# PRCP schedule

***Environmental Protection Act 1994***

**P-PRCP-100923537**

*This PRCP schedule is issued by the administering authority under Chapter 5 of the* Environmental Protection Act 1994*.*

**PRCP schedule:** P-PRCP-100923537

**PRCP schedule holder(s)**

| Name(s) | Registered address |
|---|---|
| AIC Copper Pty Ltd | Suite 3, 130 hay Street<br>SUBIACO WA 6008 |

**Location details**

| Location(s) |
|---|
| Mining Lease (ML) 90064, ML90080, ML90086, ML90155 |

**Take effect**

In accordance with section 202B of the *Environmental Protection Act 1994* (EP Act), the PRCP schedule has effect on the day the environmental authority for carrying out relevant activities on land to which the schedule relates takes effect. Pursuant to section 202C of the EP Act, a PRCP schedule continues in force until the environmental authority for the relevant activities to which the PRCP schedule relates is cancelled or surrendered, even if the resource tenure expires or is cancelled and even if the relevant environmental authority is suspended under Chapter 5, part 11 or 11A of the EP Act.

| RAPettit | 06/02/2026 |
|---|---|
| Signature | Date |

Robbert Pettit

**Department of the Environment, Tourism, Science and Innovation**
Delegate of the administering authority
*Environmental Protection Act 1994*

**Enquiries:**

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**Obligations under the *Environmental Protection Act 1994***

Pursuant to section 202E of the EP Act, if there is an inconsistency between an environmental authority and a PRCP schedule, the environmental authority prevails to the extent of the inconsistency.

Pursuant to section 285 of the EP Act:

- the holder of a PRCP schedule must commission an audit of the schedule by a rehabilitation auditor for the following periods (each an audit period) —

  (a) the 3-year period starting on the day the schedule takes effect

  (b) each 3-year period starting on the day after the previous audit period ended.

- the holder must, within 4 months after the end of each audit period, give the administering authority -

  (a) the rehabilitation auditor's report (an audit report) about the audit that complies with section 286 of the EP Act, and

  (b) a declaration for the audit report that complies with section 285 of the EP Act.

In addition to the requirements found in the conditions of this PRCP schedule, the holder must also meet their obligations under the environmental authority, the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the EP Act:

- general environmental duty (section 319)
- duty to notify environmental harm (section 320-320G)
- offence of causing serious or material environmental harm (sections 437-439)
- offence of causing environmental nuisance (section 440)
- offence of depositing prescribed water contaminants in waters and related matters (section 440ZG)
- offence to place contaminant where environmental harm or nuisance may be caused (section 443).

**PRCP schedule**

The PRCP schedule incorporates the following sections:

- Section A - Conditions of PRCP schedule
- Section B - Definitions
- Section C - Final site design and reference maps
- Section D - Post mining land uses
- Section E - Appendices



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# 1 Section A - Conditions of PRCP schedule

Pursuant to section 206A of the EP Act:

- it is a condition of this PRCP schedule that, in carrying out a relevant activity under the schedule, the holder must comply with a requirement stated in the environmental authority relevant to carrying out the activity.
- it is a condition of this PRCP schedule that the holder must comply with the following matters stated in the schedule -

  (a) each rehabilitation milestone and management milestone

  (b) when each rehabilitation milestone and management milestone is to be achieved

**General conditions**

**PRCP1** All mining disturbance authorised under environmental authority (EA) EPML00818113 must have an associated rehabilitation outcome provided in this PRCP Schedule.

**PRCP2** The holder must for each rehabilitation area achieve the corresponding rehabilitation milestone criterion (milestone reference):

(a) for the cumulative area available specified in this schedule; and

(b) by the milestone completion date specified in this schedule.

**PRCP3** Where land becomes 'available for rehabilitation' earlier than the date nominated in this schedule, the holder must:

(a) notify the administering authority in writing within 30 days of the land becoming 'available for rehabilitation'; and

(b) Unless otherwise agreed to by the administering authority in writing, within 90 business days of the land becoming 'available for rehabilitation', apply to the administering authority to amend this schedule in a way that maximises the progressive rehabilitation of the land to a stable condition, including bring forward achievement of relevant milestones and criteria.

Notes:

1. Reference to "earlier than the nominated date in the schedule" means a date that is greater than 1 year prior to the date nominated in the schedule.
2. The written notification must include precise details of the relevant land area and the date when that land became 'available for rehabilitation'
3. Assessment of land becoming available is undertaken on a nominally annual basis.
4. Rehabilitation of land size must be practicable and economical.
5. The dates by which milestones are to be completed is brought forward, to the extent it is reasonably practicable to do so, by the same amount of time as the commencement was brought forward.

**PRCP4** Where an area achieves a rehabilitation or management milestone, the holder must continue to achieve the milestone criteria until a surrender is approved.

**PRCP5** The holder must maintain a risk register that identifies the risks to not achieving:

(a) a stable condition for post-mining land uses (PMLU), and

(b) how the risks are being managed or minimised.



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**PRCP6** The risk register (PRCP5) must be reviewed annually and include consideration of the outcomes of PRCP monitoring data.

**PRCP7** The holder must carry out monitoring in accordance with:

(a) the monitoring and maintenance program described in the rehabilitation planning part for the activity version 2; and;

(b) any requirement under this schedule; and

(c) as necessary to demonstrate achievement of each rehabilitation milestone or management milestone criteria.

Note: Where there is any inconsistency between this schedule and the rehabilitation planning part, the schedule criteria prevail to the extent of the inconsistency.

**PRCP8** The holder must make and keep up to date records on:

(a) Achievement and maintenance of each rehabilitation milestone criteria of this schedule;

(b) Rehabilitation activities and the results of those activities (including but not limited to, actions taken, date, location, methods, data collected, quality assurance and quality control, photos, waste tracking and disposal records, appropriately qualified person details and assumptions);

(c) Maintenance of rehabilitation and the results of maintenance activities;

(d) Monitoring of rehabilitation and the results of monitoring;

(e) Details and results of rehabilitation trials;

(f) Designs, drawings, specifications and any similar documents developed in accordance with good professional practice in relation to rehabilitation milestones or milestone criteria;

(g) All documents in relation to the requirements of this schedule, including reports (e.g. site investigation report), statements (e.g. site suitability statement), certifications, assessments, investigations, inspections, audits or any similar documents developed in relation to rehabilitation milestones or milestone criteria;

(h) Landholder agreements;

(i) Details of community consultation in the community consultation register relating to rehabilitation and closure activities.

**PRCP9** Records made under PRCP8 must be kept until the relevant environmental authority has been surrendered.

**PRCP10** Records made under PRCP8 must be provided to the administering authority in the specified format within 10 business days of a written request.

**PRCP11** All AQP designs, specifications, certifications, assessments and any similar documents, must:

a) include documented consideration of any relevant guideline or publication material, including material published by the administering authority.

b) detail the boundary conditions (of any model);

c) detail any assumptions made, limitations and areas of uncertainty; and

d) contain sufficient detail to allow for independent peer review and substantiation.

**PRCP12** Where the surface water quality at the downstream sites specified in **Table 3: Surface water and stream sediment monitoring locations** exceeds the upstream site result, an AQP must complete an assessment of the cause and risk of rehabilitation not achieving a stable condition within the schedule



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timeframe and:

(a) Where there is a low risk to achieving a stable condition from the mining tenure, then no further action is to be taken; or

(b) Where there is a risk greater than low to achieve a stable condition, then an assessment of potential environment harm and any changes or rectification actions to rehabilitation activities must be determined and implemented.

**PRCP13** Where the groundwater quality at compliance monitoring bores specified in **Table 5: Groundwater monitoring locations**, exceeds the limits specified in **Table 6: Groundwater quality limits** and as per RM13.l), an AQP must complete an assessment of the cause of the exceedance and risk of rehabilitation not achieving a stable condition within the schedule timeframe and:

a) Where there is a low risk to achieving a stable condition from the mining tenure, then no further action is to be taken; or

b) Where there is a risk greater than low to achieve a stable condition, then an assessment of potential environment harm and any changes or rectification actions to rehabilitation activities must be determined and implemented.

**PRCP14** Where the stream sediment quality at the downstream site exceeds the limits specified under RM13.j), an AQP must complete an assessment of the cause of the exceedance and risk of rehabilitation not achieving a stable condition within the schedule timeframe and:

a) Where there is a low risk to achieving a stable condition from the mining tenure, then no further action is to be taken; or

b) Where there is a risk greater than low to achieve a stable condition, then an assessment of potential environment harm and any changes or rectification actions to rehabilitation activities must be determined and implemented.

**PRCP15** The assessment/s under PRCP12 to PRCP14 must be completed and provided to the administering authority within 3 months of receiving the relevant sampling results.

**PRCP16** PRCP12(a) can be triggered 3 times over 5 consecutive years prior to surrender.

**PRCP17** If PRCP12(b) is triggered, the 5 year timeframe under RM13 is reset, unless agreed by the administering authority.

**PRCP18** An independent AQP must revise and update the numerical groundwater model that includes projections of groundwater levels and flow directions for a minimum period of 200 years post-closure. The holder must provide the updated model to the administering authority no later than 30 June 2042.

**PRCP19** If the updated numerical groundwater model identifies changes to the schedule being required to achieve the rehabilitation objectives, the holder must amend the schedule as per the EP Act, within 6 months of the PRCP17 completion.

**PRCP20** Disturbance due to exploration and minor activities in areas not planned to be mined within a rehabilitation area must be rehabilitated in accordance with the provisions detailed in the *Eligibility criteria and standard conditions for exploration and mineral development projects*, or its successor, with the exception that land must be rehabilitated to a stable condition that includes achieving the relevant post mine land use as indicated by Figure 1 Final Site Design.

**PRCP21** Before 30 September 2031 the holder must for each relevant structure provide to the administering authority an AQP prepared and peer reviewed, landform closure design report, which includes detailed engineering designs and a durability assessment.

**PRCP22** The landform closure design report must at a minimum for the relevant structures include:



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a) Design aims and objectives of final landform, including the cover system and batters,

b) The intended design life of the component parts of each relevant structure including the cover, plateau, batters, access points, water management, and associated monitoring network,

c) Quality assurance and quality control required during construction,

d) How the cover system achieves a performance outcome equivalent to or better than the design provided in Appendix M (Eloise Copper Mine Tailings Storage Facility Closure Plan) of the PRC Plan dated 31 May 2024.

e) How the cover system performance will be demonstrated,

f) How the landform achieves acceptable geotechnical and erosional stability,

g) How the landform achieves an acceptable water quality outcome,

h) How redundancy of the monitoring network has been identified and built into the final design,

i) How the design, including the component parts supports the achievement of the nominated PMLU,

j) How the design is consistent with the durability assessment,

k) The critical design elements and associated assessment that support the achievement of a stable condition, and

l) Where any assumed or inferred material properties have been used in the design or its assessment (inclusive of modelling), detailed discussion justifying why actual/measured properties were not used, how uncertainties regarding material properties may affect performance, and how those uncertainties are managed.

**PRCP23** The durability assessment required in PRCP21 must include:

a) Specified nominated design life of the component parts of the relevant structures including the cover, plateau, batters, access points and water management features,

b) The systematic identification and analysis of potential failure modes for the component parts of the relevant structures (including the cover, plateau, batters, access points and water management features),

c) An explanation of how each failure mode has been considered in the design and designed out, to the extent practicable,

d) Where a failure mode could not be designed out, the control measures that are required and their residual risks,

e) How the design has been developed to allow for the future practical repair of the component parts of the structure, should any of the potential failure modes be realised either during or after the nominated design life; and

f) Details of the minimum monitoring required to detect each potential failure mode, including the type of monitoring, location/s, frequency and performance indicators, to demonstrate ongoing stability and performance in support of achieving a stable condition. This must include measurable time-based criteria to detect the development of potential failure modes.

**PRCP24** The documents required under PRCP21 (detailed in PRCP22 and PRCP23) must be independently peer reviewed.

Both the AQP and independent peer reviewer must provide a certification, that the landform closure design report is fit for purpose, prepared in accordance with good professional practice and if



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constructed as per the landform closure design report the rehabilitated landform will achieve a stable condition in a post-closure context.

**PRCP25** Monitoring must be conducted equivalent to or better than the monitoring type and frequency as specified in the durability assessment required in PRCP23.

**PRCP26** The currency of the landform closure design report, including the durability assessment must be maintained, and the report updated as often as necessary, to ensure that the relevant structures will achieve a stable condition that can be sustained.

Where the report has been updated, the certifications provided under PRCP24 must also be provided in relation to the updates.

**PRCP27** On 30 June 2026, the water quality limits in Table 4 – Surface water quality limits and Table 6 – Groundwater quality limits will apply if the PRCP schedule has not been updated to include approved site specific values.

END OF CONDITIONS



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# 2 Section B – Definitions

| | |
|---|---|
| Appropriately qualified person (AQP) | Means a person who has professional qualifications, training, skills and experience relevant to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relative to the subject matter using the relevant protocols, standards, methods or literature. |
| Activity (EP Regulation) | Includes that part, if any, of an activity relating to the following—<br><br>(a) preparing a place for the activity before carrying out the activity;<br><br>(b) rehabilitating a place after it has been used for carrying out the activity. |
| BioCondition | Refers to the *BioCondition Assessment Manual* (Eyre, T.J., Kelly, A.L, Neldner, V.J., Wilson, B.A., Ferguson, D.J., Laidlaw, M.J. and Franks, A.J. (2015)) and *BioCondition: A Condition Assessment Framework for Terrestrial Biodiversity in Queensland. Assessment Manual. Version 2.2* (Queensland Herbarium, Department of Science, Information Technology, Innovation and Arts, Brisbane) or later versions thereof. |
| Contaminants | Can be a gas, liquid or solid; or an odour; or an organism (whether alive or dead), including a virus; or energy, including noise, heat, radioactivity and electromagnetic radiation; or a combination of contaminants. |
| Gully | A gully is a channel excavated by water, more than 0.3 m deep. |
| Independent AQP | Is an AQP who is a third party, being independent of the PRCP schedule holder, and has not previously provided advice on the matter the subject of the review. |
| Independently peer reviewed | means a peer reviewer who is a third-party to the PRCP schedule holder and the AQP whose report is being reviewed and substantiated. The peer reviewer shall also be an AQP and documentation provided must contain sufficient detail to allow for independent technical review and substantiation and provide and justify site-specific landform performance (SMART) criteria. |
| Relevant material | Includes:<br><br>i. Final landform design report,<br><br>ii. Durability assessment/ report,<br><br>iii. “As Constructed” report; |



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| | |
|---|---|
| | iv. All monitoring data<br>v. Assessment of monitoring data,<br>vi. All maintenance records; and<br>vii. Modelling and technical assessments. |
| Relevant structure | To be defined during the assessment and listed here. Typically includes TSF and higher risk structures, including WRDs. |
| Rill | A rill is a channel excavated by water, less than 0.3 m deep. |
| Stable | In relation to land, means landform dimensions are or will be stable within tolerable limits now and in the foreseeable future.<br><br>Stability includes consideration of environmental context, geotechnical stability, settlement and consolidation allowances, bearing capacity (trafficability), erosion resistance and geochemical stability with respect to seepage, leachate and related contaminant generation. |
| Stable condition | See section 111A of the *Environmental Protection Act 1994*. |
| Suitably qualified and experienced person (SQP) | For performing a regulatory function under chapter 7, part 8 (Contaminated Land) of the EP Act or another function prescribed under a regulation, means a person who—<br><br>(a) has qualifications and experience relevant to performing the function; and<br><br>(b) if a regulation prescribes an organisation for this paragraph—is a member of the organisation. |
| Vegetative groundcover | Means plants, plant litter, tree leaf litter, twigs and woody debris capable of protecting the soil surface from erosion. |



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# 3 Section C – Final site design and reference map

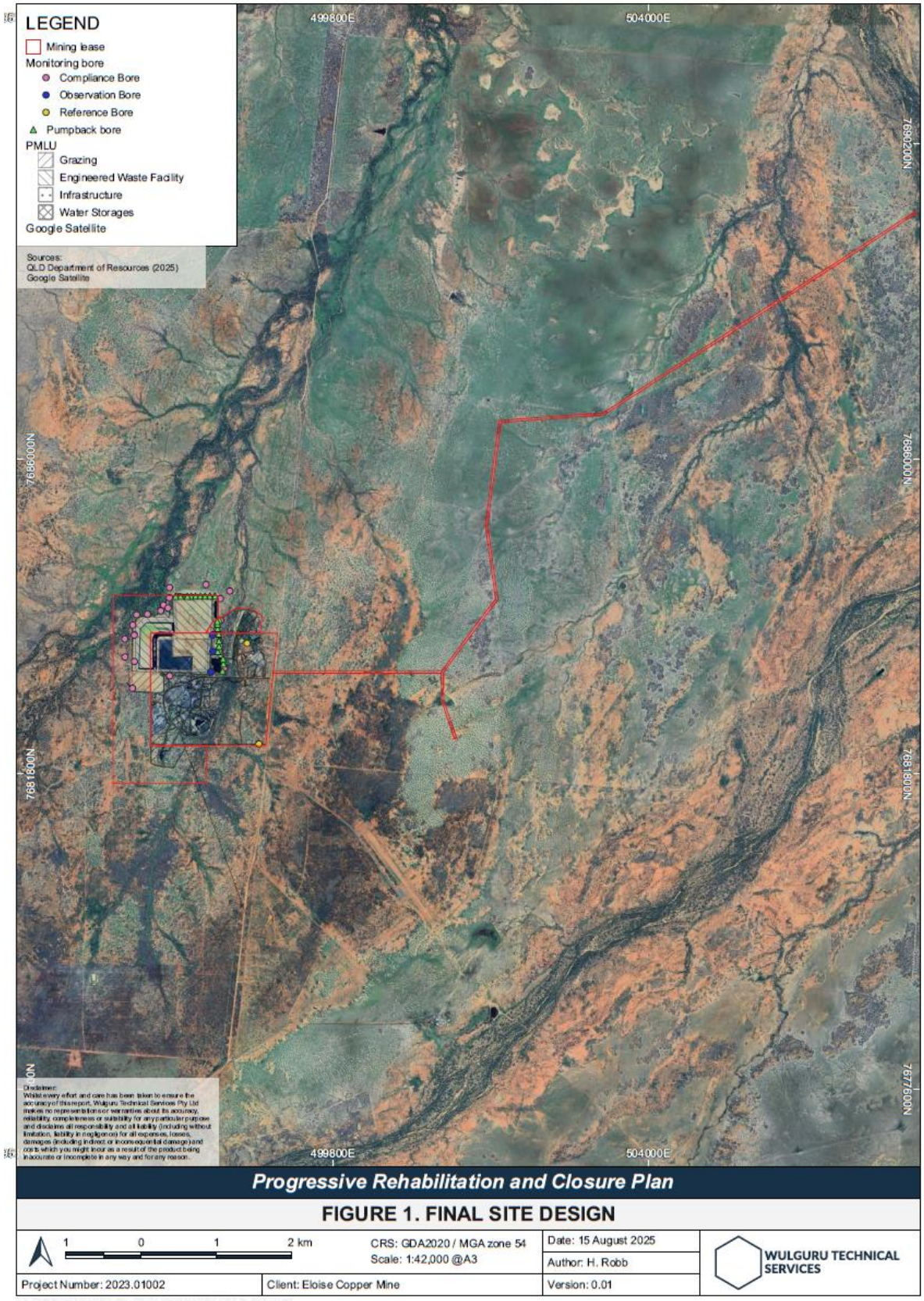


*Figure 1: Final Site Design*



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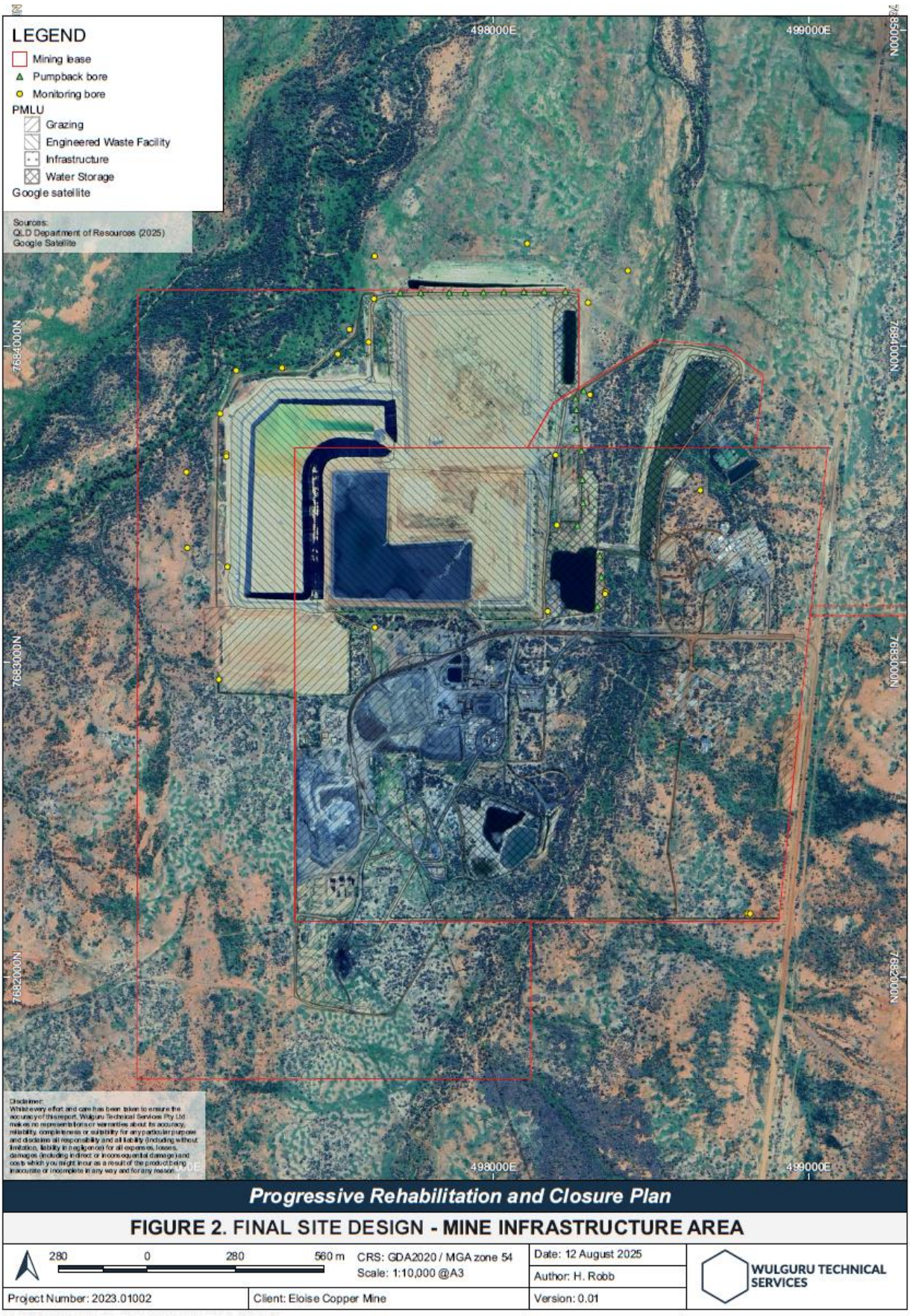


*Figure 2: Final Site Design - Infrastructure Area*



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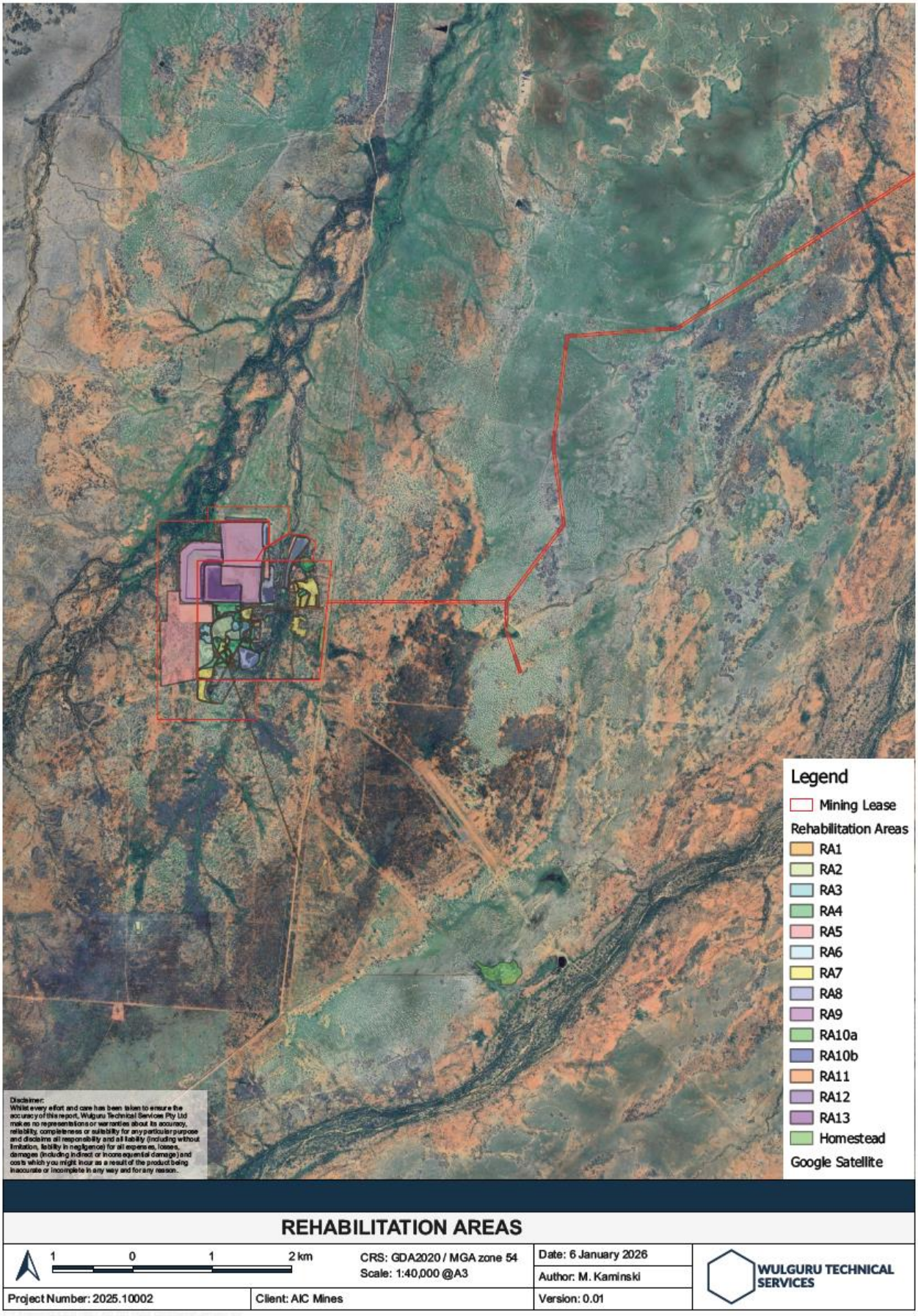


Figure 3: Reference Map



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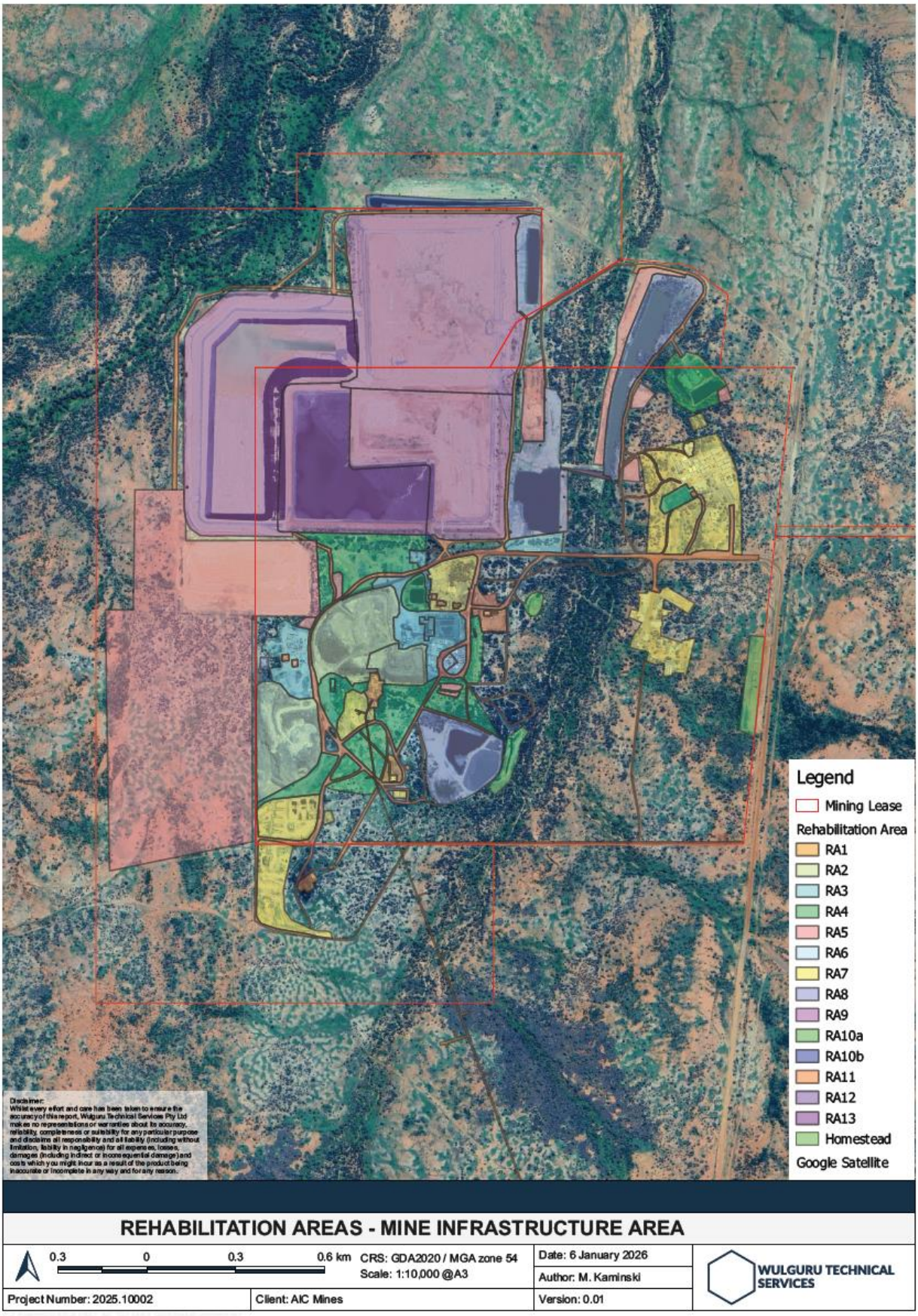


Figure 4: Reference Map - Mine Infrastructure Area



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# 4 Section D– Post mining land uses

## 4.1 (RA1) Rehabilitation area 1

| Post-mining land uses (PMLU) | | | | | |
|---|---|---|---|---|---|
| **Rehabilitation area** | RA1 | | | | |
| **Relevant activities** | Underground | | | | |
| **Total rehabilitation area size (ha)** | 2.07 | | | | |
| **Commencement of first milestone: RM1** | 10/12/2041 | | | | |
| **PMLU** | Low Intensity Grazing | | | | |
| **Date area is available** | 10/12/2041 | 10/12/2042 | 10/12/2043 | 10/12/2044 | 10/12/2049 |
| **Cumulative area available (ha)** | 2.07 | 2.07 | 2.07 | 2.07 | 2.07 |
| **Milestone completed by** | 10/12/2042 | 10/12/2043 | 10/12/2044 | 10/12/2049 | 10/12/2054 |
| **Milestone Reference** | **Cumulative area achieved (ha)** | | | | |
| **RM1** | 2.07 | | | | |
| **RM4** | | 2.07 | | | |
| **RM5** | | | 2.07 | | |
| **RM8** | | | 2.07 | | |
| **RM9** | | | 2.07 | | |
| **RM11** | | | | 2.07 | |
| **RM13** | | | | | 2.07 |

## 4.2 (RA2) Rehabilitation area 2

| Post-mining land uses (PMLU) | | | | | |
|---|---|---|---|---|---|
| **Rehabilitation area** | RA2 | | | | |
| **Relevant activities** | Mineral waste | | | | |
| **Total rehabilitation area size (ha)** | 13.9 | | | | |
| **Commencement of first milestone: RM2** | 10/12/2037 | | | | |
| **PMLU** | Low Intensity Grazing | | | | |
| **Date area is available** | 10/12/2037 | 10/12/2041 | 10/12/2042 | 10/12/2043 | 10/12/2048 |
| **Cumulative area available (ha)** | 13.9 | 13.9 | 13.9 | 13.9 | 13.9 |
| **Milestone completed by** | 10/12/2041 | 10/12/2042 | 10/12/2043 | 10/12/2048 | 10/12/2053 |
| **Milestone Reference** | **Cumulative area achieved (ha)** | | | | |
| **RM2** | 13.9 | | | | |
| **RM3** | | 13.9 | | | |
| **RM8** | | | 13.9 | | |
| **RM9** | | | 13.9 | | |
| **RM11** | | | | 13.9 | |
| **RM13** | | | | | 13.9 |

## 4.3 (RA3) Rehabilitation area 3

| Post-mining land uses (PMLU) | | | | | |
|---|---|---|---|---|---|
| **Rehabilitation area** | RA3 | | | | |
| **Relevant activities** | Plant and ore processing | | | | |
| **Total rehabilitation area size (ha)** | 7.59 | | | | |
| **Commencement of first milestone: RM1** | 10/12/2037 | | | | |
| **PMLU** | Low Intensity Grazing | | | | |
| **Date area is available** | 10/12/2037 | 10/12/2039 | 10/12/2040 | 10/12/2041 | 10/12/2046 |
| **Cumulative area available (ha)** | 7.59 | 7.59 | 7.59 | 7.59 | 7.59 |
| **Milestone completed by** | 10/12/2039 | 10/12/2040 | 10/12/2041 | 10/12/2046 | 10/12/2051 |
| **Milestone Reference** | **Cumulative area achieved (ha)** | | | | |
| **RM1** | 7.59 | | | | |
| **RM3** | | 7.59 | | | |
| **RM5** | | 7.59 | | | |
| **RM8** | | | 7.59 | | |
| **RM9** | | | 7.59 | | |
| **RM11** | | | | 7.59 | |
| **RM13** | | | | | 7.59 |

## 4.4 (RA4) Rehabilitation area 4

| Post-mining land uses (PMLU) | | | | |
|---|---|---|---|---|
| **Rehabilitation area** | RA4 | | | |
| **Relevant activities** | Laydown areas | | | |
| **Total rehabilitation area size (ha)** | 17.89 | | | |
| **Commencement of first milestone: RM1** | 10/12/2036 | | | |
| **PMLU** | Low Intensity Grazing | | | |
| **Date area is available** | 10/12/2036 | 10/12/2037 | 10/12/2038 | 10/12/2043 |
| **Cumulative area available (ha)** | 17.89 | 17.89 | 17.89 | 17.89 |
| **Milestone completed by** | 10/12/2037 | 10/12/2038 | 10/12/2043 | 10/12/2048 |
| **Milestone Reference** | **Cumulative area achieved (ha)** | | | |
| **RM1** | 17.89 | | | |
| **RM5** | 17.89 | | | |
| **RM8** | | 17.89 | | |
| **RM9** | | 17.89 | | |
| **RM11** | | | 17.89 | |
| **RM13** | | | | 17.89 |

## 4.5 (RA5) Rehabilitation area 5

| Post-mining land uses (PMLU) | | | |
|---|---|---|---|
| **Rehabilitation area** | RA5 | | |
| **Relevant activities** | Topsoil stockpiles | | |
| **Total rehabilitation area size (ha)** | 56.3 | | |
| **Commencement of first milestone: RM5** | 10/12/2043 | | |
| **PMLU** | Low Intensity Grazing | | |
| **Date area is available** | 10/12/2043 | 10/12/2044 | 10/12/2049 |
| **Cumulative area available (ha)** | 56.3 | 56.3 | 56.3 |
| **Milestone completed by** | 10/12/2044 | 10/12/2049 | 10/12/2054 |
| **Milestone Reference** | **Cumulative area achieved (ha)** | | |
| **RM5** | 56.3 | | |
| **RM9** | 56.3 | | |
| **RM11** | | 56.3 | |
| **RM13** | | | 56.3 |

## 4.6 (RA6) Rehabilitation area 6

| Post-mining land uses (PMLU) | | | | |
|---|---|---|---|---|
| **Rehabilitation area** | RA6 | | | |
| **Relevant activities** | Fuel and power | | | |
| **Total rehabilitation area size (ha)** | 0.51 | | | |
| **Commencement of first milestone: RM1** | 10/12/2037 | | | |
| **PMLU** | Low Intensity Grazing | | | |
| **Date area is available** | 10/12/2037 | 10/12/2038 | 10/12/2039 | 10/12/2044 |
| **Cumulative area available (ha)** | 0.51 | 0.51 | 0.51 | 0.51 |
| **Milestone completed by** | 10/12/2038 | 10/12/2039 | 10/12/2044 | 10/12/2049 |
| **Milestone Reference** | **Cumulative area achieved (ha)** | | | |
| **RM1** | 0.51 | | | |
| **RM3** | 0.51 | | | |
| **RM5** | | 0.51 | | |
| **RM8** | | 0.51 | | |
| **RM9** | | 0.51 | | |
| **RM11** | | | 0.51 | |
| **RM13** | | | | 0.51 |

## 4.7 (RA7) Rehabilitation area 7

| Post-mining land uses (PMLU) | | | | | |
|---|---|---|---|---|---|
| **Rehabilitation area** | RA7 | | | | |
| **Relevant activities** | Mine infrastructure area | | | | |
| **Total rehabilitation area size (ha)** | 26.16 | | | | |
| **Commencement of first milestone: RM1** | 10/12/2037 | | | | |
| **PMLU** | Low Intensity Grazing | | | | |
| **Date area is available** | 10/12/2037 | 10/12/2038 | 10/12/2039 | 10/12/2040 | 10/12/2045 |
| **Cumulative area available (ha)** | 26.16 | 26.16 | 26.16 | 26.16 | 21.16 |
| **Milestone completed by** | 10/12/2038 | 10/12/2039 | 10/12/2040 | 10/12/2045 | 10/12/2050 |
| **Milestone Reference** | **Cumulative area achieved (ha)** | | | | |
| **RM1** | 26.16 | | | | |
| **RM3** | | 26.16 | | | |
| **RM5** | | | 26.16 | | |
| **RM8** | | | 26.16 | | |
| **RM9** | | | 26.16 | | |
| **RM11** | | | | 26.16 | |
| **RM13** | | | | | 26.16 |

## 4.8 (RA8) Rehabilitation area 8

| Post-mining land uses (PMLU) | | | |
|---|---|---|---|
| **Rehabilitation area** | RA8 | | |
| **Relevant activities** | Water storage (retained) | | |
| **Total rehabilitation area size (ha)** | 23.2 | | |
| **Commencement of first milestone: RM1** | 10/12/2036 | | |
| **PMLU** | Water storage | | |
| **Date area is available** | 10/12/2036 | 10/12/2037 | 10/12/2039 |
| **Cumulative area available (ha)** | 23.2 | 23.2 | 23.2 |
| **Milestone completed by** | 10/12/2037 | 10/12/2039 | 10/12/2044 |
| **Milestone Reference** | **Cumulative area achieved (ha)** | | |
| **RM1** | 23.2 | | |
| **RM3** | | 23.2 | |
| **RM14** | | | 23.2 |

## 4.9 (RA9) Rehabilitation area 9

| Post-mining land uses (PMLU) | | | | | |
|---|---|---|---|---|---|
| **Rehabilitation area** | RA9 | | | | |
| **Relevant activities** | TSF (Tailings storage facility) | | | | |
| **Total rehabilitation area size (ha)** | 95.9 | | | | |
| **Commencement of first milestone: RM1** | 10/12/2037 | | | | |
| **PMLU** | Engineered residual mineral waste facility | | | | |
| **Date area is available** | 10/12/2037 | 10/12/2038 | 10/12/2041 | 10/12/2042 | 10/12/2047 |
| **Cumulative area available (ha)** | 95.9 | 95.9 | 95.9 | 95.9 | 95.9 |
| **Milestone completed by** | 10/12/2038 | 10/12/2041 | 10/12/2042 | 10/12/2047 | 10/12/2052 |
| **Milestone Reference** | **Cumulative area achieved (ha)** | | | | |
| **RM1** | 95.9 | | | | |
| **RM6** | | 95.9 | | | |
| **RM8** | | | 95.9 | | |
| **RM9** | | | 95.9 | | |
| **RM10** | | | | 95.9 | |
| **RM12** | | | | 95.9 | |
| **RM13** | | | | | 95.9 |

# 4.10 (RA10a) Rehabilitation area 10a

| Post-mining land uses (PMLU) | | | | | |
|---|---|---|---|---|---|
| **Rehabilitation area** | RA10a | | | | |
| **Relevant activities** | Water storage | | | | |
| **Total rehabilitation area size (ha)** | 3.61 | | | | |
| **Commencement of first milestone: RM1** | 10/12/2037 | | | | |
| **PMLU** | Low Intensity Grazing | | | | |
| **Date area is available** | 10/12/2037 | 10/12/2038 | 10/12/2039 | 10/12/2040 | 10/12/2043 |
| **Cumulative area available (ha)** | 3.61 | 3.61 | 3.61 | 3.61 | 3.61 |
| **Milestone completed by** | 10/12/2038 | 10/12/2039 | 10/12/2040 | 10/12/2043 | 10/12/2048 |
| **Milestone Reference** | **Cumulative area achieved (ha)** | | | | |
| **RM1** | 3.61 | | | | |
| **RM3** | | 3.61 | | | |
| **RM7** | | | 3.61 | | |
| **RM8** | | | 3.61 | | |
| **RM9** | | | 3.61 | | |
| **RM11** | | | | 3.61 | |
| **RM13** | | | | | 3.61 |

# 4.11 (RA10b) Rehabilitation area 10b

| Post-mining land uses (PMLU) | | | | | |
|---|---|---|---|---|---|
| **Rehabilitation area** | RA10b | | | | |
| **Relevant activities** | Water storage (Farm Dam) | | | | |
| **Total rehabilitation area size (ha)** | 1.51 | | | | |
| **Commencement of first milestone: RM1** | 10/12/2037 | | | | |
| **PMLU** | Low Intensity Grazing | | | | |
| **Date area is available** | 10/12/2041 | 10/12/2042 | 10/12/2043 | 10/12/2044 | 10/12/2047 |
| **Cumulative area available (ha)** | 1.51 | 1.51 | 1.51 | 1.51 | 1.51 |
| **Milestone completed by** | 10/12/2042 | 10/12/2043 | 10/12/2044 | 10/12/2047 | 10/12/2052 |
| **Milestone Reference** | **Cumulative area achieved (ha)** | | | | |
| **RM1** | 1.51 | | | | |
| **RM3** | | 1.51 | | | |
| **RM7** | | | 1.51 | | |
| **RM8** | | | 1.51 | | |
| **RM9** | | | 1.51 | | |
| **RM11** | | | | 1.51 | |
| **RM13** | | | | | 1.51 |

# 4.12 (RA11) Rehabilitation area 11

| Post-mining land uses (PMLU) | |
|---|---|
| **Rehabilitation area** | RA11 |
| **Relevant activities** | Infrastructure (retained) |
| **Total rehabilitation area size (ha)** | 15.08 |
| **Commencement of first milestone: RM1** | 10/12/2036 |
| **PMLU** | Infrastructure |
| **Date area is available** | 10/12/2036 |
| **Cumulative area available (ha)** | 15.08 |
| **Milestone completed by** | 10/12/2037 |
| **Milestone Reference** | **Cumulative area achieved (ha)** |
| **RM1** | 15.08 |
| **RM3** | 15.08 |
| **RM15** | 15.08 |

# 4.13 (RA12) Rehabilitation area 12

| Post-mining land uses (PMLU) | | |
|---|---|---|
| **Rehabilitation area** | RA12 | |
| **Relevant activities** | Bores | |
| **Total rehabilitation area size (ha)** | 0.109 | |
| **Commencement of first milestone: RM1** | 10/12/2054 | |
| **PMLU** | Bores | |
| **Date area is available** | 10/12/2054 | 10/12/2055 |
| **Cumulative area available (ha)** | 0.109 | 0.109 |
| **Milestone completed by** | 10/12/2055 | 10/12/2060 |
| **Milestone Reference** | **Cumulative area achieved (ha)** | |
| **RM1** | 0.109 | |
| **RM13** | | 0.109 |

# 4.14 (RA13) Rehabilitation area 13

| Post-mining land uses (PMLU) | |
|---|---|
| **Rehabilitation area** | RA13 |
| **Relevant activities** | Diversion |
| **Total rehabilitation area size (ha)** | 0.17 |
| **Commencement of first milestone: RM14** | 10/12/2051 |
| **PMLU** | Diversion |
| **Date area is available** | 10/12/2051 |
| **Cumulative area available (ha)** | 0.17 |
| **Milestone completed by** | 10/12/2052 |
| **Milestone Reference** | **Cumulative area achieved (ha)** |
| **RM14** | 0.17 |

## 4.15 Rehabilitation area milestones

| Milestone reference | Rehabilitation milestone | Milestone criteria |
|---|---|---|
| **RM1** | Infrastructure decommissioning and removal | 1.a) All buildings and associated infrastructure dismantled and removed offsite except where agreed to in writing by the past mining land holder/owner.<br>1.b) All services disconnected, terminated and removed.<br>1.c) All hardstand and concrete areas are removed.<br>1.d) All pumps and pipelines drained and removed.<br>1.e) Waste removed and disposed either within the TSF or at a licenced facility.<br>1.f) All machinery and equipment not required for rehabilitation works removed from site.<br>1.g) All drillholes, bores, sediment ponds and sumps decommissioned.<br>1.h) An independent AQP has certified the achievement of RM1.a) - RM1.g). |
| **RM2** | Landform development and reshaping / re-profiling (RA2) | 2.a) All material is removed from pads.<br>2.b) Natural drainage is reinstated.<br>2.c) Erosion and sediment control systems are installed as per the construction design and verified by an AQP.<br>2.d) An independent AQP has certified the achievement of RM2.a) - RM2.c). |
| **RM3** | Remediation of contaminated land | 3.a) Contaminated water and sediment, if present, is removed from structure.<br>3.b) Contaminated Land Investigation Document completed in accordance with the *Environmental Protection Act 1994,* including a site investigation report, and, where required, a Validation Report and/or a draft Site Management Plan.<br>3.c) Contaminated and hazardous material either remediated in-situ or removed/transported to facility lawfully able to accept the material.<br>3.d) A declaration from a SQP confirms that no contamination unsuitable for the post-mining land use remains.<br>3.e) An independent AQP has certified the achievement of RM3.a) - RM3.d). |

| Milestone reference | Rehabilitation milestone | Milestone criteria |
|---|---|---|
| **RM4** | Underground backfill | 4.a) Underground upper decline and portal backfilled with waste rock material and suitably compacted.<br>4.b) All ventilation shafts sealed to prevent unauthorised access to underground workings.<br>4.c) RA1 determined to be geotechnically stable by a suitably qualified geotechnical engineer.<br>4.d) 2 m bund is constructed around entrance to portal.<br>4.e) Surface subsidence generated depression, as determined by subsidence monitoring, is no greater than 500 mm.<br>4.f) Independent AQP has certified the achievement of RM4.a) - RM4.e). |
| **RM5** | Landform development and reshaping / re-profiling (RA3, RA4, RA5, RA6 & RA7) | 5.a) Natural drainage is reinstated.<br>5.b) Erosion and sediment control systems are installed as per the construction design and verified by an AQP.<br>5.c) Independent AQP has certified the achievement of RM5.a) and RM5.b). |
| **RM6** | Landform development and reshaping / re-profiling (RA9) | 6.a) Water is removed from TSF through evaporation or other methods.<br>6.b) An AQP certifies that all material used for capping material is not capable of generating NMD, SMD or AMD.<br>6.c) TSF constructed per final landform design report.<br>6.d) Cover system installed per final landform design report.<br>6.e) Quality assurance and quality control (QA/QC) per final landform design report, instrumentation installed and monitoring commenced per final landform design report and durability report.<br>6.f) An “As-Constructed Report” prepared and details and justifies all variations to the final landform design report, including a certification that such variations will not affect the design performance.<br>6.g) No surface water ponding observed.<br>6.h) Erosion and sediment control systems are installed as per the landform design report.<br>6.i) Constructed landform achieves geotechnical stability with a Factor of Safety |

| Milestone reference | Rehabilitation milestone | Milestone criteria |
|---|---|---|
| | | (FOS) ≥ 1.5; and<br>6.j) Independent AQP has certified the achievement of RM2.a) - RM2.i). |
| **RM7** | Landform development and reshaping / reprofiling (RA10) | 7.a) Liners removed.<br>7.b) Walls are pushed to infill structure and return to surface level.<br>7.c) Natural drainage is reinstated.<br>7.d) Erosion and sediment control systems are installed as per the construction design and verified by an AQP.<br>7.e) Independent AQP has certified the achievement of RM7.a) - RM7.d). |
| **RM8** | Surface preparation | 8.a) Deep ripping of compacted surfaces, at least 300 mm into soil profile.<br>8.b) An assessment by an AQP of the need for soil amelioration and a physical treatment plan is completed on stockpiled material.<br>8.c) Ameliorants such as fertiliser, gypsum and/or organic matter have been applied as identified in criterion RM8.a).<br>8.d) Topsoil placement of a minimum depth of:<br>(i) 0.10 m for TSF.<br>(ii) 0.15 m for all other areas.<br>8.e) Topsoil to meet the following suitability targets:<br>(i) pH in the range of 6 - 8.5;<br>(ii) Electrical Conductivity (dS/m) ≤1.5 (1,500 µS/cm); and<br>(iii) Exchangeable sodium percentage (ESP) (%) < 6.<br>8.f) Growth media health and suitability is assessed and documented by an AQP as suitable for the PMLU and target vegetation establishment.<br>8.g) The surface and groundwater monitoring is underway (at least one year of sampling undertaken).<br>8.h) Independent AQP has certified the achievement of RM8.a) – RM8.g). |
| **RM9** | Revegetation (low intensity grazing) | 9.a) Direct seeding of 4 – 10 kg/ha, or as otherwise directed by supplier.<br>9.b) Species mix is applied consisting of the following:<br>*a.* Core species mix: 3P grass species: *Heteropogon contortus* (black speargrass), *Themeda triandra* (kangaroo grass), *Dichanthium* |

| Milestone reference | Rehabilitation milestone | Milestone criteria |
|---|---|---|
| | | *sericeum* subsp. *Sericeum* (Queensland bluegrass), *Astrebla pectinate* (barley Mitchell grass), and *Paspalidium jubiflorum* (warrego grass) N fixing shrubs*: E. leucophloia, E. leucophylla, E. pruinosa, Corymbia terminalis, Atalaya hemiglauca*<br>b. RA9: Core species excluding trees.<br>9.c) Stock exclusion fencing has been established to prevent stock from grazing newly seeded areas.<br>9.d) Independent AQP has certified the achievement of RM9.a) – RM9.d). |
| **RM10** | Achievement of effective seepage management | 10.a) No significant increase to phreatic levels after cessation of deposition.<br>10.b) Reduction in seepage collected in pump bores.<br>10.c) Absence of seepage expressing at the surface.<br>10.d) Independent AQP has certified the achievement of RM10.a) – RM10.c). |
| **RM11** | Achievement of surface requirements (low intensity grazing) | 11.a) With respect to erosion:<br>a) No evidence of erosion classified as 'moderate' or 'severe' as defined by Appendix 2 – Erosion classification framework.<br>b) Any erosion present will not compromise the achievement of a PMLU to a stable condition.<br>c) Erosion requiring intervention has been remediated and does not impact achieving the PMLU.<br>11.b) Median of 1100 kg/ha dry matter with a minimum five observations separated by at least 100 m.<br>11.c) 3P species abundance and cover comparable to reference locations (>80% of median reference).<br>11.d) Dominant groundcover layer comprised of 3P grass species.<br>11.e) Species used in revegetation remain present and show evidence of natural recruitment. Evidence of flora recruitment from rehabilitation monitoring data.<br>11.f) Absence of weeds of national significance and pasture weeds.<br>11.g) Weed presence is a maximum of 10% of total vegetative groundcover confirmed by an AQP in annual monitoring.<br>11.h) Median pasture yield >200kg/ha. |

| Milestone reference | Rehabilitation milestone | Milestone criteria |
|---|---|---|
| | | 11.i) A BioCondition assessment is completed by an AQP using the methodology outlined in the latest version of the Queensland Herbarium's 'BioCondition Assessment Manual'.<br>11.j) The outcomes from the BioCondition assessment completed under (e) are comparable to the BioCondition benchmarks derived by an AQP from the reference sites specified in Table 7.<br>11.k) Corrective action arising from routine inspections have been undertaken.<br>11.l) Surface water runoff is non-polluting to receiving waters and complies with Table 4 – Surface water quality limits.<br>11.m) The growth media (topsoil and subsoil) physical, chemical and biological properties does not limit vegetation cover performance or restrict the potential effective depth of rooting.<br>11.n) Subsided areas do not have residual ponding.<br>11.o) Overland flows and surface runoff drain freely from subsided areas.<br>11.p) Historical surface subsidence has been rectified and documented.<br>11.q) No ongoing surface subsidence.<br>11.r) Independent AQP has certified the achievement of RM11.a) – RM11.q). |
| **RM12** | Achievement of surface requirements - TSF | 12.a) Monitoring data has been collected per final landform design report and durability report.<br>12.b) TSF is safe and structurally stable.<br>12.c) There is no moderate or severe erosion present as per Table 1: Erosion classification framework.<br>12.d) Mass movement and tunnel erosion are absent.<br>12.e) No gully erosion present (>300mm).<br>12.f) Total groundcover (combination of vegetative groundcover, other organic material (i.e. sticks, leaf litter) and inorganic material (i.e. durable rocks)) ≥ 70%.<br>12.g) A BioCondition assessment is completed by an AQP using the methodology outlined in the latest version of the Queensland Herbarium's ''BioCondition Assessment Manual'. |

| Milestone reference | Rehabilitation milestone | Milestone criteria |
|---|---|---|
| | | 12.h) The outcomes from the BioCondition assessment completed under (e) are comparable to the BioCondition benchmarks derived by an AQP from the reference sites specified in Table 7 with the exception of TSF batters and benches (RA9).<br>12.i) Surface water runoff has been collected across representative areas of rehabilitation when surface flows occur, and it is safe to do so.<br>12.j) Surface water runoff in i) above exhibits stable or decreasing trends when measured at an appropriate and representative location and no adverse environmental impacts to receiving waters is occurring.<br>12.k) Monitoring data and technical assessments indicate that the TSF is on a trajectory to achieve a stable condition.<br>12.l) An independent AQP has inspected the TSF and following a review of all relevant material has certified, via a technical review report:<br>(i) the design aims and objectives as per PRCP20 have been demonstrated to have been achieved;<br>(ii) all monitoring data has been collected per final landform design report and durability report;<br>(iii) the TSF is erosionally stable;<br>(iv) surface water runoff exhibits stable or decreasing trends and no adverse environmental impacts to receiving waters is occurring; and<br>12.m) The TSF is on a trajectory to achieve a stable condition.<br>12.n) Independent AQP has certified the achievement of RM12.a) – RM12.m). |
| **RM13** | Achievement of post-mining land use to a stable condition (low intensity grazing and engineered residual mineral waste facility) | 13.a) With respect to erosion:<br>a. No evidence of erosion classified as 'moderate' or 'severe' as defined by Appendix 2 – Erosion classification framework<br>b. Any erosion present will not compromise the achievement of a PMLU to a stable condition.<br>13.b) Erosion requiring intervention has been remediated and does not impact achieving the PMLU.<br>13.c) 3P species abundance and cover comparable to reference locations (Table 2) |

| Milestone reference | Rehabilitation milestone | Milestone criteria |
|---|---|---|
| | | (>80% of median reference) (low intensity grazing).<br>13.d) A BioCondition assessment is completed by an AQP using the methodology outlined in the latest version of the Queensland Herbarium's 'BioCondition Assessment Manual' (low intensity grazing).<br>13.e) The outcomes from the BioCondition assessment completed under (e) are comparable to the BioCondition benchmarks derived by an AQP from the reference sites specified in Table 7 (low intensity grazing).<br>13.f) TSF embankments achieve a ground cover that meets the requirements set out in the final landform design report.<br>13.g) Certification from an REPQ that the domain has achieved stable condition.<br>13.h) Surface water quality results monitored monthly during flow at, *but not limited to,* downstream locations specified in Table 3, must not exceed the limits in Table 4, for a minimum of 5 consecutive years.<br>13.i) If the surface water quality exceeds criteria g), the applicable upstream site must be compared to the downstream site result; and quality result measured at a downstream site must be equal to or less than the quality result measured at the applicable upstream site[1].<br>13.j) All results from stream sediment quality at downstream monitoring sites (Table 3) undertaken twice a year (at end of wet season and end of dry season) complies with ANZECC/ARMCANZ (2000) Interim Sediment Quality Guidelines – low for a minimum of 5 consecutive years.<br>13.k) For a minimum of five consecutive years groundwater quality must be monitored quarterly at, *but not limited to,* compliance bores/locations specified in **Table 5**, for all quality characteristics listed in **Table 6**.<br>13.l) Groundwater quality results must not exceed the limits in **Table 6**, for 3 consecutive results.<br>13.m) The groundwater level elevation measured across bores surrounding TSF area |

[1] For pH, the quality result measured at the downstream location must be within the prescribed range. However, where pH at the downstream location is greater-than (>) the highest limit in the range, the pH at the applicable upstream location must be greater-than or equal-to (≥) the downstream location. Conversely, where pH at the downstream location is less than (<) the lowest limit in the range, the upstream pH at the applicable upstream location must be less-than or equal-to (≤) the downstream location.

| Milestone reference | Rehabilitation milestone | Milestone criteria |
|---|---|---|
| | | and specified in Table 5. Groundwater monitoring bores must demonstrate no net increasing trend over 5 consecutive years.<br>13.n) For RA9, the horizontal extent of mounding must not exceed the predicted groundwater model, dated 2025 and depicted in Figure 7 by ±10%.<br>13.o) Erosion monitoring completed which demonstrates an average erosion rate of ≤ 5 tonnes per hectare per year (t/ha/yr).<br>13.p) Independent AQP has reviewed all relevant material and has certified via a technical report that the TSF has achieved a stable condition.<br>13.q) The durability report in condition PRCP18 has been updated to reflect a post closure assessment, including detailing any residual risks that may persist.<br>13.r) Subsidence within the rehabilitation area does not present a safety hazard in the context of the PMLU.<br>13.s) The rehabilitation area is safe for human access and use.<br>13.t) There is no cracking present in the rehabilitation area that is greater than 20 mm wide and 1m long.<br>13.u) Independent AQP has certified the achievement of RM13.a) – RM13.t). |
| **RM14** | Achievement of post-mining land use to a stable condition (water storage) | 14.a) Inspection and report by an AQP that all water storages and water infrastructure have been assessed and approved as safe and stable.<br>14.b) Water quality sampling complies with the the limits in Table **3**.<br>14.c) Independent AQP has certified the achievement of RM14.a) and RM14.b). |
| **RM15** | Achievement of retained infrastructure PMLU to stable condition | 15.a) Final landform survey confirms no built structures remain other than those that form part of a landholder agreement.<br>15.b) Certification from an AQP that all retained infrastructure onsite is safe, stable and will not cause environmental harm.<br>15.c) Hazard and Safety Assessment completed by an AQP demonstrates hazards in RAs are consistent with the type and severity of hazards typical of neighbouring equivalent land use. Remaining hazards are considered to be low risk with no significant increase in risk expected over time.<br>15.d) Independent AQP has certified the achievement of RM15.a) – RM15.c). |

# 5 Section E – Appendicies

## Appendix 1 - Tables

**Table 1. Erosion classification framework**

| Erosion classification | Minor | Moderate | Severe |
|---|---|---|---|
| Sheet erosion | Shallow soil deposits downslope | Partial exposure of roots; moderate soil deposits downslope. | Loss of surface horizon; subsoil exposure; root exposure; substantial soil deposits downslope. |
| Rill/gully erosion | <15 rills per transect* and <0.3m deep | 15-30 rills per transect* and <0.3m deep | >30 rills per transect* and/or any >0.3m deep. |
| Tunnel erosion | Absent | Absent | Present |
| Mass movement | Absent | Absent | Present |

Source: NCST (2009) *Australian Soil and Land Survey Field Handbook, 3rd edition*. The National Committee on Soil and Terrain. CSIRO Publishing, Collingwood, Australia.

*Transect 50 m across the contour (Source: Tongway, D. J. and Hindley, N. L. 2005. Landscape Function Analysis: Procedures for Monitoring and Assessing Landscapes. CSIRO Publishing, Canberra, Australia.)

**Table 2. Rehabilitation reference sites**

| Site name | Latitude (decimal degree, GDA94) | Longitude (decimal degree, GDA94) | Rehabilitation Area |
|---|---|---|---|
| ECM_1 | -20.966378 | 140.992258 | RA1, RA2, RA3, RA4, RA5, RA6, RA7, RA10 |
| ECM_2 | -20.958100 | 140.965943 | RA1, RA2, RA3, RA4, RA5, RA6, RA7, RA10 |
| ECM_3 | -20.964373 | 140.972479 | RA1, RA2, RA3, RA4, RA5, RA6, RA7, RA10 |
| ECM_4 | -20.942024 | 140.896133 | RA1, RA2, RA3, RA4, RA5, RA6, RA7, RA10 |
| ECM_5 | -20.960547 | 140.963361 | RA1, RA2, RA3, RA4, RA5, RA6, RA7, RA10 |
| ECM_6 | -21.120546 | 140.816675 | RA9 |

**Table 3. Surface water and stream sediment monitoring locations**

| Monitoring | Receiving waters location description | Latitude (decimal | Longitude (decimal |
|---|---|---|---|

| Locations | | degree, GDA94) | degree, GDA94) |
|---|---|---|---|
| Upstream monitoring locations | | | |
| SC1 | Scrubby Creek (east) upstream reference site at the north-eastern boundary of ML90155 | -20.96255 | 140.98165 |
| SC1A | Scrubby Creek (west) upstream reference site approximately 6.7km upstream of Eloise Copper Mine | -20.98503 | 140.91783 |
| Downstream monitoring locations | | | |
| SC2 | Drainage channel flowing north into Scrubby Creek (east) approximately 200m downstream of SC3 | -20.94507 | 140.98561 |
| SC2A | Scrubby Creek flowing north, approximately 3.4km downstream of mining operations. Downstream of the confluence of Scrubby Creek (east) and (west) | -20.91491 | 140.99478 |
| SC2B | Scrubby Creek (west) at the northern boundary of ML90155 | -20.94328 | 140.97442 |
| SC3 | Drainage channel flowing north into Scrubby Creek (east) and immediately east of Tailings Dam 3 and Tailing Dam 4 | -20.94746 | 140.98437 |
| SC4 | Immediately downstream of Batt Dam on an unnamed tributary of Scrubby Creek (east) | -20.94054 | 140.98656 |

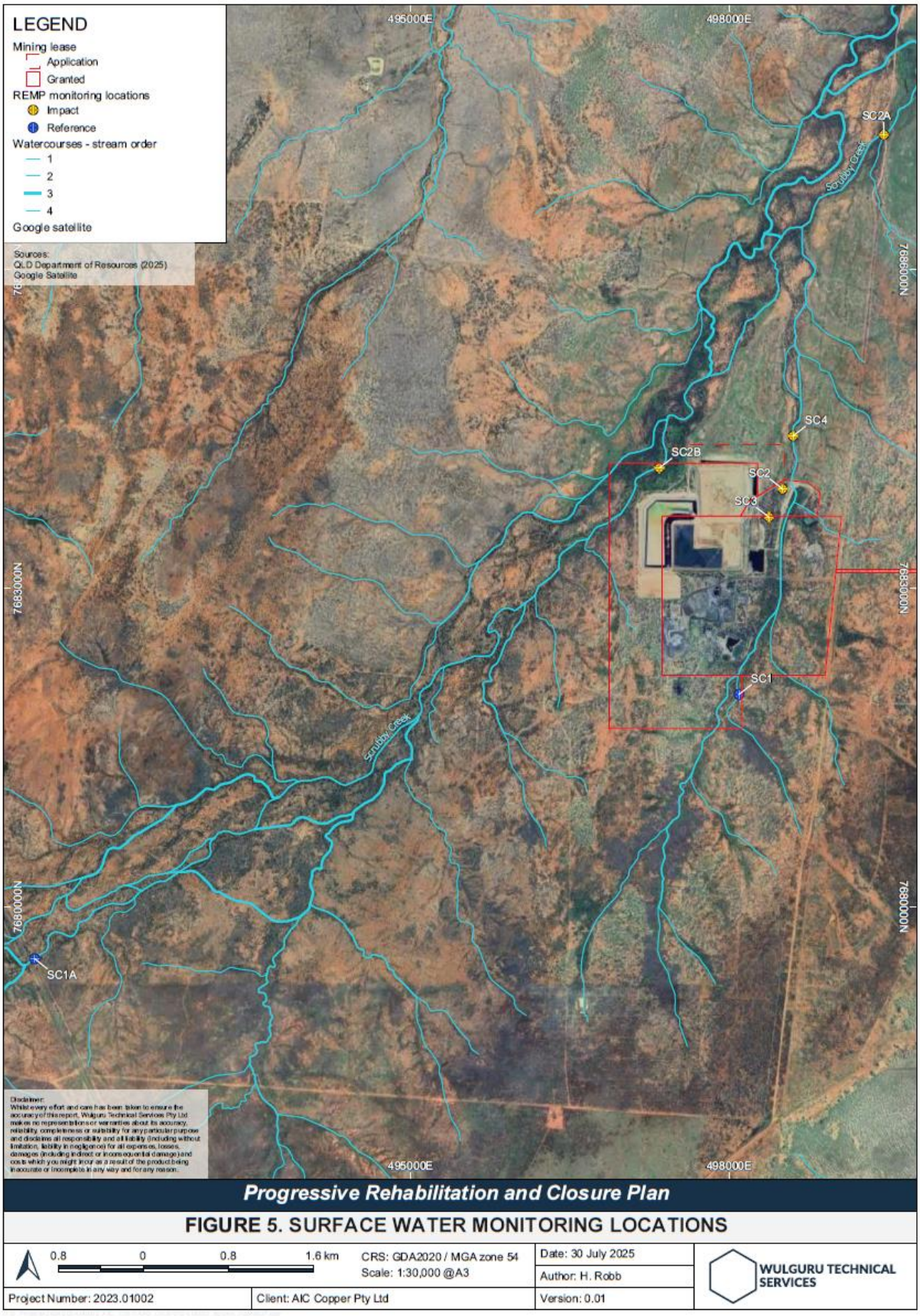


Figure 5: Surface water monitoring locations

**Table 4. Surface water quality limits**

| Quality characteristic (units) | Limit | Comment on limit |
|---|---|---|
| pH | 6 - 8 | ANZECC/ARMCANZ (2000) upland & lowland river default trigger value for tropical Australia (& based on upstream data) |
| Electrical Conductivity (µS/cm) | 250 | ANZECC/ARMCANZ (2000) upland & lowland river default trigger value for tropical Australia (& based on upstream data) |
| Turbidity (NTU) | 15 | ANZECC/ARMCANZ (2000) upland & lowland river default trigger value for tropical Australia (no upstream data) |
| Sulphate (mg/L) | 12 | Interim site-specific based on upstream data |
| Aluminium - dissolved (µg/L) | 55 | ANZG 2018 – limited upstream data |
| Arsenic - dissolved (µg/L) | 13 | ANZG 2018 – no upstream data |
| Barium - dissolved (µg/L) | 93 | Dutch National Institute for Public Health and the Environment (RIVM) environmental quality standards for barium in surface waters (2020) [a] – no upstream data |
| Beryllium - dissolved (µg/L) | 0.13 | ANZECC/ARMCANZ (2000) interim effect concentration level – no upstream data |
| Boron - dissolved (µg/L) | 940 | ANZG 2018 – no upstream data |
| Cadmium - dissolved (µg/L) | 0.2 | ANZG 2018 – no upstream data |
| Cobalt - dissolved (µg/L) | 1.4 | ANZG 2018 – no upstream data |
| Chromium - dissolved (µg/L) | 1.0 | ANZG 2018 – no upstream data |
| Copper - dissolved (µg/L) | 9.0 | Interim site-specific based on 95$^{th}$ percentile of upstream data |
| Lead - dissolved (µg/L) | 3.4 | ANZG 2018 – no upstream data |
| Molybdenum - dissolved (µg/L) | 34 | ANZG 2018 – no upstream data |
| Nickel - dissolved (µg/L) | 11 | ANZG 2018 – no upstream data |
| Strontium - dissolved (µg/L) | 2500 | Canadian environmental quality guidelines for aquatic ecosystem protection [b] – no upstream data |
| Tin - dissolved (µg/L) | 3.0 | ANZG 2018 – no upstream data |
| Uranium - dissolved (µg/L) | 0.5 | ANZG 2018 – no upstream data |
| Zinc - dissolved (µg/L) | 8.0 | ANZG 2018 – limited upstream data |
| Nitrate (µg/L) | 1100 | |
| Total recoverable hydrocarbons (C6-C9) (µg/L) | 20 | |
| Total recoverable hydrocarbons (C10-C36) (µg/L) | 100 | |
| Major ions (mg/L) | For interpretation | - |

| Quality characteristic (units) | Limit | Comment on limit |
|---|---|---|
| Calcium, chloride, potassium, magnesium, sodium, bicarbonate, carbonate | purposes only | |
| Hardness (mg/L) | For interpretation purposes only | - |

Notes:

- All metals and metalloids must be measured as ‘dissolved’ (from analysis of a field filtered sample) and total (unfiltered).
- Limits for metals and metalloids apply to dissolved results.
- ANZG (2018) Aquatic ecosystem protection for moderately disturbed system (95% protection)

**Table 5. Groundwater monitoring bores**

| Monitoring Bore | Hydrogeological Unit | Location | |
|---|---|---|---|
| | | Latitude (decimal degree, GDA94) | Longitude (decimal degree, GDA94) |
| LDB05* | Tertiary sediments/ Weathered Wallumbilla Formation | -20.946401 | 140.972414 |
| LDB07* | Tertiary sediments/ Weathered Wallumbilla Formation | -20.945164 | 140.972905 |
| TD5_1 | Tertiary sediments/ Weathered Wallumbilla Formation | -20.943989 | 140.976358 |
| TD5_2 | Tertiary sediments/ Weathered Wallumbilla Formation | -20.948073 | 140.971385 |
| TD5_3 | Tertiary sediments/ Weathered Wallumbilla Formation | -20.950241 | 140.971413 |
| TD5_4 | Tertiary sediments/ Weathered Wallumbilla Formation | -20.954009 | 140.972374 |
| TD5_5* | Tertiary sediments/ Weathered Wallumbilla Formation | -20.952519 | 140.977136 |
| TD5_6* | Tertiary sediments/ Weathered Wallumbilla Formation | -20.950784 | 140.972634 |
| TD5_7* | Tertiary sediments/ Weathered Wallumbilla Formation | -20.944351 | 140.976945 |
| TD5_8* | Tertiary sediments/ Weathered Wallumbilla Formation | -20.947558 | 140.972606 |
| TD5_9* | Tertiary sediments/ Weathered Wallumbilla Formation | -20.945082 | 140.974348 |
| TD5_10* | Wallumbilla Formation | -20.947621 | 140.972606 |
| TD5_11* | Wallumbilla Formation | -20.945092 | 140.974299 |
| WB9B | Gilbert River Formation | -20.944694 | 140.976002 |
| WB10 | Tertiary sediments/ Weathered Wallumbilla Formation | -20.941893 | 140.977128 |
| WB11A | Tertiary sediments/ Weathered Wallumbilla Formation | -20.941532 | 140.981783 |
| WB12 | Tertiary sediments/ Weathered Wallumbilla Formation | -20.942309 | 140.984851 |

| Monitoring Bore | Hydrogeological Unit | Location | |
|---|---|---|---|
| | | Latitude (decimal degree, GDA94) | Longitude (decimal degree, GDA94) |
| WB13 | Tertiary sediments/ Weathered Wallumbilla Formation | -20.945861 | 140.983697 |
| WB14A | Tertiary sediments/ Weathered Wallumbilla Formation | -20.951499 | 140.984177 |
| WB14B | Gilbert River Formation | -20.951562 | 140.984158 |
| WB19* | Gilbert River Formation | -20.943113 | 140.977108 |
| WB20* | Wallumbilla Formation | -20.943222 | 140.983639 |
| DWB1 | Gilbert River Formation | -20.950306 | 140.982148 |
| DWB2 | Gilbert River Formation | -20.954417 | 140.981984 |
| DWB5 | Gilbert River Formation | -20.961582 | 140.979126 |
| DWB7 (not reference) | Gilbert River Formation | -20.948599 | 140.987063 |
| DWB10 | Gilbert River Formation | -20.946041 | 140.984466 |
| WB15 | Wallumbilla Formation | -20.957987 | 140.982685 |
| TD5_13 | Wallumbilla Formation | -20.93469 | 140.98157 |
| TD5_14 | Wallumbilla Formation | -20.93454 | 140.98512 |
| **Bores surrounding the TSF* | | | |

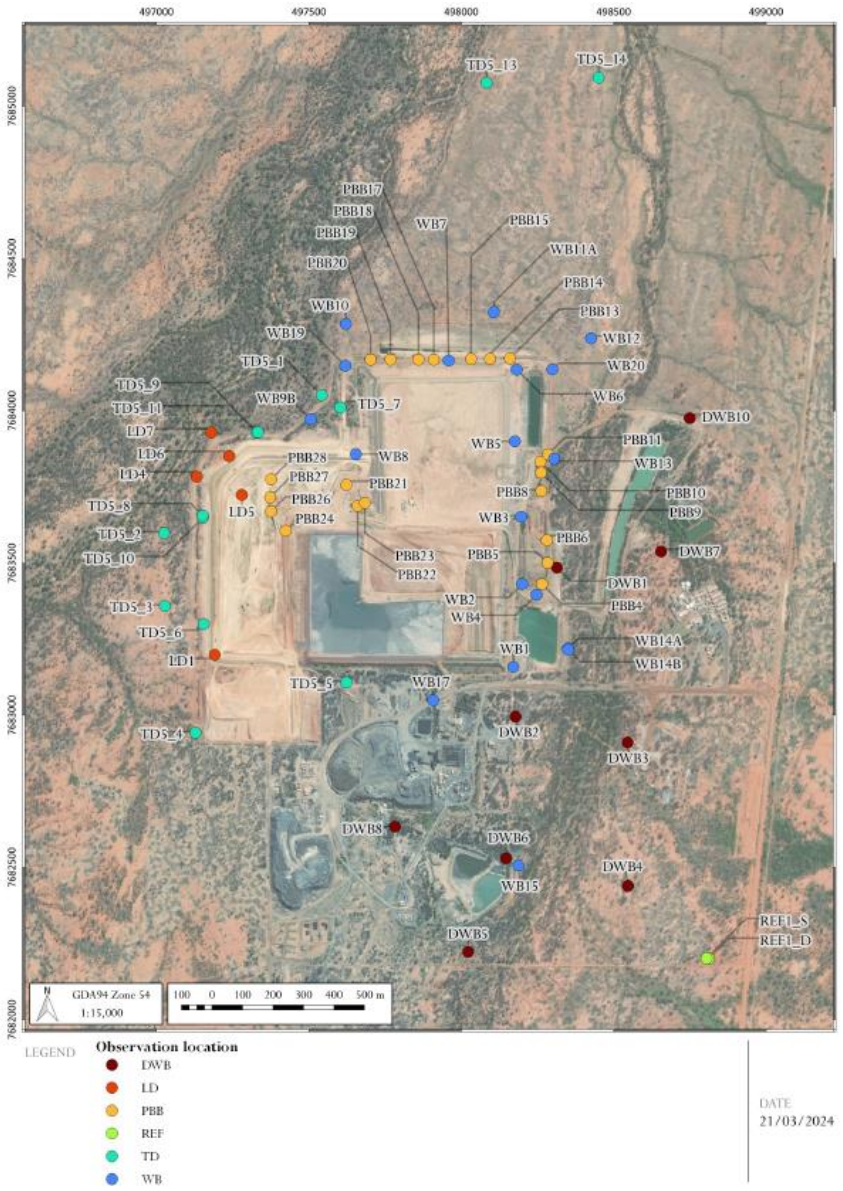


*Figure 3: Groundwater monitoring locations*

**Table 6. Groundwater quality limits**

| Quality characteristic (units) | Monitoring Bore | Limit | Comment on limit |
|---|---|---|---|
| pH (pH units) | All bores | 6 – 8 | ANZECC/ARMCANZ (2000) upland & lowland river default trigger value for tropical Australia - limited reference data |
| Electrical conductivity (µS/cm) | All other bores | 5300 | Interim site-specific based on 95th percentile of REF1_D |
| Electrical conductivity (µS/cm) | All shallow bores in Tertiary sediments/Weathered Wallumbilla | 9500 | Interim site-specific based on 95th percentile of REF1_S |
| Electrical conductivity (µS/cm) | Gilbert River Formation | 3600 | Interim site-specific based on 95th percentile of DWB7 and DWB9 |
| Sulfate (mg/L) | All other bores | 1650 | Interim site-specific based on 95th percentile of REF1_D |
| Sulfate (mg/L) | All shallow bores in Tertiary sediments/Weathered Wallumbilla | 2200 | Interim site-specific based on 95th percentile of REF1_S |
| Sulfate (mg/L) | Gilbert River Formation | 360 | Interim site-specific based on 95th percentile of DWB7 and DWB9 |
| Aluminium - dissolved (µg/L) | All bores | 55 | ANZG 2018 – limited reference data |
| Arsenic - dissolved (µg/L) | All bores | 13 | ANZG 2018 (and site-specific data) |
| Barium - dissolved (µg/L) | All bores | 93 | Dutch National Institute for Public Health and the Environment (RIVM) environmental quality standards for barium in surface waters (2020) [a] – no site-specific data |
| Beryllium – dissolved (µg/L) | All bores | 0.13 | ANZECC/ARMCANZ (2000) interim effect concentration level – no site-specific data |
| Boron - dissolved (µg/L) | All bores | 940 | ANZG 2018 - no site-specific data |
| Cadmium - dissolved (µg/L) | All bores | 0.2 | ANZG 2018 - limited reference data |
| Cobalt - dissolved (µg/L) | All bores | 1.4 | ANZG 2018 - no site-specific data |
| Chromium - dissolved (µg/L) | All bores | 1.0 | ANZG 2018 - no site-specific data |
| Copper - dissolved (µg/L) | All bores | 1.4 | ANZG 2018 - limited reference data |
| Lead - dissolved (µg/L) | All bores | 3.4 | ANZG 2018 - limited reference data |
| Molybdenum – dissolved (µg/L) | All bores | 34 | ANZG 2018 - no site-specific data |
| Nickel - dissolved (µg/L) | All bores | 11 | ANZG 2018 - limited reference data |

| Quality characteristic (units) | Monitoring Bore | Limit | Comment on limit |
|---|---|---|---|
| Strontium - dissolved (µg/L) | All bores | 2500 | Canadian environmental quality guidelines for aquatic ecosystem protection [b] – no site-specific data |
| Tin – dissolved (µg/L) | All bores | 3.0 | ANZG 2018 - no site-specific data |
| Uranium – dissolved (µg/L) | All bores | 0.5 | ANZG 2018 - no site-specific data |
| Zinc - dissolved (µg/L) | All other bores | 8.0 | ANZG 2018 - limited reference data |
| Zinc - dissolved (µg/L) | Shallow bores in Tertiary sediments/Weathered Wallumbilla | 26 | Interim site-specific based on 95$^{th}$ percentile of REF1_S |
| Zinc - dissolved (µg/L) | Gilbert River Formation | 16 | Interim site-specific based on 95$^{th}$ percentile of DWB7 and DWB9 |
| Nitrate (µg/L) | All bores | 1100 | |
| Major ions (mg/L)<br>Calcium, chloride, potassium, magnesium, sodium, bicarbonate, carbonate | All bores | - | For interpretation purposes only |
| Hardness (mg/L) | All bores | - | For interpretation purposes only |

Notes:

- All metals and metalloids must be measured as ‘dissolved’ (from analysis of a field filtered sample) and total (unfiltered).
- Limits for metals and metalloids apply to dissolved results.
- ANZECC/ARMCANZ (2000) upland & lowland river default trigger value for tropical Australia and 95% species protection for aquatic ecosystems, Volume 2 Aquatic Ecosystems (ANZECC & ARMCANZ (2000) guidelines).
- ANZG (2018) Aquatic ecosystem protection for slightly to moderately disturbed system (95% species protection) (Water Quality Guidelines Search for toxicant default guideline values).
- [a] Environmental quality standards for barium in surface water.
- [b] Federal environmental quality guidelines - Strontium - Canada.ca.

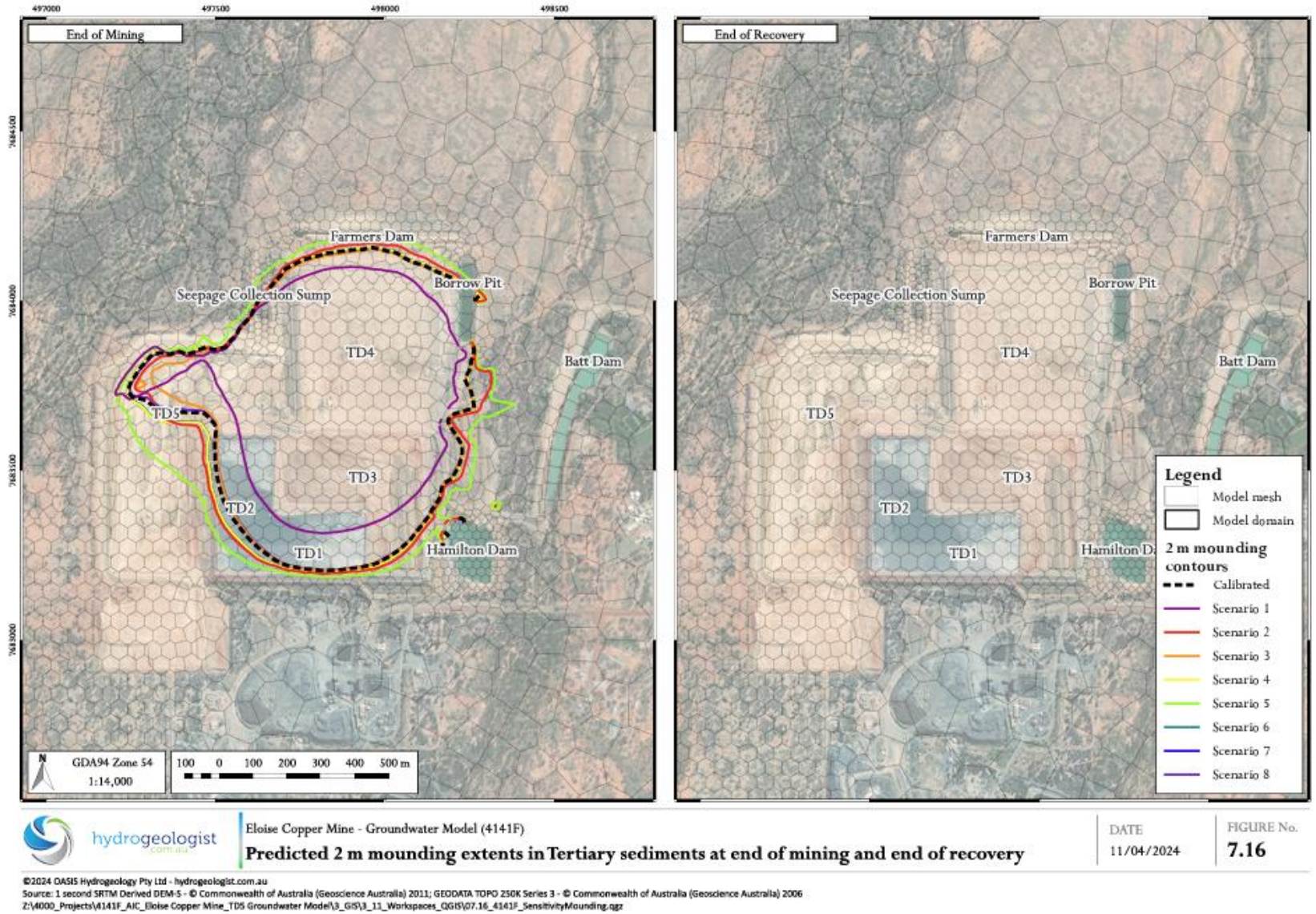


*Figure 4: Groundwater mounding*

**Table 7: - BioCondition Benchmark for Regional Ecosystem**

| BioCondition Assessable Attributes | Weighting | BioConditioning Scores | | Vegetation Benchmark |
|---|---|---|---|---|
| | | RM11 and 12 | RM14 | RE 2.4.3a |
| Tree canopy height (m) | **5** | ≥ 25% of benchmark height | ≥ 25% of benchmark height | 7 |
| Recruitment of canopy species (% of trees) | **5** | | ≥ 20% of dominant canopy species | 100 |
| Tree canopy cover (%) | **5** | ≥10% and ≤200% relative to benchmark | ≥50% and ≤200% relative to benchmark | 27 |
| Shrub canopy cover (%) | **5** | ≥10% relative to benchmark | ≥50% and ≤200% relative to benchmark | 5 |
| Tree (native) species richness | **5** | ≥ 25-90% of benchmark | ≥ 25-90% of benchmark | 1 |
| Shrub (native) species richness | **5** | ≥ 25-90% of benchmark | ≥ 25-90% of benchmark | 2 |
| Grass (native) species richness* | **5** | ≥ 25-90% of benchmark | ≥ 25-90% of benchmark | 10 |
| Forb/other (native) species richness* | **5** | ≥ 25-90% of benchmark | ≥25-90% of benchmark | 12 |
| Non-native plant cover (%) | **10** | <10% of vegetation cover | <10% of vegetation cover | 0 |
| Native perennial grass cover (%) | **5** | ≥ 50% of benchmark | ≥90% of benchmark | 26 |
| Litter (%) | **5** | ≥ 10% of benchmark | ≥ 50% of benchmark | 19 |
| **Total score** | **60** | **≥ 20** | **≥ 40** | |

**END OF PRCP SCHEDULE**