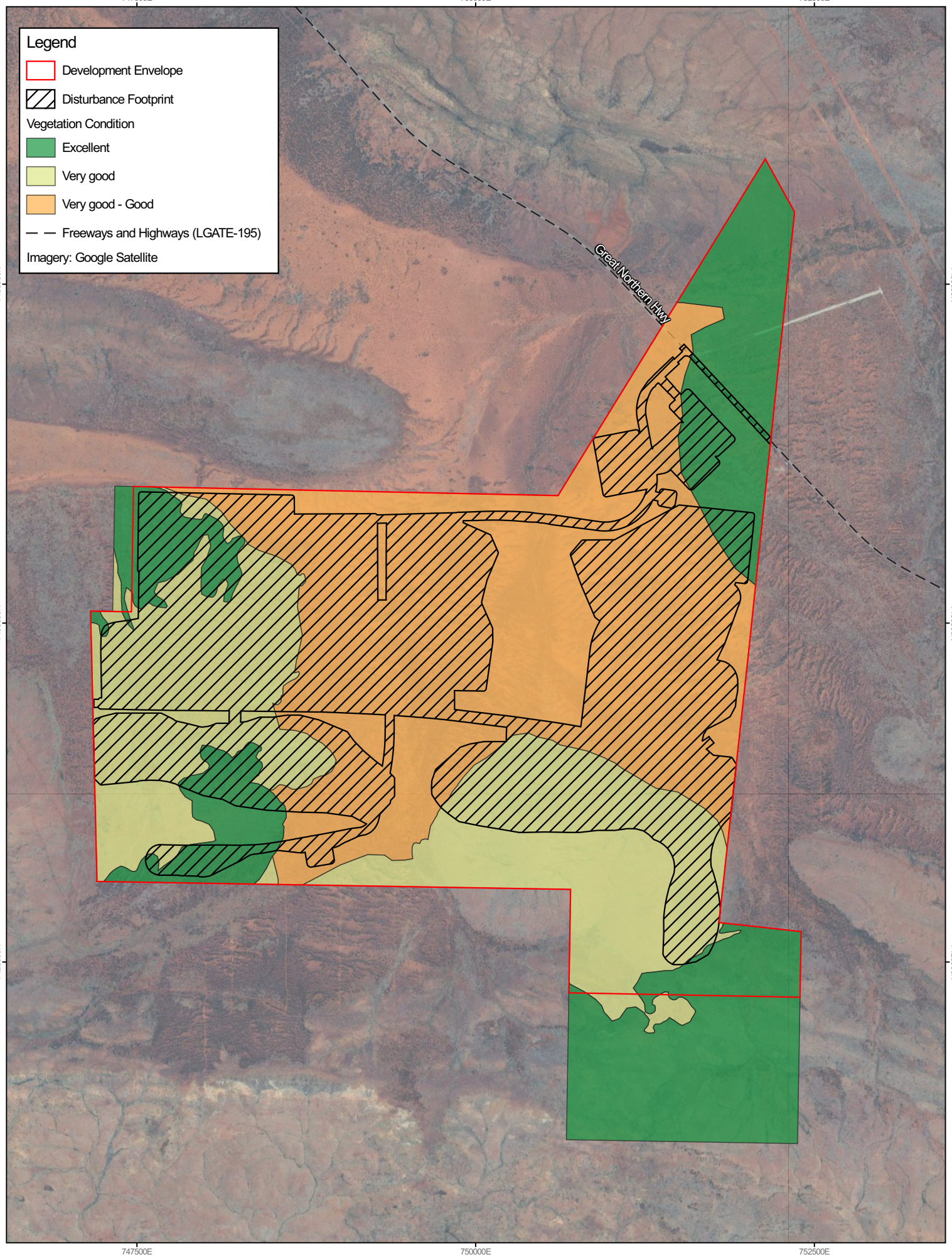

0 0.6 1.2 km

GDA2020 / MGA zone 50

1:35,000

N

Project: 0612_ROU_013
Date: 22/05/2026
Size: A4
Author: ASmithers

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Figure 3-11 Vegetation condition

3.3.2.5.5 Other Vegetation of Significance

Vegetation may be of significance for reasons other than a listing as a TEC or PEC. Factors include, but are not limited to, having a restricted distribution, historical impact from threatening processes, a role as a refuge for protected flora and fauna, or providing an important function required to maintain ecological integrity of a significant ecosystem (EPA, 2016c).

Local significance can be determined where a vegetation type is confined to a specialised habitat and/or landform that is not common in the local area, or the vegetation types are supporting conservation significant species or groundwater dependent species.

No taxa were recorded during the survey that indicates groundwater dependent vegetation.

Vegetation type A may be considered locally significant because it contains *Acacia aptaneura* (mulga) as the dominant upper storey species on stony plains and floodplains (Figure 3-10). This matches the broad description of 'Grove-intergrove Mulga Communities' which is listed by Kendrick as one of the "ecosystems at risk" in the Fortescue Plains subregion (PIL2) of the Pilbara IBRA region (Kendrick, 2001b). Vegetation type A, B and F have a slightly raised local importance due to the presence of priority taxa, as a dominant taxon in the vegetation structure (Figure 3-10):

- Vegetation types A and vegetation type B support *Rhagodia* sp. Hamersley (Priority 3); and
- Vegetation type F supports *Isotropis parviflora* (Priority 3).

However, these vegetation types are not considered regionally significant because *Isotropis parviflora* and *Rhagodia sp.* Hamersley (Priority 3) occur in a variety of habitats not just the vegetation types found on the Survey Area.

3.4 Proposed Mitigation

3.4.1 Avoid

HPPL engaged Rapallo (2024) to conduct a detailed and comprehensive flora and vegetation survey of the areas within and surrounding the DE and have utilised this information to conduct multiple mine planning and access road design revisions. This avoidance process resulted in the final boundaries of the DE and indicative DF presented in this ERD.

All known records of *Paranotis* sp. Pilbara (H. Ajduk HAOP04a) will be avoided.

Preventative controls will be implemented to avoid the spread of weeds, these will include (but are not limited to:

- Raise weed awareness through site notice boards, toolbox talks, and other forums;
- Inspect, clean and certify mobile machinery and equipment prior to being brought into the mine area;
- Utilise wash down locations; and

- Avoid driving off road; vehicles to remain on designated roads and tracks except for authorised activity specific instances (exploration or monitoring activities for example).

3.4.2 Minimise

1. Implement industry best practice management measures for flora and vegetation:
    a. Vegetation clearing will be managed through internal ground disturbance procedures;
    b. Boundaries of areas to be cleared or disturbed will be identified by GPS coordinates and maps of boundaries will be provided to the dozer operator to minimise clearing;
    c. The indicative DF will be developed to the minimum required to ensure safe and adequate construction and operation;
    d. Water or dust suppressants will be applied to disturbed areas, mining areas and product transfer/storage areas as required to minimise dust generation;
    e. Sealing of the major haulage road to the Great Northern Highway will minimise dust generation;
    f. Emergency and fire response capabilities will be maintained to respond to fire outbreaks where possible;
    g. Weed hygiene and management measures / procedures will be implemented to prevent spread and introduction of new weed species as a result of construction and operation;
2. Obtain and comply with the following approvals:
    a. NVCP or Ministerial Statement to be issued under Part IV of the EP Act;
    b. Works Approval(s) and Licence to be issued under Part V of the EP Act;
    c. MDCP to be approved under the Mining Act; and
    d. Groundwater Licence to be issued under the *Rights in Water and Irrigation Act 1914* (RIWI Act);
3. Ensure direct impacts to Priority Flora within the DE do not exceed those predicted in Section 3.4;
4. Implement the following measures to minimise the risk and impact of hydrocarbon spills:
    a. Hydrocarbons will be stored either within a bunded area or within self-bunded tanks;
    b. All spills will be controlled, contained, and cleaned up as soon as practicable;
    c. Service vehicles will be fitted with spill kits;
    d. Spill kits will be located at all workshop and fuel storage areas;
    e. Environmental incident recording, investigation, and reporting system;
5. Comply with Water Quality Protection Guidelines and guidance notes, particularly in relation to the storage and use of hydrocarbons and other harmful chemicals, the design and operation of vehicle maintenance areas and facilities, and the handling and storage of other waste materials, including contaminated soils.

3.4.3 Rehabilitate

A MDCP is currently being prepared for the Proposal. The MDCP describes the preliminary approach to the rehabilitation and closure of the Proposal, and associated management and monitoring proposed during the closure phase including:

- Materials balance for closure and rehabilitation demonstrating the quantities, availability, and management for all rehabilitation materials;
- Identified knowledge gaps to be filled prior to closure;
- Lists of closure tasks; and
- Completion criteria, monitoring, and reporting during closure.

The key rehabilitation measures from the MDCP that relate to flora and vegetation are summarised below:

1. All infrastructure will be removed;
2. Progressive recontouring will occur as mining advances;
3. The mine will be revegetated with local native species and/or crops;
4. All long-term disturbance areas will be respread with topsoil (or ripped and seeded if topsoil is no longer viable) and rehabilitated;
5. Weed control will be implemented in rehabilitated areas;
6. All earthmoving equipment will be cleaned free of any soil material to minimise the risk of weed introduction or spread;
7. Impacted Priority Flora will be included in the rehabilitation seed mix where viable; and
8. Where practicable, depressions attributable to mining operations will be contoured to reduce the likelihood of new semi-permanent water sources forming. A detailed Mine Closure Plan will be submitted to DMPE for assessment and approval in accordance with DMPE Guidelines (2025a; 2025b) and as required by the conditions of the Approvals Statement issued under the Mining Act.

3.5 Potential Environmental Impacts

The following sections assess the potential impacts on each environmental value identified in Section 3.3.2.

3.5.1 Identified Environmental Impacts

The following aspects have the potential to result in environmental impacts to all three environmental values identified in Section 3.3:

- Vegetation clearing resulting in a loss of general flora and vegetation, Priority Flora, and locally significant vegetation;
- Localised dust emissions, reducing the health of surrounding flora and vegetation;
- Introduction of weeds or feral fauna, resulting in the competition with and a reduction in health of surrounding flora and vegetation; and
- Alteration of local hydrology, resulting in changes in vegetation composition in affected areas.

The following potential impacts to flora and vegetation were considered to be appropriately managed using industry-standard controls and are not discussed further in this ERD:

- Altered fire regimes – as on-site fire control equipment is likely to be sufficient to ensure fires are controlled on-site; and
- Hydrocarbon spills - as only low volumes of hydrocarbons will be kept on site, and containment and clean up equipment will be available.

3.5.2 Predicted Environmental Impacts

Table 3-10 summarises the extent of the predicted direct and indirect impacts on flora and vegetation. Additional assessment information is provided in the following sections.

Table 3-10 Impacts on flora and vegetation

Flora / Vegetation / Feature	Regional extent	Extent in Survey Area	Extent in DE	Extent in Indicative DF	Extent of indirect impacts	Level of certainty	Direct and indirect impacts	Cumulative impacts (incl. other Proposals)
Regional Native Vegetation								
Extent within 10 km of DE	53,423 ha	N/A	1,703 ha	989 ha	Negligible	High – direct impacts are known, and indirect impacts are likely to be restricted to fringes of direct disturbance (included in direct impact calculations)	989 ha (1.85%)	~3,687 ha (7%)
Extent within 15 km of DE	102,575 ha						989 ha (0.96%)	~9,287 ha (9%)
Extent within 20 km of DE	167,441 ha						989 ha (0.59%)	~16,090 ha (10%)
Vegetation associations								
Hamersley 18	19,843,148	1,627 ha	1,477 ha	913 ha	Negligible	High – direct impacts are known, and indirect impacts are likely to be restricted to fringes of direct disturbance (included in direct impact calculations)	913 ha (0.005%)	~6,367 ha (0.03%)
Hamersley 82	2,553,206	470 ha	226 ha	75 ha			75 ha (0.003%)	~18,298 ha (0.7%)
Hamersley 175	524,640	0.03 ha	0.02 ha	0 ha			0 ha	N/A
Vegetation communities								
A	N/A	839 ha	838.7 ha (100%)	542.3 ha (64.6%)	Negligible	Some changes to the disturbance footprint may occur with	542.3 ha (64.6%)	N/A
B		507 ha	375.0 ha (74.0%)	211.0 ha (41.6%)			211.0 ha (41.6%)	N/A
C		200 ha	168.7 ha (83.8%)	99.9 ha (50%)			99.9 ha (50%)	N/A

Flora / Vegetation / Feature	Regional extent	Extent in Survey Area	Extent in DE	Extent in Indicative DF	Extent of indirect impacts	Level of certainty	Direct and indirect impacts	Cumulative impacts (incl. other Proposals)
D		9 ha	0 ha	0 ha		detailed design, which could change the amount of clearing within each community.	0 ha	N/A
E		15 ha	14.4 ha (96%)	1.4 ha (9.3%)			1.4 ha (9.3%)	N/A
F		315 ha	302.5 ha (96%)	134.0 ha (42.5%)			134.0 ha (42.5%)	N/A
G		212 ha	3.1 ha (1.5%)	0 ha			0 ha	N/A
Priority Flora								
Aristida jerichoensis var. *subspinulifera* (Priority 3)	~88 recorded location	1 recorded location (Rapallo, 2024) and 1 historical recorded location (2%)		0 recorded locations by Rapallo (2024) or in historic data.	None predicted	Some changes to the disturbance footprint may occur with detailed design, however limits are proposed for all species other than *Rhagodia* sp. Hamersley (Priority 3).	0 recorded locations by Rapallo (2024) or in historic data.	N/A
Indigofera gilesii (Priority 3)	~601 recorded locations	1 recorded location (Rapallo, 2024) and no historic records (0.2%).					1 recorded location by Rapallo (2024) and no historical records (0.2%).	3 recorded locations (0.5%)
Ipomoea racemigera (Priority 2)	~41 recorded locations	1 recorded location (Rapallo, 2024) and no historic records (2%).					1 recorded location by Rapallo (2024) and no historical records (2%).	1 recorded location (2%)
Isotropis parviflora (Priority 3)	~47 recorded locations	1 recorded location (Rapallo, 2024) and no historic records (2%).		0 recorded locations by Rapallo (2024) or in historic data.			0 recorded locations by Rapallo (2024) or in historic data.	N/A
Rhagodia sp. Hamersley (Priority 3)	~42,275 recorded locations	9 recorded locations (Rapallo, 2024) and 1 historical recorded location (0.02%).		6 recorded locations (Rapallo, 2024) and 1 historical recorded location (0.02%).			6 recorded locations (Rapallo, 2024) and 1 historical recorded location (0.02%).	87 recorded locations (0.2%)

Flora / Vegetation / Feature	Regional extent	Extent in Survey Area Extent in DE	Extent in Indicative DF	Extent of indirect impacts	Level of certainty	Direct and indirect impacts	Cumulative impacts (incl. other Proposals)
Paranotis sp. Pilbara (H. Ajduk HAOP04a)	~7 recorded locations	Not recorded by Rapallo (2024). 1 historical recorded location (14%).	0 recorded locations by Rapallo (2024) or in historic data.			0 recorded locations by Rapallo (2024) or in historic data.	N/A

3.5.2.1 Invasive Species

Invasive species include weeds, pest animals, and disease-causing organisms. Invasive species compete with flora and vegetation for resources, increase herbivory and severity of disease impacts, and alter the physical environment in ways that exclude native species or promote invasive species (EPA, 2016a).

This environmental value impact is relevant to the Proposal via the movement of machinery and equipment increasing the chances of new weed invasion to areas previously undisturbed or increasing the abundance of colonised weeds including *Bidens bipinnata, Malvastrum americanum, Cenchrus ciliaris* and *Portulaca oleracea* through human dispersal. None of the weeds present in the Proposal are considered WoNS (Centre for Invasive Species Solutions, 2021), or listed as declared pests, prohibited, or requiring a permit under the BAM Act, nor were any of them identified by DBCA as 'Priority Alerts' for the Pilbara region. Ongoing management will be implemented to ensure weeds are not introduced or spread.

Introduced species were recorded in fauna surveys within the survey areas including feral cats (Rapallo, 2025a). The Proposal has the potential to introduce additional species or increase the population of existing introduced species, through the following vectors:

- Landfill attracting predators to the area; or
- Food wastes at work areas.

Presence of additional cleared corridors that may be utilised by introduced fauna for access or predation.

The appropriate management and disposal of food wastes will ensure that food wastes do not attract fauna to the area. No pets will be brought to site.

With the implementation of controls potential introduced fauna impacts described above are expected to be able to be appropriately mitigated such that impacts to fauna are not significant on a local or regional scale.

3.5.2.2 Dust

The construction and operation of the Proposal will result in the generation of dust. There is the potential for deposited dust to affect the health of susceptible vegetation by adversely affecting photosynthesis and transpiration rates. Vegetation located close to roads, excavation areas, and other sources of dust are more likely to be affected.

HPPL will implement appropriate dust management strategies to minimise dust generation resulting from the Project (including approximately 0.91 GLpa of water abstraction for dust suppression). The proposed control measures should ensure that the effect of dust emissions on vegetation and flora is minimal.

Additionally, dust will be controlled in part under the 'prescribed premises' works approval and associated licence under Part V of the EP Act.

3.5.2.3 Altered Hydrology

An increase or decrease of groundwater level and alteration of surface water flow could indirectly affect flora in the surrounding region (EPA, 2016a).

Hydraulic modelling undertaken by Surface Water Solutions (2025) concluded that the Proposal has the potential to impact downstream surface water runoff. Mitigation measures are implemented in the Proposal design to reduce impacts to flow volumes and avoid excessive scour and sedimentation. These measures have allowed only minor reductions in water runoff volumes, with approximately 10 - 20% reduction at the Great Northern Highway crossing during a 10% Annual Recurrence Interval (ARI) rainfall event. This reduction is within natural annual ranges and unlikely to affect local vegetation (refer to Appendix 3 for more information).

Implementation of the Proposal water supply will lower groundwater levels locally (within the DE), however no groundwater dependent vegetation (Phreatophytes) was recorded in the DE and therefore this is not predicted to occur within the root zone of any groundwater dependent vegetation. There is therefore a low likelihood of the changes to groundwater levels having a significant impact on vegetation (Rapallo, 2024).

3.6 Assessment of Significance of Residual Impact

3.6.1 Regional Vegetation and Vegetation Associations

3.6.1.1 Proposal

As detailed in Table 3-10, the Proposal will result in very small reductions in both regional vegetation extent and vegetation associations. Impacts at a regional scale are therefore only relevant when assessed on a cumulative basis, as detailed in the following section.

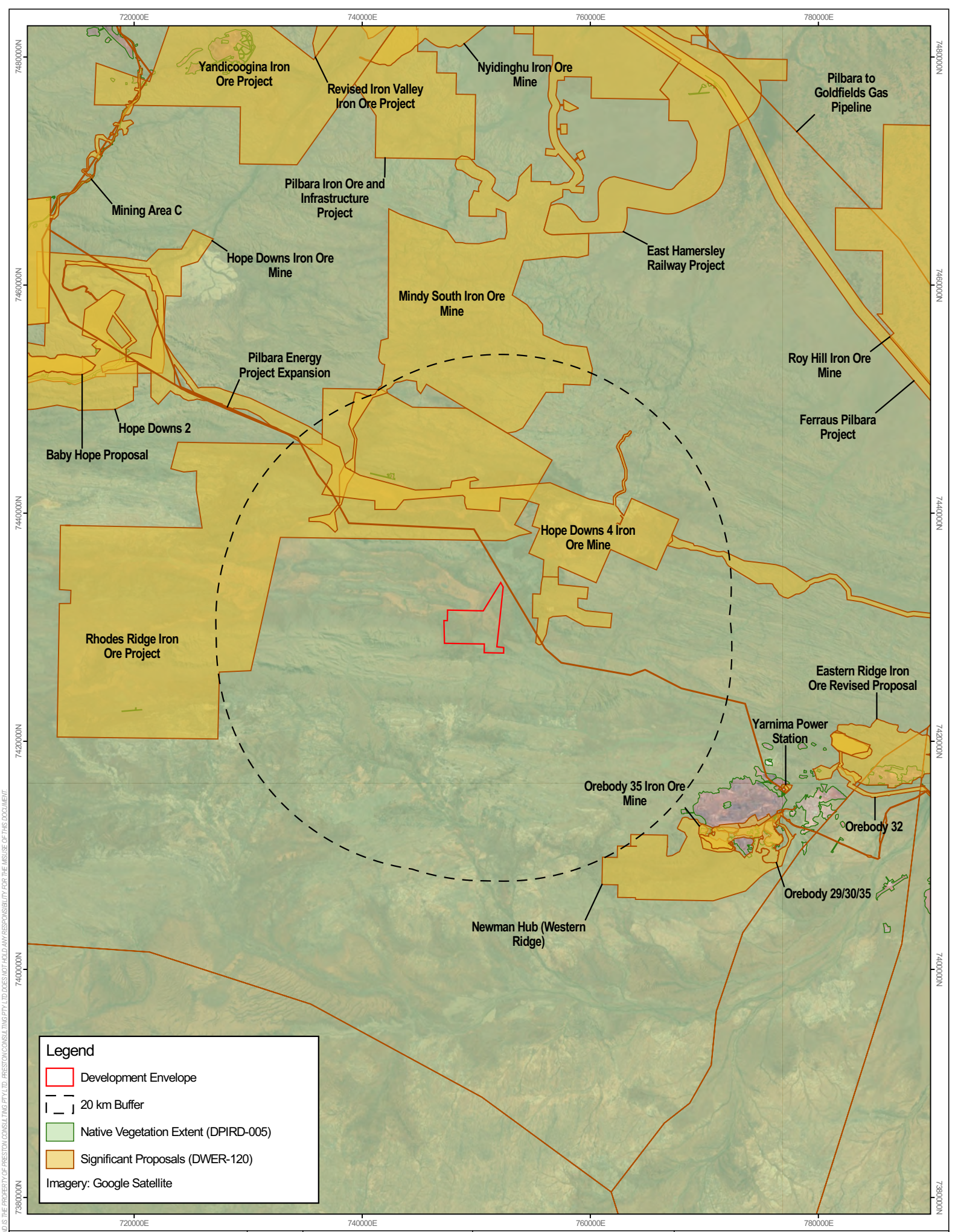
3.6.1.2 Cumulative Impacts

Cumulative impacts from proposals in the surrounding area are shown in Figure 3-12. Other large proposed and implemented Proposals within these distances include:

- Hope Downs 4 Iron Ore Mine;
- Mindy South Iron Ore Mine;
- Newman Hub (Western Ridge) Derived Proposal; and
- Rhodes Ridge Iron Ore Project.

With clearing from these projects considered, the cumulative impacts to native vegetation are estimated to be:

- 3,687 ha of the remaining native vegetation extent within 10 km of the Proposal (7%);
- 9,287 ha of the remaining vegetation extent within 15 km of the Proposal (9%); and
- 16,090 ha of the remaining vegetation extent within 20 km of the Proposal (10%).



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GDA2020 / MGA zone 50

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Project: 0612_ROU_020
Date: 15/12/2025
Size: A4
Author: ASmithers

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Figure 3-12 EPA referred significant proposals and remaining native vegetation

The Proposal falls within the Fortescue botanical district of the Eremaean botanical province, which is synonymous with the Pilbara IBRA region.

When assessing the disturbance associated with the Proposal at a regional scale, the Proposal's disturbance will occur within two vegetation associations; Hamersley 18 and Hamersley 82. It should be noted that vegetation association mapping is broadscale and will not always represent the actual vegetation on the ground.

The current extent of vegetation association Hamersley 18 at a State-wide, IBRA region and IBRA subregion level is outlined in Table 3-11. Up to 913 ha of this vegetation association intersects the DF. Projects in the vicinity of the Proposal which also intersect vegetation association Hamersley 18 are shown in Figure 3-13Figure . EPA significant proposals not considered in the current extent of vegetation association Hamersley 18 (disturbance may not have been accounted for as clearing had not occurred when data was updated in 2020) include:

- Approximately 12 ha of disturbance associated with the Mindy South Iron Ore Mine;
- 594.8 ha of disturbance associated with the Mining Area C - Southern Flank Significant Amendment;
- 0.2 ha of disturbance associated with the Orebody 29/30/35 Significant Amendment; and
- Approximately 4,847.1 ha of disturbance associated with the Rhodes Ridge Iron Ore Project.

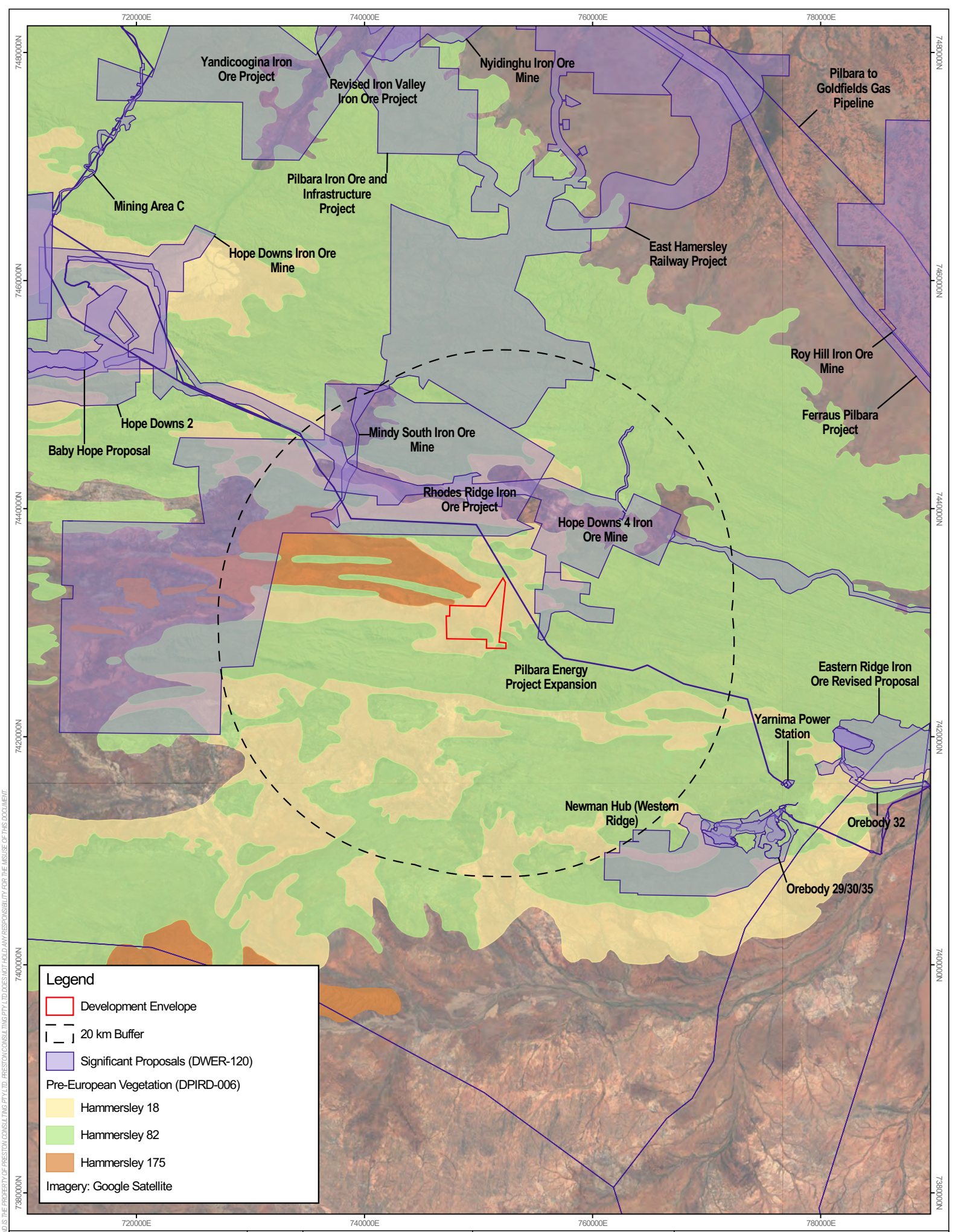
The current extent of vegetation association Hamersley 82 at a State-wide, IBRA region and IBRA subregion level is outlined in Table 3-11. Up to 75 ha of this vegetation association intersects the DF. Projects in the vicinity of the Proposal which also intersect vegetation association Hamersley 82 are shown in Figure 3-13. EPA significant proposals not considered in the current extent of vegetation association Hamersley 82 (disturbance may not have been accounted for as clearing had not occurred when data was updated in 2020) include:

- Approximately 228.3 ha of disturbance associated with the East Hamersley Railway Project;
- 94.7 ha of disturbance associated with the Marillana Creek (Yandi) Life of Mine Proposal - Significant Amendment;
- Approximately 8,939.6 ha of disturbance associated with the Mindy South Iron Ore Mine;
- 481.2 ha of disturbance associated with the Mining Area C - Southern Flank Significant Amendment;
- Approximately 73.6 ha of disturbance associated with the Nyidinghu Iron Ore Mine;
- 111.2 ha of disturbance associated with the Orebody 29/30/35 Significant Amendment;
- Approximately 6,256.0 ha of disturbance associated with the Rhodes Ridge Iron Ore Project; and
- Approximately 1,124.2 ha of disturbance associated with the Robe Valley Iron Ore Mine.

Table 3-11 Extent of vegetation associations

Vegetation Association	Pre-European (ha)	Current extent (ha) (% of Pre-European)	Current extent after Proposal (ha) (% of Pre-European)	Current extent after Proposal and other Projects (ha) (% of Pre-European)
Statewide				
Hamersley 18	19,892,306	19,843,148 (>99%)	19,842,235 (>99%)	19,836,781 (>99%)
Hamersley 82	2,565,901	2,553,206 (>99%)	2,553,131 (>99%)	2,535,822 (>98%)
IBRA Region – Pilbara				
Hamersley 18	676,557	671,843 (>99%)	670,930 (>99%)	19,836,781 (>99%)
Hamersley 82	2,563,583	2,550,888 (>99%)	2,550,813 (>99%)	2,535,822 (>98%)
IBRA Subregion – Hamersley				
Hamersley 18	581,246	576,542 (>99%)	575,629 (>99%)	19,836,781 (>99%)
Hamersley 82	2,177,574	2,165,224 (>99%)	2,165,149 (>99%)	2,535,822 (>98%)

As described above, the vegetation associations intersected by the Proposal will all have more than 98% of their original extent remaining and therefore clearing of these vegetation associations is not considered significant due to these cumulative impacts.



0 6 12 km

GDA2020 / MGA zone 50

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Project: 0612_ROU_021
Date: 22/05/2026
Size: A4
Author: ASmithers

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Figure 3-13: EPA referred significant proposals and remaining pre-European vegetation associations impacted by the Proposal

3.6.1.3 Summary

The Proposal will result in direct disturbance of approximately 989 ha of native vegetation, all of which is considered to be in Good to Excellent condition (no disturbance to Pristine vegetation). All of the vegetation associations that will be impacted will have more than 98% of their pre-European extent remaining (Table 3-11) after all current and planned projects are developed.

While this represents only a small proportion of the remaining vegetation association, it is noted that the Pilbara IBRA region has been identified by the EPA as being at risk of cumulative impacts.

Vegetation type A may be considered locally significant because it contains *Acacia aptaneura* (mulga) as the dominant upper storey species on stony plains and floodplains (Figure 3-10). This matches the broad description of 'Grove-intergrove Mulga Communities' which is listed by Kendrick as one of the "ecosystems at risk" in the Fortescue Plains subregion (PIL2) of the Pilbara IBRA region (Kendrick, 2001b).

An estimated 542.3 ha of vegetation type A (65% of area mapped within the Survey Area) is predicted to be disturbed by the Proposal. However, this vegetation type was the dominant vegetation type recorded in the Survey Area and is known to still be represented regionally (Rapallo, 2024). The loss of a small portion of this vegetation type is unlikely to be considered significant on a regional scale, however it is noted that the Pilbara IBRA region has been identified by the EPA as being at risk of cumulative impacts, which includes impacts to this vegetation type.

Vegetation type B and F were also considered locally significant due to the presence of priority flora as a dominant taxon in the vegetation structure. These vegetation types are assessed in the Priority Flora sections below.

3.6.2 Priority Flora

3.6.2.1 Proposal

Seven Priority flora species have been recorded within the DE, five of which were recorded by Rapallo (2024). Three species have been recorded historically within the DE.

The DE does not contain more than 2% of any Priority flora other than *Paranotis* sp. Pilbara (H. Ajduk HAOP04a, which was not recorded during the Rapallo (2024) survey. No individuals of this species will be impacted (Section 3.4.1).

3.6.2.1.1 *Aristida jerichoensis* var. *subspinulifera* (Priority 3)

Aristida jerichoensis var. *subspinulifera* (Priority 3) was identified from one location within vegetation type A during the Rapallo (2024) Survey and one location from historical records. This record is not predicted to be directly impacted by the Proposal (Figure 3-7). This species is not restricted to the DE and has previously been recorded from 88 different locations, with records ranging from Mulga Downs to Bandya (Figure 3-15).

Up to 838.7 ha of vegetation type A occurs within the DE, 542.3 ha of which is proposed to be cleared for the Proposal.

3.6.2.1.2 *Indigofera gilesii* (Priority 3)

Indigofera gilesii (Priority 3) was identified from one location within vegetation type F during the Rapallo (2024) Survey and has not been recorded historically. This species is not restricted to the DE and has previously been recorded from 48 (ALA, 2025) and 541 (DWER, 2025b) locations, with records ranging from Karijini to Papulanktja (Figure 3-15).

Up to 302.5 ha of vegetation type F occurs within the DE, 134.0 ha of which is proposed to be cleared for the Proposal.

3.6.2.1.3 *Ipomoea racemigera* (Priority 2)

Ipomoea racemigera (Priority 2) was identified from one location within vegetation type A during the Rapallo (2024) Survey and has not been recorded historically. This species is not restricted to the DE and has previously been recorded from up to 41 locations (ALA, 2025, DWER, 2025b), with records ranging from Millstream to Kununurra (Figure 3-15).

Up to 838.7 ha of vegetation type A occurs within the DE, 542.3 ha of which is proposed to be cleared for the Proposal.

3.6.2.1.4 *Isotropis parviflora* (Priority 3)

Isotropis parviflora (Priority 3) was identified from one location within vegetation type F during the Rapallo (2024) Survey and has not been recorded historically. This species is not restricted to the DE and has previously been recorded from 47 locations (ALA, 2025), with records ranging from Wittenoom to Kundat Djaru (Figure 3-15).

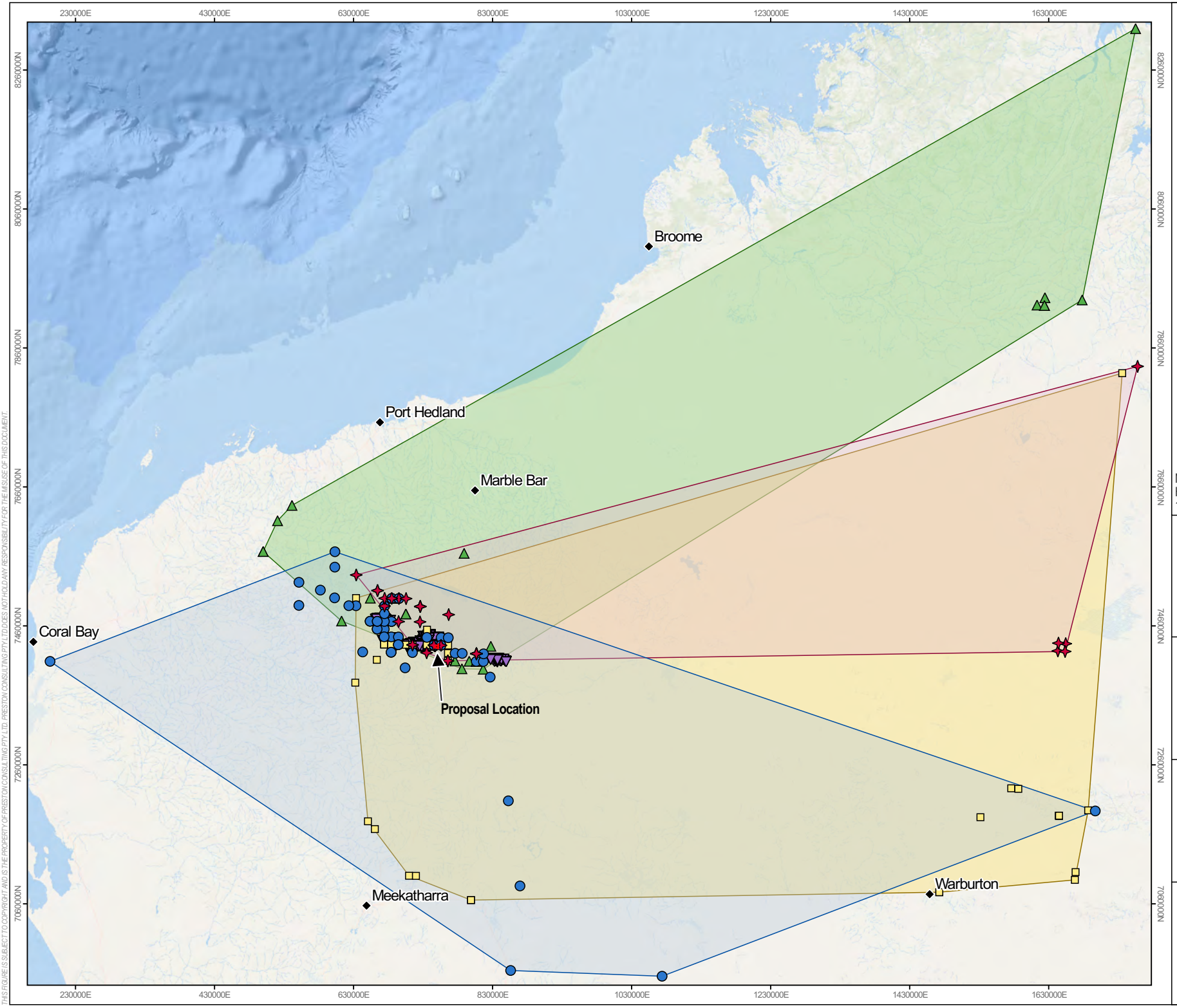
Up to 302.5 ha of vegetation type F occurs within the DE, 134.0 ha of which is proposed to be cleared for the Proposal.

3.6.2.1.5 *Rhagodia* sp. Hamersley (Priority 3)

Rhagodia sp. Hamersley *(Priority 3*) was identified from nine locations within vegetation type A, B, C, and F during the Rapallo (2024) Survey. This species has also been historically recorded at one location within the DE. This species is not restricted to the DE and has previously been recorded from 42,248 locations (Figure 3-15). These records have been sourced from IBSA submissions within 100 km of the Proposal, with a large portion of data sourced from the Rhodes Ridge Iron Ore Project (DWER, 2025b). FloraBase (WA Herbarium, 1998-) lists a total of 47 records of *Rhagodia sp.* Hamersley ranging in location from Tom Price to Jigalong (Figure 3-14).

Up to 838.7 ha of vegetation type A occurs within the DE, 542.3 ha of which is proposed to be cleared for the Proposal.

Figure 3-14 Rhagodia sp. Hamersley locations (WA Herbarium, 1998)



Legend

Regional Records

- *Aristida jerichoensis* var. *subspinulifera* (ALA)
- *Indigofera gilesii* (ALA & IBSA)
- *Ipomoea racemigera* (ALA & IBSA)
- *Isotropis parviflora* (ALA)
- *Rhagodia* sp. Hamersley (IBSA)

Estimated Area of Occurence

- *Aristida jerichoensis* var. *subspinulifera*
- *Indigofera gilesii*
- *Ipomoea racemigera*
- *Isotropis parviflora*
- WA Towns

Imagery: Google Satellite

Note: The estimated Area of Occurence for Rhagodia sp. Hamersley has not been included as only records within 100 km were retreived.

N

0 90 180 km

GDA2020 / MGA zone 50

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Project: 0612_ROU_016
Date: 22/05/2026
Size: A4
Author: ASmithers (Preston Consulting Pty Ltd

Figure 15: Regional records of Priority flora species

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3.6.2.2 Cumulative Impacts

HPPL also assessed the impacts of the Proposal against potential and existing cumulative clearing impacts to Priority Flora. There are three Priority Flora species which are predicted to be impacted by the Proposal (Rapallo (2024). This includes:

- *Indigofera gilesii* (Priority 3);
- *Ipomoea racemigera* (Priority 2); and
- *Rhagodia* sp. Hamersley (Priority 3).

A desktop search of EPA for these species identified four Projects and one clearing permit which may also impact the species, a summary has been provided in Table 3-12.

Table 3 10 lists the cumulative impacts to each species and shows that the percentage of impact is small relative to regional records.

Table 3-12 Projects that may impact priority species

Project	*Indigofera gilesii*	*Ipomoea racemigera*	*Rhagodia* sp. Hamersley
Newman Hub (Western Ridge) Derived Proposal	43 individuals (2 recorded locations)	0	0
CPS 9751/1	12 individuals (1 recorded location)	0	0
Hope Downs 2	0	0	56 recorded locations
Hope Downs 4	0	0	3 recorded locations
Christmas Creek Iron Ore Mine	0	0	21 recorded locations
This Proposal	1 recorded location (Rapallo, 2024)	1 recorded location (Rapallo, 2024)	6 recorded locations (Rapallo, 2024) 1 historical recorded location

3.7 Environmental Outcomes

The EPA's environmental objective for this factor is "to protect flora and vegetation so that biological diversity and ecological integrity are maintained". In the context of this objective: "ecological integrity" is listed as the composition, structure, function and processes of ecosystems, and the natural range of variation of these elements (EPA, 2016a).

HPPL has conducted detailed flora and vegetation surveys of the areas within and surrounding the DE.

HPPL has incorporated extensive avoidance and minimisation measures into the Proposal design and operational processes, however direct impacts to flora and vegetation are unavoidable. The Proposal will result in the clearing of up to 989 ha of native vegetation.

The clearing of native vegetation will occur within a largely uncleared landscape, with all clearing occurring within vegetation associations with more than 98% of their pre-European extent remaining.

Significant flora were recorded and there is the potential for small proportions of the total individuals of each species to be disturbed.

The predicted outcomes for Flora and Vegetation are therefore:

- Disturbance of no more than 989 ha native vegetation;
- No disturbance or adverse effects to any known records of *Paranotis* sp. Pilbara (H. Ajduk HAOP04a).

The above outcomes can all be assured by the conditions of a NVCP if the Proposal is not assessed under Part IV of the EP Act.

If assessment under Part IV of the EP Act is undertaken, then limits in the conditions of the Ministerial Statement that reflect the outcomes above would be appropriate.

An objective-based condition is considered to be appropriate for indirect impacts, for example:

> *"The proponent must ensure the implementation of the proposal achieves the following environmental objective:*
>
> *Avoid, and where unavoidable, minimise impacts to native vegetation, including priority flora, from dust emissions, or spread of environmental weeds, fire, altered hydrological regimes and contamination."*

An offset condition that would require payments under the PEOF would also be applied (discussed in Offset section (Section 6).

Based on the above, HPPL considers that the Proposal can be implemented such that there are no significant residual impacts to this factor, and the EPA objective can be met.

4 Terrestrial Fauna

4.1 EPA Environmental Factor and Objective

The EPA Objective for this Environmental Factor is to protect terrestrial fauna so that biological diversity and ecological integrity are maintained.

4.2 Relevant Policy and Guidance

Relevant EPA and Commonwealth Government guidance documents for terrestrial fauna are summarised in Table 4-1.

Table 4-1 Policy and guidance relevant to the Terrestrial Fauna Environmental Factor

Policy and Guidance	How guidance has been considered
WA Government	
Key EPA documents	
Statement of Environmental Principles, Factors, Objectives and Aims of EIA (EPA, 2023b)	This document was considered in the preparation of this ERD and to inform EIA. It was used identify the Environmental Factors likely to be impacted by the Proposal and the EPA's objective for each factor.
EIA (Part IV Divisions 1 and 2) Procedures Manual (EPA, 2024b)	This document has been considered in planning for the Part IV approval process and has been used to inform the preparation of this ERD.
EIA (Part IV Divisions 1 and 2) Administrative Procedures (EPA, 2024c)	This document has been considered in planning for the Part IV approval process and has been used to inform the preparation of this ERD.
Instructions on how to prepare an Environmental Review Document (EPA, 2025a)	This document has been considered in planning for the Part IV approval process and has been used to inform the preparation of this ERD.
EIA Practice Guide (EPA, 2025b)	This document has been considered in planning for the Part IV approval process and has been used to inform the preparation of this ERD.
Cumulative Impact Guide (EPA, 2026)	This document will be considered when released (expected to occur in early 2026), in the next version of this ERD.
Relevant EPA Factor Guidelines	
Environmental Factor Guideline – Terrestrial Fauna (EPA, 2016b)	This document was considered in the preparation of this section (Section 4) of the ERD.
Relevant EPA Technical Guidance	
Technical Guidance – Sampling methods for terrestrial vertebrate fauna (EPA, 2016d)	This document was used to inform the survey effort required to undertake EIA for the Proposal and is referenced throughout the terrestrial vertebrate fauna reports for the Proposal.
Technical Guidance – Terrestrial fauna surveys (EPA, 2020)	This document was used to inform the survey effort required to undertake EIA for the Proposal and is referenced throughout the terrestrial fauna reports for the Proposal.
Technical Guidance – Sampling of SRE invertebrate fauna (EPA, 2016e)	This document was used to inform the survey effort required to undertake EIA for the Proposal and is referenced throughout the SRE invertebrate fauna reports for the Proposal.

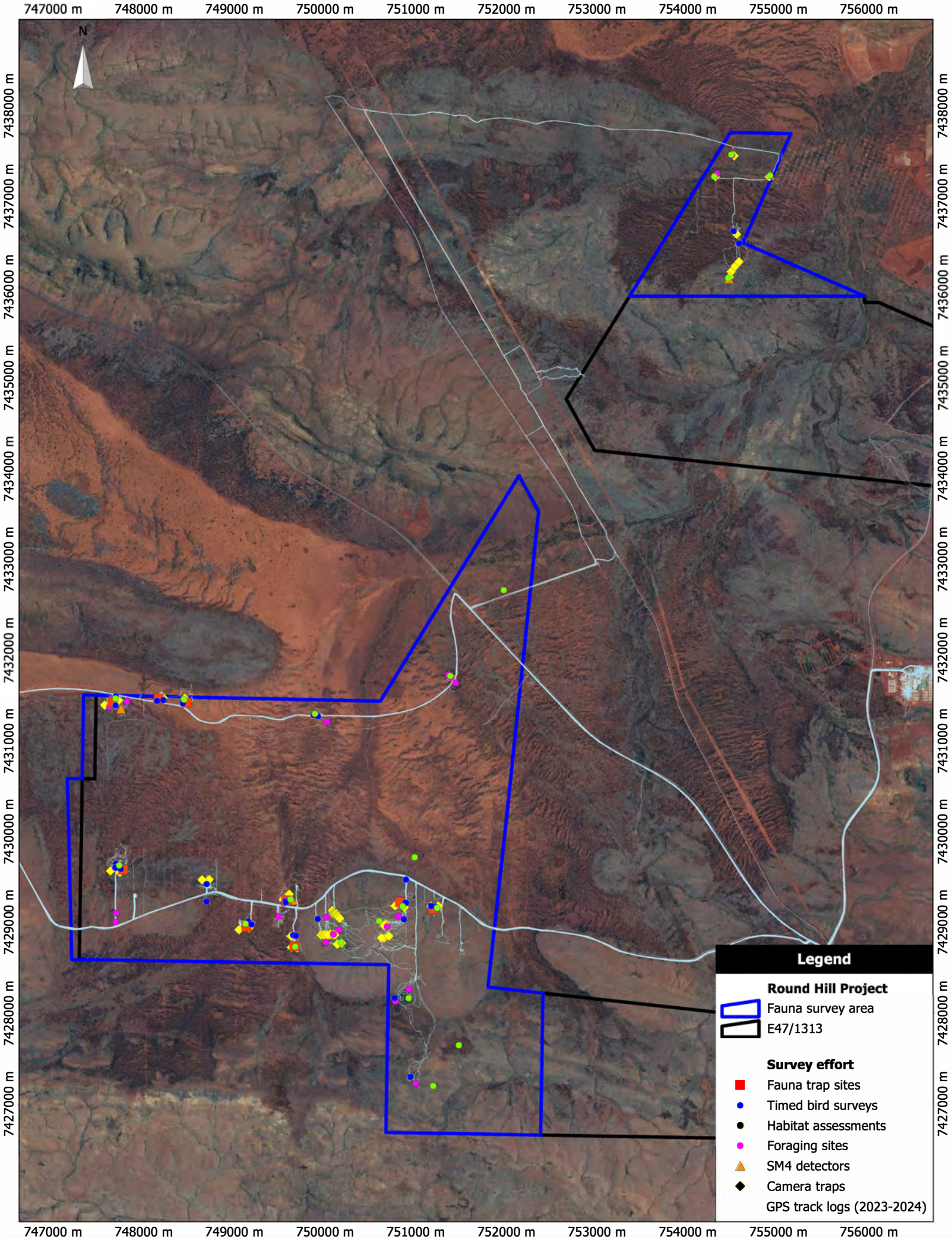
Policy and Guidance	How guidance has been considered
Other Policy and Guidance	
Guideline for preparing Mining Development and Closure Proposals (DMPE, 2025a)	This document has been considered in the design and planning of closure strategies for the Proposal, it has also been considered in the preparation of closure mitigation measures.
Commonwealth Government	
Key Documents	
Generic guidelines for the content of a draft EPBC Act PER/EIS (including the objects and principles of the EPBC Act, 1999) (DotEE, 2016a)	This document was considered in the preparation of this ERD and while undertaking EIA.
EPBC Act Environmental Offsets Policy (DSEWPaC, 2012a) – including the Offset Assessment guide	This document was considered when determining whether offsets were expected to be required for this factor (where applicable noting an accredited process is not being undertaken for this Proposal).
EPBC Act Condition Setting Policy (DAWE, 2020)	This document was used as guidance for the referral process and EIA of the Proposal (where applicable noting an accredited process is not being undertaken for this Proposal).
EPBC Act Outcomes-based conditions policy (DotE, 2016)	This document was used to assist in developing suitable outcomes for Terrestrial Fauna.
Relevant Technical Guidance	
Relevant EPBC Act listed species specific survey guidelines and protocols.	This document was used as guidance when undertaking surveys of EPBC listed species and potential survey limitations.
Relevant EPBC Act listed species specific Recovery plans, Threat Abatement Plans, ACA's, and other documents.	This document was used as guidance to assess and manage EPBC listed species that may be impacted by the Proposal.

4.3 Receiving Environment

4.3.1 Surveys and Studies

A detailed fauna survey and targeted surveys for Matters of National Environmental Significance (MNES) species were conducted by Rapallo (2025a, 2025b). The flora and vegetation Survey Area detailed in Section 3.3.1 is analogous with the Survey Area utilised for the Rapallo (2025a, 2025b) fauna surveys. The track logs and trap locations have been provided in Figure 4-1.

Bennelongia Environmental Consultants (Bennelongia; 2025) was commissioned by HPPL to complete a SRE survey for the Proposal (Figure 4-2). The SRE survey was implemented to assess if the DE contained invertebrate species with a restricted habitat range. The SRE Survey Area is shown in Figure 4-2.



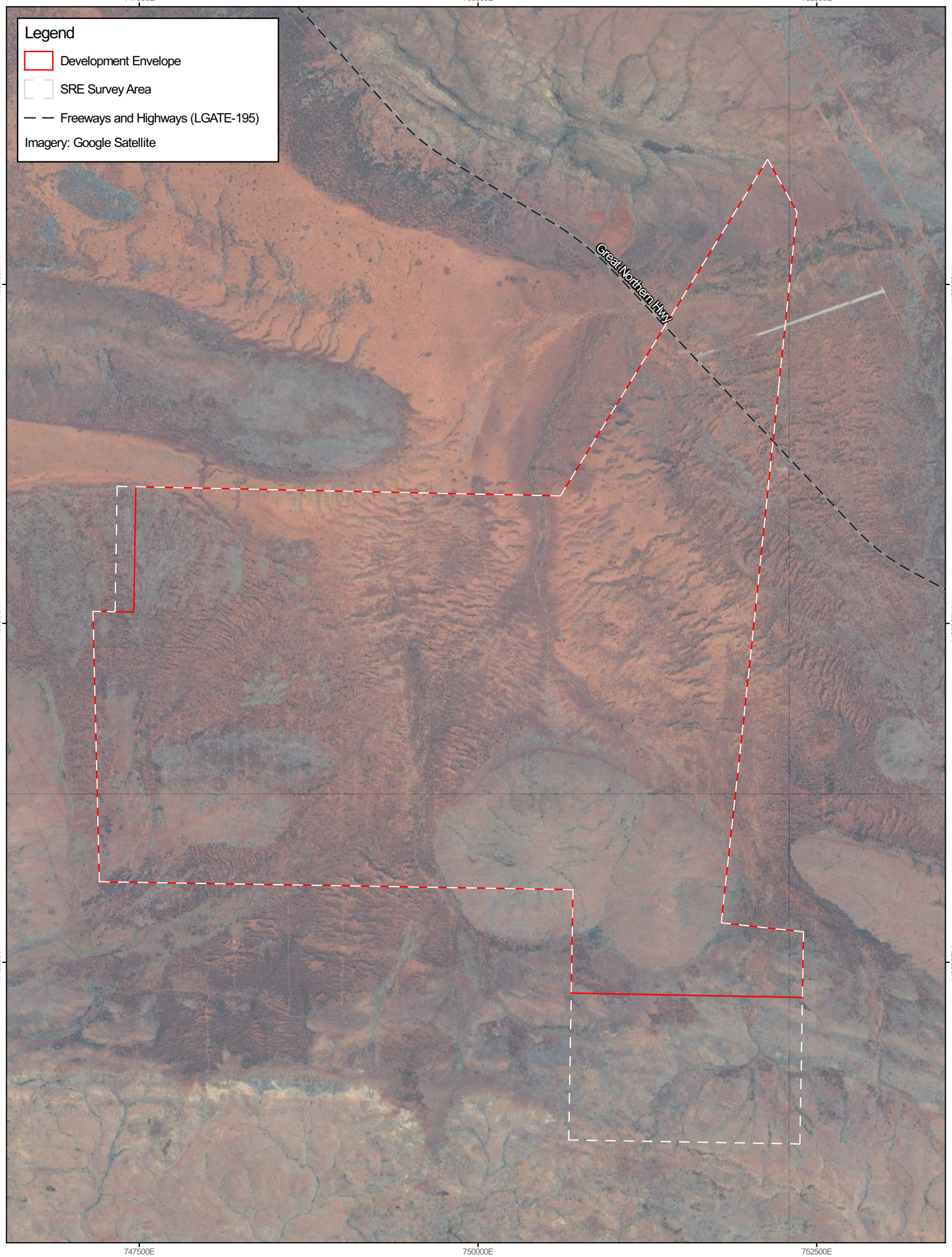
Rapallo environmental

Hanroy / Hancock Prospecting
Round Hill
Detailed vertebrate fauna survey
(August 2023, May 2024)

Original Size: A4
Scale: 1:50,000
Datum: MGA94 Zone 50

0 1.5 km

Figure 4-1: Fauna Survey Area and survey locations



0 0.6 1.2 km

GDA2020 / MGA zone 50

1:35,000

N

Project: 0612_ROU_024
Date: 22/05/2026
Size: A4
Author: ASmithers

HANCOCK PROSPECTING

Preston Consulting

Figure 4-2: SRE Survey Area

4.3.1.1 Desktop Assessment

4.3.1.1.1 Vertebrate Fauna

Terrestrial fauna desktop assessments were split into two stages. The first stage included a review of available database information and literature relevant to the Survey Area to compile a list of potential significant fauna taxa and ecological communities which may occur in the Survey Area. The second stage involved an assessment of the likelihood of occurrence amongst the significant fauna identified in the first desktop stage based on field survey data.

Database information and literature used to develop the species list include:

- DBCA's Threatened and Priority Fauna;
- DBCA's threatened and Priority Ecological Communities;
- EPBC Act Protected Matters Search Tool;
- Atlas of Living Australia;
- IBSA data; and
- Previous studies and scientific literature.

Additional fauna surveys completed near the Proposal were utilised to help compile the fauna lists. These included surveys conducted for:

- Nyidinghu Iron Ore Project;
- Jinidi Iron Ore Project;
- Roy Hill Iron Ore Project
- BHP Central Pilbara Hub;
- OB32 BWT Project;
- Western Ridge Pipeline;
- Hope Downs 2 Project;
- Hope downs 4 Iron Ore Project;
- Greater West Angelas Extension; and
- Yandicoogina Expansion.

4.3.1.1.2 Short-range Endemic Fauna

A database and literature review was undertaken to identify species from SRE Groups known from the region. The SRE desktop assessment (Bennelongia, 2025) combined three sources of information using GIS mapping:

- Boundary information and description of Project activity supplied by HPPL;
- Boundaries of TECs and PECs provided by DBCA and DMPE; and
- Records of SRE occurrence within a vicinity of the Proposal sourced from WA Museum, Bennelongia, ALA, Australian Faunal Directory, and relevant literature.

4.3.1.2 Field Surveys

4.3.1.2.1 Vertebrate Fauna

A two-season detailed terrestrial vertebrate fauna survey (Rapallo, 2025a) was completed across the Survey Area. The first field season occurred from 23 August to 7 September 2023, and the second season occurred from 24 April to 6 May 2024. The purpose of the field surveys was to put the desktop study into context, as well as allowing for the identification of fauna habitats and likely fauna assemblages of the site.

A targeted survey was completed by a team of four ecologists from 3 - 14 September 2024 on the Proposal tenements (Rapallo, 2025b). The targeted survey was designed to provide additional data on potentially occurring significant species such as the Northern Quoll (*Dasyurus hallucatus*), Greater Bilby (*Macrotis lagotis*), Pilbara Olive Python (*Liasis olivaceus barroni*), and Night Parrot (*Pezoporus occidentalis*); key threatened species known to occur in the region. Other MNES species, including the Pilbara Leaf-nosed Bat (*Rhinonicteris aurantia* – Pilbara form) and Ghost Bat (*Macroderma gigas*), were also surveyed for where relevant.

Key activities that occurred during the detailed surveys were:

- Install traps, including;
  - Pitfall traps;
  - Funnel traps;
  - Elliot traps; and
  - Camera traps.
- Ultrasonic detectors;
- Acoustic detectors;
- Opportunistic observations;
- Systematic bird census;
- eDNA testing; and
- Spotlighting.

4.3.1.2.2 Short-range Endemic Fauna

Bennelongia was commissioned by HPPL to conduct SRE faunal surveys for the Proposal. Two targeted SRE surveys were conducted across 9 - 15 March and 30 October - 5 November 2024 covering 22 sites (Figure 4-2). Two sampling techniques were utilised including hand foraging and dry pitfall trapping (Rapallo, 2025b).

The specific aims of the surveys were to:

- Characterise SRE invertebrates in the SRE Survey Area;
- Collect species from representative habitat types;
- Provide further information on the potential SRE habitats of the SRE Survey Area and its surrounds; and

- Assess the SRE status of species and the likelihood of their confinement to disturbance areas at the Proposal.

The survey was designed to target species from invertebrate groups known to have a high proportion of range-restricted species: mygalomorph spiders (Mygalomorphae), harvestmen (Opiliones), centipedes (Chilopoda), millipedes (Diplopoda), land snails (Gastropoda), scorpions (Scorpiones) pseudoscorpions (Pseudoscorpiones), and slaters (Isopoda).

The 22 survey sites were divided as: six habitat characterisation sites, eight forage sites, and eight trapping sites. Two sampling techniques were used: hand foraging and dry pitfall trapping. Sampling techniques followed published guidelines (EPA, 2016e). Hand foraging consisted of actively searching for taxa belonging to SRE Groups in their preferred habitats, making basic assumptions about the target species' (or Group's) biology.

Hand foraging techniques included:

- Rock flipping;
- Log flipping and raking;
- Leaf litter sieving;
- Leaf blowing;
- Bark peeling and tree digging; and
- Night searching.

4.3.1.3 Alignment with Technical Guidance

4.3.1.3.1 Vertebrate Fauna

In accordance with EPA (2020) technical guidance, an assessment of the limitations of the survey is presented in Table 4-2.

Table 4-2 Limitations of the terrestrial fauna survey (Rapallo, 2025a)

Aspect	Discussion
Scope and intensity	**Not a limitation:** Scope and intensity of the survey were suitable to achieve the aims of a level 2 fauna survey as outlined in EPA (2020).
Availability of contextual information at a regional and local scale	**Not a limitation:** Suitable database results and information were available to complete a desktop study for the survey.
Competency/experience of the team carrying out the survey, including experience in bioregion surveyed	**Not a limitation**: All members of the survey team have experience in conducting fauna surveys in arid WA.
Proportion of fauna recorded and/or collected, any identification issues	**Not a limitation:** All observed vertebrate fauna was identified at the point of observation during the field surveys. All recorded bat calls were analysed, and species identified by an external expert. The survey recorded 171 species of vertebrate fauna, including 83 bird species, 26 mammal species, 60 reptile species, and two frog species. The species accumulation curves for trappable fauna and birds indicated that additional trapping effort is unlikely to detect further species within project Survey Area.

Aspect	Discussion
Was the appropriate area fully surveyed (effort and extent)	**Not a limitation:** The Survey Area was covered via 4WD or by foot which enabled access to all areas. The survey was completed as a dual season detailed vertebrate fauna survey. While establishing trap sites in the first season, Rapallo field staff were informed that trap sites could not be placed or spread as originally intended and could only be established within certain boundaries. This has resulted in a heavier trapping effort in the southern section of the southern Survey Area as shown on the survey effort maps, but all fauna habitat types were trapped. Due to client restrictions, head torching/spotlighting activities for nocturnal fauna could not be completed during the second survey period, although an extensive amount of spotlighting was completed during the first survey period. It should be noted that the targeted fauna survey (Rapallo, 2025b) included head torching/spotlighting activities within the same Survey Area.
Access restrictions within the Survey Area	**Not a limitation:** All Survey Areas were accessible by car or by foot.
Survey timing, rainfall, season of survey	**Not a limitation:** No limitations regarding survey timing, rainfall, or survey seasons.
Disturbances that may have affected the results of the survey (e.g., fire, flooding, clearing)	**Not a limitation:** No disturbances have affected the results of the survey.

4.3.1.3.2 Targeted Fauna and MNES Species

In accordance with EPA (2020) Technical Guidance, an assessment of potential survey limitations is presented in Table 4-3.

Table 4-3 Limitations of the targeted fauna and MNES species survey (Rapallo, 2025b)

EPA limitation	Comment
Competency/experience of the survey team	**Not a limitation:** The principal environmental scientist on the survey has over twenty years' experience completing biological surveys in WA. The ecologists on the survey have over 6 years combined experience completing fauna surveys in WA. R. Bullen, a recognised bat expert, conducted the analysis of ultrasonic recordings.
Scope (fauna groups sampled, and constraints on which sampling methods could be used)	**Not a limitation:** The scope of the work was a targeted fauna survey and desktop review focussing on fauna species and their habitats listed under the EPBC Act (MNES fauna) which may occur in the Survey Area. Appropriate sampling methods to detect and assess these species were deployed across the Survey Area.
Proportion of fauna identified, recorded, and/or collected	**Not a limitation:** All potential conservation significant fauna species detected during the field survey were identified to species level. The survey focussed on MNES listed species, while any other fauna encountered were recorded opportunistically and are not part of the scope of works.
Sources of information (historic or recent data) and availability of contextual information on the region	**Not a limitation**: Sufficient information was available to place the Survey Area in a regional context. In addition to this, Rapallo had also completed a detailed fauna survey within the same Survey Area which provided site specific contextual information (Rapallo, 2025a).
Proportion of the task achieved and whether further work might be needed	**Not a limitation:** The Survey Area was adequately assessed. All proposed survey activities defined in the scope of works were completed and all areas of potential habitat for the target MNES species were visited.
Survey timing, rainfall, season of survey	**Not a limitation:** The survey was completed over a single period in September 2024 which comprised the time when Northern Quoll are breeding and when Pilbara Olive Python begin to be more active. Ghost Bats also begin to congregate at maternal breeding roosts.

EPA limitation	Comment
Disturbances that may have affected the results of the survey (e.g. fire, flooding, clearing)	**Not a limitation:** There were no disturbances that may have impacted either survey intensity or coverage.
Intensity of the survey	**Not a limitation:** The intensity of the survey was appropriate to meet the survey objectives.
Resources (degree of expertise available)	**Not a limitation:** Sufficient resources were available to complete the field survey, provide taxonomic identification, and analyse and interpret the data.
Remoteness and/or access problems	**Not a limitation:** There were no access problems. The Survey Area was readily accessible via 4WD vehicle and on foot.

4.3.1.3.3 Short-Range Endemic Species

Many SRE Groups are active and therefore likely to be collected during and immediately following substantial rainfall; rainfall was recorded five consecutive days before the field survey by the Newman Aero weather station. A total of 102 mm of rain was recorded for March 2024, and 8.2 mm was recorded for October 2024 (BoM, 2025). A total of 94.6 mm of rain was recorded the week before Round 1, with 9.4 mm of rain during Round 1. Only 3.2 mm of rain was recorded the week previous to Round 2, and no rain was recorded during Round 2 (BoM, 2025). This suggests adequate representation of wet (Round 1) and dry (Round 2) seasons within the SRE Survey Area.

Noticeable vegetation clearing (for exploration) occurred at the survey sites between Round 1 and Round 2 of the SRE survey. Although a reduction in sample yield was expected in Round 2 as it represents the dry season, vegetation clearing also potentially influenced this.

4.3.2 Existing Environment

4.3.2.1 Fauna Habitat

4.3.2.1.1 General Fauna Habitat

Six broad terrestrial fauna habitats including cleared land were recorded during the Rapallo (2025a) survey which extended a total of 2,115.07 ha. These habitats were classified and identified based on topography, landforms, broad vegetation, soil type, and surface substrate. These habitat classifications are also supported by data collected from a detailed flora and vegetation survey (Rapallo, 2024) that occurred during dates close to the detailed fauna surveys. The broad fauna habitats recorded on the Survey Area were representative of the region, based on biogeography and regional vegetation descriptions. Based on topographical mapping and aerial photography, the habitats appeared to extend outside of the Survey Area.

Broad terrestrial fauna habitat types include:

- Spinifex stony plains and rises;
- Mulga woodlands;
- Tussock grassland;
- Rocky hill;
- Drainage; and
- Cleared/heavily disturbed.

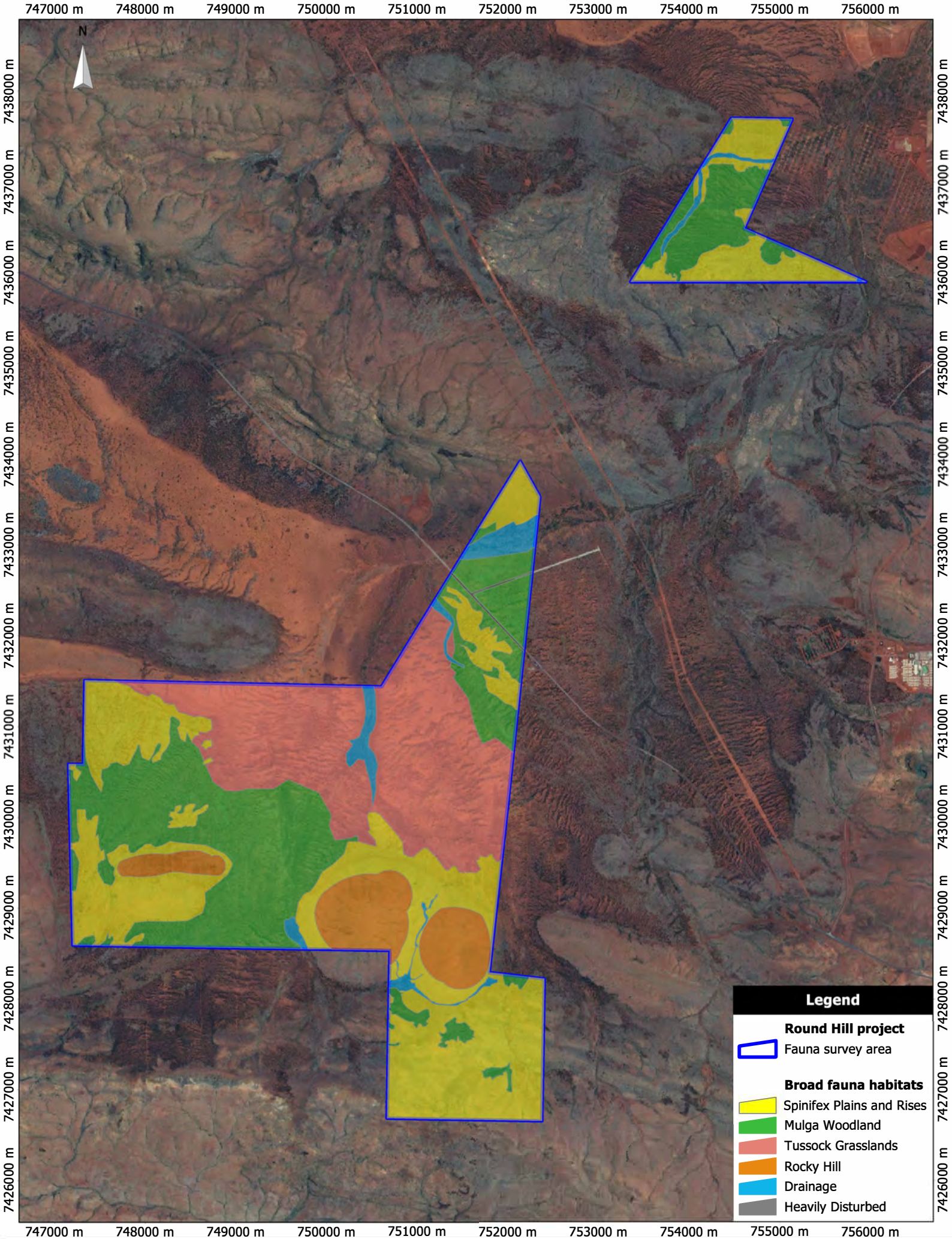
The three most dominant fauna habitats within the Survey Area consists of spinifex plains and rises habitat (728.4 ha), followed by mulga woodlands (605.1 ha) and tussock grasslands (528.6 ha).

No caves or permanent waterbodies were identified within the Survey Area, although these habitat features, which may be of interest for significant species, were opportunistically observed elsewhere in the surrounding area.

The broad fauna habitats are described in Table 4-4 and shown in Figure 4-3.

Table 4-4 Broad fauna habitat within the Survey Area

Fauna Habitat	Key Habitat Elements	Extent in Survey Area (ha)	Extent in DE (ha)
Spinifex stony plains and rises	Spinifex stony flat to gently undulating plains and rises typically consists of low open woodland and/or open shrublands over a spinifex dominated hummock grass land with a soil surface cover of rock over sandy/loam soils. Appears to extend outside of the Survey Area.	728.4	447.1
Mulga woodlands	Mulga, and/or allied Acacia species dominate with grasses present in typically low quantities at the ground layer of vegetation and vary between hummock forming spinifex and tussock grasses. The topography of this habitat type is often flat to gently undulating, with clay-based soils and patches of sandy loam with patchily distributed surface pebbles. Appears to extend outside of this area.	605.1	502.4
Tussock grassland	Dominated by tussock grasses, over flat plains with occasional spinifex hummocks. Upper layers of vegetation predominantly consist of sparse mulga or small patches of occasional shrubs. The substrate is typically a hard clay-based soil, with few to no surface stones present. Appears to extend outside of the Survey Area.	548.6	529.0
Rocky hill	Hill landforms often dominated by spinifex, with sparse to open eucalyptus woodland and sparse shrubs. Contains minor rocky drainage gullies along the slope of the hill landforms, which contain mixed shrubs. Surface substrate typically consists of stones varying in size from gravel to boulder sized or larger rocks. Extends outside of Survey Area.	163.3	163.4
Drainage	Vegetation and substrates of this habitat are variable, but most often consisted of more clay-based soils and dense vegetation comprising of Acacias or Mulga, with an understory dominated by tussock grasses and/or mixed shrubs. The Survey Area did not contain major drainages, such as rivers. Extends outside of the Survey Area.	66.37	57.3
Cleared/heavily disturbed	Heavy clearing and infrastructure e.g. bituminised roads. Extends outside of Survey Area.	3.3	3.3



Rapallo environmental

Hanroy / Hancock Prospecting
Round Hill
Detailed vertebrate fauna survey
(August 2023, May 2024)

Original Size: A4
Scale: 1:50,000
Datum: MGA94 Zone 50

0 1.5 km

Figure 4-3: Terrestrial fauna habitat

4.3.2.1.2 Short-Range Endemic Invertebrate Habitat

Rapallo (2025a) identified six fauna habitats within the Proposal, four of which are prospective for species from SRE groups (Figure 4-4). The two habitats considered to have low prospectivity for species from SRE groups were Tussock grasslands and Disturbed areas. Tussock grasslands often have limited availability of microhabitats that can serve as refuge for SRE species and often also lack substrate heterogeneity that fosters isolation and restricted dispersal, resulting in low suitability for occurrence of SRE species. Bennelongia (2025) concluded that the Proposal will not significantly impact SRE group species or any of the identified SRE habitats at a regional scale. All habitats within the Proposal are widespread and not restricted or isolated to the area.

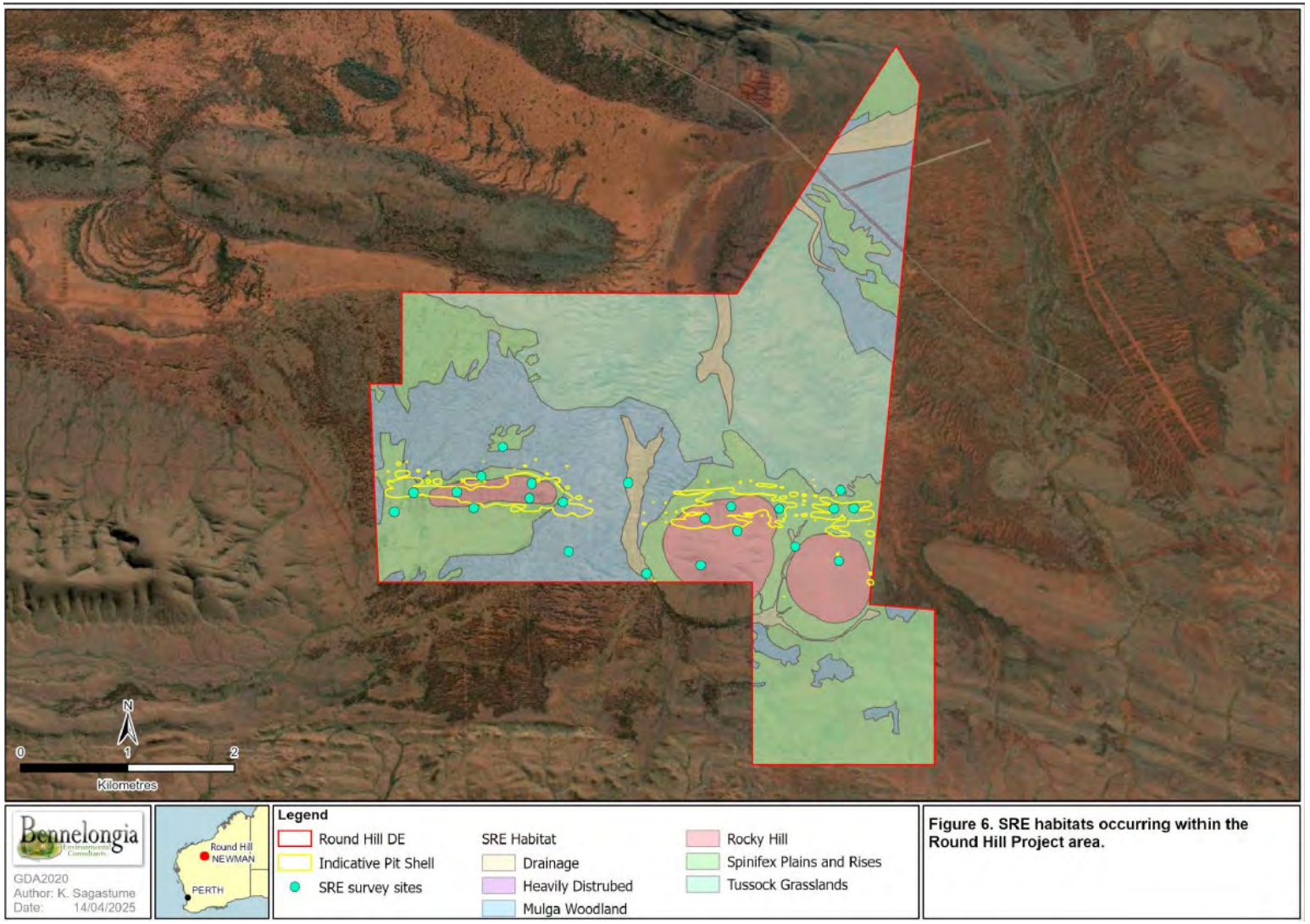


Figure 4-4 SRE fauna habitat

4.3.2.2 General Fauna Species

The desktop study identified 390 species of vertebrate fauna which had been recorded previously within 50 km of the Survey Area. These comprised 216 bird species, 44 mammals, 121 reptiles, 5 species of amphibians and 4 species of fish. The full desktop fauna list is presented in Appendix 5.2.

During field surveys a total of 171 vertebrate species were detected across both survey seasons, including 83 bird species, 26 mammal species, 60 reptile species, and two amphibians which are representative of fauna of the Eremaean bioregion.

4.3.2.3 Significant Fauna

Rapallo's (2025a, b) desktop review found records of 39 species listed as significant and/or migratory species under EPBC Act and/or BC Act (or listed by DBCA) whose range and distribution overlap with the Survey Area. Of these, 19 significant fauna species had a likelihood of possible or above and are listed in Table 4-5. The remaining 20 significant fauna species were considered unlikely (15 species) or highly unlikely (five species), based on a lack of suitable habitat in the Survey Area and/or a lack of nearby contemporary records.

Table 4-5 Significant fauna potentially occurring within the Survey Area

Species	Conservation listing		Likelihood of occurrence
	EPBC Act	BC Act/DBCA	
Brush Tailed Mulgura (*Dasycercus blythi*)		P4	Possible
Common Sandpiper (*Actitis hypoleucos*)	MI	MI	Possible
Fork-tailed Swift (Pacific swift) (*Apus pacificus*)	MI	MI	Possible
Gane's Blind Snake (Pilbara) (*Anilios ganei*)		P1	Confirmed
Ghost Bat (*Macroderma gigas*)	VU	VU	Likely
Glossy Ibis (*Plegadis falcinellus*)	MI	MI	Possible
Grey Falcon (*Falco hypoleucos*)	VU		Likely
Long-tailed Dunnart (*Antechinomys longicaudatus*)		P4	Confirmed
Northern Quoll (*Dasyurus hallucatus*)	EN	EN	Possible
Pectoral Sandpiper (*Calidris melanotos*)	MI	MI	Possible
Peregrine Falcon (*Falco peregrinus*)		OS	Possible
Pilbara Leaf-nosed Bat (*Rhinonicteris aurantia*)	VU	VU	Possible
Pilbara Olive Python (*Liasis olivaceus barroni*)	VU	VU	Confirmed
Princess Parrot (Alexandra's parrot) (*Polytelis alexandrae*)	VU	P4	Possible
Sharp-tailed Sandpiper (*Calidris acuminata*)	VU & MI	MI	Possible
Southern Whiteface (*Aphelocephala leucopsis*)	VU		Possible
Unpatterned Robust Slider (*Lerista macropisthopus remota*)		P2	Possible
Western Pebble-mound Mouse (*Pseudomys chapmani*)		P4	Confirmed
Wood Sandpiper (*Tringa glareola*)	MI	MI	Possible

Rapallo's (2025a) field survey identified three significant fauna species within the Survey Area, and a fourth species was recorded during a targeted fauna survey (Rapallo, 2025b; Figure 3-6):

- Gane's Blind Snake (Pilbara) (*Anilios ganei*; P1 - DBCA);
- Long-tailed Dunnart (*Antechinomys longicaudatus*; P4 - DBCA);
- Pilbara Olive Python (*Liasis olivaceus barroni*; VU – BC and EPBC Act) (secondary evidence only); and
- Western Pebble-mound Mouse (*Pseudomys chapmani*; P4 - DBCA).

4.3.2.3.1 Gane's Blind Snake (Pilbara) (Anilios ganei; Priority 1)

Endemic to the Pilbara, the species has a disjunct distribution, with their exact range unknown. Gane's Blind Snake has been recorded from numerous habitats but is most likely to be present in rocky terrain and along drainage lines (Biologic Environmental, 2020). Blind snakes of the *Anilios* genus are known to consume ants and termites at varying life stages as their sole food source and will be found wherever they are plentiful (Australian Museum, 2025).

Gane's Blind Snake was originally listed because it was known from only a few scattered records. The species has been recorded from five locations within the Mining Area C Project, including an open drainage line (ENV Australia, 2007), rocky slope below the vertical wall of a gully, and from mulga woodland habitat (Biologic Environmental, 2011). A survey at Mulga East (Ecologia Environment, 2021) recorded the species from mulga woodland and stony plain habitats. Rapallo (2024) has also recorded two individuals of this species at the Bell Tenements (E45/1073 and E45/1074), approximately 100 km Northwest of the Survey Area, at a trap site located within a major drainage habitat in March 2023. Little is known of the ecology of Gane's Blind Snake, but this species is often associated with moist soils and leaf litter within gorges and gullies (Wilson & Swan, 2017) and potentially within a wide range of other stony habitats.

The rocky hill habitat comprised of 7.8% of the Survey Area and drainage consisting of 3.2% of the Survey Area were identified as suitable habitat that may be utilised by the Gane's Blind Snake for foraging and shelter.

The Targeted Fauna Survey undertaken in 2024 (Rapallo, 2025b) identified the Gane's Blind Snake while spotlighting in a rocky drainage gully containing spinifex and leaf litter (Figure 3-6).

4.3.2.3.2 Long-tailed Dunnart (*Antechinomys longicaudata*; Priority 4)

The Long-tailed Dunnart is patchily distributed through the Pilbara, northeastern Goldfields, and Gibson desert, south to the Nullarbor Plain, to central Northern Territory and western South Australia. Its core habitat includes rocky scree slopes with hummock grass and shrubs, and tall open Acacia shrubland and woodlands (Mckenzie et al., 2008), but is also known to inhabit stony soils with hummock grasses, flat-topped hills, sparse mulga over spinifex, lateritic plateaus, sandstone ranges, and breakaways (WA Museum, 2023). This species may also occur in areas of sparse mulga over spinifex. The Proposal matches the habitat that is known for this species, with exposed rock and stony soils, as well as Triodia hummocks in addition to being a flat-topped hill. The rocky hill habitat comprised of 7.8% of the Survey Area, while rocky outcrops and breakaways were also found outside

of the Survey Area. These habitat types may be used by the Long-tailed Dunnart for denning and foraging (Rapallo, 2025a).

During the Detailed Terrestrial Fauna Survey, the species was only detected once via a camera trap at trap site 6 in 2023 during the first survey phase (Rapallo, 2025a; Figure 3-6).

4.3.2.3.3 Pilbara Olive Python (*Liasis olivaceus barroni*; Vulnerable)

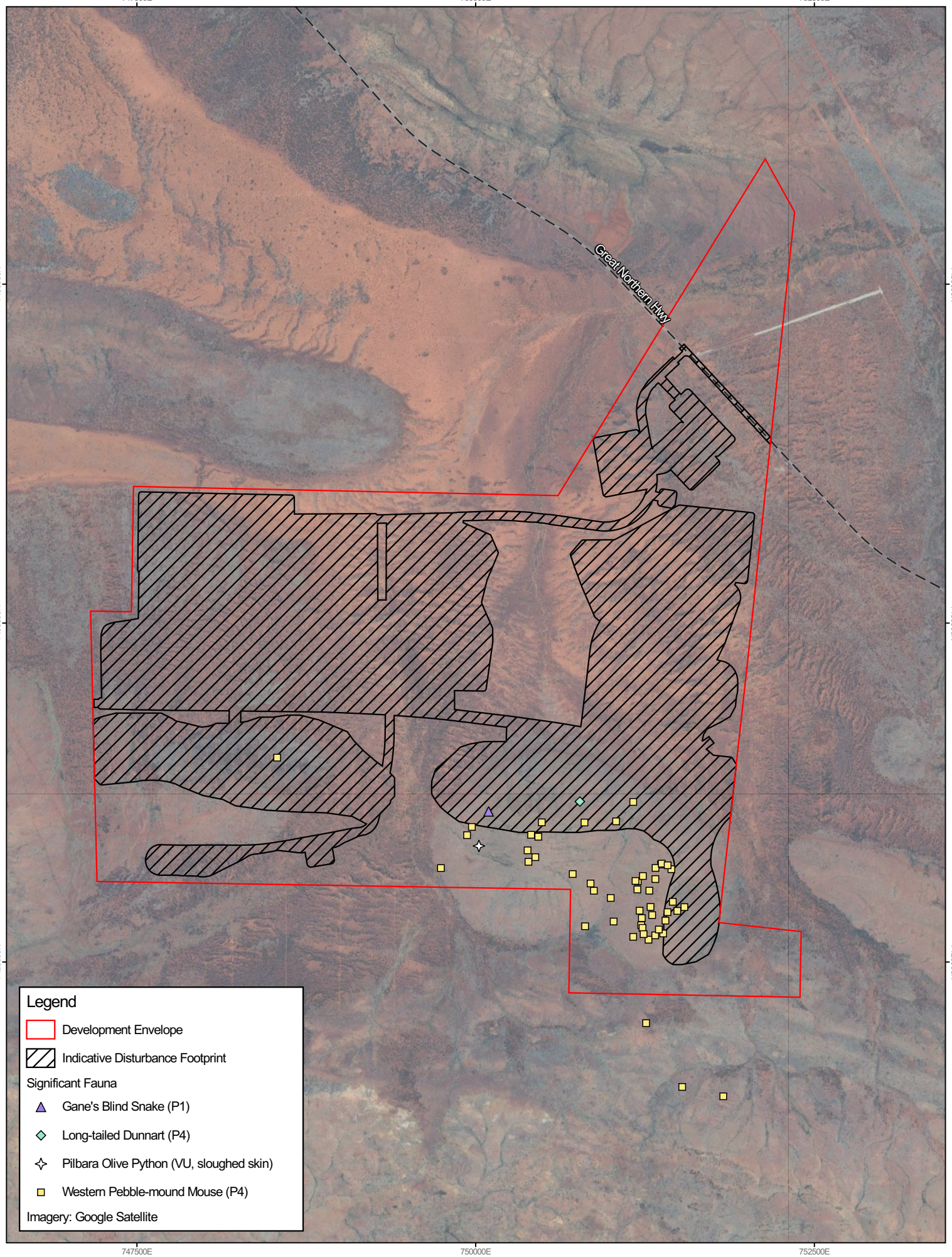
The Pilbara Olive Python is most often encountered near permanent waterholes in rocky ranges or among riverine vegetation (Pearson, 1993). In the winter months, Pilbara Olive Pythons spend their time hidden in caves and rock crevices and become more active again around rocky outcrops and water holes during the warmer summer months (DCCEEW, 2008). The Survey Area does not contain any known permanent waterbodies, but the drainage lines within the Survey Area may provide suitable foraging and dispersal habitat from the proximal rocky hills and temporary pools that fill after significant rainfall. Suitable habitat is also present in the wider tenement at the large rocky drainage gullies. Despite lack of records in the literature, this species is fairly widespread in the Pilbara region (Bush & Maryan, 2011).

The Pilbara Olive Python is separated from more northern populations of olive python in the Kimberley by the Great Sandy Desert, which does not provide suitable habitat for this species of python, resulting in two genetically distinct groups (Pearson et al., 2013). The species was recorded during the surveys via the sighting of one sloughed skin located in a rocky drainage gully (Rapallo, 2025a; Figure 3-6). The skin was measured to be 140 cm in length, although the tail was missing, leading to an estimated size of 150 cm. A mid-body scale count was completed multiple times, by two experienced herpetologists, who confirmed the identification of the sloughed skin to be a Pilbara Olive Python (Rapallo, 2025a).

4.3.2.3.4 Western Pebble-mound Mouse (*Pseudomys chapmani*; Priority 4)

The Western Pebble-mound Mouse is found throughout most of the central and eastern Pilbara, however, was historically more widespread (Start, 2008). The species occurs on the gentler slopes of rocky ranges where the ground is covered with a stony mantle and vegetated by hard spinifex, often with a sparse overstorey of eucalypts and scattered shrubs (Anstee & Armstrong, 2001) including Triodia grasses, Senna, Acacia, and Ptilotus species. Typically, the presence of Western Pebble-mound Mouse is identified via observations of the pebble mound this species builds over its dens. Within suitable habitats, pebble-mound mouse mounds can be found in high densities, although not all mounds are occupied at the same time, with individuals moving among mounds in their home range (Anstee, 2000). The spinifex plains and rises habitat was the most common preferred habitat representing 34.8% of the Survey Area. The rocky hill habitat was less common, at an extent of 7.8% of the Survey Area. Both habitat types may be used by the Western Pebble-mound Mouse for denning and foraging (Rapallo, 2025a).

During the Survey, this species was recorded based on observations of their pebble mound structures which this species builds over their dens. Eleven opportunistic observations were recorded (Rapallo, 2025a). These were most often encountered in rocky hill habitats and in areas of stony plains and rises habitats that were close to the rocky hill habitat during active searches or while otherwise traversing these habitats during other survey activities.



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Project: 0612_ROU_004
Date: 22/05/2026
Size: A4
Author: ASmithers

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Figure 4-5: Significant fauna recorded within the Survey Area

4.3.2.4 Short Range Endemic Invertebrates

The SRE desktop assessment identified at least 227 species within the search area, which was further reduced to 60 species assigned an SRE category. From these, 12 were classified as Confirmed SRE species, one as Unlikely Potential SRE and 47 as Widespread species. Groups represented include mygalomorph spiders, harvestmen, pseudoscorpions, centipedes, millipedes, slaters, and gastropods. The 12 Confirmed SREs include Mygalomorphs (*Aname* sp., *Teyl* sp. and *Missulena* sp.), Pseudoscorpion (*Feaella* sp.), *Selenopid* spiders (*Karaops* sp.) and Millipedes (*Antichiropus* sp.). Two of the Confirmed SRE species are listed as Priority 1 by DBCA; *Antichiropus cirratus* and *Antrichiropus pendiculus*.

The closest records for these species are found over 40 km Southwest of the DE and are not expected to occur at the Proposal. No threatened species were recorded during the desktop assessment (Bennelongia, 2025).

Of the 49 identifiable invertebrate species collected from the field survey, Bennelongia (2025) identified two confirmed SRE, one likely potential SRE, ten unlikely potential SREs and seven data deficient SREs (Table 4-6). Given the widespread nature of the habitats they have been recorded from, none of these species are expected to have distributions restricted to the Proposal.

Table 4-6 SRE species within the Proposal

Species	Abundance in DE	Comments
Confirmed SRE		
Antichiropus cristatus	1	This species has been recorded from near Newman, and approximately 80 km southeast of the Proposal. It aligned genetically (98.43% similarity) with WA Museum specimens previously sequenced.
Missulena faulderi	2	Bennelongia records show a linear distribution range of approximately 70 km, including records within the species type locality near Jinayri lease but also from near Yandi mine site.
Likely Potential SRE		
Antichiropus `BDI093`	4	Undescribed species known from three sites and two habitats. It was analysed through sequence data and considered as different to the other Antichiropus species at the Proposal. Little is known about its habitat requirements other than it has been collected from acacia leaf litter and from dry traps.
Unlikely Potential SRE		
Atemnidae `BPS564`	47	This undescribed species has been recorded from 11 sites in at least three habitats (drainage, rocky hills, and spinifex plains and rises). It is therefore, not expected to represent a true SRE.
Austrochthonius `BPS563`	30	Undescribed species recorded from seven sites in three habitats (mulga woodland, rocky hills and spinifex plains and rises).
Austrohorus `BPS552`	6	This species was recorded from four sites in two habitats (rocky hills and spinifex plains and rises). Given the widespread nature of the habitats, it is not expected to have a restricted distribution.
Buddelundia `BIS376`	1	Undescribed species with a linear range of approximately 30 km. It was previously collected from multiple localities near Newman and is not expected to have a restricted distribution.

Species	Abundance in DE	Comments
Buddelundia `BIS520`	4	Undescribed species with a linear range of approximately 75 km. It has been previously collected from near Yandi mine where it has a widespread distribution. It is not expected it will represent an SRE.
Buddelundia `BIS568`	6	Species known from five sites and from four habitats (drainage, mulga woodland, rocky hills, and spinifex plains and rises). It is not expected to be restricted to the DE.
Buddelundia `BIS569`	12	Species known from five sites and from four habitats (drainage, mulga woodland, rocky hills, and spinifex plains and rises). It is not expected to be restricted to the DE.
Cormocephalus `BSCOL109`	3	Species known from 3 sites representing three different habitats. It is not expected to be restricted to the DE.
Indolpium `BPS561`	21	This undescribed species has been recorded from ten sites in at least three habitats (drainage, rocky hills, and spinifex plains and rises). It is therefore, not expected to represent a true SRE.
Tyrannochthonius `BPS542`	9	Undescribed species recorded from four sites in three habitats (drainage, rocky hills and spinifex plains and rises).

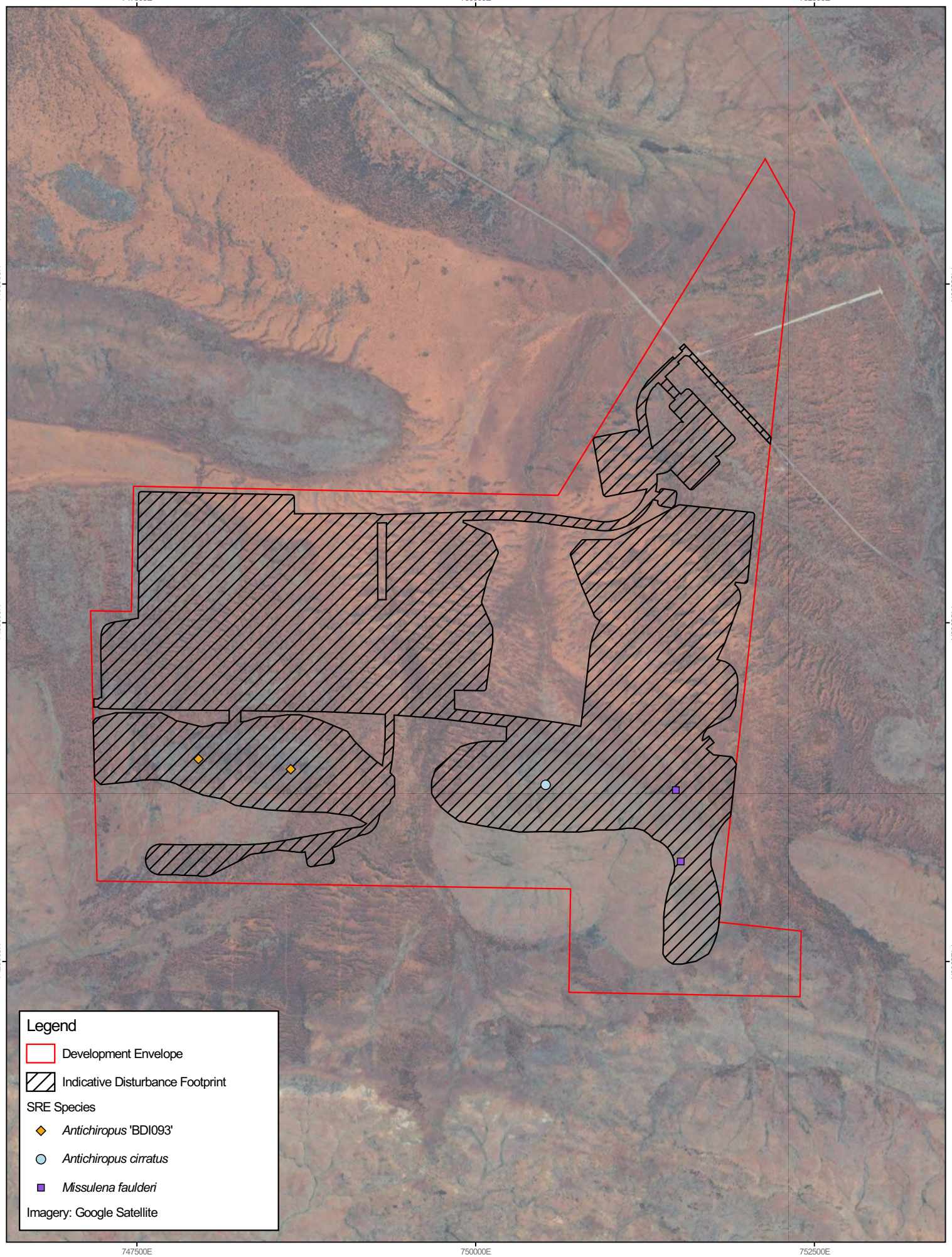

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Figure 4-6: SRE fauna record

4.3.2.5 Key Terrestrial Fauna Values

Based on the information provided above, the following terrestrial fauna values were considered to require further assessment:

- General fauna and associated habitat;
- Significant fauna recorded within the DE (Table 4-7); and
- Threatened Fauna identified as being likely or possible to reside within the DE (Table 4-7).

Table 4-7 Significant fauna potentially occurring within the Survey Area

Species	Conservation listing		Likelihood of occurrence	Nearest confirmed record	Notes
	BC Act	EPBC Act			
Grey Falcon (*Falco hypoleucos*)	VU	VU	Likely	50 km	Commonly nests in timbered areas, particularly tall trees along watercourses, and forages in open or more sparsely vegetated habitats. Frequents tussock grasslands and open woodlands, especially in winter. Unlikely to support a breeding population due to a lack of suitable tall trees but may function as foraging habitat.
Long-tailed dunnart (*Antechinomys longicaudatus*)	P4		Recorded	Within Survey Area	Camera traps recorded one long-tailed dunnart during the first survey season in 2023 near trap site 6 at the rocky lower foothills of Round Hill, thus confirming this species in the Survey Area. Inhabits rocky scree slopes with hummock grass and shrubs, and tall open Acacia shrubland and woodlands, also known to inhabit stony soils with hummock grasses, flat-topped hills, sparse mulga over spinifex, lateritic plateaus, sandstone ranges, and breakaways. The Survey Area is likely to provide breeding and foraging and shelter habitat for the species
Ghost Bat (*Macroderma gigas*)	VU	VU	Likely	9.9 km Northwest	The species is found roosting in caves and disused mineshafts in the Pilbara region, predominantly found in ironstone geologies (such as Brockman and Marra Mamba banded iron formation or Robe Pisolite channel iron deposit geology) and granite rockpiles. No caves were observed in the survey area, due to the proximity of recent records, a known regional Ghost Bat roost and the Survey Area containing potential foraging habitat. Ghost Bats are classified

Species	Conservation listing		Likelihood of occurrence	Nearest confirmed record	Notes
	BC Act	EPBC Act			
					as likely occurring in the Survey Area, although no Ghost Bat calls were recorded during the detailed fauna surveys.
Western Pebble-mound Mouse (*Pseudomys chapmani*)	P4		Recorded	Within Survey Area	Multiple mounds, both active and inactive were found opportunistically on Round Hill and in the stony spinifex plains and rises habitat proximal to it. The species occurs on the gentler slopes of rocky ranges where the ground is covered with a stony mantle and vegetated by hard spinifex, often with a sparse overstorey of eucalypts and scattered shrubs.
Gane's Blind Snake (*Anilios ganei*)	P1		Recorded	Within Survey Area	Endemic to the Pilbara region, this species occurs within rocky terrain along drainage lines. One record was found during a targeted fauna survey of Round Hill in 2024 by Rapallo while spotlighting in a rocky drainage gully containing spinifex and leaf litter on the Round Hill.
Pilbara Olive Python (*Liasis olivaceus barroni*)	VU	VU	Recorded	Sloughed skin within Survey Area.	A sloughed skin of a Pilbara Olive Python was located during the detailed survey in 2023 near the base of Round Hill in a rocky drainage gully. The species occurs most commonly near permanent waterholes in rocky ranges or among riverine vegetation.

VU = Vulnerable P1 – P5 = Priority 1 – 5.

4.4 Proposed Mitigation

HPPL has mitigated the potential impacts to this factor according to the mitigation hierarchy; avoid, minimise, rehabilitate, and offset.

4.4.1 Avoid

The key avoidance mechanism implemented by HPPL was the design of the DE to avoid creek lines, which was primarily for Aboriginal Cultural Heritage purposes, however it also represents a key environmental feature - 'Drainage' habitat.

4.4.2 Minimise

The following mitigation measures are proposed to ensure that direct and indirect impacts to terrestrial fauna are minimised:

1. Implement industry best practice management measures for terrestrial fauna:
    a. Vegetation clearing will be managed through internal ground disturbance procedures;
    b. Boundaries of areas to be cleared or disturbed will be identified by GPS coordinates and maps of boundaries will be provided to dozer operator to minimise clearing;
    c. Progressive clearing will be undertaken;
    d. The DF will be developed to the minimum required to ensure safe and adequate construction and operation;
    e. Water or dust suppressants will be applied to disturbed areas and product transfer/storage areas as required to minimise dust generation;
    f. Emergency response capabilities will be maintained to prevent fire outbreaks where possible;
    g. Weed hygiene and management measures / procedures will be implemented to prevent spread of weeds and the introduction of new weed species as a result of construction and operation;
    h. Any trenches will be dug with shallow interior slope angles or exit points to allow fauna escape;
    i. Any trenches will be progressively opened and closed;
    j. Fauna egress mechanisms will be installed at all trenches and turkeys nests / water ponds;
    k. Any open trenches (if required) will be inspected less than two hours after sunrise for the presence of trapped fauna;
    l. Barb wire fences will be avoided within the DE, unless operationally required;
    m. Training will be provided to ensure that site personnel do not feed fauna;
    n. Food wastes will be stored in bins that are not easily accessible to fauna;
    o. Implement additional feral animal controls if required;
    p. Low noise equipment will be used where practicable;
    q. All incidents resulting in fauna injury or death will be reported internally;
    r. Vehicle speed limits will be set and enforced;
2. Limit clearing of ‘Drainage’ habitat to a maximum of 5 ha;
3. Limit clearing of ‘Rocky Hill’ habitat to a maximum of 105 ha;
4. Obtain and comply with the following approvals:
    a. All approvals issued under the EP Act;
    b. EPBC Act approval (if assessed);
    c. MDCP to be approved under the Mining Act;
    d. DG Licence issued under the *Dangerous Goods Safety Act 2004* if required;
5. Implement the following measures to minimise the risk and impact of hydrocarbon spills:
    a. Hydrocarbons will be stored either within a bunded area or within self-bunded tanks;
    b. All spills will be controlled, contained, and cleaned up as soon as practicable;
    c. Service vehicles will be fitted with spill kits;
    d. Spill kits will be located at all workshop and fuel storage areas;

e. Environmental incident recording, investigation, and reporting system; and

6. Comply with Water Quality Protection Guidelines and guidance notes, particularly in relation to the storage and use of hydrocarbons and other harmful chemicals, the design and operation of vehicle maintenance areas and facilities, and the handling and storage of other waste materials, including contaminated soils.

4.4.3 Rehabilitate

A MDCP is currently being prepared for the Proposal. The MDCP describes the preliminary approach to the rehabilitation and closure of the Proposal, and associated management and monitoring proposed during the closure phase including:

1. All infrastructure will be removed from site;
2. Long-term disturbance areas will be respread with topsoil (or ripped and seeded if topsoil is no longer viable) and rehabilitated;
3. All earthmoving equipment undertaking rehabilitation works will be cleaned free of any soil material to minimise the risk of weed introduction;
4. Where practicable, depressions attributable to mining operations will be contoured to be free draining or provide for fauna egress in the event of temporary pooling events; The MCP will be submitted to DMPE for assessment and approval prior to the closure of the Proposal and will be reviewed and revised in accordance with the Approvals Statement issued under the Mining Act.

4.5 Potential Environmental Impacts

4.5.1 Identified Environmental Impacts

The following aspects have the potential to result in environmental impacts to all environmental values identified in Section 5.3.2:

- Clearing resulting in a loss of fauna habitats;
- Earthmoving or vehicle movements resulting in fauna death or injury;
- Introduction of weeds or feral fauna, resulting in competition with native fauna and a reduction in health of surrounding habitat;
- Alteration of fauna behaviour due to light or noise emissions; and
- Alteration of local hydrology, resulting in changes in habitat composition in affected areas.

The following potential impacts to terrestrial fauna were considered to be appropriately managed using industry-standard controls and are not discussed further in this ERD:

- Altered fire regimes – as on-site fire control equipment is likely to be sufficient to ensure fires are controlled on-site; and
- Hydrocarbon spills - as only low volumes of hydrocarbons will be kept on site, and containment and clean up equipment will be available.

Twenty of the significant fauna recorded during the desktop assessment were considered unlikely (15 species) or highly unlikely (five species), based on a lack of suitable habitat in the Survey Area and/or

a lack of nearby contemporary records and are unlikely to be significantly impacted by the implementation of the Proposal.

4.5.2 Predicted Environmental Impacts

Table 4-8 summarises the extent of the predicted direct and indirect impacts on terrestrial fauna. Additional assessment information that quantifies the extent of impacts is provided in the following table and sections.

Table 4-8 Impacts on fauna

Feature	Regional extent	Extent in Survey Area	Extent in DE	Extent in Indicative DF	Extent of indirect impacts	Level of certainty	Direct and indirect impacts	Cumulative impacts (incl. other Proposals)
Fauna Habitat								
Spinifex stony plains and rises	N/A	728.4 ha	447.1 ha (61%)	236.6 ha (32%)	Negligible, indirect impacts to habitat likely to be restricted to areas on the fringes of cleared areas.	Some changes to the disturbance footprint may occur with detailed design, which could change the amount of clearing within each habitat type.	236.6 ha (32%)	N/A
Mulga woodlands		605.1 ha	502.4 ha (83%)	292.0 ha (48%)			292.0 ha (48%)	
Tussock grassland		548.6 ha	529.0 ha (96%)	360.6 ha (66%)			360.6 ha (66%)	
Rocky hill		163.3 ha	163.3 ha (100%)	94.2 ha (58%)			94.2 ha (58%)	
Drainage		66.4 ha	57.3 ha (86%)	5 ha (7.5%)			5 ha (7.5%)	
Significant Fauna records								
Gane's Blind Snake	~30 records (from Newman to Pannawonica)	1 record	1 record	1 record	Negligible once mitigation measures implemented.	High certainty in the areas where recorded were identified.	1 record	N/A
Ghost Bat	~182 records (from Kalumburu to Yannarie)	None recorded					None recorded	
Grey Falcon	~327 records (from Kununurra to Katanning)	None recorded					None recorded	
Long-tailed Dunnart	~697 records (from Shark Bay to Madura)	1 record	1 record	1 record			1 record	
Northern Quoll	~586 records (from	None recorded					None recorded	

Feature	Regional extent	Extent in Survey Area	Extent in DE	Extent in Indicative DF	Extent of indirect impacts	Level of certainty	Direct and indirect impacts	Cumulative impacts (incl. other Proposals)
	Kalumburu to Paraburdoo)							
Pilbara Olive Python	~58 records (from Dampier to Burringurrah)	1 record (sloughed skin)	1 record (sloughed skin)	1 record (sloughed skin)			1 record (sloughed skin)	
Western Pebble-mound Mouse	~236 records (from Mardie to Karlamilyi National Park)	50 records	47 records	9 records			9 records	
Significant Fauna Habitat								
Gane's Blind Snake Habitat	N/A	229.8 ha	220.6 ha (96%)	97.8 ha (43%)	Negligible, indirect impacts to habitat likely to be restricted to areas on the fringes of cleared areas.	Some changes to the disturbance footprint may occur with detailed design, which could change the amount of clearing within each habitat type.	97.8 ha (43%)	N/A
Ghost Bat Habitat	N/A	1,399.9 ha	1,006.8 ha (72%)	532.2 ha (38%)			532.2 ha (38%)	
Grey Falcon Habitat	N/A	1,506.7 ha	1,506.7 ha (100%)	694.5 ha (79%)			694.5 ha (79%)	
Long-tailed Dunnart Habitat	N/A	163.3 ha	163.3 ha (100%)	94.2 ha (58%)			94.2 ha (58%)	
Northern Quoll Habitat	N/A	66.4 ha	57.3 ha (86%)	5 ha (7.5%)			5 ha (7.5%)	
Pilbara Olive Python Habitat	N/A	66.4 ha	57.3 ha (86%)	5 ha (7.5%)			5 ha (7.5%)	
Western Pebble-mound Mouse Habitat	N/A	892.3 ha	891.7 ha (99.9%)	610.4 ha (68%)			610.4 ha (68%)	

4.5.2.1 Significant Fauna Habitat

Section 6.3 identified 39 significant fauna species that have the potential to occur within the Survey Areas. Of these, 7 species were identified as having the potential to be impacted by the Proposal and therefore were considered to be key environmental values requiring assessment. No fauna habitats were identified as being restricted to the DE.

4.5.2.1.1 Gane's Blind Snake

The Gane's Blind Snake was recorded opportunistically during the targeted fauna survey undertaken by Rapallo (2025b). The rocky hill and drainage habitats may provide foraging and shelter habitat for this species. The Proposal will require disturbance of up to 97.8 ha of potential habitat.

4.5.2.1.2 Ghost Bat

The Ghost Bat is considered likely to occur within the DE and is listed as Vulnerable under the EPBC Act and BC Act. Drainage, spinifex plains and rises and mulga woodlands were considered potential foraging habitat for the Ghost Bat. There may be two Category 2 (maternity/diurnal roost caves with regular occupancy roosts) within a 12 km radius of the Proposal (Bob Bullen, pers comms). Due to the proximity of recent records (within 12 km), a known regional Ghost Bat roost at Rhodes Ridge (approximately 11 km away) and other suitable roosting audits to the North and South of the of the Proposal, in addition to the DE containing potential foraging habitat, Ghost Bats are classified as likely to occur within the DE. The Proposal will require up to 532.6 ha of disturbance to this potential foraging habitat.

Although Ghost Bats are known to roost in old mine adits elsewhere in the broader region, the DE is unlikely to be regularly used by any significant population. Survey efforts recorded no individuals, calls, roosts, or signs such as prey remains, and no suitable roosting features, including caves or adits were identified within the survey footprint (Rapallo, 2025a, 2025b). The proposed disturbance area represents just 1.2% of the wider foraging landscape and up to 532.2 ha of potential supporting habitat, equating to less than 0.05% of the species' estimated area of occupancy. Rapallo (2025b) concluded that a population could not persist at the site due to the absence of suitable cave habitat required for roosting.

4.5.2.1.3 Grey Falcon

The Grey Falcon is considered to potentially utilise the DE and is listed as Vulnerable under the EPBC Act and BC Act. Rocky hill, drainage, Spinifex plains and rises and tussock grasslands were considered potential foraging habitat for the Grey Falcon. The species is considered to be wide ranging with a distribution across the arid and semi-arid zone of Australia. The Proposal will require up to 694.5 ha of disturbance to potential supporting habitat.

4.5.2.1.4 Long-tailed Dunnart

The Long-tailed Dunnart was recorded by camera traps during the Rapallo (2025a) survey and is listed by the DBCA as Priority 4. The rocky hill habitat may be used by the Long-tailed Dunnart for denning and foraging. The Proposal will require the disturbance of up to 94.2 ha of potential supporting habitat.

4.5.2.1.5 Northern Quoll

The Northern Quoll was considered possible to occur within the DE and is listed as Endangered under the EPBC and BC Act. The species may occur on occasion within rocky hill, drainage, spinifex plains and rises, tussock grasslands and mulga woodlands, with the drainage habitat potentially providing dispersal habitat for the species. Given the presence of feral cats in the DE as found in both the detailed and targeted survey, in addition to a lack of water sources, the DE is unlikely to support a population long-term. The Proposal will require the disturbance of up to 5 ha of potential dispersal habitat.

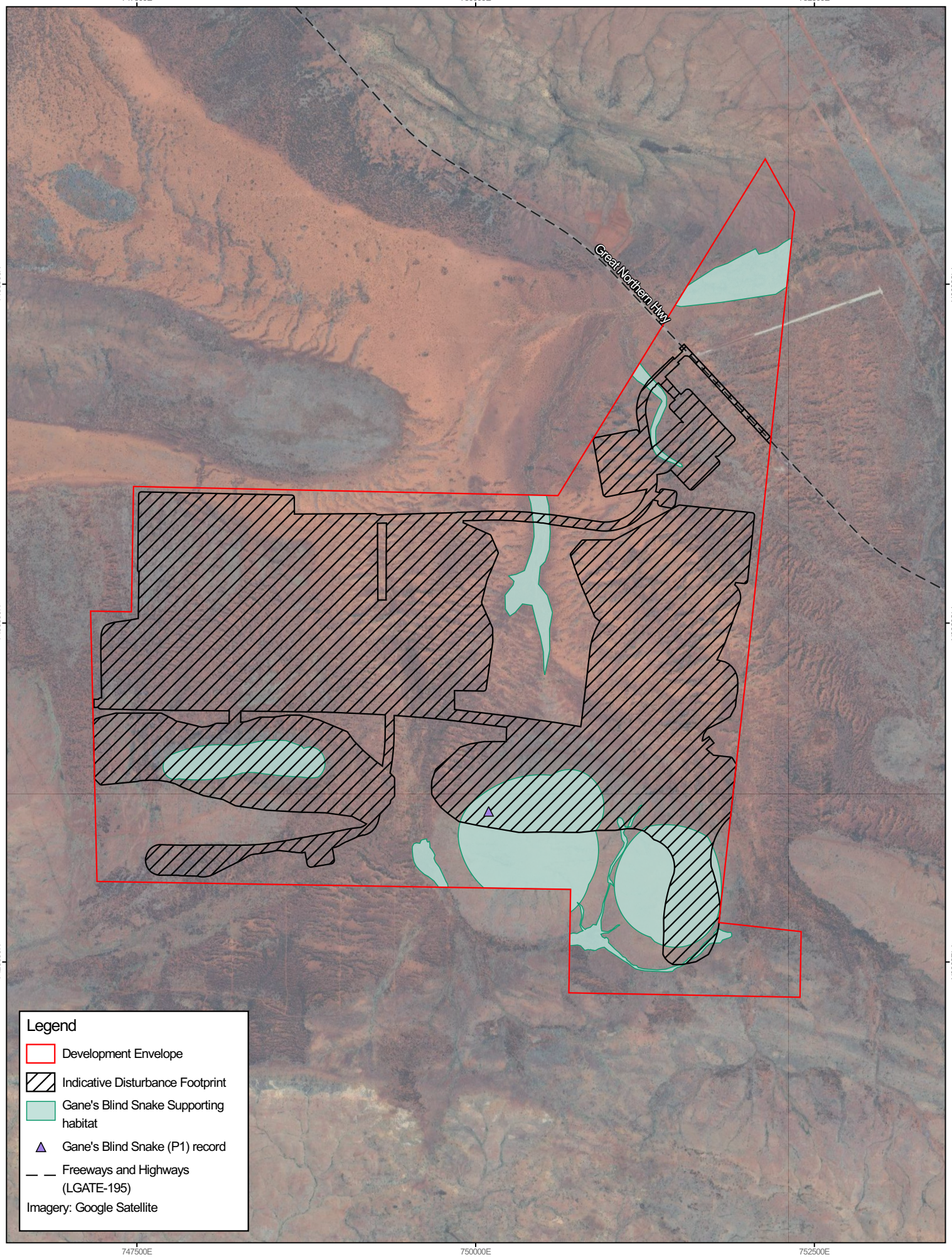
4.5.2.1.6 Pilbara Olive Python

Evidence of the Pilbara Olive Python was recorded in the Rapallo (2025a) survey and is listed as Vulnerable under the EPBC Act and BC Act. It is primarily threatened by predation of cats and foxes, major fire events, and further development on mining infrastructure. The DE is unlikely to contain critical habitat for the Pilbara Olive Python, however the drainage habitat is considered to provide supporting habitat used for shelter, dispersal, and foraging. These habitats are considered to extend outside the DE.

The drainage lines within the DE were dry during both phases of the detailed surveys and targeted surveys by Rapallo (2025a, b). The Pilbara Olive Python is often found in close proximity to water sources (Moore et al., 2022; Mousavi-Derazmahalleh et al., 2023). Given the lack of at least semi-permanent water pools within the Proposal, it is unlikely to support a long-term or large population of this species. The Pilbara Olive Python is more likely to be found proximal to locations such as the rocky habitat surrounding the water pools to the northeast, outside of the DE. The Proposal will require the disturbance of up to 5 ha of supporting habitat.

4.5.2.1.7 Western Pebble-mound Mouse

Multiple inactive and active Western Pebble-mound Mouse mounds were recorded within the DE, and the species is listed by DBCA as Priority 4. The spinifex plains and rises and rocky hill habitat may provide denning and foraging habitat for this species. The Proposal will require disturbance of up to 330.8 ha of this potential habitat.



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Author: ASmithers

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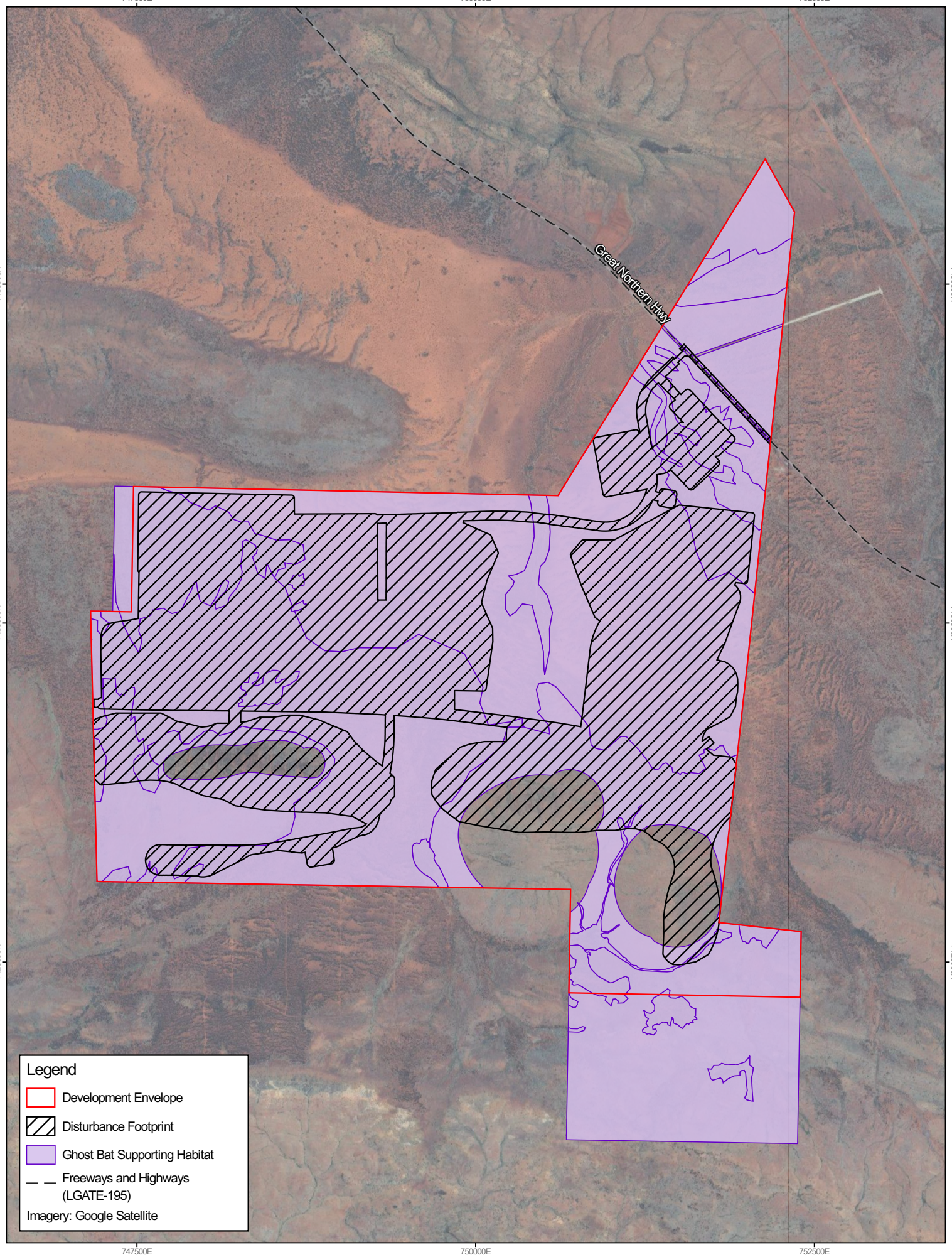
Figure 4-7:Potential impacts to Gane's Blind Snake habitat



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Project: 0612_ROU_007
Date: 22/05/2026
Size: A4
Author: ASmithers

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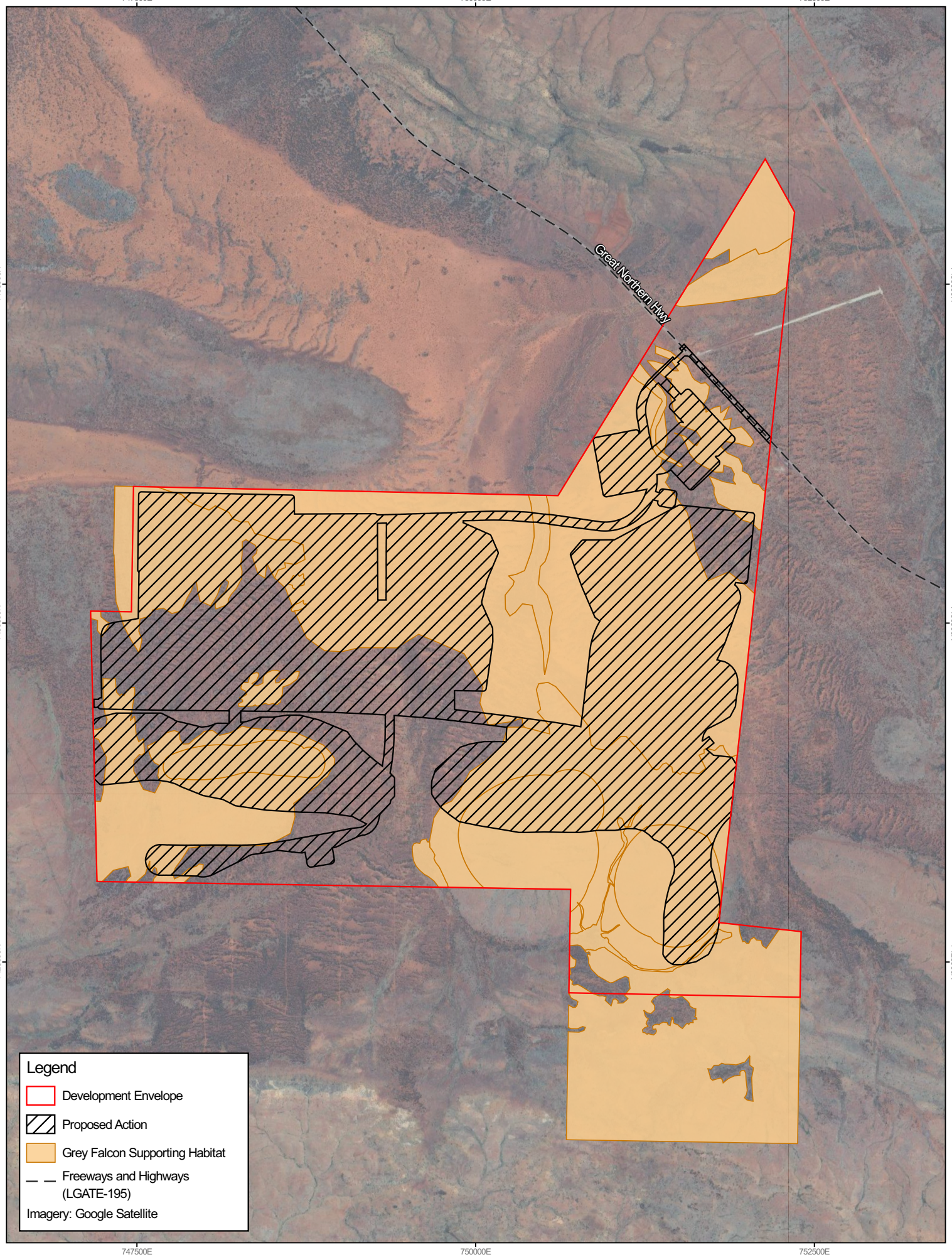
Figure 4-8: Potential impacts to Ghost Bat foraging habitat



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Date: 22/05/2026
Size: A4
Author: ASmithers

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Figure 4-9: Potential impacts to Grey Falcon foraging habitat