



NORTHERN STAR
R E S O U R C E S L T D

IMPACT RECONCILIATION PROCEDURE

HEMI GOLD PROJECT

Document	Reviewed	Approved
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1 The Proposal and Condition Requirements

1.1 The Proposal

Northern Star (Hemi) Pty Ltd (Northern Star) (a wholly owned subsidiary of Northern Star Resources Ltd) is proposing to develop the Hemi Gold Project (Hemi, the Project, the Proposal), a greenfield gold mine located in the Pilbara region of Western Australia. The key components involve open-cut mining of gold ore from six deposits (Aquila, Brolga, Crow, Diucon, Eagle, and Falcon). The ore will be processed on-site at a rate of approximately 10 million tonnes per annum (mtpa) over an anticipated 13-year life of mine, with potential for extensions subject to future approvals. Processing waste (tailings) will be discharged to an Integrated Waste Landform (IWL) Tailings Storage Facility (TSF). The ore and pressure oxidation treatment process ensures the tailings are non-acid forming (NAF). Clearing is anticipated to commence in stages, subject to approvals.

This document describes the Impact Reconciliation Procedure (IRP) for the Project to support the assessment of the Proposal under Part IV of the *Environmental Protection Act 1986* (WA) (EP Act) and Part 9 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act).

1.2 Ministerial Statement/Decision Note and Condition Requirements

The Environmental Protection Authority (EPA) is assessing the Proposal under Part IV of the EP Act, with assessment number 2380. Additionally, the Department of Climate Change, Energy, the Environment and Water (DCCEEW) is assessing the Project under Part 9 of the EPBC Act, with reference number 2023/09556. Northern Star will incorporate Condition Requirements into this document upon issuance of the Ministerial Statement and/or Decision Notice.

Northern Star anticipates that any approval to implement this Proposal will require contributions to the Pilbara Environmental Offset Fund (PEOF) to counterbalance the significant residual impacts. Moreover, Northern Star expects that conditions may consider and reflect the offsets proposed in the IRP.

2 Procedure

2.1 Identification of the Environmental Values Requiring Offset

The environmental values presented in the Proposal area and surroundings were identified throughout multiple baseline studies in accordance with State and Commonwealth guidelines. Baseline flora and vegetation surveys (Ecoscape, 2021; Umwelt, 2022, 2024) showed that most of the Development Envelope is in "excellent" or "very good" condition (Figure 2-1). However, some areas have been disturbed by exploration activities, pipelines, cattle grazing and trampling. Northern Star will implement measures to ensure the activities have no significant long-term effects on identified priority species.

Surveys recorded one species, *Seringia exastia*, listed as Critically Endangered under the EPBC Act. *Seringia exastia*, a shrub endemic to Western Australia, was previously listed as Critically Endangered under the state's *Biodiversity Conservation Act 2016* (BC Act). However, a recent taxonomic review found it to be the same species as the common *Seringia elliptica*. This led Western Australia to delist the plant due to its widespread presence in the region.

While delisted by the state, *Seringia exastia* remains listed as Critically Endangered under the EPBC Act. This is likely due to the time it takes to update these designations. Surveys found two populations within the Development Envelope, but outside the Indicative Footprint Area. The Preliminary Documentation (DEG-EN-RP-0004) provides a more detailed analysis and assessment of this species.

Baseline terrestrial fauna surveys (Western Wildlife, 2023) identified six fauna habitats within the Development Envelope (Figure 2-2): Spinifex Sandplain, Sandplain Drainage, Sand Dune, Stony Hills, Major River, and Rocky Outcrops. Spinifex Sandplain, Sandplain Drainage, and Stony Hills habitats are widespread in the region. The Sand Dune habitat is uncommon and mostly confined to the Gregory Land System, a Priority 3 Ecological Community, which is excluded from the Development Envelope.

Northern Star addressed the significant potential impacts of the Proposal by applying the mitigation hierarchy (details in the Preliminary Documentation (DEG-EN-RP-0004) and Referral Supporting Document (DEG-EN-RP-0009). Following the avoidance, mitigation and rehabilitation measures, the impact assessment carried out for the Proposal still indicates potentially significant residual impacts on:

- Critical habitat for Northern Quoll (*Dasyurus hallucatus*) - Endangered under EPBC Act and BC Act: Visual records were obtained along the Turner River and the Yule River.
- Critical habitat for Pilbara Olive Python (*Liasis olivaceus barroni*) - Vulnerable under the EPBC Act and BC Act. No records during fauna or aquatic surveys; however, the species is known to occur in the region.
- Critical habitat for Greater Bilby (*Macrotis lagotis*) - Vulnerable under EPBC Act and BC Act: Secondary signs (diggings) were found in one location within the Development Envelope. This species likely uses Spinifex Sandplain, Sandplain Drainage, and Sand Dune habitats. Sand Dune habitat has been excluded from the Development Envelope, while Spinifex Sandplain and Sandplain Drainage habitats are widespread and cover about 92% of the surveyed area (99% of the indicative disturbance footprint).
- Clearing of native vegetation in "good" to "excellent" condition.

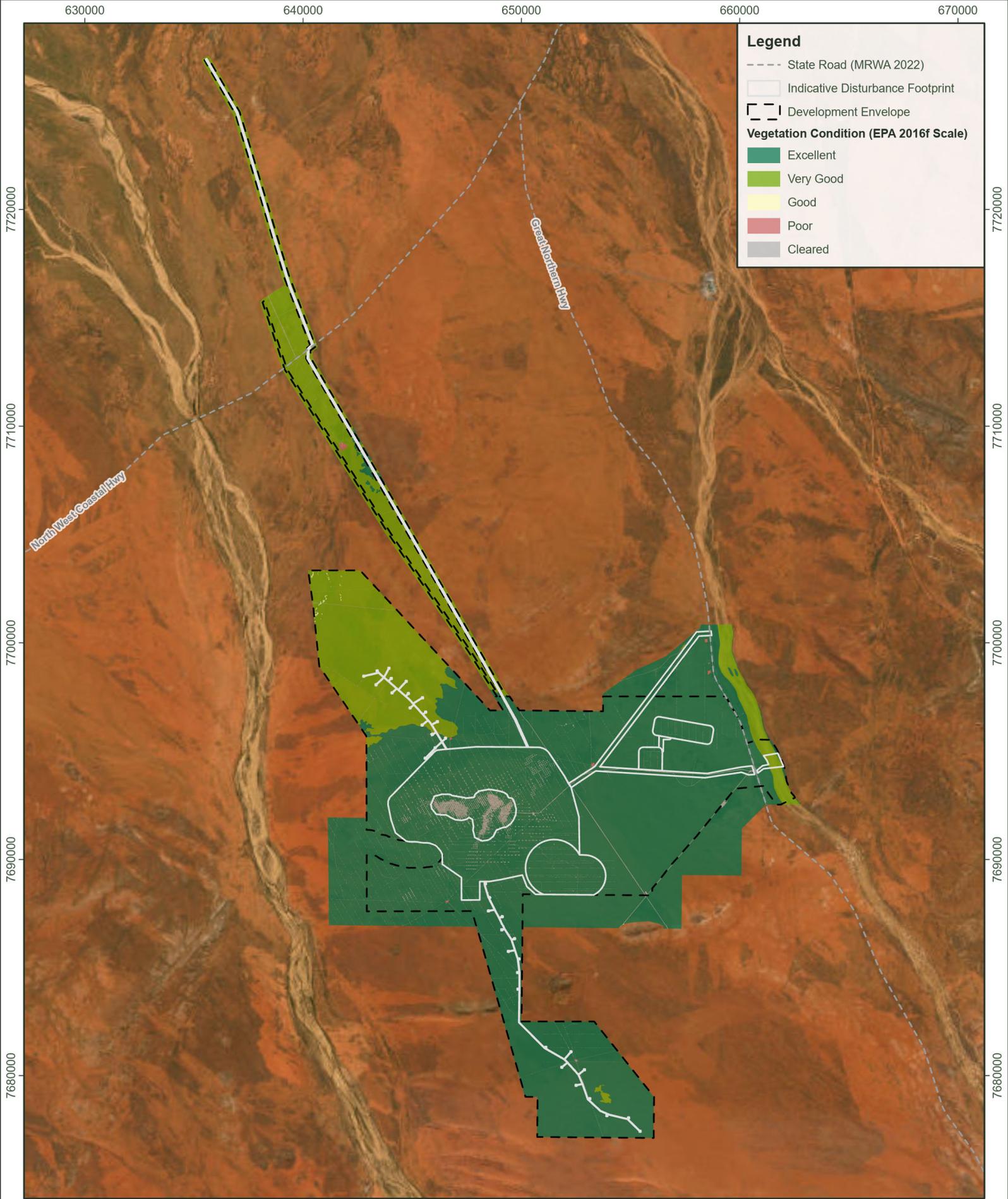
Table 2-1 summarises the environmental values that require offsets. Figure 2-3 presents the IBRA subregions over which the project lies.

Table 2-1: Environmental Values that require Offsets

Environmental value	IBRA subregion	Offset rate (\$/ha)
Clearing of no more than 10* ha of Major River habitat, considered critical habitat to the Northern Quoll (<i>Dasyurus hallucatus</i>).	Chichester	3,306
Clearing of no more than 41* ha of dispersal and foraging habitat (Sandplain Drainage, Sandplain Spinifex and Stony Hills habitat), considered critical habitat to the Northern Quoll (<i>Dasyurus hallucatus</i>).	Chichester	1,653
Clearing of no more than 10* ha of Major River habitat, considered critical habitat to the Pilbara Olive Python (<i>Liasis olivaceus barroni</i>).	Chichester	3,306
Clearing of no more than 5,759 ha of sandplain habitats (Sandplain Drainage and Sandplain Spinifex), considered critical habitat of the Greater Bilby (<i>Macrotis lagotis</i>)	Chichester	3,306
	Roebourne	3,306
Clearing of 15* ha of native vegetation (Stony Hills habitat) in good to excellent conditions.	Chichester	932
Clearing of 18* ha of native vegetation (Stony Hills habitat) in good to excellent conditions.	Roebourne	986

*Rounded up to the nearest whole number.

The offset rate per hectare for each Interim Biogeographic Regionalisation for Australia (IBRA) subregion has been sourced from the PEOF (DWER, 2023). It is subject to an annual adjustment to the Consumer Price Index (CPI).



PROJECT

NAME
Hemi Gold Project - Impact Reconciliation Program

CLIENT



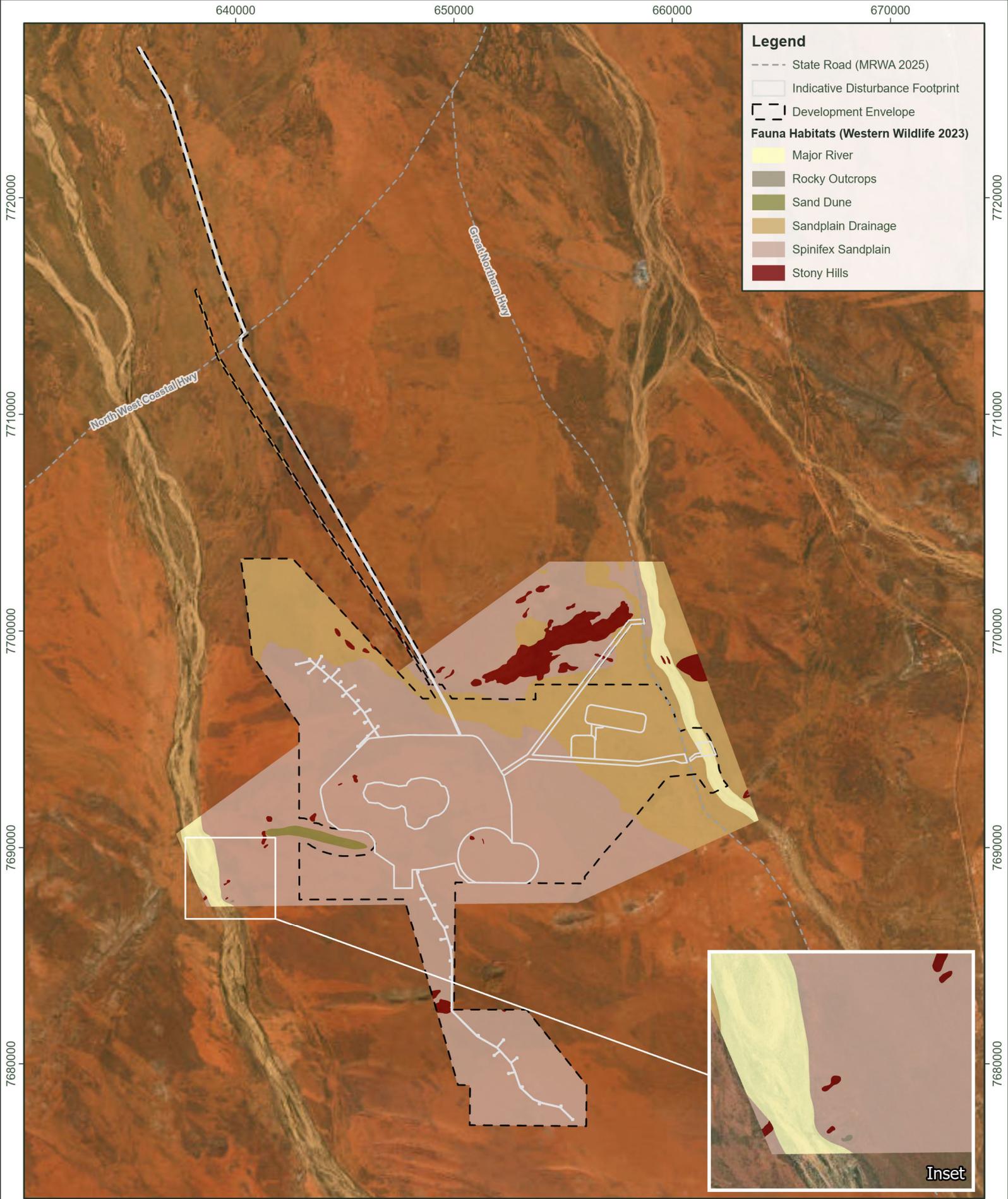
DRAWING
Vegetation Condition

FIGURE No.	2-1	PROJECT No.	ADV-AU-00673	DATE	August 2025
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Scale: 1:220,000

Projection: GDA2020 MGA Zone 50

Created/Reviewed By: KM/EL



PROJECT **CLIENT**

NAME
Hemi Gold Project - Impact Reconciliation Program

DRAWING
Fauna Habitat Types



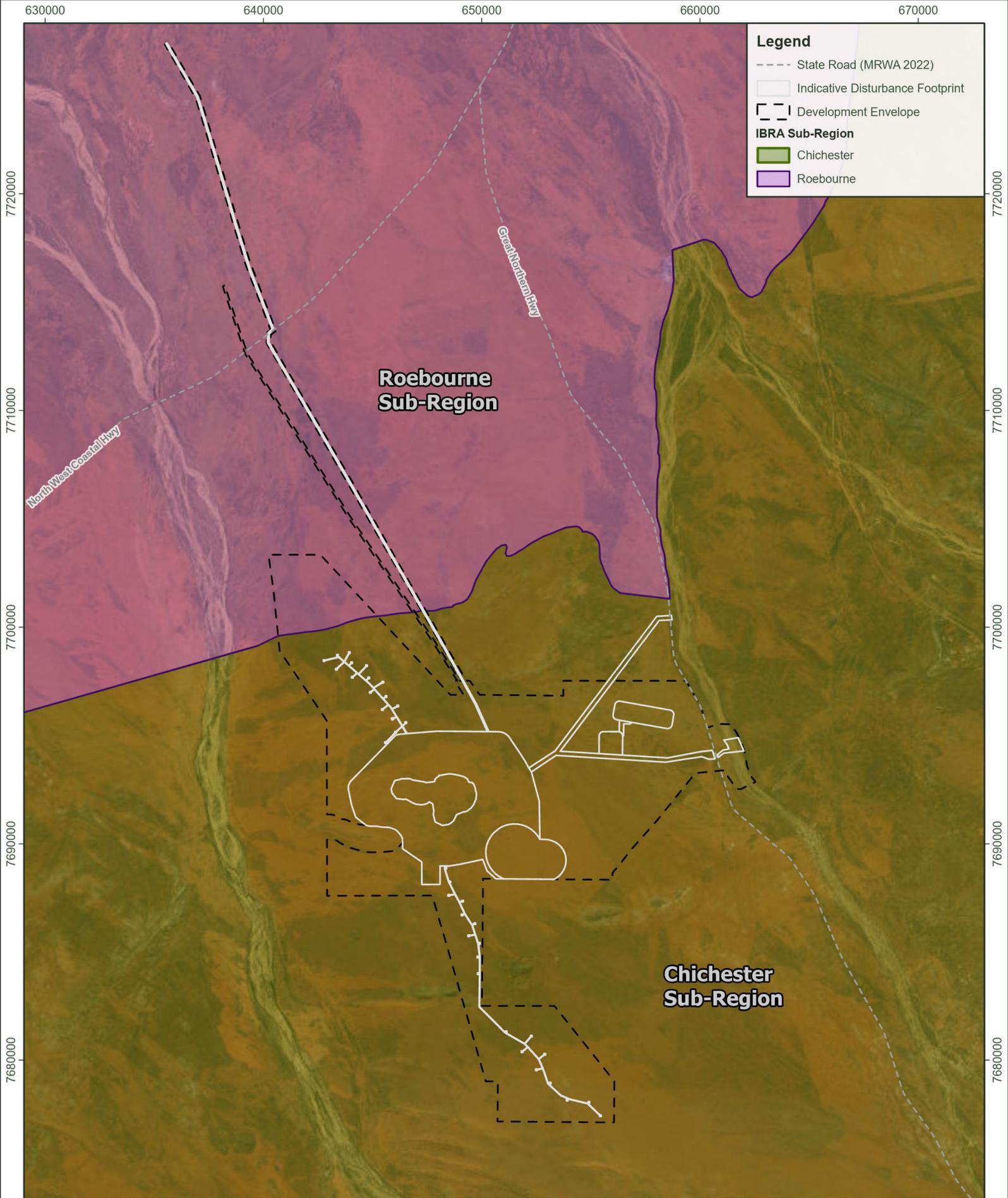
FIGURE No.	2-2	PROJECT No.	ADV-AU-00673	DATE	August 2025
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Scale: 1:220,000

0 1.25 2.5 5 km

Projection: GDA2020 MGA Zone 50

Created/Reviewed By: KM/EL



PROJECT

NAME

Hemi Gold Project - Impact Reconciliation Program

DRAWING

IBRA Sub-Regions

CLIENT



FIGURE No. 2-3

PROJECT No. ADV-AU-00673

DATE

August 2025

2.2 Method to Determine Impacts

Flora and vegetation assessments and vertebrate fauna surveys were conducted in accordance with the EPA Technical Guidance (EPA, 2016, 2020). These studies provided the basis for the impact assessment conducted for all the key environmental factors and Matters of National Environmental Significance (MNES) that the Proposal could potentially impact.

Northern Star will implement an internal procedure for monitoring and reporting on clearing throughout the project lifecycle. This procedure consists of:

- **Data Acquisition:** Throughout the year, Northern Star will utilise an internal ground disturbance permit system to track areas approved for clearing. This data will provide a record of authorised activities.
- **Baseline and Change Detection:** High-resolution aerial imagery will be acquired close to the end of each financial year. This imagery will be compared to the baseline data (established prior to project commencement) to identify new cleared areas, as well as compared with the ground disturbance permit to ensure clearing boundaries are being effectively managed.
- **Impact Calculation:** The area of cleared vegetation will be calculated by overlaying the baseline data on the end-of-year aerial imagery. This comparison will allow for the precise determination of the actual impact footprint for each reporting period. The impacted area for each environmental value will be multiplied by the corresponding offset rate (Table 2-1) to determine the total offset liability. This rate will be confirmed under the Ministerial Statement/Decision Note.

This methodology ensures clear, repeatable, and auditable impact identification, adhering to the annual reporting requirements for offset liabilities. Northern Star reserves the right to employ additional survey techniques, such as ground-truthing, for enhanced accuracy in specific situations.

2.3 Impacts

The development plan for Hemi requires an approach to managing native vegetation, limiting clearing to a maximum of 5,830 ha within a larger Development Envelope (22,194 ha). This program aims to balance Project operations and environmental conservation, with due consideration given to relevant environmental factors. The identified six fauna habitats in Table 2-2 present the key elements for each habitat type and the proposed indicative disturbance footprint.

The overall vegetation quality is rated as "very good" to "excellent", and the vegetation types identified are common and likely to occur over relatively large regional areas. Notably, there are no Threatened Ecological Communities (TECs) or Environmentally Sensitive Areas (ESAs) within the Development Envelope.

Most disturbance and habitat loss is anticipated during the construction phase, with rehabilitation efforts expected to occur progressively whenever possible. Mine voids are planned to remain at closure, and the Gregory Land PEC system vegetation type has been deliberately excluded from the Project's scope.

Table 2-2: Vertebrate Fauna Habitats

Fauna Habitats	Key Elements	Area inside Development Envelope (ha)	Area within Indicative Disturbance Footprint (ha)
Spinifex Sandplain	<ul style="list-style-type: none"> Consolidated sands suitable for burrowing reptiles and mammals. 	15,809.8 (71.2%)	5,037.1 (86.50%)
Sandplain Drainage	<ul style="list-style-type: none"> Consolidated sands suitable for burrowing reptiles and mammals. Claypans of various sizes that hold water and may be breeding. Habitat for frogs. Mature spinifex in some areas, where encouraged by water runoff and/or protection from fire. 	6,029.4 (27.2%)	721.2 (12.38%)
Sand Dune	<ul style="list-style-type: none"> Loose flowing sands provide habitat for fossorial reptiles. 	0.0	0.0
Stony Hills	<ul style="list-style-type: none"> Minor drainage lines (not mapped separately) provide dense habitats for birds. Small stones suitable for Western Pebble-mound Mouse. Minor rocky outcrops provide shelter for rock-dwelling reptiles. 	172.9 (0.8%)	33.3 (0.57%)
Major River	<ul style="list-style-type: none"> Likely to function as a corridor for fauna movement. Waterholes provide habitat for Bathing and drinking and breeding habitat for frogs. Tree hollows for arboreal reptiles, Bats and hollow-nesting birds. Leaf litter accumulations and woody debris in the creek bed. Provides habitat for reptiles. 	181.2 (0.8%)	34.9 (0.60%)
Rocky Outcrops	<ul style="list-style-type: none"> Outcropping rocky areas, boulders, overhangs and rock crevices provide shelter for reptiles and mammals (no large caves present). 	0.0	0.0
Total		22,194.0*	5,827.0*

*Rounded up to the nearest whole number.

The Yule River and Turner River areas are considered critical habitats for the Northern Quoll, the Grey Falcon and the Pilbara Olive Python, noting that only the Northern Quoll has been recorded from these habitats. Rocky Outcrops areas are considered critical habitats for the Northern Quoll. Consequently, Northern Star has applied the following controls to minimise impacts on these species:

- Exclusion of the Yule River and associated foraging habitat from the Development Envelope.
- Exclusion of all Rocky Outcrops habitat from the Development Envelope.
- Limited disturbance to 10 ha of Major River habitat (along Turner River) to the minimum required for the dewatering pipeline corridor and outfall to comprise less than 2.5 % of the mapped extent of the Major River habitats of the Yule and Turner Rivers.
- Large, hollow forming trees suitable for the Northern Quoll will be avoided from clearing within the Major River habitat, where possible.

State and Federal Guidelines do not contain a clear description or definition of critical habitat for the Greater Bilby. However, due to habitat characteristics and occurrence records, it is assumed that Sand Dune, Sandplain Drainage and Spinifex Sandplain may be considered as critical habitats for the species. Therefore, Northern Star has applied the following controls to minimise impacts on the Greater Bilby:

- Exclusion of the Sand Dune habitat from the Development Envelope.
- Clearing of critical habitat to Greater Bilby limited to 5,759 ha of sandplain habitats (Spinifex Sandplain and Sandplain Drainage) within the Development Envelope.
- Implementation of pre-clearance surveys prior to land disturbance and, if required, relocating Greater Bilby individuals by qualified personnel.

Northern Star is committed to implementing a Conservation Significant Species Management Plan (CSSMP) (DEG-EN-RP-0002) and Environmental Management Plan (EMP) (DEG-EN-RP-0007, which will establish all the management measures to minimise the direct and indirect impacts on these species.

Finally, within the 5,830 ha of clearing required for the Proposal, and apart from the critical habitat described above, the impact to an additional 33 ha of native vegetation in good to excellent condition is considered a significant residual impact for the Proposal as per the EPAs cumulative impacts of developments in the Pilbara Region (EPA, 2014) and is proposed to be offset.

3 Reporting

3.1 Frequency and Timing

The clearing is planned to commence in 2025 in incremental stages. An Impact Reconciliation Report (IRR) outlining the disturbance undertaken in the Proposal will be completed biennially. The IRR will provide the location and spatial extent of the clearing undertaken over critical fauna habitat and relevant vegetation conditions to support the calculations for the offset payment required. Once the Ministerial Statement and/or Decision Note is provided, the first IRR will be completed by the end of the second financial year, comprising a period of less than two years. Then, the following biennial reports will cover 24 months (Table 3-1).

Table 3-1: Proposed reporting period and frequency of the Impact Reconciliation Reports

Biennial period	Action	Timing
	Ministerial Statement issued	June 2026
	Impacts commenced	October 2026
Period 1*	First biennial reporting period	October 2026 to 30 June 2028
	Aerial survey/ground-truthing	July 2028
	Impact Reconciliation Report submitted to DWER.	31 October 2028
	Submission of evidence of payment into PEOF to DCCEEW	Within 10 business days of receipt of payment from PEOF
Period 2	Second biennial reporting period	1 July 2028 to 30 June 2030
	Aerial survey/ground truthing	July 2030
	Impact Reconciliation Report submitted to DWER.	31 October 2028
	Submission of evidence of payment into PEOF to DCCEEW	Within 10 business days of receipt of payment from PEOF
Period 3	Third biennial reporting period	1 July 2030 to 30 July 2032
	Aerial survey/ground truthing	July 2032
	Impact Reconciliation Report submitted to DWER.	31 October 2032
	Submission of evidence of payment into PEOF to DCCEEW	Within 10 business days of receipt of payment from PEOF
Period 4	Fourth biennial reporting period	1 July 2032 to 30 June 2034
	Aerial survey/ground truthing	July 2034
	Impact Reconciliation Report submitted to DWER.	31 October 2034
	Submission of evidence of payment into PEOF to DCCEEW	Within 10 business days of receipt of payment from PEOF
Period 5	Fifth biennial reporting period	1 July 2034 to 30 June 2036
	Aerial survey/ground truthing	July 2036
	Impact Reconciliation Report submitted to DWER.	31 October 2036
	Submission of evidence of payment into PEOF to DCCEEW	Within 10 business days of receipt of payment from PEOF
Period 6	Sixth biennial reporting period	1 July 2036 to 30 June 2038
	Aerial survey/ground truthing	July 2038
	Impact Reconciliation Report submitted to DWER.	31 October 2038
	Submission of evidence of payment into PEOF to DCCEEW	Within 10 business days of receipt of payment from PEOF
Period 7	Seventh biennial reporting period	1 July 2038 to 30 June 2040
	Aerial survey/ground truthing	July 2040

Biennial period	Action	Timing
	Impact Reconciliation Report submitted to DWER.	31 October 2040
	Submission of evidence of payment into PEOF to DCCEEW	Within 10 business days of receipt of payment from PEOF
Final Period	Final reporting period	1 July 2040 to Final reporting date
	Aerial survey/ground truthing	30 days following the final reporting day
	Final Impact Reconciliation Report submitted to DWER.	October following the reporting date.
	Final submission of evidence of payment into PEOF to DCCEEW	Within 10 business days of receipt of payment from PEOF

*Period 1 is less than two years to align with a financial year reporting period.

3.2 Impacts and Reconciliation

Following the construction phase of the Proposal, the area of cleared habitat will be assessed against the baseline area using GIS technology. The IRR will be issued within 24 months of the Ministerial Statement's issue.

4 References

DWER. (2023, August 31). Program: Pilbara Environmental Offsets Fund. Department of Water and Environmental Regulation.

Ecoscope. (2021). Draft Report - Mallina Gold Project - Hemi Flora and Vegetation Survey.

EPA. (2014). Cumulative environmental impacts of development in the Pilbara region: Advice of the Environmental Protection Authority to the Minister for Environment under Section 16(e) of the Environmental Protection Act 1986.

EPA. (2016). Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment.

EPA. (2020). Technical Guidance: Terrestrial vertebrate fauna surveys for environmental impact assessment. Environmental Protection Authority, Government of Western Australia.

Umwelt. (2022). RE: Status of *Seringia exastia* at Hemi.

Umwelt. (2024). Hemi Gold Deposit: Baseline Flora and Vegetation Assessment.

Western Wildlife. (2023). Hemi Gold Project: Detailed Vertebrate Fauna Survey 2021 - 2022.