilities, fuel storage, roads and seaborne access;
- water infrastructure – a freshwater storage dam on a freshwater tributary of Norman Creek (Dam C) and a pump station on the lower reaches of the Ward River, plus process water and sediment ponds, pipelines and artesian bores;
- an infrastructure corridor for a conveyor, electricity transmission and water pipelines;
- an on-site temporary camp (up to 2,000 beds) for the construction workforce; and
- a barge/ferry terminal on the Hey River.

The conceptual 40-year mine plan and the main infrastructure components are shown in **Figure 2**. Mining would commence in the Boyd Point/Pera Head area, and would later be extended to the Norman Creek area. The conceptual mine plan shows two mining phases: years 1–13 (based on a production rate of 22.5Mdtpa) and years 14–40 (based on a production rate of 30Mdtpa and above).

### 1.4 Project Proponent

The Project would be developed and operated by RTA Weipa Pty Ltd (RTA), which is a wholly-owned subsidiary of Rio Tinto Aluminium Limited. These companies are in the Rio Tinto Alcan product group. Rio Tinto Alcan is one of five product groups operated by the global mining group, Rio Tinto.

Rio Tinto Alcan supplies bauxite, alumina and primary aluminium to Australia, New Zealand and export markets. About 37% of Australia's total production of bauxite, 36% of its alumina and 40% of its primary aluminium is provided by Rio Tinto.

Rio Tinto Alcan's Australian head office for bauxite and alumina is based in Brisbane. Bauxite and alumina interests in Queensland include the existing Weipa mine, and the Yarwun and Queensland Alumina Limited alumina refineries at Gladstone. Rio Tinto also operates the Boyne Smelters Limited aluminium smelter in Gladstone.

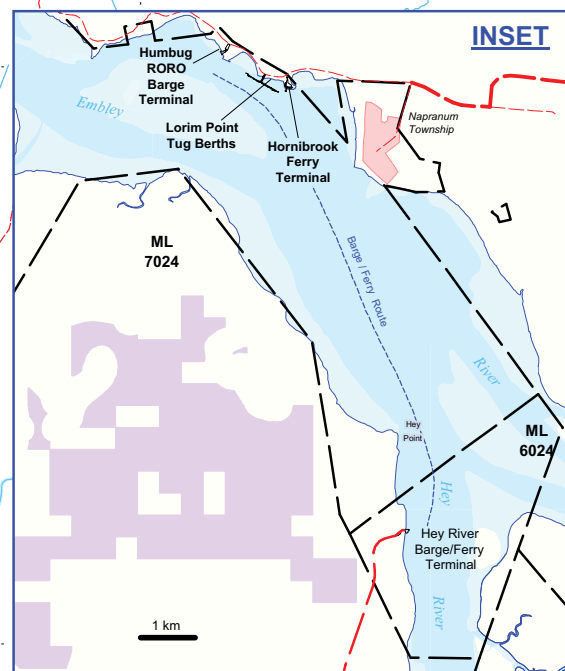
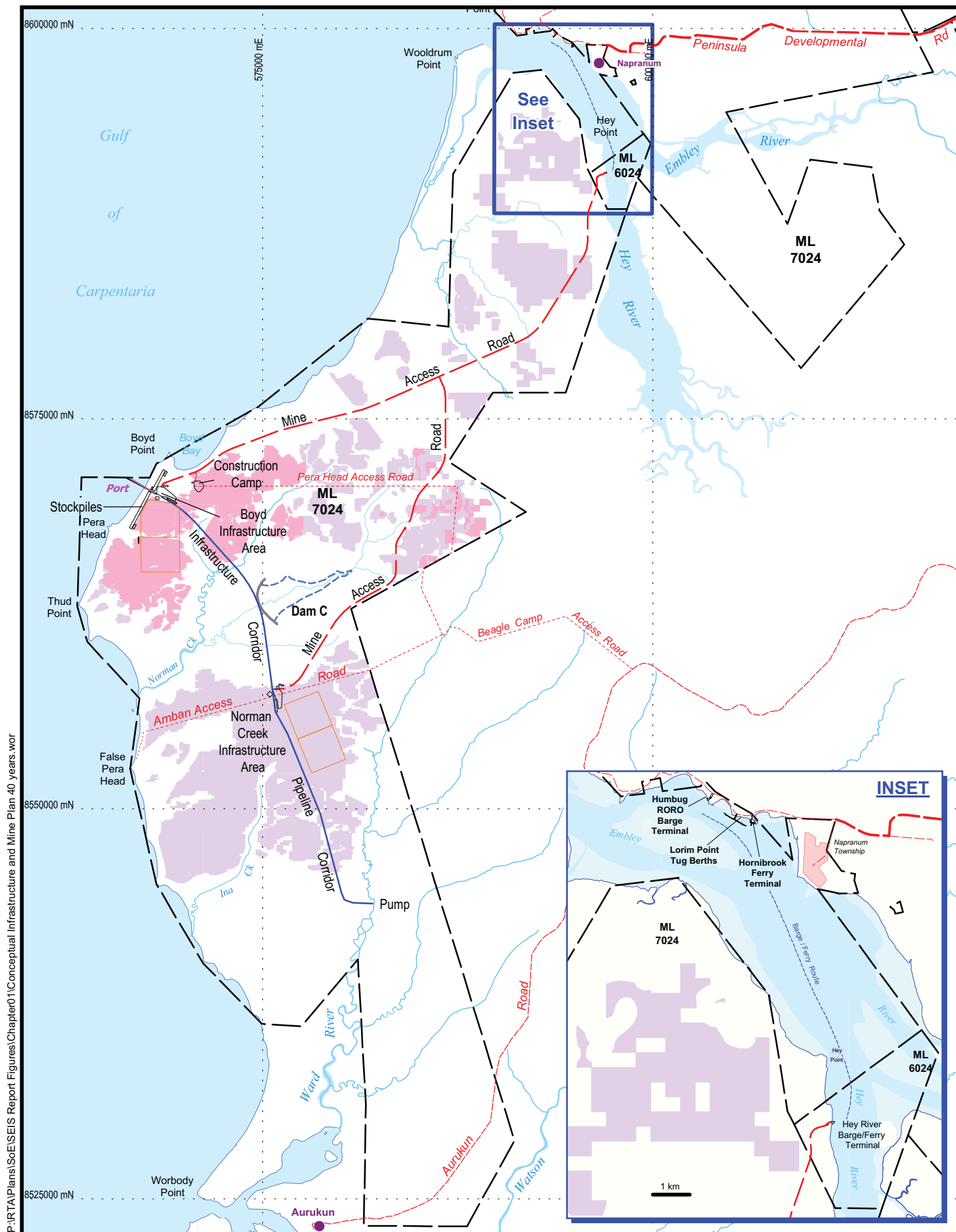
### 1.5 Mining Leases

RTA is the holder of ML7024 granted on 1 January 1958 pursuant to the *Commonwealth Aluminium Corporation Limited Agreement Act 1957* (Comalco Agreement Act), a Queensland 'Special Agreement Act'. ML6024 (granted 25 July 1985 and affirmed 26 August 2002) was granted pursuant to the Comalco Agreement Act and the *Mineral Resources Act 1989* (Qld) for the purposes of providing transport access to ML7024. The current term of ML7024 and ML6024 is until 31 December 2041; however, there is a right of renewal until 31 December 2062. Following the extended term, the lease of ML7024 is terminable by either RTA or the State of Queensland giving two years notice of termination. The locations of ML7024 and ML6024 are shown on **Figure 3**.

The Comalco Agreement Act confers certain rights and obligations relating to the development of bauxite resources, including provisions relating to the taking of water and harbour works.

Another company within the Rio Tinto Group, Alcan South Pacific Pty Ltd, is the holder of ML 7031 pursuant to the *Alcan Queensland Pty Limited Act 1965* (which is also a 'Special Agreement Act'). While RTA mines ore for Alcan South Pacific Pty Ltd from ML7031 (known as the Ely mining lease), activities on ML7031 are not the subject of the Project or this EM Plan.





South of Embley Project

**Fig. 2: Infrastructure and Conceptual Mine Plan (up to 40 years)**

- RTA Mining Lease boundary
- Township
- Road/track
- Freshwater dam
- Tailings storage facility
- Barge / Ferry route
- Mining Years 1 -13
- Mining Years 14 - 40



5 0 5km

Datum/Projection: GDA94/MGA Zone 54

Date: 12/12/2011





South of Embley Project

**Fig. 3: Land Tenure and Local Government Boundaries**

**Rio Tinto Alcan**

- RTA Mining Lease boundary
- Shire Boundary
- ✈ Weipa Airport
- Road/track

**Tenure**

- Freehold
- Lands Lease
- Deed of Grant in Trust
- State Land
- In Process of Relinquishing Mining Lease



5 0 5km

Datum/Projection: GDA94/MGA Zone 54 Date: 13/12/2011

The Federal Court of Australia determined on 29 July 2009 (FCA 789) that the Wik and Wik-Way people have Native Title over the land covered by the Project area. The Western Cape Communities Coexistence Agreement (WCCCA) is a registered Indigenous Land Use Agreement (ILUA) (QIA2001/002) under the Commonwealth *Native Title Act 1993* between RTA, the State of Queensland and relevant Aboriginal parties. Where any proposed activities are outside the ILUA area, to the extent Native Title has not been extinguished in relation to those areas, RTA would comply with the applicable process under the *Native Title Act*. RTA does not expect this to arise.

## 1.6 Real Property Descriptions

The land parcels and tenure within the Project area (on ML7024 and ML6024) are summarised in **Table 1-1** and shown in **Figure 3**.

ML 7024 lies within the Cook Shire Local Government area and ML6024 lies within the Napranum Shire.

**Table 1-1 Land Parcels and Tenure**

Aspect	Mining Tenement	Land Parcel	Background Tenure	Ownership
Mine, Port and Infrastructure	ML7024 (RTA)	Lot 7024 MP41159	State land	The State of Queensland
Hey River Barge/ Ferry Terminal	ML6024 (RTA)	Lot 121 SP135863	State land	The State of Queensland
		Lot 67 WP50	State land	The State of Queensland
		Lot 68 WP50	State land	The State of Queensland
Adjacent Properties	Not Applicable. (Former MDL378, now a designated “restricted area” pursuant to part 188 of the <i>Mineral Resources Regulation 2003</i> ).	1 SC211	Deed of Grant in Trust (DOGIT)	DOGIT to Aurukun Aboriginal Council
		11 WP50	Freehold	Napranum Aboriginal Shire Council
		10 WP50	Freehold	Napranum Aboriginal Shire Council
		Lot 15 SP116851	Perpetual Lease	North Queensland Bulk Ports Corporation Limited
		2 SP161882	State Land	The State of Queensland

## 1.7 Significant Project

The relevant mining leases are included in a Project that was declared a “significant project” by the Queensland Coordinator-General on 21 November 2008. An EIS under Part 4 of the *State Development and Public Works Act 1971* (Qld) (SDPWO Act) has been prepared for the Project (RTA 2011 and RTA 2012).

## 1.8 Structure of the EM Plan

The EM Plan is structured in accordance with Queensland Department of Environment and Resource Management (DERM) Guideline 8 “Preparing an environmental management overview strategy (EMOS) for non-standard mining projects” and describes the following:

- description of mining activity and mining tenements and the land on which the mining activities are carried out (Section 1);
- all relevant mining activities (Section 2);
- the environmental values likely to be affected by mining activities and the potential adverse and beneficial impacts the mining activities has on environmental values, as well as the environmental protection objectives, conditions and measurable indicators (Section 3);
- details of monitoring programs (Section 3); and
- strategies for reporting, continuous improvement, staff training, and environmental auditing (Section 4).

## 1.9 Purpose of the EM Plan

The purposes of this EM Plan and proposed conditions are to:

- provide management programs and control strategies to protect and manage environmental values affected by SoE mining and mining-related activities;
- provide for an amendment of the environmental authority (mining activities) (MIN100939109) consistent with both (i) the authorities granted under the Commonwealth Aluminium Corporation Pty Limited Agreement Act 1957 (a Special Agreement Act) and (ii) the DERM Guideline Number 8 “Preparing an environmental management overview strategy for non-standard mining projects”; and
- provide a document setting out the conditions for undertaking environmental activities on ML7024 and ML6024 such that DERM may issue the required amended environmental authority (mining activities) under the Environmental Protection Act 1994 (Qld) (EP Act) for operations on ML7024 and ML6024.

## 1.10 Relevant Stakeholders

An extensive program of community consultation and stakeholder engagement was undertaken prior to the commencement of the Project and is detailed in RTA (2011) and RTA (2012). A program of consultation will continue to be undertaken by RTA to address community issues throughout all phases of the Project. The objectives of the community consultation and stakeholder engagement are:

- to identify stakeholders who have an interest in the Project;
- facilitate two-way engagement with stakeholders, providing accurate, timely and relevant information on the Project;
- identify any concerns or potential issues stakeholders may have with the Project;
- explore areas of the Project with the potential to have a positive impact on communities;
- develop appropriate strategies to mitigate any concerns; and
- address stakeholder issues and concerns.

For the purposes of community consultation, the local community area has been defined as the communities and surrounding areas of the Western Cape region, including Aurukun, Napranum, Weipa and Mapoon. This region encompasses the members of the general public and the organisations (including government, industry, service providers, regional landholders and community groups) likely to be adversely or positively affected by the Project. The relevant stakeholders for the Project have been identified as:

- Federal, State and Local government agencies and services providers including the Weipa Town Authority (WTA);
- Community groups and non-government organisations;
- Traditional Owners and other Aboriginal groups;
- Industry, local businesses and service providers operating throughout the Western Cape region;
- Recreational and professional fishing groups;
- General public and residents of local communities in Aurukun, Napranum, Weipa and Mapoon;
- Regional pastoral lease holders and managers; and
- RTA and local contractor employees based on the Western Cape.

The ongoing consultation and engagement process will also continue to actively involve Traditional Owners in a range of activities to:

- increase knowledge and awareness of the mining processes;
- provide accurate, timely and relevant information on the Project;
- identify any concerns or potential issues Traditional Owners may have with the Project;
- explore areas of the Project with the potential to have a positive impact on communities; and
- develop and pursue appropriate strategies to mitigate any issues and concerns during the environmental approval process, and during the construction and operational phases.

The Western Cape Communities Coordinating Committee (WCCCC) and the relevant WCCCC Sub-committee will continue to provide the consultative mechanism for coordination of these activities.