



*Australian Strategic Materials (Holdings) Ltd*

*ABN 51 091 489 511*

**Annual Review  
&  
Annual Rehabilitation Report**

**1 July 2021 – 30 June 2022**



Dubbo Project Site Office, Toongi Road, Toongi. Photo taken 26 May 2022

## Table of Contents

<b>Definitions</b>	<b>iii</b>
<b>Title Block</b>	<b>v</b>
<b>1. Statement of Compliance</b>	<b>1</b>
<b>2. Introduction</b>	<b>2</b>
2.1 Dubbo Project	2
2.2 Mine Contacts	3
<b>3. Operations Summary</b>	<b>10</b>
3.1 Construction	10
3.2 Operations	11
3.3 Next reporting period	12
<b>4. Actions required from previous Annual Review</b>	<b>13</b>
<b>5. Environmental performance</b>	<b>14</b>
5.1 Air Quality	14
5.1.1 Management Measures	18
5.1.2 Proposed Improvements	18
5.2 Biodiversity	18
5.2.1 Management Measures	19
5.2.2 Proposed Improvements	23
5.3 Heritage	24
5.3.1 Management Measures	24
5.3.2 Proposed Improvements	24
5.4 Meteorological Monitoring	25
5.4.1 Proposed Improvements	26
<b>6. Water Management</b>	<b>27</b>
6.1 Water Supply	29
6.2 Water Balance	30
6.3 Clean Water Management (Surface)	30
6.3.1 Site Water	30
6.3.2 Surface Water Monitoring results	31
6.3.3 Discharge	32
6.4 Mine Water Management	32
6.5 Erosion and Sediment Control	32
6.6 Groundwater	32
6.7 Proposed Water Management Improvements	33
<b>7. Rehabilitation</b>	<b>34</b>
7.1 Rehabilitation during reporting period	34

7.2	Post Rehabilitation Land use .....	34
7.3	Trials, Monitoring and Research .....	37
7.4	Key rehabilitation risks .....	37
7.5	Actions for next reporting period .....	37
<b>8.</b>	<b>Community .....</b>	<b>38</b>
8.1	Consultation .....	38
8.2	Support .....	39
8.3	Complaints and enquiries .....	39
<b>9.</b>	<b>Independent Environmental Audit .....</b>	<b>40</b>
<b>10.</b>	<b>Incidents and non-compliances during reporting period .....</b>	<b>41</b>
10.1	Official Regulatory Interaction .....	41
<b>11.</b>	<b>Activities to be completed in next reporting period .....</b>	<b>42</b>
<b>APPENDIX A –</b>	<b>Pink-tailed Worm-lizard Monitoring Report March 2022- Area Environmental &amp; Heritage Consultants (AREA Mar 2022), Biodiversity Offset Area – analogue vegetation plot Monitoring Spring 2020 (AREA June 2022)</b>	
<b>APPENDIX B -</b>	<b>Rainfall Data July 2021 - June 2022</b>	
<b>APPENDIX C -</b>	<b>Correspondence between Regulators and Australian Strategic Materials (Holdings) Ltd</b>	

## Definitions


Term	Definition
ACCU	Australian Carbon Credit Units (issued by Clean Energy Regulator)
ASM	Australian Strategic Materials Ltd (formerly known as AZL)
ASMH	Australian Strategic Materials (Holdings) Ltd - a wholly owned subsidiary of ASM
AZL	Australian Zirconia Ltd
BAM	Biodiversity Assessment Method (2020)
BCS	Biodiversity, Conservation and Science (Environment & Heritage Group is part of DPE)
BCT	Biodiversity Conservation Trust (Statutory authority under E&H)
BOA	Biodiversity Offset Area
BOM	Bureau of Meteorology
CaCO <sub>3</sub>	Calcium carbonate
CCC	Community Consultative Committee
CPVP	Conservation Property Vegetation Plan
DAWE	Australian Government – Department of Agriculture, Water and Environment
DE	Australian Government – Department of Environment
DEE	Australian Government – Department of Environment and Energy
DP	Dubbo Project (formerly known as DZP - Dubbo Zirconia Project)
DPE	Department of Planning and Environment (NSW Government)
DPI-Water	Water – NSW Department of Primary Industries
DRC	Dubbo Regional Council
DS	Dams Safety (NSW Government)
EC	Electrical Conductivity
EEC	Endangered ecological community
EES	Environment Energy & Science Group (part of DPIE - contains former OEH, EPA)
EIS	Environmental Impact Statement
EP&A	<i>Environment Planning and Assessment Act 1979</i>
EPA	Environment Protection Authority
EPBC	<i>Environment Protection &amp; Biodiversity Conservation Act 1999</i>
EPL	Environment Protection Licence
ERML	Environmental Radiation Monitoring Location
GHG	Greenhouse Gas
HVAS	High volume air sampler
LDP	Licensed discharge point
LFA	Landscape function analysis
LLS	Local Land Services
LOR	Limit of Reporting
LRSF	Liquid Residue Storage Facility
MEG	Mining Exploration & Geoscience
Mining Act	<i>Mining Act 1992</i>
ML	Mining Lease
MOD1	Modification 1 of SSD-5251 Consent
NGERS	National Greenhouse and Energy Reporting Scheme
NMP	Noise Management Plan



Term	Definition
WNSW	Water NSW
PM10	Particulate matter 10 microns and smaller
PTWL	Pink-tailed Worm-lizard ( <i>Aprasia parapulchella</i> )
PVP	Property Vegetation Plan
RAP	Registered Aboriginal Party
REE	Rare Earth Elements
RMP	Rehabilitation Management Plan
ROM	Run of Mine
SEC	Salt Encapsulation Cell
SEEC	Strategic Environmental and Engineering Consulting
SRSF	Solid Residue Storage Facility
TARP	Trigger action response plan
TfNSW	Transport for NSW
TEOM	Tapered Element Oscillating Microbalance
TIM	Total Insoluble Matter
TPC	Toongi Pastoral Company Pty Ltd
TSP	Total suspended particulates
WAL	Water access licence
WHS	Workplace Health & Safety
WRE	Waste Rock Emplacement

## Title Block

**Table 1: Annual Review Title Block**

Name of operation	Dubbo Project
Name of operator	Australian Strategic Materials (Holdings) Ltd
Development consent / project approval #	SSD-5251
Name of holder of development consent / project approval	Australian Strategic Materials (Holdings) Ltd
Mining lease #	ML 1724
Name of holder of mining lease	Australian Strategic Materials (Holdings) Ltd
Water licence #	WALs; 19994, 9191, 3396, 36409, 3412, 30259, 36790, 36791
Name of holder of water licence	Australian Strategic Materials (Holdings) Ltd
RMP start date	TBA
RMP end date	TBA
Annual Review start date	1 July 2020
Annual Review end date	30 June 2021
<p>I, Michael Sutherland, certify that this audit report is a true and accurate record of the compliance status of the Dubbo Project for the period 1 July 2021 to 30 June 2022 and that I am authorised to make this statement on behalf of Australian Strategic Materials (Holdings) Ltd.</p> <p>Note.</p> <p>The Annual Review is an 'environmental audit' for the purposes of section 122B(2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000.</p> <p>The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (Intention to defraud by false or misleading statement—maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/documents—maximum penalty 2 years imprisonment or \$22,000, or both).</p>	
Name of authorised reporting officer	Michael Sutherland
Title of authorised reporting officer	General Manager NSW
Signature of authorised reporting officer	
Date	23 August 2022

## 1 Statement of Compliance

Table 2 provides a statement of compliance status for Australian Strategic Materials (Holdings) Ltd (ASMH) with its project approval (SSD) and mining lease (ML), as at the end of the reporting period.

**Table 2: Statement of Compliance**

Were all conditions of the following approvals complied with?	
SSD-5251	YES
ML 1724	YES

Table 3 provides a summary of approval conditions not complied with as at the end of the reporting period.

**Table 3: Non-Compliances**

Relevant approval	Condition #	Condition description (summary)	Compliance status	Comment	Relevant Section
NA					

**Compliance status key for Table 3**

Risk level	Colour Code	Description
High	Non-compliant	Non-compliance with potential for significant environmental consequences, regardless of the likelihood of occurrence
Medium	Non-compliant	Non-compliance with: potential for serious environmental consequences, but is unlikely to occur; or potential for moderate environmental consequences, but is likely to occur
Low	Non-compliant	Non-compliance with: potential for moderate environmental consequences, but is unlikely to occur; or potential for low environmental consequences, but is likely to occur
Administrative non-compliance	Non-compliant	Only to be applied where the non-compliance does not result in any risk of environmental harm (e.g. submitting a report to government later than required under approval conditions)

## **2 Introduction**

### **2.1 Dubbo Project**

The Dubbo Project has not yet commenced construction on site, however, this Annual Review reports on environmental management activities undertaken by Australian Strategic Materials (Holdings) Ltd (ASMH) at the Dubbo Project during the financial year (FY) 2021-2022, and provides details on activities proposed for FY 2022/2023. The report has been produced in accordance with the Post-approval requirements for State significant mining developments - Annual Review Guideline (DPE, October 2015) to meet the annual reporting requirements conditioned in the ASMH Mining Lease (ML 1724) and Project Approval (SSD-5251). See Figure 1.

The Dubbo Project, is a long-term polymetallic resource of rare earth elements, zirconium, niobium and hafnium. The Project represents an alternative and reliable source of the critical minerals and rare earths needed to de-risk and relieve bottle-necking in the global supply chain.

ASMH intends to develop the Dubbo Project to produce metal oxides in the form of chemicals, powders and metals at the Dubbo site. These products will be available in a range of standard and customised specifications, based on market requirements. Significant successful test work to optimise oxide recovery has been completed in partnership with the Australian Nuclear Science and Technology Organisation (ANSTO).

Long-term, the materials produced from the Dubbo Project will be used for refining into critical metals at ASM's proposed metals plants, the first of which is in Ochang, South Korea.

The Dubbo Project was approved as SSD-5251 by the NSW Planning Assessment Commission (PAC) on 28 May 2015 and will comprise a small scale open cut mine supplying ore containing rare metals and rare earth elements to a processing plant near the locality of Toongi, approximately 25km south of Dubbo (the Dubbo Project Site) (see Figure 2).

The Dubbo Project is yet to commence construction and thus there has been no rehabilitation activity to report, other than natural regeneration of grassy box woodland species in the biodiversity offsets.

Annual extraction of ore from the open cut is planned to be approximately one million tonnes which could generate approximately 28 000t of export product. Waste residues produced by the processing operations will be managed in residue storage facilities (on site), designed to contain and encapsulate them.

The Dubbo Project also includes the construction of a water pipeline between the processing plant and the Macquarie River and Sweet Water bore, a pipeline to carry natural gas between Dubbo and the Dubbo Project Site, a 132kV electricity transmission line from Geurie substation to site and upgrades of the following linear infrastructure;

- Toongi Road;
- Obley Road; and
- the Toongi-Dubbo section of the currently disused Dubbo-Molong Rail Line.

Collectively, these are referred to as the Dubbo Project linear infrastructure.

## 2.2 Mine Contacts

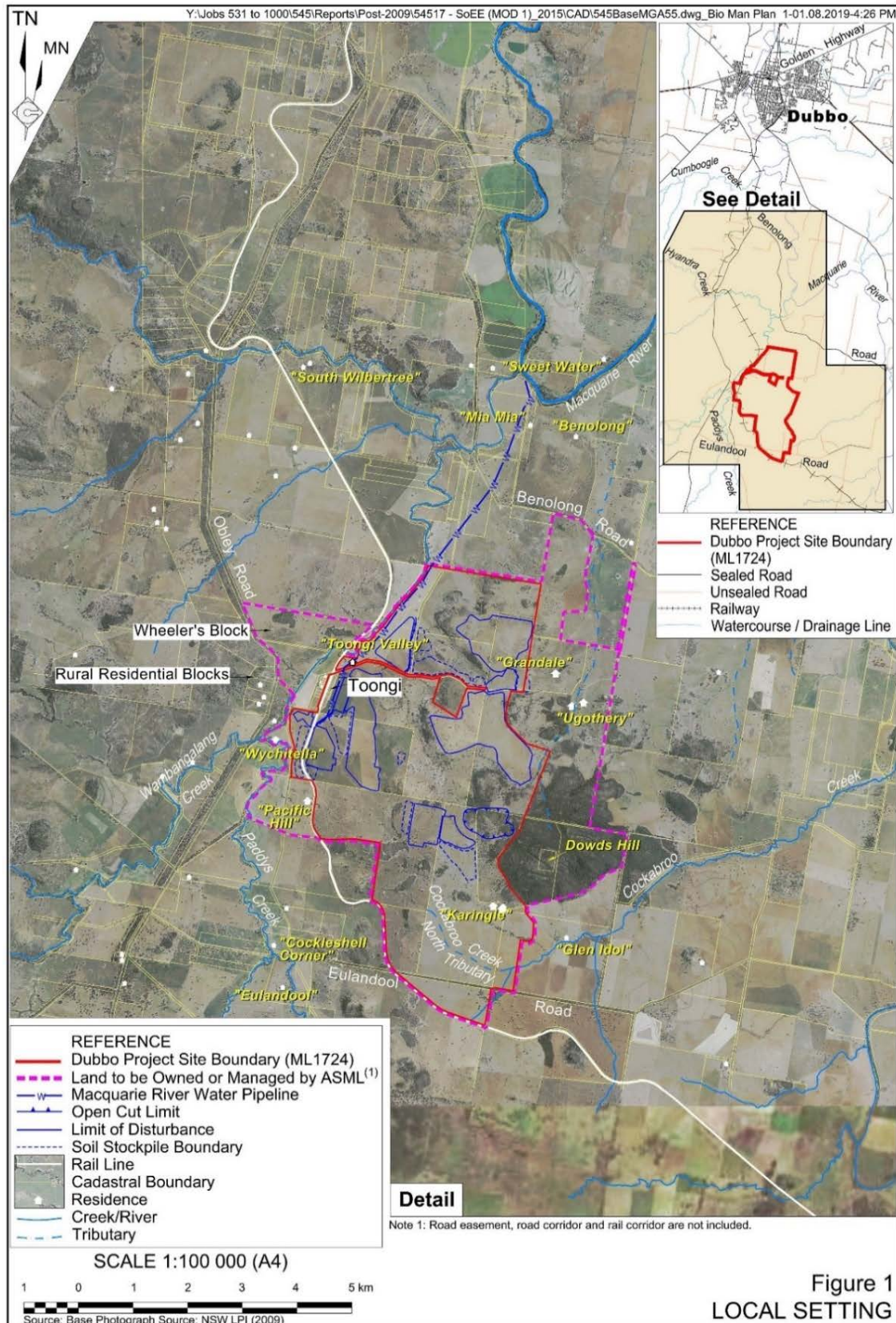
The primary contacts for the Dubbo Project during the review period are detailed in Table 4.

**Table 4. Dubbo Project Key Contacts**

Key Contact	Position	Contact Details
Rowena Smith	Chief Executive Officer	PO Box 768 West Perth WA 6005 Phone (08) 9200 1681
Michael Sutherland	General Manager NSW	PO Box 910 Dubbo NSW 2830 Phone: (02) 6882 2866
Community Information Line	General Manager NSW	(02) 6882 2866



Figure 1: Dubbo Project – Local Setting





**Figure 2: Dubbo Project – Site Layout**

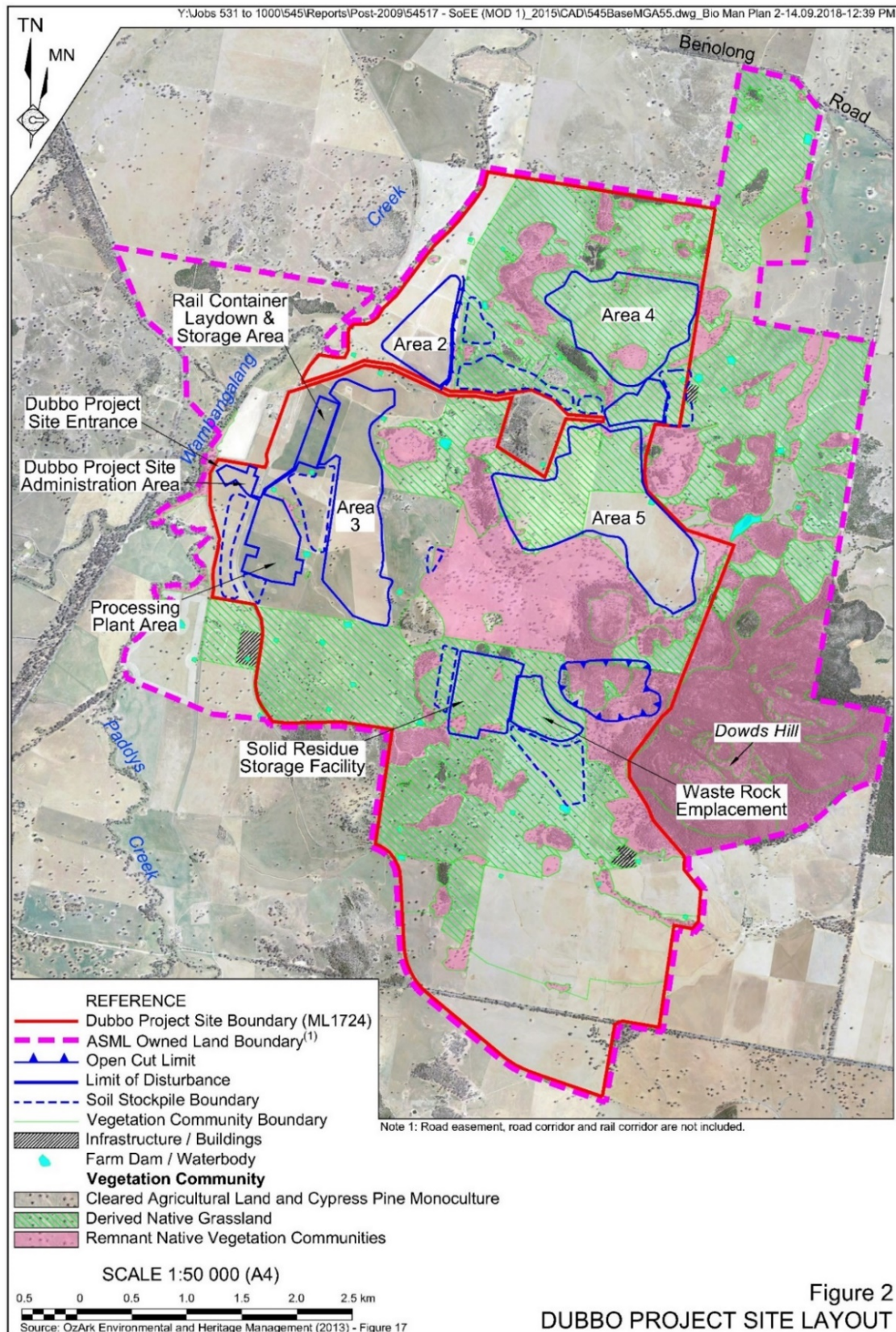
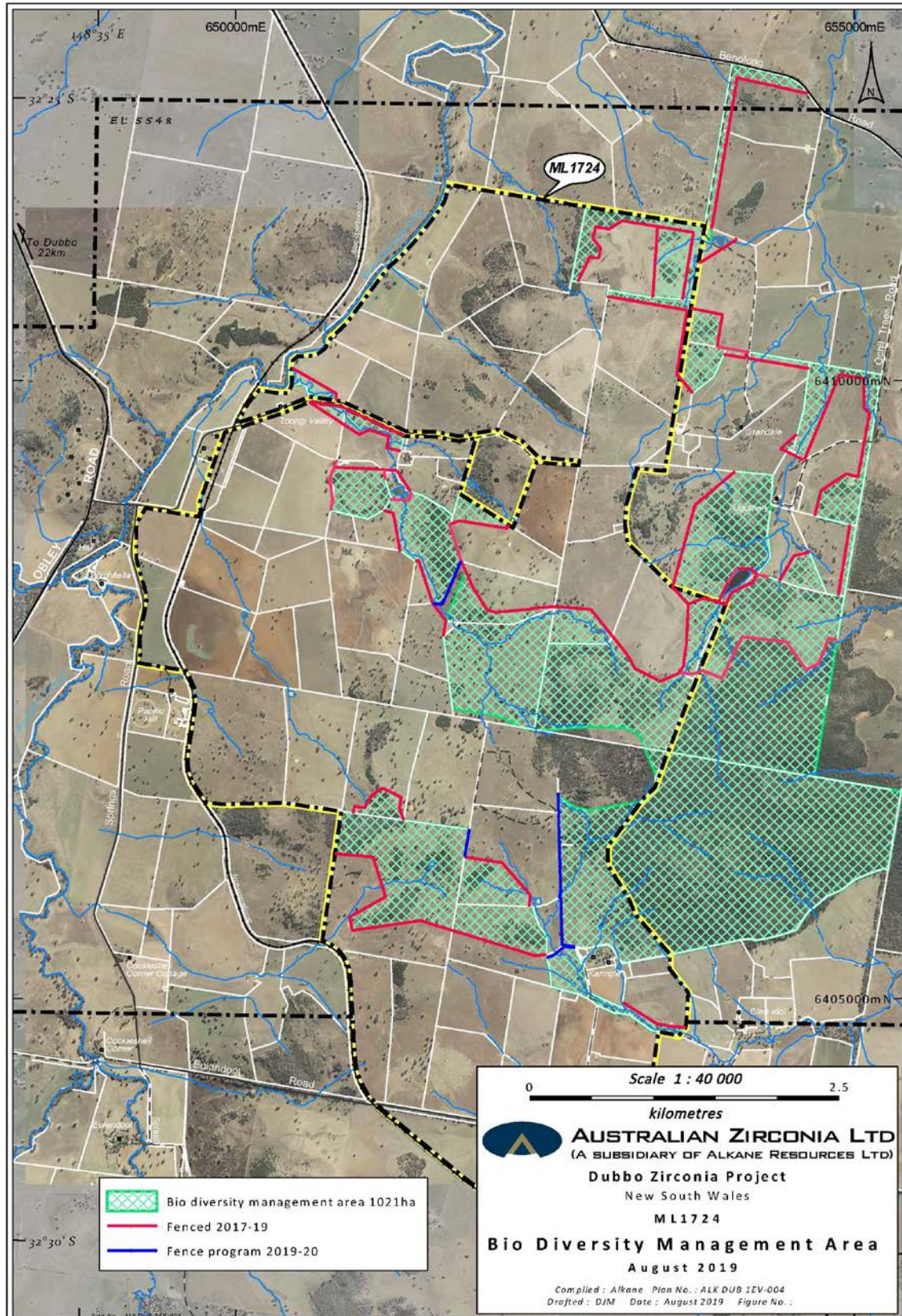




Figure 3  
ENVIRONMENTAL  
MONITORING LOCATIONS



Figure 4: Biodiversity Management Area



Approvals - The Dubbo Project operates under the environmental consents, leases and licenses specified in Table 5.

**Table 5: Consents, leases and licenses**

Title	Legislation	Regulatory Authority	Approval Duration/ Expiry
State Significant Development approval 5251(28 May 2015)	Environmental Planning & Assessment (EP&A) Act 1979	NSW Planning and Environment (DPE) – now DPIE	31 December 2037
EPBC 2012/6625 (24 Aug 2015)	EPBC Act 1999	Australian Government Dept of the Environment	31 December 2045
EPBC 2012/6625 Variation of Conditions attached to Approval (15 Mar 2022)	EPBC Act 1999	Australian Government-Dept of Agriculture, Water & Environment	31 December 2057
Mining Lease 1724 (18 Dec 2015)	Mining Act 1992	NSW Department Resources & Geoscience (DRG) now MEG	18 December 2035
Environment Protection License (EPL) 20702 (14 March 2016)	Protection of the Environment Operations (POEO) Act 1997	NSW Environment Protection Authority (EPA)	Ongoing until surrendered (14 March Anniversary)
Environment Protection License (EPL) 20702 Variation (29 Sep 2021)	Protection of the Environment Operations (POEO) Act 1997	NSW Environment Protection Authority (EPA)	Ongoing until surrendered (14 March Anniversary)
Water Access Licences WALs; 19994, 9191, 3396, 36409, 3412, 30259, 36790 and 36791	Water Management Act 2000	Water NSW	N/A
Water Supply Work Approval 80WA726382	s.95 Water Management Act 2000	Natural Resources Access Regulator	N/A
Conservation Property Vegetation Plan (31 May 2015)	Native Vegetation Act 2003	Local Land Services	In perpetuity
DA D2016-70 Karingle Quarry (13 July 2016)	Environmental Planning & Assessment (EP&A) Act 1979	Western Joint Regional Planning Panel	7 July 2021
DA D2016-70 Karingle Quarry Modification	Section 4.55 (1A) Environmental Planning &	Dubbo Regional Council	N/A



Title	Legislation	Regulatory Authority	Approval Duration/Expiry
(25 August 2021)	Assessment (EP&A) Act 1979		
General Terms of Approval Notice No. 1541379 (14 Jun 2016)	Section 91A (2) EP&A Act 1979	NSW Environment Protection Authority (EPA)	N/A
Occupation Certificate 2021-826 (26 May 2022)	Section 6.9, EP&A Act	Dubbo Regional Council	N/A

## 3 Operations Summary

### 3.1 Construction

ASMH completed project commencement works (site entrance road and site office) by 27 May 2022. An Occupation Certificate was issued by Dubbo Regional Council on 26 May 2022. This action ensured that the SSD-5251 approval remained in force through commencement activity within the seven-year commencement window.

An environmental monitoring shelter was installed on Wychitella and commissioned in March 2022. Meteorological data, PM10 and TSP baseline data is being collected prior to construction activity commencement.

In the two years since listing on the ASX, Australian Strategic Materials (ASM) has progressed the financing needed for construction of the Dubbo Project.

On 9 June 2022 Hyundai Engineering Corporation (HEC) was awarded a contract for Engineering, Procurement and Construction Definition work (EPCD). Completion of the EPCD will allow HEC to produce an open book cost estimate for the Dubbo Project.



*An environmental monitoring shelter supplied by ACOEM was installed during this reporting period southeast of the nearest sensitive receptor (Toongi Hall).*

No significant ground disturbing activities associated with the Dubbo Project construction had commenced as of 30 June 2022.

### 3.2 Operations

All of the land enclosing the Dubbo Project was acquired by Australian Strategic Materials (Holdings) Ltd by June 2016 and a professional Farm Manager was appointed in May 2016.

The Farm Manager is charged with the responsibility of operating a commercially viable mixed farming operation (Toongi Pastoral Company Pty Ltd) on 3,715Ha of land containing the Mining Lease and project footprint.

Fencing and managing the 1,021Ha Biodiversity Offset Area also falls under the responsibility of the Farm Manager. The final three kilometres of 29.2km of fencing was installed enclosing the biodiversity offsets by 30 June 2019.

Environmental monitoring points are shown in **Figure 3**.

Baseline water quality, air quality and meteorological data is collected by trained ASMH staff.

Ecological monitoring continues to be undertaken by qualified professionals.

A Community Consultative Committee with an independent Chairperson was established in late 2015 and has met quarterly, or as frequently as deemed necessary by the committee.

Australian Strategic Materials (Holdings) Ltd submitted an application for a modification (MOD 1) to State Significant Development consent (SSD) 5251 for the Dubbo Project. The application was made under Section 4.55(2) of the *Environmental Planning & Assessment Act 1979* (EP&A Act). A *Modification Report* was prepared by R.W. Corkery & Co. Pty Limited (RWC), on behalf of ASMH to support the application for MOD 1.

The key components of the modification can be summarised as:

- Construction and operation of:
  - a Chlor-alkali Plant for the production of hydrochloric acid and sodium hydroxide for use in on-site processing operations;
  - a brine concentrator to maximise water recovery; and
  - a conveyor between the Processing Plant and Administration Area and the Salt Encapsulation Cells.
- Relocation of:
  - the Salt Encapsulation Cells from the approved location southwest of the Open Cut to the approved location of the Liquid Residue Storage Facility Area 3;
  - the Solid Residue Storage Facility from the approved location west of the Waste Rock Emplacement to the approved location of the Liquid Residue Storage Facility Area 5; and
  - the Rail Container Laydown and Storage Area from the approved location to an area immediately to the west of the approved location; and
- Reclassification of various approved disturbance areas to permit alternative uses.

The *Modification Report*, including supporting technical assessments, was publicly exhibited from 30 March 2022 to 19 April 2022. During and following that period, eight submissions were received by the Department of Planning and Environment (DPE) from Government agencies. A further six submissions were received from members of the public and private organisations.

A Response to Submissions was provided to DPE in July 2022.

### 3.3 Next reporting period

ASM anticipates approval of MOD1 in the third or fourth quarter of 2022.

Environmental Management Plans will be revised to incorporate MOD1 changes.

ASM intends that HEC will have commenced the EPCD work

ASM is targetting offtake agreements and project finance to allow the project to progress to construction.

## **4 Actions Required from Previous Annual Review**

This is the seventh Annual Environmental Management Review for the Dubbo Project.

There were no actions required by DPE from the sixth Annual Review.

Correspondence from DPE and NSW Resources Regulator are contained in Appendix C.

**Table 6: Actions from review previous Annual Review**

Actions Required from previous Annual Review	Requested by	Action taken by Operator	Section where discussed
Letter dated 2 Nov 2021 – upload Annual Review to Company website	DPIE	Michael Sutherland	Appendix C



## 5 Environmental Performance

### 5.1 Air Quality

The Dubbo Project Air Quality Management Plan (AQMP) was prepared to describe dust control measures at Dubbo Project site and meet the requirements of Schedule 3, Condition 18 of SSD-5251.

Management Plans can be found on the Dubbo Project web page at:

<https://asm-au.com/dubbo-project-overview/environmental-reports-management-plans/>

The Dubbo Project Air Quality Management Plan will be updated to include changes described in MOD1 EIS in the next reporting period.

Air Quality criteria for the project are outlined in Table 7- Table 9.

Some historic baseline data for air quality is included in this report to ensure that this document is relevant to the Owners Team, Project Delivery Team and contractors.

A High Volume Air Sampler (HVAS) for measuring Total Suspended Particulates (TSP) and a Met One BAM1020 for measuring Particulate Matter (PM<sub>10</sub>) was installed and commissioned between the Wychitella homestead and the Toongi Hall in February 2021.

**Table 7: Long term criteria for particulate matter**

Pollutant	Averaging period	Criterion
° Total Suspended Particulate (TSP) matter	Annual	90 µg/m <sup>3</sup>

**Table 8: Short term criteria for particulate matter**

Pollutant	Averaging period	Criterion
Particulate matter <10 µm (PM <sub>10</sub> )	Annual	30µg/m <sup>3</sup>
Particulate matter <10 µm (PM <sub>10</sub> )	24 hour	50 µg/m <sup>3</sup>

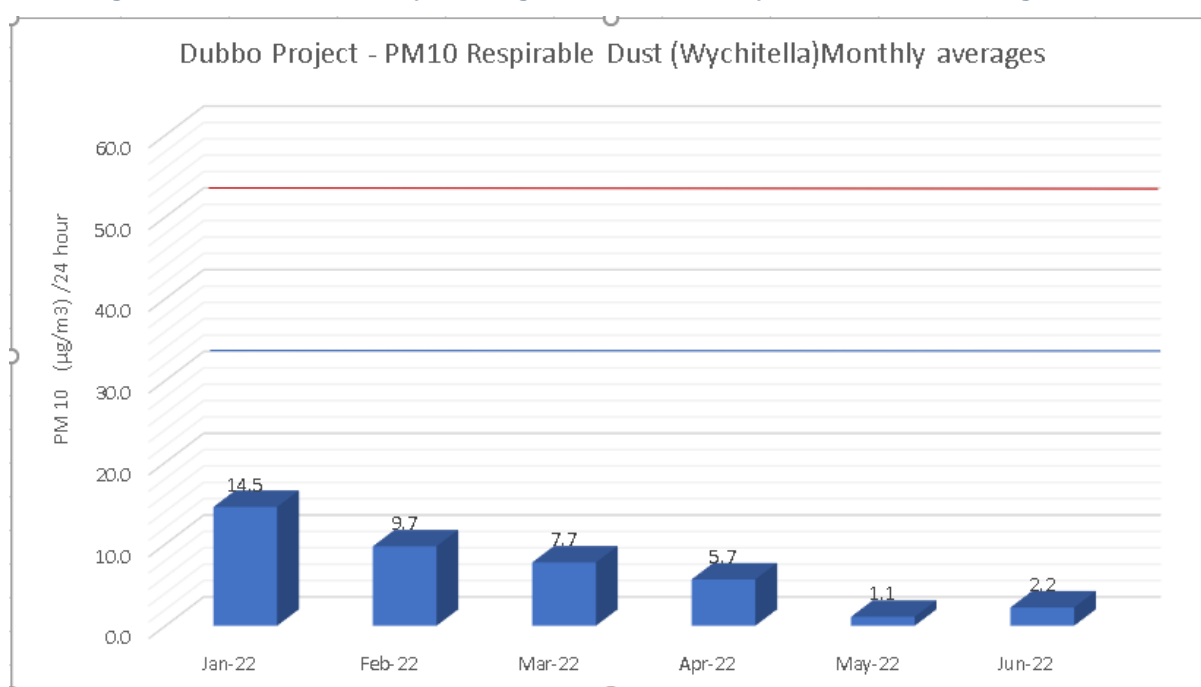
**Table 9: Short term criteria for particulate matter**

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level
<sup>c</sup> Deposited dust	Annual	b 2 g/m <sup>2</sup> /month	a 4 g/m <sup>2</sup> /month
<p><i>Notes to Table 7-9:</i></p> <ul style="list-style-type: none"> <li>a) Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to other sources);</li> <li>b) Incremental impact (i.e. incremental increase in concentrations due to the development on its own); and</li> <li>c) Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003.</li> <li>d) Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents, illegal activities or any other activity agreed by the Secretary</li> </ul>			

Results for Total Suspended Particulates from 26 March 2022 to 30 June 2022 ranged 4.4 µg/m<sup>3</sup>-16.9 µg/m<sup>3</sup> for the 24 hour collection period measured every six days. Two days of collection could not be included in the data as the filter papers were damaged during changeover. The 14 days of monitoring provided a 24 hour average of 8.5 µg/m<sup>3</sup> of PM<sub>10</sub>. This is a very low PM<sub>10</sub> concentration - very much influenced by the very wet conditions experienced in the autumn of 2022.

PM<sub>10</sub> (suspended particulates <10 microns in size) were monitored continuously once the monitoring shelter at Wychitella was commissioned on 15 January 2022. The abnormally wet year has seen very low concentrations of PM<sub>10</sub> in the air.

**Figure 5: PM 10 monthly averages Jan-Jun at Wychitella monitoring shelter**



Deposited dust has been monitored/measured at 12 locations within and neighbouring the project site for several years up until January 2020.

Deposited dust gauges were changed over monthly and three sample sites had monthly samples amalgamated to create enough sample to do additional testwork for radionuclides.

The Cockleshell Corner dust gauge was relocated to Eulandool on 3 August 2015 to enable baseline data to be presented to the property owner.

Six and one half years of deposited dust monitoring has revealed the project site yields low levels of nuisance dust and is typical of mixed agricultural land with an average 550mm annual rainfall.

March 2020 to June 2022 has been well above average rainfall years. Pasture growth and ground cover has been well above average and thus, locally raised dust has been largely absent for the period.

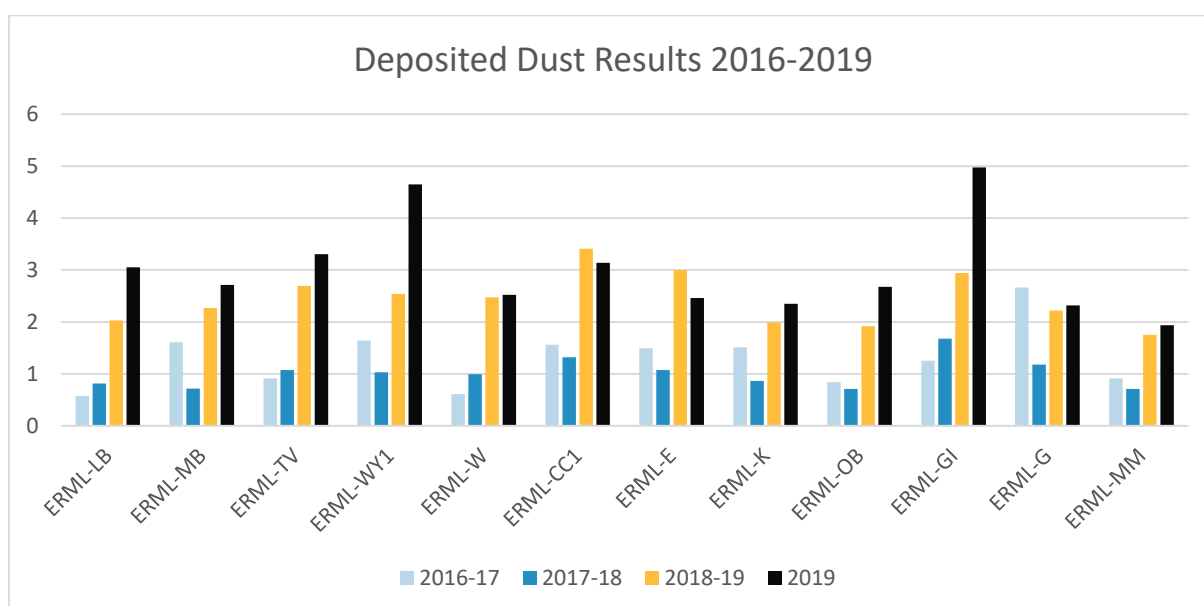
Historic dust results are contained in this report as a reference.

**Table 10: Deposited Dust Results**

Site ID	Site Name	Annual Dust Deposition Rates (g/m <sup>2</sup> .month)			
		2016-2017	2017-2018	2018-2019	2019-2020
		2/6/16 - 2/6/17	4/7/17 - 2/7/18	2/7/18 - 2/7/19	2/7/19 - 3/1/20
ERML-LB	Lifestyle Blocks	0.572	0.815	2.027	3.053
ERML-MB	Malcolm Bye's	1.613	0.719	2.270	2.713
ERML-TV	Toongi Valley	0.912	1.076	2.694	3.305
ERML-WY1	Wychitella Homestead	1.641	1.032	2.538	4.649
ERML-W	Wychitella	0.614	0.993	2.472	2.52
ERML-CC1	Cockleshell Corner Cottage	1.564	1.320	3.411	3.141
ERML-E	Eulandool	1.493	1.075	2.999	2.458
ERML-K	Karingle	1.514	0.862	1.99	2.347
ERML-OB	Ore Body	0.843	0.708	1.919	2.676
ERML-GI	Glen Idol	1.252	1.680	2.943	4.976
ERML-G	Grandale	2.667	1.178	2.223	2.32
ERML-MM	Mia Mia	0.911	0.713	1.753	1.937

Approval Criteria from SSD-5251 Schedule 3, Condition 18, based on 2013 Project EIS Assessment Criteria

**Figure 6: Deposited dust results for 2016-2019**



#### 5.1.1 Management Measures

Minimal dust management measures were employed during this reporting period as project construction has not commenced. These are baseline monitoring results influenced by seasonal and routine agricultural practices.

Toongi Pastoral Company is relatively conservatively stocked and has maintained good pasture cover in all but cropping paddocks.

A water cart was deployed for the minor project commencement works to establish a minesite entrance road and site office.

#### 5.1.2 Proposed Improvements

The next reporting period should see a full year of meteorological data collected in close proximity to the proposed construction site. This data will inform construction planning.

Deposited dust monitoring will be re-established before construction commences on site.

### 5.2 Biodiversity

ASMH settled on the last of the Dubbo Project property acquisitions in June 2016 which created the opportunity for a change in focus of land management to biodiversity enhancement in offset areas and building carbon in soils across the estate. This is a significant change in focus after 150 years of management for agricultural production.

ASMH acquired an additional 169Ha rural property, Wheeler's Block, which fronts the Obley Road in late 2020 as part of a prior commercial arrangement.

Biodiversity at the Dubbo Project is managed under the Biodiversity Management Plan (BMP), which was completed in accordance with Schedule 3, Condition 31-35 of SSD-5251.

A component of the BMP is the Biodiversity Offset Strategy, which delineates the 1,021Ha of biodiversity offset areas and management actions selected to protect and enhance remnant vegetation communities (see **Figure 4.**). The Biodiversity Offset Area (BOA) is protected in perpetuity with the registration on land title of a Conservation Property Vegetation Plan (CPVP) under the *Native Vegetation Act 2003*.

The CPVP was signed by ASM Directors on 22 May 2017 and Central West Local Land Services on 31 May 2017.

While ASM has already put in place most of the tools to comply with the Australian Government approval (EPBC 2012/6625) for the Dubbo Project, the *Proposed Action* of developing an open cut mine has not yet commenced.

A Conservation Bond will be lodged with DPE prior to commencement of any development. The Department will be advised in writing at least three months prior to construction commencing.

It should be noted that there was significant dieback of trees across the whole project site from 2017 to January 2020. Black and White Cypress pine, Drooping She-oak and even red stringybark have died due to severe drought. With that dieback more sunlight is reaching the ground which has enabled growth of grasses, forbs, trees and shrubs. It has been decades since a recruitment window has occurred at Toongi. Thick stands of pine trees in 2021 and



2022 now support groundcover up to 100cm high where in a normal season there would be very low and sparse cover.



*Parson-in-the-pulpit Orchid (Caladenia major) Karingle. Photo taken 6 August 2021.*

### 5.2.1 Management Measures

Biodiversity management actions for the Dubbo Project are focussed towards protection and enhancement of habitat for the State and Commonwealth listed Pink-tailed Worm-lizard (PTWL) (*Aprasia parapulchella*).

ASMH has prepared a PTWL Management Plan (Version 2.3) and a PTWL Biodiversity Offset Management Plan, both of which are appendices in the Biodiversity Management Plan (V2.0) which was approved by DPE on 8 February 2017 (see ASM website).

Dubbo Project biodiversity monitoring is reported annually and is based on ecosystem diversity habitat value measurements adapted from the Biometric methodology. ASMH employees record opportunistic sightings of various species of plants and animals.

Four vegetation community benchmarks and one control site were established around and neighbouring the project site in May 2016 using the now superseded Biobanking Assessment Method. From 2021 monitoring switched to the current assessment framework of the Biodiversity Assessment Method (BAM 2020).

The community benchmarks were surveyed on 11 June 2022 by Area Environmental & Heritage Consultants.

In summary, the overall quantity and condition of native vegetation in all five plots is improving with time.



*Vegetation plot 2 in Mine South Offset showing regenerating White Box (*Eucalyptus albens*) Woodland on 11 June 2022.*

Remnant vegetation monitoring sites are recovering at varying rates, depending on grazing and cultivation history.

The ability to turn off watering points (on farmland) and Project-erected electric fencing will discourage kangaroo numbers continuing to build up in the BOAs during dry periods.

Kangaroos, feral pigs, foxes and cats have been the focus of pest control programs during this period. An aerial shoot of feral pigs was arranged late May 2022 by TPC and neighbours.



Not a single pig was seen from the chartered helicopter which indicated the transient nature of the local pig population.



*The water quality draining from Dwd's Hill has improved markedly since the 2018-2019 drought..  
Photo taken 13 July 2022. This ephemeral stream is the headwaters of Cockabroo Creek.*

There was a site visit on 29 June 2022 by DPE compliance officers. The purpose of the visit was to verify that proposed environmental actions listed in the 2021 Annual Review were being carried out.





*Regenerating White Box woodland in Mine South Offset. Removal of livestock has led to natural regeneratiuon. Rushes and sedges in the foreground are slowing the flow of water through the landscape in the upper catchment of Cockabroo Creek. Photo taken 13 July 2022.*





*A Fuzzy Box (Euclayptus conica) seedling 12cm high planted in Baker Silo Offset on 6 August 2021 had grown to more than 70cm high by 13 July 2022.*

### 5.2.2 Proposed Improvements

During the next reporting period;

- TPC will maintain fences around the biodiversity offset areas,
- Livestock will be excluded from BOAs to allow for natural regeneration,
- White Cypress Pine will be thinned to improve grass cover and reduce rainfall runoff,
- Introduced vertebrate pest (pig, fox, cat and rabbit) control will continue to be controlled,
- Eastern Grey Kangaroo (*Macropus giganteus*) will be culled under licence to reduce grazing pressure in the BOAs and across agricultural land,

- Signage in strategic areas will be installed to restrict access to BOAs to authorised personnel only, and
- Vegetation plots will be monitored in October or November 2022 which will likely provide baseline data on the effects of three well above average (La Nina) rainfall years in succession on vegetation (ungrazed by livestock) that is being protected for its biodiversity value.

### **5.3 Heritage**

A Heritage Management Plan (HMP), which outlines measures to manage Aboriginal and Non-Aboriginal heritage sites at Dubbo Project was approved by DPE on 8 February 2017.

The Farm Manager has use of a database to ensure that heritage sites outside of the project footprint and BOAs are not further disturbed by routine agricultural activities.

Additional sites outside the impact footprint have been identified and added to the heritage database.

With all existing or relocated sites adequately maintained, no active cultural heritage management occurred during the reporting period.

Several site visits during the period saw engagement of Wiradjuri Elders to perform Welcome to Country and smoking ceremonies. Locally hand-made gifts have been exchanged between ASM and Korean partners. ASM emphasises the importance of acknowledging cultural heritage while conducting business.

#### **5.3.1 Management Measures**

Management of the existing sites consisted of the Farm Manager and Stationhand familiarising themselves with the sites across the land controlled by Toongi Pastoral Company, and when required, inducting site visitors that are likely to be working in culturally sensitive areas of the property.

#### **5.3.2 Proposed Improvements**

RAPs will be invited to review heritage sites across the project at an agreed frequency once construction commences.

Cultural heritage inductions will be provided to construction contractors and visitors who will be working in the field around the site. A local cultural awareness trainer has been engaged by ASMH.

Toongi Pastoral Company will launch Macquarie Agricultural Pathways Program with Macquarie Anglican Grammar School in July. This pilot program involving five Year 7 students will provide a cultural heritage induction as part of their immersion in general farm activities. Activities on the farm are linked to the school curriculum.



## 5.4 Meteorological Monitoring

In March 2022 an ACOEM supplied environmental monitoring shelter was installed at Wychitella. The location of the monitoring equipment was chosen after the local community objected to the shelter being placed at the closest sensitive receptor – Toongi Hall. The monitoring shelter geographical coordinates are 32°27'03.2"S and 148°35'01.8"E at 284.2m above sea level.



*Monitoring shelter location marked by red pin. Toongi Hall across the creek at 11O'clock and project site the Springs Road.*

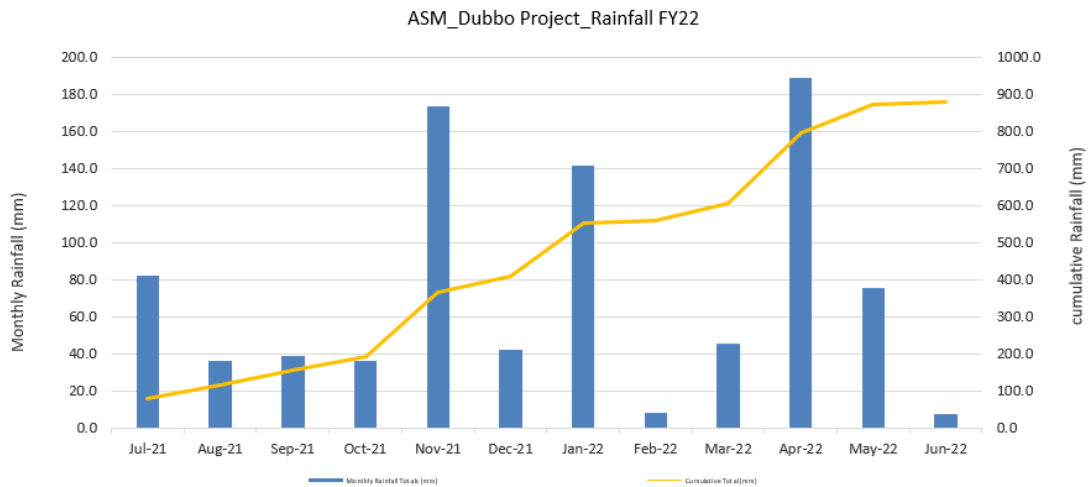
Rainfall for the period (measured at TA3 on Wychitella) is contained in **Appendix B**.

A total 880.6mm of rain fell over 103 days in the reporting period (714.6mm over 84 days in the previous 12 months) which has broken the drought of well below average rainfall years in 2018-2019. The drought started to break in January 2020 and despite a relatively dry April-May 2021 and cold autumn/winter 2022, the growing season has been phenomenal over the past 30 months.

The BOM are predicting a re-establishment of La Nina in Spring of 2022.



**Figure 7: Monthly and cumulative rainfall on project site to 30 June 2022.**



#### 5.4.1 Proposed Improvements

ASM has asked ACOEM to supply monthly data in a dashboard style that will meet the needs for day to day management of the farm and the mine.

Rainfall data going forward will be reported from the Wychitella rain gauge.

## 6 Water Management

The Dubbo Project Water Management Plan (Version 2.1 dated 16 Oct 2016) was approved by DPE on 12 October 2016. The WMP will be revised to take into account project optimisation and MOD 1 changes.

During the reporting period *Water Performance Measures* were included in the Dubbo Project's project approval, Condition 29 of Schedule 3 of SSD- requires ASMH to comply with these measures. Table 10 presents these *Water Performance Measures* and where each measure is addressed in this Water Management section.

As no construction has commenced on site the measures below have not yet been installed.

Redundant farm dams have been filled in and advice has been provided on restoration/rehydration of watercourse B.

**Table 11: Water management performance measures**

Feature	Performance Measure
Water Management – General	Minimise the use of clean water on site. Minimise the need for make-up water from external supplies.
Construction and operation of infrastructure	Design, install and maintain all infrastructure within 40 m of watercourses to: minimise the impact on watercourse water quality, hydrology and function; minimise the impact on the habitat of aquatic species, populations or communities, consistent with the <i>Guidelines for fish habitat conservation and management – Chapter 4</i> (DPI 2013), or its latest version; ensure pipelines across perennial watercourses are installed by directional drilling (under-boring) or attached to rail or road bridge crossings; and be in accordance with NOW's <i>Guidelines for Controlled Activities on Waterfront Land</i> (2012), or the latest version(s).
Macquarie River Pumping Station	Design, construct and operate the water intake structure to prevent to the greatest extent practicable the entrapment and/or extraction of aquatic fauna species including juvenile fish and larvae.
Mine Water Management System - General	Design, install and/or maintain mine water storage infrastructure to prevent the discharge of mine water off-site (this does not apply to sediment control structures that can be designed to discharge in accordance with an EPL). On-site storages are suitably designed, installed and/or maintained to minimise permeability. Maintain adequate freeboard at all times to minimise the risk of discharge to surface waters.
Waste Residue Storage Facilities and Salt Encapsulation Cells	Nil discharge from site. Design, construct and maintain:

	<p>in accordance with the recommendations of the NSW Dam Safety Committee;</p> <p>to be stable over the long term and under all expected loading conditions;</p> <p>in accordance with the standards set out in the Environmental Guidelines – Management of Tailings Storage Facilities (VIC DPI, 2006); and</p> <p>to be lined with HDPE liners or equivalent that complies with a minimum permeability standard of <math>&lt; 1 \times 10^{-9}</math> m/s in accordance with the <i>NSW Environmental Guidelines for Solid Waste Landfills</i> (EPA, 1996), unless otherwise agreed with the EPA; and</p> <p>to ensure the Solid Residue Storage Facility and Salt Encapsulation Cells are double-lined and include an adequate leak detection system.</p> <p>Ensure that at all times a freeboard of at least 600 mm (or 1000 mm for liquid residue storage facility) or a freeboard capable of accommodating a 1 in 100-year ARI, 72-hour rainfall event (or 1 in 10,000 year for the liquid residue storage facility) without overtopping, whichever is greater.</p>
Waste Rock Emplacement	<p>Design, install and maintain the emplacement to encapsulate and prevent:</p> <p>migration of potentially acid forming material, and saline and sodic material; and/or</p> <p>manage long term saline groundwater seepage.</p>
Clean water diversion & storage infrastructure	<p>*Design, install and maintain the clean water diversion system to capture and convey the 100-year ARI flood around the perimeter of the site.</p> <p>Maximise as far as reasonable and feasible the diversion of clean water around disturbed areas on site.</p>
Flood mitigation measures	<p>Design, install and maintain flood mitigation measures ensuring that the Processing Plant, Administration areas, Waste Residue Storage Facilities, Salt Encapsulation Cells and Waste Rock Emplacement are appropriately protected from flooding up to the 1 in 100 ARI.</p> <p>Residual impacts downstream must be managed in an appropriate manner.</p>
Sediment control structures	<p>Design, install and maintain erosion and sediment controls generally in accordance with <i>Managing Urban Stormwater: Soils and Construction – Volume 1</i> and <i>Volume 2E Mines and Quarries</i>.</p>
Chemical and hydrocarbon storage	<p>Chemical and hydrocarbon products to be stored in covered, impervious bunded areas in accordance with the relevant Australian Standards.</p>
Aquatic and riparian ecosystem	<p>Maintain or improve baseline channel stability.</p> <p>Develop site-specific in-stream water quality objectives in accordance with ANZECC 2000 and <i>Using the ANZECC Guidelines and Water Quality Objectives in NSW</i> procedures (DECC 2006), or its latest version</p>

Note \*: a diversion system around the project site is not possible nor feasible but clean and dirty water systems will be kept separate through engineering design.

## 6.1 Water Supply

The principal source of water for the Dubbo Project is the Macquarie River which is seven kilometres north of the processing plant. A pump station within an easement on Mia Mia will supply water via a buried poly pipeline to the plant.

A combination of High and General security Macquarie River water licences will provide the Dubbo Project with processing water. This river water can be supplemented with temporary water (through seasonal purchase) and also with bore water from a licenced bore established on "Sweet Water" 600m northeast of the pump station.

The production bore was established on Sweet Water in October 2016 and was pump tested for seven days in February 2017. A Works Approval has been obtained from Water NSW for 1,250ML/annum. Water will ultimately be pumped to the river pump water supply line and joined.

Maximum Harvestable Rights Dams Capacity (MHRDC) is the volume of water landholders are entitled to capture and use without need for licencing. The maximum capacity of rainfall/runoff captured on ASMH-owned land is 223ML/yr.

Sediment or pollution control structures are exempt from the MHRDC consideration, unless the water captured is to be re-used on the site/property for non-environmental purposes.

An onsite water treatment plant will be used to produce potable water, eliminating the requirement to import potable water.

**Table 12: Water Supply**

Water Licences	Water sharing plan, source and management zone (as applicable)	Entitlement (ML)	Active pumping
WALs:19994, 9191, 3396, 36409, 3412	High Security Macquarie/Cudgegong	856	0
WAL30259	General Security Macquarie/Cudgegong	750	0
N/A	NSW Murray Darling Basin Fractured Rock <i>Aquifer</i>	Stock & domestic	Stock & domestic
N/A	Onsite dams, under harvestable rights	223	Stock & domestic
WAL 37691	Upper Macquarie Alluvial Groundwater Source	1402	Nil

## **6.2 Water Balance**

The site water balance was being reviewed during the reporting period in line with a proposed modification of the project.

The water balance indicates that the Dubbo Project will be dependent on a combination of river and bore water and water recycling within the processing plant.

The project is designed for zero discharge of 'dirty water' which will be kept separate from existing 'clean' water discharges from the ephemeral drainage lines that drain the Toongi Pastoral Company property.

## **6.3 Clean Water Management (Surface)**

For reporting purposes, clean water management is divided into:

- onsite management;
- Wambangalang and Cockabroo Creeks; and
- offsite discharge.

### **6.3.1 Site Water**

Clean water consists of through-flow from drainage of the undisturbed Dowd's Hill and water from onsite non-mine disturbed catchments. This water is diverted away from contamination sources (mine disturbance and infrastructure) and directed offsite. Management includes the construction of drains and bunds to collect and divert surface water flow past, or away from, mining disturbed catchments.

### 6.3.2 Surface Water Monitoring results

No baseline data was carried out during the period as ten years of data has been collected already.

It is expected that all of the data collected to date will enable water quality trigger values for the project to be established in consultation with the EPA.

February 2020 saw the first flows in Wambangalang and Paddy's Creeks since March 2019. The flows were terracotta in colour as was the Macquarie River through Dubbo owing to the soil erosion exacerbated by drought conditions in the catchments. Large amounts of organic matter were flushed down the creeks and rivers as the drought started to break with thunderstorm events.

Sample results from 2020 indicate increasing salinity levels in Wambangalang and Paddys Creeks when flows diminish.

The above average rainfall since early 2020 has seen local creeks and streams run more often than not.



*Watercourse B flowing across Toongi Road on "Toongi Valley" discharges in Wambangalang Creek. Despite very good ground cover surface water does contain suspended solids. Photo taken 7 July 2021.*

### 6.3.3 Discharge

No licenced discharges occurred during the reporting period.

## 6.4 Mine Water Management

This section does not apply as no construction has commenced.

## 6.5 Erosion and Sediment Control

This section does not apply as no construction has commenced.

## 6.6 Groundwater

By way of background information, sampling and pump testing of the stock and domestic bores around and neighbouring the project site occurred in June 2016. These bores have been established for many years to supply stock and domestic water to several properties.

All Dubbo Project groundwater bores (mostly in the fractured rock aquifers of the Lachlan Fold Belt) provide less than 2L/sec of stock quality drinking water.

Springs in the Springs Offset and Mine South Offset re-commenced flowing in Winter 2020 after two years of zero flow. Springs were flowing on Karingle and Toongi Valley on 30 June 2021.

**Table 13: Stock and domestic bore depth and yield**

Sample Reference	Bore Name	Location	Total Depth	L/sec	LPM	SWL
GW-001	Ugothery	Shed	67.24	0.37	21.9	11.05
GW-002	Grandale	West Bore	28.31	0.30	18.1	13.24
GW-003	Toongi Valley 2	Shearing Shed	36.96	0.91	54.6	8.95
GW-004	Wychitella	House	47.33	1.53	91.8	5.4
GW-005	Pacific Hill 1	Shed	48.55	1.40	84.1	18.52
GW-006	Karingle 2	Lane West of House	38.98	1.41	84.6	13.3
GW-007	Toongi Valley 3	Spring	12.86	1.64	98.3	2.61
GW-008	Karingle 1	House	39.66	1.32	79	16.29
GW-009	Toongi Village	Well	15.4	1.43	85.6	7.32

Seven geotech bores/piezometres (installed September 2014) were most recently dipped for water levels on 12 July 2022. There has been a noticeable rise in the ground water in 2022 after thirty months of well above rainfall. Four of seven piezos remain dry.



**Table 14: Geotech bores in the Dubbo Project footprint**

Bore	Piezo Depth	Wet /Dry	Depth to SWL (m) Sep 2018	Depth to SWL (m) Aug 2019	Depth to SWL (m) Jul 2020	Depth to SWL (m) Aug 2021	Depth to SWL (m) Jul 2022	Reference Point (m above ground level)
C	13.06	Dry	Dry	Dry	Dry	Mud	Dry	N/A
S	15.72	Wet	12.86	14.42	14.8	13.28	5.63	0.75
W	15.27	Wet	15.26	Mud	Dry	Mud	15.23	0.7
E	14.95	Wet	Moist	Dry	Dry	Mud	Dry	0.9
Q	15.66	Wet	12.00	12.34	12.8	12.58	12.22	0.85
I	16.3	Dry	N/A	Dry	Dry	Dry	Dry	N/A
Y	11.6	Wet	9.45	9.8	9.7	8.97	7.3	0.9

At the end of the reporting period water tables across the site have generally risen. The second year of a La Nina climate event has led to local springs running for months on end. Water is seeping out of the landscape where impermeable geological contacts are encountered.

## 6.7 Proposed Water Management Improvements

No improvements are proposed to groundwater management at the Dubbo Project in the next reporting period.

## 7 Rehabilitation

The Dubbo Project has not yet commenced construction.

### 7.1 Rehabilitation During Reporting Period

Minor rehabilitation activity (tree planting) along watercourse B in Banker Silo Offset of Fuzzy Box (*Eucalyptus conica*) took place in August 2021. The seedlings have grown at an exceptional rate.

### 7.2 Post Rehabilitation Land Use

Post-rehabilitation land use objectives and targets were contained in the draft 2015-2017 MOP.

However, a Rehabilitation Management Plan (RMP) and Forward Program will be submitted to the Resources Regulator in the next reporting period. ASM will review, assess and consult with government agencies on agreed rehabilitation objectives and rehabilitation completion criteria as required by clauses 13 and 15 in Schedule 8A of the Mining Regulation 2016.

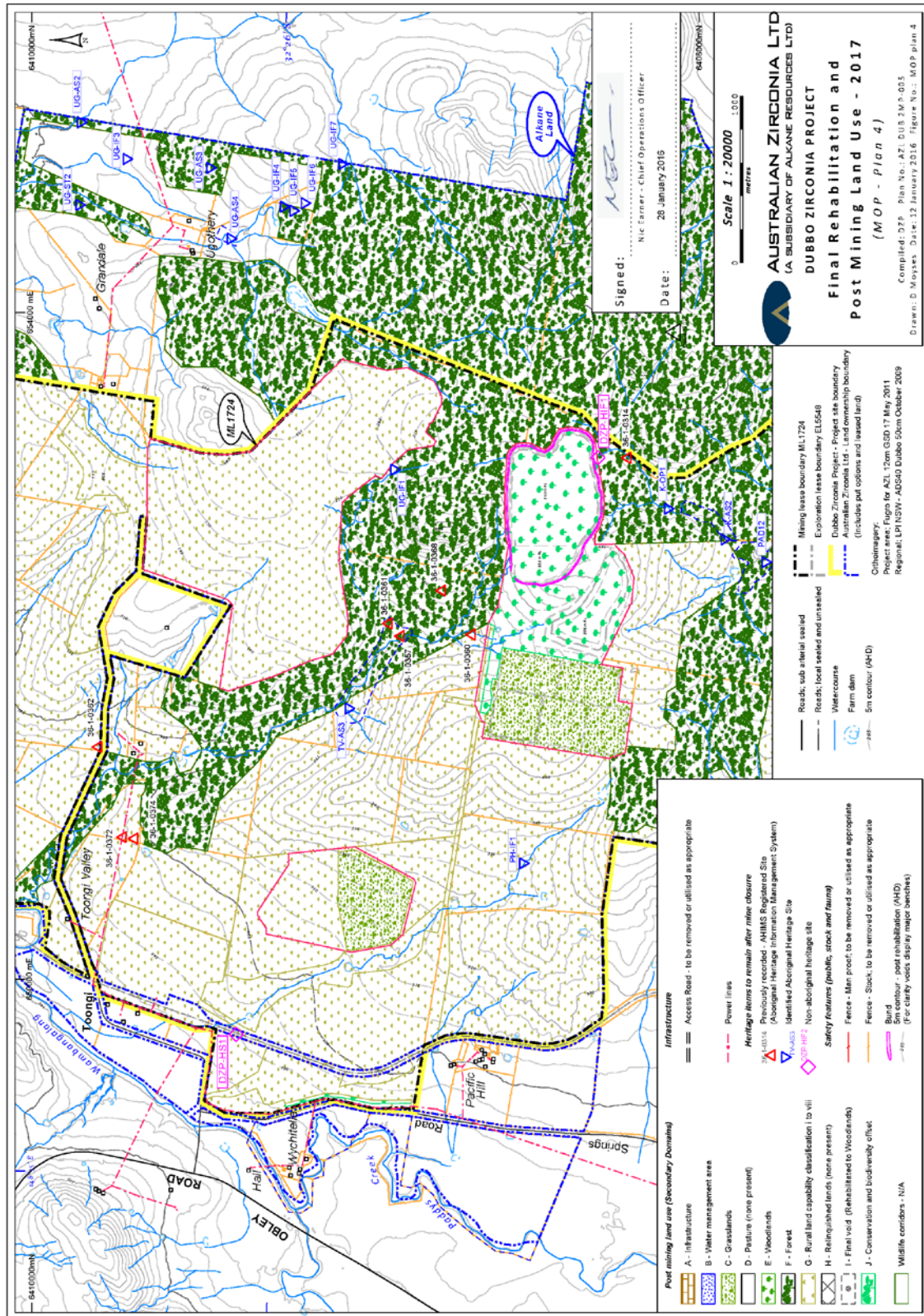
The objectives in Table 15 will be revised. Some of the targets have already been achieved.

**Table 15: Rehabilitation and BOS Objectives and Targets**

Category	Objective		Target(s)
	Rehabilitation	BOA	
Ecosystem Development (Final Land Use)	Protect, enhance and extend areas of remnant native vegetation.		Secure the BOA under PVP or equivalent mechanism.
	Maintain habitats on the final landform which encourage colonisation by native flora and fauna with specific niche requirements.		Species diversity and density of rehabilitated landforms equivalent to analogue sites established within the BOA.
	Extend, improve, protect and link areas of remnant native vegetation.		Secure the BOA under PVP or equivalent mechanism. Prepare and implement a Biodiversity Management Plan (BMP).
	Retain areas on the Dubbo Project Site amenable to future agricultural or industrial activities.	-	Agricultural productivity of land equivalent to pre-mining landforms.

Post-Mining Land Use	Maximise positive and minimise adverse socio-economic outcomes following mine closure.	-	Consult with the community and government agencies in relation to the post-mining land use. Rehabilitate the Mine in accordance with <b>Plan 4</b> , unless otherwise agreed.
	Provide rehabilitated woodland communities which adjoin the established Biodiversity Offset Area to maximise the wildlife corridors created within the local setting.	Undertake habitat augmentation to improve and promote corridors for fauna movement linking adjacent remnant woodland vegetation with the rehabilitation of the Mine.	Establish woodland vegetation over the landform equivalent to local analogues of that community. Visual identification of wildlife corridors within the largely agricultural setting. Conserve under a Conservation PVP 1021ha of remnant native vegetation in accordance with a Biodiversity Offset Strategy.
	Integrate areas of biodiversity enhancement and conservation with agriculture.		Undertake agricultural activities on the Mine Site, including within the BOA in accordance with a PVP and BMP.
Other	Allow for the relinquishment of the Mining Lease and the return of the security lodged over the Mining Lease within a reasonable time after the end of the mine life.		50% within 5 years of final rehabilitation. 100% within 10 years of final rehabilitation.

Figure 8: MOP Plan 4 showing proposed final land uses at Dubbo Project.





### **7.3 Trials, Monitoring and Research**

No trials nor monitoring of rehabilitation was undertaken during this period. During the 2017 reporting period, four benchmark vegetation communities' benchmarks were identified and described by OzArk as a goal against which to measure rehabilitation success.

### **7.4 Key Rehabilitation Risks**

A key rehabilitation risk in the next reporting period will be weather related. Stripping and handling topsoil resources should ideally be performed when soils are neither too wet nor too dry.

### **7.5 Actions for Next Reporting Period**

Topsoil stripping and stockpiling will take place during the next reporting period should construction commence, however this is not currently expected to be the case. Trials will examine productive pasture establishment techniques on the soil stockpiles. It is intended to establish productive perennial pastures on the soil stockpiles and include those stockpiles as a resource to be opportunistically grazed by livestock.

The soil stockpiles will be managed for their long term soil health to ensure they are a suitable medium for the final landform rehabilitation in 20+ years time.

Toongi Pastoral Company will register parts of the the farm (surrounding the mine site) as a Commonwealth carbon project with the aim of sequestering carbon in the farms soils. A preliminary assessment has been undertaken and the baseline soil sampling will be conducted during the next reporting period.

## **8 Community**

### **8.1 Consultation**

The key channel to ensuring an effective passage of information between ASMH and the surrounding community, is the Community Consultative Committee (CCC). The CCC is an independently chaired member committee representing the Dubbo Project, the local community (including environmental interests) and the Aboriginal community.

At CCC meetings, typically held quarterly, members are updated by ASMH personnel on the progress of current and proposed mining operations and projects. Community representatives are given the opportunity to raise concerns regarding the project and to offer advice regarding consultation with the community. CCC meeting minutes are available via the ASM website (<https://www.asm-au.com/>).

During the reporting period, the CCC met three times. However, the August 2021 meeting failed to achieve a quorum.

CCC meetings were held on 16 August 2021, 6 December 2021 and 2 May 2022. Minutes are posted on the ASM website.

Dubbo Project Community Updates (newsletter) were published in August 2021, December 2021, January 2022 and April 2022.

In addition to the CCC, ASM utilised a number of methods of communication/consultation with the community during the reporting period, including:

- ASX announcements (publicly available) and emailed or posted to subscribers;
- Making relevant information regarding mine approvals, operations and environmental monitoring results available to the public on the ASM website;
- Distributing a community newsletter, to provide the Dubbo-Toongi community and any other interested parties with information on the Dubbo Project development;
- Attending vocational and tertiary information days at schools;
- Three day presence at Dubbo Show;
- Consultation with community, project neighbours, Dubbo Regional Council and government agencies regarding MOD1;
- Providing a 24-hour community information line;
- Responding in person to phone and email enquiries;
- Sending issue-specific letters to members of the public in response to queries regarding the project; and
- Field Days and training days hosted by Toongi Pastoral Company.
- These methods of community consultation will continue during the next reporting period as well as targeted consultation for Management Plan updates and the RMP post-MOD1 approval.
- NSW Government (Mining, Exploration & Geoscience) launched its Critical Minerals and High-Tech Metals Strategy from the Toongi ore body on 29 November 2021.

## **8.2 Support**

Over the life of the development, ASMH has committed to a Voluntary Planning Agreement with Dubbo Regional Council to contribute annually:

- \$300 000 to the maintenance of Obley/Toongi Road;
- \$42,000 Roads Contributions (to and from work);
- \$42,000 Roads Contributions (other direct vehicle trips for employees); and
- \$230,000 for Boundary Road (Keswick Parkway South to Sheraton Road).

CPI adjustment to apply after year one. VPA contributions to commence on 1 January or 1 July following commencement of Obley/Toongi Road upgrade.

## **8.3 Complaints and Enquiries**

ASMH manages complaints in accordance with the protocols and procedures contained in the EMS. During the reporting period no complaints were received.

ASMH staff will respond to all complainants and conduct investigations into specific concerns. Investigation outcomes consisting of corrective action, where required, and follow-up communication with the complainant will be actioned.

A register of complaints and enquiries received from the community is maintained by ASMH. A modified version of this register (excluding personal details of complainants) is published on the ASM website.

No specific complaints have been received during this reporting period.

## 9 Independent Environmental Audit

As per Schedule 5 conditions 9 and 10 of the consent conditions:

1. Within one year of commencing development under this consent, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:
  - (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
  - (b) include consultation with the relevant agencies;
  - (c) assess the environmental performance of the development and assess whether it is complying with the requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);
  - (d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and
  - (e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals.

*Note: This audit team must be led by a suitably qualified auditor and include experts in water resource management, ecology, transport and road design and hazardous materials management and any other field specified by the Secretary.*

2. Within 6 weeks of the completion of this audit, unless the Secretary agrees otherwise, the Applicant shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report, including a timetable for the implementation of any measures proposed to address the recommendations in the audit report. If the Applicant intends to defer the implementation of a recommendation, reasons must be documented.

As construction has not yet commenced, this condition has not yet been triggered.



## 10 Incidents and Non-Compliances During Reporting Period

This section provides further detail on the incidents and non-compliances reported in Section 1 as well as any other official regulatory interaction that occurred during the reporting period.

### 10.1 Official Regulatory Interaction

No reportable incidents or warning letters, penalty notices or prosecution proceedings by any NSW Government regulatory agency were received during the reporting period.

Correspondence from DPE is contained in **Appendix C**.

## 11 Activities to be Completed in Next Reporting Period

Environmental activities and initiatives to be implemented in the next reporting period, should construction commence (ASMH does not anticipate that this will be the case) will focus on reduction of offsite impacts such as noise and dust, management and monitoring of biodiversity offset areas, finalising the final landform plans, and commencing rehabilitation of soil stockpiles and erosion and sediment control structures. Details on these activities are shown in Table 16.

**Table 16: Activities proposed for 2021-2022**

Proposed Activities	Location	Proposed Completion Date
Fauna monitoring	ASMH site and offset areas	Ongoing
Control of noxious weeds	ASMH site and offset areas	Ongoing
Eastern Grey Kangaroo culling	TPC and BOA	Ongoing
Feral animal control	TPC & BOA	Ongoing
Fence maintenance in accordance with the Biodiversity Offset Management Plan and PVP	Offset areas	Ongoing
Pink-tailed Worm-lizard Survey	PTWL Offset areas	Spring 2022
Analogue vegetation plot monitoring	Obley Road Reserve, Toongi Hall and Project Site	Spring 2022
Continue weed management and rubbish removal	Biodiversity offset areas	Ongoing
Environmental monitoring as required by consent conditions and EPL	Site and linear infrastructure activity areas	TBC