APPENDIX A: FLOOD MODELLING RESULTS FOR LOCAL FLOODING

WOOLGAR RIVER

Drainage Line 3

Northern Waste Rock Dump

BV1 Pit

Drainage Line 3

BV2 Pit

Drainage Line 1

Central Waste Rock Dump

Drainage Line 2

Drainage Line 1

Southern Waste Rock Dump

LEGEND

Levee Alignment

Model Boundary

Peak Flood Depth (m)

< 0.5

0.5 - 1.0

1.0 - 1.5

1.5 - 2.0

2.0 - 2.5

2.5 - 3.0

> 3.0

PRCP Final Landform
Elevation (m AHD)

390

360

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NOTES:

N

0 100 200 m

SCALE - 1:14,500
GDA94 / MGA zone 54

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Figure A.1

Big Vein South Gold Project
PRCP Flooding - Local
2% AEP SSP3-7.0 2090
Peak Flood Depth

Drg Ref.
BNE00504-0004-BVS-A1-01

S:\01_Projects\BNE\BNE00504 Strategic Minerals Corporation\BNE00504_0004 BVS DETSI IR Flooding\05 Design\QGIS\Workspaces\BNE00504_0004-WOR-001-A-BVS_Tuflow_Model.qgz

WOOLGAR RIVER

Drainage Line 3

Northern Waste Rock Dump

BV1 Pit

Drainage Line 3

BV2 Pit

Drainage Line 1

Central Waste Rock Dump

Drainage Line 2

Drainage Line 1

Southern Waste Rock Dump

LEGEND

Levee Alignment

Model Boundary

Peak Flood Velocity (m/s)

<= 0.5

0.5 - 1.0

1.0 - 1.5

1.5 - 2.0

2.0 - 2.5

2.5 - 3.0

3.0 - 3.5

> 3.5

PRCP Final Landform

Elevation (m AHD)

390

360

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0 100 200 m

SCALE - 1:14,500

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Figure A.2

Big Vein South Gold Project
PRCP Flooding - Local
2% AEP SSP3-7.0 2090
Peak Flood Velocity

Drg Ref.
BNE00504-0004-BVS-A2-01

S:\01_Projects\BNE\BNE00504 Strategic Minerals Corporation\BNE00504_0004 BVS DETSI IR Flooding\05 Design\QGIS\Workspaces\BNE00504_0004-WOR-001-A-BVS_Tuflow_Model.qgz

WOOLGAR RIVER

Drainage Line 3

Northern Waste Rock Dump

BV1 Pit

Drainage Line 3

BV2 Pit

Drainage Line 1

Central Waste Rock Dump

Drainage Line 2

Drainage Line 1

Southern Waste Rock Dump

LEGEND

Levee Alignment

Model Boundary

Peak Flood Depth (m)

< 0.5

0.5 - 1.0

1.0 - 1.5

1.5 - 2.0

2.0 - 2.5

2.5 - 3.0

> 3.0

PRCP Final Landform
Elevation (m AHD)

390

360

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N

0 100 200 m

SCALE - 1:14,500

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Figure A.3

Big Vein South Gold Project
PRCP Flooding - Local
1% AEP SSP3-7.0 2090
Peak Flood Depth

Drg Ref.
BNE00504-0004-BVS-A3-01

S:\01_Projects\BNE\BNE00504 Strategic Minerals Corporation\BNE00504_0004 BVS DETSI IR Flooding\05 Design\QGIS\Workspaces\BNE00504_0004-WOR-001-A-BVS_Tuflow_Model.qgz

WOOLGAR RIVER

Drainage Line 3

Northern Waste Rock Dump

BV1 Pit

Drainage Line 3

BV2 Pit

Drainage Line 1

Central Waste Rock Dump

Drainage Line 2

Drainage Line 1

Southern Waste Rock Dump

LEGEND

Levee Alignment

Model Boundary

Peak Flood Velocity (m/s)

<= 0.5

0.5 - 1.0

1.0 - 1.5

1.5 - 2.0

2.0 - 2.5

2.5 - 3.0

3.0 - 3.5

> 3.5

PRCP Final Landform
Elevation (m AHD)

390

360

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N

0 100 200 m

SCALE - 1:14,500

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Figure A.4

Big Vein South Gold Project
PRCP Flooding - Local
1% AEP SSP3-7.0 2090
Peak Flood Velocity

Drg Ref.
BNE00504-0004-BVS-A4-01

S:\01_Projects\BNE\BNE00504 Strategic Minerals Corporation\BNE00504_0004 BVS DETSI IR Flooding\05 Design\QGIS\Workspaces\BNE00504_0004-WOR-001-A-BVS_Tuflow_Model.qgz

WOOLGAR RIVER

Drainage Line 3

Northern Waste Rock Dump

BV1 Pit

Drainage Line 3

BV2 Pit

Drainage Line 1

Drainage Line 2

Central Waste Rock Dump

Drainage Line 1

Southern Waste Rock Dump

LEGEND

- Levee Alignment
- Baseline Woolgar River Flood Extent
- Model Boundary

Peak Flood Depth (m)

- < 0.5
- 0.5 - 1.0
- 1.0 - 1.5
- 1.5 - 2.0
- 2.0 - 2.5
- 2.5 - 3.0
- > 3.0

PRCP Final Landform
Elevation (m AHD)

- 390
- 360

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N

0 100 200 m

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Figure A.5

Big Vein South Gold Project
0.1% AEP Flood Extents

Drg Ref.
BNE00504-0004-BVS-A5-01

S:\01_Projects\BNE\BNE00504 Strategic Minerals Corporation\BNE00504_0004 BVS DETSI IR Flooding\05 Design\QGIS\Workspaces\BNE00504_0004-WOR-001-A-BVS_Tuflow_Model.qgz

WOOLGAR RIVER

Drainage Line 3

Northern Waste Rock Dump

BV1 Pit

Drainage Line 3

BV2 Pit

Drainage Line 1

Central Waste Rock Dump

Drainage Line 2

Drainage Line 1

Southern Waste Rock Dump

LEGEND

Levee Alignment

Model Boundary

Peak Flood Velocity (m/s)

<= 0.5

0.5 - 1.0

1.0 - 1.5

1.5 - 2.0

2.0 - 2.5

2.5 - 3.0

3.0 - 3.5

> 3.5

PRCP Final Landform
Elevation (m AHD)

390

360

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NOTES:

N

0 100 200 m

SCALE - 1:14,500

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Figure A.6

Big Vein South Gold Project
PRCP Flooding - Local
0.1% AEP SSP3-7.0 2090
Peak Flood Velocity

Drg Ref.
BNE00504-0004-BVS-A6-01

S:\01_Projects\BNE\BNE00504 Strategic Minerals Corporation\BNE00504_0004 BVS DETSI IR Flooding\05 Design\QGIS\Workspaces\BNE00504_0004-WOR-001-A-BVS_Tuflow_Model.qgz

WOOLGAR RIVER

Northern Waste Rock Dump

BV1 Pit

Drainage Line 3

BV2 Pit

Drainage Line 3

Drainage Line 1

Central Waste Rock Dump

Drainage Line 2

Drainage Line 1

Southern Waste Rock Dump

LEGEND

- Pit Protection Levees
- Levee Alignment
- Baseline Woolgar River Flood Extent
- Model Boundary

Peak Flood Depth (m)

- < 0.5
- 0.5 - 1.0
- 1.0 - 1.5
- 1.5 - 2.0
- 2.0 - 2.5
- 2.5 - 3.0
- > 3.0

PRCP Final Landform
Elevation (m AHD)

- 390
- 360

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NOTES:

N

0 100 200 m

SCALE - 1:14,500
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Figure A.7

Big Vein South Gold Project
PMF Flood Extents

Drg Ref.
BNE00504-0004-BVS-A7-01

S:\01_Projects\BNE\BNE00504 Strategic Minerals Corporation\BNE00504_0004 BVS DETSI IR Flooding\05 Design\QGIS\Workspaces\BNE00504_0004-WOR-001-A-BVS_Tuflow_Model.qgz

WOOLGAR RIVER

Northern Waste Rock Dump

BV1 Pit

Drainage Line 3

Drainage Line 3

BV2 Pit

Drainage Line 1

Central Waste Rock Dump

Drainage Line 2

Drainage Line 1

Southern Waste Rock Dump

LEGEND

- Pit Protection Levees
- Levee Alignment
- Model Boundary

Peak Flood Velocity (m/s)

- <= 0.5
- 0.5 - 1.0
- 1.0 - 1.5
- 1.5 - 2.0
- 2.0 - 2.5
- 2.5 - 3.0
- 3.0 - 3.5
- > 3.5

PRCP Final Landform
Elevation (m AHD)

- 390
- 360

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N

0 100 200 m

SCALE - 1:14,500
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Figure A.8

Big Vein South Gold Project
PRCP Flooding - Local
PMF SSP3-7.0 2090
Peak Flood Velocity

Drg Ref.
BNE00504-0004-BVS-A8-01

S:\01_Projects\BNE\BNE00504 Strategic Minerals Corporation\BNE00504_0004 BVS DETSI IR Flooding\05 Design\QGIS\Workspaces\BNE00504_0004-WOR-001-A-BVS_Tuflow_Model.qgz

APPENDIX K

Public Interest Consideration Report

STRATEGIC MINERALS CORPORATION

STRATEGIC MINERALS CORPORATION

PUBLIC INTEREST CONSIDERATION – Non-use Management Areas

BIG VEIN SOUTH GOLD PROJECT

18 September 2026

Strategic Minerals Corporation Pty Ltd
ACN 008 901 380

Level 15, 40 Creek Street, Brisbane Qld 4000

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Acronyms and Abbreviations

Acronym	Term
AEP	Annual Exceedance Probability
AHD	Australian Height Datum
AQP	Appropriately Qualified Person
BoM	Bureau of Meteorology
BV1	Big Vein 1 satellite pit
BV2	Big Vein 2 satellite pit
BVS	Big Vein South Project
CIL	Carbon-in-Leach
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DETSI	Department of Environment, Tourism, Science and Innovation
EA	Environmental Authority
EAR	Environmental Assessment Report
EP Act	*Environmental Protection Act 1994*
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
EPP Water	Environmental Protection (Water and Wetland Biodiversity) Policy 2019
ESG	Environmental, Social and Governance
HLF	Heap Leach Facility
km	kilometre
ML (MLs)	Mining Lease(s)
MNES	Matters of National Environmental Significance
MSES	Matters of State Environmental Significance

Acronym	Term
NAF	Non-Acid Forming
NC Act	*Nature Conservation Act 1992*
NUMA	Non-Use Management Area
NWMP	North West Minerals Province
PAF	Potentially Acid Forming
PHES	Pumped Hydro Energy Storage
PMLU	Post-Mining Land Use
PRCP	Progressive Rehabilitation and Closure Plan
Q1,000	Flood event with a 0.1% Annual Exceedance Probability
RE	Regional Ecosystem
RFDS	Royal Flying Doctor Service
ROM	Run-of-Mine
SDPWO Act	*State Development and Public Works Organisation Act 1971*
SILO	Scientific Information for Land Owners (Queensland Government climate database)
SMC	Strategic Minerals Corporation
TSC	Tailings Storage Cell
WoNS	Weeds of National Significance
WRD (WRDs)	Waste Rock Dump(s)

STRATEGIC MINERALS CORPORATION PTY LTD

BVS PROJECT - PUBLIC INTEREST CONSIDERATION

1 Introduction

Strategic Minerals Corporation (SMC) is proposing to develop the Big Vein South Gold Project (the Project) that involves the construction, operation and decommissioning of an open cut gold mine in North Queensland. The Project area covers approximately 2,281 ha and is located approximately 100 kilometres (km) north of Richmond and 380 km west of Townsville. SMC is wholly owned by QGold Pty Ltd (QGold), a Queensland based company focused on minerals exploration and development. QGold has interests in a number of mineral exploration areas in Queensland and has a strong track record of successful exploration and project development through its association with QCoal Group.

The proposed mine will produce up to approximately 1.95 million tonnes per annum of run of mine (ROM) gold ore. The ore will be processed on site to produce gold doré (solid bars containing gold alloy). The mine will yield up to approximately 100,000 ounces of gold doré per annum. Mine life will be approximately 11 years.

1.1 Project Overview

Open cut mining operations will involve the development of the primary Big Vein South (BVS) pit, located in the centre of the Project area and that will be active over the life of the mine. Two smaller satellite pits (the BV1 and BV2) located in the north of the Project area will be mined in the first two years of operations. Mine waste rock will be stored in three Waste Rock Dumps (WRDs) located in proximity to the pits.

On-site ore processing will include a Heap Leach Facility (HLF) that will be primarily used in the initial project years while high oxide ore from the BV1 and BV2 pits is mined and while the Carbon-in-Leach (CIL) Plant is commissioned. Spent ore from the HLF will be processed via the CIL along with the extracted ore from the primary BVS pit from year three onwards. The CIL Plant will produce predominantly dewatered tailings that will be stored in a co-placement cell within the Central WRD that will be surrounded by NAF waste rock. The CIL Plant will also produce a smaller volume of wet tailings prior to the commissioning of the tailings filter press and during periods when the filter press is not operational. Wet tailings will be stored in a dedicated Tailings Storage Cell (TSC). The processed gold doré bars will be transported from the mine site via plane to a refinery.

The majority of mine infrastructure will be located at the southern portion of the Project area. Key mine infrastructure will include ore processing facilities, workshop, warehouse, administration buildings, haul roads and access roads, vehicle servicing, refuelling and wash down facilities, fuel storage facilities, diesel and solar power station, water supply and water management infrastructure. Workforce accommodation and a private airstrip will also be located at the southern end of the Project area.

1.2 Background Context

The Project area consists of four existing Mining Leases (MLs) and an existing Environmental Authority (EA) EPSL00828013 for mining and exploration activities within the project's MLs. The proposed mining activities do not satisfy the eligibility criteria in the current EA. SMC submitted an Environmental Authority (EA) Application on 23 December 2022, supported by a Progressive Rehabilitation and Closure Plan (PRCP). The Department of Environment, Tourism, Science and Innovation (DETSI) requested further information on the EA and PRCP.

The initial EA application including the PRCP proposed seven NUMAs associated with the three final voids, WRDs and TSC. Following a request for further information from DETSI on 20 June 2025, SMC took the opportunity to review and optimise the Project that included reducing the number and extent of the proposed NUMAs. This resulted in the amended PRCP now proposing only the three pit voids (BVS, BV1 and BV2) as

NUMAs. The NUMAs previously proposed for the WRDs and the TSC have been removed in their entirety. The benefit of that reduction is addressed in Section 8.1.

Unlike strip mining, where previously mined strips are progressively backfilled as the operation advances, hard rock mining requires bench and berm excavation of the ore body. This method requires the mine pit to get deeper and wider as mining progresses and does not allow any waste rock to be stored in-pit. Consequently, all of the waste rock from hard rock mining is typically stored in out-of-pit dumps. Given that backfilling of the residual voids would require rehandling the total life-of-mine waste rock volume at the end of mining activities, the viability of backfilling differs relative to strip mining.

The final voids will have the following final dimensions:

- BVS: approximately 750 m wide by 1,900 m long with a depth of approximately 220 m. The overall slopes of the pit void walls will be approximately 33°.
- BV1 and BV2: each pit void will be approximately 110 m wide by 500 m long with a maximum depth of approximately 35 m. The overall slopes of the BV1 pit void walls will range from approximately 42° to 46° and the slopes of the BV2 pit void walls will range from approximately 40° to 44°.

The location and extent of the final voids is governed by the location of the resource, the existing ML boundaries, the topography and the requirements for the waste rock dumps. Pits have been designed to recover the most amount of ore with the least amount of waste rock (i.e. smallest pit size) and as such have already been through several rounds of optimisation.

Mining in the BV1 and BV2 pits will be completed in year 3 and then used for mine water storage during the remainder of the life of the mine. As such, they will not be available for improvements until the end of the life of the mine. Mining in the BVS pit will be completed at the cessation of the mine life.

2 Purpose

The amended PRCP proposes that the three final voids be retained as a NUMA. This report justifies the NUMA under section 126D(2) of the *Environmental Protection Act, 1994* (EP Act). This report addresses the public interest consideration requirements of the EP Act and the *Progressive Rehabilitation and Closure Plans (PRC Plans) Statutory Guideline* (PRCP Guideline). Section 3 of this report outlines the relevant public interest consideration legislative and assessment requirements.

3 Legislative Context

The EP Act requires land disturbed by mining to be rehabilitated to a stable condition. Under section 111A, land is in a stable condition if:

(a) The land is safe and structurally stable, and

(b) No environmental harm is being caused by anything on or in the land; and

(c) The land can sustain a PMLU.

Land that does not meet all three criteria is not considered stable and, under section 112, is a NUMA, which is defined as an area of land subject to a PRC plan that cannot be rehabilitated to a stable condition after all relevant activities have ended.

Section 126D(2) provides two distinct pathways for proposing a NUMA in a PRCP:

The PRCP schedule may state that land is a NUMA only if:

(a) Carrying out rehabilitation of the land would cause a greater risk of environmental harm than not carrying it out; or

(b) Both of the following:

i. the risk of environmental harm from not rehabilitating is confined to the area of the resource tenure; and

ii. the applicant considers, having regard to each public interest consideration in section 126E, that it is in the public interest for the land not to be rehabilitated to a stable condition.

Section 126E sets out five public interest consideration matters which are summarised below:

(a) The benefit, and its significance, to the community from the mining activity or resource project;

(b) Any impacts, including long-term impacts for the environment or community, that may reduce the benefit mentioned in paragraph (a) or have other negative impacts on the environment or community;

(c) Whether there are any alternative options to the NUMA, having regard to:

i. the costs or other consequences of the alternatives; and

ii. the impact of the costs or other consequences on the financial viability of the mining activity or resource project;

(d) Whether the benefit in paragraph (a), weighed against the impacts in paragraph (b), is likely to justify approval of the NUMA having regard to the alternatives in paragraph (c);

(e) Any matter prescribed by regulation.

Where a NUMA is proposed because the environmental risks from the area are localised and the proponent considers it is in the public interest for the land not to be rehabilitated to a stable condition, the PRCP Guideline also requires a report that:

(a) Is prepared by an appropriately qualified person(s)

(b) Identifies the environmental values of the project site and surrounding area that may potentially be impacted by the NUMA

(c) Details the type and extent of environmental harm that may occur if the NUMA is not rehabilitated to a stable condition

(d) Identifies the most achievable rehabilitation option considered as part of the PMLU assessment

3.1 Assessment Requirements

This report is provided in satisfaction of the PRCP Guideline requirements.

The public interest consideration assessment requirements and the corresponding section in this report where the information is provided are outlined in Table 1.

Table 1 Public interest assessment consideration requirements

PRCP / Legislative Item	Requirement	Section Reference
PRCP Guideline – s3.3	Report prepared by an appropriately qualified person(s) (AQP)	Section 4
PRCP Guideline – s3.3	Environmental values of the Project area and surrounding area potentially impacted by the NUMA	Section 5
PRCP Guideline – s3.3 EP Act – s126D(2)(b)(i)	Type and extent of likely environmental harm if the NUMA is not rehabilitated to a stable condition The risk of environmental harm from not rehabilitating is confined to the area of the resource tenure	Section 6
PRCP	Most achievable rehabilitation option from those considered in the PMLU assessment	Section 7
EP Act – s126E(a)	The benefit, including the significance, to the community from the Project	Section 8
EP Act – s126E(b)	Any impacts, including long-term impacts, that may reduce the benefit or otherwise negatively affect the environment or community	Section 9
EP Act – s126E(c)	Any alternative options to the NUMA, having regard to the costs or other consequences of the alternatives and the impact of the costs or other consequences on the financial viability of the Project	Section 10
EP Act – s126E(d)	Whether the benefit, weighed against the impacts, justifies the NUMA taking into consideration the alternatives	Section 11
EP Act – s126E(e)	Any matter prescribed by regulation	Section 12

4 Appropriately Qualified Persons

For NUMAs justified on public interest, an assessment report outlining the requirements listed in section 3 must be prepared by an AQP, which is defined in the PRCP Guideline as:

- As a person who has professional qualifications, training, skills or experience relevant to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relating to the subject matter using the relevant protocols, standards, methods or literature.

This report has been prepared for SMC by their AQPs. A summary of their experience and qualifications is outlined below.

- Dr Craig Streatfeild: Dr Streatfeild is an approvals and environmental professional scientist with 25 years of experience delivering strategic environmental impact assessments and approvals across Queensland's mining, resources, renewable energy, and infrastructure sectors at both state and federal level. Dr Streatfeild holds a Bachelor of Science (Environmental Science) from Griffith University and a PhD in Ecology, Habitat Fragmentation and Conservation from Queensland University of Technology.

- Mr Trent Cini: Mr Cini is a senior environmental executive with over 20 years of experience, holding a Bachelor of Environmental Science, majoring in Environmental Rehabilitation, from the University of New England. Mr Cini has extensive experience in the mining sector across New South Wales and Queensland spanning environmental approvals and impact assessments at both the state and federal level, project implementation and construction, operational environmental management and compliance, and sustainability and ESG performance, for both open cut and underground mining operations.

- Ms Stephanie MacIntosh: Ms MacIntosh is a senior finance executive with more than 20 years of experience in finance, financial reporting, ESG and regulatory compliance, and financial assessments to support major project approvals and investment decisions. She has over 13 years of experience within the resources sector, supporting both operating businesses and development projects. Ms MacIntosh holds a Bachelor of Business (Accounting) from the Queensland University of Technology and is a member of Chartered Accountants Australia and New Zealand.

In preparing this report, the AQPs have relied on relevant information from the EAR, PRCP and associated specialised technical assessments. The EAR and PRCP have been prepared by an AQP with over 30 years of experience in environmental impact assessments and the specialist technical assessments have been prepared by AQPs in fields relating to surface water, groundwater, air quality, ecology, geochemistry, geotechnical stability, amongst others.

5 Existing Environmental Values

The existing environmental values of the Project and surrounding area are outlined in detail in the site-specific EA assessment reports and appendices and section 2 of the PRCP. This report provides a summary of that information, and the reader is directed to the EAR and PRCP sections if further information is required.

5.1 Climate

Climatic conditions of the Project area and surrounds are dominated by distinct hot/wet and cooler/dry seasons, where more than 90% of rainfall typically falls between November and April. The nearest Bureau of Meteorology (BoM) weather station to the Project area with long-term rainfall monitoring data is the Gilberton Station (BoM weather station number 030019). Mean monthly rainfall ranges from 4.0 mm in August to 199.4 mm in January, with a mean annual rainfall of 688.9 mm. The DETSI SILO data for the project site indicates that mean annual lake evaporation is 1,930 mm, resulting in a net annual water deficit.

The DETSI Future Climate Dashboard shows the mean temperature within and surrounding the Project area increasing by approximately 3.0°C by 2070, driven by a maximum temperature increase of ~2.7°C and a minimum temperature increase of ~3.0°C. Evaporation is predicted to increase by approximately 2 mm/day, exceeding the predicted rainfall increase of roughly 0.15 mm/day. This indicates that the area's existing evaporative deficit will continue.

5.2 Topography and Pre-mining Land Use

The topography of the surrounding area is dominated by the south-western end of the Gregory Range, the Woolgar River and its tributaries. Rivers and creeks in the region have eroded the landscape, leaving behind isolated plateaus and elevated ranges. The Project area is situated on the south-western edge of the Gregory Range at elevations ranging between 360 m and 450 m Australian Height Datum (AHD). Topographically, the Project area transitions from a mosaic of dissected sandstone scarps and gullies in the east (extending across the BV1 and BV2 void locations) to flatter, gradually sloping terrain in the west near the main BVS void. The Woolgar River flows south-west, delineating the northern and north-western site boundaries.

Land within and surrounding the Project area is Crown land comprising two significant landholdings leased by the State to separate parties who operate large-scale cattle grazing operations. These leases are subject to current agreements with the Queensland Government. Current grazing operations in the surrounding area cover large areas and as such, the area is sparsely populated with only three homesteads within 10 km of the Project area. The three homesteads comprise Barnes' House (approximately 3km north-east of the Project area), Middle Park Homestead (approximately 1.1 km north of the Project area) and Mt Norman Homestead (approximately 8.4 km south-west). These represent the nearest sensitive receptors to the Project and the final voids.

While the dominant pre-mining land use across the Project and surrounding area is native vegetation utilised for low-intensity cattle grazing, historic gold mining footprints persist. Approximately 47 known historic mining sites occur within the broader surrounding area.

5.3 Soils

The Project area is located within the northern section of the Eromanga Sedimentary Basin. The basin overlies the Proterozoic basement that forms part of the Northern Australian Craton, one of Australia's major mineral provinces.

Soil types within the Project area, with particular reference to the three mining pits, are characterised by Kandosols and Rudosols that dictate the local agricultural capability. The central and southern portion of the BVS void footprint sits on moderately deep to deep, slightly to moderately acidic sandy loams. The northern section of the BVS footprint transitions into shallower, hard-setting soils. Conversely, the BV1 and BV2 void areas are dominated by very shallow, and strongly acidic soils associated with the steeper sedimentary terrain in the east of the Project area. These soils are limited to light grazing of native pastures in accessible areas.

5.4 Groundwater

The Project area is located at the northern edge of the Eromanga Sedimentary Basin. Natural weathering and erosion have created a distinct layer of weathered rock and soil that extends up to 40 metres below the ground surface. The Project area consists of four distinct layers: sand and gravel (alluvium) near the Woolgar River, a mostly dry and unsaturated weathered rock layer, scattered patches of sandstone, and a deep, solid basement rock layer. This solid basement rock mass contains the gold ore and holds very little water, except within occasional disconnected cracks in its upper profile.

In the eastern part of the Project area, which features elevated rocky ridges and plateaus, the main groundwater table sits between 50 and 110 metres below ground level. In the flatter, lower-lying areas to the west, the water table is shallower and ranges between 10 and 50 metres deep.

Due to the varying depths of the groundwater table across the Project area, the three pits will interact with the groundwater in very different ways. The main BVS pit void will be approximately 220 metres deep with pit water levels predicted to recover to a quasi-equilibrium of approximately 230 m AHD, which is approximately 120 m below the pre-mining groundwater level. Hence, groundwater inflows into the BVS pit void are expected to occur. In contrast, the two smaller satellite pits to the north are considerably shallower than the Central BVS pit, with maximum depths of 35 m and 10 m below ground level respectively. At these depths, both pit floors remain above the local groundwater table (by approximately 20 m and 15 m respectively) and will not intersect it. Because the BVS Pit will operate as a permanent groundwater sink, inducing a hydraulic gradient toward it both during dewatering and post-closure, the BV1 and BV2 final voids sit hydraulically upgradient of the BVS pit. Any limited seepage from these satellite voids will therefore migrate towards the BVS pit over time, rather than reaching the wider groundwater system.

Groundwater environmental values within the Project area are limited. Baseline quality is generally pH neutral and ranges from fresh to saline, with low concentrations of metals and metalloids. Hence, it is unsuitable for potable or irrigation use, and while quality may potentially be suitable for stock watering in the short term, quality is predicted to decline overtime, and yields are too low to support meaningful use. The regional groundwater table has no hydraulic connection to the outcrop springs east of the site, which are sustained by a separate, perched groundwater system. Groundwater in the Project area, therefore, holds limited practical or ecological value.

5.5 Surface Water

The Project area is located adjacent to the Woolgar River in the Flinders River Basin. The Woolgar River flows in a south-westerly direction, that along with its intersecting tributaries, exhibit highly ephemeral, short-duration surface water flows corresponding to wet season rainfall between November and April. Due to this seasonal reliance, flow volumes and timing can vary dramatically from year to year. Downstream, the river

joins the Stawell River approximately 73 km from the site before ultimately emptying into the Flinders River system.

The local catchments within the Project area are influenced by historic cattle grazing and land disturbance associated with historic mining activities and local access roads. The elevated rocky plateaus and ridgelines have formed local catchments boundaries across the Project area as follows:

- Northern catchment that covers approximately 4.2 km^2 and includes the unnamed Woolgar River tributaries of Drainage Feature 4 and Drainage Feature 5. The northern portion of BV1 intersects with this catchment.
- Central catchment covering approximately 19.4 km^2 and includes the unnamed Woolgar River tributaries of Drainage Feature 1, Drainage Feature 2 and Drainage Feature 3. The southern portion of the BV1 pit void, all of BV2 pit void and the majority of the BVS pit void intersects with this catchment.
- The southern catchment covers an area of approximately 53.7 km^2, with no defined channels, associated with this catchment, traversing the project site. The southern portion of the BVS pit void intersects with this catchment
- Local catchment areas that drain directly to the Woolgar River channel.

The BVS pit void is traversed by Drainage Features 1 and 2, which converge within the pit footprint; the BV1 and BV2 pit voids are not traversed by any named drainage feature. All three pits sit above the 0.1% AEP (Q1,000) flood level.

To prevent flood ingress during operations and following mine closure, Drainage Features 1 and 2 will be diverted around the BVS pit void. In addition, the final void water balance modelling, indicates the water levels in all three pit voids are well below the void overflow levels and the pit voids are not expected to overtop following mine closure.

Following closure and final rehabilitation of the Project, the remaining catchment area associated with the three pit voids will be approximately 145 ha, or approximately 0.13% of the Woolgar River catchment upstream of the Project.

Surface water environmental values within the Project area are constrained by the highly ephemeral flow regime. Baseline monitoring undertaken at 11 sites between April 2018 and February 2022 found water quality to be generally pH neutral and non-saline, with dissolved metals present at low concentrations other than iron, manganese and calcium, and turbidity varying widely in response to natural catchment erosion. Nutrient and dissolved oxygen conditions deteriorate in remnant pools at the end of the dry season.

There are no bulk water storages such as lakes, reservoirs or dams within 50 km downstream of the Project. There are no surface water licences to take or use water from the Woolgar River, and the nearest downstream licensed user is located on the Stawell River approximately 82 km downstream and authorised for rural use. Surface water within the Project area therefore supports no reliable consumptive use, and its principal value lies in its contribution to downstream flows within the Flinders River system.

5.6 Aquatic Ecology

The aquatic ecology assessment identified relatively depauperate but generally healthy aquatic fauna and flora assemblages within the local watercourses, comprising 37 macroinvertebrate species, four native freshwater fish species, one aquatic reptile and 12 species of aquatic flora, none of which is listed as threatened under State or Commonwealth legislation. No stygofauna were recorded within any of the aquifers identified on site. Habitat condition across the Project area was assessed as generally moderate, with elevated sediment and nutrient loads attributable to cattle grazing and historical gold mining, and both the Woolgar River and the drainage features traversing the site are classified as slightly disturbed waters in accordance with the EPP Water.

No mapped wetlands, high ecological value waters, declared fish habitat areas or aquatic habitat mapped as essential habitat for protected wildlife occur within 20 km of the Project.

The Woolgar River is mapped under the *Fisheries Act 1994* as a waterway for which waterway barrier works pose a major risk to fish passage, whereas the drainage features are predominantly mapped as low risk, with Drainage Feature 1 mapped as moderate risk within the Project area; the highly ephemeral nature of these features limits the aquatic ecological value they contribute to the wider Woolgar River system.

5.7 Flora and Vegetation

The Project area and surrounds is within the Gulf Plains Biogeographic region, with the northern half of the Project area in the Gilberton Plateau subregion and the southern half in Claraville Plains subregion. The Project area is entirely mapped as least concern remnant vegetation with disturbance limited to cattle grazing affecting the groundcover layer and small areas of clearing and vehicle tracks associated with historic timber getting and gold mining activity.

Field surveys undertaken between 2015 and 2021 identified 350 flora species, including 315 (90%) native species and 35 (10%) exotic species. No flora species listed under the *Nature Conservation Act 1992* (NC Act) or *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) were recorded in the Project area during the field survey events. Of the 35 exotic flora species recorded, three species (Rubber Vine - *Cryptostegia grandiflora*; Prickly Acacia - *Vachellia nilotica*; and Parkinsonia – *Parkinsonia aculeata)* are listed Category 3 restricted invasive plants under the *Biosecurity Act 2014.* Rubber Vine and Parkinsonia are also recognised as Weeds of National Significance (WoNS).

Field surveys identified inconsistencies between the currently mapped and on-ground vegetation communities. Fourteen Queensland herbarium validated regional ecosystems (RE) were confirmed in the Project area. All are listed as least concern remnant REs under the *Vegetation Management Act 1999* with the majority representing Eucalypt woodlands. Small areas of vegetation associated with a watercourse occur within the Project area, with small sections of the main BVS void and the northern section of the BV1 void intersecting these areas. Offsets for significant impacts to vegetation associated with a watercourse will be addressed through the EA approval process.

Flora and vegetation environmental values within the Project area are moderate and regionally well represented. Remnant vegetation associated with the Woolgar River corridor is mapped as supporting state significant biodiversity values and the river is identified as a state significant riparian corridor, while the balance of the Project area is mapped as having regional or local biodiversity value. No vegetation management wetlands are mapped within the Project area, and 140.9 ha of potential habitat for the vulnerable *Drummondita calida* occurs along the north-eastern edge, of which approximately 13.8 ha is proposed to be cleared. The approximately 1,341 ha of remnant vegetation proposed to be cleared represents approximately 0.2% of the extent of these regional ecosystems across the Gilberton Plateau and Claraville Plains subregions, with substantial similar connected habitat remaining both within the Project area and the wider region.

5.8 Fauna

Field surveys undertaken between 2017 and 2021 confirmed four broad habitat types within the Project area characterised as: riparian woodlands, open woodlands, low woodlands and open Eucalypt woodlands. A total of 182 fauna species including 5 introduced were recorded during field surveys. Although the majority of species recorded were not listed under the NC Act or EPBC Act, four listed species were either confirmed as present or assessed as likely to occur within the Project area:

- Koala (*Phascolarctos cinereus*) listed as Endangered under the EPBC Act and Vulnerable under the NC Act;
- Squatter Pigeon (Southern) (*Geophaps scripta scripta*) listed as Vulnerable under the EPBC Act and NC Act;

- Fork-tailed Swift (*Apus pacificus*) listed as Migratory under the EPBC Act and Special Least Concern under the NC Act; and

- Short-beaked Echidna (*Tachyglossus aculeatus*) listed as Special Least Concern under the NC Act.

Within the Project area, the main BVS void overlaps small areas of mapped Koala, Squatter Pigeon breeding and foraging habitats and Short-beaked Echidna habitat. The two small voids overlap with only Squatter Pigeon foraging and Short-beaked Echidna habitats. As the Project is a controlled action under the EPBC Act (EPBC 2025/10252), impacts to Koala and Squatter Pigeon habitat and offset requirements for these species are being addressed through the EPBC process.

Fauna environmental values within the Project area are moderate and are broadly shared across the surrounding region. Fauna habitat was assessed as typically in good condition, with exotic grass infiltration on lower slopes and alluvial areas and evidence of historical intense fires. No essential habitat or critical habitat for NC Act listed fauna is mapped within the Project area.

Of the seventeen threatened fauna species returned from database searches, only the Squatter Pigeon (Southern) and Koala were recorded during the field surveys, and both are dual listed and therefore assessed through the EPBC process. The Project area supports approximately 2,281 ha of habitat for the special least concern Short-beaked Echidna, of which approximately 1,341 ha would be cleared; that impact was assessed as not significant and no offset is required under the *Environmental Offsets Act 2014*, with substantial similar connected habitat remaining both within the Project area and the wider region.

6 Type and Extent of Potential Environmental Harm in the Absence of Rehabilitation

The final void NUMAs have been proposed based on the voids not being able to sustain a PMLU. These voids will, however, be safe and structurally stable and rehabilitated in accordance with the improvement/management methods and management milestones outlined in the section 5 of the PRCP.

A summary of the potential type and extent of harm is outlined below as it relates to the main environmental values relevant to retaining the voids and considering the pre-mining land use, topography, and the surrounding landscape outlined in section 5 of this report.

6.1 Groundwater and Surface Water

As described in section 5.4, the Central BVS pit void will remain a permanent groundwater sink following closure and will not act as a source of contamination to the surrounding aquifer. Final void modelling predicts water levels recover to a quasi-equilibrium level of approximately 230 m AHD, approximately 120 m below the pre-mining groundwater level, reached around 135 years after closure. As the final void water level will remain below the groundwater table, a permanent post mining hydraulic gradient is maintained, and groundwater will continue to flow towards the void rather than away from it. An associated zone of drawdown is maintained around the void. Any salts and contaminants accumulating within the void are therefore retained within it, which supports the confinement conclusion reached below.

Water quality within the BVS pit void lake will decline over time and is ultimately predicted to be unsuitable for any use. The lake will receive runoff from the local catchment, direct rainfall and groundwater inflows. Evaporation from the lake surface will progressively concentrate salts and other contaminants. Because evaporation is the only significant outflow, concentrations will continue to rise, limited only by the solubility of the constituent salts. This declining water quality is confined to the void itself, as the inward hydraulic gradient described above prevents migration to the surrounding groundwater system.

The BV1 and BV2 pit voids will hold only intermittent and unusable water, and any losses from them will remain within the Project footprint. Shallow pools may accumulate intermittently in the BV1 and BV2 pit voids following sustained rainfall. Similar to the BVS pit void, an accumulation of salts is likely to occur over time

due to repeated drying-filling cycles. Any temporary pools will therefore also be unsuitable for any post mining use. A small amount of intermittent void water may dissipate via infiltration through the BV1 and BV2 pit floors and the volume and rate of infiltration will be limited by the low permeability and low porosity of the pit floor geology (Proterozoic basement). However, as the BV1 and BV2 pit voids are located hydraulically upgradient to the BVS pit void and the associated groundwater sink, any limited infiltration migrates towards the BVS pit void over time and is captured by the same sink, rather than reaching the wider groundwater system.

The final voids will not overflow to downstream drainages, and the reduction in downstream catchment yield will not be discernible. Although void water levels will fluctuate over time, the final void modelling indicates the maximum estimated water levels in the BVS, BV1 and BV2 pit voids remain below their respective spill levels under all modelled scenarios. The drainage diversions implemented during operations to prevent flood ingress will also remain in place following mine closure, so the voids continue to be isolated from external catchment inflows. Following closure and rehabilitation the three final voids will occupy a combined area of 138.8 ha, and the residual catchment reporting to those voids will be approximately 145 ha, or approximately 0.13% of the Woolgar River catchment upstream of the Project. This compares with a maximum catchment of approximately 670 ha, or 0.7% of the upstream catchment, intercepted by the water management system during operations. Given the highly ephemeral flow regime, the absence of any bulk water storages (e.g. lakes, reservoirs or dams) within 50 km downstream and the absence of active water licences on the Woolgar River, this reduction in catchment yield is not expected to have a material impact on stream flow in the Woolgar River downstream of the Project or on downstream catchment yield, and no downstream water users are expected to be affected.

The remaining surface water pathway is sediment mobilisation from the disturbed areas surrounding the voids. SMC commits to preparing and implementing an Erosion and Sediment Control Plan during operations, that will include management strategies and controls for runoff areas and buffer zones surrounding the pit voids. With these controls in place, the potential for sediment-laden water to cause environmental harm beyond that authorised by the Project's EA is minimised.

Taken together, the groundwater and surface water harm arising from the final voids following mine closure and rehabilitation is confined to the voids themselves and their immediate surrounds.

6.2 Safety and stability

Mining of the BV1 and BV2 pits will be completed in year 3 and then used for mine water storage during the remainder of the life of the mine. As such, they will not be available for rehabilitation improvements until the end of mining activities. Mining of the BVS pit will be completed at the cessation of the mine life.

Rehabilitation improvements of the three pit voids will include a geotechnical assessment of the final pit geometries to confirm the final setback distances for the geotechnical stability buffer (exclusion) zones. An initial assessment of the geotechnical stability of the final voids included a geotechnical stability buffer (exclusion) zone of 10 m for each of the three pit voids.

Bunds and/or safety fencing will be installed around the geotechnical stability buffer zone boundary with safety warning signs posted every 100 m along the fences. The spatial extent of the proposed void NUMAs includes the geotechnical stability buffer (exclusion) zone of 10 m beyond the potentially unstable zone of the pit void crests. The geotechnical stability buffer zone (i.e. between the pit crest and the bund and/or fencing located at the geotechnical stability buffer zone boundary) will be ripped, topsoiled, fertilised and seeded with grass where required to aid in the prevention of erosion.

The safety and stability of the highwalls associated with the BV1 and BV2 pit voids will be well understood by the time of closure. Mining of both pits is completed in year 3, and their final highwalls will therefore be exposed and available for observation for the remaining years of the life of the mine while the voids are used for mine water storage. Routine geotechnical inspection and monitoring over that period will allow the actual performance of the highwalls to be compared against the design assumptions, including the rate of any batter degradation, the extent of crest recession and the behaviour of the exposed geology through successive wet seasons. The final setback distances for the geotechnical stability buffer (exclusion) zones at BV1 and BV2 can therefore be confirmed against observed long-term behaviour rather than predicted

performance alone, providing a higher degree of confidence in the adequacy of the buffer zones and associated controls at these two voids.

With the implementation of the abovementioned, the pit voids will be safe and structurally stable and will not cause environmental harm.

6.3 Impacts Remain within the Resource Tenure

The potential environmental harm described in Sections 6.1 and 6.2 is in each case confined to the area of the resource tenure, with no pathway extending beyond the Project's Mining Lease boundaries. Groundwater modelling undertaken to support the EAR and PRCP indicates that the maximum extent of predicted drawdown associated with the three final voids does not extend to groundwater-dependent ecosystems (springs) or other environmental receptors beyond the Project's Mining Lease boundaries (refer Groundwater Report in Appendix C of the PRCP).

No surface water, ecological, land-use or sensitive amenity receptors external to the resource tenure are predicted to be affected by retention of the three voids. In relation to surface water, the three final voids are not predicted to overflow to downstream drainage under any modelled scenario, and the clean water diversion drains constructed during operations will remain in place following closure to keep external catchment runoff out of the voids. The residual catchment reporting to the voids after closure is approximately 145 ha, or approximately 0.13% of the Woolgar River catchment upstream of the Project, which is not expected to have a material impact on stream flow in the Woolgar River downstream of the Project or on downstream catchment yield.

In relation to safety and stability, the geotechnical stability buffer (exclusion) zone of 10 m beyond the pit void crests, together with the bunds, safety fencing and warning signage to be installed at the buffer zone boundary, lies wholly within the spatial extent of the proposed void NUMAs. In the case of the BV1 and BV2 pit voids, those setback distances will additionally have been validated against highwall monitoring during operations. The residual public safety and stability risk associated with the voids therefore remains within the resource tenure.

In relation to ecology, the vegetation clearing required for the Project, being approximately 1,341 ha of remnant regional ecosystems or approximately 0.2% of the extent of those ecosystems across the Gilberton Plateau and Claraville Plains subregions, occurs entirely within the Project's Mining Leases. Significant residual impacts have been identified for watercourse regional ecosystems 2.3.21j, 2.3.26b, 2.3.40, 2.5.9 and 2.11.1c, for which offsets are required under the *Environmental Offsets Act 2014*, and for Koala and Squatter Pigeon (Southern) habitat, for which offsets are required under the EPBC Act. Those offset obligations arise from the disturbance footprint of the Project as a whole rather than from the retention of the three voids as NUMAs. The ecological consequence of retaining the voids is limited to the permanent loss of the void footprints, which lie within the resource tenure.

On this basis, the risk of environmental harm from not rehabilitating the three voids to a stable condition is confined to the area of the resource tenure, satisfying section 126D(2)(b)(i) of the EP Act.

7 Most Achievable Rehabilitation Option

7.1 Assessment Approach

Section 3.2 of the PRCP Guideline requires an assessment of the most achievable rehabilitation option where a NUMA is proposed on the basis that the environmental risks from the area are localised and that it is in the public interest for the land not to be rehabilitated to a stable condition. The three void NUMAs are proposed on that basis, and this section sets out that assessment.

Fully or partially backfilling a residual void does not automatically produce a superior environmental outcome to retaining a well-managed NUMA. Mine closure planning instead requires a case-by-case strategy that weighs all site-specific risks against the available scientific and technical information (McCullough, 2013). To assess potential PMLU options for the three voids, a qualitative assessment was undertaken and considered the PMLUs outlined in the PRCP Guideline and the *Leading practice approaches to select post-mining land*

uses for residual mine voids: Technical paper by the Office of the Queensland Mine Rehabilitation Commissioner (the Technical Paper) (Côte et al., 2026).

Consistent with the approach in the Technical Paper, the assessment first addressed the two threshold questions that paper identifies for a residual void: whether it is feasible to backfill the void; and, if it is not backfilled, whether it will hold a permanent water body. Where a void is not backfilled, the Technical Paper further requires that water levels and water quality be quantified to establish whether the water quality can support a beneficial use into the future and whether there is a risk of contaminants being exported to the receiving surface water and groundwater environments. Those matters are addressed for the three voids in Section 6.1. The assessment then eliminated obviously incompatible PMLUs for the three voids, having regard to, amongst others, the pre-mining land use, the location of the Project, available infrastructure, climate (including future climate scenarios) and the size of the area to be rehabilitated.

7.2 Options Considered

Potential alternate options for the residual voids fall into two main categories: 1) options that require backfilling to achieve a PMLU; and 2) PMLU options for water filled voids (e.g. a pit lake for the BVS pit). The comprehensive qualitative assessment discounted the majority of potential PMLUs and caried forward two options for further assessment.

7.3 Most Achievable Options

The two PMLU options carried forward to the cost benefit and multi-criteria assessment are:

- A material filled (backfill) option, with a PMLU of native vegetation with low intensity grazing; and
- A water filled option, with a PMLU of stock watering

The full list of PMLUs included in the qualitative assessment is provided in Annexure A. The outcomes from the cost benefit analysis are discussed in section 10.

8 Public Interest Consideration: Benefit to the Community and its Significance (s126E(a))

The following benefits are generated by the Project as a whole and include approximate future benefits once mining commences as well as realised benefits from works undertaken to date.

The Project is located in the North West Minerals Province (NWMP) which is considered one of the world's most significant base and precious metals areas. The province supports substantial regional employment, sustains the economic base of local communities such as Richmond, and generates royalty revenue that flows directly to the Queensland Government. Continued investment in the NWMP is central to the state's broader resources strategy, both in maintaining established production centres and in bringing new projects into operation as legacy mines mature.

The NWMP has contributed to significant economic benefits and growth in Queensland over several decades and the Queensland government recognises the potential economic benefits of further developing the NWMP. The Project will be the next major new metal mine in the NWMP and aligns with the principles of various strategic planning documents including:

- North West Regional Plan 2010 - 2031
- A Strategic Blueprint for Queensland's North West Minerals Province: Supporting Strong and Prosperous Regional Communities;
- Research and Development Priorities for Minerals in Queensland;
- New Economy Minerals: Investment Opportunities in Queensland's Minerals Provinces;

- Queensland Resources Industry Development Plan; and
- Delivering Queensland's Critical Minerals Future 2026-30.

On 21 April 2026, the Project was declared a Prescribed Project under section 76E of the *State Development and Public Works Organisation Act 1971* (SDPWO Act). This declaration highlights the significant investment the Project will bring to the local, regional and State economies of North West Queensland and includes:

- Direct employment of up to approximately 984 persons during construction and approximately 380 persons during operations phase;
- Creation of substantial indirect employment in Queensland during the construction and operations phases;
- Approximately $60M in annual wages;
- Approximately $220M in income tax revenue over the life of the project; and
- The payment of annual royalties of up to approximately $15M at peak production to the Queensland Government.

In addition to direct employment, royalties and local procurement of goods and services, SMC has been an active participant in creating broader social value in the region over many years and before any direct revenue has been generated, broader Project activities have:

- Prioritised local contractors and service providers, where local capability was available, when procuring fuel, civil works, food, accommodation, hardware and general supplies, transport and real estate;
- Through the QCoal Foundation and the partnership with the Royal Flying Doctor Service (RFDS), facilitated bringing the RFDS Dental Service to Richmond and surrounds. The RFDS Dental Service has provided over $940,000 of dental treatment to members of the Richmond community, and over $3 million in oral healthcare in the broader State area of Traeger, at no cost to patients;
- Provided grants and sponsorships to encourage regional resilience and economic diversification including bursary support for local students, annual support for the Richmond Bush Sprints and sponsorship of the of the Kronosaurus Korner fossil museum;
- Provided opportunities for James Cook University geology students to gain hands on geological experience;
- Directly contributed several million dollars to the local and regional economy.

8.1 Refined Project

SMC has taken a proactive approach to minimising the extent of land that cannot be rehabilitated to a stable condition. While the original PRCP consultation was undertaken on the basis of the seven NUMAs included in the original PRCP lodged in December 2022, SMC has continued to optimise the Project to specifically reduce the number and extent of the proposed NUMAs. Project optimisation has further refined tailings water management, the segregation of potential acid forming (PAF) material from non-acid forming (NAF) material, waste rock placement, water management and final landform design, to achieve the objective of confining the NUMAs to the three pit voids.

The refinement reduced the number of proposed NUMAs from seven to three, being those associated with the BVS, BV1 and BV2 pit voids, and reduced the area proposed to be retained as NUMA from approximately 555 ha to 138 ha, a 75% reduction. In the context of the total Project disturbance area of approximately 1,341 ha, the proportion of disturbed land now proposed as NUMA has reduced from approximately 41% to approximately 10%. The NUMAs previously proposed for the WRDs have been removed in their entirety, with the result that no NUMA is now proposed for any constructed landform.

The significance of that reduction lies in what remains. As described in Section 1.2, hard rock mining requires bench and berm excavation of the ore body and precludes the in-pit disposal of waste rock, so the three pit voids cannot be backfilled during operations and cannot be avoided through design. The residual NUMAs therefore represent the design minimum extent of land that cannot be returned to a stable condition, and the harm associated with retaining them is confined to the resource tenure as set out in Section 6.3.

SMC has undertaken consultation with relevant parties on the revised final landform and the reduction in NUMAs. As outlined in Section 3 of the PRCP, the relevant parties understood the benefit of reducing the number of NUMAs and generally appreciated the refinements made to the final landform and the associated reduction in the NUMA area. The reduction accordingly represents a benefit to the local community for the purposes of section 126E(a) of the EP Act and establishes the baseline against which the benefits and impacts of the proposed NUMAs are weighed in Section 11.

9 Public Interest Consideration: Impacts that may Reduce the Benefit or Otherwise Harm the Environment or Community (s126E(b))

Impacts from the Project have been outlined in detail in the EAR, technical reports appended to the EAR and technical reports appended to the PRCP. A summary of these impacts is provided below with reference to the three residual voids where relevant.

9.1 Groundwater

Project activities that have the potential to impact groundwater are outlined in the following section.

(a) Voids

Retention of the three pit voids as NUMAs will not adversely impact surrounding groundwater levels or quality, either during operations or post closure.

The BVS pit will be excavated to a depth of approximately 220 m and the groundwater table in this area ranges from approximately 5 m to 38 m below ground level, so the pit floor will extend below the pre-mining groundwater table. Standing water levels within the void are predicted to recover to a quasi-equilibrium level of approximately 230 m AHD, approximately 120 m below the pre-mining groundwater level, reached around 135 years after closure. Because the recovered water level remains below the groundwater table, a permanent post-mining hydraulic gradient is maintained, and groundwater continues to flow towards the void rather than away from it. The BVS pit void will therefore remain a permanent groundwater sink, with an associated zone of drawdown maintained around it in perpetuity.

The final void lake will receive runoff from the void catchment, direct rainfall and groundwater inflows. Evaporation from the lake surface will progressively concentrate salts and other contaminants and, because evaporation is the only significant outflow, concentrations will continue to rise over time. That declining water quality is confined to the void itself, as the inward hydraulic gradient prevents migration to the surrounding groundwater system.

The BV1 and BV2 pit voids will not intersect the groundwater table and will not affect groundwater levels. The BV1 pit void will be a maximum of 35 m deep with the groundwater table approximately 55 m below ground level, so the pit floor will sit approximately 20 m above the groundwater table. The BV2 pit floor will similarly sit approximately 15 m above the groundwater table. Given both pit floors will remain above the groundwater table, neither BV1 nor BV2 will impact groundwater levels.

The base of the BV1 and BV2 pit voids is located in the Proterozoic basement, which has very low permeability, so any infiltration of intermittent void water to the underlying groundwater table will be extremely limited. As the BV1 and BV2 voids are hydraulically upgradient of the BVS pit void, any such infiltration will migrate towards the BVS void over time and be captured by the same sink, rather than reaching the wider groundwater system.

The surrounding groundwater quality will therefore not be impacted post closure by retaining the three voids as NUMAs.

(b) Waste Rock Dumps

Seepage from the Waste Rock Dumps is not expected to impact surrounding groundwater quality, either during mining operations or post closure. The Central and Southern WRDs will store waste rock mined from the BVS pit with the Northern WRD storing waste rock from the BV1 and BV2 pits. The Central WRD will store PAF mine waste material in a central co-placement cell that will be surrounded by NAF waste rock. The cell will include a seepage collection system that will contain any seepage from the PAF mine wastes and direct it to the mine water management system for storage and re-use. The Northern and Southern WRDs will store only NAF waste rock. Any seepage from the Southern and Northern WRDs is likely to be pH neutral to slightly alkaline, with low salinity and low concentrations of metals and metalloids. Hence, seepage from the NAF WRDs is comparable to existing groundwater quality and is not expected to impact the surrounding groundwater quality.

Mine dewatering during operations, groundwater depressurisation, and the recovery of the final void lake to approximately 230 m AHD, approximately 120 m below the pre-mining groundwater level, will maintain a permanent post-mining hydraulic gradient that induces groundwater flow towards the BVS pit void. Hence, any seepage from the WRDs into the underlying geology will migrate towards the BVS pit void and be captured by that groundwater sink, rather than reaching the wider groundwater system. Therefore, the surrounding groundwater quality will not be impacted during mining operations or post closure.

(c) Tailings Storage Cell

The TSC is not expected to be a source of groundwater quality impacts, either during operations or following closure. The TSC will be a lined containment structure that will store tailings (settled solids) produced in the CIL Plant. Water from the stored tailings will be pH neutral to slightly alkaline, with low salinity and low concentrations of metals and metalloids. The TSC liner is designed to prevent seepage of water to the underlying groundwater system and will include a seepage collection and detection system including underdrainage and seepage collection sumps. This system will enable early detection of any leakage from the TSC and implementation of management measures should any seepage be detected.

The TSC will be rehabilitated and decommissioned to a PMLU as outlined in the PRCP. This will involve covering the stored dried tailings with benign capping material (e.g. suitable subsoil) and topsoil and shaping the capped surface to promote runoff and minimise infiltration. These measures, and the liner, will ensure that the stored tailings will not be a source of seepage to groundwater following mine closure. Therefore, seepage from the TSC is not expected to adversely impact groundwater quality as any unexpected seepage would migrate to the BVS pit void.

(d) Heap Leach Facility Seepage

The Heap Leach Facility is not expected to result in groundwater quality impacts following decommissioning. Ore mined from the BV1 and BV2 pits during the first two years of mining will be processed at the HLF. The HLF will include three heap leach pads and three heap leach ponds and will be fully lined to prevent seepage. The HLF liner will also include a seepage collection and detection system including underdrainage and seepage collection sumps. This will enable early detection of any leakage from the HLF and implementation of management measures should any seepage be detected.

The heap leach pads and ponds will be decommissioned and rehabilitated as a PMLU as outlined in the PRCP. The decommissioning process will include a contamination assessment and decontamination works,

where necessary. Hence, potential for post mining groundwater quality impacts from the decommissioned HLF is not expected and any unexpected seepage would migrate to the BVS pit void.

9.2 Surface Water

Retention of the three pit voids as NUMAs is not expected to adversely impact the surrounding surface water environment, either during operations or post closure.

Several drainage features traverse the Project area as outlined in Section 5.5, with the BVS pit void traversed by Drainage Features 1 and 2, which converge within its footprint. The BV1 and BV2 pit voids are not traversed by any named drainage feature.

To prevent flood ingress during operations and following mine closure, water will be diverted around each of the pit voids and the final void water balance modelling, indicates the water levels in all three pit voids are well below the overflow levels and none are expected to overtop following mine closure. Final landform modelling also shows all three pit voids sit above the 0.1% AEP (Q1,000) flood level.

Following closure and final rehabilitation of the Project, the remaining catchment area associated with the three pit voids will be approximately 145 ha which is approximately 0.13% of Woolgar River catchment upstream of the Project. This compares with a maximum catchment of approximately 670 ha, or 0.7% of the upstream catchment, intercepted by the water management system during operations. Hence, retaining the voids as NUMAs will have negligible impacts on catchment areas and flows in the Woolgar River.

More broadly, the Project's surface water flow and quality effects have the potential to impact downstream surface water users. Management of these potential impacts has been incorporated into the Project design and EA controlled release conditions will be designed to ensure any controlled releases do not result in environmental harm to the receiving environment.

The Erosion and Sediment Control Plan for the Project will include management strategies and controls for runoff areas and buffer zones surrounding the pit voids. Implementation of the Erosion and Sediment Control Plan will minimise the potential for sediment-laden water to cause environmental harm to the surrounding environment that is not authorised by the Project's EA.

Implementation of management actions outlined in the EAR and PRCP and taking into consideration that the three pit voids are located above the AEP Q 1,000 flood level and none are expected to overtop following mine closure, potential impacts on the surrounding surface water environment from the retention of the three voids as a NUMA are not expected.

9.3 Ecology

Any residual ecological impacts associated with retaining the pit voids as NUMAs will be fully compensated through biodiversity offsets, resulting in a net gain in protected habitat. The primary ecological impact from the Project will involve clearing of approximately 1,341 ha of remnant vegetation classified as least concern. Field surveys confirmed the presence of fourteen least concern regional ecosystems within the Project area of which 11 overlap the areas of the three voids (Table 2). The area associated with the final voids is approximately 138.8 ha which equates to approximately 10% of the disturbance footprint.

The 11 regional ecosystems are ubiquitous in the landscape and the areas encompassed by the three voids represent a small proportion of the estimated extent that remains (Table 2).

Table 2 Estimated extent of remaining regional ecosystems that are impacted by the three voids.

Regional Ecosystem (RE)	Impacted Area (ha)			Area remaining in the Gulf Plains Bioregion (ha)	Percent reduction in extent of RE
	BVS	BV1	BV2		
2.3.21j	9.2			49,467.3	0.019
2.3.21j/2.10.1a (70/30)	19.5			49,467.3	0.039
2.3.26b	7.9			105,417.8	0.007
2.3.40/2.3.41 (80/20)	14.0			96,350.6	0.015
2.5.9	1.9			296,031.6	0.001
2.5.18a	4.9			277,081.4	0.002
2.5.20	32.1			120,312.6	0.027
2.7.2a	16.4			15,566.3	0.105
2.11.1c	20.6		4.1	4,196.9	0.585
2.10.2x5	-	5.2	0.4	183,758.4	0.003
2.10.4	-	1.2	1.3	18,599.3	0.013

*Area of 2.3.21j only due to majority in the polygon
#Area of 2.3.40 only due to majority in the polygon

Although the Project area only includes least concern regional ecosystems that in themselves, are not a Matter of State Environmental Significance (MSES) that requires offsetting, several areas of remnant vegetation located within a defined distance of a watercourse and/or drainage feature (watercourse vegetation) do occur and these are considered a MSES. Collectively, 36.6 ha of watercourse vegetation occur within the Project area. Of this, approximately 1.5 ha occurs within the BV1 pit void footprint, and 11.5 ha occurs within the BVS pit void footprint.

The NC Act and EPBC Act listed Squatter Pigeon was confirmed during field surveys within the Project area along with suitable breeding and foraging habitat. Although the NC Act and EPBC Act listed Koala was not confirmed present in the Project area, potentially suitable habitat associated with the narrow riparian zones fringing drainage lines was confirmed. Field surveys confirmed the presence of, and habitat for, the NC Act listed Short-beaked Echidna.

As the Squatter Pigeon and Koala are dual listed under the NC Act and EPBC Act, significant impacts to these Matters of National Environmental Significance (MNES) are being assessed by the Commonwealth Department of Climate Change, Energy, the Environment and Water via Preliminary Documentation under the EPBC Act. The assessment documentation provided to DCCEEW included significant impacts to 545.4 ha and 795.2 ha of Squatter Pigeon breeding and foraging habitat, respectively and 147.4 ha of Koala habitat. Of this, the voids overlap with:

- BVS pit void: 85.5 ha of Squatter Pigeon breeding habitat; 126.6 ha of Squatter Pigeon foraging habitat; and 48.2 ha of Koala habitat.
- BV1 pit void: 6.5 ha of Squatter Pigeon foraging habitat.
- BV2 pit void: 5.7 ha of Squatter Pigeon foraging habitat.

Where significant residual impacts to MSES and MNES are confirmed, appropriate biodiversity offsets will be provided. Offsets provided will generally equate to four times the area of impact. Hence, although the pit voids will remain, the impact area of the Project, inclusive of the area impacted by the pit voids will be compensated for by biodiversity offsets. Hence, when considering the impact area of the three voids, and the

offset area to be provided and secured, there will be a net gain in habitat that is protected. In addition, the majority of the remaining disturbed area will be rehabilitated to a native vegetation with low intensity grazing PMLU which is consistent with the pre-mining and surrounding land use including the impacted flora and fauna habitat.

9.4 Void Stability

The three pit voids will be safe and structurally stable following closure, supported by engineered geotechnical stability buffer zones and, for BV1 and BV2, an extended period of pre-closure geotechnical monitoring. Improvements to the three final voids, after the completion of mining, will include a geotechnical assessment of the final pit void geometries to confirm the final setback distances for the geotechnical stability buffer (exclusion) zones. An initial assessment of the geotechnical stability of the final pit voids has been completed and includes a geotechnical stability buffer (exclusion) zone of 10 m for each. Bunds and/or safety fencing will be installed around the geotechnical stability buffer zone boundary with safety warning signs posted every 100 m along the fences. The extent of the proposed final pit void NUMAs includes the currently modelled geotechnical stability buffer (exclusion) zone of 10 m beyond the potentially unstable zone of the pit void crests. The geotechnical stability buffer zone (i.e. between the crest and the bund and/or fencing located at the geotechnical stability buffer zone boundary) will be ripped, topsoiled, fertilised and seeded with grass where required to aid in the prevention of erosion and sediment laden runoff water.

The BV1 and BV2 pit voids also provide an opportunity to verify these buffer zones ahead of closure. Mining of both pits will be completed by year 3, after which their final highwalls will be exposed and available for observation while the voids are used for mine water storage for the remainder of the mine life. Routine geotechnical inspection and monitoring over that period will allow the actual performance of the highwalls to be compared against design assumptions, including the rate of any batter degradation, the extent of crest recession and the behaviour of the exposed geology through successive wet seasons. The final setback distances for the geotechnical stability buffer (exclusion) zones at BV1 and BV2 can therefore be confirmed against observed long-term behaviour rather than predicted performance alone prior to closure. Hence, with the establishment of a geotechnical stability buffer zone, secured with bunds and safety fencing, and informed by this pre-closure monitoring at BV1 and BV2, the three pit voids will be safe and structurally stable post closure.

9.5 Air Quality, Noise and Visual Amenity

Air quality, noise and visual amenity impacts associated with retaining the three pit voids as NUMAs are not expected, as the voids will have no ongoing operational emission sources following closure. The three residual voids are open excavations with no ongoing operational emission sources once mining and associated plant, vehicle movements and blasting cease at each void. The nearest sensitive receptors to the Project and the final voids are the three homesteads identified in Section 5.2: Barnes' House (approximately 3 km north-east), Middle Park Homestead (approximately 1.1 km north) and Mt Norman Homestead (approximately 8.4 km south-west). The air quality and noise and vibration technical reports prepared for the Project confirm that predicted air quality parameter concentrations and noise levels at these three sensitive receptors are within the relevant objectives and criteria at all modelled receptors and time periods during mining operations; once operational sources cease at closure, ambient conditions at these receptors are not affected by the retained voids. The visual amenity assessment undertaken for the Project confirms that the visual effect of the Project's most prominent above-ground elements such as the WRDs Dumps and mine infrastructure, is very low at all three homesteads, as views are screened by intervening topography and woodland vegetation, resulting in a low visual impact rating at each receptor. As the pit voids present no above-ground profile, unlike the Waste Rock Dumps and mine infrastructure assessed, they are not expected to be visible from these receptors either during operations or following closure.

9.6 Cultural Heritage

No cultural heritage impacts are attributable to retaining the three pit voids as NUMAs. Aboriginal cultural heritage for the Project continues to be managed in accordance with the *Aboriginal Cultural Heritage Act 2003* through engagement with the Aboriginal Party for the Project area, and this management obligation is unaffected by the final void configuration.

A non-Indigenous cultural heritage assessment undertaken for the EAR, confirmed that no places within the Project site are of international, national or state heritage significance, and no places are recorded on the World Heritage List, Commonwealth Heritage List, National Heritage List, National Trust of Australia, Register of the National Estate, Queensland Heritage Register or the Richmond Shire Council Planning Scheme. Of the 47 places of potential local heritage significance identified within the Project site, the Mowbray mine site and 33 associated historic mine workings lie outside the Project disturbance area and are unaffected by the Project. The remaining 13 historic mine workings within the disturbance area are managed through pre-clearing inspection to document their condition, features and significance, together with a Finds Strategy addressing discovery obligations under Section 89 of the *Queensland Heritage Act 1992*. As these impacts arise from the Project's disturbance footprint generally, and the pit voids do not extend that footprint, retention of the BVS, BV1 and BV2 pit voids as NUMAs does not give rise to any additional or different cultural heritage impact.

10 Public Interest Consideration: Alternative Options to the Proposed NUMAs (s126E(c))

As mentioned in section 1.2, unlike strip mining where previously mined strips are progressively backfilled as the operation advances, hard rock mining requires bench and berm excavation of the ore body. This requires the mine pit to get deeper and wider as mining progresses and does not allow waste rock to be stored in-pit. Consequently, all the waste rock from hard rock mining is typically stored in out-of-pit dumps. Given that backfilling of the three voids would require rehandling the total life-of-mine waste rock volume at the end of mining activities, the viability of backfilling differs relative to strip mining.

Twenty-three potential PMLUs are outlined in the PRCP Guideline and Côte et al. (2026) and include 15 PMLUs that rely on voids that are material filled (i.e. backfilling). The remaining nine are related to voids that retain water. Hence, the alternative to retaining the voids as a NUMA is to backfill and rehabilitate them or retain as aquatic ecosystems or beneficial water use. Taking into consideration the pre-mining land use, the alternatives were assessed on their costs and/or other consequences and/or viability of the alternative options.

To assess potential alternative options for the three voids to be included in the cost benefit analysis, a qualitative assessment of the 23 PMLU options, as well as the native vegetation with low intensity grazing PMLU proposed for the majority of the disturbance areas, was undertaken as outlined in Section 7. As per Cote et al. (2026), the assessment first addressed whether it is feasible to backfill the void(s) and, if not backfilled, whether the void will hold a permanent water body. Where a void is not backfilled, the Cote et al. (2026) requires that water levels and water quality to be quantified to establish whether the water quality can support a beneficial use into the future and whether there is a risk of contaminants being exported to the receiving surface water and groundwater environments. The qualitative assessment then eliminated obviously incompatible PMLUs for the three voids by considering amongst others, the pre-mining land use, baseline environmental values determined from the detailed technical assessments, the location of the Project, available infrastructure, climate (including future climate scenarios) and the size of the area to be rehabilitated. The full list of PMLUs included in the qualitative assessment is provided in Annexure A.

The comprehensive qualitative assessment discounted the majority of PMLU options and carried forward two options to the cost benefit and multi-criteria assessment as follows.

- A material filled (backfill) option, with a PMLU of native vegetation with low intensity grazing; and
- A water filled option, with a PMLU of stock watering.

10.1 Assessment of Alternatives

As per the PRCP Guideline, a cost benefit analysis was undertaken to compare the base case of retaining the three voids as a NUMA with alternative options. A summary of the cost benefit assessment is included below along with other consequences of alternative options to the NUMA.

As with all major projects, the feasibility of the BVS Project was assessed through a financial model that weighs total project costs against forecast revenue to determine economic viability. This model integrates capital and operating expenditure, production and commodity price forecasts, and applicable royalties and levies to determine the Project's expected economic return and forms the basis on which investment and mine planning decisions are made.

Costs to achieve a material filled void (i.e. a PMLU that requires the voids to be backfilled) were determined using the void dimensions with unit costs per cubic metre derived from the Project's financial model. Allowances were made based on experience from other mining operations to account for material swelling, shrinkage, rehandling and related factors. The unit costs applied represent an estimate of the total costs of backfilling the three voids and includes both direct costs and indirect costs associated with rehabilitation works.

The financial model assessment shows that the inclusion of backfill costs for the three voids would render the Project economically unviable (refer to Section (a)). Consistent with the PRC Plan Guideline, which notes that confidential information should not be included in the PRC Plan, the underlying financial figures are not reproduced in this report.

A cost benefit and multi-criteria assessment that considered the two above-mentioned PMLU options against the base case of retaining the three pit voids as a NUMA has been completed for the project. This cost benefit and multi criteria assessment considered 14 criteria grouped under the following four broad categories:

- Environmental performance;
- Constructability;
- Financial cost; and
- Social and stakeholder benefits.

Each criterion was scored on a 5-point scale from 1 to 5, assessed relative to the other options considered for the same void. A score of 1 indicates the option performs poorly against the criterion, representing a significant constraint or minimal benefit. A score of 3 indicates a potentially workable but constrained outcome, and a score of 5 indicates the option achieves the objective of the criterion with minimal constraint and significant benefit. Scoring was undertaken by the AQPs identified in Section 4, informed by the technical assessments referenced in Sections 5 to 9.

Each of the four criteria categories was assigned an equal weighting of 25%, with criteria within each category weighted equally. Equal weighting was adopted because the relative importance of each category differs between stakeholders, and equal weighting avoids adopting any single stakeholder's perspective. This is consistent with the default equal weighting applied across the four-value driver sets in the CRC TiME Post-Mining Land Use Options Assessment Tool. An average score was calculated for each category, and the four category averages were then averaged to give an overall score for the base case and each of the two PMLU options, with the most viable option being that with the highest overall score. A sensitivity analysis was undertaken by re-weighting the assessment to reflect different perspectives including that of a proponent, a landholder and the community. Although the weighted scores varied, the ranking of the base case and the two PMLU options remained unchanged under each weighting tested.

This approach is consistent with the recommendations outlined in Coŧe et al. (2026) and is also consistent with categories used in cost benefit and multi-criteria assessments of void backfill options at other major

Australian open cut operations. This approach reflects the recognition in the closure literature that backfilling a void does not automatically produce a superior environmental outcome to retaining a well-managed NUMA, and that closure planning requires a case-by-case, site-specific assessment rather than a prescriptive default to backfill (McCullough, 2013).

10.2 Alternative Options

The two potential alternatives to retaining the three pit voids as a NUMA is outlines in the below sections.

(a) Material Filled (Backfill) Option: PMLU of Native Vegetation with Low Intensity Grazing

As outlined in the PRCP, the majority of the land disturbed by the Project will be rehabilitated to a PMLU of native vegetation with low intensity grazing as this PMLU will generally be consistent with the pre-mining land use. Other material filled (backfilled) options were considered incompatible with the pre-mining and current land use, local climatic conditions including temperature and rainfall and proximity of available infrastructure (refer Annexure A).

For a PMLU of native vegetation with low intensity grazing to be established, the voids would need to be backfilled. As the Project requires hard rock benching to mine the ore, waste rock is placed in out of pit WRDs where it remains until mining activities have ceased. Therefore, backfill material would need to be sourced from the three WRDs which requires rehandling of the entire life-of-mine volume following cessation of mining.

(i) BV1 and BV2 pit voids

The BV1 and BV2 pit voids would use the material from the Northern WRD. Remobilising this material would have localised increased duration of impacts on air quality, noise and to surface water and the water management system. Increased emissions from diesel consumption would also occur. In addition, because rehabilitation of the Northern WRD commenced in project year 3, any ecological factors (biotic or abiotic) that had established on the rehabilitated area would be disturbed. Backfilling the voids would still require the Northern WRD footprint to be disturbed and offset consequently, backfilling the BV1 and BV2 pit voids would not reduce the Project's overall disturbance footprint, and the net increase in rehabilitated land would be limited to the hectares associated with the surface area of the two voids themselves, rather than the combined Northern WRD and void areas.

Although backfilling the smaller BV1 and BV2 is physically possible, on a standalone basis, the magnitude of the expenditure to backfill the two voids to a PMLU of native vegetation with low intensity grazing would have a significant adverse impact on the financial viability of mining either BV1 or BV2, based on the estimated resource deposits in the two pits. Therefore, if backfilling of BV1 and BV2 were required, development of these two pits would not proceed and this would have flow on effects and other consequences to the Project in terms of delayed construction, loss of employment opportunities associated, decreased royalty and tax payments, decreased economic benefits to the local and regional economies due to a decrease in goods and services.

(ii) BVS pit void

For the BVS pit void to be backfilled to achieve a PMLU of native vegetation with low intensity grazing, material would be sourced from the Central WRD, which is designed to store PAF waste rock and dewatered tailings. These materials will be stored in a central co-placement cell within the Central WRD that will be surrounded by, and segregated from, NAF waste rock material. Hence, backfilling the BVS pit void would remobilise the PAF and tailings that had been deliberately segregated in the Central WRD integrated waste landform. Using this material would remobilise previously isolated PAF material, reintroducing contamination and acid drainage risks that the segregated landform design was intended to prevent. Rehabilitation methods that require backfill would therefore likely cause greater environmental harm than retaining the void.

Based on the estimated pit dimension of the BVS pit void outlined in section 1.2, the backfill volume would be approximately 160 million cubic metres. Rehandling that volume of material would render the Project financially unviable, and the project would not proceed. Even setting aside this cost, backfilling would not

eliminate long-term monitoring and management liability: a network of groundwater monitoring bores, and contingency measures such as potential cut-off trenches or recovery bores, would likely still be required to detect and manage any residual seepage from the backfilled mass, extending rather than reducing the Project's post-closure management obligations.

Based on the volume of material and associated costs, rehabilitating the BVS pit void to a material filled PMLU is not practical or viable.

Of the remaining water-filled PMLU options identified in the PRCP Guideline and Côte et al. (2026), aquatic ecosystems, irrigation, aquaculture, mine water trading, water-based recreation, algae/biomass production, pumped hydro and hydrogen production were also considered and are not viable (refer Annexure A for the qualitative assessment of each). In particular, the aquatic ecosystems PMLU was not considered viable because the predicted long-term water quality trajectory of the BVS pit lake (progressive salinisation via evaporative concentration, as described in Section 9) means any ecosystem established in the short term would not be sustained over the long term. This is consistent with the Office of the Queensland Mine Rehabilitation Commissioner's guidance (Dunlop et al., 2025, Aquatic ecosystems in post-mining landscapes: Technical Paper), which states that a void is able to host a viable ecosystem only in the short term, but subject to long-term water quality deterioration, should be treated as a non-use management area rather than assigned an aquatic ecosystem PMLU.

(b) Water-Retaining Option: PMLU of Stock Watering

(i) BV1 and BV2 pit voids

The BV1 and BV2 pit floors sit above the groundwater table and will not incur groundwater inflows. As such, post mining water accumulation in these smaller pit voids is likely to occur from local catchment runoff and direct rainfall. Hence, water availability in the BV1 and BV2 pit voids will be intermittent, temporary and unpredictable and they are not expected to sustain a void lake due to evaporative losses exceeding rainfall inputs. Due to the repeated drying-filling cycles of the pit voids, there is likely to be an accumulation of salts, and other contaminants slowly over time.

As outlined in the PRCP and the associated surface water management technical report, water availability in the BV1 or BV2 pit voids will be intermittent and temporary, and any available water is likely to have high salt concentrations. Hence, any available water is unlikely to be suitable for any water related PMLU.

(ii) BVS pit void

Standing water levels within the BVS pit void are predicted to recover to a quasi-equilibrium level of approximately 230 m AHD, which is approximately 120 m below the pre-mining groundwater level. As the pit floor is below the groundwater level, there will be a post mining hydraulic gradient that induces groundwater flow towards the BVS pit void. Therefore, in addition to groundwater inflows, water will also come from runoff from the local catchment and direct rainfall.

Although the BVS pit void will sustain a permanent pit lake, salinity levels in the void water storage are likely to increase over time due to the evaporative losses from the surface of the lake. Ultimately, salts will continue to concentrate with the maximum concentration only limited by the solubility of the constituent salts within the lake. As such, the water quality in BVS is predicted to be unsuitable for stock watering.

11 Public Interest Consideration: Benefits vs Impacts of the Proposed NUMAs (s126E(d))

The social and economic importance of the Project is significant and aligns with local, State and Federal government positions on the importance of supplying strategic minerals including gold. Benefits of the Project include, but are not limited to:

- Direct employment of up to approximately 984 persons during construction and approximately 380 persons during operations phase;

- Creation of substantial indirect employment in Queensland during the construction and operations phases;
- Approximately $60M in annual wages;
- Approximately $220M in income tax revenue over the life of the project; and
- The payment of annual royalties of up to approximately $15M at peak production to the Queensland Government.

In addition to direct employment, royalties and local procurement of goods and services, broader Project activities have already:

- Prioritised local contractors and service providers, where local capability was available, when procuring fuel, civil works, food, accommodation, hardware and general supplies, transport and real estate;
- Facilitated bringing the RFDS Dental Service to Richmond and surrounds via the QCoal Foundation and the partnership with the RFDS. The RFDS Dental Service has provided over $940,000 of dental treatment to members of the Richmond community, and over $3 million in oral healthcare in the broader State area of Traeger, at no cost to patients;
- Provided grants and sponsorships to encourage regional resilience and economic diversification including bursary support for local students, annual support for the Richmond Bush Sprints and sponsorship of the of the Kronosaurus Korner fossil museum;
- Provided opportunities for James Cook University geology students to gain hands on geological experience;
- Directly contributed several million dollars to the local and regional economy.

Potential impacts from the Project have been outlined in detail in the EAR, PRCP and have been summarised above in section 9. While impacts from the Project are inevitable, they are localised. Impacts from retaining the three voids as a NUMA are further minimised or avoided as follows:

- Groundwater – no significant short term or long-term groundwater quality or quantity impacts as the BVS pit void will remain a permanent groundwater sink post mining, and therefore, the surrounding groundwater quality will not be impacted by the void lake water quality post closure. The BV1 and BV2 pit floor will be above the local groundwater table and any void water infiltrating the two pit voids will migrate to the BVS pit void.
- Surface water – no significant short term or long-term surface water impacts are expected. The three pit voids are not expected to overtop post mining and the drainage channels that were established during operations to convey water around the pit voids will remain.
- Terrestrial ecology – impacts to MSES and MNES are likely to require biodiversity offsets to be provided prior o commencement. No additional impacts are likely from retaining the voids.
- Final void stability – with the inclusion of bunds and/or safety fencing around the geotechnical stability buffer zone, the three final voids will be safe and structurally stable post closure;
- Air quality – voids will not generate significant dust emissions;
- Noise and vibration – voids will not generate any noise;

- Visual amenity – voids will not be visible from the sensitive receptors; and
- Cultural heritage – voids will not result in cultural heritage impacts as any such impacts would have occurred and been managed during construction and operations.

In weighing the benefit under s126E(a) against the impacts under s126E(b), the following are relevant:

- The Project's economic and social benefits (employment, wages, royalties, tax revenue, strategic minerals supply) accrue over the approximately 11-year mine life and are realised at Project scale, not solely from the three voids;
- The impacts of retaining the voids are, on the evidence in Section 9, largely confined to the resource tenure and are not expected to cause material offsite environmental harm; and
- Project refinement has reduced the NUMA area by approximately 75% (from 555 ha to 138 ha), directly reducing the scale of the long-term impact and demonstrates the Proponent’s commitment to identifying opportunities to reduce NUMA extents over the life of the Project. The assessment of alternative PMLUs and NUMA reduction opportunities over the life of the Project will continue with the Proponent proposing to amend the PRCP if viable alternatives become available in the future.

On this basis, weighing the significant community benefit of the Project under s126E(a), against the localised and tenure-confined impacts of the Project and the NUMA (s126E(b)) and having regard to the alternatives under s126E(c) and the demonstrated and potential future opportunities to further refine PMLUs through the PRCP process, the proposed NUMAs are assessed as meeting the public interest criteria of the EP Act.

12 Public Interest Consideration: Any Matter Prescribed by a Regulation (s126E(e))

No additional matter is prescribed by regulation for these considerations.

13 Conclusion

The three final voids cannot be rehabilitated to a stable condition and are proposed as a single NUMA under section 126D(2)(b) of the EP Act. The risk of environmental harm from not rehabilitating the voids is confined to the resource tenures, with the groundwater, surface water, ecological, geotechnical, air quality, noise, visual amenity and cultural heritage impacts assessed in Section 9 found to be localised and no greater than those already authorised for the Project as a whole. Weighing the significant community benefit from the Project – which cannot be delivered without the voids – against those contained impacts, SMC considers it is in the public interest for the three final voids to remain as a NUMA.

No alternative to the proposed NUMAs is reasonably achievable. Complete backfilling of the BVS pit void would require rehandling the entire life-of-mine waste rock volume and re-exposing segregated PAF material to oxidation, with attendant health and safety risk, and would render the Project uneconomic such that it would not proceed. Backfilling the smaller BV1 and BV2 pit voids is technically possible, the magnitude of the expenditure to backfill when assessed against the resource bases would mean these two smaller pits would not be developed.

Stock watering was also assessed and found not to be a viable post-mining land use for the main void. This assessment applied a four-category framework – environmental performance, constructability, financial cost, and social and stakeholder benefit – consistent with the principle that mine closure planning requires a case-by-case, site-specific assessment rather than a prescriptive default to backfill (Section 7.1).

Following the Project refinement described in Section 8.1, the area proposed to be retained as a NUMA has already been reduced by approximately 75%, from 555 ha to 138.8 ha, confining the residual NUMA to the

irreducible minimum extent of land that cannot be returned to a stable condition. No additional matter prescribed by regulation arises under section 126E(e) of the EP Act. This report, along with the cost benefit analysis, provides the necessary information to assess public interest consideration as per the requirements of the PRCP Guideline and section 126E of the EP Act.

14 References

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Annexure A Qualitative PMLU Options Assessment

Potential PMLUs for the BVS, BV1 and BV2 pit voids were screened against the pre-mining and surrounding land use, land capability, climate (including future climate scenarios), water availability and quality, location and available infrastructure, void scale, and public safety. The table below sets out what each PMLU requires and the site constraints relevant to that requirement. The two PMLUs carried forward were assessed against the base case of retaining the three voids as NUMAs.

Potential PMLU[1]	Assessment Basis	Assessment Outcome
MATERIAL-FILLED PMLUs		
Native vegetation with low intensity grazing[2]	**Requirement:** A backfilled, stable landform with a growth medium capable of supporting native vegetation and low intensity grazing. **Basis for carrying forward:** • Adopted PMLU for the majority of the Project's rehabilitated domains (WRDs, dams and roads). • The only material-filled PMLU consistent with the pre-mining and surrounding land use.	**Carried forward to the Multi Criteria Assessment**
Native ecosystem **Habitat and ecosystem services**	**Requirement:** Land managed exclusively for native ecosystem, habitat and ecosystem service values, with productive use from cattle grazing excluded. **Constraints:** • Inconsistent with the pre-mining and surrounding grazing land use. • Native vegetation values are provided for within the Native vegetation with low intensity grazing PMLU, which is carried forward.	Not carried forward to the Multi Criteria Assessment
Grazing (exclusive)	**Requirement:** Productive, persistent pasture over an area large enough to support a viable grazing operation. **Constraints:** • Inconsistent with the pre-mining land use of low intensity grazing of native vegetation. • The small combined area could not support an exclusive grazing enterprise. • Grazing is provided for within the native vegetation with low intensity grazing PMLU, which is carried forward.	Not carried forward to the Multi Criteria Assessment
Cropping **Regenerative cropping**	**Requirement:** Arable soils and reliable rainfall or an irrigation supply. Regenerative systems also depend on progressively building soil structure, organic carbon and biological function. **Constraints:** • Cropping would depend on irrigation, which is not currently available (refer to the irrigation assessment below). • The pre-mining soil classification and agricultural land class do not generally support cropping. • Inconsistent with the pre-mining and surrounding land use.	Not carried forward to the Multi Criteria Assessment

[1]Potential PMLUs are drawn from the PRCP Guideline (DETSI, 2026, section 3.2) and Côte et al. (2026, Table 5), together with the Native Vegetation with Low Intensity Grazing PMLU that has been proposed for the majority of the Project's disturbance areas. PMLUs with the same screening basis are grouped in a single row.
[2]PMLU adopted for the majority of the Project's disturbance areas, combining elements of the native ecosystem and grazing PMLUs identified in the PRCP Guideline and Côte et al. (2026).

Potential PMLU[1]	Assessment Basis	Assessment Outcome
Agriculture (broad)		
Protected horticulture / intensive livestock	**Requirement:** A reliable irrigation supply and supporting infrastructure; intensive livestock also requires a feed grain supply. **Constraints:** • Land suitability has moderate to extreme limitations for agricultural production that would require a reliable and suitable water supply, which is not available (refer to the irrigation response below). • Water availability and climatic constraints are not conducive to intensive livestock production. • Inconsistent with the pre-mining and surrounding land use.	Not carried forward to the Multi Criteria Assessment
Forestry / plantation	**Requirement:** Soils and rainfall capable of supporting a commercial plantation. **Constraints:** • Site climatic conditions would not support a commercial plantation. • Inconsistent with the pre-mining and surrounding land use and landholder lease agreements.	Not carried forward to the Multi Criteria Assessment
Phytomining	**Requirement:** A substrate with metal concentrations high enough to support economic recovery by plants. **Constraints:** • Site geochemistry recorded metal concentrations too low to support a viable phytomining operation. • The technique is novel and unproven. • Inconsistent with the pre-mining and surrounding land use.	Not carried forward to the Multi Criteria Assessment
Renewable energy – solar **Renewable energy – wind**	**Requirement:** Proximity to existing transmission lines or substations; wind also requires a land area sufficient for a turbine layout. **Constraints:** • Not suitable for mining voids	Not carried forward to the Multi Criteria Assessment
Industrial / manufacturing hub	**Requirement:** Suitable zoning, servicing infrastructure and access to support services. **Constraints:** • Remote location with no suitable support services or servicing infrastructure.	Not carried forward to the Multi Criteria Assessment
Landfill	**Requirement:** An accessible location that can receive waste year-round, with containment of leachate. The voids would be filled with imported waste rather than WRD material. **Constraints:** • Distance from Richmond and limited access, including during the wet season. • Placement of imported waste could contaminate groundwater, creating greater environmental harm.	Not carried forward to the Multi Criteria Assessment

Potential PMLU[1]	Assessment Basis	Assessment Outcome
Tourism	**Requirement:** Safe public access and proximity to visitor infrastructure. Does not require backfilling. **Constraints:** • The site is on private property, remote from any visitor infrastructure.	Not carried forward to the Multi Criteria Assessment
WATER-FILLED PMLUs		
Stock watering (stock drinking water)	**Requirement:** A reliable volume of water of suitable quality for stock, with safe stock access. **Basis for carrying forward:** • Consistent with the pre-mining and surrounding grazing land use.	**Carried forward to the Multi Criteria Assessment**
Irrigation **Mine water trading / supply**	**Requirement:** A sustainable yield of water of suitable quality; irrigation also requires sufficient irrigable land to justify supply. **Constraints:** • Terminal evaporative sink with minimal sustainable yield. The BVS void lake evaporation exceeds annual rainfall, so any extraction draws down the stored volume. • Salinity increases progressively over time which would be unsuitable. • BV1 and BV2 are ephemeral only, with no reliable yield and progressive accumulation of salts.	Not carried forward to the Multi Criteria Assessment
Aquaculture **Algae / seaweed / biomass / microalgae**	**Requirement:** A reliable water supply with controlled water chemistry; algae and biomass production also require a nutrient supply. **Constraints:** • Water chemistry within the BVS pit void is likely to be unsuitable in the long term with salinity increasing progressively over time. • Water quality would not support aquaculture without continuous treatment, and limited ongoing yield could not meet production water requirements. • Ephemeral storage for BV1 and BV2, with no permanent water body.	Not carried forward to the Multi Criteria Assessment
Aquatic ecosystems	**Requirement:** A permanent water body with water quality able to sustain an aquatic ecosystem over the long term. **Constraints:** • Closed terminal sink for the BVS pit void with no surface hydrological connection to the receiving environment, so an ecosystem would be isolated and could not contribute to the environmental values of the Woolgar River system. • Dunlop et al. (2025) states that voids may only host a viable ecosystem in the short term due to long-term water quality deterioration and as such should be managed as a NUMA. • No permanent water body in the BV1 and BV2 pit voids which an aquatic ecosystem could establish or persist.	Not carried forward to the Multi Criteria Assessment
Water-based recreation	**Requirement:** Safe public access, reliable water quality and proximity to a population. **Constraints:** • Water quality and level not suitable	Not carried forward to the Multi Criteria Assessment
Renewable energy – pumped hydro (PHES)	**Requirement:** PHES - paired upper and lower reservoirs of sufficient volume with vertical head between them. Hydrogen - a large, reliable supply of good quality water and grid and transport connections.	Not carried forward to the Multi Criteria Assessment

Potential PMLU[1]	Assessment Basis	Assessment Outcome
Renewable energy – hydrogen	**Constraints:** • The two small voids provide neither the paired reservoirs nor the volume required for PHES and have no permanent water supply for hydrogen production. The single BVS void cannot provide the reservoir pair required for PHES. • The site cannot provide the grid and transport connections required for hydrogen production.	

Annexure B Cost Benefit and Multi-Criteria Assessment

Assessment Matrix - BVS Pit Void (main void)

Category	Criterion	Weight	Category weighting	Option 1: Material-Filled (Backfill) - PMLU: Native Vegetation with Low Intensity Grazing		Option 2: Water-Filled - PMLU: Stock Watering		Option 3: Retain as Non-Use Management Area (NUMA) - Proposed	
				Score (1-5)	Rationale	Score (1-5)	Rationale	Score (1-5)	Rationale
Environmental Performance	Geotechnical stability	7.14%	25%	3	Backfilling of mining voids can achieve a stable final landform. New Hope Group's Chuwar mine had its backfilled voids assessed as safe, stable and non-polluting, leading to full relinquishment. This suggests that controlled backfilling and rehabilitation methods can reliably produce a stable, non-polluting landform even where void geometry is complex. On this basis, it should be considered that using comparable methods, BVS could still support a stable outcome despite the greater 205 m depth and the different mining method.	4	Retaining the void as approved would preserve its established geotechnical stability basis, and this stability would not be put at risk by allowing stock access. Void geometry is unchanged from the approved design, with buffer zone, bunds and fencing already considered. These existing controls are designed to manage access and containment, so introducing stock access does not alter the void's engineered geotechnical stability, and pumping water for stock use is technically feasible without material risk or consequence. This means stock access could be provided without compromising the void's stability basis.	4	Retaining the void as a NUMA would preserve its established geotechnical stability basis, consistent with the BVS assessment. The void would be retained as designed, with the buffer zone to be confirmed by geotechnical assessment (PIC s9.4). Since no additional works or access are introduced, the void's engineered stability basis remains unchanged from the proposed design. This means geotechnical stability is maintained under the NUMA option, as it is under stock watering.
	Chemical stability & water quality	7.14%		1	Backfilling using the only available material would increase environmental risk rather than reduce it. The only available backfill material is the Central WRD, which contains PAF waste rock and tailings that were deliberately segregated within the integrated waste landform. Using this material would remobilise previously isolated PAF material, reintroducing contamination and acid drainage risks that the segregated landform design was intended to prevent. Rehabilitation methods that require backfill would therefore likely cause greater environmental harm than retaining the void.	2	Retaining the void would maintain chemical stability through permanent onsite containment, but water quality within it would not support stock use. The void remains a permanent groundwater sink with onsite containment, and salinity increases progressively through evaporative concentration, limited only by the solubility of the constituent salts. This progressive salinity build-up means the predicted water quality becomes increasingly unsuitable for stock over time, even as the void itself remains stable and contained. This means the void option achieves chemical stability and containment, but not water quality suitable for stock.	5	Retaining the void as a NUMA would maintain chemical stability with no offsite water quality impact. The void has already been assessed as a permanent groundwater sink causing no offsite groundwater or surface water impact. Because the void functions as a sink rather than a source, it contains any water quality changes within the void rather than releasing them to the surrounding environment. This means retaining the void as a NUMA maintains chemical stability without offsite water quality consequences.

	Ecological outcome	7.14%		4	Backfilling and rehabilitating the void to native vegetation with low-intensity grazing would reinstate a functional, vegetated area in place of a permanent stable void. Establishing local native species and light grazing would potentially restore some habitat value, connectivity and land-use function over time that is comparable to surrounding pre-mining ecology.	2	Retaining the void would leave the ecological outcome materially unchanged from the proposed design, likely providing minimal ecological benefit (positive or negative). No vegetation would be purposefully established, and the void's water quality and isolation provide minimal ecological benefit. Because water quality is poor and the void remains isolated, it cannot support meaningful habitat or ecological function. This means retaining the void delivers little ecological improvement.	2	Biodiversity offsets for the Project footprint, including the void, are proposed under the EPBC Act, with the state requirement addressed through payment into offset fund. Offsets are required and assessed for the Project footprint including the void under the EPBC Act, the state offset requirement are to addressed separately through payment into an offset fund. The biodiversity offset outcome for the void will be a net gain.
	Climate change resilience	7.14%		4	Backfilling and revegetating with native vegetation and low-intensity grazing would need to withstand increasing heat, rainfall variability and drought. Rehabilitation of mining operations to a vegetated closure outcome is technically feasible and generally supported. Selecting climate-adapted, deep-rooted native species and managed low-intensity grazing would help the revegetated landform cope with these climate pressures. This would generally support long-term ecosystem resilience post closure.	4	Retaining the void for Stock water would not be materially affected by climate change. Declining rainfall and rising temperatures increase evaporative concentration within the void. Since the void's water quality is already unsuitable for beneficial use, further evaporative concentration under climate change does not materially change the void's overall function or outcome as a permanent groundwater sink. This means climate change would have no material impact on the overall outcome of the final void.	5	Retaining the void as a NUMA would not be materially affected by climate change. Void behaviour (evaporative concentration, groundwater sink) has already been modelled under future climate scenarios, and no active use relies on climate-sensitive productivity (PIC s5.1). Because the void's future behaviour is already accounted for and no productive use depends on climate-sensitive conditions, climate change does not introduce a new risk to this option. This means climate change resilience is not a material concern for retaining the void as a NUMA.
	Technical feasibility / engineering complexity	7.14%		1	Backfilling BVS presents significant technical and engineering complexity, requiring rehandling of approximately 160 Mm3 of material from the Central WRD after mining ceases. Hard rock bench and berm mining stores all waste out of pit, so no progressive in-pit backfill is available (PIC s10, s10.2(ii)), and the Central WRD forms part of an integrated waste landform (IWL) containing PAF material deliberately segregated within it. Rehandling this volume would require the segregated PAF material to be removed and re-encapsulated within the void at depth, adding substantial engineering complexity to backfill design and sequencing. This makes backfill a technically more complex undertaking for BVS than for operations where in-pit backfill can occur progressively without requiring re-encapsulation of segregated waste.	2	Gaining physical access to the water in the void is technically feasible, requiring only permanent pumping and reticulation infrastructure to lift water approximately 132 m from the lake surface to the crest, using established, standard infrastructure. However, the void's water quality degrades progressively over time through evaporative concentration, and treating this degrading water quality to a standard suitable for stock use would be complex and not feasible to achieve or maintain on a long-term basis. This means that while access to the water is technically achievable, sustaining that water at a usable quality over the long term is not.	5	Retaining the void as a NUMA is technically feasible. The final void is technically feasible as described in the EAR.

Constructability	Remobilisation risk	7.14%	25%	**1**	Backfilling the void would require all available material at BVS. This includes the PAF and tailings co-placement cell within the Central WRD. Using this material would require remobilising material that was deliberately segregated at construction (PIC s10.2(ii)). This means backfill cannot be achieved without disturbing material that was purpose-segregated to remain undisturbed.	**5**	Retaining the void would present no remobilisation risk. The void would continue to operate as a sink, with no material rehandled or disturbed. Since no material would be moved, there is no pathway for previously segregated material to be remobilised. This means retaining the void avoids the remobilisation risk associated with backfill.	**5**	Retaining the void as a NUMA would present no remobilisation risk. The void would continue to operate as a sink, with no material rehandled or disturbed. Since no material would be moved, there is no pathway for previously segregated material to be remobilised. This means retaining the void as a NUMA avoids the remobilisation risk associated with backfill.
	Workforce & public safety risk (implementation)	7.14%		**1**	Rehandling would re-expose previously segregated and covered PAF material to oxygen and water. This material was deliberately covered and segregated to prevent such exposure (PIC s10.2(ii)). Re-exposure during rehandling increases operational risk to the workforce and to sensitive receptors. This makes rehandling a source of risk that the original segregation and covering was designed to prevent.	**4**	Providing stock water via pumping would not introduce additional health and safety risk. No additional health and safety risk arises beyond the standard management of voids, provided access into the void is not created for stock or personnel. Since the pumping and reticulation infrastructure avoids the need for stock or personnel to enter the void directly, the existing standard controls remain sufficient. This means providing stock water access can be achieved without increasing workforce or public safety risk.	**4**	No additional health and safety risk arises beyond the standard management of voids, provided access into the void is not created for stock or personnel.
	Resource availability & permanence	7.14%		**1**	Resource availability for backfilling the void is limited to a single source, and even that source is likely to fall short of the volume needed. Backfill material is available only from the Central WRD, specifically by drawing down the cell in which PAF waste rock and tailings were deliberately segregated, with no alternative source on site (PIC s10.2(ii)). Because waste rock settles and consolidates over time, the volume actually available from this source post-settlement is likely to be less than the as-placed volume, meaning a shortfall of backfill material is probable. This makes resource availability and permanence a material constraint on backfilling as a viable option for the void.	**2**	The void's water resource would not provide a sustainable, permanent yield for stock use. A permanent pit lake will form, but it is a terminal evaporative sink; lake evaporation (1,930 mm) exceeds rainfall (581 mm) in every month, and groundwater inflow of approximately 22 ML/yr is immaterial at the scale of surrounding landholdings (PIC s10.3). Because evaporation exceeds rainfall every month and inflow is negligible, any water extracted for stock use would be drawn from storage rather than replenished, meaning the resource has no sustainable yield. This makes resource availability and permanence a limiting factor for using the void as a stock water source.	**5**	Retaining the void as a NUMA does not depend on any resource availability. Because no material or resource input is needed, this option is not constrained by resource availability or permanence in the way backfill or stock watering are. This means resource availability and permanence is not a limiting factor for retaining the void as a NUMA.

Financial Cost	Capital / rehandling cost	7.14%	25%	**1**	Backfilling the void would impose a very large capital cost. The cost to rehandle the backfill volume exceeds A$1 billion, based on unit rates from the Project financial model (PIC s10.2(ii)). This places rehandling cost at a scale that is material relative to the Project's overall capital cost base, and the estimate does not account for the added complexity of encapsulating the PAF material, meaning actual cost is likely higher. This makes capital and rehandling cost a significant factor weighing against backfill as a viable option for the void.	**3**	Providing stock water from the void would avoid backfill costs, but would still carry a capital cost. There is no backfill cost; the cost driver instead is the pumping, reticulation and potential treatment infrastructure required to make the water fit for use. This cost relates to infrastructure needed for water delivery and treatment, not to construction of the landform itself, so it is of a fundamentally different nature and scale to backfill rehandling cost. This means the capital cost of providing stock water is limited to water infrastructure rather than the large landform rehandling cost associated with backfill. However, the degrading water quality over time makes treatment complex and not feasible for long-term use, meaning the required treatment infrastructure and cost would not deliver a viable long-term solution.	**5**	Negligible incremental cost beyond works already committed in the PRCP.
	Impact on Project financial viability	7.14%		**1**	Backfilling the BVS void would render the Project financially unviable such that it would not proceed (PIC s10.1, s10.2(ii)).	**4**	Does not itself threaten Project viability - the option fails on water quality and access, not cost.	**5**	No impact - Project proceeds as planned, full benefits realised.
	Long-term monitoring & management liability	7.14%		**1**	Backfill would not eliminate long-term monitoring and management liability. Groundwater monitoring bores and contingency measures such as cut-off trenches would likely still be required for the backfilled mass (PIC s10.2(ii)). These ongoing requirements would extend rather than reduce post-closure obligations compared with the retained void base case. This makes backfill a poor option for reducing long-term monitoring and management liability.	**3**	Providing stock water from the void would not meaningfully change the standing post-closure monitoring already required for the retained void base case, but the degrading water quality over time makes treatment complex and not feasible for long-term use, meaning any monitoring intended to support ongoing stock water use would not be able to demonstrate a stable, usable outcome. The void requires the same standing post-closure monitoring as the retained void base case regardless of use. Since the underlying monitoring obligation is unchanged, this option does not add a distinct new monitoring regime, but nor does that monitoring resolve the long-term water quality problem. This means long-term monitoring and management liability is not increased in scope by the stock water option, but it also does not offset the option's inability to sustain usable water quality over time.	**5**	Retaining the void as a NUMA carries a standard, well-understood long-term monitoring liability. Because this monitoring regime is already established and understood, it does not introduce any new or uncertain liability beyond what is already planned for. This means long-term monitoring and management liability for retaining the void as a NUMA is well-defined and consistent with the PRCP.

Social & Stakeholder Benefit	Consistency with pre-mining/surrounding land use	7.14%	25%	**4**	Backfilling the void would restore a land use consistent with the pre-mining and surrounding grazing use. This aligns with the pre-mining grazing land use and is the primary PMLU for the Project. This land-use reflects direct alignment with the pre-mining and surrounding grazing use, rather than introducing a new or different use. This means backfill delivers a land use outcome consistent with pre-mining conditions.	**2**	Providing stock water from the void superficially aligns with regional stock water use, but delivers little practical land-use value. While the option superficially aligns with regional stock water use, predicted water quality removes any practical value. Because the water is not suitable for practical stock use, the apparent land-use alignment does not translate into an actual land-use benefit. This means the option does not meaningfully support consistency with pre-mining/surrounding land use, despite the superficial alignment.	**1**	Retaining the void as a NUMA is generally not consistent with pre-mining or surrounding land use. The pre-mining and surrounding land use is native vegetation with low intensity grazing, whereas a retained void is a permanent, inaccessible water body that cannot be grazed, cropped or otherwise put to productive use. Because the void does not support grazing or any other pre-mining land use, it represents a permanent change in land use rather than a continuation of it. This means retaining the void as a NUMA does not deliver consistency with pre-mining or surrounding land use, unlike the backfill option.
	Regional economic & employment benefit	7.14%		**1**	Backfilling the void would result in the loss of significant regional economic and employment benefit. The Project would not proceed, meaning approximately 984 construction and 380 operational positions, ~$60M annual wages, ~$220M income tax and ~$15M annual royalties would not be realised (PIC s8, s10.2(ii)). These losses represent a substantial reduction in regional economic activity and employment compared with the Project proceeding. This makes backfill a significant negative factor for regional economic and employment benefit.	**4**	Does not directly threaten Project economics; benefits under s126E(a) remain realisable.	**5**	Full Project benefits realised over the ~11-year mine life.
	Community/stakeholder acceptance	7.14%		**4**	Backfilling to a landform consistent with pre-mining land use is likely to be well received by landholders. Landholders were consulted on the revised final landform and the reduction in NUMAs, and that consultation was favourable. This favourable response indicates landholders generally value a landform that reflects pre-mining land use, which is the outcome backfill would support. This suggests backfill would likely be similarly well received by landholders.	**3**	Not specifically tested through consultation; neutral in the absence of evidence either way.	**4**	Community and stakeholder consultation to date has consistently highlighted retaining the voids as a NUMA as the planned post mining outcome. Most recent consultation confirms stakeholders understand the benefit of reducing the number of NUMAs and generally appreciated the refinements to the final landform outcomes.
		100%	**100%**	**2.00**		**3.14**		**4.29**		
				3		**2**		**1**		

Assessment Matrix - BV1 & BV2 Pit Voids (satellite voids)

Category	Criterion	Weight	Category weighting	Option 1: Material-Filled (Backfill) - PMLU: Native Vegetation with Low Intensity Grazing		Option 2: Water-Filled - PMLU: Stock Watering		Option 3: Retain as Non-Use Management Area (NUMA) - Proposed	
				Score (1-5)	Rationale	Score (1-5)	Rationale	Score (1-5)	Rationale
	Physical stability	7.14%		3	Backfilling of mining voids can achieve a stable final landform. New Hope Group's Chuwar mine had its backfilled voids assessed as safe, stable and non-polluting, leading to full relinquishment. This suggests that controlled backfilling and rehabilitation methods can reliably produce a stable, non-polluting landform even where void geometry is complex. On this basis, it should be considered that using comparable methods, BV1 and BV2 could support a stable outcome despite the different mining method.	4	Retaining the void for stock watering would preserve confirmed physical stability. Void geometry is unchanged, and BV1 and BV2 highwalls will have been monitored from year 3, allowing setback distances to be confirmed against observed rather than only predicted performance. Because setback distances would be validated against observed performance rather than relying solely on predictions, confidence in physical stability is higher than at initial closure. This means physical stability is well supported for the stock watering option.	5	Retaining the voids as a NUMA would similarly preserve confirmed physical stability, as per the stock watering option. The extended pre-closure monitoring period at BV1/BV2 gives higher confidence in buffer zone adequacy than at BVS. Because this option relies on the same monitored void geometry and buffer zone, the same higher confidence applies. This means physical stability is well supported for retaining the voids as a NUMA.
	Chemical stability & water quality	7.14%		3	Backfilling BV1/BV2 would pose minimal risk to chemical stability and water quality. Material would be sourced from the Northern WRD, which stores NAF material only, so no PAF cell is involved. Because no PAF material is involved, remobilisation does not introduce a chemical or water quality risk in the way it would if PAF material were disturbed. This means backfill poses minimal risk to chemical stability and water quality for BV1 and BV2.	1	Retaining the void for stock watering is unlikely to provide sufficient water to support use. The void floors sit above the groundwater table, so there is no groundwater contribution, and evaporation exceeds rainfall, meaning any water present is limited to ephemeral post-rain storage. Because evaporation exceeds rainfall and there is no groundwater inflow, it is unlikely that sufficient water would accumulate or persist to support stock use. This means the option avoids offsite groundwater risk but is unlikely to provide a sufficient or reliable water source for stock use.	5	Retaining the voids as a NUMA would maintain chemical stability with no offsite water quality impact. The voids have already been assessed as causing no offsite groundwater or surface water impact, with floors remaining above the water table. Because the floors sit above the water table, there is no pathway for water quality impacts to reach the surrounding environment. This means retaining the voids as a NUMA maintains chemical stability without offsite water quality consequences.

Environmental Performance	Ecological outcome	7.14%	25%	**3**	Backfilling BV1/BV2 is unlikely to deliver a meaningful ecological benefit relative to pre-mining conditions. The small footprints of the pit voids have limited ecological functionality in the area, and ecological values impacted by constructing the two pits are offset elsewhere to achieve a net gain relative to the pre-mining condition. Because the pit footprints are small and already have limited ecological functionality, and the required offsets are delivered elsewhere, rehabilitating the two pit voids themselves is unlikely to achieve an ecological benefit relative to pre-mining land use. This means backfill is unlikely to deliver a material ecological benefit for BV1 and BV2 specifically.	**2**	Retaining the void for stock watering is unlikely to provide sufficient water to support ecological function. The void floors sit above the groundwater table and evaporation exceeds rainfall, so no vegetation would be established and the void would be unable to support an aquatic ecosystem. Because sufficient water is unlikely to be available or persist, the void cannot provide meaningful habitat or ecological function. This means the stock watering option delivers minimal ecological benefit.	**2**	Biodiversity offsets for the Project footprint, including the voids, are proposed but not yet secured under the EPBC Act, with the state requirement addressed through payment into an offset fund. Offsets have been proposed for the Project footprint including the voids under the EPBC Act, but this remains proposed rather than secured; the state offset requirement is addressed separately through payment into an offset fund. Because the EPBC offset is proposed rather than secured, the ecological benefit it would deliver depends on approval, and the pit voids themselves would not independently achieve a pre-mining-equivalent ecological outcome. This means the biodiversity offset outcome for the voids is not yet a certain net gain.
	Climate change resilience	7.14%		**4**	Backfilling and revegetating with native vegetation and low-intensity grazing would need to withstand increasing heat, rainfall variability and drought. Rehabilitation of mining operations to a vegetated closure outcome is technically feasible and generally supported. Selecting climate-adapted, deep-rooted native species and managed low-intensity grazing would help the revegetated landform cope with these climate pressures. This would generally support long-term ecosystem resilience post closure.	**3**	Retaining the void for stock watering is unlikely to provide sufficient water under current or future climate conditions. The void floors sit above the groundwater table and evaporation already exceeds rainfall; declining rainfall and rising temperatures would widen this gap further. Because evaporation already exceeds rainfall without climate change, and this gap is projected to increase, it is increasingly unlikely that sufficient water would be available for stock use. This means climate change resilience is a significant limitation for the stock watering option.	**5**	Retaining the voids as a NUMA would not be materially affected by climate change. No active use relies on climate-sensitive productivity or water availability. Because no productive use depends on climate-sensitive conditions, climate change does not introduce a new risk to this option. This means climate change resilience is not a material concern for retaining the voids as a NUMA.
	Technical feasibility / engineering complexity	7.14%		**3**	Backfilling BV1/BV2 is technically possible, but constrained by material timing. This is technically possible given the relative volumes involved, but material is only available from the Northern WRD from year 3. This sequencing constraint means backfill could not proceed until year 3, adding a timing dependency to an otherwise feasible option. This means backfill is technically feasible but subject to a sequencing constraint on when material becomes available.	**5**	The stock watering option requires no additional construction. No construction beyond works already committed in the PRCP would be required. Because no new infrastructure or works are needed, this option carries no additional technical or engineering complexity beyond what is already planned. This means technical feasibility is not a constraint for the stock watering option.	**5**	Retaining the voids as a NUMA requires no additional construction. No construction beyond works already committed in the PRCP would be required. Because no new infrastructure is needed, this option carries no additional technical or engineering complexity. This means technical feasibility is not a barrier to retaining the voids as a NUMA.

Constructability	Remobilisation risk	7.14%	25%	**3**	Backfilling BV1/BV2 would introduce a remobilisation risk via groundwater interaction with the backfilled material. Groundwater inflows and seepage through the backfilled material could remobilise it over time. Because the backfilled material would sit within the groundwater flow path, ongoing inflow and seepage create a longer-term remobilisation pathway. This means backfill carries a minor remobilisation risk from ongoing groundwater inflow and seepage through the backfilled material.	**5**	The stock watering option carries no remobilisation risk. No material movement would be required. Since no material would be moved, there is no pathway for previously placed or rehabilitated material to be disturbed. This means the stock watering option avoids the remobilisation risk associated with backfill.	**5**	Retaining the voids as a NUMA carries no remobilisation risk. No material movement would be required. Since no material would be moved, there is no pathway for previously placed or rehabilitated material to be disturbed. This means retaining the voids as a NUMA avoids the remobilisation risk associated with backfill.
	Workforce & public safety risk (implementation)	7.14%		**4**	Backfilling BV1/BV2 would increase workforce activity and associated safety risk. Rehandling increases disturbance activity and diesel emissions. This safety risk is limited to standard rehandling and plant-related risk associated with earthworks activity. This means backfill carries a standard rehandling safety risk for BV1 and BV2.	**4**	The stock watering option would not introduce additional health and safety risk. No additional health and safety risk arises beyond the standard void safety controls already provided for in the PRCP. Since existing controls already address void safety, no new risk is introduced by this option. This means workforce and public safety risk is not increased by the stock watering option.	**4**	Retaining the voids as a NUMA would not introduce additional health and safety risk. No additional health and safety risk arises beyond the standard void safety controls already provided for in the PRCP. Since existing controls already address void safety, no new risk is introduced by this option. This means workforce and public safety risk is not increased by retaining the voids as a NUMA.
	Resource availability & permanence	7.14%		**3**	Resource availability for backfilling BV1/BV2 is constrained by timing and carries a potential risk of insufficient material to fill both voids. Material is available from the Northern WRD. Because the material comes from this single source, both the timing of its availability and its total volume are dependent on that source, creating a sequencing dependency and a risk that the available volume may fall short of what both voids require. This means resource availability for backfill is a timing constraint that also carries a potential risk of insufficient material to fill both voids.	**1**	The stock watering option is unlikely to provide sufficient water for a permanent, sustainable resource. The void floors sit above the groundwater table, so there is no groundwater contribution, and evaporation exceeds rainfall, so no permanent water body will form and accumulation is limited to ephemeral post-rain storage (PIC s9.1; Annexure A). Because evaporation exceeds rainfall and there is no groundwater inflow, it is unlikely that sufficient water would ever accumulate to sustain a water-dependent land use. This means resource availability and permanence is a limiting factor for the stock watering option.	**5**	Retaining the voids as a NUMA does not depend on any resource availability. The option requires no resource; the voids are retained as formed. Because no material or resource input is needed, this option is not constrained by resource availability or permanence. This means resource availability and permanence is not a limiting factor for retaining the voids as a NUMA.
	Capital / rehandling cost	7.14%		**1**	Backfilling BV1/BV2 would impose a disproportionate capital cost. The cost of backfilling the two voids is disproportionate to the resource recovered from them. Because the cost of rehandling exceeds the value of the resource recovered, backfill is not an efficient use of capital for these voids. This means capital/rehandling cost is a significant factor weighing against backfill for BV1 and BV2.	**4**	The stock watering option would carry minimal capital cost. There is no backfill cost, and cost is minimal relative to the other options. Because no rehandling or major infrastructure is required, this option's cost is low relative to the backfill alternative. This means capital cost is not a significant factor for the stock watering option.	**5**	Retaining the voids as a NUMA would carry negligible additional capital cost. The incremental cost is negligible beyond works already committed in the PRCP. Because no new works are required beyond what is already committed, this option adds no material cost burden. This means capital cost is not a factor weighing against retaining the voids as a NUMA.

Financial Cost	Impact on Project financial viability	7.14%	25%	**1**	Backfilling BV1/BV2 would threaten the financial viability of mining these pits. Mining of BV1 and BV2 would not proceed, with flow-on consequences including delayed construction, lost employment opportunities and reduced royalty and tax payments. Because backfill would prevent mining from proceeding, it directly removes the economic activity and revenue that mining BV1 and BV2 would otherwise generate. This means backfill has a direct negative impact on Project financial viability for BV1 and BV2.	**4**	The stock watering option does not threaten the financial viability of mining BV1 or BV2. This option does not directly threaten the viability of mining BV1 or BV2. Because this option does not prevent or delay mining, it has no direct bearing on Project financial viability. This means impact on Project financial viability is not a material factor for the stock watering option.	**5**	Retaining the voids as a NUMA has no impact on Project financial viability. Mining proceeds as planned, with full associated benefits realised. Because this option does not interfere with mining, all associated financial benefits are retained. This means Project financial viability is fully preserved under the NUMA option.
	Long-term monitoring & management liability	7.14%		**3**	Backfill would not reduce long-term monitoring and management liability. The backfilled voids would still require post-closure monitoring, in the same way as any placed material. Because monitoring is still required for the backfilled material, backfill does not eliminate the monitoring and management liability associated with the voids. This makes backfill a poor option for reducing long-term monitoring and management liability.	**4**	The stock watering option would not add long-term monitoring or management liability beyond the retained void base case. This option requires similar post-closure management and monitoring as the retained void base case. Since monitoring requirements are unchanged, using the voids for stock watering does not introduce any additional monitoring or management obligation. This means long-term monitoring and management liability is not increased by the stock watering option.	**5**	Retaining the voids as a NUMA carries a standard, well-understood long-term monitoring liability. Post-closure monitoring for this option is standard and well-understood, as set out in the PRCP. Because this monitoring regime is already established and understood, it does not introduce any new or uncertain liability. This means long-term monitoring and management liability for retaining the voids as a NUMA is well-defined and consistent with the PRCP.
Social &	Consistency with pre-mining/surrounding land use	7.14%		**4**	Backfilling BV1/BV2 would restore a land use consistent with pre-mining grazing, though of limited practical scale. This aligns with the pre-mining grazing land use, but the small combined area would carry no more than a few head of cattle. While the land-use type matches pre-mining conditions, the small area limits the practical grazing benefit that can be realised. This means backfill is consistent with pre-mining land use, but delivers limited practical grazing value.	**1**	The stock watering option is unlikely to provide sufficient water to deliver practical land-use value, and even where water is available the void itself does not restore pre-mining land use. The pre-mining and surrounding land use is native vegetation with low intensity grazing, whereas the voids remain permanent, inaccessible land areas that cannot themselves be grazed, cropped or otherwise put to productive use; only water drawn from them could serve a stock-watering purpose. Because sufficient water is unlikely to be available, and the voids do not support grazing or any other pre-mining land use in their own right, the apparent alignment with regional stock water use does not translate into practical, lasting land-use value. This means the stock watering option does not meaningfully support consistency with land use, despite the superficial alignment.	**1**	Retaining the voids as a NUMA is generally not consistent with pre-mining or surrounding land use. The pre-mining and surrounding land use is native vegetation with low intensity grazing, whereas retained voids are permanent, inaccessible land areas, that cannot be grazed, cropped or otherwise put to productive use. Because the voids do not support grazing or any other pre-mining land use, they represent a permanent change in land use rather than a continuation of it. This means retaining the voids as a NUMA does not deliver consistency with pre-mining or surrounding land use.

Social & Stakeholder Benefit	Regional economic & employment benefit	7.14%	25%	**1**	Backfilling BV1/BV2 would result in the loss of regional economic and employment benefit. Mining of BV1 and BV2 would not proceed, losing the associated construction, employment and royalty benefits. Because backfill would prevent mining, the construction, employment and royalty benefits that mining would otherwise generate would not be realised. This makes backfill a significant negative factor for regional economic and employment benefit.	**4**	The stock watering option does not threaten regional economic and employment benefit. This option does not directly threaten the benefits associated with mining BV1 and BV2. Because this option does not prevent or delay mining, the associated economic and employment benefits remain unaffected. This means regional economic and employment benefit is preserved under the stock watering option.	**5**	Retaining the voids as a NUMA preserves full regional economic and employment benefit. Full associated benefits are realised. Because this option does not interfere with mining, all associated economic and employment benefits are retained. This means regional economic and employment benefit is fully preserved under the NUMA option.
	Community/stakeholder acceptance	7.14%		**3**	Backfilling to a landform consistent with pre-mining land use is likely to be well received by landholders. Landholders were consulted on the revised final landform and the reduction in NUMAs, and that consultation was favourable. This favourable response indicates landholders value a landform that reflects pre-mining land use, which is the outcome backfill would support. This suggests backfill would likely be similarly well received by landholders.	**3**	Community and stakeholder acceptance of the stock watering option is unknown. This option has not been specifically tested through consultation. In the absence of evidence either way, acceptance cannot be assumed to be positive or negative. This means community/stakeholder acceptance is neutral for the stock watering option, pending further consultation.	**4**	Community and stakeholder consultation to date has consistently highlighted retaining the voids as a NUMA as the planned post mining outcome. Most recent consultation confirms stakeholders understand the benefit of reducing the number of NUMAs and generally appreciated the refinements to the final landform outcomes.
		100%	**100%**	**2.79**		**3.21**		**4.36**	
				3		**2**		**1**	

Score Summary & Ranking

Option	BVS Pit Void	BV1 & BV2 Pit Voids	Combined Average	Notes
Material-Filled (Backfill) - PMLU: Native Vegetation with Low Intensity Grazing	**2.00**	**2.79**	**2.39**	Not preferred: Backfilling BVS pit void renders the Project financially unviable, and the project would not proceed. Backfilling BV1 and BV2 would have a significant adverse impact on the financial viability of mining these pits based on the estimated resource deposits in the two pits. Therefore, if backfilling of BV1 and BV2 were required, development of these two pits would not proceed. The benefit gained from backfilling the pits does not pose a greater risk of environmental harm than retaining them as voids.
Water-Filled - PMLU: Stock Watering	**3.14**	**3.21**	**3.18**	Not preferred: Although the BVS pit void will sustain a permanent pit lake, salinity levels in the void will continue to concentrate with the maximum concentration only limited by the solubility of the constituent salts. Water quality in the BVS pit void is predicted to be unsuitable for stock watering. Water availability in the BV1 and BV2 pit voids will be intermittent, temporary and unpredictable and they are not expected to sustain a void lake due to evaporative losses exceeding rainfall inputs. Hence, water availability in the BV1 and BV2 pit voids renders them unsuitable for stock watering.
Retain as Non-Use Management Area (NUMA) - Proposed	**4.29**	**4.36**	**4.32**	Preferred option: The risk of environmental harm from not rehabilitating the voids is confined to the resource tenures, with the groundwater, surface water, ecological, geotechnical, air quality, noise, visual amenity and cultural heritage impacts are localised and no greater than those already authorised for the Project as a whole. When assessing the significant community benefit from the Project (which cannot be delivered without the pit voids), including the reduction in the number of proposed NUMAs from seven to three, against the contained impacts, alternate options and project viability, the most appropriate landform following mining is retention of the three voids.

