

HUNTER VALLEY OPERATIONS

REHABILITATION MANAGEMENT PLAN

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Introduction

This Rehabilitation Management Plan (RMP) outlines the proposed rehabilitation and final land use considerations at Hunter Valley Operations (HVO). HVO comprises Hunter Valley Operations North (HVO North) and Hunter Valley Operations South (HVO South). HVO North and HVO South are separated by the Hunter River and are located approximately 24 kilometres (km) north-west of Singleton in New South Wales (NSW) (see

Figure 1).

HVO is owned by subsidiary companies of Yancoal and Glencore, as participants in the unincorporated HVO Joint Venture. The HVO Joint Venture is jointly controlled through a Joint Venture Management committee, with HV Operations Pty Ltd as the appointed manager. Coal & Allied Operations Pty Ltd (wholly owned subsidiary of Yancoal) holds 51% of interest in the Joint Venture, and Anotero Pty Ltd (wholly owned subsidiary of Glencore) holds 49%.

HVO North includes the Carrington Pit, West Pit (which includes the Mitchell Pit and Wilton Pit), North Pit Tailings Storage Facility (TSF), Dam 6W TSF, Cumnock Void TSF (under agreement with GCAA), Newdell Coal Preparation Plant (NCPP), Hunter Valley Coal Preparation Plant (HVCPP), Howick Coal Preparation Plant (HCPP), and the stockpiling/train loading facilities at Newdell Load Point (NLP) and Hunter Valley Load Point (HVLP) (see

Figure 2-Site Layout).

HVO South includes Cheshunt Pit, Riverview Pit and Lemington South Pit (see

Figure 2).

This RMP has been prepared in accordance with the NSW Department of Regional NSW – Resources Regulator’s (RR) Form and Way: Rehabilitation management plan for large mines (2021). This document has also been developed to satisfy the requirements for a Rehabilitation Management Plan under Schedule 3, Condition 62C of Development Consent DA 450-10-2003 for HVO North and Schedule 3, Condition 36 of Project Approval PA 06_0261 for HVO South.

1.1 | HISTORY OF OPERATIONS

The history of mining at HVO is summarised in **Table 2.1** to



Table 2.6

Table 2.1 West Pit Development, Mining and Associated Approvals

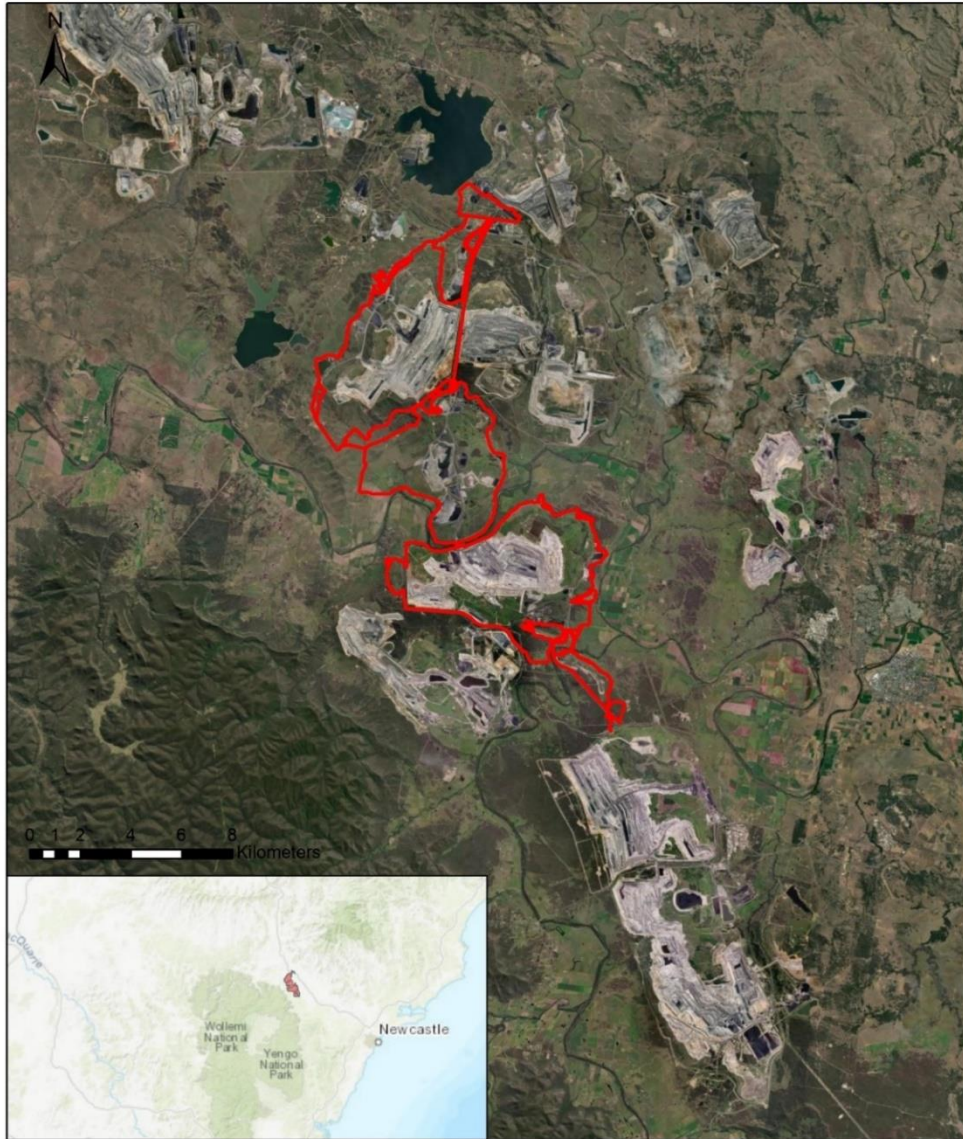
| YEAR | DETAILS |
|------------------|--|
| 1949 | Mining in the area around West Pit commenced when the operating arm of the Joint Coal Board, the New South Wales Mining Company, started mining leases at Foybrook Open Cut. The New South Wales Mining Company subsequently constructed the NCPP. |
| 1952 | Mining at West Pit (which was then known as Howick) commenced when Construction Pty Limited, under contract to the New South Wales Mining Company started operating on the Howick lease in the Pikes Gully Cut. |
| 1968-1974 | Title to some of the Howick lease was granted to Clutha Development Pty Limited in 1968 with additional titles granted in 1973 and 1974. A dragline operation started in 1971. |
| 1981 | Operations purchased by BP Coal. |
| 1986 | Approval granted to increase production at West Pit to 3.5 Mtpa of ROM coal and construct the HCPP to supply coal to the Bayswater and Liddell Power Stations as well as other domestic markets. |
| 1989 | An extension towards the south-east was granted with a corresponding increase to 7 Mtpa. At the end of 1989, the operation was purchased by Kembla Coal and Coke, a wholly owned subsidiary of Conzinc Rio Tinto of Australia Ltd (CRA), and operated by Novacoal, a newly established business unit of CRA. |



Figure 1-Locality

Hunter Valley Operations

Figure 1 - Locality



Legend

Approved Disturbance Boundary

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Figure 2-Site Layout

Hunter Valley Operations

Figure 2 - Site Layout



Legend

Approved Disturbance Boundary

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Table 2.2-West Pit Development, Mining and Associated Approvals

| YEAR | DETAILS |
|-------------|---|
| 1996 | Consent Was Granted for The Howick Coal Mine Expansion Project Which Included Mining Mitchell Pit Located to The Southwest of The Original Mine. This Consent Allowed Coal Production to Increase To 12 Mtpa Rom Coal and Also Allowed Augmentation of The Hcpp and Construction of a Conveyor to Ncpp. |
| 1998 | Novacoal And Coal & Allied Merged and West Pit Became Part of HVO. |
| 2000 | Consent Issued for Construction of Western Haul Road and Bridge Over Lemington Road. Modification To The 1996 Consent to Permit the Transport of Up To 8 Mtpa of Coal from West Pit to Hvcpp. Ncpp Ceased Operations with Disused Parts of Ncpp Placed on A Care and Maintenance Plan. Newdell Coal Reveal, Stockpiling and Train Loading Facilities Continued to Be Used for Coal from Hcpp. |
| 2004 | Development Consent Da 450-10-2003 Granted for HVO North – West Pit Extension and Minor Modifications. For An Extension of Existing Operations at West Pit, Increased Production Capacity at Carrington Pit and Consolidation Of 15 Existing Development Approvals. |
| 2016 | Commonwealth Approval Epsc 2016/7640 Granted for Vegetation Clearing in Areas with Previous State Approvals. Modification To Consent Da 450-10-2003 Granted for Hvlp Sediment Basin and HVO North Communications Towers. |
| 2017 | Modification To Consent Da 450-10-2003 Granted to Amend the Development Consent Boundary. |



Table 2.3-Carrington Pit Development, Mining and Associated Approvals

| YEAR | DETAILS |
|-------------|--|
| 1991 | Coal & Allied Granted Original Exploration Authorisation (Auth) 435, Covering the Carrington Pit Area. |
| 1997 | Exploration Licence (El) 5417 Granted to Determine Extent of Coal Seam to The West. |
| 1997 | El 5418 Granted to Test and Monitor Groundwater to The South-East. |
| 1999 | Exploration Boundaries Have Been Extended to The North into Mining Lease (MI) 1428, Joint Venture with Howick Coal. |
| 2000 | Development Consent Da 106-6-99 Granted for Carrington Pit. |
| 2004 | Carrington Pit Integrated into West Pit Extension and Minor Modifications Consent, Da 450-10-2003. |
| 2006 | Statement Of Environmental Effects (See) For Extension to Carrington Pit Approved by The Former NSW Department of Planning. |
| 2013 | Modification To Consent Da 450-10-2003 Granted for Carrington West Wing (Cww) Extension (Cww Extension Will Not Commence During Rmp Term). |
| 2014 | Modification To Consent Da 450-10-2003 Granted for HVO North Fine Reject Emplacement. |
| 2017 | Modification To Consent Da 450-10-2003 Granted for HVO North Carrington In-Pit Fine Reject Emplacement. |
| 2017 | Modification To Consent Da 450-10-2003 Granted to Amend the Development Consent Boundary. |
| 2019 | In-Pit Tailings Commenced at Carrington Pit. |

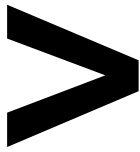


Table 2.4-North Pit Development, Mining and Associated Approvals

| YEAR | DETAILS |
|-------------|--|
| 1979 | Coal Production Commenced at Hunter Valley No. 1 Mine Following the Granting of Coal Lease (Cl) 193 Over an Area of Approximately 992 Hectares (Ha). Initial Coal Production Was 1.5 Mtpa. All Coal Was Washed in Liddell Choo. |
| 1980 | Approved Production Was Increased To 4 Mtpa. Construction Of Hvcpp. |
| 1991 | Operations Commenced in The Former Hunter Valley No. 2 Mine (Now Known as Cheshunt/Riverview Pit) On the Southern Side of The Hunter River, With All Coal Being Transported to Hvcpp Via a Dedicated Bridge Over the Hunter River (Constructed In 1990). |
| 1991 | Mining Commenced in The Southern Extension Area (200 Ha) With the Granting of Consolidated Coal Lease (Ccl) 755 Including Revocation of Cl 193. Production Was Increased To 6.4 Mtpa. |
| 1995 | Mining Commenced in The Alrp with An Average Continued Production Of 4 Mtpa in The Combined North Pit Operations. |
| 2003 | Approved To Receive Tailings. |
| 2004 | North Pit Integrated into West Pit Extension and Minor Modifications Consent – Da 450-10-2003. |
| 2017 | Modification To Consent Da 450-10-2003 Granted to Amend the Development Consent Boundary. |
| 2018 | The Receipt of Tailings to The North Pit Tsf Ceased. |

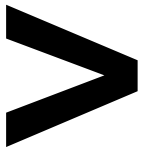
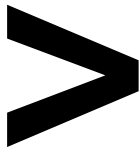


Table 2.5- Cheshunt and Riverview Pits Development, Mining and Associated Approvals

| YEAR | DETAILS |
|-------------|---|
| 1986 | Approval Gained for Hunter Valley No. 2 Mine. |
| 1990 | Approval Granted for Western Out of Pit Emplacement of Overburden in Conjunction with Development of Hunter Valley No. 2 Mine, Rescheduling of Mining of Riverview Pit and Permanent Re-Alignment of Jerrys Plains Road. |
| 1997 | Approval Granted for Small Extension (56 Ha) To the South West of South Mine (Formerly Hunter Valley No. 2 Mine) To Re-Orientate Mining Strips to Increase Mining Efficiency. |
| 2000 | Approval Granted to Increase Rate of Mining To 8 Mtpa and Development of The Cheshunt Pit with Mining to Progress South West Through Riverview Pit; Out of Pit Emplacement of Overburden on The Lemington Mine Site; And Overland Conveyor from Hvo South to Hvcpp (Not Yet Commenced). |
| 2001 | Modification To Approval to Allow Change in Mining Schedule to Seven Day Operations from Year One Rather Than Year Nine. |
| 2002 | Approval Granted for Altered Mine Plan Including Concurrent Mining at Cheshunt and Riverview Pits; Operation of Dragline at Riverview Pit; And Haulage of Coal from Cheshunt and Riverview Pits to Either or Both the Lemington Coal Preparation Plant (Lcpp) Or the Hvcpp. |
| 2006 | Approval Granted for Extension of Open Cut Coal Mining from The Cheshunt Pit Through the Barry Property Enabling the Extraction of Approximately 8 Mtpa of Rom Coal; And Extension of Open Cut Coal Mining to The South West of The Riverview Pit. |



| YEAR | DETAILS |
|------|--|
| 2009 | <p>Pa 06_0261 Was Granted to Replace All Existing HVO South Approvals and To Allow: Extension Of Open Cut and Highwall Mining (Increasing the Approved Mining Surface Disturbance Footprint By 250 Hectares); Mining Of All Coal Seams Within HVO South to Unlimited Depth; Mining Up To 16 Mtpa Rom Coal by A Combination of Draglines, Shovels, Excavators and Associated Haul Trucks; Modification, Upgrades And / Or Reconstruction of Existing Infrastructure Including Increase of Processing Capacity of The Lemington Coal Preparation Plant To 16 Mtpa, Additional Stockpiles and New Coal Loading Infrastructure; And Relocation of Comleroi Road and Other Infrastructure Across Hvo South; Infrastructure To Facilitate Transfer of Product Coal to The Wambo Rail Spur Via Either a Rail Spur and Loop, Overland Conveyor (Olc) Or Trucks, Or Any Combination; The Full Integration of Operations at HVO South Related to New Activities as Well as Upgrades and Modifications to Approved Operations, Mining and Processing Rates, Equipment Use and Relocation, Water, Reject and Tailings Disposal and Coal Handling; And Relocation Or Reconfiguration of The Hunter Valley Gliding Club (Hvgc) Airstrip and Facilities (If Agreed with The Club), To Accommodate the Integration of The Riverview Pit with South Lemington Pit 2. Subsequent Modification to Approval to Allow Raising of Lake James Dam.</p> |
| 2012 | <p>Modification To Approval to Allow Transfer of Biodiversity Offset for HVO South From Archerfield to Goulburn River Biodiversity Area.</p> |
| 2016 | <p>Commonwealth Approval Epsc 2016/7640 Granted for Vegetation Clearing in Areas with Previous State Approvals.</p> |
| 2018 | <p>Modification To the State Development Consent to Enable: Cheshunt Pit to Progress and Extract the Bayswater Seam Below Riverview Pit by Open Cut Methods; Amendment To the Approved Overburden Emplacement Strategy to Enable An 80m Increase in Height in Some Areas Up to A Maximum Height Of 240m Australian Height Datum Ahd; Increase The Rate of Extraction To 20 Mtpa Rom Coal; And Update The Statement of Commitments Within Pa 06_0261 To Remove Redundant Commitments and Conditions or Those Inconsistent with Measures Prescribed in The Approved Management Plans.</p> |
| 2021 | <p>Modification To State Development Consent to Enable Onsite Manufacturing of Ammonium Nitrate Emulsion.</p> |
| 2022 | <p>Modification To State Development Consent to Enable Storage of Water in The Lemington Underground Workings.</p> |
| 2023 | <p>Modification To State Development Consent to Enable the Construction of An Ammonium Nitrate Storage Facility.</p> |

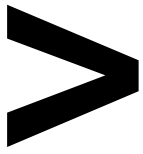
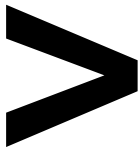
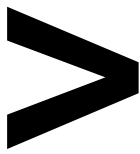


Table 2.6- Cheshunt and Riverview Pits Development, Mining and Associated Approvals

| YEAR | DETAILS |
|-------------|---|
| 1971 | Approval Gained to Establish Open Cut Mine and No. 1 Underground Mining Complex With 1 Mtpa Rom Coal Limit; And Construct Lcpp No. 1 |
| 1976 | Approval Granted to Extend Mining into No. 2 Underground Mining Complex Area and Increase Rom Coal To 2 Mtpa; And Construct Second Lcpp Rated At 440 Tph of Rom Coal. |
| 1980 | Approval Granted to Extend Open Cut and Underground Mining Operations Within Buchanan-Lemington Colliery; Construct Haul Road from South Lemington to Lemington Across Wollombi Brook; And Increase Capacity of Lcpp No. 2 To 660 Tph Rom Coal. |
| 1981 | Approval Gained to Increase Product Coal Production To 3 Mtpa. |
| 1985 | Approval Gained to Allow Northern Extension of Open Cut Mining Within Buchanan-Lemington Colliery Holding; And North West Extension of Lemington Mine. |
| 1987 | Lcpp No. 1 Closed and Decommissioned |
| 1993 | Approval Granted to Install a Coarse Reject Transport Conveyor to Facilitate Filling and Progressive Rehabilitation of Underground Mine No. 2 Portal Using Coarse Reject from Lcpp (Over 4-5 Years). |
| 1998 | Approval Granted to Establish Mining in South Lemington – Two Open Cut Pits, A Scraper Slot and Trench, Supplemented by Highwall Mining Operations To 0.6 Mtpa Product; Total Combined Product Limit Of 3 Mtpa; And Removal Of 82 Ha of Warkworth Sands Woodland (Not Listed Under The Former Threatened Species Conservation Act (Tsc Act) At That Time). South Lemington Pit 2, Scraper Slot and Trench and Highwall Mining Have Not Yet Commenced. |
| 1999 | Approval Gained to Increase Production To 3.5 Mtpa of Product Coal (North Lemington To 2.9 Mtpa and South Lemington To 0.6 Mtpa). |
| 2001 | Approval Gained to Increase Saleable Production To 4.4 Mtpa (North Lemington To 3.2 Mtpa and South Lemington To 1.2 Mtpa). Mining In South Lemington Pit 1 Suspended. Approval Granted for Temporary Crossings of Wollombi Brook to Allow Dragline and Electric Shovel Relocation. |
| 2003 | Coal Processing at Lcpp No. 2 Suspended and Plant Placed into Care and Maintenance. |
| 2011 | Infrastructure Removal and Site Decontamination Completed for Lcpp No. 2. |



| YEAR | DETAILS |
|------|---|
| 2018 | Modification To the State Development Consent to Enable the South Lemington Pit 2 To Mine To The Base Of The Vaux Seam Below The Bowfield Seam. |



1.2 | CURRENT DEVELOPMENT CONSENTS, LEASES AND LICENCES

1.2.1 | DEVELOPMENT CONSENTS

Table 2.7 summarises the development consents and modification history, including key features approved. Additionally, HVO holds an Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) Approval for the clearing of 61 ha of Central Hunter Valley Eucalypt Forest (CHVEF).

Table 2.7 Development Consents

| CONSENT | DETAILS | ISSUE DATE | EXPIRY DATE |
|------------------|---|------------------|---------------|
| HVO North | | | |
| DA 450-10-2003 | West Pit Extension | 12 June 2004 | 12 June 2025 |
| | MOD 1 — S96(1A) modification of West Pit Extension – Upgrade of Hunter Valley Loading Point | 16 August 2005 | |
| | MOD 2 — Carrington Pit Extension | 25 June 2006 | |
| | MOD 3 — CWW Modification | 19 March 2013 | |
| | MOD 4 — HVO North Fine Reject Emplacement Modification | 16 January 2014 | |
| | MOD 5 — HVLP Sediment Basin and HVO North Communication Towers | 9 December 2016 | |
| | MOD 6 — Fine Rejects Carrington In-Pit | 25 January 2017 | |
| | MOD 7 — Extension of mining at West Pit | 28 July 2017 | |
| HVO South | | | |
| PA 06_0261 | Granted to replace all existing HVO South approvals | 24 March 2009 | 24 March 2030 |
| | MOD 1 – Amending approval boundary and discharge at Lake James | 17 December 2009 | |
| | MOD 2 – Biodiversity offset amendments | 3 February 2012 | |



| CONSENT | DETAILS | ISSUE DATE | EXPIRY DATE |
|---------|---|------------------|-------------|
| | MOD 3 – Goulburn River biodiversity offset area amendments | 31 October 2012 | |
| | MOD 4 – Goulburn River biodiversity offset area amendments | 31 October 2012 | |
| | MOD 5 – Extend mining of Cheshunt Pit into Riverview Pit and down to Vaux Seam at South Lemington Pit 2 | 28 February 2018 | |
| | MOD 6 – Manufacture of Ammonium Nitrate Emulsion | 26 November 2021 | |
| | MOD 7 – Storage of Water in Lemington Underground Workings | 27 May 2022 | |
| | MOD 8 – Construction of an Ammonium Nitrate Storage Facility | 6 February 2023 | |

HVO North and South

| | | | |
|----------------|-----------------------|-----------------|------------------|
| EPBC 2016/7640 | State Approved Mining | 10 October 2016 | 31 December 2030 |
|----------------|-----------------------|-----------------|------------------|



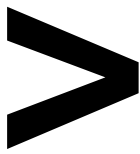
As described above, this document has been prepared to satisfy the requirement for a Rehabilitation Management Plan in both development consents. The specific requirements from each of these consents, and where they are addressed in this document are shown in **Table 2.8** and **Table 2.9**. This document also satisfies the requirement for the Landscape and Rehabilitation Management Strategy Condition 32), and flora and fauna procedures (parts of Condition 35) within the HVO North development consent (DA 450-10-2003). These are shown in



Table 2.10

Table 2.8- RMP Requirements in PA 06_0261

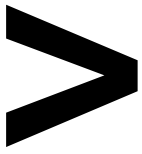
| CONSENT REQUIREMENT | SECTION WITHIN THIS DOCUMENT |
|--|-------------------------------------|
| 36. The Applicant Must Prepare a Rehabilitation Management Plan for The Development in Accordance with The Provisions Under the Mining Act 1992 and Carry Out the Development in Accordance with This Plan. This Plan Must: (A) Be Prepared by Suitably Qualified Expert/S; | 12.1 |
| (B) Be Prepared in Consultation with The Department, Dope Water, And Council by A Suitably Qualified and Experienced Person/S; | 4.3 |
| I Be Submitted for Approval Within 3 Months of The Determination of Modification 5, Unless Otherwise Approved by The Planning Secretary; | N/A |
| (D) Be Prepared in Accordance with Any Relevant Resources Regulator Guideline; | 1.0 |
| (E) Describe How the Rehabilitation of The Site Would Achieve the Objectives Identified in Table 16 And Be Integrated with The Measures in The Biodiversity Management Plan; | 4.1 |
| (F) Include Detailed Performance and Completion Criteria for Evaluating the Performance of Progressive and Final Rehabilitation and Include Triggers for Remedial Action, Where These Performance or Completion Criteria Are Not Met; | 4.2, 10.2 |
| (G) Describe The Measures to Be Implemented to Meet the Performance and Completion Criteria, To Ensure Compliance with The Relevant Conditions of This Consent and To Address All Aspects of Rehabilitation Including Mine Closure, Final Landform (Including the Final Void), Final Land Use/S, And Water Management in The Final Landform; | 6.0, 7.0 |
| (G) Include Procedures for The Use of Interim Stabilisation and Temporary Vegetation Strategies, Where Reasonable to Minimise Exposed Areas; | 6.2.3.6 |
| (H) Include A Program to Monitor, Independently Audit and Report on The Effectiveness of The Rehabilitation Measures, And Progress Against the Performance and Completion Criteria; | 8.0, 9.0 |
| (I) Identify The Potential Risks to The Successful Implementation of Rehabilitation, And Include a Description of The Contingency Measures to Be Implemented to Mitigate Against These Risks; And | 3.0 |



| CONSENT REQUIREMENT | SECTION WITHIN THIS DOCUMENT |
|---|------------------------------|
| (J) Include Details of Who Would Be Responsible for Monitoring, Reviewing, And Implementing the Plan. | 11.3 |

Table 2.9-RMP Requirements in DA 450-10-2003

| CONSENT REQUIREMENT | SECTION WITHIN THIS DOCUMENT |
|---|--|
| 62c. The Applicant Must Prepare a Rehabilitation Management Plan for The HVO North Mine to The Satisfaction of Dre. This Plan Must: (A) Be Prepared in Consultation with The Department, Dpi Water, Eoh, Council and The Coc; | 4.3 |
| I(C) Be Prepared in Accordance with Any Relevant Dre Guideline; | 1.0 |
| (D) Include An Agricultural Land Reinstatement Management Plan; | Addressed In the Separate Agricultural Land Reinstatement Plan |
| (E) Include Detailed Performance and Completion Criteria for Evaluating the Achievement of The Rehabilitation Objectives in Table 17 And the Overall Rehabilitation of The Site, And Triggering Remedial Action (If Necessary); | 4.2 |
| (F) Include Proposals to Offset the Flora and Fauna Impacts of The Development (Including Proposals Resulting from Condition 31 Above), And an Outline of How the Plan Would Integrate with Existing and Planned Corridors of Native Vegetation in Areas Surrounding the Development; | Addressed In the HVO Integrated Biodiversity Management Plan |
| (G) Describe The Measures That Would Be Implemented to Ensure Compliance with The Relevant Conditions of This Consent, And Address All Aspects of Rehabilitation Including Mine Closure, Final Landform and Final Land Use; | 2.0, 5.0, 6.0, 7.0 |



| CONSENT REQUIREMENT | SECTION WITHIN THIS DOCUMENT |
|---|------------------------------------|
| (H) Outline How the Proposed Plan Would Be Integrated with The Landscape Management and Rehabilitation of The Other Operations Within Hunter Valley Operations (Both North and South of The Hunter River) And Other Coal Mines in The Vicinity; | 5.0 |
| (I) Include Interim Rehabilitation Where Necessary to Minimise the Area Exposed for Dust Generation; | 6.2.3.6 |
| (J) Include A Program to Monitor, Independently Audit and Report on The Effectiveness of The Measures, And Progress Against the Detailed Performance and Completion Criteria; And | 8.0 |
| (K) Build To the Maximum Extent Practicable on The Other Management Plans Required Under This Consent. | Entire Document |
| The Applicant Must Implement the Approved Management Plan as Approved from Time to Time by The Secretary. | N/A |

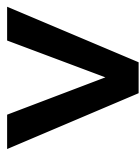


Table 2.10- Additional Requirements in DA 450-10-2003

| CONSENT REQUIREMENT | SECTION WITHIN THIS DOCUMENT |
|--|--|
| <p>32. By 30 June 2007, The Applicant Must Prepare a Conceptual Landscape and Rehabilitation Management Strategy, In Consultation with Affected Agencies, To the Satisfaction of The Secretary. The Strategy Must: Include Objectives for Landscape Management and Rehabilitation of The Site and A Justification for The Proposed Strategy;</p> | 4.0 |
| <p>Present A Conceptual Plan for A Landscape Management and Rehabilitation of The Site;</p> | 5.0 |
| <p>Be Integrated with The Relevant Requirements of The Mining Operations Plan;</p> | Mop Replaced by This Rmp |
| <p>Describe The Measures That Would Be Implemented to Achieve the Objectives (Including an Indicative Timetable for Mine Closure);</p> | 6.0 |
| <p>Include Proposals to Offset the Flora and Fauna Impacts of The Development (Including Proposals Resulting from Condition 31 And 31a Above), And an Outline of How the Strategy Would Integrate with Existing and Planned Corridors Of Native Vegetation In Areas Surrounding The Development; And</p> | Addressed In the HVO Integrated Biodiversity Management Plan |
| <p>Outline How the Proposed Strategy Would Be Integrated with The Landscape Management and Rehabilitation of The Other Operations Within Hunter Valley Operations (Both North and South of The Hunter River) And Other Coal Mines in The Vicinity.</p> | 6.2.3 |
| <p>35. The Applicant Must Prepare Procedures for The Management of Flora and Fauna for The Development. These Procedures Must: Provide Details On: Delineating Areas of Disturbance</p> | 6.2.1.2 |
| <p>Protecting Areas Outside of The Disturbance Areas;</p> | Addressed In the HVO Integrated Biodiversity Management Plan |



| CONSENT REQUIREMENT | SECTION WITHIN THIS DOCUMENT |
|--|---|
| Identifying When Pre-Clearance Surveys Are Required for Fauna; | Addressed In the HVO Integrated Biodiversity Management Plan |
| Determining The Best Time to Clear Vegetation to Avoid Nesting/Breeding Activities Of Threatened Fauna; | Addressed In the HVO Integrated Biodiversity Management Plan |
| Capturing And Releasing Fauna; | Addressed In the HVO Integrated Biodiversity Management Plan |
| Relocating Bat Roosts; | Addressed In the HVO Integrated Biodiversity Management Plan |
| Salvaging Habitat Resources and Collecting Seed; | 6.2.1.2 |
| Controlling Weeds in Regeneration/Rehabilitation Areas; And | 6.2.5, 6.2.6 |
| Controlling Access to The Regeneration/Rehabilitation Areas; | 6.2.6 |
| Describe How the Land in Regeneration Areas Would Be Revegetated; | Addressed In the HVO Integrated Biodiversity Management Plan |



| CONSENT REQUIREMENT | SECTION WITHIN THIS DOCUMENT |
|--|---|
| Describe How the Mined Areas Would Be Rehabilitated for Grazing and Biodiversity Values; | 6.0 |
| Identify Actions to Minimise the Potential Impacts of the Development on Threatened Fauna; | Addressed In the HVO Integrated Biodiversity Management Plan |
| Describe How the Performance of The Revegetation/Rehabilitation Strategies Would Be Monitored Over Time Including, As A Minimum, The Parameters in Table 18; And | 8.0 |
| Identify Who Is Responsible for Monitoring, Reviewing, And Implementing the Procedures. | 11.0 |



1.2.2 | MINING TENEMENTS

Table 2.11 lists the mining titles applicable to both HVO North and HVO South. While not subject to the RMP at time of submission Mining Lease Applications (MLA's) are listed for completeness.

Table 2.11- Mining Tenements

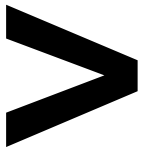
| TITLE | TITLEHOLDER | GRANT DATE | EXPIRY DATE | STATUS |
|---------|--|------------|-------------|---------|
| AL 32 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 04/11/2020 | 03/11/2026 | Granted |
| AL 33 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 04/11/2020 | 03/11/2026 | Granted |
| AL 34 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 04/11/2020 | 03/11/2026 | Granted |
| AUTH72 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 08/03/1977 | 8/03/2027 | Granted |
| EL 5291 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 28/04/1997 | 28/04/2029 | Granted |
| EL 5292 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 28/04/1997 | 27/04/2028 | Granted |
| EL 5417 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 23/12/1997 | 23/12/2024 | Granted |
| EL 5418 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 23/12/1997 | 23/12/2028 | Granted |
| EL 5606 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 11/08/1999 | 11/08/2029 | Granted |
| EL 8175 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 23/09/2013 | 23/09/2026 | Granted |
| EL 8821 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 13/02/2019 | 13/02/2025 | Granted |



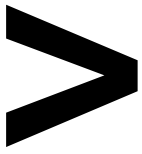
| TITLE | TITLEHOLDER | GRANT DATE | EXPIRY DATE | STATUS |
|----------------|--|------------|-------------|-----------------|
| (Part) CCL 708 | Liddell Tenements PtyLtd | 17/05/1990 | 29/12/2023 | Granted |
| CCL 714 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 23/05/1990 | 30/08/2030 | Granted |
| CCL 755 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 24/01/1990 | 05/03/2030 | Granted |
| CL 327 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 06/03/1989 | 06/03/2031 | Granted |
| CL 359 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 21/05/1990 | 21/05/2032 | Granted |
| CL 360 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 29/05/1990 | 29/05/2032 | Granted |
| CL 398 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 04/06/1992 | 04/06/2034 | Granted |
| CL 584 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 01/01/1982 | 31/12/2044 | Granted |
| CML 4 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 02/03/1993 | 03/06/2033 | Granted |
| ML 1324 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 19/08/1993 | 19/08/2035 | Granted |
| ML 1337 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 01/02/1994 | 01/02/2034 | Granted |
| ML 1359 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 01/11/1994 | 31/10/2015 | Renewal Pending |
| ML 1406 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 27/02/1997 | 10/02/2027 | Granted |



| TITLE | TITLEHOLDER | GRANT DATE | EXPIRY DATE | STATUS |
|---------|---|------------|-------------|---------|
| ML 1428 | Coal & Allied Pty Ltd and Anotero Pty Ltd | 15/04/1998 | 14/04/2040 | Granted |
| ML 1465 | Coal & Allied Pty Ltd and Anotero Pty Ltd | 21/02/2000 | 21/02/2042 | Granted |
| ML 1474 | Coal & Allied Pty Ltd and Anotero Pty Ltd | 24/11/2000 | 23/11/2042 | Granted |
| ML 1482 | Coal & Allied Pty Ltd and Anotero Pty Ltd | 19/03/2001 | 19/03/2040 | Granted |
| ML 1500 | Coal & Allied Pty Ltd and Anotero Pty Ltd | 21/12/2001 | 20/12/2043 | Granted |
| ML 1526 | Coal & Allied Pty Ltd and Anotero Pty Ltd | 03/12/2002 | 02/12/2044 | Granted |
| ML 1560 | Coal & Allied Pty Ltd and Anotero Pty Ltd | 28/01/2005 | 27/01/2026 | Granted |
| ML 1589 | Coal & Allied Pty Ltd and Anotero Pty Ltd | 02/11/2006 | 01/11/2027 | Granted |
| ML 1622 | Coal & Allied Pty Ltd and Anotero Pty Ltd | 22/10/2010 | 10/03/2027 | Granted |
| ML 1634 | Coal & Allied Pty Ltd and Anotero Pty Ltd | 31/07/2009 | 31/07/2030 | Granted |
| ML 1682 | Coal & Allied Pty Ltd and Anotero Pty Ltd | 16/12/2012 | 15/12/2033 | Granted |
| ML 1704 | Coal & Allied Pty Ltd and Anotero Pty Ltd | 05/12/2014 | 05/12/2035 | Granted |
| ML 1705 | Coal & Allied Pty Ltd and Anotero Pty Ltd | 17/12/2014 | 17/12/2035 | Granted |



| TITLE | TITLEHOLDER | GRANT DATE | EXPIRY DATE | STATUS |
|---------|--|------------|-------------|---------|
| ML 1706 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 09/12/2014 | 09/12/2035 | Granted |
| ML 1707 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 09/12/2014 | 09/12/2035 | Granted |
| ML 1710 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 22/12/2016 | 10/03/2027 | Granted |
| ML 1732 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 06/04/2016 | 06/04/2037 | Granted |
| ML 1734 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 06/04/2016 | 06/04/2037 | Granted |
| ML 1748 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 05/12/2016 | 04/12/2037 | Granted |
| ML 1753 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 19/04/2017 | 19/04/2038 | Granted |
| ML 1810 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 04/11/2020 | 04/11/2041 | Granted |
| ML 1811 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 04/11/2020 | 04/11/2041 | Granted |
| ML 1840 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 3/11/2022 | 3/11/2043 | Granted |
| ML 1841 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 3/11/2022 | 3/11/2043 | Granted |
| ML 1849 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 16/05/2023 | 16/05/2044 | Granted |
| ML 1867 | Coal & AlliedPty Ltd and Anotero Pty Ltd | 16/11/2023 | 16/11/2044 | Granted |



| TITLE | TITLEHOLDER | GRANT DATE | EXPIRY DATE | STATUS |
|---------|---|------------|-------------|---------|
| ML 1869 | Coal & Allied Pty Ltd and Anotero Pty Ltd | 15/12/2023 | 15/12/2044 | Granted |
| ML 1870 | Coal & Allied Pty Ltd and Anotero Pty Ltd | 15/12/2023 | 15/12/2044 | Granted |
| ML 1871 | Coal & Allied Pty Ltd and Anotero Pty Ltd | 15/12/2023 | 15/12/2044 | Granted |



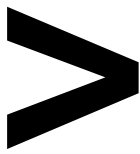
1.2.3 | OTHER APPROVALS

1.2.3.1 | LICENCES

Current licences applicable to HVO are summarised in **Table 2.12**

Table 2.12-Licences

| Licence / Permit No. | Description | Expiry Date |
|----------------------------|--|---|
| HVO North and South | | |
| Epl 640 | Environmental Protection Licence | 1 April (Anniversary) 10/09/2025 (Review Due Date) |
| Rml 5085293 | Radiation Management Licence | 14/11/2024 |
| HVO North | | |
| Ndg 037852 | Dangerous Goods Notification (For the Storage And Handling Of Hazardous Chemicals) | No Expiry Date |
| HVO South | | |
| Xstr200117 | Licence To Store Dangerous Good/Explosives | 02/05/2026 |
| 2269820 | Road Occupancy Licences – Golden Highway | 31/12/2024 |
| - | Road Closure Approval – Lemington Road | 31/12/2024 |



1.2.3.2 | WATER LICENCES

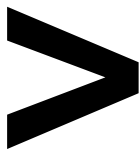
The water approvals and licences applicable to HVO are listed in **Table 2.13** and **Table 2.14**

Table 2.13- Water Approvals

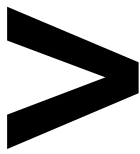
| LICENCE NUMBER | TYPE OF LICENCE | PURPOSE | LEGISLATION | DESCRIPTION | EXPIRY DATE |
|----------------|-----------------|-----------------|----------------------|--|-------------|
| 20BL030566 | Bore | Well | Part 5 Water Act1912 | East Open Cut | Perpetuity |
| 20BL141584 | Bore | Monitoring Bore | Part 5 Water Act1912 | HVO North – Carrington Work Licence | Perpetuity |
| 20BL166637 | Bore | Monitoring Bore | Part 5 Water Act1912 | No Current Bores | Perpetuity |
| 20BL168820 | Bore | Monitoring Bore | Part 5 Water Act1912 | HVO North – Bores:CGW39, CGW45a, CGW46, CGW47, CGW47a, CGW48, CGW49, P50/38.5, CGW56, 4036C, 4035P,4032P, 4034P, 4033P, 4053P, 4052P, 4051C, 4040P, 4038C, 4037P Destroyed: CGW7, CGW50,CGW57, CGW58, CGW59, CGW60, CGW61, CGW62, CGW63 | Perpetuity |
| 20BL169241 | Bore | Monitoring Bore | Part 5 Water Act1912 | HVO North – Bores: DM1,HF3, HF7 Destroyed: DM2 | Perpetuity |
| 20BL169641 | Bore | Monitoring Bore | Part 5 Water Act1912 | HVO North – Bores: CGW5, CGW51A, CGW52, CGW53, CGW54, CGW55A, CGW53A, CGW52A, CGW54A, CGW6, CFW55, CFW57, CFW57A, CFW59, CFW55R Destroyed: CGW1, CGW2,CGW3, CGW5, CGW8, CGW9, CGW10, CGW12, CGW13 CGW14, CGW30,CGW33, CGW34, CGW35, CGW36,CGW37, CGW38, CGW40, CGW41,CGW42, CGW43, CGW44, CFW56, CFW56A, CFW58 | Perpetuity |



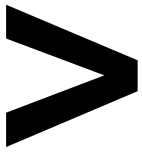
| LICENCE NUMBER | TYPE OF LICENCE | PURPOSE | LEGISLATION | DESCRIPTION | EXPIRY DATE |
|----------------|-----------------|-----------------|----------------------|---|-------------|
| 20BL170496 | Bore | Monitoring Bore | Part 5 Water Act1912 | HVO South – Bores: BZ10(CHPZ 2A), BZ11 (CHPZ 3A), BZ18 (CHPZ 10A), BZ20 (CHPZ 12A), BZ21 (CHPZ 13D), BZ21A (CHPZ 13A), BZ20A (CHPZ 12D), BZ11A (CHPZ 3D) Destroyed: AP50/47.5, AQ52, AV50/56.5, AS50/62.5, AR55, Bunc 3, BZ25 (Bunc 12), BZ23 (Bunc 14), BZ24 (Bunc 13), | Perpetuity |
| 20BL170497 | Bore | Monitoring Bore | Part 5 Water Act1912 | HVO South – Bores: BZ15(CHPZ 7A), BZ16 (CHPZ 8D), BZ17 (CHPZ 9A), BZ19 (CHPZ 11A), BZ16A(CHPZ 8A), Bunc 46D Destroyed: Bunc 39 (Shallow & Deep), Bunc44D | Perpetuity |
| 20BL170498 | Bore | Monitoring Bore | Part 5 Water Act1912 | HVO South – Bores: BZ12(CHPZ 4A), BZ13 (CHPZ 5A), BZ14, BZ9 (CHPZ 1A), BC1, BC1a, BZ8-1, BZ8-2, BZ8-3, HG1, HG2, HG2a, HG3, S4, S6, BZ22(CHPZ14D), BZ22A (CHPZ 14A), BZ5-1, BZ5-2 Destroyed: S2, S3, S9, S11 | Perpetuity |
| 20BL171423 | Bore | Monitoring Bore | Part 5 Water Act1912 | E1.5 | Perpetuity |
| 20BL171424 | Bore | Monitoring Bore | Part 5 Water Act1912 | Destroyed: GW9711 | Perpetuity |
| 20BL171425 | Bore | Monitoring Bore | Part 5 Water Act1912 | Bores: GW9701, GW9710 | Perpetuity |
| 20BL171426 | Bore | Monitoring Bore | Part 5 Water Act1912 | Bores: GW9702 Destroyed: D2(WH236) | Perpetuity |
| 20BL171427 | Bore | Monitoring Bore | Part 5 Water Act1912 | Bores: C335, C630 (BFS) | Perpetuity |



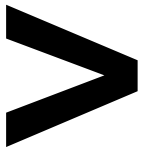
| LICENCE NUMBER | TYPE OF LICENCE | PURPOSE | LEGISLATION | DESCRIPTION | EXPIRY DATE |
|----------------|-----------------|-----------------|-----------------------|---|-------------|
| 20BL171428 | Bore | Monitoring Bore | Part 5 Water Act1912 | D807 | Perpetuity |
| 20BL171429 | Bore | Monitoring Bore | Part 5 Water Act1912 | HVO South – Bores: B925(BFS), C122 (BFS), C122 (WDH) | Perpetuity |
| 20BL171430 | Bore | Monitoring Bore | Part 5 Water Act1912 | HVO South – Bores: C613(BFS), C809 (GM/WDH) | Perpetuity |
| 20BL171431 | Bore | Monitoring Bore | Part 5 Water Act1912 | HVO South – Bores: B631(BFS), B631 (WDH) | Perpetuity |
| 20BL171432 | Bore | Monitoring Bore | Part 5 Water Act1912 | HVO South – Bores: C130(AFSH1), C130 (ALL), C130(BFS), C130 (WDH) | Perpetuity |
| 20BL171433 | Bore | Monitoring Bore | Part 5 Water Act 1912 | HVO South – Bore B334 (BFS) | Perpetuity |
| 20BL171434 | Bore | Monitoring Bore | Part 5 Water Act 1912 | HVO South – Bores: C317 (BFS), C317 (WDH) | Perpetuity |
| 20BL171435 | Bore | Monitoring Bore | Part 5 Water Act 1912 | HVO South – Bores: BZ3- 1, BZ3-2, BZ3-3 | Perpetuity |
| 20BL171436 | Bore | Monitoring Bore | Part 5 Water Act 1912 | HVO South – Bores: BZ4A(1), BZ4A(2), BZ4B | Perpetuity |
| 20BL171437 | Bore | Monitoring Bore | Part 5 Water Act 1912 | Bores: WG1, WG2, WG3 | Perpetuity |
| 20BL171439 | Bore | Monitoring Bore | Part 5 Water Act 1912 | Bores: BRN, E012 | Perpetuity |
| 20BL171492 | Bore | Monitoring Bore | Part 5 Water Act 1912 | Bores: C1(WJ039), GW9704, North, GWA981 | Perpetuity |
| 20BL171681 | Bore | Monitoring Bore | Part 5 Water Act 1912 | HVO South – Bores: Bunc 45A, Bunc 45D | Perpetuity |



| LICENCE NUMBER | TYPE OF LICENCE | PURPOSE | LEGISLATION | DESCRIPTION | EXPIRY DATE |
|----------------|-----------------|-----------------|-----------------------|--|-------------|
| 20BL171725 | Bore | Monitoring Bore | Part 5 Water Act 1912 | HVO South – Bores: B425 (WDH), BRS, C621 (BFS), C919 (ALL), D317 (BFS), D317(ALL), D317(WDH) Destroyed: D420, D425, D621, PB02 | Perpetuity |
| 20BL171726 | Bore | Monitoring Bore | Part 5 Water Act 1912 | Bores: SR002, SR003, SR004, SR005, SR006, SR007 | Perpetuity |
| 20BL171727 | Bore | Monitoring Bore | Part 5 Water Act 1912 | SR001 | Perpetuity |
| 20BL171728 | Bore | Monitoring Bore | Part 5 Water Act 1912 | HVO South – Bores: BZ2B, BZ1-1, BZ1-2, BZ1- 3, BZ2-1, BZ2-2 | Perpetuity |
| 20BL171762 | Bore | Monitoring Bore | Part 5 Water Act 1912 | HVO South – Bores: C817, D010 (BFS), D214 (BFS), D406 (BFS) (AFS), D510 (BFS), PB01 (ALL), D510 (AFS), D010 (GM), D010 (WDH), D406 (BFS) (AFS), D612 (AFS), D612 (BFS) | Perpetuity |
| 20BL171851 | Bore | Monitoring Bore | Part 5 Water Act 1912 | HVO North/South – Bores: HV2, PZ1CH200, PZ2CH400, PZ3CH800, 4118P, 4119P | Perpetuity |
| 20BL171852 | Bore | Monitoring Bore | Part 5 Water Act 1912 | HVO North – PZ4CH1380 | Perpetuity |
| 20BL171853 | Bore | Monitoring Bore | Part 5 Water Act 1912 | HVO North – DM3 | Perpetuity |
| 20BL171854 | Bore | Monitoring Bore | Part 5 Water Act 1912 | HVO North – Bores: DM5, PZ6CH2450 | Perpetuity |
| 20BL171855 | Bore | Monitoring Bore | Part 5 Water Act 1912 | HVO North – PZ5CH1800 | Perpetuity |
| 20BL171856 | Bore | Monitoring Bore | Part 5 Water Act 1912 | HVO North – Bores: HV6, HV3, DM6, HV2 (2), 4113P, 4114P. 4116P, 4117P | Perpetuity |



| LICENCE NUMBER | TYPE OF LICENCE | PURPOSE | LEGISLATION | DESCRIPTION | EXPIRY DATE |
|----------------|-----------------|-----------------|---------------------------|---|-------------|
| 20BL171857 | Bore | Monitoring Bore | Part 5 Water Act 1912 | Bores: HV4, HV4 (2) (GA3), GA3, | Perpetuity |
| 20BL171858 | Bore | Monitoring Bore | Part 5 Water Act 1912 | HVO North – DM4 | Perpetuity |
| 20BL171895 | Bore | Monitoring Bore | Part 5 Water Act 1912 | HVO West – Destroyed: NPZ4 | Perpetuity |
| 20BL171896 | Bore | Monitoring Bore | Part 5 Water Act 1912 | HVO West – NPZ2 | Perpetuity |
| 20BL171897 | Bore | Monitoring Bore | Part 5 Water Act 1912 | HVO West – Bores: NPZ1 Destroyed: NPZ5 | Perpetuity |
| 20BL171898 | Bore | Monitoring Bore | Part 5 Water Act 1912 | HVO West – NPZ3 | Perpetuity |
| 20BL173062 | Bore | Monitoring Bore | Part 5 Water Act 1912 | RC14 | Perpetuity |
| 20BL173065 | Bore | Monitoring Bore | Part 5 Water Act 1912 | HQ11 | Perpetuity |
| 20BL173063 | Bore | Monitoring Bore | Part 5 Water Act 1912 | RC07, RC08 | Perpetuity |
| 20BL173064 | Bore | Monitoring Bore | Part 5 Water Act 1912 | RC06 | Perpetuity |
| 20BL173069 | Bore | Monitoring Bore | Part 5 Water Act 1912 | RC11 | Perpetuity |
| 20CA201247 | Works Approval | Pumping Plant | Water Management Act 2000 | Associated with WAL965 | Perpetuity |



| LICENCE NUMBER | TYPE OF LICENCE | PURPOSE | LEGISLATION | DESCRIPTION | EXPIRY DATE |
|--|---------------------|---------------------------|---------------------------|---|-------------|
| 20CA212713 | Works Approval | Pumping Plant | Water Management Act 2000 | Associated with WAL36190 | 30/05/2025 |
| 20FW213280 | Flood Work Approval | Levee | Water Management Act 2000 | HVO North – Carrington Levee 5 | 21/09/2027 |
| 20FW213281 Formerly 20CW802613 | Flood Work Approval | Levee | Water Management Act 2000 | HVO South – Barry Levee | 21/09/2027 |
| 20FW213277 Formerly 20CW802603 | Flood Work Approval | Block Dam | Water Management Act 2000 | HVO South – Hobden Gully Levee | 21/09/2027 |
| 20FW213278 Formerly 20CW802604 | Flood Work Approval | Levee | Water Management Act 2000 | HVO North – North Pit Levee 3 | 21/09/2027 |
| 20WA210991 (See WAL 18307) Formerly 20SL050903 | Stream Diversion | Stream Diversion | Water Management Act 2000 | HVO West – Parnells Creek Dam | 09/01/2033 |
| 20WA211427 Formerly 20SL061290 | Stream Diversion | Cutting (Diversion Drain) | Section 10 Water Act 1912 | Pikes Gully Creek Stream Diversion | 07/09/2033 |
| 20WA210985 (See WAL 18327) 20SL042746 | Diversion Works | Industrial | Water Management Act 2000 | HV Loading Point Pump Bayswater Creek | 08/09/2032 |
| 20wa211428 20sl061594 | Stream Diversion | Cutting (Diversion Drain) | Water Management Act 2000 | HVO North – Carrington Stream Diversion | 31/07/2032 |



| LICENCE NUMBER | TYPE OF LICENCE | PURPOSE | LEGISLATION | DESCRIPTION | EXPIRY DATE |
|-------------------------------|---------------------|---------------|---------------------------|-----------------------------------|-------------|
| 20wa201238 (See Wal 962) | Diversion Works | Pumping Plant | Water Management Act 2000 | Hvcpp River Pump | 16/03/2028 |
| 20wa201257 (See Wal 970) | Diversion Works | Pumping Plant | Water Management Act 2000 | HVO South – Lcpp River Pump | Perpetuity |
| 20wa201338 (See Wal 1006) | Diversion Works | Pumping Plant | Water Management Act 2000 | HVO South – Lcpp River Pump | Perpetuity |
| 20wa201501 (See Wal 1070) | Diversion Works | Pumping Plant | Water Management Act 2000 | HVO South – Lcpp River Pump | Perpetuity |
| 20wa201685 (See Wal 13387) | Diversion Works | Pumping Plant | Water Management Act 2000 | HVO West – "Lake Liddell" Licence | Perpetuity |
| 20fw213274 | Flood Work Approval | Levee | Water Management Act 2000 | Riverview | 26/10/2028 |

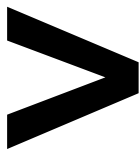


Table 2.14- Water Access Licences

| LICENCE NUMBER | DESCRIPTION | WATER SOURCE | WATER SHARING PLAN | WATER SOURCE – MANAGEMENT ZONE | APPROVED EXTRACTION (ML) |
|----------------|---|--------------|----------------------------|--|------------------------------|
| Wal867 | Comleroi, Farming & Irrigation | Hunter River | Hunter Regulated River Wsp | Zone 2a (Hunter River from Glennies Creek Junction to Wollombi Brook Junction) | 486 |
| Wal962 | HVO North – Hvcpp River Pump – Water Access Licence | Hunter River | Hunter Regulated River Wsp | Zone 1b (Hunter River from Goulburn River Junction to Glennies Creek Junction) | 3,165 |
| Wal969 | HVO South – Former Riverview Pump | Hunter River | Hunter Regulated River Wsp | Zone 1b (Hunter River from Goulburn River Junction to Glennies Creek Junction) | 39 |
| Wal970 | HVO South – Lcpp River Pump – Water Access Licence | Hunter River | Hunter Regulated River Wsp | Zone 2a (Hunter River from Glennies Creek Junction to Wollombi Brook Junction) | 500 |
| Wal1006 | HVO South – Lcpp River Pump – Water Access Licence | Hunter River | Hunter Regulated River Wsp | Zone 2a (Hunter River from Glennies Creek Junction to Wollombi Brook Junction) | 500 |
| Wal1070 | HVO South - Lcpp River Pump – Water Access Licence | Hunter River | Hunter Regulated River Wsp | Zone 2a (Hunter River from Glennies Creek Junction to Wollombi Brook Junction) | 500 |
| Wal13387 | Macquarie Generation Hunter River Pump Station | Hunter River | Hunter Regulated River Wsp | Zone 1b (Hunter River from Goulburn River Junction to Glennies Creek Junction) | 20 |
| Wal 13391 | HVO North – Alluvial Rehabilitation Irrigation. | Hunter River | Hunter Regulated River Wsp | Zone 1b (Hunter River from Goulburn River Junction to Glennies Creek Junction) | 420 (908 MI After Transfers) |



| LICENCE NUMBER | DESCRIPTION | WATER SOURCE | WATER SHARING PLAN | WATER SOURCE – MANAGEMENT ZONE | APPROVED EXTRACTION (ML) |
|----------------|---|-----------------------|---|--|--------------------------|
| Wal18127 | Carrington Bb1 | Hunter River Alluvium | Hunter Unregulated and Alluvial Water Sources Wsp | Hunter Regulated River Alluvial Water Source – Upstream Glennies Creek Management Zone | 383 |
| Wal18158 | Ollenberry | Hunter River Alluvium | Hunter Unregulated and Alluvial Water Sources Wsp | Hunter Regulated River Alluvial Water Source – Upstream Glennies Creek Management Zone | 65 |
| Wal18307 | HVO West – Parnells Creek Dam (Diversion Works By Wash) | Unregulated River | Hunter Unregulated and Alluvial Water Sources Wsp | Jerrys Water Source; Jerrys Management Zone | 500 |
| Wal18327 | Hv Loading Point Pump Bayswater Creek (Diversion Works) | Unregulated River | Hunter Unregulated and Alluvial Water Sources Wsp | Jerrys Water Source; Jerrys Management Zone | 150 |
| Wal23889 | Greenleek | Wollombi Brook | Hunter Unregulated and Alluvial Water Sources Wsp | Low Er Wollombi Brook Water Source | 144 |
| Wal36190 | HVO North, Old Farm Bore | Hunter River Alluvium | Hunter Unregulated and Alluvial Water Sources Wsp | Hunter Regulated River Alluvial Water Source – Jerrys Management Zone | 120 |



1.2.3.3 | HERITAGE PERMITS

The Section 90 Heritage Permits applicable to HVO South are listed in **Table 2.15**.

Table 2.15- Section 90 Permits

| PERMIT NO. | LOCATION DESCRIPTION | AUTHORITY | EXPIRY DATE |
|------------|-----------------------------------|-----------|-----------------|
| C0001890 | Care Agreement | OEH | 3 June 2036 |
| C0002193 | Aboriginal Heritage Impact Permit | OEH | 6 December 2026 |

1.2.3.4 | TAILINGS EMPLACEMENT AREA APPROVALS

Tailings emplacement approvals held for active or un-capped facilities at HVO North are listed in **Table 2.16**. Additionally, a portion of the GCAA-owned Cumnock Void TSF is utilised under agreement by HVO for the storage of tailings from the HCPP.

Table 2.16- Tailings Emplacement Area Approvals

| APPROVAL | APPROVAL DATE | TSF STATUS |
|-------------------------|------------------|--------------------------|
| Central TSF | 17 April 1998 | Inactive |
| South-East TSF | 5 October 2001 | Capped and rehabilitated |
| Bobs Dump TSF – Stage 2 | 23 December 2003 | Inactive |
| North Pit TSF | 13 June 2003 | Inactive |
| Dam 6W TSF | 18 August 2011 | Inactive |
| Carrington In-Pit TSF | 25 January 2017 | Active |



1.3 | LAND OWNERSHIP AND LAND USE

1.3.1 | HISTORIC AND CURRENT

HVO owns the majority of the lands within the existing leases area. A schedule of HVO land ownership on and adjacent to HVO coal leases is attached as (as reproduced from **Appendix A:** of DA 450-10-2003 and PA 06_0261) and is shown on **Figure 3-Land** Ownership.

HVO is situated in a landscape that is characterised by mining land, grazing land, more intensive agriculture on the Hunter River alluvial zone (cropping and dairying) and some private and public woodland (**Figure 4-Current** Land Use). HVO is adjoined by Bayswater Power Station to the north, Ravensworth Operations to the north east, grazing land to the east and west, grazing properties, residences and Mount Thorley Warkworth mining operations to the south east, and United Wambo Open Cut to the south west.

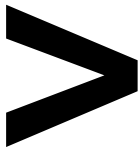
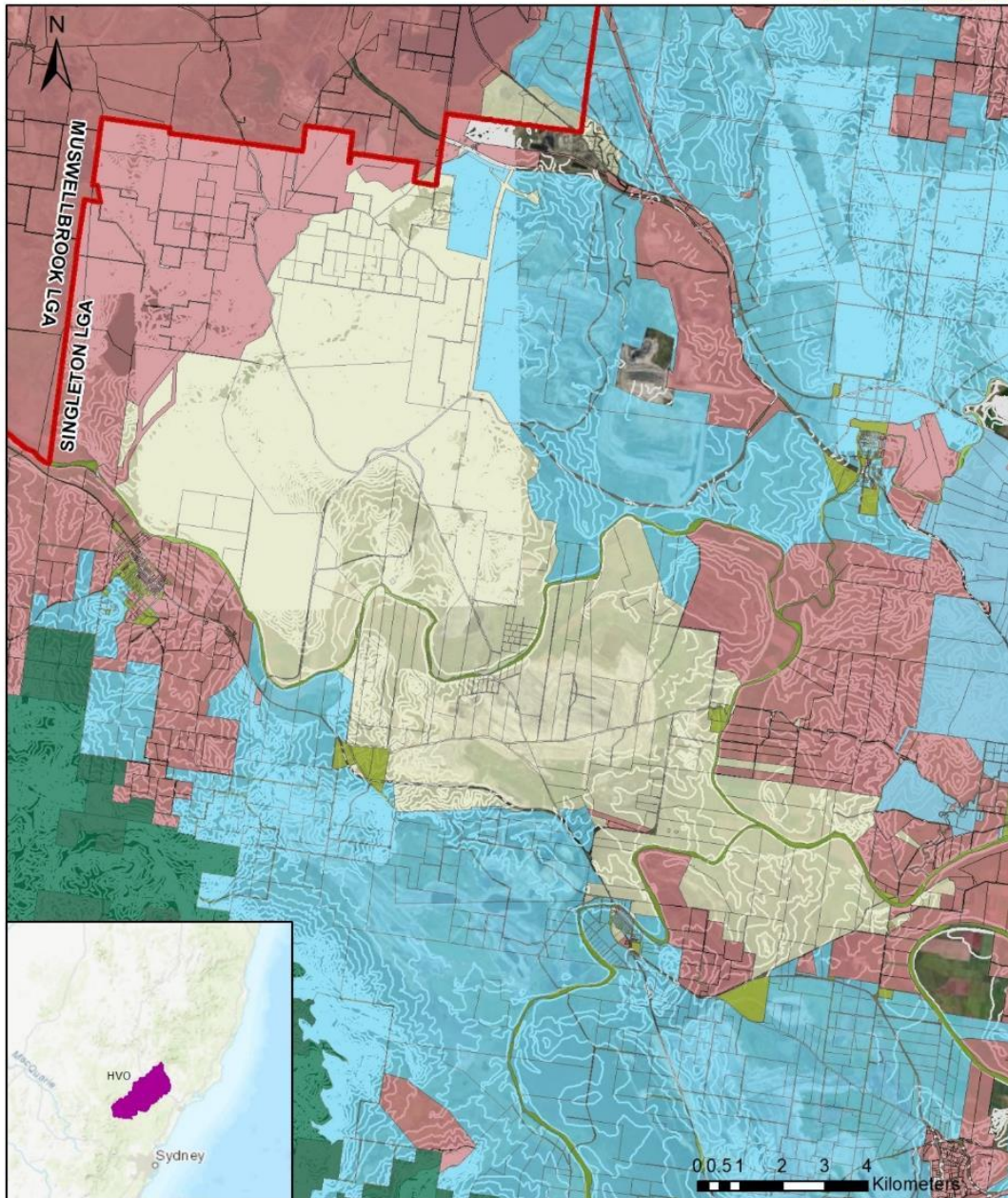


Figure 3-Land Ownership

Hunter Valley Operations

Figure 3 - Land Ownership



Legend

- LGA Boundary
- 10m contour
- HVO Owned Land
- Crown Land
- Mine Owned Land (Other)
- National Park
- Private Land

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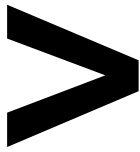
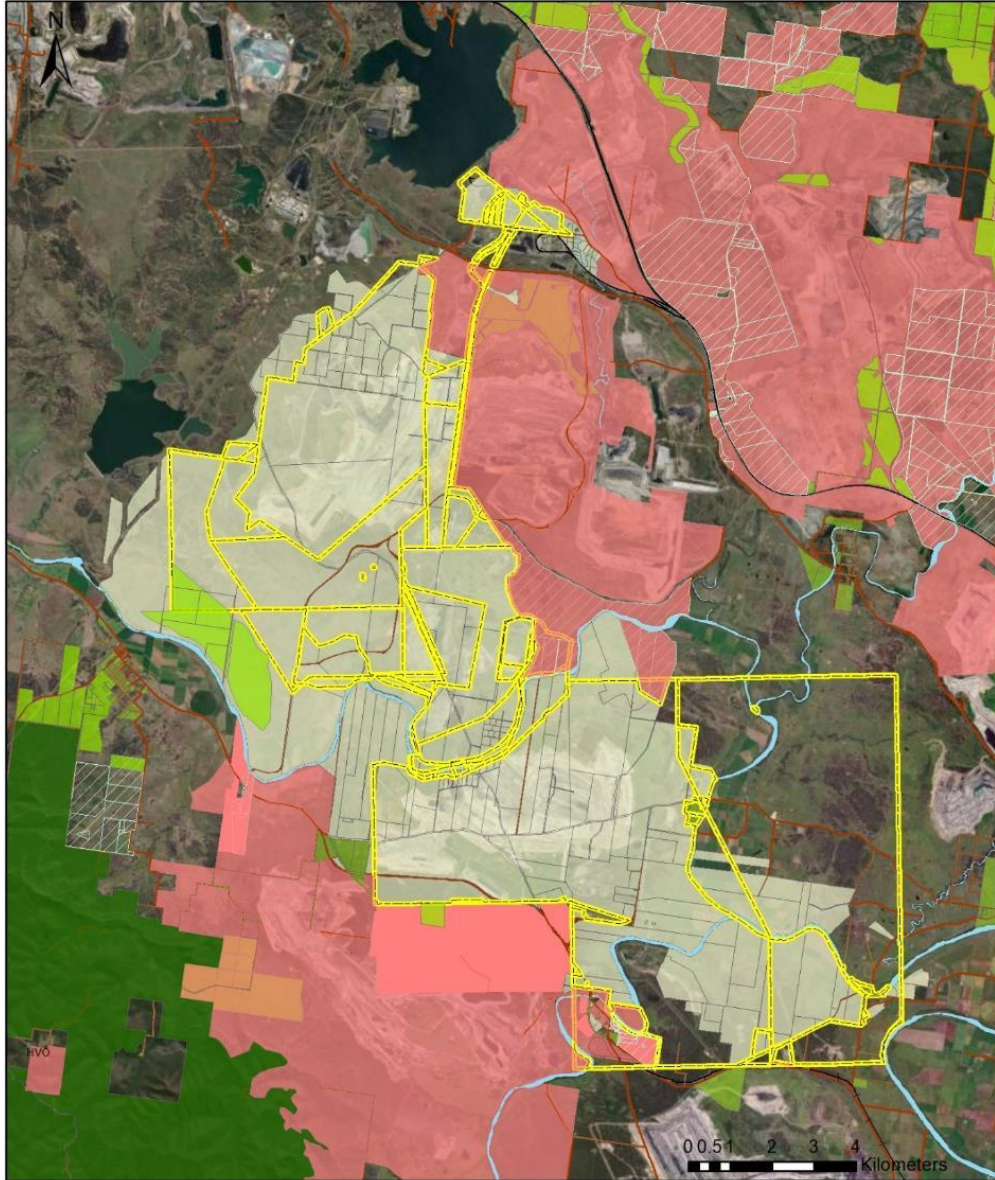


Figure 4-Current Land Use

Hunter Valley Operations

Figure 4 - Current Land Use

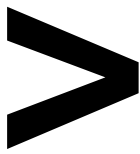


Legend

- HVO Owned Land
- Crown Land
- HVO Mining Leases
- National Park
- Leased Land (agriculture)
- Biodiversity Offsets
- Mine Owned Land (other)
- Major River / Creek

- Railway
- Public Road

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1.3.2 | FINAL LAND USE

The proposed final land use for HVO is discussed in detail in **Section 2** |.

2 | FINAL LAND USE

2.1 | REGULATORY REQUIREMENTS FOR REHABILITATION

The regulatory requirements related to rehabilitation and the final land use for the site are described in **Section 2.2** |

2.2 | FINAL LAND USE STATEMENT

The approved final land use for the operation is a mixture of grazing land and woodland for biodiversity and native habitat.

For HVO North, 70% of rehabilitation will be restored for grazing on native or introduced pastures, which will provide some biodiversity values for native fauna species that are able to persist in grazed or disturbed areas. The remaining 30% of the landscape will be restored to a woodland community with a more diverse native suite of species. This will include overstorey strata to provide habitat and encourage native fauna populations and threatened species that are known to occur, or traverse, in and around HVO.

In regard to HVO South, 60-70% of rehabilitation will be restored for grazing with native or introduced pasture. The remaining 30-40% will be rehabilitated to a woodland community.

Additionally, the Carrington West Wing (CWW) Extension, which was approved in 2013 by Modification 3 of DA 450-10-2003 requires the following (subject to the proposed mining occurring):

- Reinstatement of 65ha of Class II land;
- Reinstatement of 65ha of Class III land; and
- Rehabilitation of 4ha of land that is consistent with the Central Hunter Grey Box Ironbark Woodland community.

Plan 1 in **Appendix A**: provides a conceptual final rehabilitation plan showing the proposed location of these final land uses.

2.3 | FINAL LAND USE AND MINING DOMAINS

2.3.1 | FINAL LAND USE DOMAINS

Final land use domains are defined as land management units characterised by similar final land use objectives. Each final land use domain will require specific decommissioning and rehabilitation methods. The final land use domains have been selected to be consistent with those specified in Form and Way: Rehabilitation management plan for large mines (RR, 2021), and are listed with their descriptions in **Table 2.1**. The final land use domains are shown on **Plans 1 and 2** in **Appendix A**.

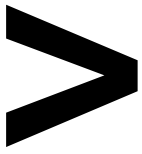


Table 2.1- Final Land Use Domains

| DOMAIN | DESCRIPTION | CODE |
|---------------------------------------|--|-------------|
| Native Ecosystem | <p>Areas To Be Rehabilitated with Woodland Species Commensurate with Adjacent Remnant Vegetation. Approximately 30% (HVO North) And 30-40% (HVO South) Of Mined Land Will Be Returned to Woodland.</p> <p>This Will Also Include a Network of Tree Corridors to Ensure Connectivity of Woodland Community Areas, As Well As 4ha Of Land Consistent with The Central Hunter Grey Box Ironbark Woodland¹.</p> | A |
| Agricultural - Grazing | <p>Areas To Be Rehabilitated with Selected Native and Exotic Grasses and Pasture Species. Approximately 70% (HVO North) And 60-70% (HVO South) Of Mined Land Will Be Returned to Pasture.</p> <p>Includes 65ha Of Class Ii And 65ha Of Class Iii Land¹.</p> | B |
| Water Management Area | <p>A Network of Dams and Surface Water Management Structures Are Planned to Be Retained to Assist in Ongoing Water and Land Management (E.G. Stock Watering).</p> | F |
| Water Storage (Excluding Final Voids) | <p>Two Large Water Storage Dams (Parnells Dam and Lake James) Are Proposed to Remain in The Final Landform.</p> | G |
| Final Void | <p>Three Final Voids Are Planned to Remain in Place at Completion of Mining at HVO North. Two Separate Voids Will Remain in West Pit and A Single Final Void in Carrington Pit.</p> <p>One Final Void Is Planned to Remain in Place at HVO South Following the Cessation of Mining. This Is Located in The South-Western Corner of The Riverview Pit.</p> <p>Final Voids Will Create Permanent Water Bodies. Landforms Above Pit Water Level Will Be Vegetated Where Practical with Woodland Vegetation Communities.</p> | J |

¹ Subject to proposed mining occurring and triggering this rehabilitation requirement

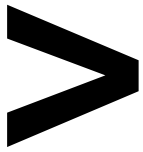


2.3.2 | MINING DOMAINS

Mining domains have been defined as the set of discrete areas that have a particular operational or functional purpose. All areas previously disturbed by mining have been assigned to an appropriate mining domain (as per Form and Way: Rehabilitation management plan for large mines), as listed in **Table 2.2**. The current footprint of each mining domain is also depicted on **Plan 3 -Appendix A**.

Table 2.2- Mining Domains

| DOMAIN | DESCRIPTION | CODE |
|------------------------------|--|------|
| Infrastructure | Existing infrastructure and facilities including the pit top, workshops, administration buildings, access roads, haul roads, hardstand/laydown areas, topsoil stockpiles, unsealed boreholes and monitoring equipment. | 1 |
| Tailings Storage Facility | The footprint of current tailings emplacement areas (fine rejects). | 2 |
| Water Management Area | This domain includes the network of dams and associated water management structures at HVO. | 3 |
| Overburden Emplacement Areas | The footprint of all in-pit and out of pit waste rock emplacements (overburden and coarse rejects). | 4 |
| Active Mining | The footprint of the HVO active mining areas, including: Pre-strip areas ahead of mining; Active mining areas; and Voids and inactive in-pit areas prior to commencement of backfilling. | 5 |
| Beneficiation Facility | The footprint of the coal washing facilities, and associated infrastructure. | 7 |
| Other | Includes all areas that don't fall into the above categories including: Existing pasture and woodland rehabilitation areas; Temporary rehabilitation areas; and Topsoil stockpiles. | 8 |



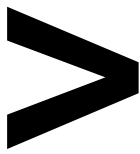
3 | REHABILITATION RISK ASSESSMENT

Risks to achieving rehabilitation completion have been identified and assessed in accordance with the GCAA [Risk Management Standard \(GCAA-625378177-2844\)](#) and Clause 7 of Schedule 8A of the Mining Regulation 2016.

The first rehabilitation risk assessment for HVO was undertaken on 7 February 2022 and was used in the development of this RMP. A total of 37 risks were identified during the process of the risk assessment. Of these risks, 31 were ranked as low and six were ranked as medium risks. There were no risks identified as being high risk to the establishment of rehabilitation. The six medium risks were:

- Limited biological resources available for salvage;
- Soil (topsoil and/or subsoil) deficit for rehabilitation activities;
- Soils inadequate to support revegetation or agricultural land capability;
- Weed infestation limiting target species / community;
- Weather and climatic influences (drought, flood) during initial establishment; and
- Insufficient establishment of target species and limited species diversity.

A table outlining all of the risks identified, their risk ranking, controls and where the controls are included in this RMP is included as **Appendix C**.



4 | REHABILITATION OBJECTIVES AND REHABILITATION COMPLETION CRITERIA

4.1 | REHABILITATION OBJECTIVES

Rehabilitation objectives for the site were initially developed during the environmental assessment and approval phases, before being refined during the operational phase and being approved by the NSW Resources Regulator in August 2024. The rehabilitation objectives stated in each of the Development Consents (and on which the approved objectives are based) are displayed in **Table 4.1**. The objectives approved by the NSW Resources Regulator in September 2024) are displayed in **Table 4.2**.

Table 4.1- Development Consent Rehabilitation Objectives

| AREA / DOMAIN | REHABILITATION OBJECTIVE |
|--|--|
| HVO North | |
| Mine Site (As A Whole), Including the Final Void | Safe, Stable & Non-Polluting |
| Carrington West Wing Revised Proposed Extension Area | Reinstatement Of Rural Land Capability Agricultural Land Values to Be Measured As: 65.0 Hectares of Class II And 65.0 Hectares |
| Surface Infrastructure | To Be Decommissioned and Removed, Unless DRE Agrees Otherwise |
| Community | Ensure Public Safety Minimise The Adverse Socio-Economic Effects Associated with Mine Closure |
| HVO South | |
| All Areas of The Site Affected by The Development | Safe, Stable and Non-Polluting Fit For the Intended Post-Mining Land Use/S |
| Areas Proposed for Native Ecosystem Re-Establishment | Establish Self-Sustaining Native Woodland Ecosystems Characteristic of Vegetation Communities Found in The Local Area |
| Areas Proposed for Agricultural Land | Establish/Restore Grassland Areas to Support Sustainable Agricultural Activities Achieve The Nominated Land Capability Classification |



| AREA / DOMAIN | REHABILITATION OBJECTIVE |
|---|--|
| Final Landform | <p>Stable and sustainable for the intended post-mining land use/s</p> <p>Integrated with surrounding natural landforms</p> <p>Incorporate micro-relief and drainage lines that are consistent with surrounding topography, to the greatest extent practicable</p> <p>Maximise surface water drainage to the natural environment (excluding final void catchment)</p> <p>Protect and maintain, to the greatest extent practicable, existing views of the Wollemi National Park and associated escarpments for residences of Maison Dieu</p> |
| Final void | <p>Designed as long-term groundwater sink to maximise ground water flows across backfilled pits to the final void</p> <p>Minimise to the greatest extent practicable:</p> <ul style="list-style-type: none"> the size and depth of final voids; the drainage catchment of final voids; any high wall instability risk; and the risk of flood interaction |
| Surface infrastructure of the development | Decommissioned and removed, unless the Resources Regulator agrees otherwise |
| Rehabilitation materials | Materials from areas disturbed under this consent (including topsoils, substrates and seeds) are to be recovered, managed and used as rehabilitation resources, to the greatest extent practicable |
| Water quality | <p>Water retained on the site is fit for the intended post-mining land use/s</p> <p>Water discharged from the site is suitable for receiving waters and fit for aquatic ecology and riparian vegetation</p> |
| Community | <p>Ensure public safety</p> <p>Minimise adverse socio-economic effects associated with mine closure</p> |



Table 4.2- NSW Resources Regulator Approved Rehabilitation Objectives

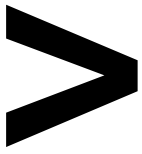
| REHABILITATION OBJECTIVE CATEGORY | REHABILITATION OBJECTIVE | SPATIAL REFERENCES |
|-----------------------------------|--|--|
| Removal of Infrastructure | All infrastructure that is not required as part of the final land use will be removed. | A1, B1, F1 |
| Retention of Infrastructure | All infrastructure that is to remain as part of the final land use is safe and has relevant approvals in place. | A1, B1, F1 |
| Land Contamination | There is no residual soil contamination on site that is incompatible with the final land use or that poses a threat of environmental harm. | A1, A2, A4, B1, B2, B3, B4, B7, F1, F3, F4, F5, J2, J5 |
| Landform Stability | The final landform is stable and does not present a risk of environmental harm downstream/downslope of the site or a safety risk to the public/stock/native fauna. | A1, A2, A4, B1, B2, B3, B4, B7, F1, F3, F4, F5, J2, J5 |
| Bushfire | The risk of bushfire and impacts to the community, environment and infrastructure has been addressed as part of rehabilitation. | A1, A2, A4, B1, B2, B3, B4, B7, F1, F3, F4, F5, J2, J5 |
| Surface Water | Runoff water quality is similar to, or better than the pre-mining disturbance runoff water quality. | A1, A2, A4, B1, B2, B3, B4, B7, F1, F3, F4, F5, J2, J5 |
| Groundwater | Groundwater quality and groundwater regime are within range as predicted in environmental assessment and Water Management Plan. | A1, A2, A4, B1, B2, B3, B4, B7, F1, F3, F4, F5, J2, J5 |
| | The risk to important groundwater assets (GDE's, Alluvial Aquifers, Landholder bores) has been addressed by the rehabilitation. | |
| Water Approvals | Structures that take water are appropriately licensed. | A1, A2, A4, B1, B2, B3, B4, B7, F1, F3, F4, F5, J2, J5 |
| Ecological Rehabilitation | Approximately 30% (HVO North) and 30-40% (HVO South) of mined land re-established as woodland areas. | A1, A2, A4 |
| | Establish a minimum of 4ha of Central Hunter Grey Box Ironbark Woodland and 0.14ha of Swamp Oak Floodplain Forest. | A1, A2, A4 |



| REHABILITATION OBJECTIVE CATEGORY | REHABILITATION OBJECTIVE | SPATIAL REFERENCES |
|--|---|--------------------|
| | The vegetation composition of the rehabilitation is recognisable as or is trending towards Swamp Oak Floodplain Forest. | A1 |
| | The vegetation composition of the rehabilitation is recognisable as or is trending towards Central Hunter Grey Box Ironbark Woodland. | A1, A2, A4 |
| | The vegetation structure of the rehabilitation is recognisable as or is trending towards Swamp Oak Floodplain Forest. | A1 |
| | The vegetation structure of the rehabilitation is recognisable as or is trending towards Central Hunter Grey Box Ironbark Woodland. | A1, A2, A4 |
| | Levels of ecosystem function have been established that demonstrate the rehabilitation is self-sustainable (Swamp Oak Floodplain Forest). | A1 |
| | Levels of ecosystem function have been established that demonstrate the rehabilitation is self-sustainable (Central Hunter Grey Box Ironbark Woodland). | A1, A2, A4 |
| | The vegetation composition of the native woodland rehabilitation contains species that are commensurate with the Central Hunter Grey Box - Ironbark Woodland and Central Hunter Ironbark - Spotted Gum - Grey Box Forest communities found in the local area. | A1, A2, A4 |
| | The vegetation structure of the native woodland rehabilitation is similar to that of the Central Hunter Grey Box - Ironbark Woodland and Central Hunter Ironbark - Spotted Gum - Grey Box Forest communities found in the local area. | A1, A2, A4 |
| | Levels of ecosystem function have been established that demonstrate the rehabilitation is self-sustainable. | A1, A2, A4 |
| Habitat features (e.g. logs, rocks and nest boxes), including structures suitable for native species are incorporated into rehabilitation areas at required densities. | A1, A2, A4 | |



| REHABILITATION OBJECTIVE CATEGORY | REHABILITATION OBJECTIVE | SPATIAL REFERENCES |
|--------------------------------------|---|--------------------|
| Agricultural Revegetation | Habitat corridors are established and consistent with target vegetation community compositions in final rehabilitation. | A1, A2, A4 |
| | Monitoring confirms target native fauna species are recorded utilising rehabilitation areas or habitat suitable for target species is present | A1, A2, A4 |
| | Approximately 70% (HVO North) and 60-70% (HVO South) of mined land re-established as stable, productive pasture areas. | B1, B2, B3, B4, B7 |
| | Revegetation is sustainable for the long term and only requires maintenance that is consistent with the intended final land use. | B1, B2, B3, B4, B7 |
| | Land use capability is capable of supporting the target agricultural land use of Class 1. | B4 |
| | Land use capability is capable of supporting the target agricultural land use of Class 2. | B4 |
| | Land use capability is capable of supporting the target agricultural land use of Class 3. | B4 |
| | Land use capability is capable of supporting the target agricultural land use of minimum of Class 6. | B1, B2, B3, B4, B7 |



4.2 | REHABILITATION COMPLETION CRITERIA

The completion criteria are objective target levels or values assigned to a variety of indicators (i.e. slope, species diversity, groundcover etc.), which can be measured to demonstrate progress and ultimate success of rehabilitation. They provide a defined end point, at which point in time rehabilitation can be deemed successful and the lease relinquishment process can proceed.

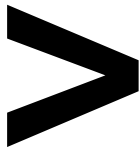
The preliminary rehabilitation completion criteria for HVO are provided in **Appendix D**. Completion criteria have been developed considering site specific issues, objectives and regulatory requirements (refer **Section 2.1**). It is envisaged that HVO will submit completion criteria to the Resources Regulator for approval in 2025.

4.3 | STAKEHOLDER CONSULTATION

Consultation on rehabilitation objectives and completion criteria for HVO's operations has been undertaken over many years and for numerous purposes, including:

- Consultation for the HVO South Environmental Assessment (Modification 5)
- Consultation for the HVO North Environmental Assessment (Modification 7)
- Consultation with the RR on the HVO Mining Operations Plan 2020-2022
- Consultation for the RMP

A brief outline of this consultation is provided in the sections below in **Table 4.3**. A copy of relevant consultation evidence can be found in **Appendix F**:



4.3.1 | ENVIRONMENTAL ASSESSMENTS

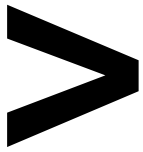
Table 4.3- Environmental Assessment Summary of Consultation

| GOVERNMENT AGENCY | SUMMARY OF CONSULTATION |
|--|--|
| HVO South Modification 5 Environmental Assessment | |
| DPIE | Three meetings were held in March and September 2015 and April 2016. Items discussed during the consultation process included a project briefing, planning pathway and matters requiring consideration. |
| Community | Community consultation included meetings with the HVO CCC, 25 near neighbors and two open community BBQ events. Matters raised during this consultation relevant to the RMP included visual amenity and the final landform (specifically, the height of overburden emplacements relative to nearby operations) and the mining of existing rehabilitation. These issues were considered were addressed within the Modification 5 Environmental Assessment document. |
| HVO North Modification 6 Environmental Assessment | |
| DPIE | Two meetings held in September and October 2016 which included discussion on the preferred final land use |
| HVO North Modification 4 Environmental Assessment | |
| DPIE | One meeting in July 2012 to discuss a project briefing, the need to document alternatives considered and additional key matters requiring consideration. |
| DRE | Two meetings held in July and December 2012 regarding fine reject management and the sites rehabilitation strategy |

A copy of the 2022 RMP has been sent to relevant stakeholders to meet the consultation requirements of:

- Schedule 2, Condition 15 of PA 06_0261;
- Schedule 3, Condition 36 (b) of PA 06_0261;
- Schedule 2, Condition 15 of DA 450-10-2003; and
- Schedule 3, Condition 62C of DA 450-10-2003.

Stakeholders have had the chance to comment on the post mining land use, rehabilitation objectives and completion criteria.



4.3.2 | HVO MOP

Representatives from HVO, SLR and the RR met to discuss the development of the previous Mine Operations Plan (MOP) on 24 October 2018. On 12 June 2020, HVO requested approval from the Secretary to undertake targeted consultation with regulators during the preparation of this MOP. The DPE approved this request on 6 October 2020 given that the MOP did not involve material changes to rehabilitation, disturbance or landforms. The DPE required that the MOP be prepared in consultation with the Resources Regulator.

HVO has previously met with Singleton Council who expressed that their concerns lie with ensuring sufficient detail regarding the identified final land use within the various domains. This is consistent with discussions that HVO has had with the Resource Regulator and, as such, specific rehabilitation objectives and completion criteria that clearly define the final land uses were emphasised in the previous MOP and have also been included in this RMP.

4.3.3 | RMP

The initial version of this RMP was developed throughout 2022 and included consultation with all relevant government agencies referenced in the development consents as outlined in the table below in



Table 4.4- Summary of Consultation on RMP.

This current version (October 2024) was updated to include the Rehabilitation Objectives (ROBJs) approved by the NSW Resources Regulator in August 2024 as well as minor updates to reflect administrative feedback from the NSW RR revegetation Targeted Assessment Program (TAP) completed in June 2024. In accordance with requirements in Schedule 8A of the Mining Regulation HVO is required to update the RMP following approval of Rehabilitation Objectives. Due to the cause and nature of changes in this version, further consultation was not undertaken with other Agencies and Stakeholders.

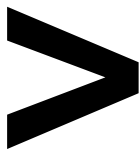


Table 4.4- Summary of Consultation on RMP

| GOVERNMENT AGENCY | SUMMARY OF CONSULTATION | ACTIONS BY HVO |
|--------------------------|---|--|
| Dpe Water | <p>Copy of RMP provided to DPE Water via DPE Portal 5 July 2022. DPE water consultation advice:</p> <p>Final RMP to be made publicly available on external website.</p> <p>Ongoing water take is quantified and complies with relevant licensing.</p> <p>Aquifer interference and groundwater impacts are minimised.</p> <p>Monitoring and review program is completed to ensure rehabilitation outcomes are met.</p> | <p>Appendix F of this document includes consultation evidence.</p> <p>The final RMP will be made electronically available on the HVO website as per previous versions.</p> <p>Water take / discharge and sharing is detailed within HVO's currently approved Water Management Plan dated 27 July 2018. This plan also details the site's water management system.</p> <p>Groundwater monitoring is completed as per the site's current Groundwater Management Plan which details any impacts on groundwater or private groundwater bores.</p> <p>An annual rehabilitation monitoring program is completed as per Section 8 of this document.</p> |
| Bcd (Previously Oeh) | Copy of RMP provided to BCD via DPE Portal 5 July 2022. | Nil matters raised by OEH, no response received. |
| Council | Copy of RMP provided to Council via DPE Portal 5 July 2022. | Nil matters raised by Council, no response received. |
| Ccc | Copy of RMP provided to CCC members via email 5 July 2022. | Nil matters raised by CCC. |
| Clwd (Crown Lands) | Copy of RMP provided to Crown Lands via DPE Portal 5 July 2022. | Nil matters raised by Crown Lands. |



| GOVERNMENT AGENCY | SUMMARY OF CONSULTATION | ACTIONS BY HVO |
|-------------------|--|--|
| NSW RR | <p>Rehabilitation Objectives Statement (ROBJ0001092) submitted to the Resources Regulator in July 2022 in accordance with ‘Form and way: Rehabilitation objectives, rehabilitation completion criteria and final landform and rehabilitation plan for large mines’.</p> <p>Feedback was received from the RR in in December 2022, December 2023 and July 2024.</p> | <p>ROBJ0001092 was updated and resubmitted to the RR in February 2023, February 2024 and August 2024 to reflect feedback provided by the RR.</p> <p>The Rehabilitation Objectives were approved by the RR in September 2024 and approved objectives have been updated in this RMP (Oct 2024) .</p> |
| | <p>Final landform and Rehabilitation Plan (FLRP0001076) submitted to the RR in July 2023 in accordance with Form and way: Rehabilitation objectives, rehabilitation completion criteria and final landform and rehabilitation plan for large mines’.</p> <p>Feedback was provided by the RR in December 2022 and December 2023.</p> | <p>FLRP0001076 was updated and resubmitted to the RR in February 2023 and February 2024 to reflect provided by the RR.</p> <p>This RMP will be updated upon the acceptance of FLRP0001076 by the RR.</p> |
| DPHI | <p>HVO South uploaded to NSW Major Projects Planning Portal 4th August 2022 Portal reference: MP06-0261-PA-100.</p> <p>HVO North uploaded to NSW Major Projects Planning Portal 4th August 2022. Portal reference: DA450-10-2003-PA-65.</p> | <p>Response received in June 2023 stating DPHI had no feedback on RMP.</p> |
| | <p>RMP updated to include consultation evidence (as required by an audit finding) and resubmitted to the Major Projects Planning Portal on the 11th of August 2023. Reference MP06_0261-PA-13.</p> | <p>Response not yet received from DPHI.</p> |



5 | FINAL LANDFORM AND REHABILITATION PLAN

In accordance with the requirements of the Form and Way: Rehabilitation Objectives, Rehabilitation Completion Criteria and Final Landform and Rehabilitation Plan for Large Mine (NSWRR, 2021), two Final Landform and Rehabilitation Plans (**Plans 1 and 2, Appendix A:**) have been prepared to show the proposed final land use and final landform at the end of mine life.

Final landform slopes in West Pit will vary according to erosion hazard, stability and drainage requirements. Maximum external slopes will be less than 10°. Internal slopes may be steepened to grades up to 18° (with regulatory approval). Slopes above 10° would typically be covered by woodland. Final landforms at Carrington Pit, CWW Extension, North Pit and the Alluvial Lands will reflect pre mining landscapes of undulating hills, and flat and gently sloping areas. The rehabilitation objective with DA 450-10-2003 requires the mine site to be safe, stable and non-polluting.

The proposed final landform for HVO North will include three final voids across West Pit North, West Pit South, and Carrington and operating as a mix of evaporative sinks and pit lakes. HVO South will include an evaporative basin in the south-western corner of the Deep Cheshunt Pit (currently Riverview Pit).

HVO South will incorporate micro-relief and natural landform drainage lines that are consistent with surrounding topography and the approved final landform, noting that historical rehabilitation areas were constructed using traditional landforms and slopes in accordance with the approvals applicable at the time.

6 | REHABILITATION IMPLEMENTATION

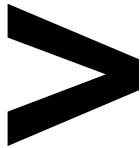
6.1 | LIFE OF MINE REHABILITATION SCHEDULE

All areas disturbed as part of the operation will be progressively rehabilitated throughout the life of the mine. Each year HVO prepares an [Annual Rehabilitation and Closure Plan](#) which identifies all available rehabilitation and required closure / decommissioning activities.

Progressive rehabilitation includes the decommissioning and rehabilitation of tailings storage facilities. The status and proposed decommissioning schedule for each of the remaining storages is provided in **Table 6.1**.

Table 6.1- Tailings Storage Facility Rehabilitation Schedule

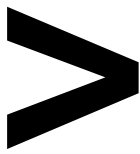
| SITE | STATUS | AVERAGE DEPTH (M) | STORAGE (MM ³) AND VOLUME (ML) | START | FINISH | ESTIMATED CAPPING VOLUME (KBCM) | CAPPING SOURCE | ESTIMATED REHABILITATION TIMEFRAME |
|---------------------------------------|--|-------------------|--|----------|----------|---------------------------------|--------------------------------------|------------------------------------|
| Bob's Dump Tsf | Inactive Capping in progress | 8 | 1.84 Mm ³ | 2001 | Dec 2012 | 1,000 | Mitchell and Wilton Pits | Est. 2024-2026 |
| Central Tsf | Inactive | 12 | 1.9 Mm ³ | 2001 | Mar 2009 | 500 | Carrington out of pit dump | Est. 2033-2035 |
| Dam 6 Tsf (Stage 2) | Inactive (full, consolidating) | 24 | 4.4 Mm ³ | Jan 2013 | Dec 2021 | 1,000 | Mitchell and Wilton Pits, stockpiled | Est. 2031-2035 |
| North Void Tsf | Inactive (consolidation, void filling permitted annually) | 26 | 19.5 Mm ³ | Jan 2004 | Feb 2019 | 5,000 | Carrington out of pit dump | Est. 2030-2040 |
| Carrington In-Pit | Active | 30 | 11.83Mm ³ | Feb 2019 | Mar 2030 | 4,000 | Carrington out of pit dump | Est. 2038-2040 |
| Lemington 1 Tsf (Cell A&B) | Capped and Rehabilitated | | | | | | | |



| SITE | STATUS | AVERAGE DEPTH (M) | STORAGE (MM ³) AND VOLUME (ML) | START | FINISH | ESTIMATED CAPPING VOLUME (KBCM) | CAPPING SOURCE | ESTIMATED REHABILITATION TIMEFRAME |
|----------------------------|--------------------------|-------------------|--|-------|--------|---------------------------------|----------------|------------------------------------|
| Lemington 4 Tsf (Cell A&B) | Capped and Rehabilitated | | | | | | | |
| Eastern Tsf | Capped and Rehabilitated | | | | | | | |
| Western Tsf (Cell A&B) | Capped and Rehabilitated | | | | | | | |
| Lemington 2 | Capped and Rehabilitated | | | | | | | |
| Lemington 3 | Capped and Rehabilitated | | | | | | | |
| Lemington 5 | Capped and Rehabilitated | | | | | | | |
| Howick Tsf | Capped and Rehabilitated | | | | | | | |
| Pykes Gully Tsf | Capped and Rehabilitated | | | | | | | |



| SITE | STATUS | AVERAGE DEPTH (M) | STORAGE (MM ³) AND VOLUME (ML) | START | FINISH | ESTIMATED CAPPING VOLUME (KBCM) | CAPPING SOURCE | ESTIMATED REHABILITATION TIMEFRAME |
|----------------|--------------------------|-------------------|--|-------|--------|---------------------------------|----------------|------------------------------------|
| South East Tsf | Capped and Rehabilitated | | | | | | | |



Further details regarding the tailings storage facilities is provided in the HVO [Fine Reject Management Strategy](#). Additionally, HVO undertakes an annual closure and environment risk assessment which identifies any emerging tailings risks and the appropriate critical controls required.

The proposed rehabilitation schedule for the life of the mine is outlined on **Plans 3 – 9** in **Appendix A**: It should be noted that this rehabilitation schedule is based on the current approved mining timeframes in DA 450-10-2003 and PA 06-0261. HVO is currently developing a continuation project which if approved will extend both mining and rehabilitation activities beyond these dates and will be reflected in future updates to this RMP.

6.2 | PHASES OF REHABILITATION AND GENERAL METHODOLOGIES

The ultimate rehabilitation objective for HVO is to create stable, non-polluting post mining landforms that are cognisant of site constraints and allow the achievement of the agreed post mining land uses. This will be achieved by demonstrating completion of a series of conceptual phases of rehabilitation which are described as:

- a. Active Mining – stripping and salvaging, stockpiling and ongoing management of topsoil resources including testing and characterisation and weed management;
- b. Decommissioning – decommissioning of all on-site infrastructure, including the CPP’s, administration buildings and train loading facilities; removal of haul road, rail crossings and hard stand areas, the completion of contamination studies for relevant areas and subsequent decontamination where required, removal of hazardous materials;
- c. Landform Establishment – incorporates slope, aspect, drainage, substrate material characterisation and morphology;
- d. Growth Medium Development – incorporates physical, chemical and biological components of the growing media and ameliorants that are used to optimise the potential of the media to support the preferred vegetative cover;
- e. Ecosystem and Land Use Establishment – incorporates revegetating lands, habitat augmentation, species selection, species presence and growth together with weed and pest animal control /management and establishment of flora;
- f. Ecosystem and Land Use Sustainability – incorporates components of floristic structure, nutrient cycling recruitment and recovery, community structure and function which are the key elements of a sustainable landscape; and
- g. Land Relinquishment – completion criteria for rehabilitation are met and the land is determined to be suitable to be relinquished from the mining tenement.

6.2.1 | ACTIVE MINING

Environmental mitigation and management strategies will be implemented during the active phase of the operation to minimise environmental impacts. A number of activities will be undertaken during the active mining phase which will be specifically aimed at enhancing rehabilitation outcomes. Activities undertaken in this regard are summarised below.



6.2.1.1 | TOPSOIL MANAGEMENT

6.2.1.1.1 | TOPSOIL STRIPPING

Topsoil will be stripped and salvaged correctly to maximise its value for re-use in rehabilitation. Where possible, the topsoil is directly transported from stripping to rehabilitation areas. If this is not possible, topsoil is stockpiled for later reuse. Topsoils are also characterized and stripped and stockpiled separately, where possible, to ensure re-use on appropriate rehabilitation areas (e.g. pasture topsoil is used on pasture rehabilitation).

Areas that are planned to be mined are stripped of soil prior to commence of mining. Excessive advance clearing and soil removal is kept to a minimum to reduce dust generation and potential impacts on fauna species. However, this is balanced with clearing a large enough area to aid flexibility in the scheduling of stripping activities to enable works to occur in favourable conditions and outside of fauna breeding periods. Soil is stripped using appropriately sized earthmoving equipment, generally bulldozers. Prior to stripping of soil, appropriate sediment controls are installed to prevent off-site loss of soil sediments.

6.2.1.1.2 | SOIL MANAGEMENT AND HANDLING

Stripped topsoil and subsoil need to be managed to prevent erosion and weed infestation, and to ensure that the maximum soil reserves are retained for reuse during rehabilitation works.

Where feasible, soil is transferred directly from stripping to re-spreading operations, eliminating the need for storage. However, mine scheduling dictates that soil storage will be necessary on occasion for extended periods. Where stockpiling is required, the following principles are sought to be adopted:

- stockpiles are preferentially located away from heavily trafficked or active mining areas, watercourses and are placed on areas of flat topography or along the contour to minimise erosion;
- soils are stockpiled separately according to source, nature and history, and characterisation, and records maintained;
- soil stockpiles are identified, volume recorded, and management inspections are undertaken;
- stockpiles are constructed to a height of approximately 3 m, or less;
- where necessary and/or practical, bunding, sediment fencing, or other appropriate sediment controls are installed around the base of the stockpile to minimise soil loss;
- stockpiles are sown with cover crop to help maintain topsoil viability and minimise erosion and weed infestation if not being reused for prolonged periods; and
- topsoil stockpiles are scalped, if necessary, prior to re-spreading onto rehabilitation areas to prevent the spread of weed seed into new rehabilitation.

6.2.1.1.3 | SOIL TREATMENT

Where topsoil quality data is not available, soil testing is undertaken to inform if soil treatment is required. Soil ameliorants, such as gypsum, compost, and fertilisers are applied where required to improve soil condition. The ameliorant type and application rate are confirmed by characterisation testing of topsoils at appropriate times during the stripping and reuse cycle and, generally, reference to specialist agronomic advice.



Where appropriate topsoil resources are not available, alternate growth mediums such as subsoils and mine spoil may be used, typically with amelioration and informed by characterisation of the planned growth medium. Organics such as green waste or composted municipal waste materials may be used in place of chemical fertilisers to enhance soil nutrient and organic levels and improve soil or growth medium structure. Revegetation can then be undertaken progressively as surface preparation and amelioration is completed.

6.2.1.2 | FLORA AND FUANA

Clearing protocols are implemented before and during disturbance activities to mitigate impacts and to salvage appropriate resources, namely the Ground Disturbance Permit (GDP) approval process. The GDP process ensure that:

- key stakeholders are notified of work which will disturb land;
- works are assessed for potential impacts (on threatened and non-threatened flora and fauna);
- appropriate controls are identified and implemented, including delineation of disturbance areas; and
- resources that may be useful for rehabilitation (topsoil, seeds, hollow trees, woody debris) are identified and salvaged.

6.2.1.3 | ROCK AND OVERBURDEN EMPLACEMENT

All overburden and interburden material generated from mining operations at HVO is road hauled on current emplacement areas behind the active mining operation. Historical HVO has also direct placed overburden using a dragline both these ceased operation in 2023.

All mining waste emplacements will be reshaped as required to construct the approved final landform. The method and height of emplacement areas will be in accordance with the final approved landforms and HVO procedures for dumping. The heights of emplacement at HVO will be generally in accordance with the proposed final landform levels and as shown on **Plan 2: Final Landform Contours - Appendix A:**

6.2.1.4 | WASTE MANAGEMENT

Recycling and disposal of waste at HVO focuses on the correct handling, storage, segregation and reuse of materials. HVO recycles waste wherever possible, to reduce the amount of waste destined for landfill.

Waste will be managed in accordance with the following waste management hierarchy principles:

- Waste avoidance;
- Waste re-use;
- Waste recycling; and
- Waste removal and disposal.

6.2.1.5 | GEOLOGY AND GOECHEMISTRY

HVO extract coal seams within the Permian aged Jerrys Plains Subgroup of the Hunter Coalfields. The Jerrys Plains Subgroup comprises economic coal seams, along with overburden and interburden consisting of sandstone, siltstone, tuffaceous mudstone and conglomerate. The Permian coal measures are stratified (layered) sequences that have undergone deformation resulting in strata dipping at a shallow angle of 2° to 5° to the south-west at HVO North. Regionally, the stratigraphy dips in a general south-westerly direction, towards the Hunter River from Carrington Pit void.



Overburden material varies in physical and geochemical properties, in accordance with the geology of the area and the extent of exposure to weathering. Chemical analysis of HVO spoil material indicates that, in general, the overburden is slightly sodic and alkaline, but within acceptable ranges for use as a plant growth medium.

Further discussion on the potential impacts of geology and geochemistry on the rehabilitation (spontaneous combustion and acid mine drainage) is provided in the sections below.

6.2.1.6 | MATERIAL PRONE TO SPONTANEOUS COMBUSTION

HVO has procedures for managing spontaneous combustion in mine and rehabilitation areas. The objectives of HVO spontaneous combustion management are to:

- Ensure that spontaneous combustion outbreaks are minimised;
- Endeavour to identify potential areas that may be prone to spontaneous combustion before an outbreak occurs;
- Ensure that all carbonaceous material is placed in such a manner that reduces the possible occurrence of spontaneous combustion; and
- Where longer term spontaneous combustion problems occur, develop and implement a management plan to address until resolved

Any spontaneous combustion will be managed in accordance with the [Spontaneous Combustion Principal Hazard Management Plan \(HVO 2021\)](#).

6.2.1.7 | MATERIAL PRONE TO GENERATING ACID MINE DRAINAGE

Mineral wastes may pose an environmental risk because of acid drainage, however the potential for acid mine drainage (AMD) at HVO is low. The EIS prepared by EMGA (2010) as part of Mod 3 to DA 450-10-2003 states that as with most Hunter Valley coal seams, the coal measures within the site have a high buffering capacity and relatively low sulphur content, so there is no significant risk from acid rock drainage.

The Archerfield Sandstone, tailings and coarse rejects are materials most likely to present the highest AMD risk and are managed in accordance with internal mine planning procedures.

Existing management processes are in place to ensure AMD material is managed appropriately. In accordance with Schedule 3, Condition 62A of DA 450-10-2003, potentially acid forming interburden material is not emplaced at elevations within the pit shell or out of pit emplacement areas where they may promote acid or sulphate species generation and migration beyond the pit shell or out of pit emplacement areas.

6.2.1.8 | ORE BENEFICIATION WASTE MANAGEMENT (REJECT AND TAILINGS DISPOSAL)

6.2.1.8.1 | COARSE REJECTS

Coarse reject consists predominantly of fine-grained sedimentary rock types with minimal quantities of carbonaceous material. The reject contains no energy, is of no current commercial use and has low potential for spontaneous combustion. This material has similar properties to overburden in contact with coal seams and is generally saline and alkaline.

Coarse rejects are transported by truck and buried below the final surface level in overburden emplacements as part of the final landform design. The depth of cover is determined by a suitably qualified engineer in accordance with the approved management plans applicable to the location to ensure that potential acid mine drainage matters, or spontaneous combustion are mitigated.



6.2.1.8.2 | TAILINGS

Fine reject (tailings) is thickened into a solid density of approximately 20% to 30% by weight and is predominantly fine rock and clay with some coal and flocculent. The tailings are wet with moderate conductivity.

Tailings are currently transported to the following emplacement areas:

- Carrington In-Pit TSF; and
- Cumnock Void TSF – under an agreement with Glencore (Ravensworth) to utilise 25% of the void capacity.

Intermittent deposition of tailings will occur at North Pit TSF, Dam 6W TSF and Central TSF as part of ongoing management towards decommissioning, subject to approval from the Regulator. TSF locations are shown on **Figure 2-Site Layout**, and **Section 6.1** | provides information on the plans for capping and rehabilitation of TSFs for the life of the operation.

6.2.1.9 | EROSION AND SEDIMENT CONTROL

Erosion and sedimentation at HVO is managed in accordance with the [Water Management Plan](#) (HVO 2018).

During and following ground disturbance, structures such as sediment dams, sediment fences and catch drains will be utilised as appropriate to manage runoff water and manage erosion and sedimentation. Inspections will be carried out to ensure the effectiveness of erosion and sediment control structures. Additional stabilisation works for these areas may include reshaping, amelioration of dispersive soil, revegetation, fencing and weed control.

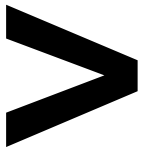
6.2.1.10 | ONGOING MANAGEMENT OF BIOLOGICAL RESOURCES FOR USE IN REHABILITATION

All risks and mitigation measures associated with the management of topsoil, seeds and other biological resources are discussed in **Section 6.2.1.1** | and **Section 6.2.1.2** |

6.2.1.11 | MINE SUBSIDENCE

The former Lemington Underground Mine operated from 1971 to 1992 using bord and pillar mining methods in the Mount Arthur Seam, with areas of longwall extraction. The former Lemington Underground Mine was acquired and merged into HVO South in 2001. The underground workings are located south-east of the current mining areas at HVO South, below the South Lemington Pit 1, and north-west of Warkworth Mine. The Mount Arthur Seam floor in the former workings ranges from approximately 40 metres Australian Height Datum (mAHD) to approximately -205 mAHD, generally dipping from the north-east to the south-west.

HVO will continue to store and extract water from the Lemington Underground Mine workings, but there is not expected to be any subsidence impacts on current or future operations or rehabilitation.



6.2.1.12 | MANAGEMENT OF POTENTIAL CULTURAL AND HERITAGE ISSUES

Aboriginal cultural heritage is managed in accordance with the HVO [North Aboriginal Heritage Management Plan](#) (HVO 2020a) and the HVO [South Aboriginal Cultural Heritage Management Plan](#) (HVO 2020b). HVO works closely with the local Aboriginal community on all aspects of cultural heritage management. Regularly community consultation occurs via the HVO Aboriginal Cultural Heritage Working Group on matters pertaining to Aboriginal cultural heritage at HVO.

HVO has also constructed and maintains Cultural Heritage Databases and a Geographical Information System (GIS) to better manage and protect sites. The GDP system has also been implemented at HVO and must be authorised by cultural heritage staff and completed prior to any disturbance of HVO outside current mining operations.

There is no cultural heritage features associated with the final landform.

There are no listed items of European Heritage in planned rehabilitation areas at HVO and therefore no management measures are required.

6.2.1.13 | MANAGEMENT OF POTENTIAL CULTURAL AND HERITAGE ISSUES

Aboriginal cultural heritage is managed in accordance with the HVO [North Aboriginal Heritage Management Plan](#) (HVO 2020a) and the HVO [South Aboriginal Cultural Heritage Management Plan](#) (HVO 2020b). HVO works closely with the local Aboriginal community on all aspects of cultural heritage management. Regularly community consultation occurs via the HVO Aboriginal Cultural Heritage Working Group on matters pertaining to Aboriginal cultural heritage at HVO.

HVO has also constructed and maintains Cultural Heritage Databases and a Geographical Information System (GIS) to better manage and protect sites. The GDP system has also been implemented at HVO and must be authorised by cultural heritage staff and completed prior to any disturbance of HVO outside current mining operations.

There is no cultural heritage features associated with the final landform.

There are no listed items of European Heritage in planned rehabilitation areas at HVO and therefore no management measures are required.

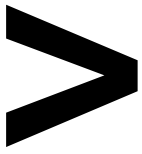
6.2.1.14 | EXPLORATION

Exploration drilling will be undertaken within the HVO mining lease areas to obtain further information regarding the resources to be mined as well as define geological and geotechnical information relevant to the mining and construction activities that will be undertaken. Additional drill holes to install groundwater and gas monitoring bores may also be required.

Construction, sealing and abandonment of boreholes will be in accordance with relevant standards and guidelines published by the DPIE-RR and in force at the time.

6.2.2 | DECOMMISSIONING

As part of the mine closure process, infrastructure which is not able to be utilised by subsequent approved land uses will be removed. Soils within and surrounding former infrastructure areas will be assessed for potential contamination. Any contamination present will be remediated, and contaminated material will be treated or appropriately disposed of. As with other disturbed areas, former infrastructure areas will be revegetated unless proposed for other land uses.



As part of the mine closure process, dams forming part of the mine water management system will be removed unless they are to be utilised for habitat purposes, are associated with long-term stability and water management, or are beneficial to subsequent land uses (e.g. stock dams). Removal of sediment from mine water dams will occur as required as part of the closure and rehabilitation processes regardless of the suitability of the dams for other purposes.

A Phase 1 Contamination Assessment has been completed across the operation, with a Phase 2 assessment also completed at the former Lemington CHPP location. The operation, in particular infrastructure areas, will be further assessed prior to decommissioning or demolition.

6.2.2.1 | SITE SECURITY

Site security measures will be implemented for the duration of the operation. These measures will be maintained during closure, decommissioning and demolition activities to prevent unauthorised access and to ensure public safety. Security measures will include:

- fencing and sign posting of the site;
- all personnel, contractors and visitors will be required to undertake a relevant site induction and sign in and out of the site; and
- all visitors will be required to be accompanied by a site representative at all times.

6.2.2.2 | INFRASTRUCTURE TO BE REMOVED OR DEMOLISHED

6.2.2.2.1 | BUILDING AND FIXED PLANT

All buildings, fixed plant and other infrastructure that are not required as part of the post-closure land use will be demolished and removed from the site. Where appropriate, the materials recovered during demolition will be sold for reuse or recycled. This includes ROM and product stockpiling and transport infrastructure such as bins and conveyors.

Concrete footings and pads, along with other inert building waste, will be broken up and buried with overburden in the pit area or used in rehabilitation where appropriate. Footings and pads will be removed to a depth of 0.5m below the ground surface and covered with inert material. It is noted that an EPL variation will be required to permit the disposal of this inert waste on site.

Where they do not pose a constraint to the proposed final land use, structures such as footings, underground water pipelines and disconnected power cables may be left in situ. This may include where it is not practical to retrieve the structures or where their removal may lead to environmental damage. These remaining structures will be surveyed and recorded on a plan.

6.2.2.2.2 | EQUIPMENT STORAGE AREAS

Any redundant plant or equipment will either be sold or disposed of at an appropriate landfill facility.

Storage areas will be assessed for potential contamination (e.g. hydrocarbons) and remediation undertaken as required.

6.2.2.2.3 | HARDSTAND AREAS, ROADWAYS AND CAR PARKS

Hardstand areas, roadways and car parks will be removed (unless required for a post mining land use) with inert waste material (e.g. bitumen, concrete) being placed and capped in the tailings/overburden emplacement areas or incorporated into the final voids.



6.2.2.3 | BUILDINGS, STRUCTURES AND FIXED PLANT TO BE RETAINED

At this stage, no buildings, structures or fixed plant are proposed to be retained as part of the final landform. However, this will be reviewed during the detailed mine closure planning process which will be undertaken as the operation approaches mine closure.

6.2.2.4 | MANAGEMENT OF CARBONACEOUS / CONTAMINATED MATERIAL

Excess coal material remaining at closure will be scraped up and either reprocessed or disposed of within the tailings/coarse reject emplacement areas on site.

Any remaining carbonaceous material (e.g. coal reject) on the base of the coal stockpile area will be either capped with inert material in accordance with relevant guidelines or scraped up, removed and disposed of with tailings or as coarse reject within the emplacement area.

Where there is potential that contamination may have occurred as a result of site activities (e.g. refuelling areas, workshops, etc), investigations will be undertaken to determine the presence and extent of any contamination. Where identified, contaminated material will be bioremediated on site or disposed of offsite at an authorised waste facility.

If applicable, a suitable qualified contamination expert will be engaged to verify that any contamination has been adequately managed.

6.2.2.5 | HAZARDOUS MATERIAL MANAGEMENT

Hazardous materials and dangerous goods used at HVO include sealed radiation sources, gases for cutting and welding, explosive precursors and diesel fuels. Dangerous goods and explosives are managed in accordance with relevant legislation.

HVO manages hazardous material through the ChemAlert system whereby all chemicals used on site are registered through a central database. The central database contains all information contained in the Safety Data Sheets (SDS) and an inventory of chemicals held onsite.

Radiation sources at the CPP are fully sealed and managed by an appointed radiation safety officer in accordance with radiation licences issued under the Radiation Control Act 1990.

HVO implements procedures and controls to minimise the potential for land and water contamination from the handling, storage and disposal of hazardous substances. These controls include storage within properly sealed containers and controlled areas, banded for medium to long-term storage requirements.

6.2.2.6 | UNDERGROUND INFRASTRUCTURE

There is no underground mining currently undertaken at HVO, or planned to be undertaken, and therefore there is no requirement for the removal or decommissioning of underground infrastructure. HVO has approval for storage of water in the closed Lemington underground workings via boreholes and any existing or planned water infrastructure will be decommissioned, surface infrastructure removed, and boreholes rehabilitated.



6.2.3 | LANDFORM ESTABLISHMENT

6.2.3.1 | WATER MANAGEMENT INFRASTRUCTURE

Drainage patterns on rehabilitated areas are designed to be compatible with the surrounding drainage network, and report rehabilitation catchments of similar size to pre-mining catchments to the approximate location of the pre-mining flow lines.

The approach to drainage from rehabilitation areas at HVO can be split into two main categories: traditional drainage and natural drainage. Traditional drainage methods will be used on rehabilitation areas in the West Pit and Carrington Pit areas in accordance with approval commitments for these areas. Some older rehabilitation areas within HVO South will also incorporate traditional drainage, where they were constructed before the HVO South PA 06_0261 approval. Natural drainage methods will be utilised for all rehabilitation areas constructed in HVO South following this approval.

The traditional drainage approach is achieved using a combination of controls such as graded banks, designed channels and where necessary, water course reinforcement. Diversion drains to collect surface runoff are designed with an approximate slope of 1 – 1.5% to minimise erosion.

The key aspects of the natural drainage design include:

- the drainage density of the final landform is to reflect the nature of the drainage patterns in surrounding landforms;
- steeper slopes are to be located higher in the catchment (where water flows are smallest), with slope gradients flattening out downstream;
- drainage lines will have both channel and floodplain components to provide stability during high rainfall events; and
- gentle flow transitions which emulate natural transitions and maintain a balance between scour risk and sedimentation.

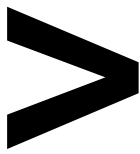
Drainage depressions, attenuation basins, and sedimentation dams are incorporated into the final landform where appropriate to collect water runoff and allow suspended sediment to settle out. At present, base of system sediment basins are generally dewatered to site storages to prevent turbid waters flowing to the offsite environment. However, once an adequate vegetation cover is established and the slope is stable, this water can be released from site following a period of sampling that indicates suitable water quality. Sedimentation dams will be designed in accordance with HVO’s approved [Water Management plan](#) and consistent with Managing Urban Stormwater: Soils and Construction (Blue Book) design criteria.

Drainage from Carrington rehabilitation will be reinstated to the adjacent Carrington Billabong once the rehabilitation is safe, stable and non-polluting.

The proposed water management infrastructure that will remain at mine closure is outlined on **Plan 1: Final Landform Features - Appendix A:**. All dams that will remain post-closure will be appropriately designed and constructed in accordance with the relevant design standard at the time.

6.2.3.2 | FINAL LANDFORM DESIGN

The final landform design for HVO was prepared as part of the EIS for HVO North (ERM 2003) and HVO South (ERM 2008), and subsequent modifications. The proposed final landform has been designed in consideration of the surrounding landscape and includes stable, natural profiles, as shown on **Plan 2: Final Landform Contours - Appendix A:**



Overburden is shaped to be generally compatible with adjacent land surfaces and the final landform. The final landscape will consist of a series of hills, ridges and minor valley systems. Final landform slopes vary according to erosion hazard, stability and drainage requirements. Overburden emplacement external slopes will generally be regraded to less than 10°. Internal slopes may be steepened to grades up to 18°.

6.2.3.3 | REJECT EMPLACEMENT AREAS AND TAILINGS DAMS

Tailings and fine rejects at HVO are managed in accordance with the [HVO Fine Reject Management Strategy \(ATC Williams 2023\)](#) and Operation and Maintenance Manuals. The Strategy is a requirement of the HVO North Development Consent (DA 450-10-2003) and outlines the tailings deposition schedule, status and design parameters of each TSF, estimated capping volumes, rehabilitation methodology and controls associated with potential ground and surface water impacts of each facility.

HVO’s current tailings disposal strategy satisfies the predicted HVO tailings storage requirements to March 2030. HVO South currently has no active tailings storage facilities as all previously active facilities have been closed, capped and rehabilitated.

The rehabilitation of the South East TSF was completed in 2022. Works have commenced in 2024 on capping the Bobs dump TSF with works expected to be completed by 2026. The placement of tailings at the North Pit TSF ceased in 2019 and is being managed to limit the size of the decant pond to promote solar drying and consolidation. Capping of this facility will be subject to adequate surface strength being gained. The current proposal to achieve this is via deposition of thin layers of tailings, however, this method is yet to receive approval from the EPA pending satisfactory demonstration of seepage mitigation. In-pit tailings emplacement commenced at Carrington Pit during 2019. Tailings will continue to be emplaced within the Cumnock Void in accordance with a management agreement with Ravensworth Operations to utilise a defined capacity of Cumnock Void as a TSF. Under the agreement, the responsibility to rehabilitate Cumnock Void TSF will lie with Ravensworth Operations.

The main elements of the closure and rehabilitation strategy for TSF’s include:

- where possible, reducing tailings deposition rate (towards end of filling) to provide for development of a 5 m thick tailings crust to support closure activities;
- provide supplementary tailings in thin layers to fill areas of settlement within the TSF prior to capping;
- developing a capping and landform design and submission of a High Risk Activity notification;
- placement of layers of capping fill materials, comprising typically mine overburden material, at a minimum of 2 m thick; and
- revegetation to the final land use as shown on **Plan 1: Final Landform Features - Appendix A:**

To assist with desiccation and stabilisation of the TSFs, HVO have adopted a tailings disposal strategy that utilises secondary (or Pipe Head) flocculation for all active storages. Along with beach management and thin layer deposition as the facilities near the end of their capacity, secondary flocculation will assist with the desiccation and consolidation of the tailings to a suitable depth. Upon ceasing to use a TSF, sporadic deposition of tailings may be required to consolidate voids arising from settlement during the drying phase. This will assist to maintain a positive surface drainage underlying the capping material and contribute to the long-term stability of the facility.

Material deemed suitable for capping is identified and, if necessary, stockpiled in proximity to each TSF. Where this has not occurred to date, sufficient material will be identified ahead of the closure of each facility (as part of the capping design) and will be reserved for that use. The volume of capping material takes into account ongoing settlement of the consolidating tailings to provide a free-draining surface. Volumes of material required and stockpile locations are detailed in the Fine Reject Management Strategy. Sampling of capping materials will be undertaken as part of material selection to ensure adequacy for structural, water management and vegetation aspects.



Existing rehabilitated TSFs are revegetated primarily with pasture species and light woody vegetation. As of 2024, HVO will use a pasture only seed mix for vegetation establishment on rehabilitated TSF's. HVO considers a 2 m thick cap of overburden material to be an adequate growth medium for woodland vegetation without risk of compromising the integrity of the cap and exposing tailings. Long term scientific monitoring of the rehabilitation will provide data to confirm this. HVO will monitor any new research or industry findings that explore capping depth requirements for long-term stability.

Potential water impacts associated with active and capped tailings are managed in accordance with HVO's [Water Management Plan](#) and Water Monitoring Programme. Management of potential surface and groundwater impacts associated with TSF's is assessed as part of the EIS process and also summarised in the HVO Fine Reject Management Strategy.

6.2.3.4 | FINAL VOIDS, HIGHWALLS AND LOW WALLS

The proposed final landform for HVO North will include three final voids across West Pit North, West Pit South, and Carrington and operating as a mix of evaporative sinks and pit lakes. HVO South will include an evaporative basin in the south-western corner of the Deep Cheshunt Pit (currently Riverview Pit).

The final voids will be constructed in accordance with the objectives and criteria for voids outlined in Section 4.1 | and 4.2 |. Further detailed information will be developed as part of a Detailed Mine Closure Plan for the operation

6.2.3.5 | CREEK / RIVER DIVERSIONS

A number of Creeks have been diverted in sections to enable the passage of mining and siting of infrastructure. These diversions include sections of Parnells Creek, Pikes Creek, Farrells Creek and an unnamed creek in Carrington. The diversions were constructed in accordance with best practice methods at the time. HVO will undertake erosion and geomorphic reviews of the diversion prior to closure to confirm that the diversion meets the closure criteria provided in **Section 4.2 |**

¹ It has been common practice in the past to utilise coarse rejects for the development of an initial cap followed by placement of mine overburden. Existing rehabilitated TSF's will likely include a coarse reject layer as part of the 2m cap.

6.2.3.6 | TEMPORARY STABILISATION

Where progression to final rehabilitation is significantly delayed overburden areas may be shaped to an interim or final landform and suitable cover crops or other surface stabilisation applied to minimise dust generation and erosion. Temporary stabilisation may also be undertaken on unshaped overburden dumps and other disturbed areas. Temporary stabilisation of these areas is primarily designed to control fugitive dust emissions however can also improve visual amenity.

Temporary stabilisation by seeding with sterile cover crops may be undertaken on disturbed areas during construction activities or during the staging of construction works.

6.2.4 | GROWTH MEDIUM DEVELOPMENT

Surface preparation activities for rehabilitated areas will commence as soon as practicable following the completion of mining activities and landform establishment. Appropriately sized earthmoving equipment will be used for these processes to avoid unnecessary compaction.

If topsoil characterisation has not previously been undertaken, sampling of the topsoil stockpile to be used for a rehabilitation area will be conducted prior to spreading to determine whether specific amelioration techniques (e.g. addition of gypsum or organic matter) are required (refer to **Section 6.2.1.1 |**).



The general surface preparation activities to be undertaken for rehabilitation areas include:

Install contours or drainage structures in accordance with site standards and project approval conditions;

- Deep rip overburden;
- Rock rake;
- Spread topsoil (topsoil management is detailed further in **Section 6.2.1**);
- Spread gypsum and/or other ameliorants at rate determined by soil analysis;
- Spread timber or other habitat features in selected locations;
- Final rock rake; and
- Scarify/light rip or aerate the final surface ahead of sowing.

A Quality Control Checklist (**refer to Section 7**) has been developed to ensure that appropriate inspections are completed and each step has been completed adequately before progressing.

Where monitoring and inspections indicate that growth medium conditions may be less than ideal, or initial germination is less than expected, additional topsoil analysis may be undertaken to ensure ameliorants have been effective

6.2.5 | ECOSYSTEM AND LAND USE ESTABLISHMENT

Following ground preparation and growth medium development works, revegetation activities will commence as soon as possible. Where possible, this is scheduled to be during Autumn or early Spring (ideal sowing times). However, due to mining and other operational constraints, this is not always possible and seeding may occur outside these periods. Experience at HVO and other Hunter Valley mining operations has indicated satisfactory results can still be achieved when seeding outside of optimum times, especially for native woodland species.

Seeding may however be delayed in the short-term to avoid adverse weather conditions such as prolonged rain, extended drought or high winds. In these instances, operational personnel will review forecast weather conditions and delay final ground preparation (e.g. final ripping or scarification) until an adequate window is available for seeding.

HVO is rehabilitating its lands with a combination of pasture and woodland. The location of pasture and woodland plots has been determined based on their most appropriate location within the landform. Where possible, agricultural / pasture areas have been preferentially located on flat or gently sloping parts of the landform. Woodland corridors are subsequently located mostly on the inner and outer facing slopes. These preferences have been modified where necessary to ensure minimum target areas are met (e.g. 30 or 40 percent woodland) or where legacy rehabilitation areas suit a particular final land use option.

To achieve diversity targets, long-term seed mixes will contain species to achieve the following:

- Plant structure and form (e.g. tree vs. shrub);
- Floristics (e.g. spread over a range of plant genera); and
- Life cycle (e.g. short lived primary coloniser vs. long lived understory shrubs).



Seed will be spread using the most appropriate equipment for the area. This will most often be drill-seeder which can be adjusted to modify the drill depth based on the type of seed being spread.

Seed is supplied by a third party contractor who collects seed from the local area where possible. All supplied seed undergoes best practice treatment and viability testing.

Following the completion of seeding, rehabilitation areas are appropriately delineated to prevent unauthorised access and disturbance. This can include a range of controls including windrows, signage and OCE witches' hats.

6.2.5.1 | PASTURE REHABILITATION

Typical pasture species and rates of application are shown in Appendix E:. Lightly scattered groups of native trees, shrubs and groundcovers will also be planted in pastures to give shade and shelter for livestock, to provide native forests for wildlife habitat and possible future commercial timber operations. Fertiliser is added based on soil testing results.

6.2.5.2 | NATIVE WOODLAND REHABILITATION

Native woodland rehabilitation within HVO, aimed at enhancing biodiversity, will be promoted by:

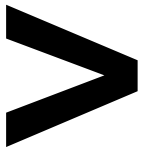
- Using native endemic seeds (to match those already found on the subject site) where possible, for seeding and replanting programmes;
- Rehabilitating groundcover, understorey and canopy species by seeding and planting (planting understorey and tree species will be undertaken where grass competition restricts the use of direct seeding);
- Planting a variety of species as opposed to a monoculture, especially species that flower at different times of the year or that provide foraging resources for affected species;
- Creating a diversity of landforms and habitats such as woodland, regrowth and open forest on ridgetops and lower slopes;
- Placement of habitat features such as logs, rocks, drainage depressions, and dams; and
- Linkage of areas rehabilitated with trees with adjacent remnant vegetation to promote regional corridors.

Woodland areas to be seeded during this RMP term will continue to include native understorey species with seed mixes being assembled in accordance with Appendix E: This table includes diversity targets for seed mixes with targets set for minimum number of species/genera to be included for the functional groups in each strata of the target vegetation community.

6.2.6 | ECOSYSTEM AND LAND USE DEVELOPMENT

Activities associated with the Ecosystem and Land Use Development Phase of rehabilitation are generally ongoing maintenance and land management activities and rehabilitation monitoring.

The requirement for maintenance works is assessed on an ongoing basis through the rehabilitation monitoring program (refer to Section 8 |) and by routine inspections. Key issues covered by the maintenance program are outlined in the sections below.



6.2.6.1 | WEED AND FERAL ANIMAL CONTROL

Weeds can limit tree growth and out compete emerging native plants, particularly in the early stages after seeding. The rehabilitation process at HVO has been designed to limit the growth of weeds over the longer term, by maximising the number of trees and shrubs in native woodland areas.

Key weed species that have the potential to impact on the longer-term sustainability and relinquishment of rehabilitation at HVO include:

- Acacia Saligna (woodland and pasture areas);
- Galenia (woodland and pasture areas);
- Fireweed (pasture areas); and
- Exotic perennial grasses e.g. Coolatai grass, Rhodes grass, green panic (woodland areas).

Targeted weed control campaigns will be undertaken on an ongoing basis to manage and limit the spread of weeds within rehabilitation areas. The scope of these campaigns will be determined by regular inspections and annual monitoring programmes (refer to Section 8). Weed control programs will be prioritised based on the size and severity of the infestation, along with the probability of it spreading to adjacent rehabilitation or remnant vegetation areas. Weed control works in rehabilitation areas will be undertaken by experienced contractors so that there is minimal to no impact on trees, shrubs and other native plants.

Higher priority weed species such as those listed above will be managed strategically across the site, with priority being given to eliminating them from defined areas and working outwards. Management of exotic grasses will be particularly important for woodland rehabilitation, and targeted management of topsoil stockpiles will be completed to prevent their being spread onto woodland areas.

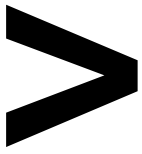
Weed infestations identified during various inspections and monitoring programs will be recorded in GIS so that their location and status can be monitored over time.

Similarly, the need for feral animal control programs will be determined by annual monitoring programs. Any targeted shooting, baiting or trapping programs will be conducted by a licensed contractor in consultation with NSW Local Land Services (LLS).

6.2.6.2 | EROSION AND DRAINAGE CONTROLS

Erosion features that are identified during monitoring programs that may require repair include rill and gully erosion, tunnelling, slumping or ponding. Repair methods may include hand seeding (to limit additional disturbance), ripping and re-seeding, re-grading of contour banks or re-construction of failed structures.

Erosion and drainage repairs will be prioritised on the likelihood of the erosion worsening or developing into adjacent rehabilitation areas, and the potential for failures to report to the clean water management system.



6.2.6.3 | RE-SEEDING / RE-PLANTING OF REHABILITATION AREAS

If rehabilitation monitoring programs identify areas of rehabilitation that have failed, or do not contain the required species composition or diversity, re-seeding or re-planting works will be planned and scheduled. These works may include:

- Spraying, ground preparation and re-seeding of a full targeted seed mix
• Hand seeding of specific species that are not represented in the rehabilitation area, either across the whole area or in specific pockets of the rehabilitation;
• Over-sowing of pasture grass species where total biomass or palatable species are lacking to support grazing activities; or
• Planting of tube-stock to increase overall species diversity or to improve species composition.

6.2.6.4 | MAINTENANCE FERTILISING

The need for maintenance fertilising will be assessed during regular rehabilitation monitoring programs, particularly in agricultural final land use areas where grazing is occurring or planned to occur. The application method (e.g. tractor spreader or aerial spreading) will be determined based on the existing vegetation, landform and timing of application.

6.2.6.5 | REPAIR OF FENCE LINES, ACCESS TRACKS AND OTHER GENERAL LAND MANAGEMENT ACTIVITIES

The condition of fence lines, access tracks and other features (e.g. dams, troughs) will be assessed during the Annual Rehabilitation Walkover (Section 8.2 I) and targeted agricultural or pastoral assessments completed as part of grazing activities conducted by leases.

The requirement for fencing, access and water points for future agricultural activities within rehabilitation areas will be assessed as part of HVO's ongoing budget process, and when establishing lease agreements.

6.2.6.6 | ENVIRONMENTAL MONITORING AND MANAGEMENT

HVO maintains an Environmental Management System (EMS) to facilitate compliance with environmental standards and requirements. The EMS provides a framework for managing all environmental and community aspects, impacts and performance of the mining operations. As part of the EMS, management plans, procedures and standards have been developed to meet statutory requirements, manage activities on site to minimise risk to the environment and to continually improve the performance of operations. These management plans and their controls apply to all rehabilitation areas and will continue to apply and be implemented until rehabilitation relinquishment.

6.3 | REHABILITATION OF AREAS AFFECTED BY SUBSIDENCE

The Lemington Underground Mine operated from 1971 to 1992 using bord and pillar mining methods in the Mount Arthur Seam, with areas of longwall extraction. The former Lemington Underground Mine was acquired and merged into HVO South in 2001. The underground workings are located south-east of the current mining areas at HVO South, below the South Lemington Pit 1.). The Mount Arthur Seam floor in the former workings ranges from approximately 40 metres Australian Height Datum (mAHD) to approximately 205 mAHD, generally dipping from the north east to the south west.

The underground operation was decommissioned and all surface infrastructure rehabilitated. Subsidence occurred during the operation of the mine and the likelihood of further ground movement has been assessed and estimated to be very low.



7 | REHABILITATION QUALITY ASSURANCE PROCESS

HVO will implement a rehabilitation quality assurance process for each phase of rehabilitation. These processes will ensure:

- rehabilitation is being implemented in accordance with the nominated methodologies;
- identification of those responsible for implementation; and
- identified risks to rehabilitation are being adequately addressed at each phase of rehabilitation

The specific processes for each phase are outlined in the sections below.

7.1 | ACTIVE MINING

The quality assurance and documentation processes that will be implemented during the active mining phase include:

- maintenance of up to date mine plans by the sites survey department;
- completion of GDP's, including inspections during and post works, and documentation of pre-clearance surveys;
- maintenance of a topsoil register which includes an inventory of stockpiles and their original location, characterisation results, condition and inspection results;
- surface water monitoring and regular review of trigger levels;
- regular inspections of temporary and permanent erosion and sediment controls;
- regular inspections to identify potential weed infestations;
- documentation of all weed management and eradication programs and follow-up inspections; and
- waste tracking and recording of volumes removed from site.

7.2 | DECOMMISSIONING

Quality assurance processes will be identified during the development of the sites closure plan. However, these are likely to include the following as a minimum:

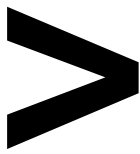
- inspections and demolition reports to confirm all infrastructure has been removed;
- validation testing to ensure any contamination has been appropriately remediated and/or removed;
- updates to mine plans and record tracings; and
- waste tracking to confirm removal of all hazardous wastes from site.

7.3 | LANDFORM ESTABLISHMENT

To facilitate efficient and accurate handover of rehabilitation areas between departments and phases, HVO has developed a [Rehabilitation Design and Bulk Shaping Handover Checklist](#). The checklist includes:

- confirmation the landform design complies with approval requirements;
- consideration of drainage requirements; and
- confirmation that bulk shaping has been completed adequately and to design.

The checklist includes a sign-off by relevant departments to certify the work has been completed.



7.4 | GROWTH MEDIUM DEVELOPMENT

In addition to the landform establishment elements described above, the [Rehabilitation Design and Bulk Shaping Handover Checklist](#) includes the following elements:

- confirmation that drainage structures have been constructed to design;
- confirmation ground preparation elements such as deep ripping and rock removal have been completed; and
- confirmation that topsoil stockpiles have been scalped, topsoil has been placed at the appropriate depth and ameliorants have been applied at the correct rate

7.5 | ECOSYSTEM AND LAND USE ESTABLISHMENT

Documentation of seeding or planting activities is completed in the [Rehabilitation Design and Bulk Shaping Handover Checklist](#) and includes:

- date of planting;
- weather conditions;
- seed mix;
- seeding rate (kg/ha) and/or planting rate (tubestock/ha);
- fertiliser or ameliorant rate (kg/ha);

In addition to the above records, rehabilitation monitoring will commence during this phase and will primarily include initial establishment monitoring and an Annual Walkover Inspection which will document rehabilitation condition and maintenance requirements.

7.6 | ECOSYSTEM AND LAND USE DEVELOPMENT

Quality control processes during the ecosystem and land use development phase involve the sites ongoing rehabilitation monitoring program which is detailed in **Section 8 | Monitoring program** results will feed into HVO's rehabilitation maintenance schedule which includes:

- detailed maintenance requirements for each rehabilitation block including weed control, erosion repairs and re-seeding or planting requirements.
- indicative schedules for completion of required maintenance; and
- indicative costs and resources required to complete maintenance activities.

Completion of maintenance activities will be documented by contractors completing the works and reported in the Annual Rehabilitation Report and Forward Program (ARRFP) and Annual Review.



8 | REHABILITATION MONITORING PROGRAM

HVO has developed a rehabilitation monitoring program to confirm rehabilitation areas are trajecting towards meeting the rehabilitation objectives, and performance and closure criteria. Monitoring will be undertaken in accordance with GCAA's Completion Criteria and Rehabilitation Monitoring Procedure (2020) which includes:

- an annual rehabilitation walkover inspection;
- initial establishment monitoring; and
- long term rehabilitation monitoring (including analogue sites).

8.1 | ANALOGUE SITE BASELINE MONITORING

GCAA has developed a shared rehabilitation reference site monitoring program for its NSW operations following advice from University of Queensland's Centre for Mined Land Rehabilitation (CMLR, 2020) and ERR Australia (ERR, 2020). The combined reference program ensures adequate spatial and temporal coverage for each target vegetation community, as well as sufficient replication to enable statistical analysis of monitoring results to ensure completion criteria have been met. In accordance with this program, HVO has established three woodland reference sites which are monitored biennially as per the program schedule.

In addition, HVO has established two permanent pasture reference sites which will be used to develop completion criteria for pasture final land use rehabilitation blocks.

8.2 | REHABILITATION ESTABLISHMENT MONITORING

The Completion Criteria and Rehabilitation Monitoring Procedure requires rehabilitation blocks less than three years old to be monitored using the Initial Establishment Monitoring (IEM) method which is a rapid style assessment principally to determine germination success and landform stability. Each monitoring site is assessed twice within the first three years, and includes the following parameters:

- Erosion – presence and depth of erosion gullies or rills;
- Bare ground – visual estimate of bare ground percentage;
- Ground cover – visual estimate of ground cover percentage;
- Weed cover – rapid assessment of High Threat Exotics and Priority Weeds;
- Pasture species composition – foliage cover of desirable pasture species (pasture rehabilitation sites only);
- Native species richness – rapid assessment of native species present; and
- Tree stem density – number of tree stems within plot area.

Once rehabilitation blocks become older than three years, they are amalgamated where possible (i.e. adjacent blocks with the same final land use) and monitoring sites move into the next phase of monitoring.



8.3 | MEASURING PERFORMANCE AGAINST REHABILITATION OBJECTIVES AND REHABILITATION COMPLETION CRITERIA

Rehabilitation blocks that are older than three years are subject to the Long Term Monitoring (LTM) methodology in accordance with the Completion Criteria and Rehabilitation Monitoring Procedure. The LTM methods include more detailed assessments of rehabilitation performance and are targeted towards evaluating progress of rehabilitation towards fulfilling completion criteria and, ultimately, the targeted post-mining land use.

Rehabilitation monitoring reports include an assessment of results against both the Trigger Action Response Plan (TARP) (**Section 9.2**) and the closure criteria. Where rehabilitation areas are not progressing towards the criteria, recommendations will be made to improve rehabilitation performance.

In addition, each year HVO undertakes an Annual Walkover Inspection of rehabilitated areas to provide a general assessment on rehabilitation health and potential emerging issues that require maintenance (e.g. weeds, erosion, poor growth rates). The walkover inspection does not review rehabilitation areas against the closure criteria but provides management recommendations to assist the rehabilitation in moving towards the criteria.

9 | REHABILITATION RESEARCH, MODELLING AND TRIALS

9.1 | CURRENT REHABILITATION RESEARCH, MODELLING AND TRIALS

No current rehabilitation research, modelling or trials are currently being undertaken.

9.2 | FUTURE REHABILITATION RESEARCH, MODELLING AND TRIALS

HVO currently has no plans to conduct any rehabilitation research, modelling or trials. HVO will continue to keep abreast of current rehabilitation best practice methods through collaboration with other Hunter Valley sites and through industry forums.

10 | INTERVENTION AND ADAPTIVE MANAGEMENT

Where rehabilitation monitoring indicates that rehabilitation outcomes are not trending toward the nominated completion criteria, HVO will instigate early intervention and adaptive management to minimise the potential for rehabilitation failure. Identification of threats to rehabilitation and the subsequent intervention is discussed in the following sections.

10.1 | THREATS TO REHABILITATION

Threats to rehabilitation may include events such as periods of drought, bushfire events, or pressures from weeds and feral animals. **Table 10.1** provides key threats to rehabilitation that have been identified at HVO.

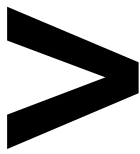


Table 10.1- Key Threats to Rehabilitation

| THREAT | CAUSED BY |
|-------------------------------------|---|
| Erosion and Sediment Control | <ul style="list-style-type: none"> • Rainfall events • Lack of appropriate vegetation cover • Failure of water management structures |
| Soil Type(s) and Suitability | <ul style="list-style-type: none"> • Inadequate topsoil available • Poor topsoil quality • Weed infested topsoil • Poor recovery of topsoil from currently rehabilitated areas |
| Water | <ul style="list-style-type: none"> • Saline runoff and erosion resulting in a surface water trend of salinity increase, or pH reduction/increase • Saline seepage of groundwater resulting in localised impacts |
| Spontaneous Combustion | <ul style="list-style-type: none"> • Poor management of materials with propensity for spontaneous combustion |
| Flora | <ul style="list-style-type: none"> • Not considering requirements in rehabilitation planning • Failure to manage weeds • Pest species / grazing pressures (kangaroos, rabbits, etc.) • Biodiversity targets (offsets), not maintained |
| Geotechnical | <ul style="list-style-type: none"> • Geotechnical failure |
| Acid Mine Drainage | <ul style="list-style-type: none"> • Poor knowledge of material that may result in AMD • Poor management of the materials that have a propensity to AMD |
| Geology and Geochemistry | <ul style="list-style-type: none"> • Poor knowledge of material and its geochemistry • Inappropriate placement of materials |
| Contaminated Land | <ul style="list-style-type: none"> • Long term use of the site • Spills, leaks, etc |
| Bushfire | <ul style="list-style-type: none"> • Proximity to state forest • Regional fire • Lightning strike |



10.2 | TRIGGER ACTION RESPONSE PLAN

The following TARP for rehabilitation has been developed to identify required management actions in the event of impacts to rehabilitation, or where rehabilitation outcomes are not achieved in an acceptable timeframe. Where necessary, rehabilitation procedures will be amended accordingly with the aim of continually improving rehabilitation standards.

The responses specified within the TARP have been based upon the rehabilitation completion criteria and the rehabilitation monitoring program. Monitoring of the TARP will be undertaken as outlined in the rehabilitation monitoring program (**Section 8**). The monitoring program will trigger response actions as specified in the TARP to ensure that threats to rehabilitation do not become unmanageable.

Following a trigger, the scope and timing of response actions are prioritised and an indicative schedule for implementation is developed. Discrete actions are prioritised and managed on a risk basis within the rehabilitation maintenance program. High risk triggers will be addressed first. Ongoing monitoring of trigger issues occurs to ensure current prioritisation within the maintenance program remains appropriate and issues are escalated as necessary.

The TARP is provided as **Table 10.2** and will continue to be developed as completion criteria are refined and as new threats to rehabilitation are identified.

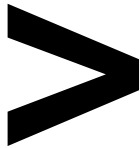


Table 10.2- Trigger Action Response Plan

| Aspect Category / Item | Key Element | Monitoring Program | Trigger Response | Condition Green | Condition Amber | Condition Red | |
|------------------------|-------------|--------------------|---|-----------------|---|---|---|
| Landform stability | 1 | Slope gradient | Annual Walkover | Trigger | Rehabilitation areas have overall slopes that are generally <10°. | Rehabilitation areas have overall slopes >10° but <14° and not approved. Internal slopes <18° and assessed as being safe and stable. | Rehabilitation areas have overall slopes >15° and not approved. Internal slopes may be steepened to grades up to 18°. |
| | | | Annual Performance Assessment | Response | No response required. Continue monitoring program. | Undertake regrading and revegetation of the area, if it is not designed to be >10° <14°. If designed to be >10° <14°, seek approval from RR. Internal slopes that are designed to be <18° and assessed as being safe and stable require no further response. Continue monitoring program. | If overall slopes designed to be >15°, seek approval from RR. Otherwise, undertake a review of the landform design, including survey if required. Undertake regrading and revegetation of the area, if required. If internal sloped >18° undertake a review of the landform design, including survey if required. Undertake regrading and revegetation of the area, if required. |
| | 2 | Erosion control | Annual Walkover | Trigger | No active gully or tunnel erosion. No active rilling present. | Minor active gully or tunnel erosion present and/or active rilling <300 mm deep. | Significant active gully or tunnel erosion present and/or active rilling >300 mm deep. |
| | | | IEM LTM Annual Performance Assessment Inspection Program | Response | No response required. Continue monitoring program. | An inspection of the site will be undertaken by a suitably trained person. Investigate opportunities to install water management infrastructure or other controls to address erosion. Remediate as appropriate. | Undertake a review of the drainage of the area and provide recommendations to appropriately remediate the erosion. Remediate as soon as practicable. |

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Owner: Environment and Community Coordinator

Version: 2.0

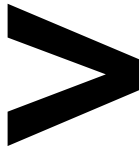
Review: 18/11/2027

| Aspect Category / Item | Key Element | Monitoring Program | Trigger Response | Condition Green | Condition Amber | Condition Red | |
|------------------------|-------------|-----------------------|-------------------------------|-----------------|--|---|---|
| | 3 | Drainage Condition | Annual Walkover | Trigger | Drainage condition is in accordance with the design criteria established within this document. | Landforms exhibiting minor drainage issues but do <u>not</u> threaten to cause rehabilitation failure. | Landforms exhibiting significant drainage issues, threatening or causing rehabilitation failure. |
| | | | Annual Performance Assessment | Response | No response required. Continue monitoring program. | An inspection of the site will be undertaken by a suitably trained person. Investigate opportunities to address issues. Remediate as appropriate. | Undertake a review of the drainage design and provide recommendations to appropriately remediate the area. Remediate as soon as practicable. |
| | | | Inspection Program | | | | |
| Water Quality | 4 | Monitoring parameters | Water Monitoring Program | Trigger | Surface water quality of runoff from rehabilitation areas is within criteria and rehabilitation performance criteria established within this document. | Water quality exceeds performance criteria but does <u>not</u> indicate a long-term rehabilitation issue. | Water quality exceeds criteria, indicating a long term rehabilitation liability. |
| | | | Inspection Program | Response | No response required. Continue monitoring program. | Review and investigation of water quality monitoring and management where appropriate. Implement relevant remedial measures where required. | Reporting as per relevant statutory reporting requirements. Implement relevant responses and undertake immediate review to determine source of issues and implement remediation measures identified as soon as practicable. |
| Soil/spoil Quality | 5 | Monitoring parameters | Annual Walkover | Trigger | Soil properties meet criteria and no indication of not being able to support vegetation establishment. | Soil properties are not meeting criteria and indication of not being able to support vegetation establishment. | Soil properties have not met criteria and are not supporting vegetation establishment. |



| Aspect Category / Item | Key Element | Monitoring Program | Trigger Response | Condition Green | Condition Amber | Condition Red | |
|------------------------|-------------|---------------------|------------------|--|--|--|--|
| | | | Response | No response required. Continue monitoring program. | Conduct investigation and take samples of soil/spoil to determine the need for ameliorants or other management options. | Engage a consultant to assist with recommendations to appropriately remediate soil/spoil quality and depth. Remediate as soon as practicable. | |
| Vegetation (Woodland) | 6 | Surface cover | Annual Walkover | Trigger | Five years following revegetation to woodland, a minimum of 70% total ground cover (vegetation, leaf litter, mulch) is present within rehabilitated areas. | Five years following revegetation to woodland, total ground cover (vegetation, leaf litter, mulch) is a minimum of 60% in rehabilitated areas. | Five years following revegetation to woodland, total ground cover (vegetation, leaf litter, mulch) is a minimum of 40% within rehabilitated areas. |
| | | | LTM | Response | No response required. Continue monitoring program. | Review rehabilitation procedures where required to increase vegetation cover. Assess opportunities for corrective actions as appropriate. | A suitably trained person to inspect the site. Investigate use of appropriate management options to remediate. Remediate as appropriate. |
| | 7 | Species composition | LTM | Trigger | Five years following revegetation to woodland, species composition comprises native tree and shrub species consistent with reference sites. | Five years following revegetation to woodland, native tree and shrub species composition comprises <75% species diversity of reference sites. | Five years following revegetation to woodland, native tree and shrub species composition comprises <50% species diversity of reference sites |
| | | | | Response | No response required. Continue monitoring program. | Review rehabilitation records to identify possible causal factors. Review native seed mix and amend if necessary. Consider remedial actions such as tube-stock planting or re-seeding to achieve required species composition. | An inspection of the site will be undertaken by a suitably trained person. Investigate remedial options to achieve required species composition. |

| Aspect Category / Item | Key Element | Monitoring Program | Trigger Response | Condition Green | Condition Amber | Condition Red | |
|---------------------------------|-------------|---------------------|---------------------------------------|--|--|---|--|
| Vegetation (Pasture) | 8 | Surface cover | LTM | Trigger | Following rehabilitation to pasture or native grassland, vegetative cover (vegetation, leaf litter, mulch) is within 10-20% of analogue sites. | Following rehabilitation to pasture or native grassland, total ground cover (vegetation, leaf litter, mulch) is within 20-40% of analogue sites. | Following rehabilitation to pasture or native grassland, total ground cover (vegetation, leaf litter, mulch) is more than 40% of the range of analogue sites. |
| | | | | Response | No response required. Continue monitoring program. | Review procedures where required to increase vegetation cover. | An inspection of the site will be undertaken by a suitably trained person. Investigate use of appropriate management options to remediate. Remediate as appropriate. |
| | 9 | Species composition | Annual Walkover IEM LTM | Trigger | Two years following revegetation to grassland, species composition consists of grasses and legumes appropriate to the district and recognised as suitable for beef cattle grazing. | Two years following revegetation to grassland, <75% of grasses and legumes appropriate to the district and recognised as suitable for beef cattle grazing | Two years following revegetation to grassland, species composition comprises <30% appropriate to the district and recognised as suitable for beef cattle grazing |
| Response | | | | No response required. Continue monitoring program. | Investigate additional weeding and re-seeding where required and ensure seed mix utilised is consistent with desired species composition. | An inspection of the site will be undertaken by a suitably trained person. Investigate remedial options to achieve required species composition. | |
| Vegetation (woodland / pasture) | 10 | Weed presence | Annual Walkover | Trigger | Twelve months following revegetation, no significant weed infestations present. | Twelve months following revegetation, >25% but <50% cover of undesirable species present. | Twelve months following revegetation, >50% cover of undesirable species present. |



| Aspect Category / Item | Key Element | Monitoring Program | Trigger Response | Condition Green | Condition Amber | Condition Red | |
|------------------------|-------------|--------------------|--------------------|--|--|--|---|
| | | | Response | No response required. Continue routine maintenance and monitoring program. | Review monitoring report to identify the nature of the weeds present and recommendations from monitoring report. Undertake weed control to remove noxious and problematic weeds if required. | Undertake weed control to remove noxious and problematic weeds from the site as soon as practicable. Investigate management measures to assist native plant establishment including use of ameliorants and implement as appropriate. Review relevant site procedures, if required. | |
| | | | IEM | | | | |
| | | | LTM | | | | |
| | | | Inspection Program | | | | |
| Biodiversity | 11 | Habitat Corridors | LTM | Trigger | Monitoring indicates corridors are successfully established and consistent with the desired vegetation community composition and are suitable for fauna species movement. | Habitat corridors are successfully established however are <u>not</u> suitable for fauna species movement (size, habitat complexity). | Monitoring indicates that vegetation corridors are not established, have been removed, or are no longer suitable for the movement of fauna species. |
| | | | | Response | No response required. Continue monitoring program. | Investigate whether sufficient habitat features (rock piles, felled hollow bearing trees, nest boxes etc.) are present. Source and incorporate additional habitat features, if required. | Engage ecologist/rehabilitation specialist to recommend remedial rehabilitation works such as additional planting or seeding, soil amelioration, or weed reduction. Ensure sufficient habitat features are available for fauna. |
| Topsoil Availability | 12 | Topsoil Quantity | Annual Walkover | Trigger | Sufficient topsoil identified for rehabilitation over the life of the mine. | Topsoil balance indicates a deficiency in topsoil available for rehabilitation over the life of the mine. | Deficiency significant enough to delay rehabilitation progression during the life of the mine |

| Aspect Category / Item | Key Element | Monitoring Program | Trigger Response | Condition Green | Condition Amber | Condition Red | |
|------------------------|-------------|--------------------|--------------------|-----------------------|---|---|--|
| | | | Response | No response required. | Investigate options and alternatives (e.g. organic ameliorants) to meet future topsoil requirements. Trial methods of rehabilitation that are more topsoil efficient i.e. use of compost on overburden. | Source suitable growth medium for use in rehabilitation. Investigate use of alternatives or subsoil in suitable locations. | |
| Bushfire | 13 | Fuel Load | Annual Walkover | Trigger | Fuel loads are assessed and managed as required (including maintaining fire-breaks) and there is firefighting access across rehabilitation areas and water resources available for fighting fires. | Monitoring indicates elevated fuel loads. | A fire on site damages rehabilitated areas. |
| | | | IEM | | | | |
| | | | LTM | Response | No response required. Continue monitoring program. | Assess fuel load reduction options. Reduce fuel loads and ensure access tracks are cleared. Inspect water sources and ensure sufficient water is available. | Review and update (if required) the Bushfire Management Plan to ensure monitoring and maintenance is completed for fuel loads and access tracks. |
| | | | Inspection Program | | | | |
| Tailings | 14 | Inadequate capping | Annual Walkover | Trigger | The capped tailings landform is constructed in accordance with the approved capping design and is free-draining and no ponding is present. | Inspections indicate some temporary ponding on the tailings landform, however settlement is within the range considered in the detailed capping design. | Landform is exhibiting permanent or significant ponding issues. |

| Aspect Category / Item | Key Element | Monitoring Program | Trigger Response | Condition Green | Condition Amber | Condition Red | |
|------------------------|-------------|------------------------------------|---|-----------------|--|--|--|
| | | | <p>IEM / LTM</p> <p>Annual Performance Assessment</p> <p>Inspection Program</p> | Response | No response required. Continue monitoring program. | A suitably trained person to inspect the site. Implement survey program to monitor and/or confirm settlement. | Undertake a review of the capping and drainage design and provide recommendations to appropriately remediate the area. Remediate as soon as practicable. |
| Groundwater | 15 | Void water balance | <p>Water Monitoring Program</p> <p>Annual Groundwater Review</p> | Trigger | Water balance and groundwater monitoring indicate void water balance is in line with predictions | Groundwater monitoring TARP trigger activated in area of void influence and indicates that inflows into the void may be higher than the water balance assumptions which, in combination with high surface runoff, could result in the voids filling higher than predicted. | Groundwater inflows are significantly higher than predicted in the water balance and, in combination with high surface runoff, could result in overtopping of the voids. |
| | | | | Response | No response required. Continue monitoring program. | Undertake groundwater investigation based upon TARP trigger exceedance. | Engage a qualified groundwater specialist to undertake a risk assessment and develop controls. Assess potential ways to further reduce surface catchment of voids. |
| Spontaneous Combustion | 15 | Carbonaceous material near surface | <p>Annual Walkover</p> <p>Annual Performance Assessment</p> | Trigger | No spontaneous combustion within rehabilitation area | Localised area of spontaneous combustion within rehabilitation area. | Widespread or multiple areas of spontaneous combustion in rehabilitation areas. |
| | | | | Response | No response required. Continue with existing carbonaceous material management practices. | Develop and implement risk based monitoring and/or remediation plan with advice from suitably trained person. | Review carbonaceous material management practices. |

Number: HVOOC-1797567310-5041

Status: Approved

Effective: 21/11/2024

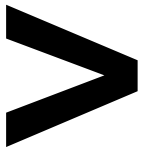
Page 93 of 179

Owner: Environment and Community Coordinator

Version: 2.0

Review: 18/11/2027

| Aspect Category | Item | Key Element | Monitoring Program | Trigger Response | Condition Green | Condition Amber | Condition Red |
|-----------------|------|-------------|-------------------------------------|------------------|--|--|--|
| | | | Inspection Program | | | | Develop remediation plan based on advice from suitably qualified person. |
| Feral Animals | 16 | | Annual monitoring & control program | Trigger | Vertebrate pest populations stable. Impacts in rehabilitation areas limited or absent. | Vertebrate pest populations increasing, and increasing presence or impacts in rehabilitation areas. | Vertebrate pest populations significantly impacting in rehabilitation area or areas. |
| | | | | Response | No response required. Maintain with existing controls. | Assess opportunities for augmentation of existing controls, or implementation of supplementary controls. | Implement additional targeted controls. Engage with external stakeholders. Review ongoing control framework. |
| | | | Inspection Program | | | | |



11 | REVIEW, REVISION AND IMPLEMENTATION

11.1 | REVIEW OF THE REHABILITATION MANAGEMENT PLAN

Reviews are conducted to assess the effectiveness of the procedures against the objectives of the RMP. The RMP must be reviewed and, if necessary, revised, within 3 months following the submission of the following:

- annual review;
- incident report;
- audit;
- updated or new Management Plans that are relevant to rehabilitation; or
- any modification to the conditions of the Project Approval.
- Additionally, the RMP may also be revised due to:
 - deficiencies being identified;
 - results from the monitoring and review program;
 - recommendations resulting from the monitoring and review program;
 - changing environmental requirements;
 - improvements in knowledge or technology become available;
 - change in legislation;
 - where a risk assessment identifies the requirement to alter the RMP; and
 - significant change in the activities or operations.
 - Approval of rehabilitation outcomes documents (within 30 days of approval)

Any major amendments to the RMP that affect its application will be undertaken in consultation with the appropriate regulatory authorities and stakeholders. Revised RMP will be submitted within 6 weeks of completing the review.

11.2 | INDEPENDENT ENVIRONMENTAL AUDIT

As required by Schedule 5, Condition 5 of PA 06_0261 and Schedule 5, Condition 10 of DA 450-10-2003, HVO will undertake an Independent Environmental Audit every three years. The audit will include a review of the rehabilitation undertaken during the reporting period, and an assessment of compliance with this RMP.

11.3 | IMPLEMENTATION

Table 11.1 identifies the personnel who are responsible for the monitoring, review and implementation of this RMP.



Table 11.1- Responsibilities for implementation of this RMP

| POSITION | RESPONSIBILITY |
|--|---|
| Mine Manager | <ul style="list-style-type: none"> • Implement the procedures referenced in this RMP; • Undertake training in relevant Management Plans and procedures as required; • Provide adequate resources for the completion of rehabilitation activities; and • Construct landforms in accordance with this RMP. |
| Technical Services Manager | <ul style="list-style-type: none"> • Implement the procedures referenced in this RMP; • Undertake training in relevant Management Plans and procedures as required; • Provide resources required to implement these procedures; • Develop mine plans to allow for progressive rehabilitation of mined land; and • Liaise with the Environment and Community Department to ensure that regulatory commitments relating to rehabilitation are considered during mine planning processes. |
| Manager Environment and Community | <ul style="list-style-type: none"> • Ensure the relevant Management Plans are prepared; • Coordinate the development of annual rehabilitation plans to guide rehabilitation activities; • Coordinate the development of the site rehabilitation objectives and closure criteria in consultation with key stakeholders; • Coordinate the completion of rehabilitation activities in accordance with this document; • Coordinate the rehabilitation monitoring program and an annual review of monitoring results to provide a continual improvement process for rehabilitation. • Coordinate maintenance as required; • Consult with regulatory authorities as required; • Ensure all personnel undertaking works in relation to this RMP are trained and competent; • Report the progress of rehabilitation in accordance with Development Consent and Clauses 9 and 13 of Schedule 8A to the Mining Regulation 2016 |
| Site Commercial Manager | <ul style="list-style-type: none"> • Ensure that there are adequate provisions available for mine closure by implementing and updating an accrual system over the life of mine. |



12 | DOCUMENT INFORMATION

12.1 | RELATED DOCUMENTS

Related documents, listed in Table below, are documents directly related to or referenced from within this document.

| NUMBER | TITLE |
|--|--|
| <u>HVOOC-1797567310-4933</u> | <u>2024 Annual Rehabilitation and Closer Plan</u> |
| <u>HVOOC-1797567310-3087</u> | <u>HVO South Aboriginal Cultural Heritage Management Plan</u> |
| <u>HVOOC-1797567310-3088</u> | <u>HVO North Aboriginal Heritage Management Plan</u> |
| <u>GCAA-625378177-10336</u> | <u>Completion Criteria and Rehabilitation Monitoring Procedure</u> |
| <u>HVOOC-1797567310-446</u> | <u>Water Management Plan</u> |
| <u>HVOOC-1797567310-1364</u> | <u>HVO Fine Reject Management</u> |
| <u>HVOOC-1797567310-2366</u> | <u>Spontaneous Combustion Principal Hazard Management Plan</u> |
| <u>GCAA-625378177-2844</u> | <u>Risk Management Standard</u> |
| <u>HVOOC-1797567310-4541</u> | <u>Rehabilitation Design and Bulk Shaping Handover Checklist</u> |

12.2 | REFERENCE INFORMATION

Reference information, listed in Table below, is information that is directly referred to for the development of this document

| REFERENCE | TITLE |
|-----------|-------|
| | |



12.3 | CHANGE INFORMATION

Full details of the document history are recorded in the document control register, by version. A summary of the current change is provided in table below.

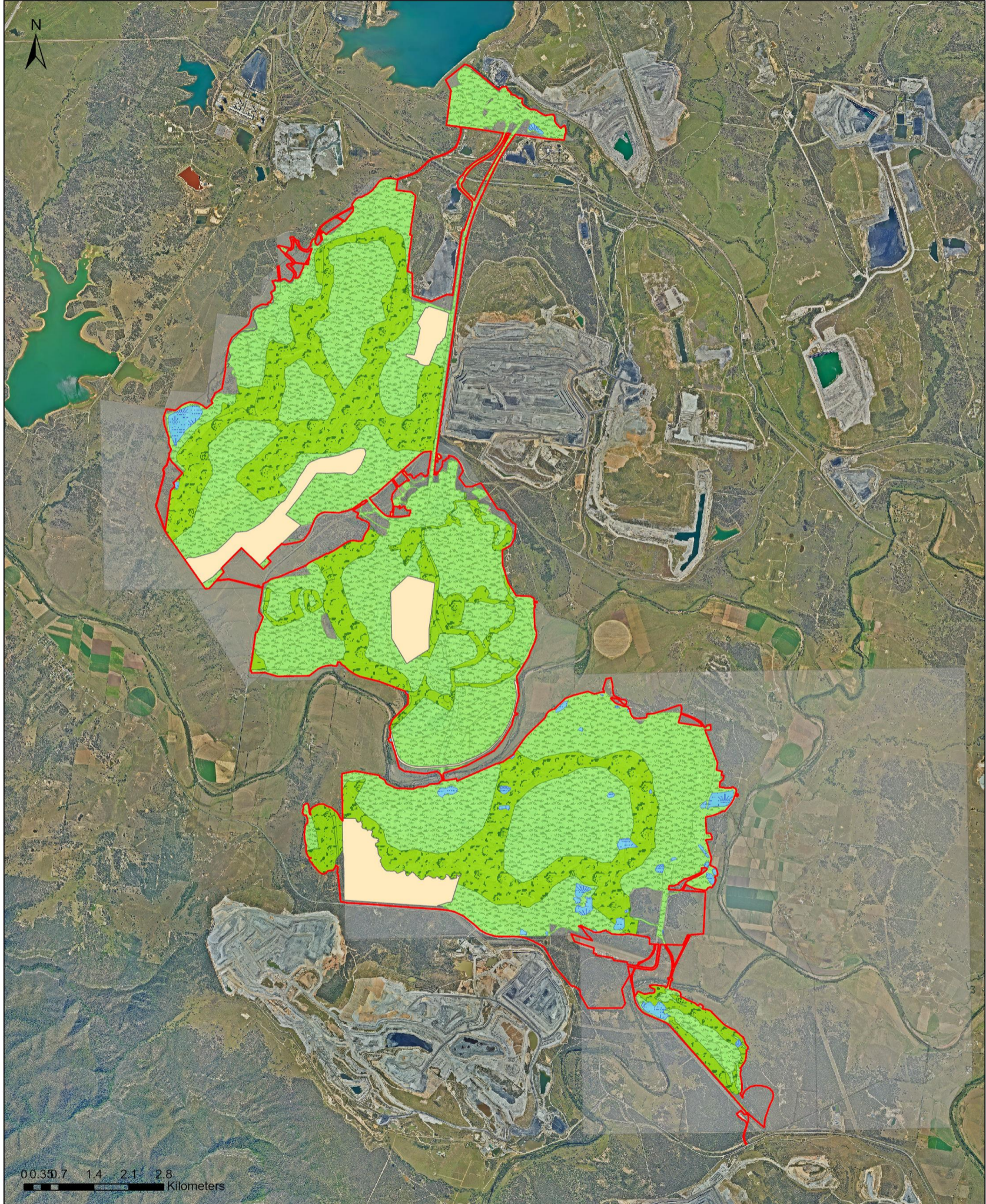
| VERSION | DATE | CHANGE DETAILS |
|---------|----------------|--|
| 1.0 | July 2022 | Original document for DPE review. |
| 1.1 | August 2023 | Updated to include summary of consultation and update of rehabilitation objectives to reflect RR feedback. |
| 1.2 | September 2024 | Update to reflect RR approval of HVO Rehabilitation Objectives and feedback from the RR Revegetation TAP |

APPENDIX A: PLANS

Hunter Valley Operations

Plan 1: Final Landform Features

HUNTER VALLEY OPERATIONS



Legend

- Approved Disturbance Boundary
- Native Ecosystem
- Coal Titles
- Water Management Areas
- Agricultural – Grazing
- Final Landform Features
- Final Void

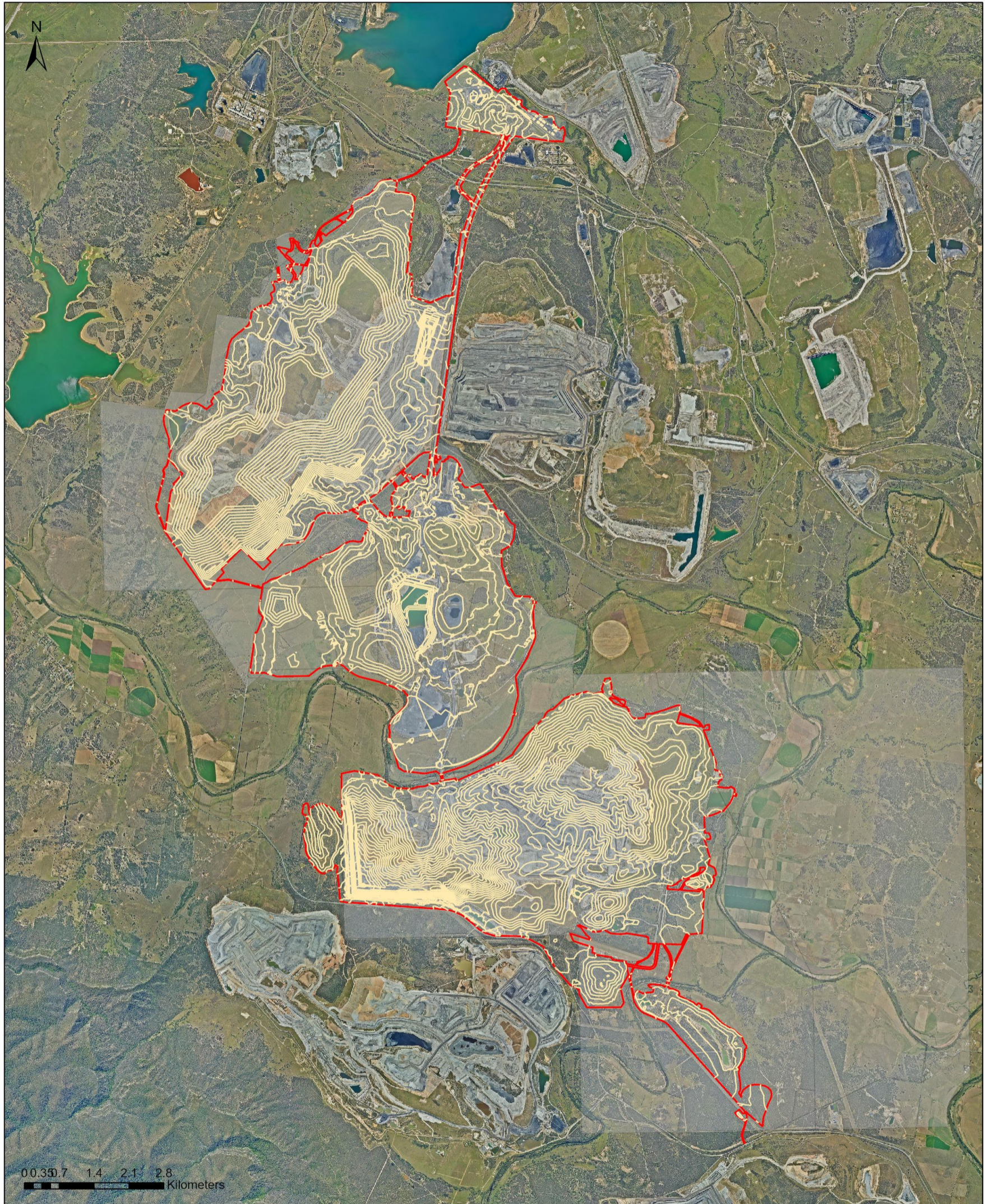
| | |
|-------------------------|---------------------------------|
| Mine Name: | Hunter Valley Operations |
| Plan Name: | Plan 1: Final Landform Features |
| Year: | 2024 |
| Theme | 4070, 7086 |
| Submission No's: | |
| Plan Date: | 01/10/2024 |



Hunter Valley Operations

Plan 2: Final Landform Contours

HUNTER VALLEY OPERATIONS



Legend

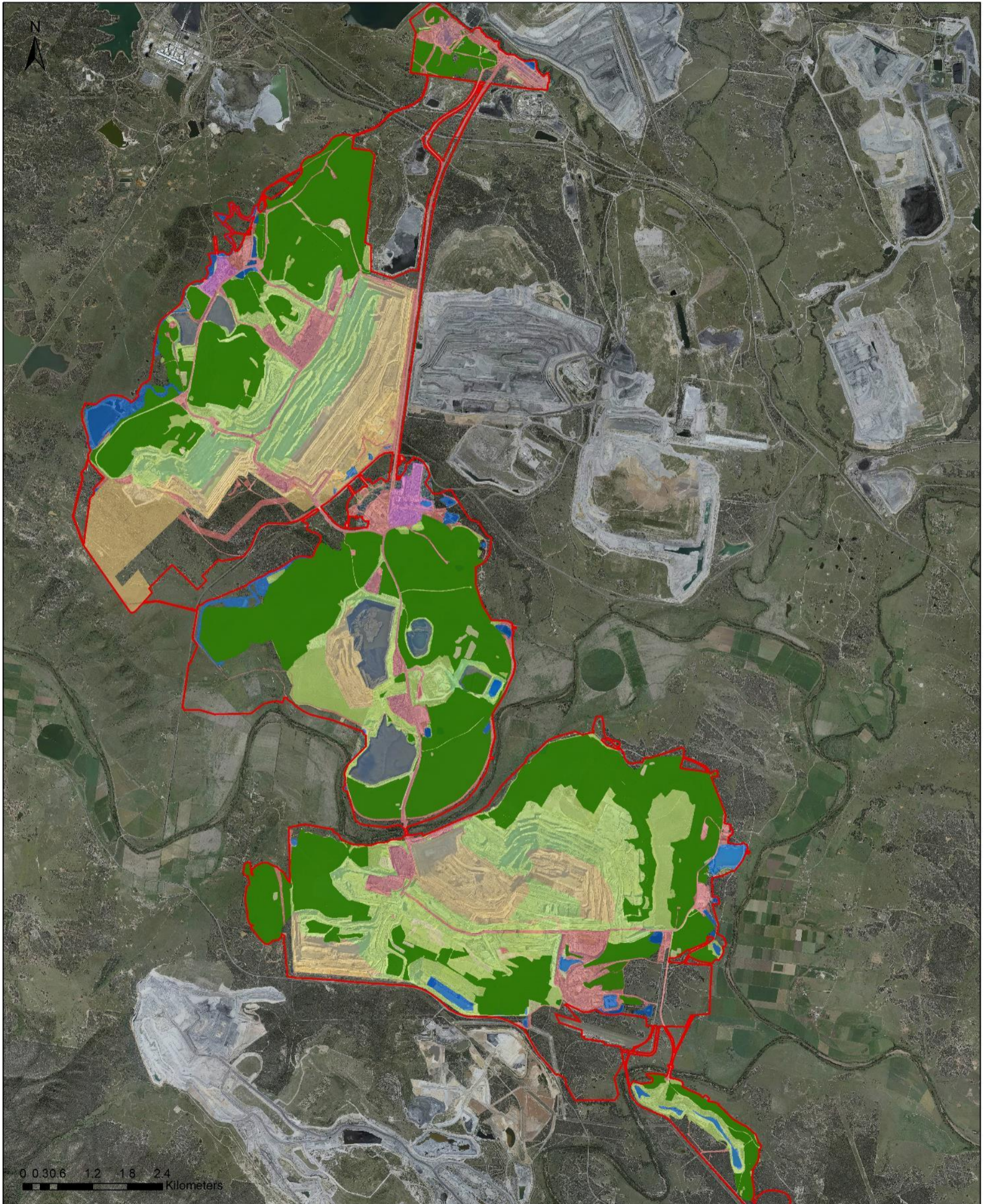
- Approved Disturbance Boundary
- Coal Titles
- Final Landform Contours

| | |
|-------------------------|---------------------------------|
| Mine Name: | Hunter Valley Operations |
| Plan Name: | Plan 2: Final Landform Contours |
| Year: | 2024 |
| Theme | 3976, 4070 |
| Submission No's: | |
| Plan Date: | 01/10/2024 |

Hunter Valley Operations

Plan 3: Rehabilitation Schedule 2022

HUNTER VALLEY OPERATIONS



Legend

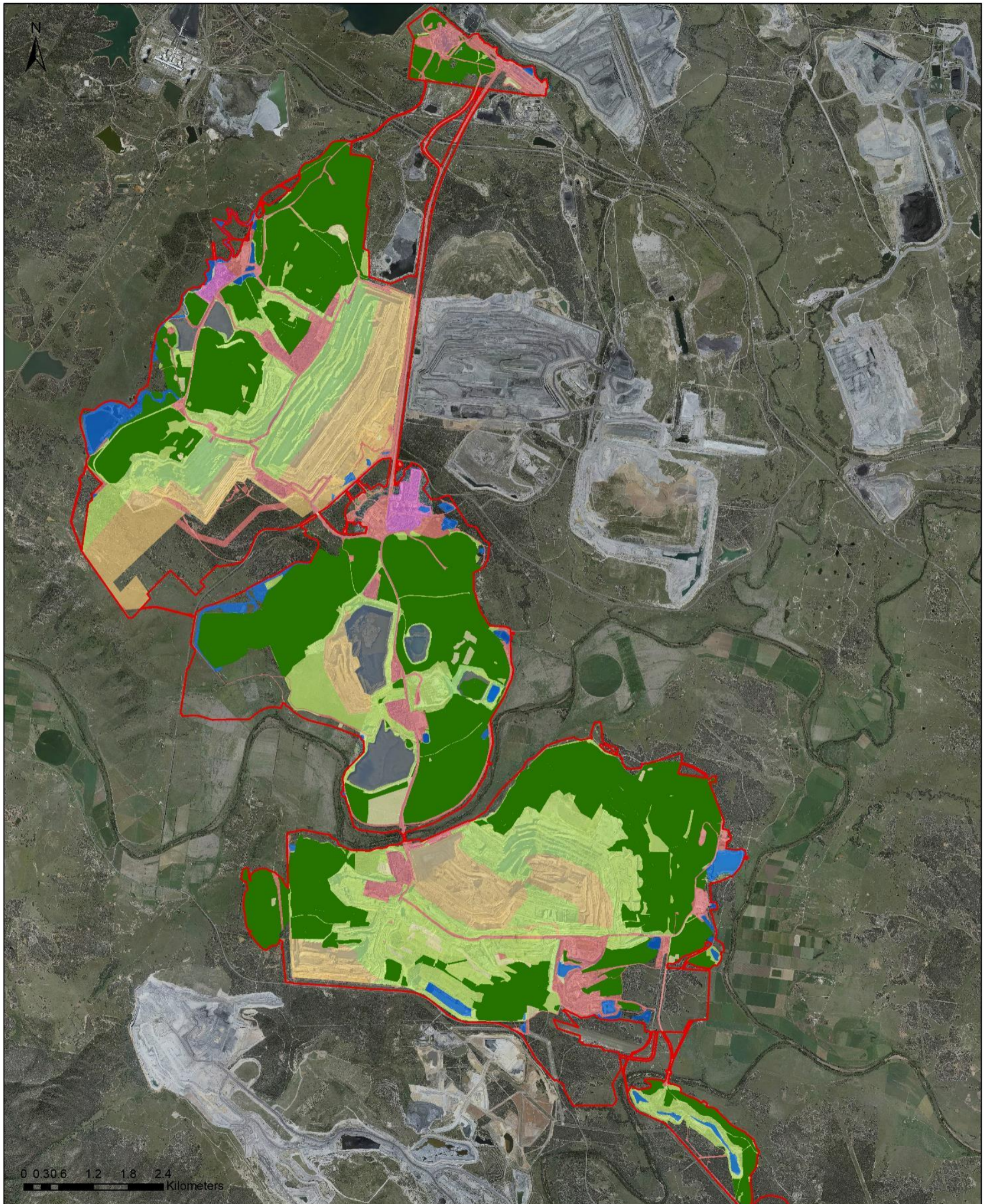
- | | | |
|-------------------------------|------------------------------------|-----------------------------|
| Approved Disturbance Boundary | Mining Domains | Other |
| Rehabilitation | Active Mining Area (Open cut void) | Overburden Emplacement Area |
| | Beneficiation Facility | Tailings Storage Facility |
| | Infrastructure Area | Water Management Area |

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 ERR Australia makes every effort to ensure the quality of the information available on this map. ERR Australia cannot guarantee and assumes no responsibility for the accuracy, currency or completeness of the information and by using this map you agree ERR Australia has no liability for any loss or damage in any form whatsoever caused directly or indirectly from the use of this map.

Hunter Valley Operations

Plan 4: Rehabilitation Schedule 2023

HUNTER VALLEY OPERATIONS



Legend

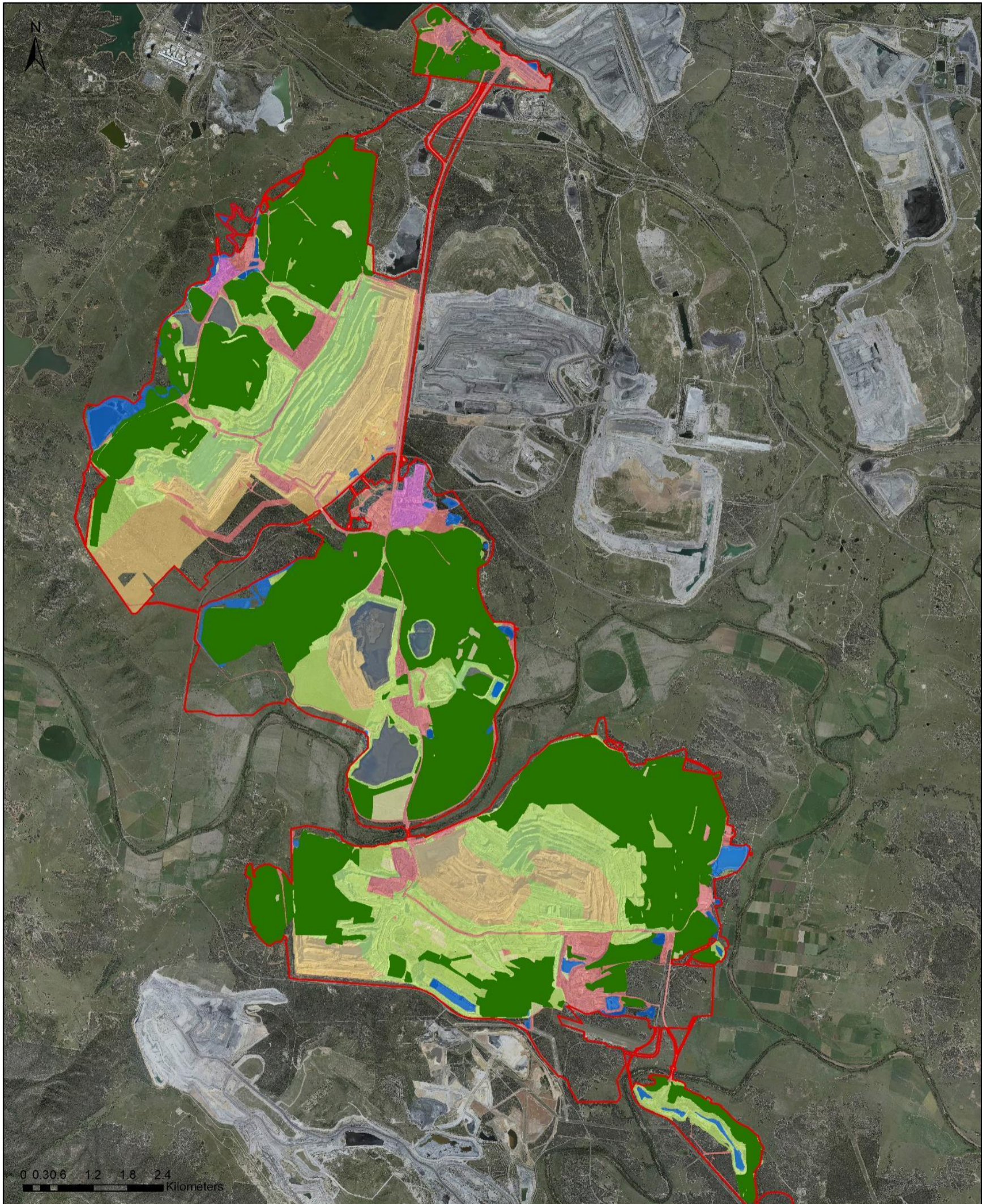
- | | | |
|-------------------------------|------------------------------------|-----------------------------|
| Approved Disturbance Boundary | Mining Domains | Other |
| Rehabilitation | Active Mining Area (Open cut void) | Overburden Emplacement Area |
| | Beneficiation Facility | Tailings Storage Facility |
| | Infrastructure Area | Water Management Area |

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Hunter Valley Operations

Plan 5: Rehabilitation Schedule 2024

HUNTER VALLEY OPERATIONS



Legend

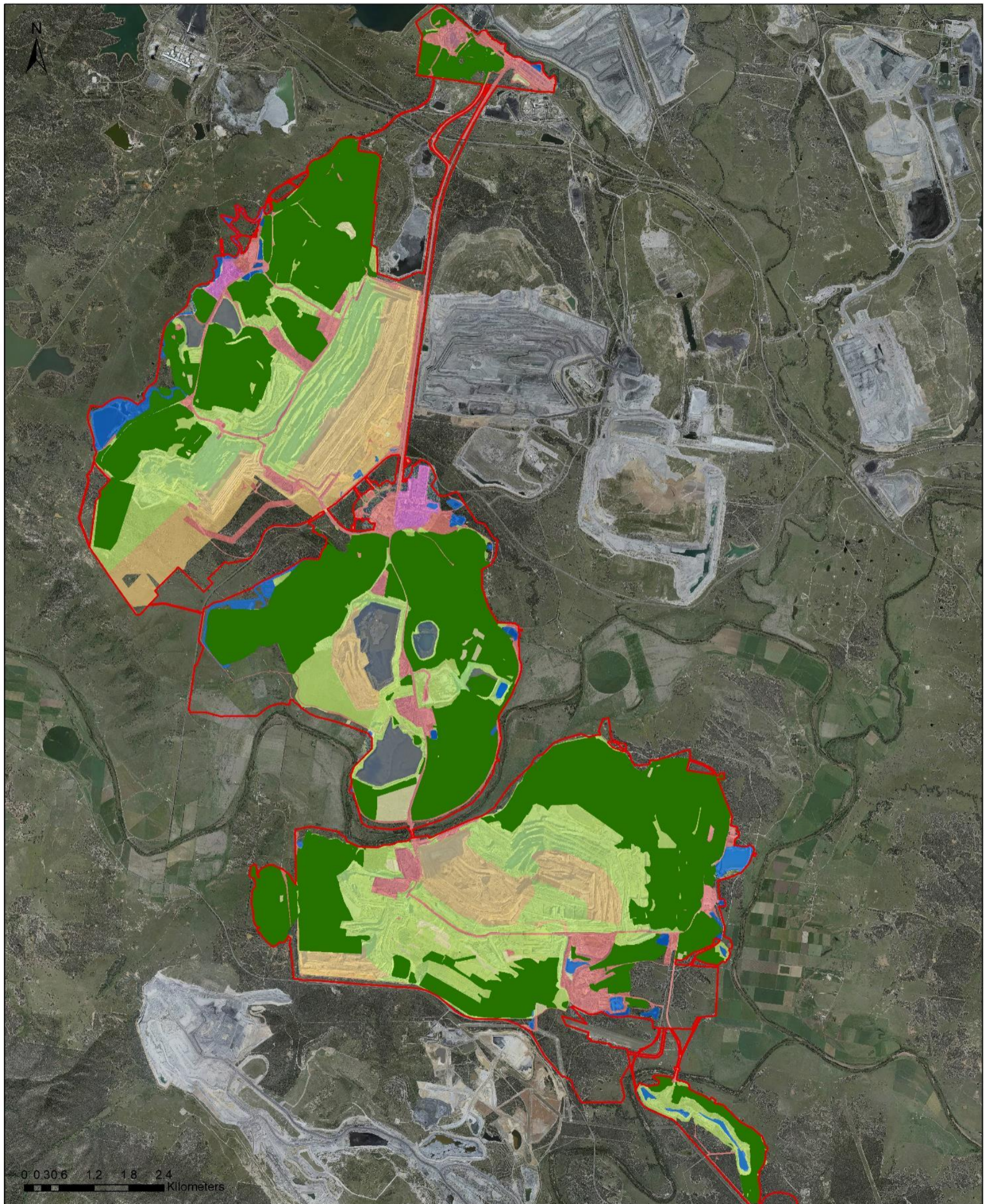
- | | | |
|-------------------------------|------------------------------------|-----------------------------|
| Approved Disturbance Boundary | Mining Domains | Other |
| Rehabilitation | Active Mining Area (Open cut void) | Overburden Emplacement Area |
| | Beneficiation Facility | Tailings Storage Facility |
| | Infrastructure Area | Water Management Area |

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Hunter Valley Operations

Plan 6: Rehabilitation Schedule 2025

HUNTER VALLEY OPERATIONS



Legend

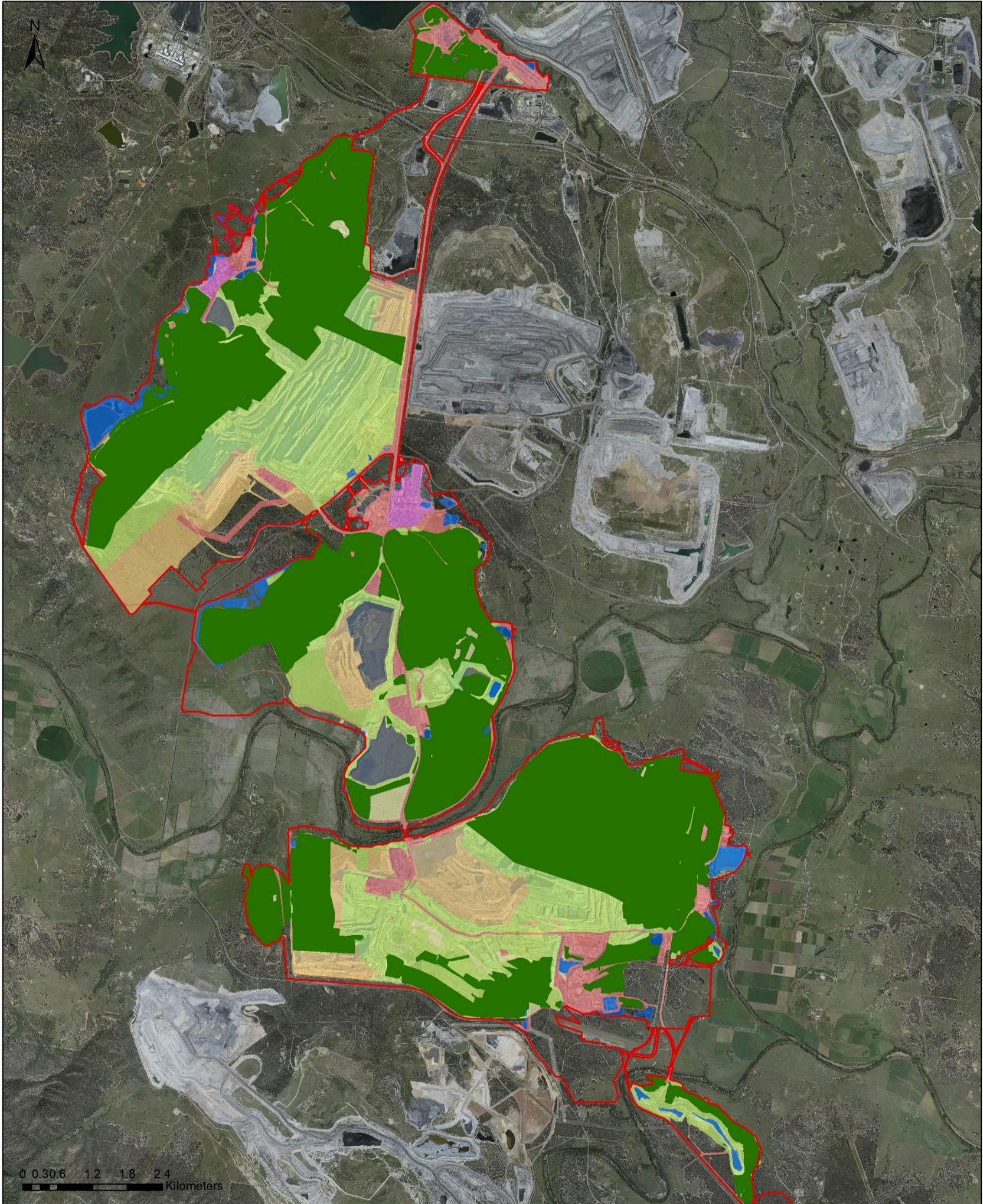
- Approved Disturbance Boundary
- Rehabilitation
- Mining Domains**
- Active Mining Area (Open cut void)
- Beneficiation Facility
- Infrastructure Area
- Other
- Overburden Emplacement Area
- Tailings Storage Facility
- Water Management Area

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Hunter Valley Operations

Plan 7: Rehabilitation Schedule 2030

HUNTER VALLEY OPERATIONS



Legend

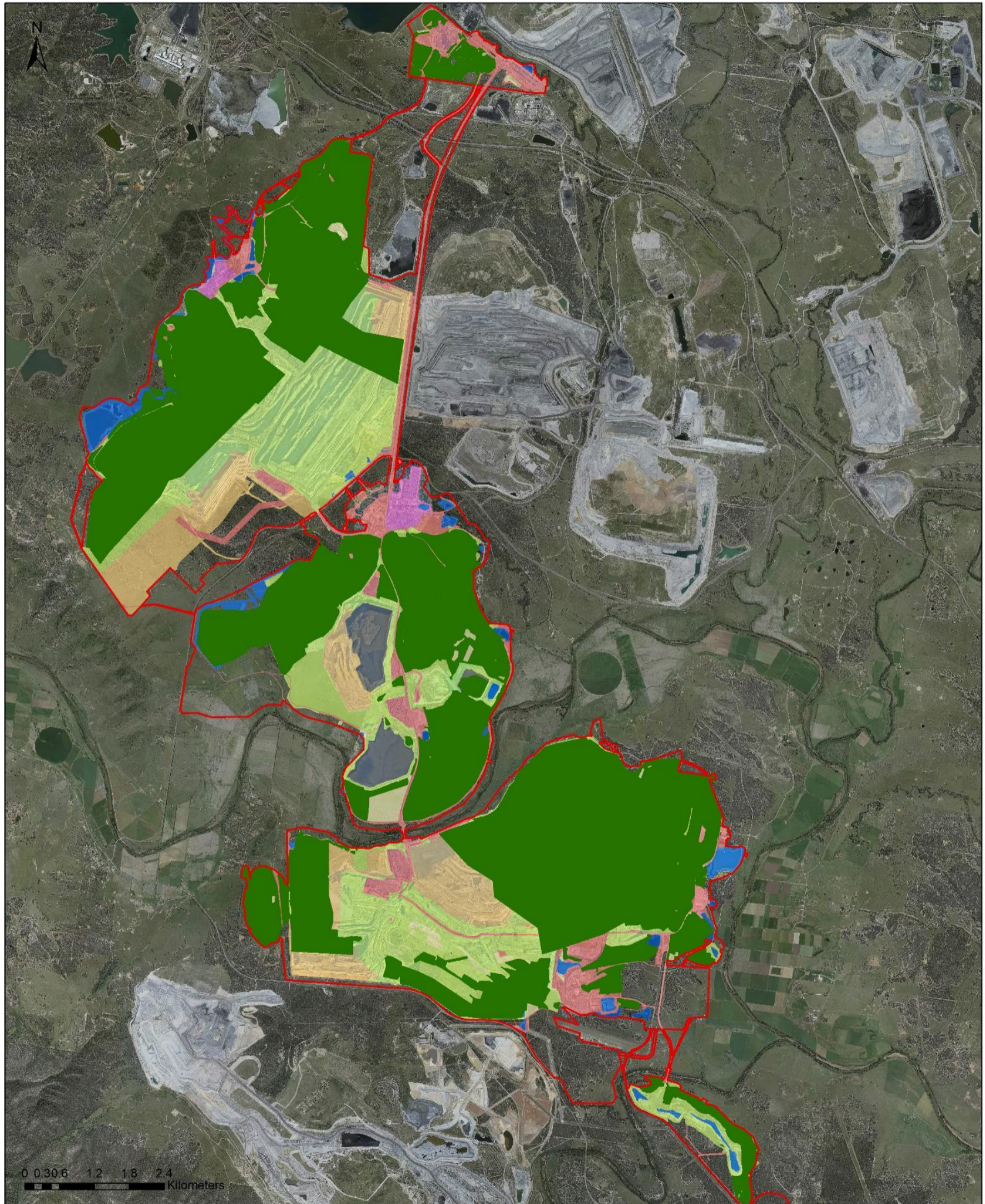
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|-------------------------------|------------------------------------|-----------------------------|
| Approved Disturbance Boundary | Mining Domains | Other |
| Rehabilitation | Active Mining Area (Open cut void) | Overburden Emplacement Area |
| | Beneficiation Facility | Tailings Storage Facility |
| | Infrastructure Area | Water Management Area |

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Hunter Valley Operations

Plan 8: Rehabilitation Schedule 2035

**HUNTER VALLEY
OPERATIONS**



Legend

- | | | |
|-------------------------------|------------------------------------|-----------------------------|
| Approved Disturbance Boundary | Mining Domains | Other |
| Rehabilitation | Active Mining Area (Open cut void) | Overburden Emplacement Area |
| | Beneficiation Facility | Tailings Storage Facility |
| | Infrastructure Area | Water Management Area |

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APPENDIX B: LAND OWNERSHIP SCHEDULE
HVO South

| LOT//DP | OWNER |
|-------------|--|
| 3//3005 | ES BOWMAN |
| 4//3005 | ES BOWMAN |
| 5//3005 | ES BOWMAN |
| 6//3005 | RUSSELL JOHN & JANELLE SUSAN WENHAM |
| 7//3005 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 8//3005 | GREGORY JOHN ERNST |
| 9//3005 | GREGORY JOHN ERNST |
| 10//3005 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//48394 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//48591 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//48592 | COAL & ALLIED OPERATIONS PTY LIMITED |
| 1//48646 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 2//48646 | Coal & Allied Operations Pty Ltd |
| 3//48646 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//66331 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//70857 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 2//90052 | Telstra Corporation Limited |
| 1//90727 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 7001//93632 | The State of New South Wales |
| 1//105943 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//111381 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 2//111381 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 3//111381 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 2//113342 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 3//113342 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 4//113342 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//113343 | WAMBO COAL PTY LIMITED |

| LOT//DP | OWNER |
|------------|--|
| 2//113343 | WAMBO MINING CORPORATION PTY. LIMITED |
| 3//113343 | WAMBO MINING CORPORATION PTY. LIMITED |
| 4//113343 | WAMBO MINING CORPORATION PTY. LIMITED |
| 5//113343 | WAMBO MINING CORPORATION PTY. LIMITED |
| 10//113343 | WAMBO MINING CORPORATION PTY LIMITED |
| 1//114966 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 2//114966 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//123374 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//129808 | COAL & ALLIED OPERATIONS PTY LIMITED |
| 1//129811 | Warkworth Mining Limited |
| 2//129811 | Warkworth Mining Limited |
| 3//129811 | Warkworth Mining Limited |
| 1//182139 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//191982 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//195523 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//246201 | Warkworth Mining Limited |
| 5//247239 | CONSTRUCTION, FORESTRY, MINING & ENERGY UNION |
| 6//247239 | Anthony John Maher and Andrew William Vickers |
| 7//247239 | Anthony John Maher and Andrew William Vickers |
| 8//247239 | Anthony John Maher and Andrew William Vickers |
| 10//247239 | HUNTER VALLEY GLIDING CLUB CO-OPERATIVE LIMITED |
| 12//247239 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 13//247239 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 14//247239 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 15//247239 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 16//247239 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//249327 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 5//251617 | COAL & ALLIED OPERATIONS PTY LTD (61.447%) and HVO RESOURCES PTY LTD (29.454%) & GREGORY JOHN ERNST (9.099%) |

| LOT//DP | OWNER |
|--------------|--|
| 1//251877 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 202//257063 | WAMBO COAL PTY LIMITED |
| 2//300150 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 2//306421 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| A//386100 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| B//386100 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//532623 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 134//566275 | Anthony John Maher and Andrew William Vickers |
| 2//583524 | WAMBO COAL PTY LIMITED |
| 1420//586339 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1421//586339 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 11//586639 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 12//586639 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 102//588247 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//592598 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 745//597317 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 300//597726 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 31//610878 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 32//610878 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 33//610878 | United Collieries Pty Limited & Wambo Coal Pty Limited |
| 2//617852 | Anthony John Maher and Andrew William Vickers |
| 1//619309 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 2//619309 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//633717 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 2//633717 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 3//635392 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 4//635392 | Anthony John Maher and Andrew William Vickers |
| 1//657394 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |

| LOT//DP | OWNER |
|-------------|--|
| 1//659810 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 152//704486 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 153//704486 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 154//704486 | THE STATE OF NEW SOUTH WALES |
| 155//705446 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//710088 | THE STATE OF NEW SOUTH WALES |
| 2//710088 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//719879 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 2//719879 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 5//720643 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//723248 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 2//723248 | COAL & ALLIED OPERATIONS PTY LIMITED |
| 1//723249 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//729048 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 164//729960 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 165//729961 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 166//729962 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 167//729963 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//729984 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//729985 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 91//733895 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 92//733895 | HUNTER VALLEY GLIDING CLUB CO-OPERATIVE LIMITED |
| 1//737796 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//737880 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 2//737880 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//738657 | WAMBO COAL PTY LIMITED |
| 2//738657 | WAMBO COAL PTY LIMITED |
| 10//740183 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |

| LOT//DP | OWNER |
|-------------|--|
| 1//741544 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 17//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 18//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 21//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 22//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 89//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 98//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 117//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 118//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 119//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 120//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 121//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 122//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 123//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 124//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 125//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 126//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 127//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 164//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 170//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 171//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 12//753792 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 13//753792 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 14//753792 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 15//753792 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 16//753792 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 19//753792 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 20//753792 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |

| LOT//DP | OWNER |
|-------------|--|
| 21//753792 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 22//753792 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 23//753792 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 24//753792 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 25//753792 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 26//753792 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 27//753792 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 28//753792 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 29//753792 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 30//753792 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 31//753792 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 75//753792 | Unable to verify ownership in Info Track as says "could not be verified". Narrow residual lot/road in between 300//597726 and Crown road |
| 86//753792 | WAMBO COAL PTY LIMITED |
| 87//753792 | WAMBO COAL PTY LIMITED |
| 88//753792 | WAMBO COAL PTY LIMITED |
| 89//753792 | WAMBO COAL PTY LIMITED |
| 115//753792 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 120//753792 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 121//753792 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 122//753792 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 130//753792 | THE STATE OF NEW SOUTH WALES |
| 140//753792 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 141//753792 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 147//753792 | United Collieries Pty Ltd |
| 151//753792 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 2//755267 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 14//755267 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 40//755267 | GLENCORE COAL (NSW) PTY LIMITED |

| LOT//DP | OWNER |
|-------------|--|
| 41//755267 | GLENCORE COAL (NSW) PTY LIMITED |
| 43//755267 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 86//755267 | WAMBO COAL TERMINAL PTY LTD |
| 88//755267 | WAMBO COAL TERMINAL PTY LTD |
| 108//755267 | COAL & ALLIED OPERATIONS PTY LIMITED |
| 112//755267 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 114//755267 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 118//755267 | COAL & ALLIED OPERATIONS PTY LIMITED |
| 119//755267 | COAL & ALLIED OPERATIONS PTY LIMITED |
| 121//755267 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 122//755267 | COAL & ALLIED OPERATIONS PTY LIMITED |
| 123//755267 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 128//755267 | COAL & ALLIED OPERATIONS PTY LIMITED |
| 135//755267 | COAL & ALLIED OPERATIONS PTY LIMITED |
| 142//755267 | COAL & ALLIED OPERATIONS PTY LIMITED |
| 143//755267 | COAL & ALLIED OPERATIONS PTY LIMITED |
| 145//755267 | COAL & ALLIED OPERATIONS PTY LIMITED |
| 171//755267 | WAMBO COAL TERMINAL PTY LTD |
| 174//755267 | WAMBO COAL TERMINAL PTY LTD |
| 186//755267 | GLENCORE COAL (NSW) PTY LIMITED |
| 193//755267 | Singleton Council Road |
| 194//755267 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 195//755267 | COAL & ALLIED OPERATIONS PTY LIMITED |
| 199//755267 | WAMBO MINING CORPORATION PTY. LIMITED |
| 1/1/759053 | WAMBO COAL PTY LIMITED |
| 1/2/759053 | WAMBO COAL PTY LIMITED |
| 1/4/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 1/5/759053 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |

| LOT//DP | OWNER |
|-------------|--|
| 1/6/759053 | Singleton Shire Council |
| 1/16/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 1/17/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 1/21/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 1/25/759053 | Wanaruah Local Aboriginal Land Council |
| 2/1/759053 | WAMBO COAL PTY LIMITED |
| 2/2/759053 | WAMBO COAL PTY LIMITED |
| 2/4/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 2/5/759053 | The State of New South Wales |
| 2/6/759053 | Singleton Shire Council |
| 2/16/759053 | WAMBO COAL PTY LIMITED |
| 2/17/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 2/21/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 2/25/759053 | Wanaruah Local Aboriginal Land Council |
| 3/1/759053 | WAMBO COAL PTY LIMITED |
| 3/2/759053 | WAMBO COAL PTY LIMITED |
| 3/4/759053 | The State of New South Wales |
| 3/5/759053 | The State of New South Wales |
| 3/16/759053 | WAMBO COAL PTY LIMITED |
| 3/21/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 4/1/759053 | WAMBO COAL PTY LIMITED |
| 4/2/759053 | WAMBO COAL PTY LIMITED |
| 4/3/759053 | WAMBO COAL PTY LIMITED |
| 4/4/759053 | The State of New South Wales |
| 4/21/759053 | WAMBO COAL PTY LIMITED |
| 5/1/759053 | WAMBO COAL PTY LIMITED |
| 5/2/759053 | WAMBO COAL PTY LIMITED |
| 5/3/759053 | WAMBO COAL PTY LIMITED |

| LOT//DP | OWNER |
|-------------|---------------------------------------|
| 5/4/759053 | The State of New South Wales |
| 5/21/759053 | WAMBO COAL PTY LIMITED |
| 6/1/759053 | WAMBO COAL PTY LIMITED |
| 6/2/759053 | WAMBO COAL PTY LIMITED |
| 6/3/759053 | WAMBO COAL PTY LIMITED |
| 6/4/759053 | The State of New South Wales |
| 7/1/759053 | WAMBO COAL PTY LIMITED |
| 7/2/759053 | WAMBO COAL PTY LIMITED |
| 7/3/759053 | WAMBO COAL PTY LIMITED |
| 7/4/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 8/1/759053 | WAMBO COAL PTY LIMITED |
| 8/2/759053 | WAMBO COAL PTY LIMITED |
| 8/3/759053 | WAMBO COAL PTY LIMITED |
| 8/4/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 9/1/759053 | WAMBO COAL PTY LIMITED |
| 9/2/759053 | WAMBO COAL PTY LIMITED |
| 9/3/759053 | WAMBO COAL PTY LIMITED |
| 9/4/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 10/1/759053 | WAMBO COAL PTY LIMITED |
| 10/2/759053 | WAMBO COAL PTY LIMITED |
| 10/3/759053 | WAMBO COAL PTY LIMITED |
| 10/4/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 11/2/759053 | WAMBO COAL PTY LIMITED |
| 11/3/759053 | WAMBO COAL PTY LIMITED |
| 11/4/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 12/2/759053 | WAMBO COAL PTY LIMITED |
| 12/3/759053 | WAMBO COAL PTY LIMITED |
| 12/4/759053 | WAMBO MINING CORPORATION PTY. LIMITED |

| LOT//DP | OWNER |
|-------------|---------------------------------------|
| 13/2/759053 | WAMBO COAL PTY LIMITED |
| 13/3/759053 | WAMBO COAL PTY LIMITED |
| 13/4/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 14/3/759053 | WAMBO COAL PTY LIMITED |
| 14/4/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 15/3/759053 | WAMBO COAL PTY LIMITED |
| 15/4/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 16/3/759053 | WAMBO COAL PTY LIMITED |
| 16/4/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 17/3/759053 | WAMBO COAL PTY LIMITED |
| 17/4/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 18/3/759053 | WAMBO COAL PTY LIMITED |
| 18/4/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 19/3/759053 | WAMBO COAL PTY LIMITED |
| 19/4/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 20/3/759053 | WAMBO COAL PTY LIMITED |
| 20/4/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 21/4/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 22/4/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 23/4/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 24/4/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 25/4/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 26/4/759053 | WAMBO MINING CORPORATION PTY. LIMITED |
| 1//770904 | GLENCORE COAL (NSW) PTY LIMITED |
| 2//770904 | GLENCORE COAL (NSW) PTY LIMITED |
| 3//770904 | GLENCORE COAL (NSW) PTY LIMITED |
| 4//770904 | GLENCORE COAL (NSW) PTY LIMITED |
| 5//770904 | GLENCORE COAL (NSW) PTY LIMITED |

| LOT//DP | OWNER |
|---------------------------|--|
| 6//770904 | Edward John & Carol Lesley Anne Burley |
| 7//770904 | GLENCORE COAL (NSW) PTY LIMITED |
| 1//770905 | GLENCORE COAL (NSW) PTY LIMITED |
| 1//782299 | Glencore COAL PTY LIMITED |
| 1//783484 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 2//783484 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 3//783484 | COAL & ALLIED OPERATIONS PTY LIMITED |
| 4//783484 | COAL & ALLIED OPERATIONS PTY LIMITED |
| 5//783484 | COAL & ALLIED OPERATIONS PTY LIMITED |
| 1001//785197 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1002//785197 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//794506 | WAMBO COAL PTY LIMITED |
| 2//794506 | WAMBO COAL PTY LIMITED |
| 3//794506 | WAMBO COAL PTY LIMITED |
| 1//797721 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 2//808301 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 204//821040 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//821123 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//821127 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//822177 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//823767 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 170//823775 | The State of NSW |
| 172//823775 | The State of NSW |
| 173//823775 / CL586318 | The State of NSW – Access Licence 586318 |
| 175//823775 | The State of NSW (TSR) |
| 176//823775 | Singleton Shire Council |
| 179//823775 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 180//823775 | Singleton Shire Council |

| LOT//DP | OWNER |
|--------------|--|
| 182//823775 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 2//835812 | Anthony John Maher and Andrew William Vickers |
| 3//835812 | Anthony John Maher and Andrew William Vickers |
| 4//835812 | Anthony John Maher and Andrew William Vickers |
| 9//835812 | Anthony John Maher and Andrew William Vickers |
| 11//843432 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 12//843432 | TELSTRA CORPORATION LIMITED |
| 50//848334 | WAMBO COAL PTY LIMITED |
| 1//857021 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//876447 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 2//876447 | COAL & ALLIED OPERATIONS PTY LIMITED |
| 1//901179 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//947886 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//963714 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 146//970755 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//997228 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//998117 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 2//998117 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 854//1000822 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//1041635 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//1043120 | GLENCORE COAL (NSW) PTY LIMITED |
| 3//1085145 | Wambo Coal Pty Ltd |
| 4//1085145 | Wambo Coal Pty Ltd |
| 5//1085145 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 20//1085391 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//1088908 | WAMBO COAL TERMINAL PTY LTD |
| 2//1088908 | WAMBO COAL TERMINAL PTY LTD |
| 1//1090601 | WAMBO COAL PTY LIMITED |

| LOT//DP | OWNER |
|---|--|
| 1//1102213 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//1103396 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 21//1109631 | Warkworth Hall Community Centre Incorporated |
| 84//1124139 | Warkworth Mining Limited |
| 33//1125285 | AZSA PASTORAL HOLDINGS PTY LIMITED |
| 34//1125285 | AZSA PASTORAL HOLDINGS PTY LIMITED |
| 1//1126528 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 350//1135536 | Warkworth Mining Limited |
| 360//1135647 | Warkworth Mining Limited |
| 2011//1137289 | The State of New South Wales |
| 73//1137954 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 2//1153480 | WAMBO COAL TERMINAL PTY LTD |
| 1000//1153575 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//1156393 | Singleton Shire Council |
| 11//1262456 | Trustee of Church Property for the Diocese of Newcastle |
| 12//1262456 | Trustee of Church Property for the Diocese of Newcastle |
| 13//1262456 | Trustee of Church Property for the Diocese of Newcastle |
| 3//1171764 | Trustee of Church Property for the Diocese of Newcastle |
| 1//1177768 | Anthony John Maher and Andrew William Vickers |
| 1//1217808 | Janelle Susan Wenham |
| EP 51200 | EP (assume to Coal and Allied Operations Pty Limited) |
| CL 565353 | THE STATE OF NEW SOUTH WALES |
| CROWN LICENCE 175936 | Crown (Coal & Allied Operations Pty Limited) Licence 175936 |
| VARIOUS CROWN AND COUNCIL ROAD RESERVES | |
| BED AND BANKS OF THE HUNTER RIVER | |
| BED AND BANKS OF WOLLOMBI BROOK | |

HVO North

| LOT//DP | OWNER |
|-------------|--|
| 1//48165 | Her most gracious majesty Queen Elizabeth the second |
| 2//48165 | Crown |
| 3//48165 | Her most gracious majesty Queen Elizabeth the second |
| 4//48165 | Crown |
| 5//48165 | Her most gracious majesty Queen Elizabeth the second |
| 6//48165 | Crown (Lemington Road) |
| 7//48165 | Road |
| 8//48165 | Her most gracious majesty Queen Elizabeth the second |
| 9//48165 | Her most gracious majesty Queen Elizabeth the second |
| 2//48555 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 3//48555 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 4//48555 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 5//48555 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 7//48555 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//90727 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 7001//93617 | THE STATE OF NEW SOUTH WALES |
| 1//110662 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//114966 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 2//114966 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//125406 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 2//125406 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 3//125406 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 4//125406 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 5//125406 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 6//125406 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 7//125406 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 8//125406 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 9//125406 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |

| LOT//DP | OWNER |
|-------------|--|
| 10//125406 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 11//125406 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 4//130831 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//135459 | State Rail Authority of NSW |
| 1//191982 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//211043 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 3//252530 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 4//252530 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 5//252530 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 8//252530 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 201//544091 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//574166 | AGL MACQUARIE PTY LTD |
| 2//574166 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 300//597726 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//659810 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 100//700429 | ALPHA DISTRIBUTION MINISTERIAL HOLDING CORPORATION (Ausgrid) |
| 1//727260 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//729048 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//737796 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 10//740183 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 53//752468 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 54//752468 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 65//752468 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 66//752468 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 68//752468 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 70//752468 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 71//752468 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 80//752468 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |

| LOT//DP | OWNER |
|-------------|--|
| 81//752468 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 82//752468 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 83//752468 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 84//752468 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 93//752468 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 94//752468 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 102//752468 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 127//752468 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 156//752468 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 157//752468 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 158//752468 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 159//752468 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 89//752470 | TBC |
| 17//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 18//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 21//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 22//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 38//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 58//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 82//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 83//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 89//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 98//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 117//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 118//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 119//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 120//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 121//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |

| LOT//DP | OWNER |
|--------------------|--|
| 122//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 123//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 124//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 125//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 126//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 127//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 164//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 170//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 171//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 200//752481 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//776382 | Crown Road |
| 4//776382 | Crown lands - water course Bayswater Creek |
| 1//779625 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 21//786904 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 22//786904 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//794836 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 2//808301 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//808431 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 2//808431 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//823767 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 16//848095 | Cumnock No 1 Colliery Pty Limited, ICRA CUMNOCK PTY LIMITED |
| 300//856881 | Cumnock No 1 Colliery Pty Limited, ICRA CUMNOCK PTY LIMITED |
| 11//858172 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 304//868175 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 22//869399 | Resource Pacific Ltd, Cumnock No.1 Colliery Pty Ltd, Muswellbrook Coal Company Ltd, ICRA Cumnock Pty Ltd |
| 380//869839 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 182//975271 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 183//975271 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |

| LOT//DP | OWNER |
|---------------|--|
| 184//975271 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 192//975271 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 193//975271 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 211//975271 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 212//975271 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 217//975271 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 218//975271 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 219//975271 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 221//975271 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 101//1017998 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 601//1019325 | AGL MACQUARIE PTY LTD |
| 111//1059007 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//1078618 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 20//1085391 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 102//1103268 | LIDDELL TENEMENTS PTY LIMITED, MITSUI MATSUSHIMA AUSTRALIA PTY LIMITED, ENEX LIDDELL PTY LIMITED |
| 103//1103268 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//1113789 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 2//1113789 | Singleton Shire Council |
| 3//1113789 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 4//1113789 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 5//1113789 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 6//1113789 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 7//1113789 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1481//1129164 | THE STATE OF NEW SOUTH WALES |
| 3000//1132357 | Cumnock No 1 Colliery Pty Limited, ICRA CUMNOCK PTY LIMITED |
| 1//1152619 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 2//1152619 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 3//1152619 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |

| LOT//DP | OWNER |
|---------------|--|
| 4//1152619 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1000//1153575 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 1//1155775 | AGL MACQUARIE PTY LTD |
| 1//1158958 | Transport for NSW |
| 2//1167986 | AGL MACQUARIE PTY LTD |
| 120//1174907 | AGL MACQUARIE PTY LTD |
| 121//1174907 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 122//1174907 | Coal & Allied Operations Pty Ltd 51% and Anotero Pty Limited 49% |
| 2//1193186 | RAVENSWORTH OPERATIONS PTY LIMITED |

PART CROWN (COAL & ALLIED OPERATIONS PTY LIMITED) LICENCE 175936

CROWN LAND - CLOSED ROAD - NORTH SIDE 7001//93617

PART CROWN LAND SOUTH BANK HUNTER RIVER

OLD HIGHWAY RD

LEMINGTON ROAD

LIDDELL STATION RD

NEW ENGLAND HWY NEW ENGLAND HWY

RAILWAY - NEWDELL RAIL SPUR

VARIOUS CROWN AND COUNCIL ROADS

BED AND BANKS OF HUNTER RIVER

BED AND BANKS OF BAYSWATER CREEK

APPENDIX C: REHABILITATION RISK ASSESSMENT SUMMARY

| 5. Workplace Risk Assessment & Control (WRAC) | | | | | | | | | | | | |
|--|------------------------------------|---|--|--|----------------------------|----------------------------------|------------------------------|--------------------|------------------------|--|----------------------------------|---|
| Key Element (Context / Category) | Sub Key Element (If applicable) | Risk Description - Something happens..... | Consequence - resulting in: | Existing Control Description (ensure that the controls are coded against the hierarchy and considered for control effectiveness) E = Eliminate, S = Substitution, I = isolation, EN = Engineering, A = Administration, P = PPE | Risk Control Effectiveness | Expected Consequence Category | Expected Risk Consequence | Risk Likelihood | Current Risk Rating | Potential Maximum Consequence Category | Potential Maximum Consequence | Treatment plans/tasks/comment (Description) |
| Environmental | 1. General | Insufficient skills and experience of rehab personnel. | Poor quality rehabilitation / failure to meet closure criteria | Long term contract for ground prep and revegetation works Rehabilitation & Disturbance Procedure General Hunter Valley rehab contractor experience | 3 | ENV | 1 | D | 2 | 2 | Environment | |
| Environmental | 1. General | Lack of defined responsibilities. | Poor quality rehabilitation / failure to meet closure criteria | HVO Organisation Chart Rehabilitation Management Plan / Rehabilitation & Disturbance Procedure ARCP | 3 | ENV | 1 | D | 2 | 1 | Environment | |
| Environmental | 1. General | Insufficient funding for or prioritisation of rehabilitation activities | Failure to meet closure criteria | LOM Process Budget process ARCP | 3 | ENV | 1 | D | 2 | 3 | Environment | |

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| 5. Workplace Risk Assessment & Control (WRAC) | | | | | | | | | | | | |
|---|------------------------------------|---|--|--|----------------------------|-------------------------------|---------------------------|-----------------|---------------------|--|-------------------------------|---|
| Key Element (Context / Category) | Sub Key Element (If applicable) | Risk Description - Something happens..... | Consequence - resulting in: | Existing Control Description (ensure that the controls are coded against the hierarchy and considered for control effectiveness) E = Eliminate, S = Substitution, I = isolation, EN = Engineering, A = Administration, P = PPE | Risk Control Effectiveness | Expected Consequence Category | Expected Risk Consequence | Risk Likelihood | Current Risk Rating | Potential Maximum Consequence Category | Potential Maximum Consequence | Treatment plans/tasks/comment (Description) |
| Environmental | 2. Active Mining Phase | Poor biological resource salvage and maintenance (soil, vegetation, seeds, habitat resources) | Insufficient material for rehabilitation | Rehabilitation & Disturbance Procedure Topsoil Management Plan Vegetation Clearance Plan GDP Process ARCP | 3 | ENV | 1 | C | 4 | 2 | Environment | |
| Environmental | 2. Active Mining Phase | Limited biological resources for salvage (soil, vegetation, seeds, habitat resources) | Insufficient material for rehabilitation | Rehabilitation & Disturbance Procedure Topsoil Management Plan Vegetation Clearance Plan GDP Process | 2 | ENV | 2 | B | 12 | 3 | Environment | Formalise LOM topsoil balance to quantify topsoil deficit |
| Environmental | 2. Active Mining Phase | Clearing in adverse seasonal and weather conditions when salvaging biological resources | Poor quality rehabilitation / failure to meet closure criteria | Rehabilitation & Disturbance Procedure Topsoil Management Plan Vegetation Clearance Plan GDP Process Budget planning ARCP | 3 | ENV | 1 | D | 2 | 1 | Environment | |

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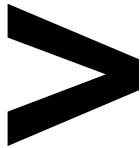
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| 5. Workplace Risk Assessment & Control (WRAC) | | | | | | | | | | | | |
|---|------------------------------------|--|--|--|----------------------------|----------------------------------|------------------------------|--------------------|------------------------|--|----------------------------------|---|
| Key Element (Context / Category) | Sub Key Element (If applicable) | Risk Description - Something happens..... | Consequence - resulting in: | Existing Control Description (ensure that the controls are coded against the hierarchy and considered for control effectiveness) E = Eliminate, S = Substitution, I = isolation, EN = Engineering, A = Administration, P = PPE | Risk Control Effectiveness | Expected Consequence Category | Expected Risk Consequence | Risk Likelihood | Current Risk Rating | Potential Maximum Consequence Category | Potential Maximum Consequence | Treatment plans/tasks/comment (Description) |
| Environmental | 2. Active Mining Phase | Adverse geochemical/chemical composition of materials (overburden, soils) | Poor quality rehabilitation / failure to meet closure criteria | Rehabilitation & Disturbance Procedure Topsoil Management Plan Mineral Waste Management Plan Dig and dump checklists (management of ARD/carbonaceous material) | 3 | ENV | 1 | C | 4 | 3 | Environment | |
| Environmental | 2. Active Mining Phase | Poor handling and containment of geochemical and geotechnically unsuitable tailings and reject materials | Covered in Tailings Risk Assessment | Covered in Tailings Risk Assessment | 3 | ENV | | | | 0 | | |
| Environmental | 2. Active Mining Phase | Adverse surface and groundwater quality and quantity (outside of expected projections) | Failure to meet closure criteria | Rehabilitation & Disturbance Procedure Topsoil Management Plan Water Management Plan Water Monitoring Program | 3 | ENV | 2 | D | 5 | 2 | Environment | |

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Review: 18/11/2027



| 5. Workplace Risk Assessment & Control (WRAC) | | | | | | | | | | | | |
|---|------------------------------------|---|---|--|----------------------------|----------------------------------|------------------------------|--------------------|------------------------|--|----------------------------------|---|
| Key Element (Context / Category) | Sub Key Element (If applicable) | Risk Description - Something happens..... | Consequence - resulting in: | Existing Control Description (ensure that the controls are coded against the hierarchy and considered for control effectiveness) E = Eliminate, S = Substitution, I = isolation, EN = Engineering, A = Administration, P = PPE | Risk Control Effectiveness | Expected Consequence Category | Expected Risk Consequence | Risk Likelihood | Current Risk Rating | Potential Maximum Consequence Category | Potential Maximum Consequence | Treatment plans/tasks/comment (Description) |
| | | | | Rehabilitation Monitoring | | | | | | | | |
| Environmental | 3. Decommissioning Phase | Poor management of material and waste products from demolition activities | Increased / additional costs. Failure to meet closure criteria | Operational Closure Plan EMS - compliance/assurance program Glencore Project Standard | 3 | ENV | 1 | D | 2 | 2 | Environment | |
| Environmental | 3. Decommissioning Phase | Poor management of retained infrastructure (infrastructure not required or dilapidated) | Increased / additional costs. Failure to meet closure criteria | Operational Closure Plan (project management process and monitoring) Budget process | 3 | ENV | 1 | D | 2 | 2 | Environment | |
| Environmental | 3. Decommissioning Phase | Inadequate identification and/or management of contaminated material | Increased / additional costs.Failure | Monthly inspectionsSurface and groundwater monitoring programsPhase 1 & 2 | 3 | ENV | 1 | C | 4 | 3 | Environment | |

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| 5. Workplace Risk Assessment & Control (WRAC) | | | | | | | | | | | | |
|---|---|---|--|--|----------------------------|-------------------------------|---------------------------|-----------------|---------------------|--|-------------------------------|---|
| Key Element (Context / Category) | Sub Key Element (If applicable) | Risk Description - Something happens..... | Consequence - resulting in: | Existing Control Description (ensure that the controls are coded against the hierarchy and considered for control effectiveness) E = Eliminate, S = Substitution, I = isolation, EN = Engineering, A = Administration, P = PPE | Risk Control Effectiveness | Expected Consequence Category | Expected Risk Consequence | Risk Likelihood | Current Risk Rating | Potential Maximum Consequence Category | Potential Maximum Consequence | Treatment plans/tasks/comment (Description) |
| | | | to meet closure criteria | assessments Operational closure plan | | | | | | | | |
| Environmental | 4. Landform establishment phase of rehabilitation | Unstable landform due to erosion and/or mass movement associated with inappropriate design and/or quantity assurance during landform construction | Failure to meet closure criteria | Approved / Conceptual final landform Landform design process Expert consultant input (Chris Waygood / SLR) Rehab and Disturbance Procedure (QA Process) Landform sign-off process | 2 | ENV | 1 | D | 2 | 3 | Environment | Finalise and implemented the Rehabilitation Design and Bulk Shaping Handover Form |
| Environmental | 4. Landform establishment phase of rehabilitation | Lack of availability of suitable materials for capping of adverse materials | Increased / additional costs. Failure to meet closure criteria | LOM process Tailings Risk Assessment Fine Reject Management Strategy Existing capping stockpile for Carrington Pit area | 3 | FIN | 2 | D | 5 | 3 | Environment | |

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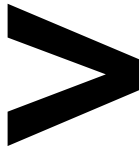
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| 5. Workplace Risk Assessment & Control (WRAC) | | | | | | | | | | | | |
|---|---|---|--|--|----------------------------|-------------------------------|---------------------------|-----------------|---------------------|--|-------------------------------|---|
| Key Element (Context / Category) | Sub Key Element (If applicable) | Risk Description - Something happens..... | Consequence - resulting in: | Existing Control Description (ensure that the controls are coded against the hierarchy and considered for control effectiveness) E = Eliminate, S = Substitution, I = isolation, EN = Engineering, A = Administration, P = PPE | Risk Control Effectiveness | Expected Consequence Category | Expected Risk Consequence | Risk Likelihood | Current Risk Rating | Potential Maximum Consequence Category | Potential Maximum Consequence | Treatment plans/tasks/comment (Description) |
| Environmental | 4. Landform establishment phase of rehabilitation | Final landform unsuitable for final land use (e.g. large rocks affecting cultivation, settlement leading to extended ponding) | Failure to meet closure criteria | Rehabilitation Management Plan / ARCP Rehab and Disturbance Procedure Landform sign-off process Rehabilitation Monitoring | 3 | ENV | 1 | D | 2 | 3 | Environment | |
| Environmental | 4. Landform establishment phase of rehabilitation | Landform aspect not suitable for intended target plant species | Poor quality rehabilitation / failure to meet closure criteria | Rehabilitation Management Plan / ARCP Rehab and Disturbance Procedure | 3 | ENV | 1 | E | 1 | 1 | Environment | |
| Environmental | 5. Growth medium development | Poor / unsuitable physical and structural properties of soils | Poor quality rehabilitation / failure to meet closure criteria | Rehabilitation & Disturbance Procedure Topsoil Management Plan (soil testing) Vegetation Clearance Plan GDP Process | 3 | ENV | 1 | D | 2 | 3 | Environment | |

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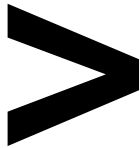
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| 5. Workplace Risk Assessment & Control (WRAC) | | | | | | | | | | | | |
|---|---|--|---|--|----------------------------|----------------------------------|------------------------------|--------------------|------------------------|--|----------------------------------|---|
| Key Element (Context / Category) | Sub Key Element (If applicable) | Risk Description - Something happens..... | Consequence - resulting in: | Existing Control Description (ensure that the controls are coded against the hierarchy and considered for control effectiveness) E = Eliminate, S = Substitution, I = isolation, EN = Engineering, A = Administration, P = PPE | Risk Control Effectiveness | Expected Consequence Category | Expected Risk Consequence | Risk Likelihood | Current Risk Rating | Potential Maximum Consequence Category | Potential Maximum Consequence | Treatment plans/tasks/comment (Description) |
| Environmental | 5. Growth medium development | Soil (topsoil and/or subsoil) deficit for rehabilitation activities | Increased / additional costs. Failure to meet closure criteria | Topsoil Management Plan Rehab and Disturbance Procedure | 3 | ENV | 2 | B | 12 | 3 | Environment | |
| Environmental | 5. Growth medium development | Soils inadequate to support revegetation or agricultural land capability (e.g. lack of organic matter, nutrient deficiency, adverse chemical properties, weed seed bank) | Poor quality rehabilitation / failure to meet closure criteria | Rehabilitation & Disturbance Procedure Topsoil Management Plan ARCP (maintenance) Rehabilitation Monitoring | 2 | ENV | 2 | B | 12 | 3 | Environment | Formalise LOM topsoil balance to quantify topsoil deficit |
| Environmental | 6. Ecosystem and land use establishment | Lack of availability and quantity of target seed resources | Poor quality rehabilitation / failure to meet closure criteria | Long term seed contract Seed list designed to allow flexibility based on availability Seed species common across Hunter Valley | 3 | ENV | 1 | D | 2 | 2 | Environment | |

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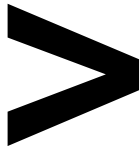
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| 5. Workplace Risk Assessment & Control (WRAC) | | | | | | | | | | | | |
|---|---|---|--|--|----------------------------|-------------------------------|---------------------------|-----------------|---------------------|--|-------------------------------|---|
| Key Element (Context / Category) | Sub Key Element (If applicable) | Risk Description - Something happens..... | Consequence - resulting in: | Existing Control Description (ensure that the controls are coded against the hierarchy and considered for control effectiveness) E = Eliminate, S = Substitution, I = isolation, EN = Engineering, A = Administration, P = PPE | Risk Control Effectiveness | Expected Consequence Category | Expected Risk Consequence | Risk Likelihood | Current Risk Rating | Potential Maximum Consequence Category | Potential Maximum Consequence | Treatment plans/tasks/comment (Description) |
| Environmental | 6. Ecosystem and land use establishment | Poor seed viability | Poor quality rehabilitation / failure to meet closure criteria | Long term seed contract with viability and quality benchmarks Reputable suppliers in Hunter Valley | 3 | ENV | 1 | D | 2 | 2 | Environment | |
| Environmental | 6. Ecosystem and land use establishment | Insect and/or plant disease impacting vegetation (particularly early establishment) | Poor quality rehabilitation / failure to meet closure criteria | Long term seed contract with seed treatment specifications Rehabilitation Monitoring Rehab maintenance schedule Vegetation Clearance Plan (managing plant disease) | 3 | ENV | 1 | D | 2 | 1 | Environment | |
| Environmental | 6. Ecosystem and land use establishment | Lack of availability, or poor quality of tubestock for supplementary planting | Poor quality rehabilitation / failure to meet closure criteria | ARCP Budget process Rehabilitation Monitoring Rehab and disturbance procedure Experienced suppliers / nurseries within Hunter Valley | 3 | ENV | 1 | D | 2 | 2 | Environment | |

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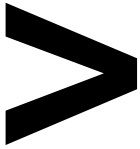
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| 5. Workplace Risk Assessment & Control (WRAC) | | | | | | | | | | | | |
|---|---|---|---|--|----------------------------|----------------------------------|------------------------------|--------------------|------------------------|--|----------------------------------|---|
| Key Element (Context / Category) | Sub Key Element (If applicable) | Risk Description - Something happens..... | Consequence - resulting in: | Existing Control Description (ensure that the controls are coded against the hierarchy and considered for control effectiveness) E = Eliminate, S = Substitution, I = isolation, EN = Engineering, A = Administration, P = PPE | Risk Control Effectiveness | Expected Consequence Category | Expected Risk Consequence | Risk Likelihood | Current Risk Rating | Potential Maximum Consequence Category | Potential Maximum Consequence | Treatment plans/tasks/comment (Description) |
| Environmental | 6. Ecosystem and land use establishment | Weed infestation limiting target species/community | Poor quality rehabilitation / failure to meet closure criteria | Rehabilitation Monitoring Reports Annual Walkover assessment Detailed Maintenance Plans ARCP Budget process Topsoil Management Plan Rehab and disturbance Procedure | 3 | ENV | 2 | B | 12 | 3 | Environment | |
| Environmental | 6. Ecosystem and land use establishment | Use of inappropriate or inadequate rehabilitation techniques, including equipment fleet | Poor quality rehabilitation / failure to meet closure criteria | Rehabilitation & Disturbance Procedure Rehabilitation / Revegetation works contract | 3 | ENV | 1 | D | 2 | 2 | Environment | |
| Environmental | 6. Ecosystem and land use establishment | Inappropriate revegetation species mix for targeted final land use | Poor quality rehabilitation / failure to meet closure criteria | Rehabilitation Monitoring Reports Annual Walkover assessment Specific rehab seed mixes (recently updated) | 3 | ENV | 1 | D | 2 | 3 | Environment | |

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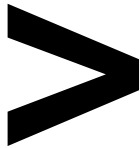
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| Environmental | 6. Ecosystem and land use establishment | Weather and climatic influences (drought, flood) during initial establishment | Poor quality rehabilitation / failure to meet closure criteria | Rehabilitation & Disturbance Procedure (ground prep methods) Native seed mix consists of drought tolerant species Annual Rehab Monitoring Annual walkover assessment | 3 | ENV | 2 | C | 8 | 3 | Environment | |
| Environmental | 6. Ecosystem and land use establishment | Availability of areas for revegetation in optimal seasonal conditions (seeding) | Poor quality rehabilitation / failure to meet closure criteria | Budget process ARCP Rehabilitation & Disturbance Procedure (ground prep methods) Native seed mix consists of drought tolerant species | 3 | ENV | 1 | D | 2 | 2 | Environment | |
| Environmental | 7. Ecosystem and land use development | Weather and climatic influences (drought, flood, bushfire) impacting vegetation long term survival | Poor quality rehabilitation / failure to meet closure criteria | Rehabilitation Monitoring Reports Annual Walkover assessment Bushfire Management Plan | 3 | ENV | 1 | C | 4 | 3 | Environment | |

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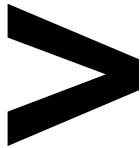
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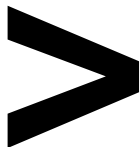
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| 5. Workplace Risk Assessment & Control (WRAC) | | | | | | | | | | | | |
|---|---------------------------------------|--|----------------------------------|--|----------------------------|-------------------------------|---------------------------|--------------------|------------------------|---|-------------------------------|---|
| Key Element (Context / Category) | Sub Key Element (If applicable) | Risk Description - Something happens..... | Consequence - resulting in: | Existing Control Description (ensure that the controls are coded against the hierarchy and considered for control effectiveness) E = Eliminate, S = Substitution, I = isolation, EN = Engineering, A = Administration, P = PPE | Risk Control Effectiveness | Expected Consequence Category | Expected Risk Consequence | Risk Likelihood | Current Risk Rating | Potential Maximum Consequence Category | Potential Maximum Consequence | Treatment plans/tasks/comment (Description) |
| | | | | Native seed mix consists of locally sourced and drought tolerant species | | | | | | | | |
| Environmental | 7. Ecosystem and land use development | Long term water quality and quantity issues outside of projections (e.g. acid-drainage, high salinity) | Failure to meet closure criteria | Rehabilitation & Disturbance Procedure Topsoil Management Plan Water Management Plan Water Monitoring Program Rehabilitation Monitoring | 3 | ENV | 2 | D | 5 | 3 | Environment | |



| 5. Workplace Risk Assessment & Control (WRAC) | | | | | | | | | | | | |
|---|---|---|---|--|----------------------------|----------------------------------|------------------------------|--------------------|------------------------|--|----------------------------------|---|
| Key Element (Context / Category) | Sub Key Element (If applicable) | Risk Description - Something happens..... | Consequence - resulting in: | Existing Control Description (ensure that the controls are coded against the hierarchy and considered for control effectiveness) E = Eliminate, S = Substitution, I = isolation, EN = Engineering, A = Administration, P = PPE | Risk Control Effectiveness | Expected Consequence Category | Expected Risk Consequence | Risk Likelihood | Current Risk Rating | Potential Maximum Consequence Category | Potential Maximum Consequence | Treatment plans/tasks/comment (Description) |
| Environmental | 7. Ecosystem and land use development | Unauthorised damage to rehabilitation (fauna, stock, vandalism, vehicles, unauthorised clearing) | Increased / additional costs. Failure to meet closure criteria | Rehabilitation Management Plan / Vertebrate Pest Control Program Rehabilitation areas fenced off from stock Lease agreements (stock areas) GDP Process Monthly inspections Rehabilitation Monitoring Rehab maintenance/budget ARCP | 3 | ENV | 1 | C | 4 | 3 | Environment | |
| Environmental | 7. Ecosystem and land use development | Re-disturbance of established rehabilitation areas | Increased / additional costs | LOM / Budget planning process ARCP GDP Process Rehab and disturbance procedure | 3 | ENV | 1 | D | 2 | 2 | Environment | |

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| 5. Workplace Risk Assessment & Control (WRAC) | | | | | | | | | | | | |
|---|---|--|--|--|----------------------------|----------------------------------|------------------------------|--------------------|------------------------|--|----------------------------------|---|
| Key Element (Context / Category) | Sub Key Element (If applicable) | Risk Description - Something happens..... | Consequence - resulting in: | Existing Control Description (ensure that the controls are coded against the hierarchy and considered for control effectiveness) E = Eliminate, S = Substitution, I = isolation, EN = Engineering, A = Administration, P = PPE | Risk Control Effectiveness | Expected Consequence Category | Expected Risk Consequence | Risk Likelihood | Current Risk Rating | Potential Maximum Consequence Category | Potential Maximum Consequence | Treatment plans/tasks/comment (Description) |
| Environmental | 7. Ecosystem and land use development | Insufficient establishment of target species and limited species diversity | Failure to meet closure criteria | Rehabilitation Management Plan / Rehabilitation & Disturbance Procedure Detailed / extensive seed mixes Rehabilitation Monitoring Annual Walkover assessment Detailed Maintenance Plans Existing/approved closure criteria | 3 | ENV | 2 | C | 8 | 3 | Environment | |
| Environmental | 7. Ecosystem and land use development | Limited vegetation structural development and habitat for fauna species | Failure to meet closure criteria | Rehabilitation Management Plan / Rehabilitation & Disturbance Procedure Detailed / extensive seed mixes Rehabilitation Monitoring Annual Walkover assessment | 3 | ENV | 1 | D | 2 | 2 | Environment | |

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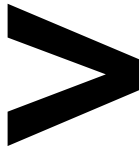
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| 5. Workplace Risk Assessment & Control (WRAC) | | | | | | | | | | | | |
|---|---------------------------------------|---|--|--|----------------------------|-------------------------------|---------------------------|-----------------|---------------------|--|-------------------------------|---|
| Key Element (Context / Category) | Sub Key Element (If applicable) | Risk Description - Something happens..... | Consequence - resulting in: | Existing Control Description (ensure that the controls are coded against the hierarchy and considered for control effectiveness) E = Eliminate, S = Substitution, I = isolation, EN = Engineering, A = Administration, P = PPE | Risk Control Effectiveness | Expected Consequence Category | Expected Risk Consequence | Risk Likelihood | Current Risk Rating | Potential Maximum Consequence Category | Potential Maximum Consequence | Treatment plans/tasks/comment (Description) |
| | | | | Detailed Maintenance Plans | | | | | | | | |
| Environmental | 7. Ecosystem and land use development | Erosion and failure of landforms or structures (contours, drop structures, dams) | Increased / additional costs. Failure to meet closure criteria | Rehabilitation Management Plan / Rehabilitation & Disturbance Procedure Rehabilitation Monitoring Annual Walkover assessment Detailed Maintenance Plans Rehab Report Card Landform Design long term modelling | 3 | ENV | 1 | C | 4 | 3 | Environment | |
| Environmental | 7. Ecosystem and land use development | Lack of infrastructure to support intended final land use (e.g. stock dams, fences) | Increased / additional costs. Failure to meet closure criteria | Rehabilitation Management Plan / ARCP Lease agreements for grazing areas (existing fencing/water) | 3 | ENV | 1 | D | 2 | 2 | Environment | |

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5. Workplace Risk Assessment & Control (WRAC)

| Key Element (Context / Category) | Sub Key Element (If applicable) | Risk Description - Something happens..... | Consequence - resulting in: | Existing Control Description (ensure that the controls are coded against the hierarchy and considered for control effectiveness) E = Eliminate, S = Substitution, I = isolation, EN = Engineering, A = Administration, P = PPE | Risk Control Effectiveness | Expected Consequence Category | Expected Risk Consequence | Risk Likelihood | Current Risk Rating | Potential Maximum Consequence Category | Potential Maximum Consequence | Treatment plans/tasks/comment (Description) |
|-------------------------------------|---|--|--|--|----------------------------|-------------------------------|---------------------------|--------------------|------------------------|---|-------------------------------|---|
| Environmental | 8. Mine subsidence affected areas | Unplanned or greater than predicted subsidence impacts (Cheshunt / Newdell) | Resulting in rehab failure / failure to meet closure criteria | Geotech report of subsidence risks for Lemington Geotech PHMP Rehabilitation Monitoring Rehabilitation Maintenance Plans | 3 | ENV | 1 | D | 2 | 1 | Environment | |

APPENDIX D: COMPLETION CRITERIA

Table 1 – Infrastructure Criteria

| FINAL LAND USE DOMAIN | MINING DOMAIN | REHABILITATION OBJECTIVES | INDICATOR (specific attribute associated with the objective) | COMPLETION CRITERIA (benchmark for the indicator) | EXAMPLE OF JUSTIFICATION / VALIDATION METHODS | SPATIAL REFERENCE | STATUS |
|--|---|---------------------------|--|--|---|--------------------|----------|
| Native Ecosystem (CEEC/EEC or non CEEC/EEC) or Agricultural Land Use | <ul style="list-style-type: none"> Infrastructure Area; Tailings Storage Facility; Water Management Area; Overburden Emplacement Area; Void (Open Cut void); Underground Mining Area (subsidence management); Beneficiation Facility; and Other | <u>Infrastructure</u> | All site services have been removed (electricity, telecommunications etc.). Where services are buried (i.e. pipelines, cables etc.) and their retrieval may lead to further disturbance, the infrastructure may be left in situ provided that they don't pose constraints to the post mining land use. In this situation, the location of the services will be surveyed and marked on the record tracings and a suitable caveat developed to provide that they are readily identifiable for future land holders. | Services and utility infrastructure removed. | Statement provided. Survey record tracings | A – all B - all | Proposed |
| | | | Removal of all buildings and other infrastructure, unless there is a written agreement with the RR for infrastructure to remain in situ. | Infrastructure removed. | Statement provided Demolition records from certified contractor | A – all B - all | Proposed |
| | | | Heritage obligations (e.g. development consent under the <i>Environmental Planning and Assessment Act 1979</i> , approvals under the <i>Heritage Act 1977</i> , etc.) have been met (e.g. archival | Permits and approval documents issued; archival reports (where required) | Copy of any relevant approval documentation. | A – all B - all | Proposed |

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| FINAL LAND USE DOMAIN | MINING DOMAIN | REHABILITATION OBJECTIVES | INDICATOR (specific attribute associated with the objective) | COMPLETION CRITERIA (benchmark for the indicator) | EXAMPLE OF JUSTIFICATION / VALIDATION METHODS | SPATIAL REFERENCE | STATUS |
|-----------------------|---------------|---------------------------|---|---|---|--------------------|----------|
| | | | recording, building retention or building demolition with footings preserved). | complete and submitted. | | | |
| | | | Removal of all plant, equipment and associated infrastructure including processing facilities, stockpile areas, rail infrastructure and loading facilities, underground hydrocarbon storage tanks, office complex, portable offices, exploration core samples, camp facilities, storage racks, samples. | Infrastructure removed. | As-constructed final landform plan, photos etc. | A – all B - all | Proposed |
| | | | Removal of all footings or removal to a certain depth (0.5 metres) OR equivalent depth of cover | Infrastructure removed. | Demolition records from certified contractor Surveyed and marked on the as-constructed final landform plan. | A – all B - all | Proposed |
| | | | Removal of all water management infrastructure (including dams, drains, sediment, pumps, pipes and power) not required for final land uses. | Infrastructure removed. | Statement provided and before/after photos. | A – all B - all | Proposed |

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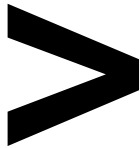
Owner: Environment and Community Coordinator

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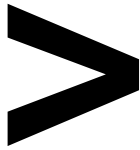
Review: 18/11/2027



| FINAL LAND USE DOMAIN | MINING DOMAIN | REHABILITATION OBJECTIVES | INDICATOR (specific attribute associated with the objective) | COMPLETION CRITERIA (benchmark for the indicator) | EXAMPLE OF JUSTIFICATION / VALIDATION METHODS | SPATIAL REFERENCE | STATUS |
|-----------------------|---------------|---------------------------|--|---|---|--------------------|----------|
| | | | All drill cores have been removed and either taken to authorised storage or disposal location. | Cores removed. | Statement provided Waste tracking reports | A – all B - all | Proposed |
| | | | All drill holes, excavations, and groundwater monitoring bores are decommissioned and sealed in accordance with RR requirements, excluding those being retained for monitoring purposes. | Sealing complete. | Engineering report/statement Plug and Abandonment log, photos etc. | A – all B - all | Proposed |

Table 2 – Infrastructure to Remain Criteria

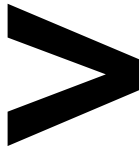
| FINAL LAND USE DOMAIN | MINING DOMAIN | REHABILITATION OBJECTIVES | INDICATOR (specific attribute associated with the objective) | COMPLETION CRITERIA (benchmark for the indicator) | EXAMPLE OF JUSTIFICATION / VALIDATION METHODS | SPATIAL REFERENCE | STATUS |
|--|---|--|--|--|---|--------------------|----------|
| Native Ecosystem (CEEC/EEC or non CEEC/EEC) or Agricultural Land Use | <ul style="list-style-type: none"> •Infrastructure Area; • Tailings Storage Facility; • Water Management Area; • Overburden Emplacement Area; • Void (Open Cut void); •Underground Mining Area (subsidence management) •Beneficiation Facility; and • Other | <p><u>Infrastructure to Remain</u> All infrastructure that is to remain as part of the final land use is safe and has relevant approvals in place.</p> | Where applicable, necessary approvals are in place (e.g. development consent under the Environmental Planning and Assessment Act 1979) where buildings and infrastructure are to be retained as part of final land use | Permits and approval documents issued | Copy of any relevant approvals. | A – all B - all | Proposed |
| | | | Potential hazards (e.g. electrical, mechanical) have been effectively isolated. | Hazards isolated. | Statement provided. | A – all B - all | Proposed |
| | | | Access tracks that are to remain are in a trafficable condition that is suitable for their intended purposes. | Any required Repairs or Upgrades complete. | Copy of any relevant plans, photos etc. | A – all B - all | Proposed |
| | | | Heritage obligations as required under the <i>Environmental Planning and Assessment Act 1979</i> , <i>Heritage Act 1977</i> , etc. have been met (e.g. archival recording, building retention and restoration). | Permits and approval documents issued; archival reports (where required) complete and submitted. | Copy of any relevant approval documentation. | A – all B - all | Proposed |



| FINAL LAND USE DOMAIN | MINING DOMAIN | REHABILITATION OBJECTIVES | INDICATOR (specific attribute associated with the objective) | COMPLETION CRITERIA (benchmark for the indicator) | EXAMPLE OF JUSTIFICATION / VALIDATION METHODS | SPATIAL REFERENCE | STATUS |
|-----------------------|---------------|---------------------------|---|---|--|--------------------|----------|
| | | | The structural integrity of the infrastructure has been inspected by a suitably qualified engineer and determined to be suitable and safe as part of the intended final land use. | Structural integrity reports received and confirm structures are safe | Engineering report/statement, photos etc. | A – all B - all | Proposed |
| | | | If any underground pipelines or other infrastructure are to remain in situ, they do not pose a hazard for the intended final land use. Note: If any underground pipelines or other infrastructure are to remain in situ in areas to be returned for Agriculture – cropping they are at a depth >0.5m | The location of the infrastructure has been marked on a plan and registered with the relevant local authority (e.g. local Council) and Dial Before You Dig where this is required by the Council or the relevant Authority. | Surveyed and marked on the as-constructed final landform plan. Copy of notification to or correspondence with local Council and Dial Before You Dig | A – all B - all | Proposed |

Table 3 – Land Contamination, Landform Stability, Bushfire, Surface Water Quality, Groundwater Quality, Groundwater Regime, Water Approvals

| FINAL LAND USE DOMAIN | MINING DOMAIN | REHABILITATION OBJECTIVES | INDICATOR (specific attribute associated with the objective) | COMPLETION CRITERIA (benchmark for the indicator) | EXAMPLE OF JUSTIFICATION / VALIDATION METHODS | SPATIAL REFERENCE | STATUS |
|--|---|---|---|---|---|-------------------|----------|
| Native Ecosystem (CEEC/EEC or non CEEC/EEC) or Agricultural Land Use | <ul style="list-style-type: none"> • Infrastructure Area; • Tailings Storage Facility; • Water Management Area; • Overburden Emplacement Area; • Void (Open Cut void); • Underground Mining Area (subsidence management); • Beneficiation Facility; and • Other | <u>Land Contamination</u> There is no residual soil contamination on site that is incompatible with the final land use or that poses a threat of environmental harm. | Contamination will be appropriately remediated to a condition that does not pose a threat of environmental harm or constrain the final land use | Contamination will be appropriately remediated so that appropriate guidelines for land use are met, e.g. Health Investigation Level of the National Environment Protection (Assessment of Site Contamination) Measure (1999). | Contamination Remediation Report prepared by Land Contamination Consultant Site Contamination Audit Report and Site Audit Statement prepared by EPA Accredited Auditor (where required) | All | Proposed |
| | | | Hazardous materials are identified and removed from site including hydrocarbons, chemicals, explosive products, asbestos containing materials (ACMs), lead paints, synthetic mineral fibres (SMFs) and polychlorinated biphenyls (PCBs) (verified by Certificates of disposal). | Waste tracking reports show removal of all hazardous materials | Waste tracking reports | All | Proposed |
| | | | Where practical, exposed carbonaceous material will be removed and co-disposed within the mining voids or suitably capped in situ, including coal stockpile areas. | Carbonaceous material removed and no longer present on surface | Rehabilitation monitoring reports Survey records | All | Proposed |



| FINAL LAND USE DOMAIN | MINING DOMAIN | REHABILITATION OBJECTIVES | INDICATOR (specific attribute associated with the objective) | COMPLETION CRITERIA (benchmark for the indicator) | EXAMPLE OF JUSTIFICATION / VALIDATION METHODS | SPATIAL REFERENCE | STATUS |
|-----------------------|---------------|---------------------------|--|--|--|-------------------|----------|
| | | | Exposed coal seams will be capped with at least 3m of benign material where required to prevent spontaneous combustion | Capping completed | Survey records Photos | All | Proposed |
| | | | Net acid generating and carbonaceous materials will be capped by a minimum of 5 m of benign material where practical. | Material capped | Capping surveys / Survey record tracings Final landform plan | All | Proposed |
| | | | Monitoring records verify that there is no evidence of spontaneous combustion. | Monitoring records verify that there is no evidence of spontaneous combustion. | Aerial surveys Inspections Rehabilitation monitoring reports | All | Proposed |
| | | | Residual waste materials stored on site (e.g. tailings dams) will be appropriately contained / encapsulated and free draining so it doesn't pose any threat of environmental harm or constrain the intended final land use | The structural integrity of the infrastructure has been inspected by a suitably qualified engineer and determined to be suitable and safe as part of the intended final land use and does not pose threat of environmental harm. | Engineered capping design with specifications. As-built capping surveys | All | Proposed |

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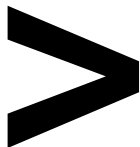
Owner: Environment and Community Coordinator

Status: Approved

Version: 2.0

Effective: 21/11/2024

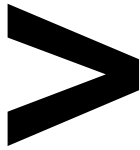
Review: 18/11/2027



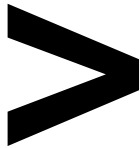
| FINAL LAND USE DOMAIN | MINING DOMAIN | REHABILITATION OBJECTIVES | INDICATOR (specific attribute associated with the objective) | COMPLETION CRITERIA (benchmark for the indicator) | EXAMPLE OF JUSTIFICATION / VALIDATION METHODS | SPATIAL REFERENCE | STATUS |
|-----------------------|---------------|--|--|--|--|-------------------|----------|
| | | <p>Landform Stability The final landform is stable and does not present a risk of environmental harm downstream/downslope of the site or a safety risk to the public/stock/native fauna.</p> | Landform is generally compatible within the context of the local topography | Landform is contiguous with surrounding environment. | Final landform plan | All | Proposed |
| | | | Overburden emplacement external slopes will generally be graded to an average of less than 10 degrees. Internal slopes may be steepened to grades up to 18 degrees. Note: localised steepening of slopes will occur due to contour bank construction or natural landform shapes etc. | Slopes generally comply with approval requirements and are stable | Final landform plan | All | Proposed |
| | | | Creek diversions are assessed to be stable as defined by the CSIRO Ephemeral Stream Assessment | Creek diversions are assessed to be stable as defined by the CSIRO Ephemeral Stream Assessment | Channel assessment reports | All | Proposed |
| | | | Landforms are assessed to be geotechnically stable and free draining to local watercourses | Geotech reports received and confirm landforms are stable | Geotechnical assessment report Rehabilitation monitoring reports Erosion surveys | All | Proposed |



| | | | | | | | |
|--|--|--|--|------------------|--------------------------|-----|----------|
| | | | A safety berm and/or security fence is constructed at the void crest (highwalls and endwalls) that provides an adequate engineered barrier for vehicles. | Berm constructed | Survey records Photos | All | Proposed |
|--|--|--|--|------------------|--------------------------|-----|----------|



| FINAL LAND USE DOMAIN | MINING DOMAIN | REHABILITATION OBJECTIVES | INDICATOR (specific attribute associated with the objective) | COMPLETION CRITERIA (benchmark for the indicator) | EXAMPLE OF JUSTIFICATION / VALIDATION METHODS | SPATIAL REFERENCE | STATUS |
|-----------------------|---------------|---------------------------|--|---|---|-------------------|----------|
| | | | <p>Minimal erosion that would not require moderate to significant ongoing care and maintenance works.</p> <p>Any areas of active erosion are within the parameters for safe and stable landform.</p> <p>Discharge points from rehabilitated landform to natural channels are stable.</p> | <p>The final landform has been constructed in accordance with the approved Final Landform & Rehabilitation Plan. Signs of erosion and or land instability are recorded, measured and assessed.</p> <p>The average annual soil loss from the final landform at completion is to be equal or less than that specified by the Revised Universal Sediment Loss Equation (or equivalent) for the approved land use.</p> <p>Spillway (where required) of final void and any remaining dams has been constructed in accordance with hydrological design.</p> | <p>Before and after photos</p> <p>Rehabilitation monitoring reports</p> <p>As-constructed surveys</p> <p>Erosion surveys</p> <p>Independent reports that demonstrate long term stability of rehabilitated landform.</p> <p>Depending on the nature, scale and risks associated with a specific site, stability will need to be evaluated over a number of years (e.g. 5 years).</p> | All | Proposed |



| FINAL LAND USE DOMAIN | MINING DOMAIN | REHABILITATION OBJECTIVES | INDICATOR (specific attribute associated with the objective) | COMPLETION CRITERIA (benchmark for the indicator) | EXAMPLE OF JUSTIFICATION / VALIDATION METHODS | SPATIAL REFERENCE | STATUS |
|-----------------------|---------------|--|--|---|--|-------------------|----------|
| | | <u>Bushfire</u> The risk of bushfire and impacts to the community, environment and infrastructure has been addressed as part of rehabilitation. | Appropriate bushfire hazard controls (where required) have been implemented on the advice from the NSW Rural Fire Service. | Bushfire controls implemented appropriate to the final land use. | Statement provided and before/after photos. | All | Proposed |
| | | <u>Surface Water Quality</u> Runoff water quality is similar to, or better than the pre-mining disturbance runoff water quality | Runoff water quality from rehabilitation areas represent an acceptable level of change from a background condition (baseline study). | Assessment of runoff water quality against local background water quality including: - EC - TSS - pH - Metals - Biological health in accordance with Australian River Assessment System (AUSRIVAS) or equivalent | Independent surface water assessment report Water quality monitoring reports. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years (e.g. 5 years to 15 years). | All | Proposed |



| | | | | | | | |
|--|--|--|---|---|---|-----|----------|
| | | | Water quality in all storages left on site (other than final voids) is suitable for the approved final land use | Assessment of water quality against guidelines for the final land use (e.g. agricultural, industrial, recreational) | Independent surface water assessment report Water quality monitoring reports. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years (e.g. 5 years to 15 years). | All | Proposed |
|--|--|--|---|---|---|-----|----------|

| FINAL LAND USE DOMAIN | MINING DOMAIN | REHABILITATION OBJECTIVES | INDICATOR (specific attribute associated with the objective) | COMPLETION CRITERIA (benchmark for the indicator) | EXAMPLE OF JUSTIFICATION / VALIDATION METHODS | SPATIAL REFERENCE | STATUS |
|-----------------------|---------------|---|--|--|---|-------------------|----------|
| | | | Water quality in any approved final voids does not pose a risk to the final land use. | Final void study completed, which includes predicted water quality and assessment of toxicity. | Independent surface water assessment report Water quality monitoring reports. Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years (e.g. 5 years to 15 years). | All | Proposed |
| | | <u>Groundwater Quality & Regime</u> Groundwater quality and groundwater regime are within range as predicted in environmental assessment and Water Management Plan | Groundwater quality and groundwater regime are within range as predicted in environmental assessments and in accordance with water sharing plans and water allocations held by the site. | The measured water quality at important groundwater assets meets predictions. Modelled drawdown and water take is within predictions. | Independent hydro-geological assessment report Monitoring reports Depending on the nature, scale and risks associated with a specific site, achievement of criteria may need to be evaluated over a number of years (e.g. 5 years to 15 years). | All | Proposed |



| | | <u>Water Approvals</u> Structures that take water are appropriately licensed. | Licenses held, where required. | Hydrological and hydro-geological assessments are undertaken to determine water take at completion from the relevant water sources to confirm that sufficient allocations are held. | Confirmation from relevant Government Agency (e.g. DPI Water) that licences are held. | All | Proposed |
|--|--|--|--------------------------------|---|---|-----|----------|
|--|--|--|--------------------------------|---|---|-----|----------|

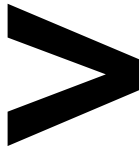


Table 4 – Targeted Ecological Rehabilitation

| FINAL LAND USE DOMAIN | MINING DOMAIN | REHABILITATION OBJECTIVES | INDICATOR (specific attribute associated with the objective) | COMPLETION CRITERIA (benchmark for the indicator) | EXAMPLE OF JUSTIFICATION / VALIDATION METHODS | SPATIAL REFERENCE | STATUS |
|-----------------------|---------------|---------------------------|---|---|---|-------------------|----------|
| | | | Plant competition is “suitable” for sustaining the target plant community(s) | The total cover of exotic plant species is recorded at fixed monitoring plots or transects as per BAM. Cover of High Threat Exotic and Priority Weeds is less than 10% | Rehabilitation monitoring reports Independent ecological reports (where required). Monitoring in accordance with NSW OEH BAM Methodology. | A - all | Proposed |
| | | | Habitat features (e.g. logs, rocks and nest boxes), including structures suitable for target species are incorporated into rehabilitation areas at required densities, as required by Approvals Native rehabilitation areas provide a range of structural features (e.g. trees, shrubs, ground cover, developing litter layer etc.). | Habitat and structural features recorded | Rehabilitation monitoring reports Independent ecological reports (where required). Monitoring in accordance with NSW OEH BAM Methodology. | A - all | Proposed |

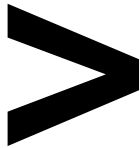
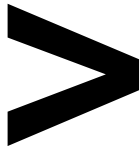


Table 5 – Non Targeted Native Woodland

| FINAL LAND USE DOMAIN | MINING DOMAIN | REHABILITATION OBJECTIVES | INDICATOR (specific attribute associated with the objective) | COMPLETION CRITERIA (benchmark for the indicator) | EXAMPLE OF JUSTIFICATION / VALIDATION METHODS | SPATIAL REFERENCE | STATUS |
|----------------------------------|---------------|--|--|--|---|-------------------|----------|
| Native Vegetation (Non CEEC/EEC) | All domains | Approximately 30% (HVO North) and 30-40% (HVO South) of mined land re-established as woodland areas. | Approximately 30% of mined land re-established as woodland areas. Approximately 30-40 % of mined land re-established as woodland areas. | GIS records and pasture monitoring reports indicate minimum percentages have been attained. | Rehabilitation monitoring reports GIS records | A - all | Proposed |
| | | Vegetation Composition | Rehabilitation areas contain flora species assemblages characteristic of the target native vegetation communities found in the local area. | ≥30 native species present and ≥50 to <70% of native species recorded also occur at analogue sites | Rehabilitation monitoring reports Independent ecological reports (where required). | A - all | Proposed |
| | | | Indicative minimum total tree/shrub densities for seeded areas to be comparable to that of analogue sites (no./area). | 250 - 500 stem/ha for native canopy species | Rehabilitation monitoring reports Independent ecological reports (where required). | A - all | Proposed |
| | | | Weed presence is within range found analogue sites and does not present a risk to the establishment and ongoing health of native species. | Less than 10% cover of High Threat Exotic and Priority Weeds | Rehabilitation monitoring reports Independent ecological reports (where required). | A - all | Proposed |



| FINAL LAND USE DOMAIN | MINING DOMAIN | REHABILITATION OBJECTIVES | INDICATOR (specific attribute associated with the objective) | COMPLETION CRITERIA (benchmark for the indicator) | EXAMPLE OF JUSTIFICATION / VALIDATION METHODS | SPATIAL REFERENCE | STATUS |
|-----------------------|---------------|--|---|--|---|-------------------|----------|
| | | | Total groundcover (vegetation, leaf litter, mulch, rock) is comparable to that of analogue sites (% Cover). | Ground cover (vegetation, leaf litter, mulch, rock) is greater than 60% | Rehabilitation monitoring reports Independent ecological reports (where required). | A - all | Proposed |
| | | The rehabilitation is self-sustainable | Evidence of flowering and seeds or second generation juveniles for trees and shrubs or likely to be, based on comparable older rehabilitation sites. | Trees and shrubs are monitored for evidence of second generation juveniles and evidence of flowers and seeds | Rehabilitation monitoring reports Independent ecological reports (where required). | A - all | Proposed |
| | | Habitat features incorporated | Habitat features (e.g. logs, rocks and nest boxes), including structures suitable for target species are incorporated into rehabilitation areas at required densities, as required by Approvals Native rehabilitation areas provide a range of structural features (e.g. trees, shrubs, ground cover, developing litter layer etc.). | Habitat and structural features recorded | Rehabilitation monitoring reports Independent ecological reports (where required). | A - all | Proposed |



| FINAL LAND USE DOMAIN | MINING DOMAIN | REHABILITATION OBJECTIVES | INDICATOR (specific attribute associated with the objective) | COMPLETION CRITERIA (benchmark for the indicator) | EXAMPLE OF JUSTIFICATION / VALIDATION METHODS | SPATIAL REFERENCE | STATUS |
|-----------------------|---------------|---|--|---|---|-------------------|----------|
| | | Habitat corridors are established and consistent with target vegetation community compositions in final rehabilitation. | Habitat corridors are established and consistent with target vegetation community compositions, as required by Approvals. | Habitat corridors recorded | Rehabilitation monitoring reports Independent ecological reports (where required). | A - all | Proposed |
| | | Target fauna assemblages and habitat in rehabilitation areas | Monitoring confirms target native fauna species are recorded utilising rehabilitation areas or habitat suitable for target species is present, as required by Approvals. | Monitoring for the presence and abundance of target fauna species and habitat | Rehabilitation monitoring reports Independent ecological reports (where required). | A - all | Proposed |
| | | Feral animal density | Feral animal species do not pose a threat to final land uses | Feral animals are not impacting on vegetation establishment or health | Rehabilitation monitoring reports Independent ecological reports (where required). | A - all | Proposed |

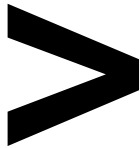
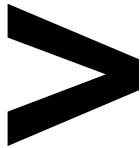


Table 6 – Agricultural Rehabilitation

| FINAL LAND USE DOMAIN | MINING DOMAIN | REHABILITATION OBJECTIVES | INDICATOR (specific attribute associated with the objective) | COMPLETION CRITERIA (benchmark for the indicator) | EXAMPLE OF JUSTIFICATION / VALIDATION METHODS | SPATIAL REFERENCE | STATUS |
|-----------------------|---------------|--|---|---|---|-------------------|----------|
| Agricultural Land Use | All domains | Approximately 70% (HVO North) and 60-70% (HVO South) of mined land re-established as stable, productive pasture areas. | 70% of disturbed HVO North mining areas returned to productive pasture areas. 60-70% of disturbed HVO South mining areas returned to productive pasture areas. | GIS records and pasture monitoring reports indicate minimum percentages have been attained. | Rehabilitation monitoring reports GIS records | B - All | Proposed |
| | | Rehabilitation is sustainable for the long term and only requires maintenance that is consistent with the intended final land use. | Land and Soil Capability classification or Agricultural Land Classification criteria met. | Land and Soil Capability classification or Agricultural Land Classification assessed against Approval requirements The re-established growth medium substrate (e.g. topsoil / subsoil) is capable of supporting the targeted pasture / cropping regime on a sustained basis. | Rehabilitation monitoring reports Independent agronomist /consultant reports, photos | B - All | Proposed |
| | | Rehabilitation areas comprise palatable grasses and legumes appropriate to the district and suitable for cattle grazing. | >50% of herbage biomass comprises pasture species that are representative of species listed in site Approval documents or otherwise species that are perennial, palatable, and productive | Rehabilitation monitoring reports Independent agronomist /consultant reports, photos | B - All | Proposed | |



| FINAL LAND USE DOMAIN | MINING DOMAIN | REHABILITATION OBJECTIVES | INDICATOR (specific attribute associated with the objective) | COMPLETION CRITERIA (benchmark for the indicator) | EXAMPLE OF JUSTIFICATION / VALIDATION METHODS | SPATIAL REFERENCE | STATUS |
|-----------------------|---------------|---------------------------|--|---|---|-------------------|----------|
| | | | Weed presence is within range found analogue sites and does not present a risk to palatable pasture composition. | Less than 20% cover of High Threat Exotic and Priority Weeds | Rehabilitation monitoring reports Independent agronomist /consultant reports, photos | B - All | Proposed |
| | | | Cropping / Pasture establishment is in good health and provides adequate cover. | Ground cover (vegetation, leaf litter, mulch) is greater than 70% | Rehabilitation monitoring reports Independent agronomist /consultant reports, photos | B - All | Proposed |
| | | | Cropping yields from rehabilitated pasture areas is similar to adjacent cropping land. | Biomass >1500kg DM/ha (Green Dry Matter) | Rehabilitation monitoring reports Independent agronomist /consultant reports, photos | B - All | Proposed |
| | | | Production in tonnes /ha /year of Lucerne hay grown on the Class I and II lands of the ALRP is comparable to the district average. | 7.6 to 15 t/ha. | Rehabilitation monitoring reports Independent agronomist /consultant reports, photos | B - All | Proposed |
| | | | Production in tonnes / ha / year of Lucerne hay grown on the Class II and III lands of the CWW Extension is comparable to the unmined reference sites. | TBD. Criteria to be developed with review of ALRP prior to commencement of CWW Extension. | Rehabilitation monitoring reports Independent agronomist /consultant reports, photos | B - All | Proposed |

Number: HVOOC-1797567310-5041

Status: Approved

Effective: 21/11/2024

Owner: Environment and Community Coordinator

Version: 2.0

Review: 18/11/2027



| FINAL LAND USE DOMAIN | MINING DOMAIN | REHABILITATION OBJECTIVES | INDICATOR (specific attribute associated with the objective) | COMPLETION CRITERIA (benchmark for the indicator) | EXAMPLE OF JUSTIFICATION / VALIDATION METHODS | SPATIAL REFERENCE | STATUS |
|-----------------------|---------------|---------------------------|--|--|--|-------------------|----------|
| | | | <p>Appropriate and reliable access to water for livestock.</p> <p>Appropriate shade and shelter for livestock (i.e. wooded/treed areas) during extreme weather conditions.</p> | <p>Location and density of dams or other watering points appropriate for the intended final land use</p> <p>Location and availability of shade and shelter for livestock appropriate for the intended final land use</p> | Independent agronomist /consultant reports, photos | B - All | Proposed |



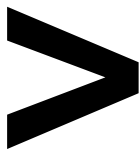
APPENDIX E: SEED MIXES

Woodland

| Categories and Species Options | Preferred Seed Mix | | |
|----------------------------------|-----------------------|---------------------|---------------|
| | Species % of category | Sowing rate (kg/ha) | Species Count |
| Dominant Trees | | | |
| <i>Angophora floribunda</i> | 20% | 0.050 | 1 |
| <i>Corymbia maculata</i> | 0% | 0.000 | |
| <i>Eucalyptus albens</i> | 0% | 0.000 | |
| <i>Eucalyptus blakelyi</i> | 0% | 0.000 | |
| <i>Eucalyptus crebra</i> | 40% | 0.100 | 1 |
| <i>Eucalyptus dawsonii</i> | 0% | 0.000 | |
| <i>Eucalyptus fibrosa</i> | 0% | 0.000 | |
| <i>Eucalyptus glaucina</i> | 0% | 0.000 | |
| <i>Eucalyptus moluccana</i> | 40% | 0.100 | 1 |
| <i>Eucalyptus punctata</i> | 0% | 0.000 | |
| <i>Eucalyptus tereticornis</i> | 0% | 0.000 | |
| Total - Dominant Trees | 100% | 0.250 | 3 |
| Sub-Dominant Trees | | | |
| <i>Acacia decurrens</i> | 0% | 0.000 | |
| <i>Acacia implexa</i> | 33% | 0.050 | 1 |
| <i>Acacia lineariifolia</i> | 0% | 0.000 | |
| <i>Acacia parvipinnula</i> | 0% | 0.000 | |
| <i>Acacia salicina</i> | 67% | 0.100 | 1 |
| <i>Allocasuarina gymnanthera</i> | 0% | 0.000 | |
| <i>Allocasuarina leuhmanii</i> | 0% | 0.000 | |



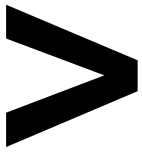
| | | | |
|---|-------------|--------------|----------|
| <i>Allocasuarina verticillata</i> | 0% | 0.000 | |
| <i>Brachychiton populneus</i> | 0% | 0.000 | |
| <i>Bursaria spinosa</i> | 0% | 0.000 | |
| <i>Callitris endlicheri</i> | 0% | 0.000 | |
| <i>Notelaea microcarpa</i> | 0% | 0.000 | |
| Total - Sub-Dominant Trees | 100% | 0.150 | 2 |
| Shrubs- Acacias | | | |
| <i>Acacia amblygona</i> | 40% | 0.200 | 1 |
| <i>Acacia brownii</i> | 0% | 0.000 | |
| <i>Acacia crassa</i> | 0% | 0.000 | |
| <i>Acacia cultriformis</i> | 0% | 0.000 | |
| <i>Acacia decora</i> | 20% | 0.100 | 1 |
| <i>Acacia elongata</i> | 0% | 0.000 | |
| <i>Acacia falcata</i> | 40% | 0.200 | 1 |
| <i>Acacia paradoxa</i> | 0% | 0.000 | |
| <i>Acacia spectabilis</i> | 0% | 0.000 | |
| Total - Shrubs - Acacias | 100% | 0.500 | 3 |
| Shrubs- Fabaceaea | | | |
| <i>Daviesia genistifolia</i> | 0% | 0.000 | |
| <i>Daviesia ulicifolia</i> | 0% | 0.000 | |
| <i>Daviesia ulicifolia subsp. Stenophylla</i> | 0% | 0.000 | |
| <i>Hardenbergia violacea</i> | 0% | 0.000 | |
| <i>Indigofera australis</i> | 0% | 0.000 | |
| <i>Jacksonia scoparia</i> | 0% | 0.000 | |



| | | | |
|--|-------------|--------------|----------|
| <i>Podolobium ilicifolium</i> | 0% | 0.000 | |
| <i>Pultenaea microphylla</i> | 0% | 0.000 | |
| <i>Pultenaea spinosa</i> | 0% | 0.000 | |
| Total - Shrubs- Fabaceae | 100% | 0.000 | 0 |
| Non-Nitrogen Fixing Shrubs | | | |
| <i>Cassinia aculeata</i> | 0% | 0.000 | |
| <i>Cassinia arcuata</i> | 0% | 0.000 | |
| <i>Cassinia quinquefaria</i> | 0% | 0.000 | |
| <i>Dodonaea viscosa subsp cuneata</i> | 100% | 0.200 | 1 |
| <i>EreRMPPhila deserti</i> | 0% | 0.000 | |
| <i>Hakea sericea</i> | 0% | 0.000 | |
| <i>Kunzea ambigua</i> | 0% | 0.000 | |
| <i>Melaleuca decora</i> | 0% | 0.000 | |
| <i>Melaleuca nodosa</i> | 0% | 0.000 | |
| <i>Melichrus urceolatus</i> | 0% | 0.000 | |
| <i>Myoporum montanum</i> | 0% | 0.000 | |
| <i>Olearia elliptica</i> | 0% | 0.000 | |
| <i>Ozothamnus diosmifolius</i> | 0% | 0.000 | |
| <i>Pandorea pandorana</i> | 0% | 0.000 | |
| <i>Senna artemesioides subsp. zygophylla</i> | 0% | 0.000 | |
| Total - Non-Nitrogen Fixing Shrubs | 100% | 0.200 | 1 |
| Forbs and Subshrubs | | | |
| <i>Ajuga australis</i> | 4% | 0.010 | 1 |
| <i>Atriplex semibaccata</i> | 0% | 0.000 | |
| <i>Calocephalus critreus</i> | 0% | 0.000 | |



| | | | |
|----------------------------------|-----|-------|---|
| <i>Calotis cuneifolia</i> | 0% | 0.000 | |
| <i>Calotis lappulacea</i> | 8% | 0.020 | 1 |
| <i>Chrysocephalum apiculatum</i> | 8% | 0.020 | 1 |
| <i>Desmodium brachypodum</i> | 0% | 0.000 | |
| <i>Einadia hastata</i> | 0% | 0.000 | |
| <i>Einadia nutans</i> | 20% | 0.050 | 1 |
| <i>Einadia polygonoides</i> | 0% | 0.000 | |
| <i>Einadia trigonos</i> | 20% | 0.050 | 1 |
| <i>Enchylaena tomentosa</i> | 0% | 0.000 | |
| <i>EreRMPPhila debilis</i> | 0% | 0.000 | |
| <i>Glycine clandestina</i> | 0% | 0.000 | |
| <i>Glycine latifolia</i> | 0% | 0.000 | |
| <i>Glycine tabacina</i> | 0% | 0.000 | |
| <i>Haloragis heterophylla</i> | 0% | 0.000 | |
| <i>Hibbertia obtusifolia</i> | 0% | 0.000 | |
| <i>Hypericum gramineum</i> | 0% | 0.000 | |
| <i>Mentha saturooides</i> | 0% | 0.000 | |
| <i>Maireana microphylla</i> | 20% | 0.050 | 1 |
| <i>Neptunia gracilis</i> | 0% | 0.000 | |
| <i>Podolepis neglecta</i> | 0% | 0.000 | |
| <i>Pomax umbellata</i> | 0% | 0.000 | |
| <i>Spartothamnella juncea</i> | 0% | 0.000 | |
| <i>Solanum cinereum</i> | 0% | 0.000 | |
| <i>Spartothamnella juncea</i> | 0% | 0.000 | |
| <i>Swainsona galegifolia</i> | 0% | 0.000 | |
| <i>Vittadinia spp.</i> | 20% | 0.050 | 1 |



| | | | |
|---|-------------|--------------|----------|
| <i>Wahlenbergia spp.</i> | 0% | 0.000 | |
| Total - Forbs and Subshrubs | 100% | 0.250 | 7 |
| Grasses - Primary Colonising | | | |
| <i>Austrostipa scabra</i> | 20% | 0.500 | 1 |
| <i>Bothriochloa biloba</i> | 10% | 0.250 | 1 |
| <i>Bothriochloa decipiens</i> | 20% | 0.500 | 1 |
| <i>Bothriochloa macra</i> | 10% | 0.250 | 1 |
| <i>Chloris truncata</i> | 20% | 0.500 | 1 |
| <i>Digitaria spp.</i> | 8% | 0.200 | 1 |
| <i>Enteropogon acicularis</i> | 8% | 0.200 | 1 |
| <i>Panicum spp.</i> | 4% | 0.100 | 1 |
| Total Grasses - Primary Colonising | 100% | 2.500 | 8 |
| Grasses - Long Term understorey | | | |
| <i>Aristida spp.</i> | 13% | 0.500 | 1 |
| <i>Austrodanthonia spp.</i> | 13% | 0.500 | 1 |
| <i>Austrostipa aristiglumis</i> | 5% | 0.200 | 1 |
| <i>Capillipedium spicigerum</i> | 7% | 0.250 | 1 |
| <i>Chloris ventricosa</i> | 13% | 0.500 | 1 |
| <i>Dicanthium sericeum</i> | 13% | 0.500 | 1 |
| <i>Elymus scaber</i> | 0% | 0.000 | |
| <i>Eragrostis spp.</i> | 7% | 0.250 | 1 |
| <i>Eulalia aurea</i> | 0% | 0.000 | |
| <i>Heteropogon contortus</i> | 0% | 0.000 | |
| <i>Paspalidium distans</i> | 7% | 0.250 | 1 |
| <i>Sporobolus creber</i> | 3% | 0.100 | 1 |



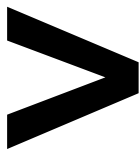
| | | | |
|--|-------------|--------------|-----------|
| <i>Themeda avenacea</i> | 7% | 0.250 | 1 |
| <i>Themeda triandra</i> | 13% | 0.500 | 1 |
| Total Grasses - Long Term Understorey | 100% | 3.800 | 11 |
| Grasses - Shade tolerant | | | |
| <i>Austrostipa ramosissima</i> | 0% | 0.000 | |
| <i>Austrostipa verticillata</i> | 21% | 0.300 | 1 |
| <i>Cymbopogon refractus</i> | 14% | 0.200 | 1 |
| <i>Dichelachne crinita</i> | 0% | 0.000 | |
| <i>Imperata cylindrica</i> | 14% | 0.200 | 1 |
| <i>Microleana stipoides</i> | 36% | 0.500 | 1 |
| <i>Poa labillardieri</i> | 14% | 0.200 | 1 |
| Total Grasses - shade tolerant | 100% | 1.400 | 5 |
| Total - Native Grasses | | 7.700 | 24 |
| TOTAL ALL CATEGORIES | | 9.050 | 40 |

Pasture Light Woody

| Categories and Species Options | Preferred Seed Mix | | |
|--------------------------------|-----------------------|---------------------|---------------|
| | Species % of category | Sowing rate (kg/ha) | Species Count |
| Dominant Trees | | | |
| <i>Angophora floribunda</i> | 11% | 0.100 | 1 |
| <i>Corymbia maculata</i> | 11% | 0.100 | 1 |
| <i>Eucalyptus albens</i> | 0% | 0.000 | |
| <i>Eucalyptus blakelyi</i> | 9% | 0.080 | 1 |
| <i>Eucalyptus crebra</i> | 33% | 0.300 | 1 |
| <i>Eucalyptus dawsonii</i> | 0% | 0.000 | |



| | | | |
|-----------------------------------|-------------|--------------|----------|
| <i>Eucalyptus fibrosa</i> | 2% | 0.020 | 1 |
| <i>Eucalyptus glaucina</i> | 0% | 0.000 | |
| <i>Eucalyptus moluccana</i> | 33% | 0.300 | 1 |
| <i>Eucalyptus punctata</i> | 0% | 0.000 | |
| <i>Eucalyptus tereticornis</i> | 0% | 0.000 | |
| Total - Dominant Trees | 100% | 0.900 | 6 |
| Sub-Dominant Trees | | | |
| <i>Acacia decurrens</i> | 33% | 0.300 | 1 |
| <i>Acacia implexa</i> | 11% | 0.100 | 1 |
| <i>Acacia lineariifolia</i> | 0% | 0.000 | |
| <i>Acacia parvipinnula</i> | 22% | 0.200 | 1 |
| <i>Acacia salicina</i> | 22% | 0.200 | 1 |
| <i>Allocasuarina gymnanthera</i> | 0% | 0.000 | |
| <i>Allocasuarina leuhmanii</i> | 11% | 0.100 | 1 |
| <i>Allocasuarina verticillata</i> | 0% | 0.000 | |
| <i>Brachychiton populneus</i> | 0% | 0.000 | |
| <i>Bursaria spinosa</i> | 0% | 0.000 | |
| <i>Callitris endlicheri</i> | 0% | 0.000 | |
| <i>Notelaea microcarpa</i> | 0% | 0.000 | |
| Total - Sub-Dominant Trees | 100% | 0.900 | 5 |
| Shrubs- Acacias | | | |
| <i>Acacia amblygona</i> | 17% | 0.200 | 1 |
| <i>Acacia brownii</i> | 0% | 0.000 | |
| <i>Acacia crassa</i> | 0% | 0.000 | |
| <i>Acacia cultriformis</i> | 17% | 0.200 | 1 |
| <i>Acacia decora</i> | 25% | 0.300 | 1 |



| | | | |
|---|-------------|--------------|----------|
| <i>Acacia elongata</i> | 8% | 0.100 | 1 |
| <i>Acacia falcata</i> | 25% | 0.300 | 1 |
| <i>Acacia paradoxa</i> | 8% | 0.100 | 1 |
| <i>Acacia spectabilis</i> | 0% | 0.000 | |
| Total - Shrubs - Acacias | 100% | 1.200 | 6 |
| Shrubs- Fabaceaea | | | |
| <i>Daviesia genistifolia</i> | 29% | 0.150 | 1 |
| <i>Daviesia ulicifolia</i> | 0% | 0.000 | |
| <i>Daviesia ulicifolia subsp. Stenophylla</i> | 29% | 0.150 | 1 |
| <i>Hardenbergia violacea</i> | 19% | 0.100 | 1 |
| <i>Indigofera australis</i> | 10% | 0.050 | 1 |
| <i>Jacksonia scoparia</i> | 10% | 0.050 | 1 |
| <i>Podolobium ilicifolium</i> | 0% | 0.000 | |
| <i>Pultenaea microphylla</i> | 0% | 0.000 | |
| <i>Pultenaea spinosa</i> | 4% | 0.020 | 1 |
| Total - Shrubs- Fabaceae | 100% | 0.520 | 6 |
| Non-Nitrogen Fixing Shrubs | | | |
| <i>Cassinia aculeata</i> | 0% | 0.000 | |
| <i>Cassinia arcuata</i> | 17% | 0.100 | 1 |
| <i>Cassinia quinquefaria</i> | 17% | 0.100 | 1 |
| <i>Dodonaea viscosa subsp cuneata</i> | 33% | 0.200 | 1 |
| <i>EreRMPhila deserti</i> | 0% | 0.000 | |
| <i>Hakea sericea</i> | 0% | 0.000 | |
| <i>Kunzea ambigua</i> | 0% | 0.000 | |



| | | | |
|--|-------------|--------------|----------|
| <i>Melaleuca decora</i> | 0% | 0.000 | |
| <i>Melaleuca nodosa</i> | 0% | 0.000 | |
| <i>Melichrus urceolatus</i> | 0% | 0.000 | |
| <i>Myoporum montanum</i> | 8% | 0.050 | 1 |
| <i>Olearia elliptica</i> | 8% | 0.050 | 1 |
| <i>Ozothamnus diosmifolius</i> | 8% | 0.050 | 1 |
| <i>Pandorea pandorana</i> | 0% | 0.000 | |
| <i>Senna artemesioides subsp. zygophylla</i> | 8% | 0.050 | 1 |
| Total - Non-Nitrogen Fixing Shrubs | 100% | 0.600 | 7 |
| Forbs and Subshrubs | | | |
| <i>Ajuga australis</i> | 3% | 0.020 | 1 |
| <i>Atriplex semibaccata</i> | 3% | 0.020 | 1 |
| <i>Calocephalus critreus</i> | 0% | 0.000 | |
| <i>Calotis cuneifolia</i> | 0% | 0.000 | |
| <i>Calotis lappulacea</i> | 5% | 0.040 | 1 |
| <i>Chrysocephalum apiculatum</i> | 7% | 0.050 | 1 |
| <i>Desmodium brachypodium</i> | 0% | 0.000 | |
| <i>Einadia hastata</i> | 13% | 0.100 | 1 |
| <i>Einadia nutans</i> | 7% | 0.050 | 1 |
| <i>Einadia polygonoides</i> | 0% | 0.000 | |
| <i>Einadia trigonos</i> | 7% | 0.050 | 1 |
| <i>Enchylaena tomentosa</i> | 11% | 0.080 | 1 |
| <i>EreRMPhila debilis</i> | 7% | 0.050 | 1 |
| <i>Glycine clandestina</i> | 0% | 0.000 | |
| <i>Glycine latifolia</i> | 0% | 0.000 | |



| | | | |
|------------------------------------|-------------|--------------|-----------|
| <i>Glycine tabacina</i> | 5% | 0.040 | 1 |
| <i>Haloragis heterophylla</i> | 0% | 0.000 | |
| <i>Hibbertia obtusifolia</i> | 0% | 0.000 | |
| <i>Hypericum gramineum</i> | 0% | 0.000 | |
| <i>Mentha satureoides</i> | 0% | 0.000 | |
| <i>Maireana microphylla</i> | 7% | 0.050 | 1 |
| <i>Neptunia gracilis</i> | 0% | 0.000 | |
| <i>Podolepis neglecta</i> | 0% | 0.000 | |
| <i>Pomax umbellata</i> | 0% | 0.000 | |
| <i>Rhagodia parabolica</i> | 0% | 0.000 | |
| <i>Solanum cinereum</i> | 3% | 0.020 | 1 |
| <i>Spartothamnella juncea</i> | 7% | 0.050 | 1 |
| <i>Swainsona galegifolia</i> | 7% | 0.050 | 1 |
| <i>Vittadinia spp.</i> | 11% | 0.080 | 1 |
| <i>Wahlenbergia spp.</i> | 0% | 0.000 | |
| Total - Forbs and Subshrubs | 100% | 0.750 | 15 |
| Grasses | | | |
| <i>Aristida spp.</i> | 11% | 0.500 | 1 |
| <i>Austrodanthonia spp.</i> | 2% | 0.100 | 1 |
| <i>Austrostipa aristiglumis</i> | 0% | 0.000 | |
| <i>Austrostipa ramosissima</i> | 0% | 0.000 | |
| <i>Austrostipa scabra</i> | 9% | 0.400 | 1 |
| <i>Austrostipa verticillata</i> | 5% | 0.200 | 1 |
| <i>Bothriochloa biloba</i> | 5% | 0.200 | 1 |
| <i>Bothriochloa decipiens</i> | 9% | 0.400 | 1 |
| <i>Bothriochloa macra</i> | 5% | 0.200 | 1 |



| | | | |
|---------------------------------|-------------|--------------|-----------|
| <i>Capillipedium spicigerum</i> | 2% | 0.080 | 1 |
| <i>Chloris truncata</i> | 9% | 0.400 | 1 |
| <i>Chloris ventricosa</i> | 9% | 0.400 | 1 |
| <i>Cymbopogon refractus</i> | 2% | 0.100 | 1 |
| <i>Dicanthium sericeum</i> | 9% | 0.400 | 1 |
| <i>Dichelachne crinita</i> | 0% | 0.000 | |
| <i>Digitaria spp.</i> | 2% | 0.100 | 1 |
| <i>Elymus scaber</i> | 0% | 0.000 | |
| <i>Enteropogon acicularis</i> | 2% | 0.100 | 1 |
| <i>Eragrostis spp.</i> | 2% | 0.100 | 1 |
| <i>Eulalia aurea</i> | 0% | 0.000 | |
| <i>Heteropogon contortus</i> | 0% | 0.000 | |
| <i>Imperata cylindrica</i> | 0% | 0.000 | |
| <i>Microleana stipoides</i> | 0% | 0.000 | |
| <i>Panicum spp.</i> | 2% | 0.100 | 1 |
| <i>Paspalidium distans</i> | 2% | 0.100 | 1 |
| <i>Poa labillardieri</i> | 0% | 0.000 | |
| <i>Sporobolus creber</i> | 2% | 0.100 | 1 |
| <i>Themeda avenacea</i> | 0% | 0.000 | |
| <i>Themeda triandra</i> | 9% | 0.400 | 1 |
| Total - Grasses | 100% | 4.380 | 19 |
| TOTAL ALL CATEGORIES | | 9.250 | 64 |
| Cover Crop | | | |
| Oats / Millet | | 5.00 | |
| Couch | | 2.00 | |
| Rye | | 1.00 | |

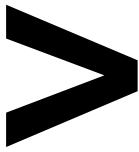


| | | |
|---------------------------|--|--------------|
| Bulking Agent | | 6.00 |
| Total - Cover Crop | | 14.00 |

Pasture

| PASTURE | | Sowing Rate (kg/ha) | |
|------------------|---|---------------------|---------------|
| Species | Variety Options | Spring/Summer | Autumn/Winter |
| Japanese Millet | <i>Shirohie, Rebound</i> | 5 | 0 |
| Oats | <i>Yarran, Coolabah e</i> | 0 | 15 |
| Kikuyu* | <i>Whittet, Noonan</i> | 5 | 4 |
| Digit Grass | <i>Premier</i> | 5 | 3 |
| Setaria | <i>Solander, Narok</i> | 3 | 2 |
| Paspalum | <i>Common</i> | 3 | 2 |
| Couch | <i>Hulled</i> | 4 | 3 |
| Tall Fescue | <i>Quantum, Fortune, Tower, Demeter</i> | 2 | 5 |
| Cocksfoot | <i>Porto, Uplands, Drover</i> | | 3 |
| Ryegrass | <i>Wimmera, Tetila</i> | 2 | 5 |
| Lucerne | <i>Aurora, Titan 5 etc</i> | 6 | 8 |
| White Clover | <i>Haifa</i> | 2 | 3 |
| Barrel Medic | <i>Sephi, Jester etc</i> | 2 | 5 |
| Arrowleaf Clover | <i>Zulu, Cefalu</i> | 3 | 4 |
| Woolly Pod Vetch | <i>Namoi, Capello</i> | | 4 |
| Chicory | <i>Puna, Command, Choice</i> | 2 | 2 |
| Plantain | <i>Tonic, Ecotain</i> | 1 | 2 |
| TOTAL | | 40 | 55 |

* Not used in areas adjacent to young woodland rehabilitation



APPENDIX F: CONSULTATION EVIDENCE

Public Authority Response Summary

| | |
|---|--------------------------------------|
| SINGLETON SHIRE COUNCIL (PAE-46074968) | |
| Status Pending Advice | Due Date Friday, August 5, 2022 |
| No response received | |
| Crown Lands (PAE-46075217) | |
| Status Closed | Due Date Friday, August 5, 2022 |
| No response received | |
| SINGLETON SHIRE COUNCIL (PAE-46075712) | |
| Status Pending Advice | Due Date Friday, August 5, 2022 |
| No response received | |
| Crown Lands (PAE-46075713) | |
| Status Closed | Due Date Friday, August 5, 2022 |
| No response received | |
| DPIE Water (PAE-46447958) | |
| Status Closed | Due Date Tuesday, August 16, 2022 |
| No response received | |



Attach Evidence

Below is a list of any consultation you have initiated through the portal. Once the public authority responds it will be automatically attached as evidence. Once each of the public authorities has responded, click "Continue". Please attach any other evidence of consultation not captured by the portal by attaching it below.

Public Authority Response Summary

Table with 3 rows: DPIP Water (PAE-46076457) - Status Closed, Due Date Friday, August 5, 2022; OEH (PAE-46076458) - Status Pending Advice, Due Date Friday, August 5, 2022, No response received; SINGLETON SHIRE COUNCIL (PAE-46076459) - Status Pending Advice, Due Date Friday, August 5, 2022, No response received.

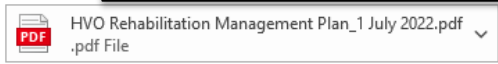
Rehabilitation Management Plan - CCC Consultation



Bartlett, Merri (Hunter Valley Operations - AU)

Reply, Reply All, Forward, ... icons

To [Redacted]; Tue 5/07/2022 3:29 PM



Dear CCC members,

In accordance with the North Development Consent (DA 450-10-2003), HVO is required to consult with the Community Consultation Committee (CCC) when preparing a Rehabilitation Management Plan.

I have attached the Rehabilitation Management Plan for your review.

Can you please let me know if you have any comments no later than Tuesday 19 July.

Regards,

Merri

Merri Bartlett | Environment and Community Officer

HUNTER VALLEY OPERATIONS

Address: 1011 Lemington Road Lemington NSW 2330 Australia
Postal: PO Box 315 Singleton NSW 2330 Australia
Mobile: [Redacted]
Email: [Redacted]





Department of Planning and Environment

Our ref: OUT22/11186

Andrew Speechly

Email andrew.speechly@hvo.com.au

26 July 2022

Subject: Hunter Valley Operations North and South (MP06_0261 and DA450_10_2003)
Rehabilitation Management Plan

Dear Andrew,

I refer to your request seeking advice from the Department of Planning and Environment – Water (the department) on preparation of a Rehabilitation Management Plan for the above matter. It is understood this consultation is in accordance with conditions of approval for the project.

The department requests the Rehabilitation Management Plan be prepared to achieve the following general and specific outcomes. These are intended to meet the department's legislative, policy and water management requirements.

General

- Sharing of water must protect the water source, its dependent ecosystems and basic landholder rights.
- Water sources, floodplains and dependent ecosystems are protected and restored.
- Activities within a water source should avoid or minimise land degradation, including soil erosion, compaction, geomorphic instability, contamination, and where possible land should be rehabilitated.
- The final Rehabilitation Management Plan is made electronically available on a public accessible website.

Specific

- A conceptual model/diagram clearly presents how the groundwater and surface water systems interact with the final landform. This is to be informed by recent environmental assessments/modelling reviews.
- The final design and location of surface drainage features achieves a stable landform and maintains or improves riparian corridor functioning. This is to be completed with reference to industry guidelines such as: "Rehabilitation Manual for Australian Streams (LWRRDC 2000)", "Guideline: Works that interfere with water in a watercourse for a resource activity (DNRME 2019)" and "Guidelines for Controlled Activities on Waterfront Land (2012)" or their latest versions.
- Dirty runoff catchment areas are rehabilitated and the conveyance of clean surface runoff downstream is maximised.
- Decommissioning of groundwater boreholes is in accordance with the "Minimum Construction Requirements for Water Bores in Australia (2020)".

4 Parramatta Square, 12 Darcy Street, Parramatta NSW 2150
Locked Bag 5022, Parramatta NSW 2124

www.dpie.nsw.gov.au

Number: HVOOC-1797567310-5041 **Status:** Approved **Effective:** 21/11/2024
Owner: Environment and Community **Version:** 2.0 **Review:** 18/11/2027
Coordinator

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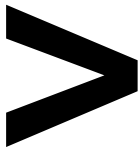
Department of Planning and Environment

- Ongoing water take by the final landform via interception, storage or diversion is quantified and complies with relevant approvals and licences under the *Water Management Act 2000* or a relevant exemption. Please note exemptions from the requirement to hold approvals under s.90 and 91 of the *Water Management Act 2000* for approved SSD/SSI projects will not apply once the project approval ceases. Therefore, any relevant water management works that are to be retained will need to obtain an approval prior to the development consent lapsing.
- Aquifer interference activities are designed to minimise ongoing water take and water quality impacts and meet the requirements of the NSW Aquifer Interference Policy.
- Residual risk to water sources is clearly understood and minimised. This is to include relevant assessment documentation and updated risk assessments to meet the requirements of the NSW Aquifer Interference Policy. Further detail can be found in Fact Sheet 5 in Appendix C of the "*Guidelines for Groundwater Documentation for SSD/SSI Projects. Technical guideline (DPE 2022)*".
- A monitoring and review program is included to ensure the rehabilitation outcomes are met.

Should you have any further queries in relation to this submission please do not hesitate to contact DPE Water Assessments at water.assessments@dpie.nsw.gov.au

Yours sincerely,

Tim Baker
Senior Project Officer
Water Assessments
Department of Planning and Environment: Water



Department of Planning and Environment



Our ref: MP06_0261-PA-100

Andrew Speechly
Manager – Environment and Community
HV OPERATIONS PTY LTD
1011 Lemington Road
Lemington NSW 2330

15/06/2023

Subject: Consultation on HVO Rehabilitation Management Plan

Dear Mr Speechly

I refer to your request seeking the Department's comment on the updated Hunter Valley Operations Rehabilitation Management Plan (version 1.0, dated July 2022) which has been prepared in accordance with condition 36 of Schedule 3 of PA06_0261 and condition 62C of Schedule 3 of DA 450-10-2003 and the NSW Resource Regulator Form and Way Guideline.

The Department has reviewed the updated Rehabilitation Management Plan and confirms it satisfies the requirements of the condition and consent.

Accordingly, the Department confirms it has no comments regarding the content or structure of the plan.

You are reminded that if there are any inconsistencies between the Rehabilitation Management Plan and the conditions of approval, the conditions prevail.

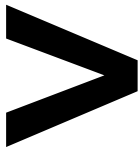
Please ensure you make the document publicly available on the project website at the earliest convenience.

If you wish to discuss the matter further, please contact me on (02) 4908 6896.

Yours sincerely

Joe Fittell
Team Leader
Energy and Resource Assessments

As nominee of the Planning Secretary



Department of Planning and Environment



Our ref: DA450-10-2003-PA-65

Andrew Speechly
Manager – Environment and Community
HV OPERATIONS PTY LTD
1011 Lemington Road
Lemington NSW 2330

15/06/2023

Subject: Consultation on HVO Rehabilitation Management Plan

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As nominee of the Planning Secretary