GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 10940/1
Permit Holder:	Regional Power Corporation, Trading as Horizon Power
Duration of Permit:	From 11/10/2025 to 11/10/2030

The permit holder is authorised to clear *native vegetation* subject to the following conditions of this permit.

PART I – CLEARING AUTHORISED

1. Clearing authorised (purpose)

The permit holder is authorised to clear *native vegetation* for the purpose of investigative works for renewable energy infrastructure.

2. Land on which clearing is to be done

Great Northern Highway Public Road Reserve (PIN 11734365), Boodarie
Pippingara Road Public Road (PIN 11734373), Pippingarra
Public Road Reserve (PIN 11732983), Telfer
Lot 100 on Deposited Plan 238025, Marble Bar
Lot 101 on Deposited Plan 238018, Marble Bar
Lot 102 on Deposited Plan 93527, Telfer
Lot 104 on Deposited Plan 220785, Marble Bar
Lot 200 on Deposited Plan 220785, De Grey
Lot 202 on Deposited Plan 220387, Pippingarra
Lot 300 on Deposited Plan 58181, Strelley
Lot 65 on Deposited Plan 48920, Pippingarra
Lot 252 on Deposited Plan 238657, Strelley
Lot 606 on Deposited Plan 422324, Pardoo
Lot 1499 on Deposited Plan 404497, Boodarie
Lot 1507 on Deposited Plan 423425, Boodarie

3. Clearing authorised

The permit holder must not clear more than 23.88 hectares of *native vegetation* within the cross-hatched yellow in Figure 1 of Schedule 1.

4. Period during which clearing is authorised

The permit holder must not clear any *native vegetation* after 11/10/2027

PART II – MANAGEMENT CONDITIONS

5. Avoid, minimise, and reduce impacts and extent of clearing

In determining the *native vegetation* authorised to be cleared under this permit, the permit holder must apply the following principles, set out in descending order of preference:

(a) avoid the clearing of *native vegetation*;

(b) minimise the amount of *native vegetation* to be cleared; and

(c) reduce the impact of clearing on any environmental value.

6. Weed management

When undertaking any clearing authorised under this permit, the permit holder must take the following measures to minimise the risk of introduction and spread of *weeds*:

(a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;

(b) ensure that no known *weed*-affected soil, mulch, fill, or other material is brought into the area to be cleared; and

(c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

7. Fauna management - directional clearing and timing

The permit holder must:

(a) restrict clearing activities to day-light hours to avoid the possibility of injury to fauna; and

(b) conduct clearing activities in a slow, progressive manner in one direction towards adjacent native vegetation to allow fauna to move into adjacent vegetation.

8. Fauna management – backfilling

The permit holder must:

(a) fence all test pits on the day of drilling/excavating with fine mesh to prevent fauna access; or

(b) cover all test pits on the day of drilling/excavating with a cover which prevents entry to the pits by fauna species and backfill upon completion;

(c) cover all boreholes at the end of each day and backfill upon completion; and

(d) cover all groundwater boreholes at the end of each day and seal them upon completion of works.

9. Fauna management – pre-clearance survey

(a) Within (14) days prior to undertaking any clearing authorised under this permit, the permit holder shall engage a *fauna specialist* to undertake pre-clearance surveys in the areas to be cleared within the areas cross-hatched yellow on Figure

1 of Schedule 1 for the following fauna species, including the identification and inspection of burrows, and determination of whether burrows are being utilised:

(i) northern quoll (*Dasyurus hallucatus*)

(ii) bilby (*Macrotis lagotis*)

(iii) brush-tailed mulgara (*Dasycercus blythi*)

(b) Where evidence of recent burrow use is identified under condition 9(a) of this permit, the permit holder shall:

(i) engage a *fauna specialist* to flag the location of the burrow(s) showing signs of recent use;

(ii) not clear within five (5) metres of the flagged burrow(s);

(iii) engage a *fauna specialist* to monitor with cameras, the flagged burrow/s for a maximum of five days, or until such time that the fauna species identified under condition 9(a) have been observed to independently move on from the burrow/s; and

(iv) prior to clearing, engage a *fauna specialist* to re-inspect any flagged burrow/s for the presence of the fauna species identified under condition 9(a).

(c) If species identified under condition 9(a) of this permit are utilising any flagged burrow(s) under condition 9(b) and cannot be avoided in accordance with condition 5(c) of this permit, the permit holder shall:

(i) engage *a fauna* specialist to remove and relocate the individual(s) to an area of *suitable habitat*; and

(ii) any removal and relocation of Northern Quoll and Bilby under condition 9(c) (i) of this permit must be conducted in accordance with a section 40 authorisation under the *Biodiversity Conservation Act 2016*.

(d) Where active burrows for species identified under condition 9(a) of this permit are identified and/or species identified under condition 9(a) of this permit are relocated in accordance with condition 9(c), the permit holder shall include the following in a report submitted to the *CEO* within two (2) months of undertaking any clearing authorised under this Permit:

(i) the location of any active burrows identified using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings or decimal degrees;

(ii) the gender of each individual captured under condition 9(c) of this permit;

(iii) the dates, times, vegetation types and weather conditions at each location where species listed under condition 9(a) of this permit are captured from and relocated to under condition 9(c)(ii) of this permit;

(iv) the name of the *fauna specialist* that relocated fauna under condition 9(c) of this permit; and

(v) a copy of the fauna licenses authorising the relocation of fauna under condition 9(c)(i) of this permit.

10. Revegetation and rehabilitation (temporary works)

The permit holder must:

(a) retain the vegetative material and topsoil removed by clearing authorised under this permit and stockpile the vegetative material and topsoil in an area that has already been cleared;

(b) as soon as is practicable, and no later than 12 months following clearing authorised under this permit, revegetate and rehabilitate the areas that are no longer required for the construction (*temporary works*) activities by:

(i) re-shaping the surface of the land so that it is consistent with the surrounding five metres land;

(ii) ripping the ground on the contour to remove soil compaction; and

(iii) laying the vegetative material and topsoil retained under condition 10(a) on the cleared areas; and undertake *weed* control activities on an 'as needed' basis to reduce weed cover within the cleared areas to no greater than the weed cover within the adjacent *native vegetation*

(c) within 24 months of laying the vegetative material and topsoil on the cleared area in accordance with condition 10(b) of this permit:

(i) engage an *environmental specialist* to determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and

(ii) where, in the opinion of an *environmental specialist*, the composition structure and density determined under condition 10(c)(i) of this permit will not result in similar species composition, structure and density to that of pre-referral clearing vegetation types in that area, *revegetate* the area by deliberately *planting* and/or *direct seeding native vegetation* that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area and ensuring only *local provenance* seeds and propagating material are used.

11. Land management

The permit holder must:

(a) demarcate and identify the areas to be cleared using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA20), expressing the geographical coordinates in Eastings and Northings or decimal degrees; and

(b) commence the investigation works within 9 weeks of any authorised clearing.

PART III - RECORD KEEPING AND REPORTING

12. Records that must be kept

The permit holder must maintain records relating to the listed relevant matters in accordance with the specifications detailed in Table 1.

Table 1: Records that must be kept

No.	Relevant matter	Specifications
1.	In relation to the authorised clearing activities generally	(a) the species composition, structure, and density of the cleared area; (b) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to GDA2020, expressing the geographical coordinates in Eastings and Northings;

No.	Relevant matter	Specifications
		(c) the date that the area was cleared; (d) the size of the area cleared (in hectares); (e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 5; (f) actions taken to minimise the risk of the introduction and spread of *weeds* in accordance with condition 6; and (g) actions taken to minimise impacts to fauna during clearing in accordance with condition 7.
2.	In relation to fauna management pursuant to condition 8 and 9	(a) action and result of the backfilling undertaken in accordance with condition 8 of this permit; (b) results of the pre-clearance surveys undertaken in accordance with condition 9 of this permit; and (c) a copy of the *fauna specialist*'s report.
3.	In relation to revegetation and rehabilitation of areas pursuant to condition 10 of this permit:	(a) the location of any areas *revegetated* and *rehabilitated*, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings or decimal degrees; (b) a description of the *revegetation* and *rehabilitation* activities undertaken; (c) the date that the area was *revegetated* and *rehabilitated*; (d) the size of the area *revegetated* and *rehabilitated* (in hectares); and (e) any weed control activities undertaken within the area *revegetated* and *rehabilitated.*

13. Reporting

The permit holder must provide the *CEO* the records required under condition 12 of this permit when requested by the *CEO*.

DEFINITIONS

In this permit, the terms in Table 2 have the meanings defined.

Table 2: Definitions

Term	Definition
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*.
clearing	has the meaning given under section 3(1) of the EP Act.
condition	a condition to which this clearing permit is subject under section 51H of the EP Act.
fill	means material used to increase the ground level, or to fill a depression.
department	means the department established under section 35 of the *Public Sector Management Act 1994* (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
direct seeding	means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species.
environmental specialist	means a person who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit, or who is approved by the *CEO* as a suitable environmental specialist
fauna specialist	means a person who holds a tertiary qualification specialising in environmental science or equivalent, and has a minimum of 2 years work experience in fauna identification and surveys of fauna native to the region being inspected or surveyed, or who is approved by the *CEO* as a suitable fauna specialist for the bioregion, and who holds a valid fauna licence issued under the *Biodiversity Conservation Act 2016*.
EP Act	*Environmental Protection Act 1986* (WA)
local provenance	means native vegetation seeds and propagating material from natural sources within 50 kilometres and the same IBRA subregion of the area cleared
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
mulch	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation
rehabilitate/ed/ion	means actively managing an area containing native vegetation in order to improve the ecological function of that area.
revegetate/ed/ion	means the re-establishment of a cover of local provenance native vegetation in an area using methods such as natural regeneration, direct seeding and/or planting, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area
suitable habitat	means habitat known to support the northern quoll (*Dasyurus hallucatus*), greater bilby (*Macrotis lagotis*), brush tailed mulgara (*Dasycercus blythi*) and western pebble-mound mouse (*Pseudomys chapmani*) within the known current distribution of the species
temporary works	means access tracks, spoil areas, side tracks, site offices, storage areas, laydown areas, extraction sites, camps, project surveys, pre-construction activities, and similar works associated with a project activity that are temporary in nature
weeds	means any plant – (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or

Term	Definition
	(b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or (c) not indigenous to the area concerned.

END OF CONDITIONS

Ben Gates
A/Manager
GREEN ENERGY

Officer delegated under Section 20
of the Environmental Protection Act 1986

17 September 2025

Schedule 1

The boundary of the area authorised to be cleared is shown on the map below

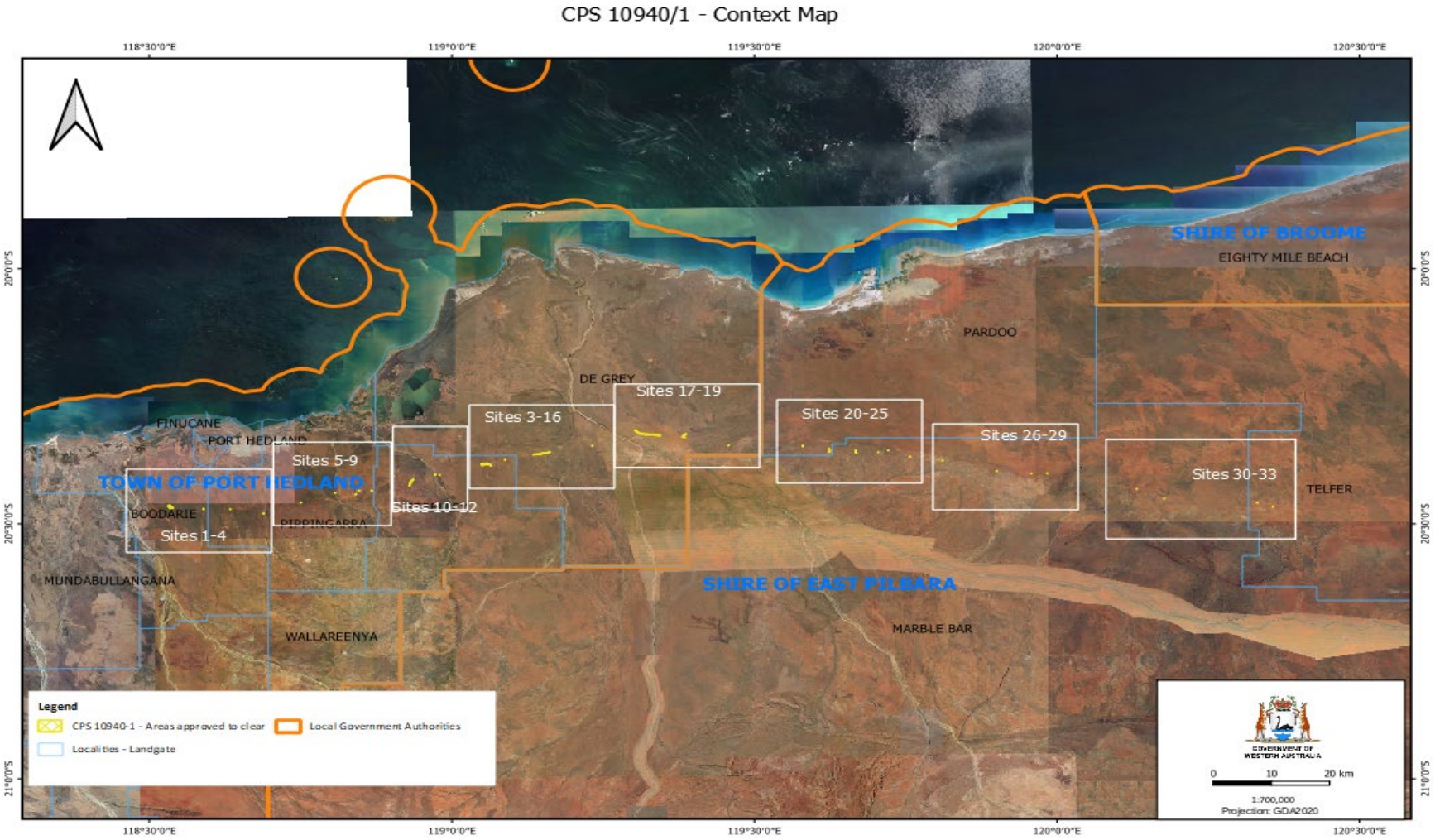


Figure 1: Context map of the areas approved to clear. Areas crosshatched yellow indicate the area approved to be cleared

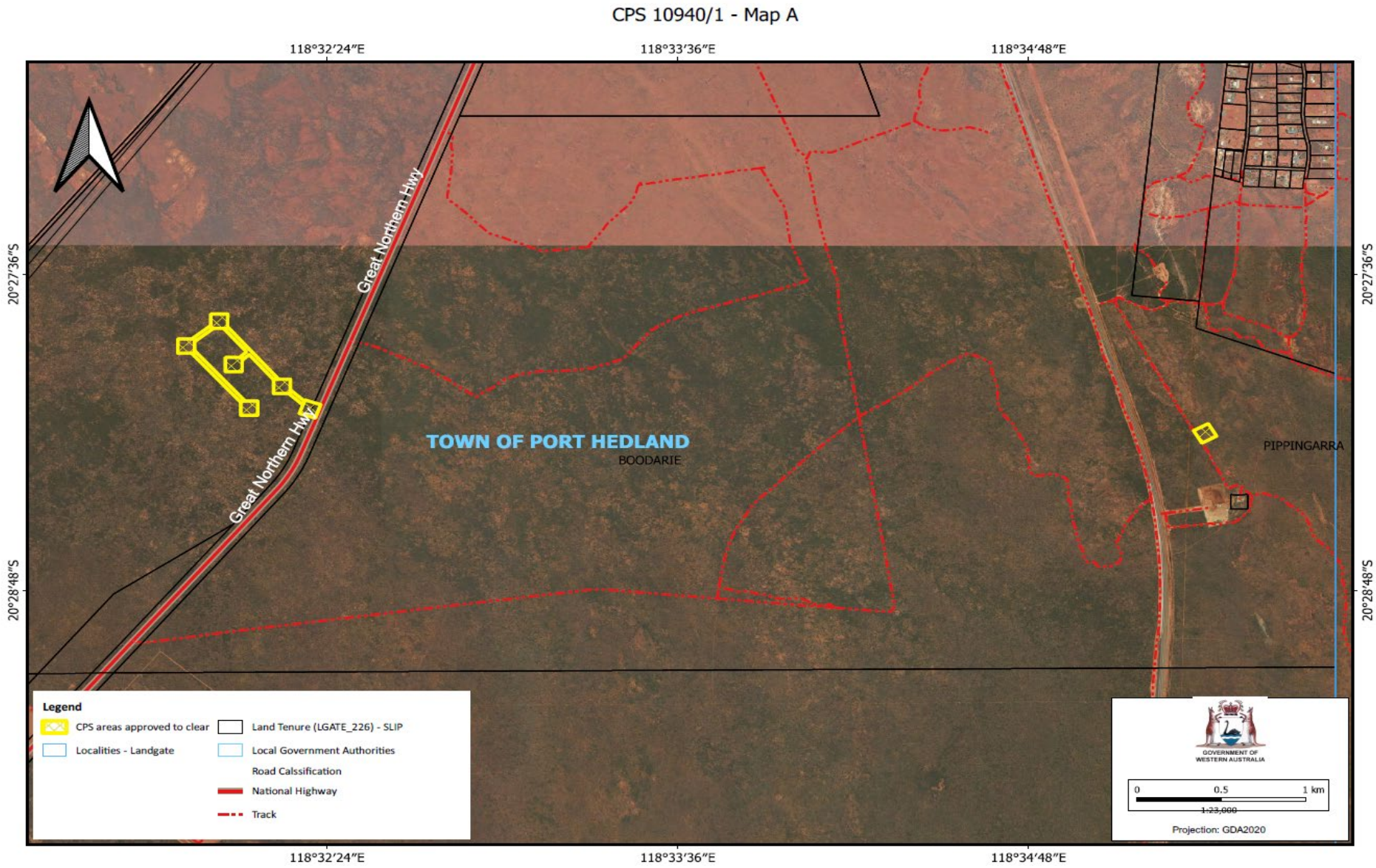


Figure 2-A: Site 1 and 2. Areas crosshatched yellow indicate the area approved to be cleared

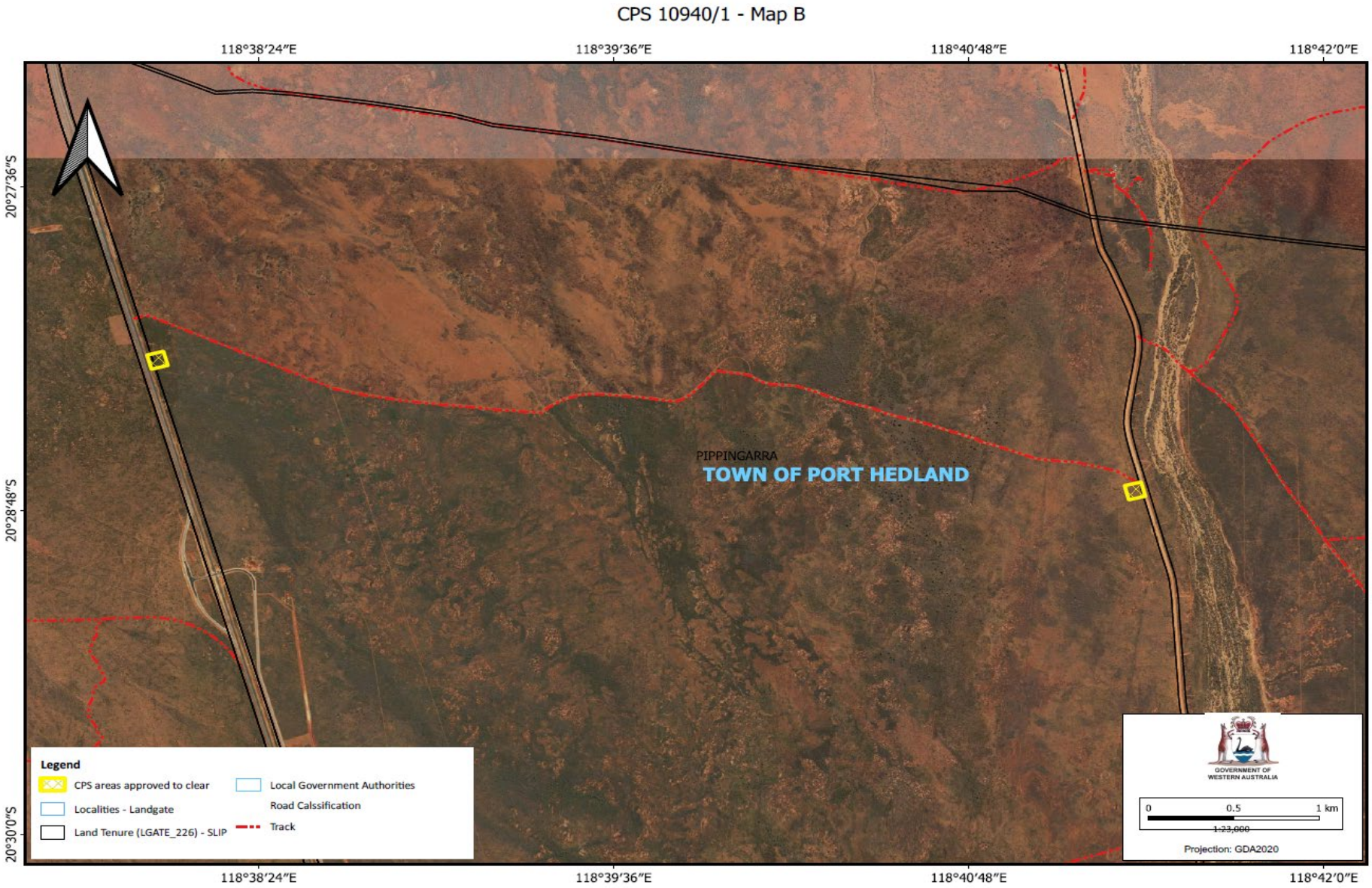


Figure 2-B: Site 3 and 4. Areas crosshatched yellow indicate the area approved to be cleared

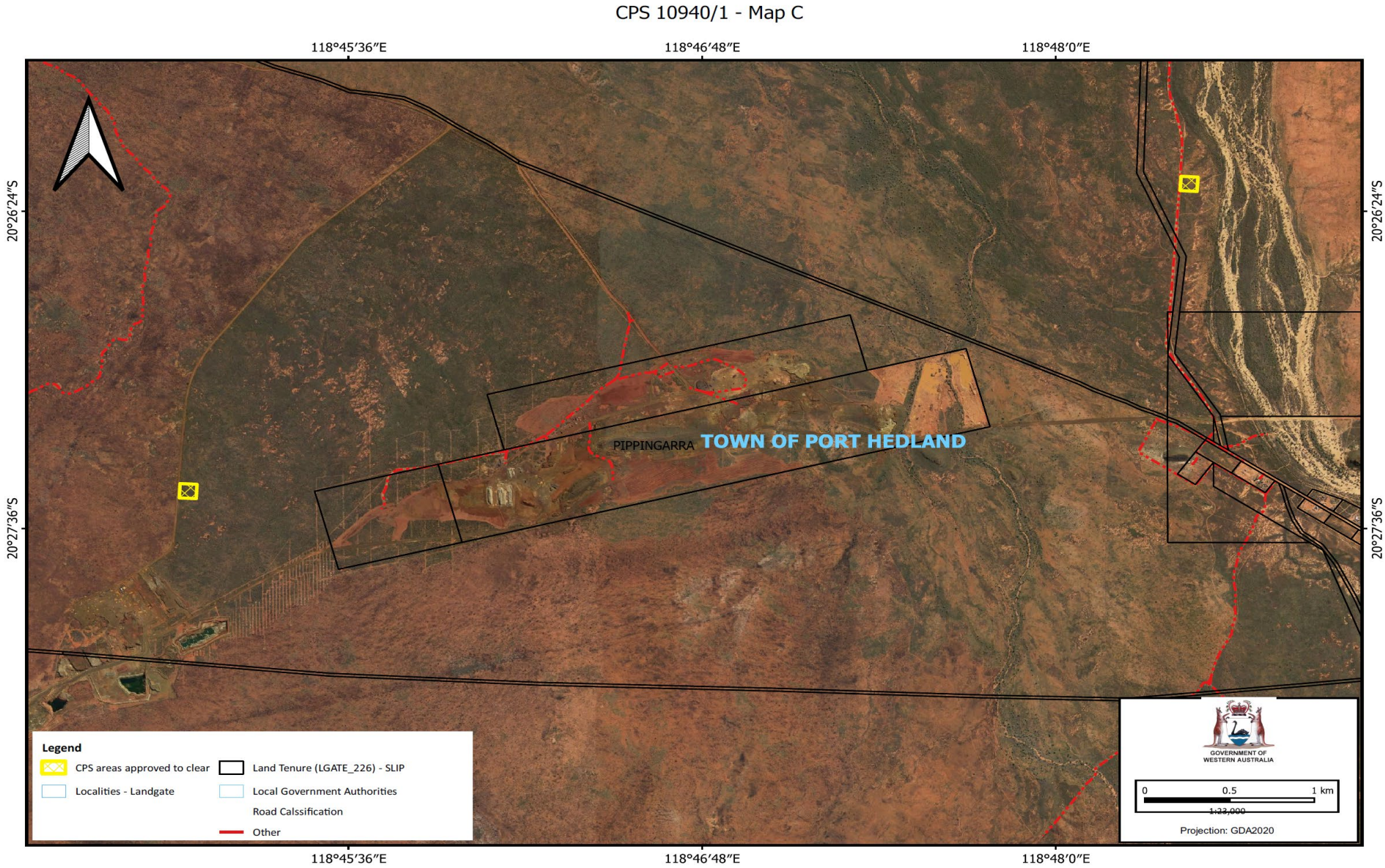


Figure 2-C: Site 5 and 6. Areas crosshatched yellow indicate the area approved to be cleared

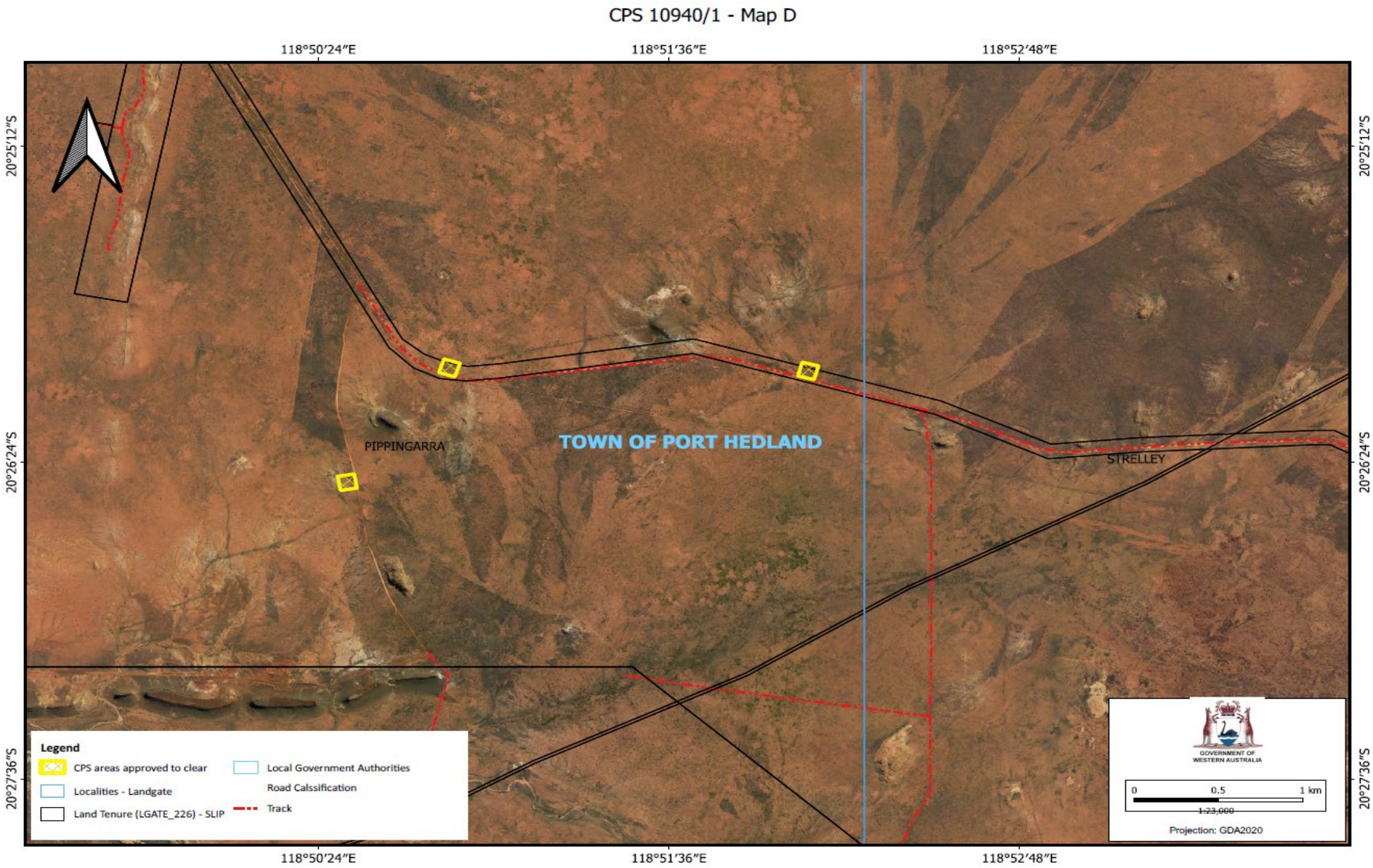


Figure 2-D: Site 7, 8 and 9. Areas crosshatched yellow indicate the area approved to be cleared

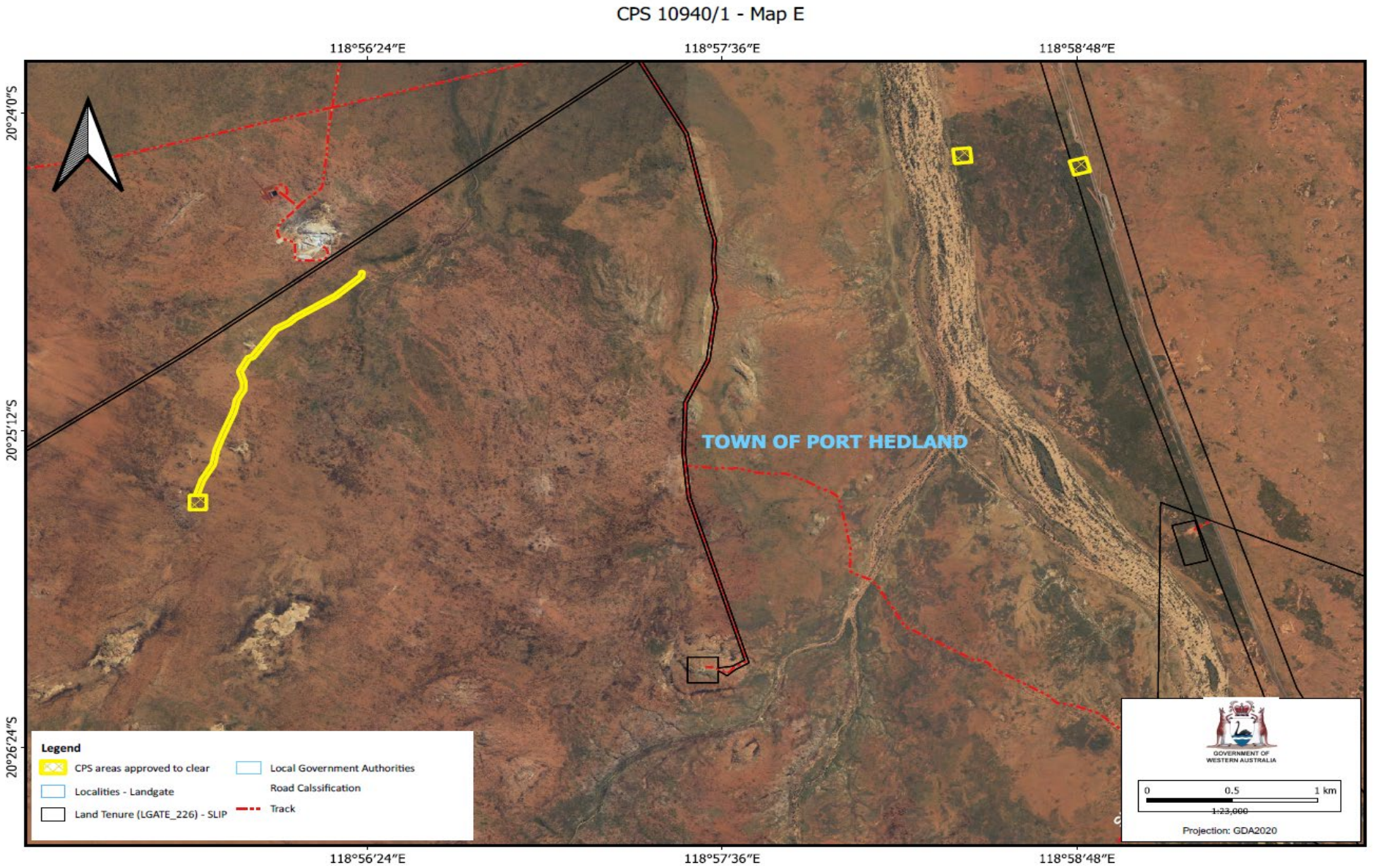


Figure 2-E: Site 10, 11 and 12. Areas crosshatched yellow indicate the area approved to be cleared

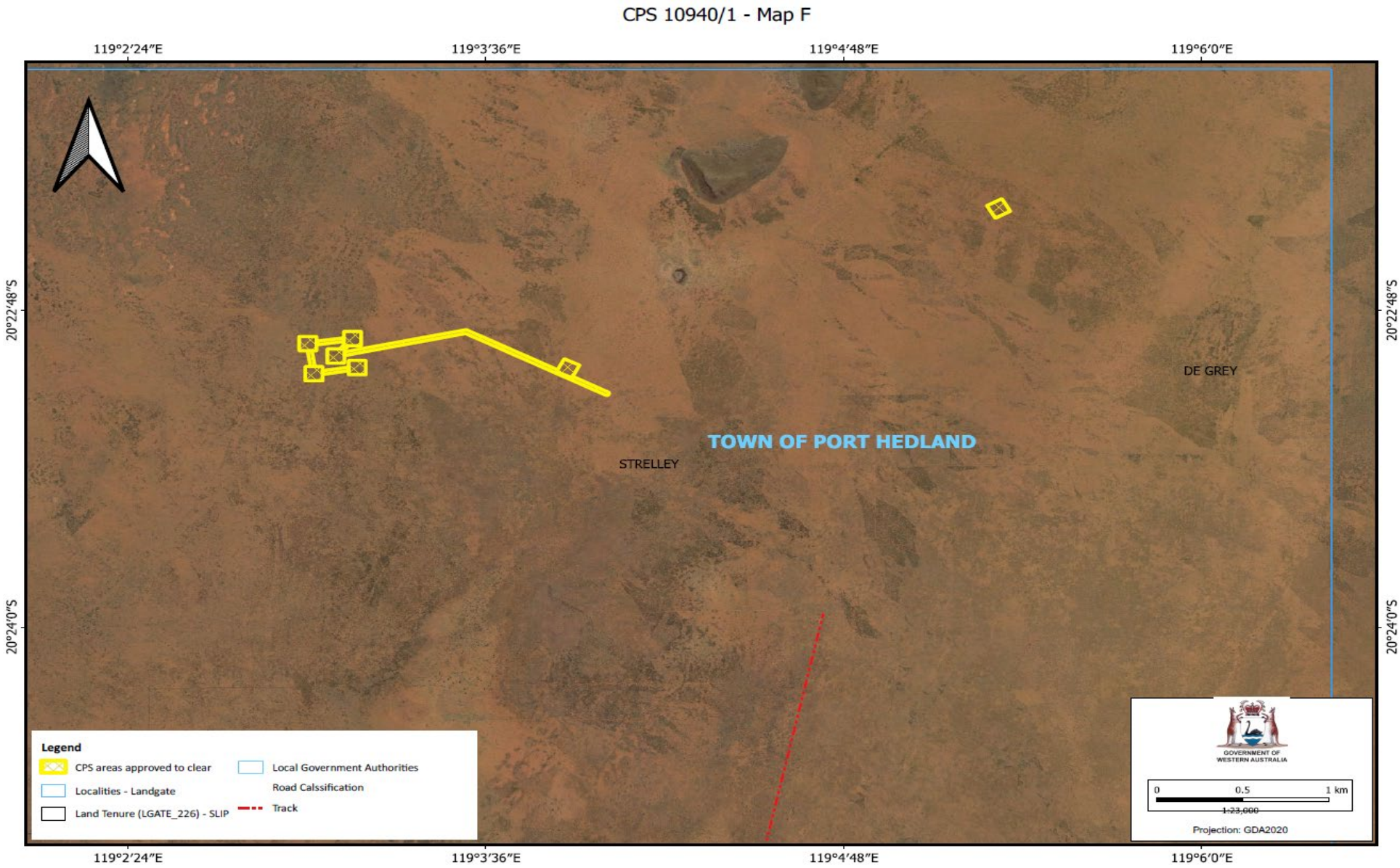


Figure 2-F: Sites 13 and 14. Areas crosshatched yellow indicate the area approved to be cleared

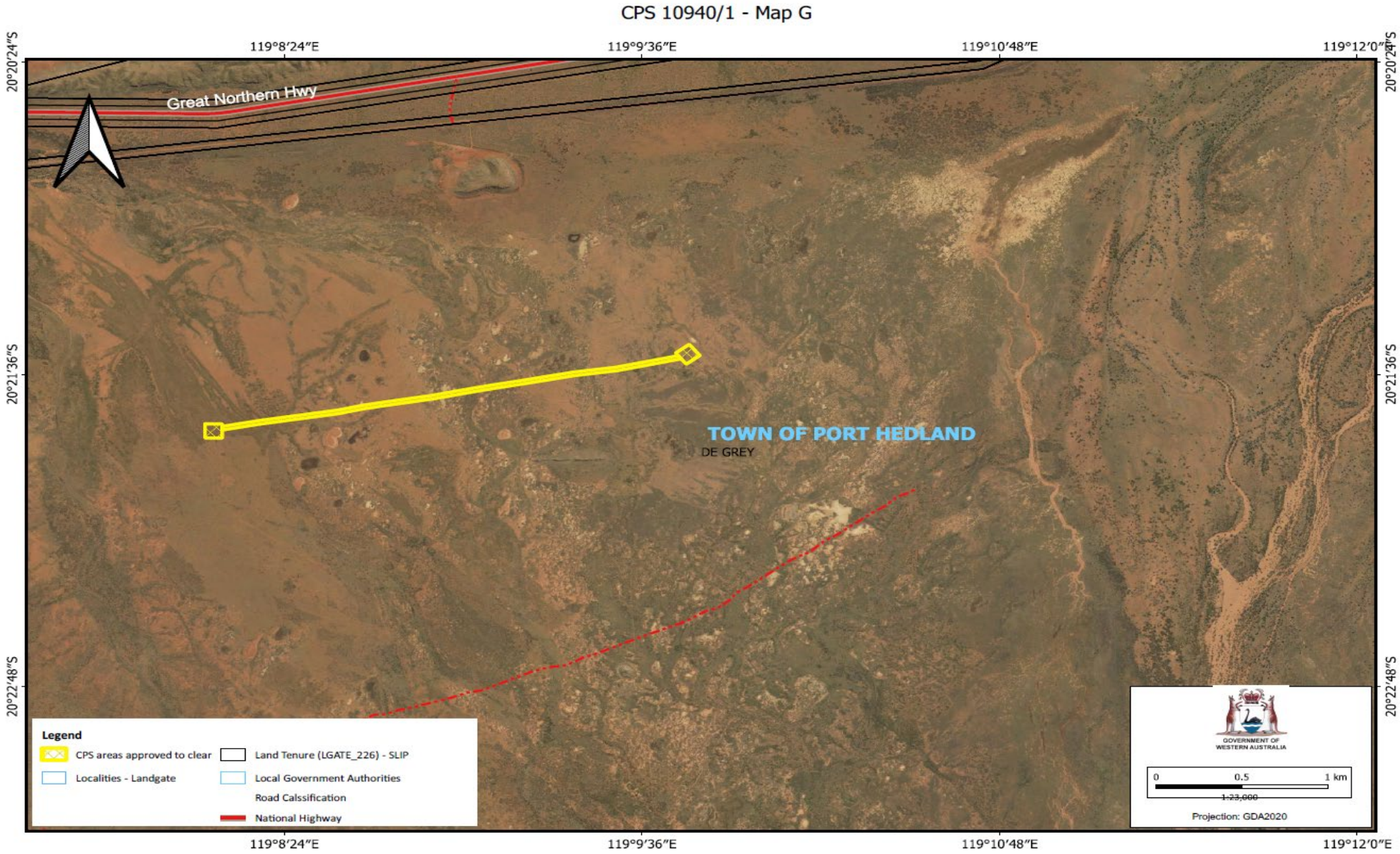


Figure 2-G: Site 15. Area crosshatched yellow indicates the area approved to be cleared

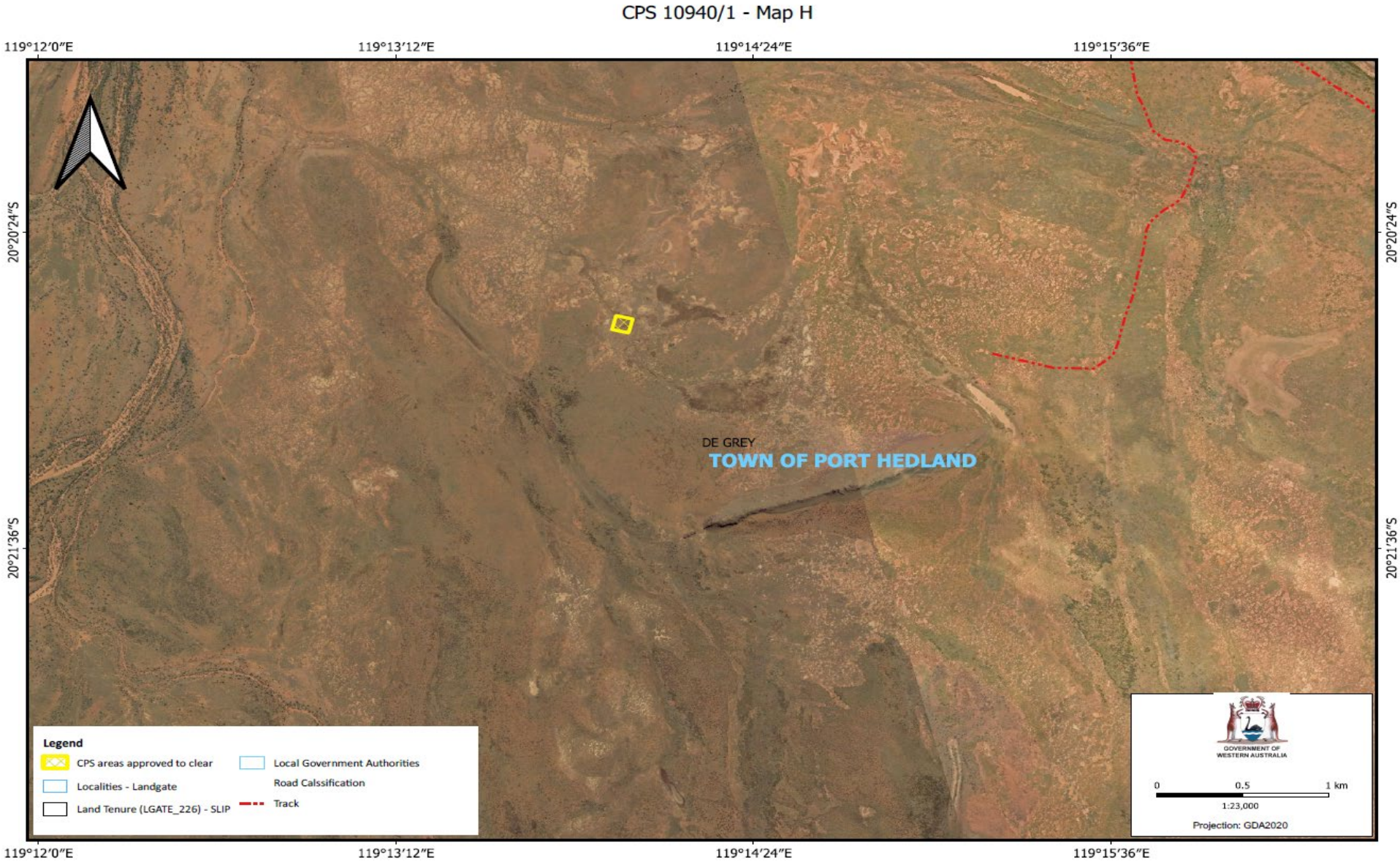


Figure 2-H: Site 16. Area crosshatched yellow indicates the area approved to be cleared

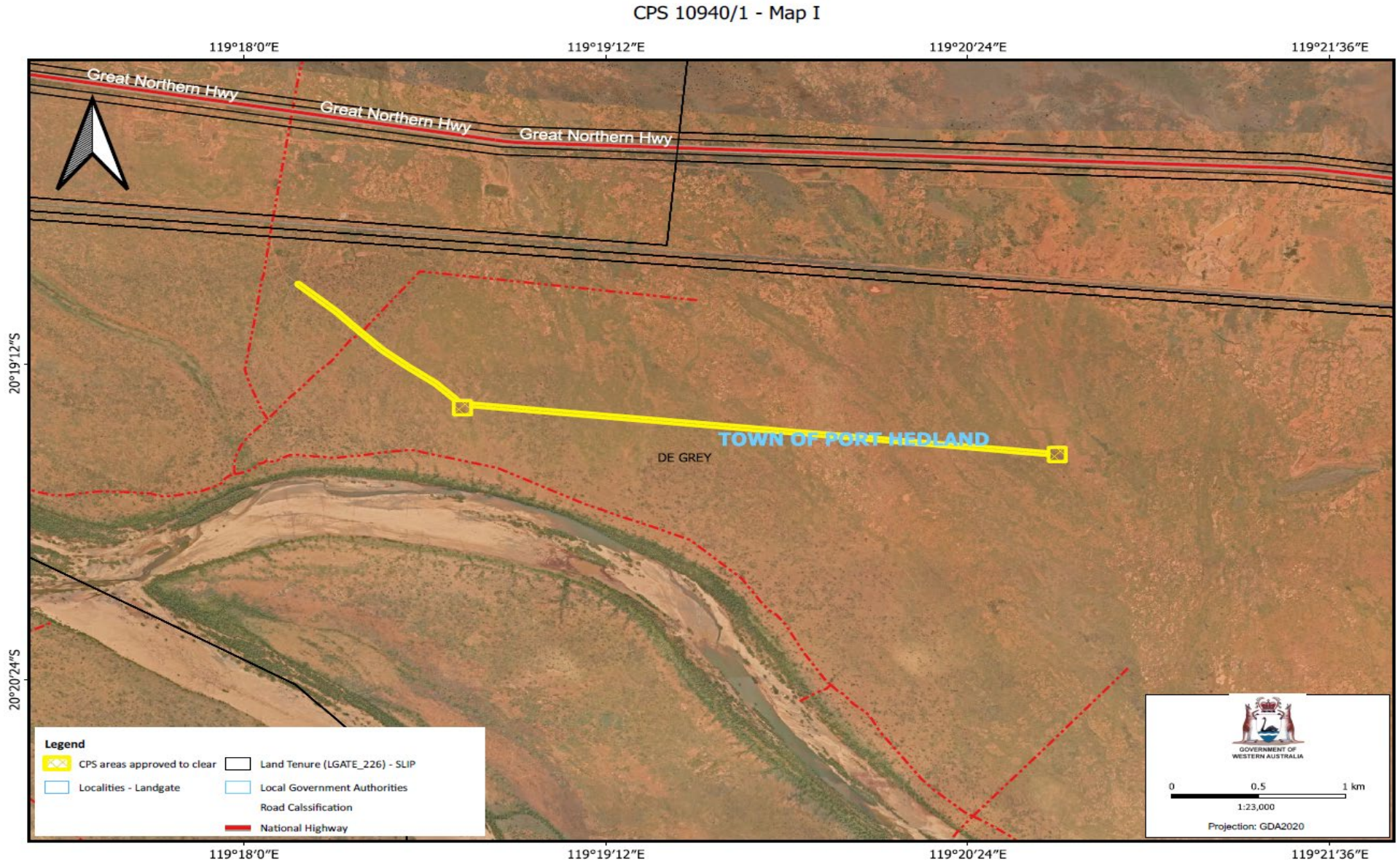


Figure 2-I: Site 17. Area crosshatched yellow indicates the area approved to be cleared

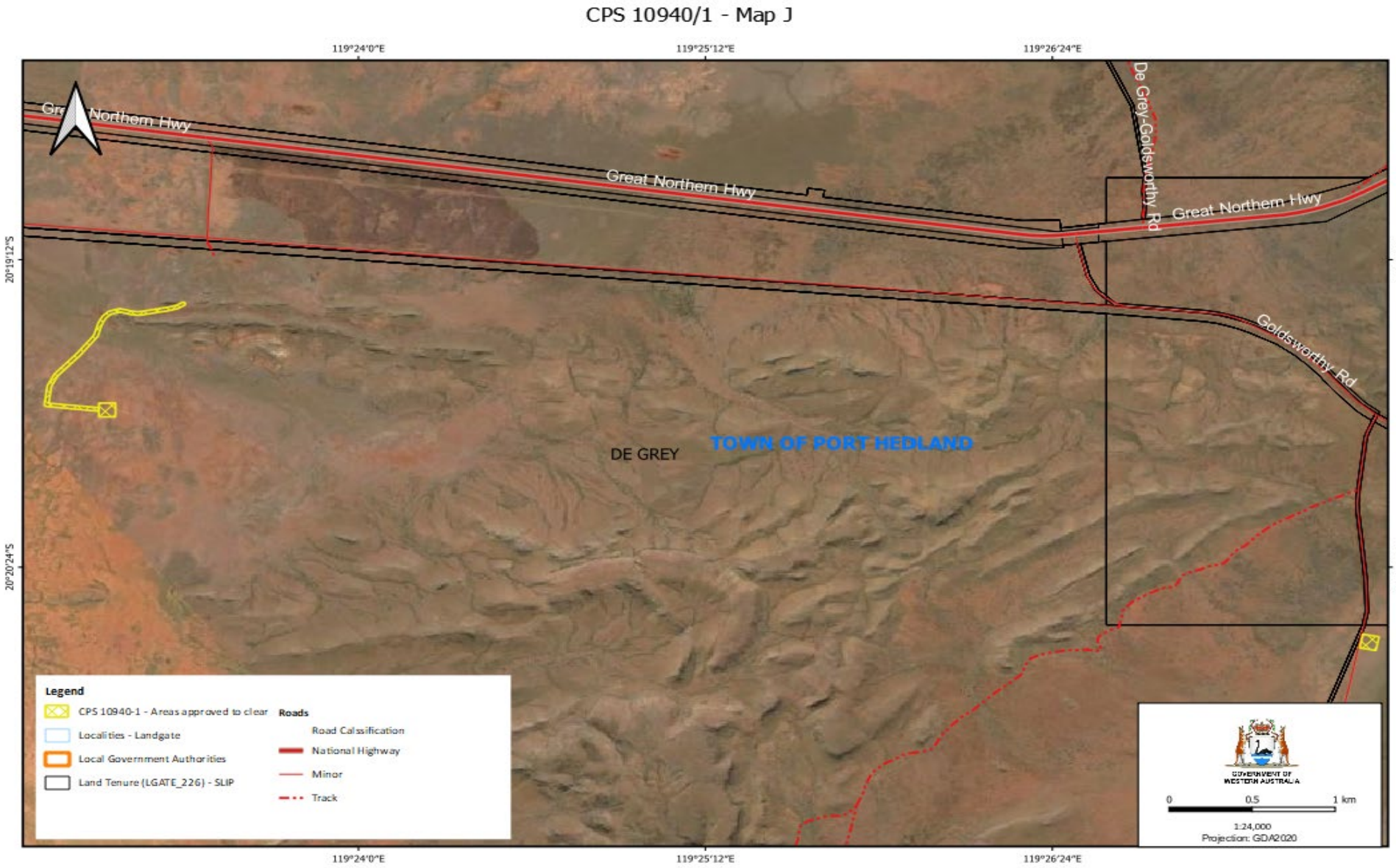


Figure 2-J: Site 18 and 19. Area crosshatched yellow indicates the area approved to be cleared

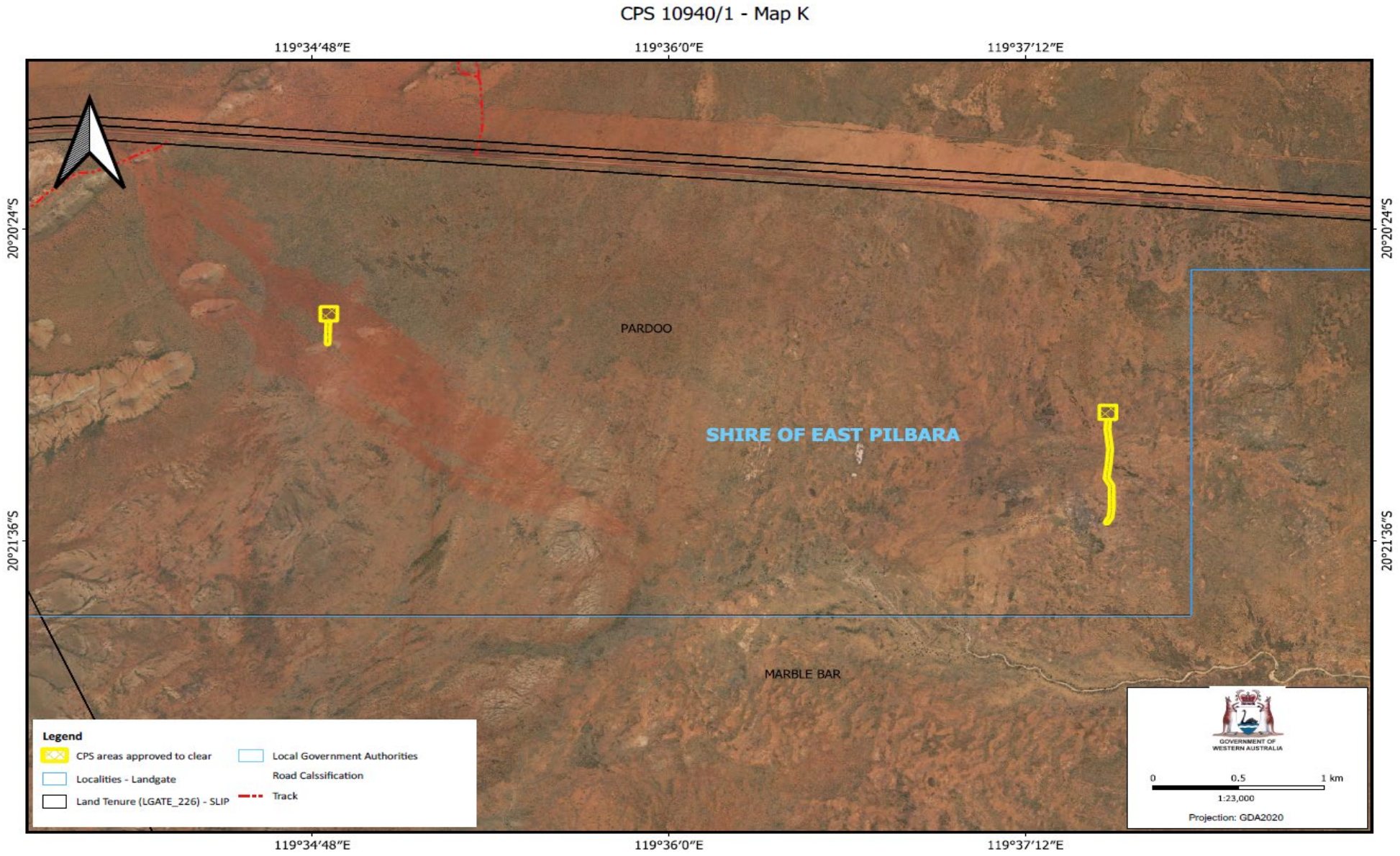


Figure 2-K: Sites 20 and 21. Areas crosshatched yellow indicate the approved area to be cleared

Figure 2-L: Sites 22, 23 and 24. Areas crosshatched yellow indicate the area approved to be cleared

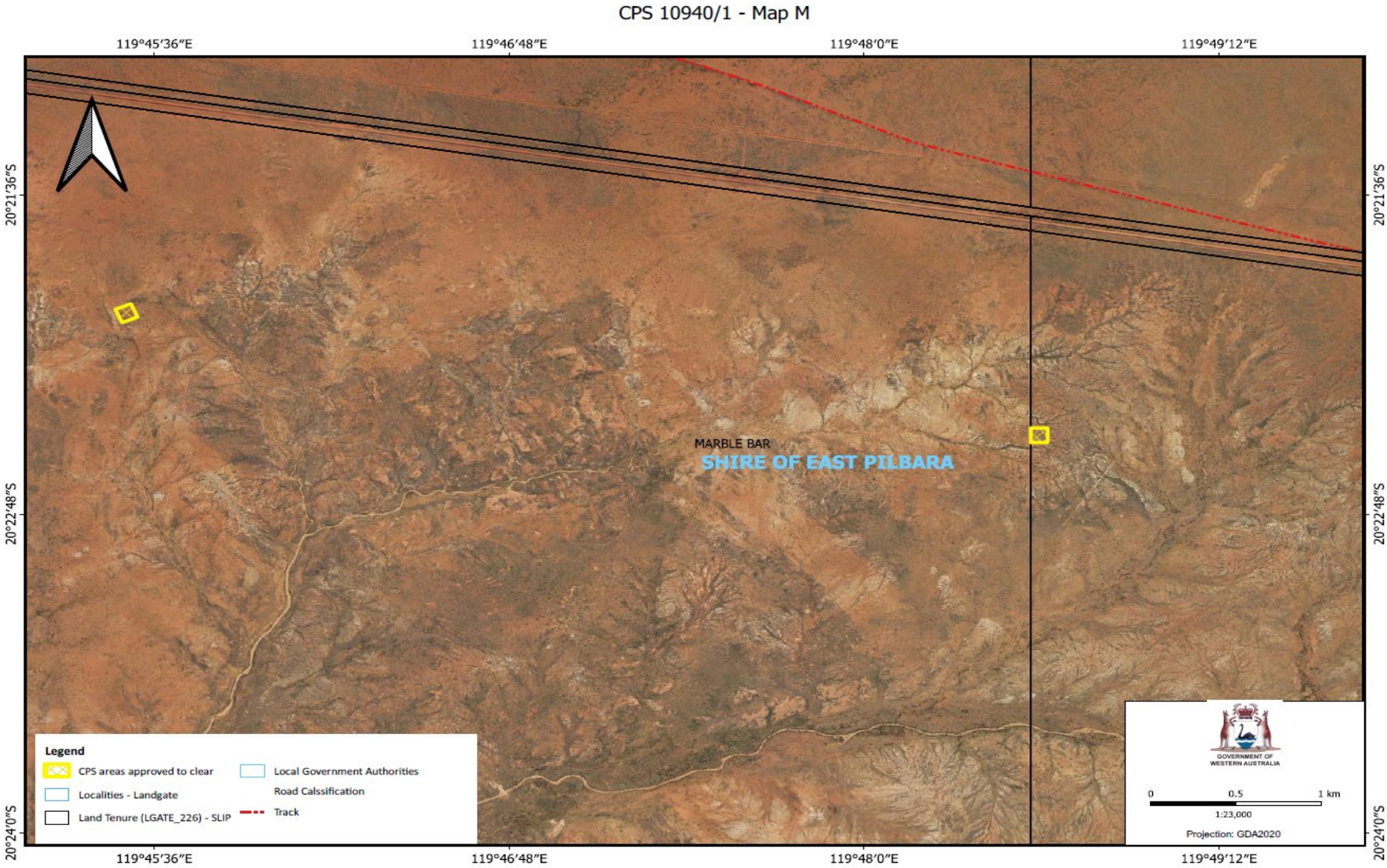


Figure 2-M: Sites 25 and 26. Areas crosshatched yellow indicate the area approved to be cleared

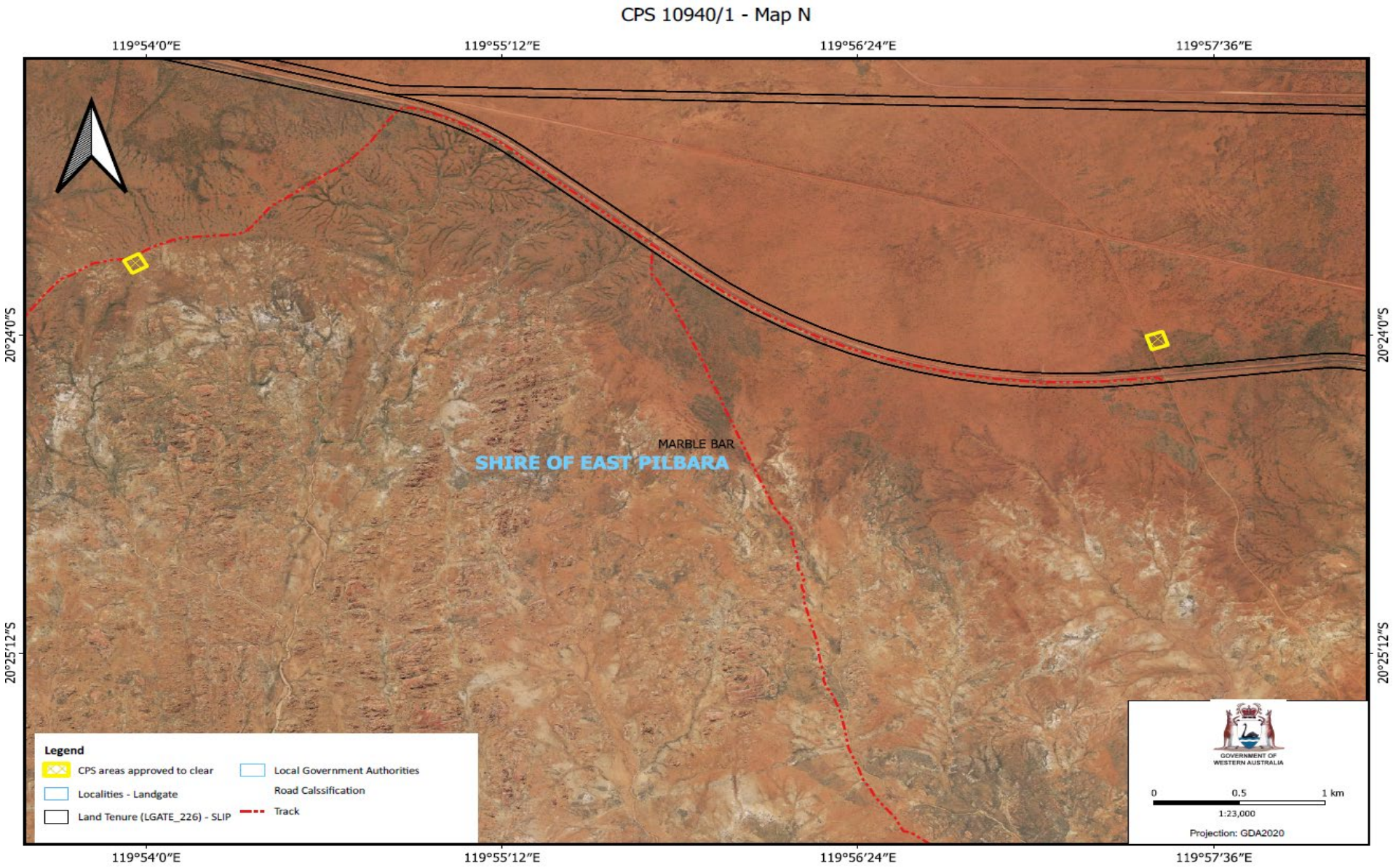


Figure 2-N: Sites 27 and 28. Areas crosshatched yellow indicate the area approved to be cleared

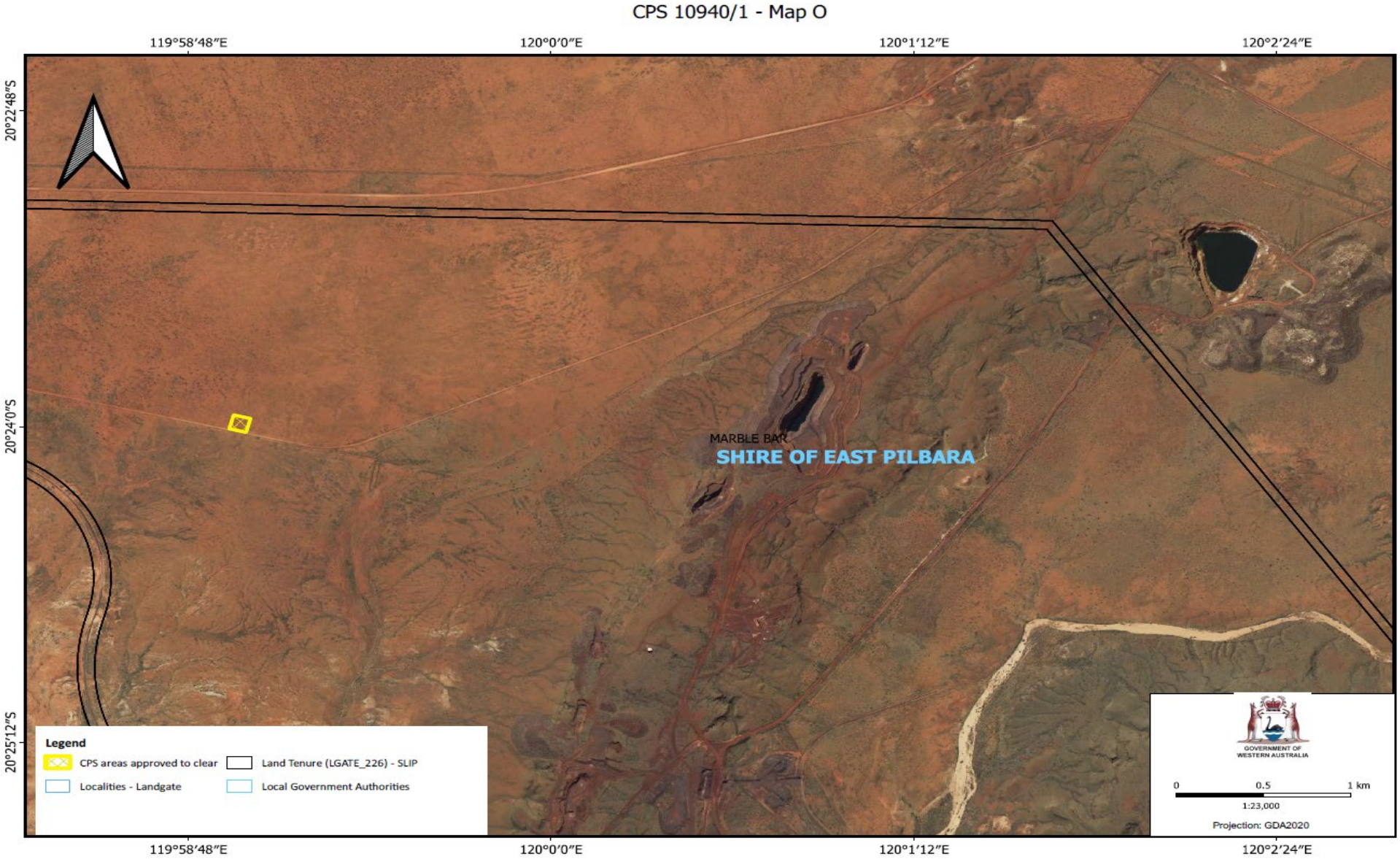


Figure 2-O: Site 29. Area crosshatched yellow indicates the area approved to be cleared

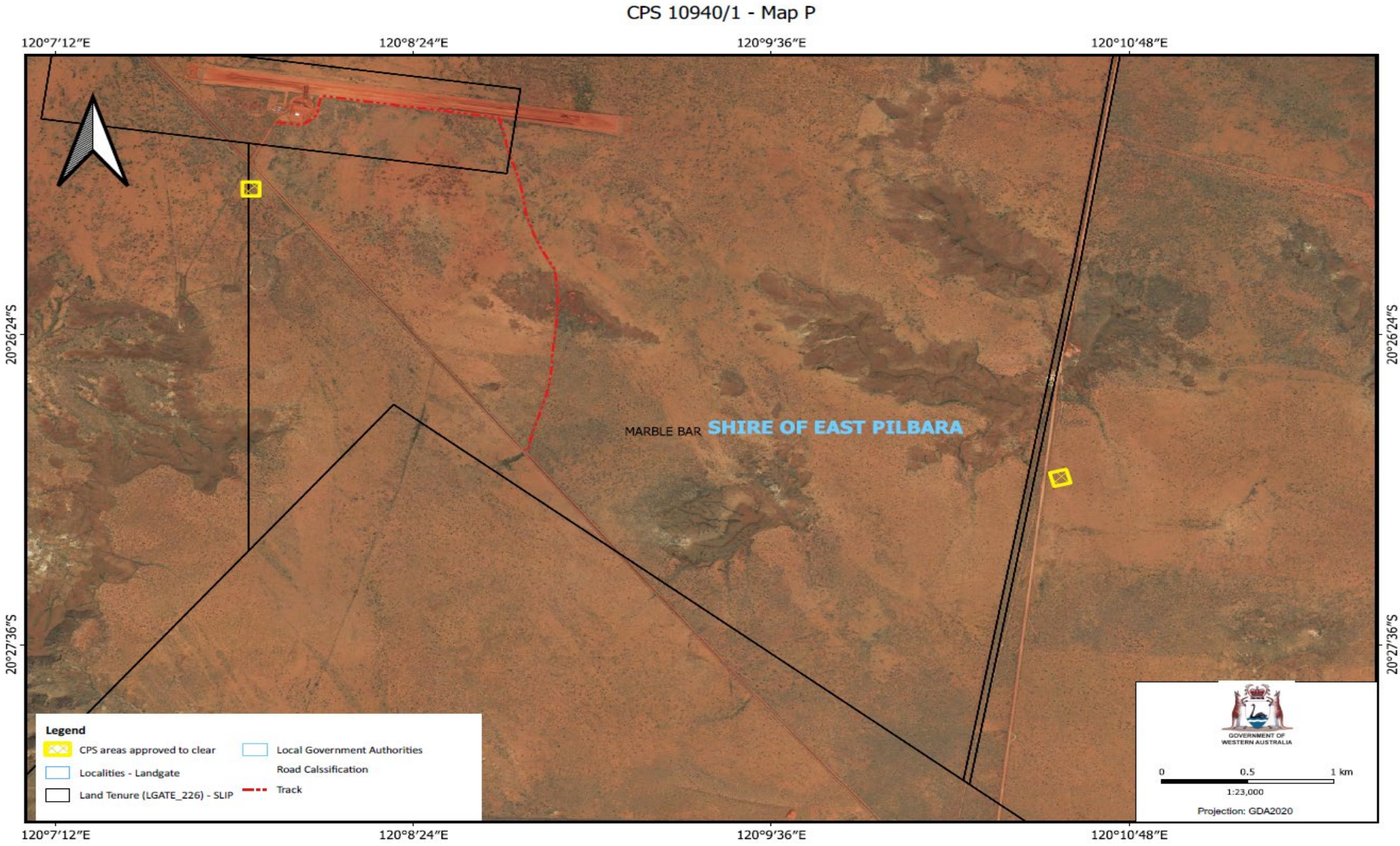


Figure 2-P: Sites 30 and 31. Areas crosshatched yellow indicate the area approved to be cleared

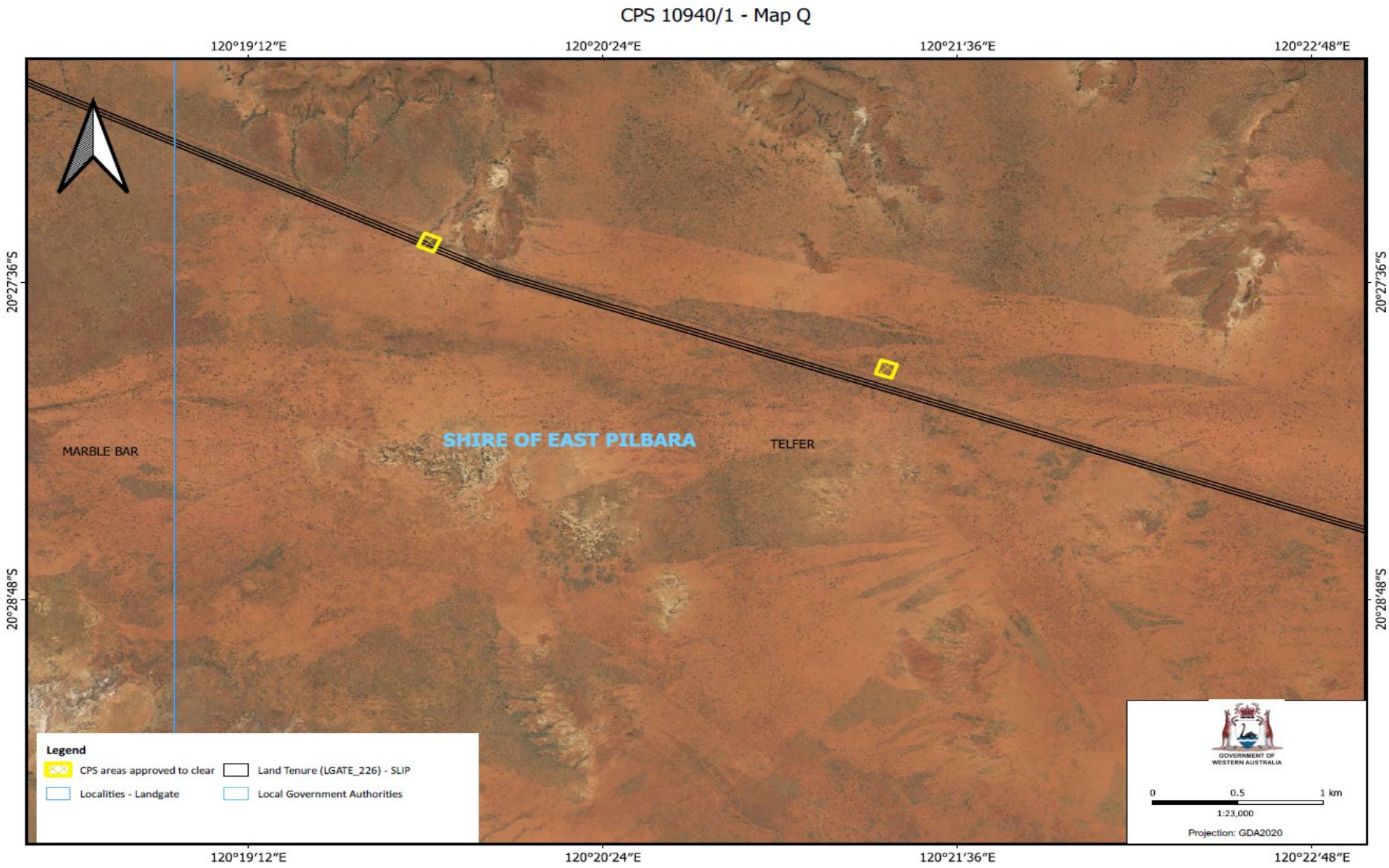


Figure 2-Q: Sites 32 and 33. Areas crosshatched yellow indicate the area approved to be cleared.

Government of Western Australia
Department of Water and Environmental Regulation

Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 10940/1
Permit type:	Purpose permit
Applicant name:	Regional Power Corporation, Trading as Horizon Power
Application received:	7 February 2025
Application area:	23.88 hectares (ha) of native vegetation within an 84.23 ha footprint
Purpose of clearing:	Investigative works for renewable energy infrastructure
Method of clearing:	Mechanical clearing
Property:	Great Northern Highway (PIN 11734365), Boodarie Pippingara Road Public Road (PIN 11734373), Pippingarra Public Road Reserve (PIN 11732983), Telfer Lot 100 on Deposited Plan 238025, Marble Bar Lot 101 on Deposited Plan 238018, Marble Bar Lot 102 on Deposited Plan 93527, Telfer Lot 104 on Deposited Plan 220785, Marble Bar Lot 200 on Deposited Plan 220785, De Grey Lot 202 on Deposited Plan 220387, Pippingarra Lot 300 on Deposited Plan 58181, Strelley Lot 65 on Deposited Plan 48920, Pippingarra Lot 252 on Deposited Plan 238657, Strelley Lot 606 on Deposited Plan 422324, Pardoo Lot 1499 on Deposited Plan 404497, Boodarie Lot 1507 on Deposited Plan 423425, Boodarie
Location (LGA area/s):	Town of Port Hedland and Shire of East Pilbara
Localities (suburb/s):	Boodarie, Pippingarra, Strelley, De Grey, Pardoo, Marble Bar and Telfer

1.2. Description of clearing activities

The application is to clear native vegetation of up to 23.88 hectares (ha) distributed across the 33 sites within an 84.23 ha clearing footprint. The purpose of clearing is to facilitate the preliminary geotechnical and groundwater investigations to inform the final and detailed design of the Pilbara Green Link (PGL) Project. The PGL Project includes the construction of a 330kV transmission line that will interconnect existing Horizon Power (the applicant) infrastructure at Port Hedland with the Australian Renewable Energy Hub (AREH). The planned transmission line extends approximately 275 km. The project is in support of the State of Western Australia's commitment to the transition to renewable energy in the Pilbara region.

The proposed clearing within the respective clearing footprint is for the following activities:

- 10 groundwater bores (4.90 ha)
- 37 test pits (1.18 ha)
- 17 bores for geotechnical investigations (0.76 ha)
- access tracks of approximately 16.23 km long and up to 10 meters (m) wide (17.04).

The required access tracks will be mostly located within existing tracks (see Figure 2). The investigation pads, test pits and groundwater bores are co-located, and the proposed clearing area (23.88 ha) includes a 5% contingency for flexibility which will allow for further avoidance of impact on environmental values. As such, the actual extent of clearing is likely to be less than the proposed extent. Parts of proposed clearing are temporary in nature. In post investigation works, the existing tracks and tracks associated with groundwater bores will be retained, while new tracks cleared for other temporary and investigation works will be rehabilitated.

1.3. Decision on application

Decision:	Granted
Decision date:	17 September 2025
Decision area:	23.88 hectares (ha) of native vegetation in an 84.23 hectares (ha) footprint, as depicted in Section 1.5 below.

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Water and Environmental Regulation (DWER) advertised the application for 21 days. No submissions were received.

In making this decision, the Delegated Officer had regard for the:

- site characteristics (see Appendix A)
- relevant datasets (see Appendix E.1)
- findings of the fauna, and flora and vegetation (Biota, 2024) survey undertaken within the PGL project area (see Appendix D)
- clearing principles set out in Schedule 5 of the EP Act (see Appendix B)
- findings of the DWER's environmental impact assessment of the proposed activities (see Section 3.2)
- requirements under the *Rights in Water and Irrigation Act 1914* (RiWI Act) on advice from Department of Water and Environmental Regulation (DWER) (Section 3.2.2)
- relevant planning instruments and any other matters considered relevant to the assessment (see Section 3)

The Delegated Officer also took into consideration that the objective of the proposal is to facilitate the construction of renewable energy infrastructure that will support the State of Western Australia's commitment for the transition to renewable energy.

The assessment identified that the proposed clearing may result in:

- removal native vegetation that is suitable habitat for conservation significant fauna including the *Macrotis lagotis* (bilby), *Dasyurus hallucatus* (northern quoll) and *Dasycercus blythi* (mulgara). However, the clearing is considered unlikely to significantly impact on the conservation significant fauna species. Fauna management conditions on the permit include requirements for pre-clearing surveys and rehabilitation of temporary cleared areas, to mitigate potential impacts.
- constructed test pits and bores potentially trapping fauna if uncovered. Covering of the pits and bores immediately after use will mitigate this impact and is required as a condition in the Permit.
- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values. Weed control and management is required as a condition in the permit to mitigate this impact.
- potential land degradation from wind erosion where cleared areas remain bare for extended periods. This can be minimised by limiting bare soil exposure and rehabilitating temporary work areas and is conditioned on the permit.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined that the proposed clearing is unlikely to lead to appreciable or long-term adverse impacts on environmental values including flora, fauna, vegetation and soils. The potential impacts can be managed to avoid an unacceptable risk to the environment and therefore, the Delegated Officer decided to grant a clearing permit subject to conditions including:

- avoid, minimise to reduce the impacts and extent of clearing,

- take hygiene steps to minimise the risk of the introduction and spread of weeds,
- undertake slow, progressive one directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity,
- undertake pre-clearing survey for conservation significant fauna,
- revegetate and rehabilitate areas cleared for temporary works by laying stockpiled vegetative material and topsoil on the cleared area,
- backfilling, fencing or covering all test pits and bore holes to prevent fauna access and potential injuries,
- commence investigation and construction works within two months of authorised clearing, and
- ensure surface water flows around watercourses impacted by clearing, are maintained.

1.5. Site map(s)

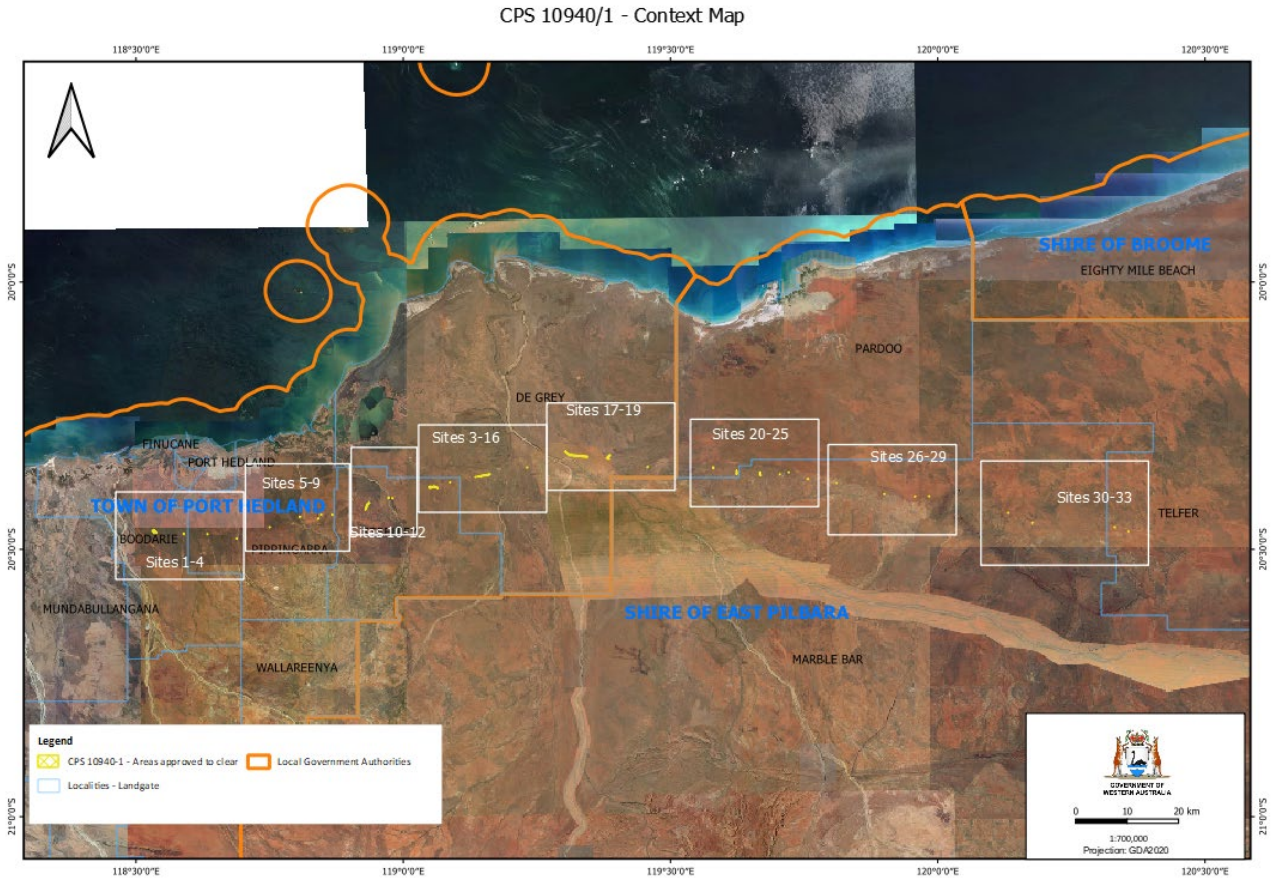


Figure 1. Context map of the areas approved to clear. Areas crosshatched yellow indicate the area approved to be cleared

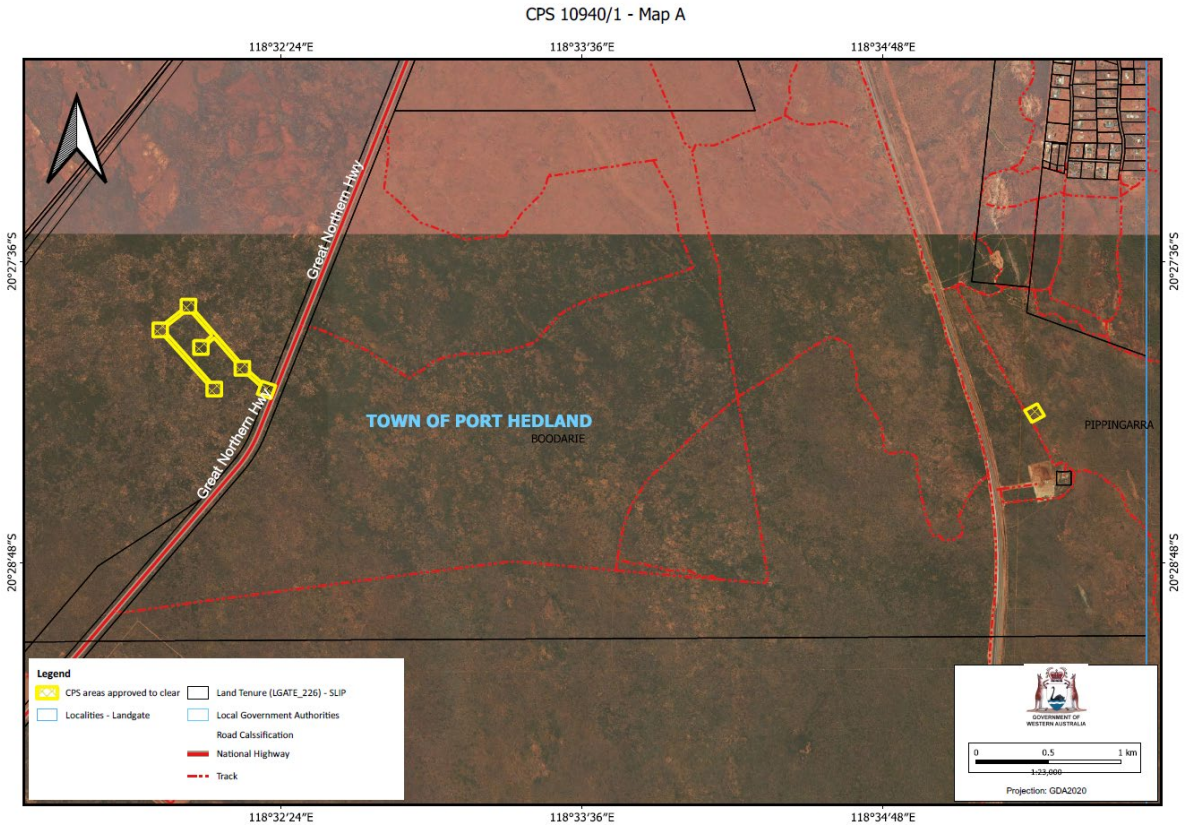


Figure 2-A. Site 1 and 2. Areas crosshatched yellow indicate the area approved to be cleared

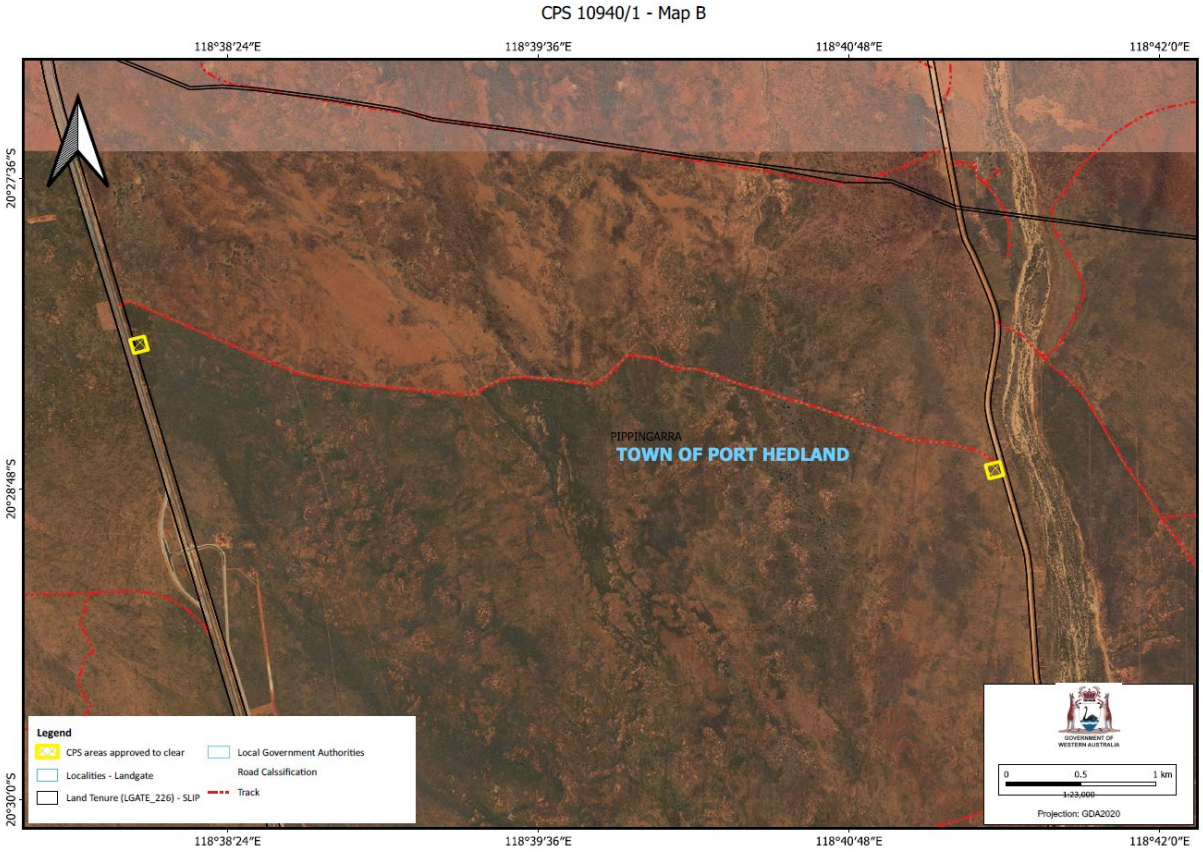


Figure 2-B. Sites 3 and 4. Areas crosshatched yellow indicate the area approved to be cleared

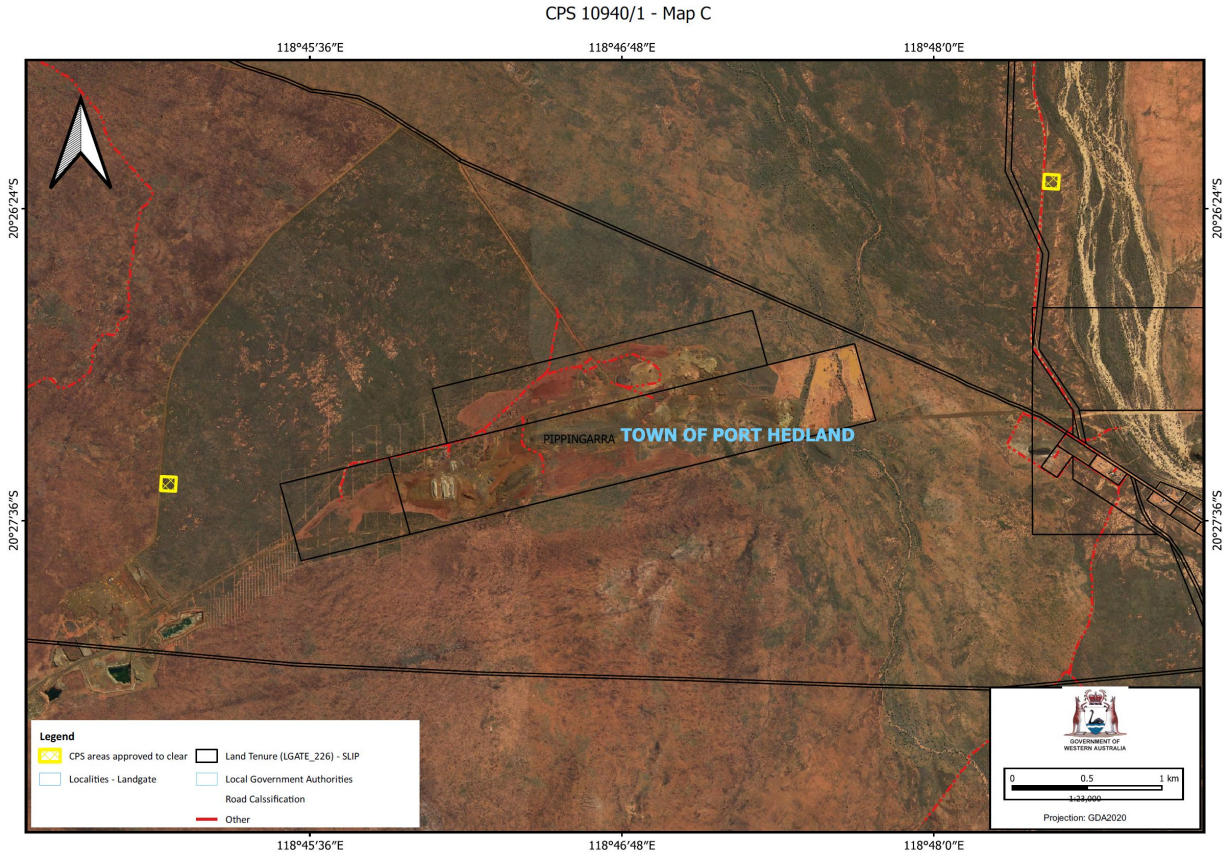


Figure 2-C. Sites 5 and 6. Areas crosshatched yellow indicate the area approved to be cleared

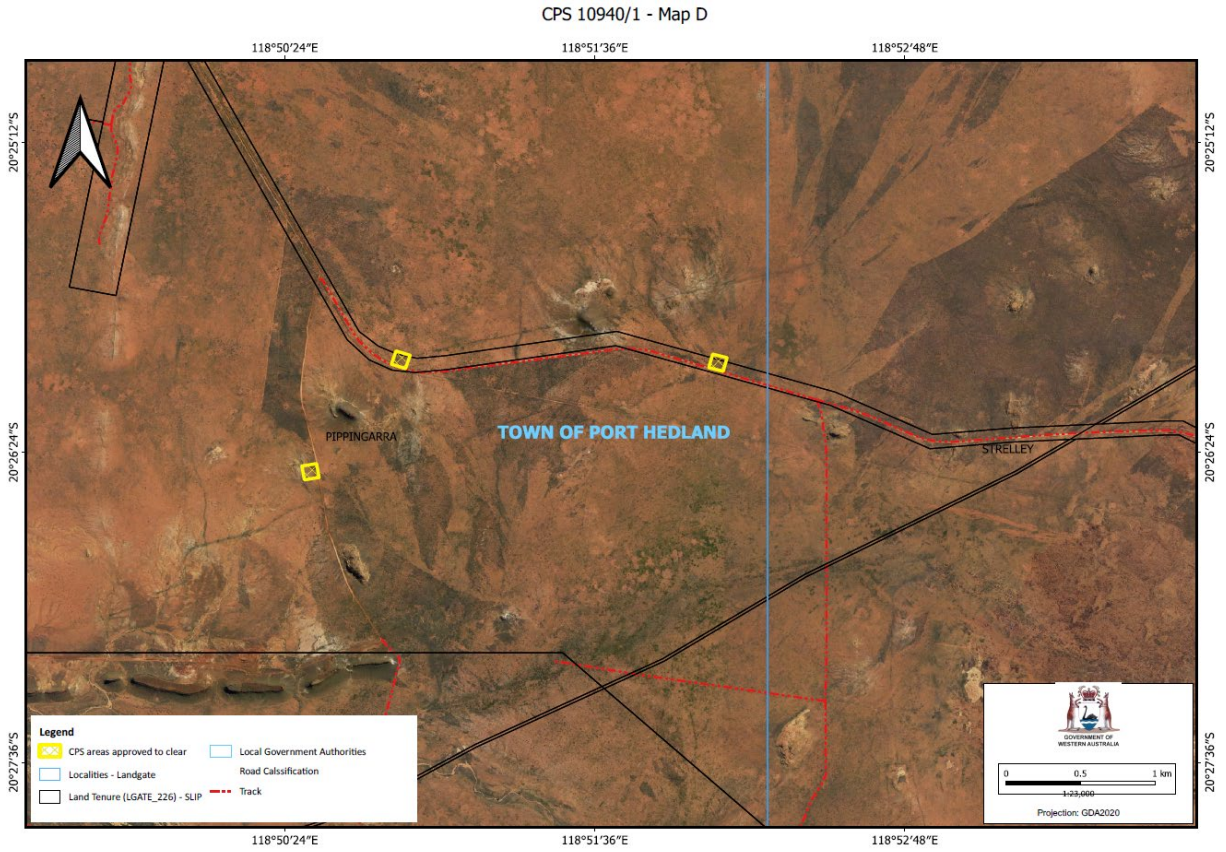


Figure 2-D. Sites 7, 8 and 9. Areas crosshatched yellow indicate the area approved to be cleared

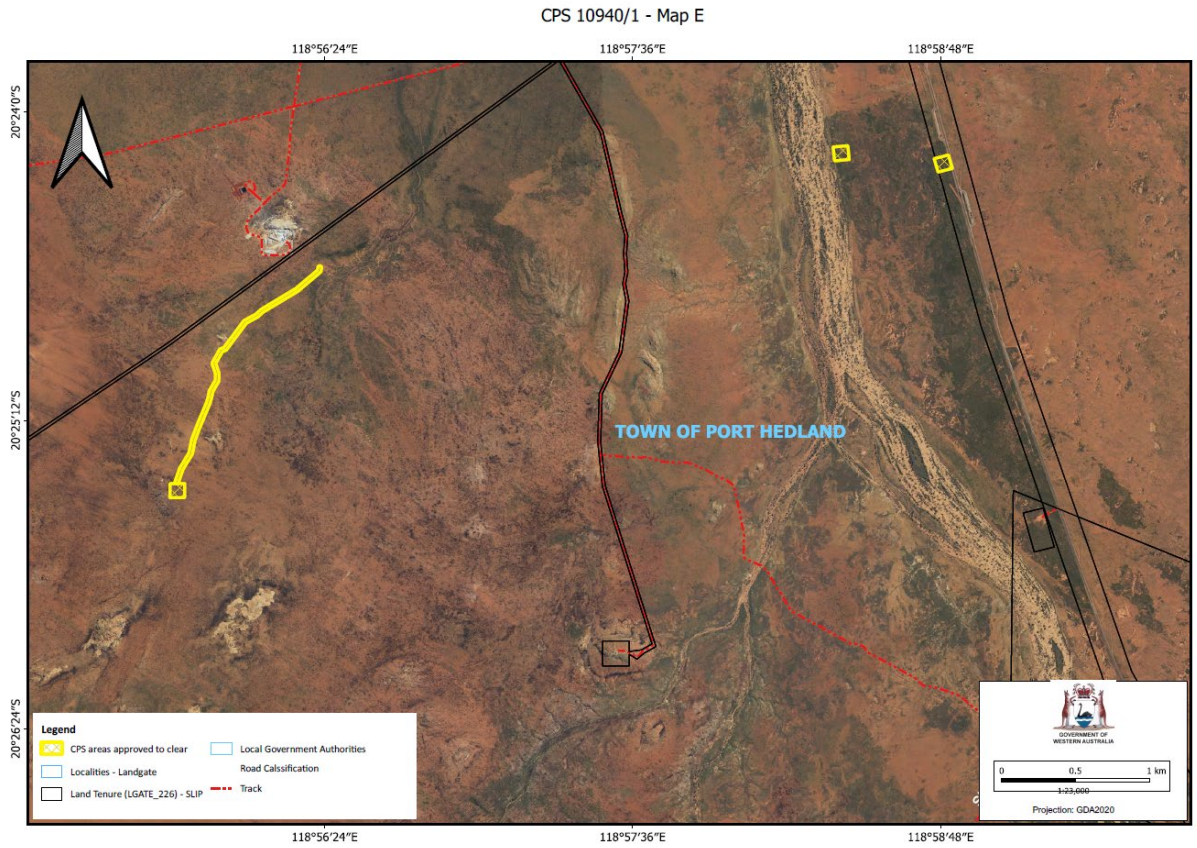


Figure 2-E. Sites 10, 11 and 12. Areas crosshatched yellow indicate the area approved to be cleared

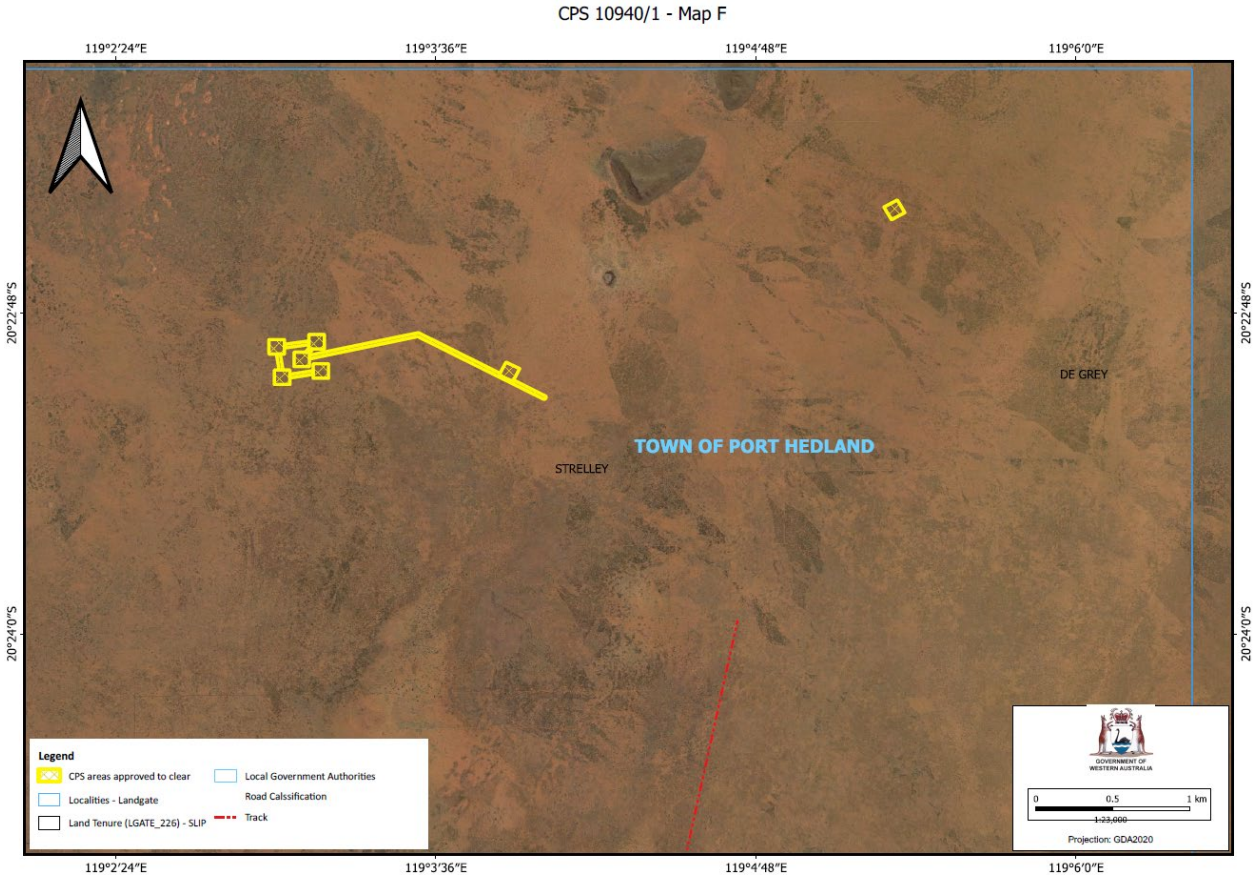


Figure 2-F. Sites 13 and 14. Areas crosshatched yellow indicate the area approved to be cleared

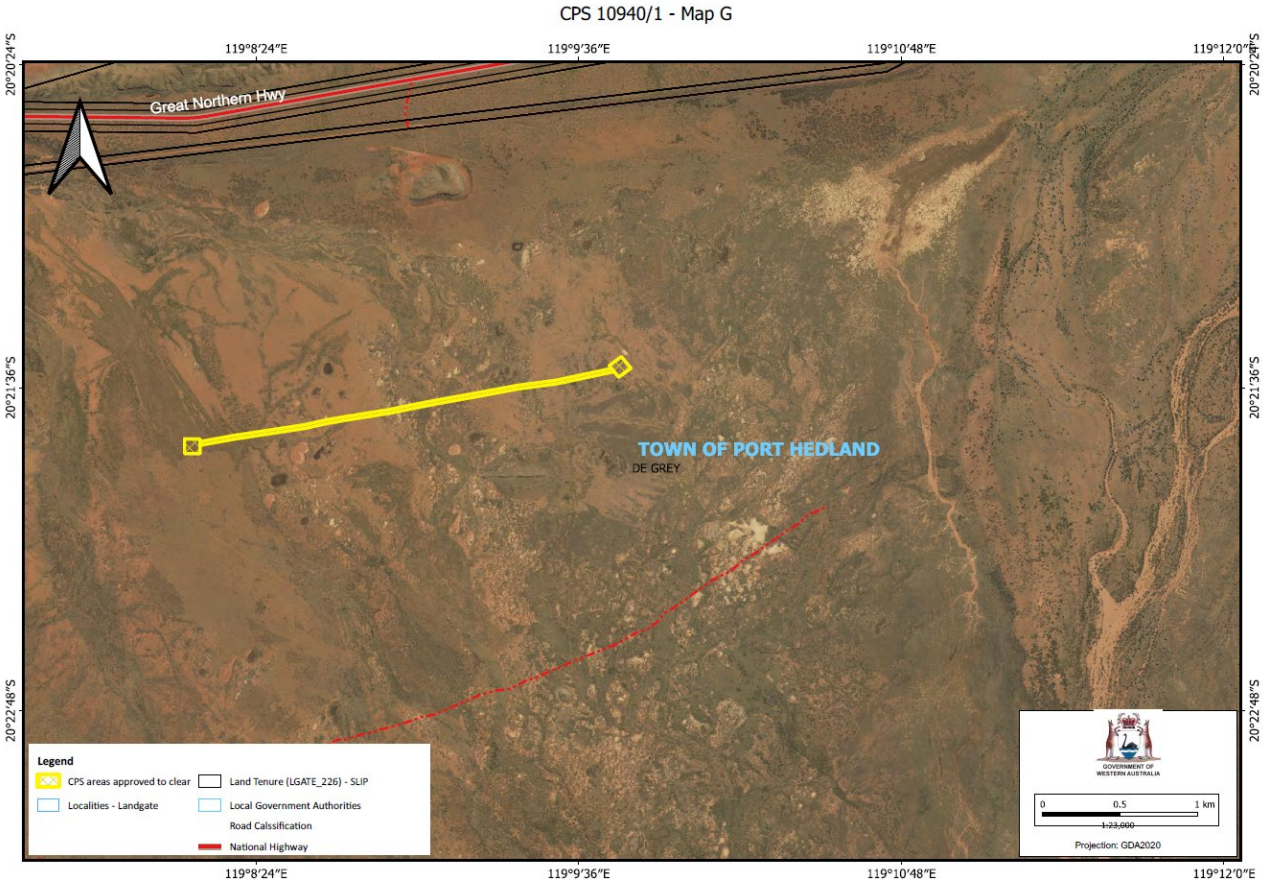


Figure 2-G. Site 15. Area crosshatched yellow indicates the area approved to be cleared

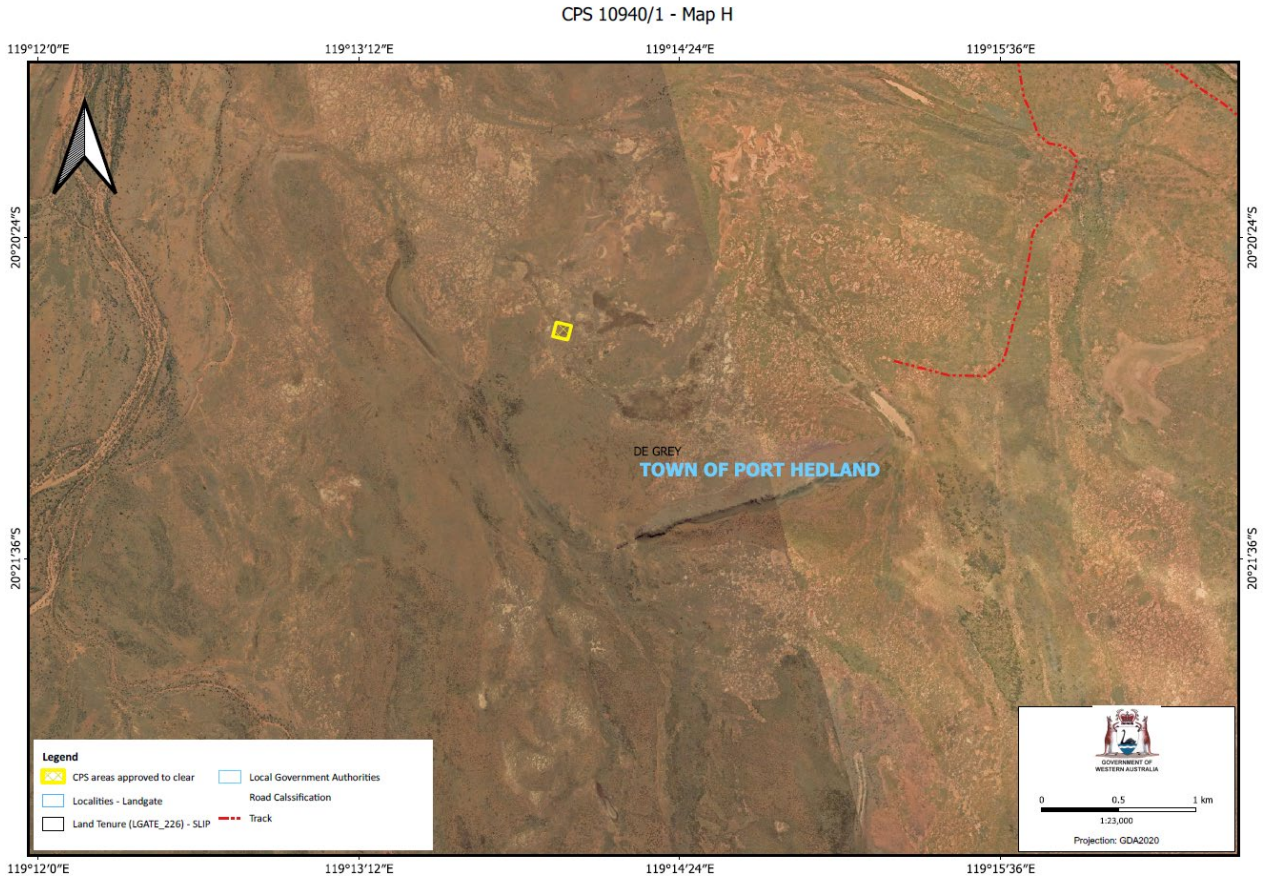


Figure 2-H. Site 16. Area crosshatched yellow indicates the area approved to be cleared

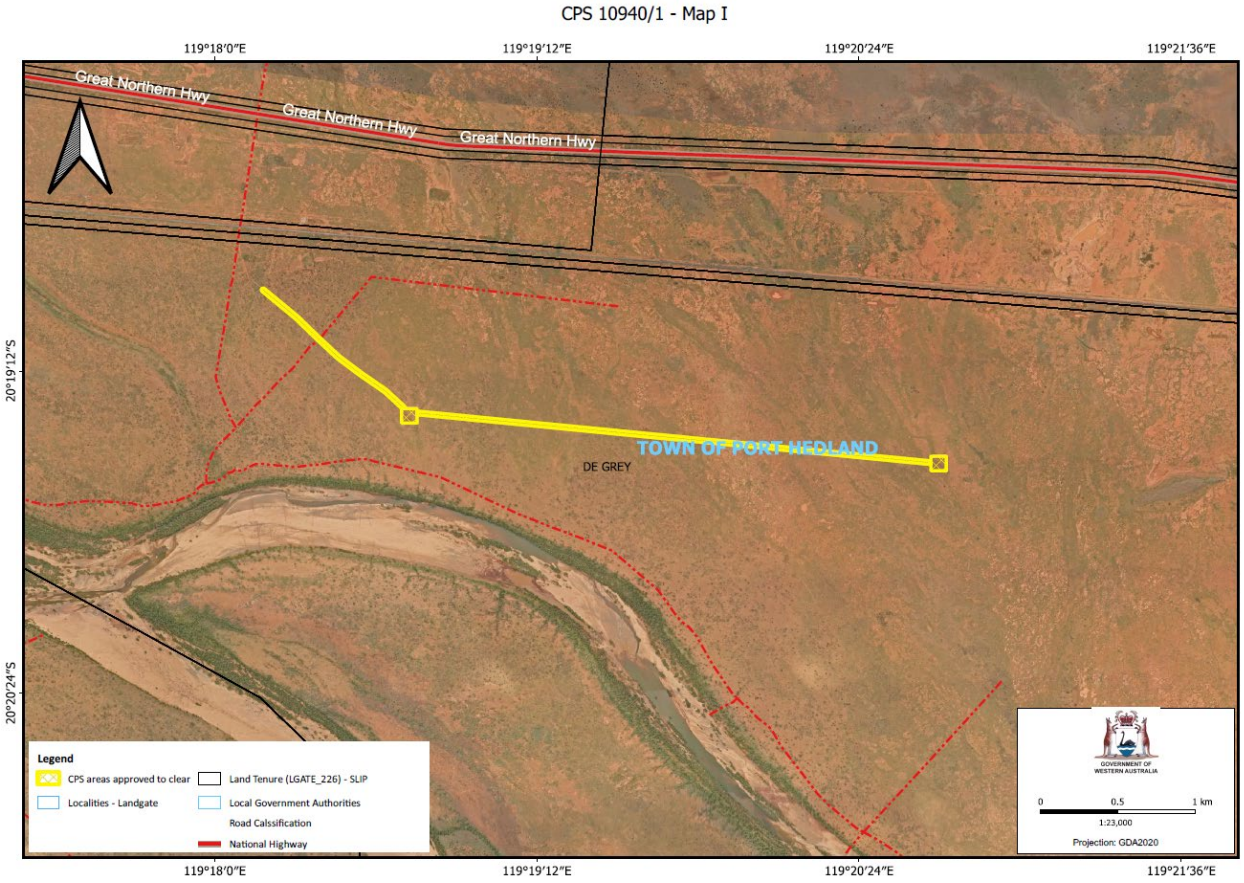


Figure 2-I. Site 17. Area crosshatched yellow indicates the area approved to be cleared

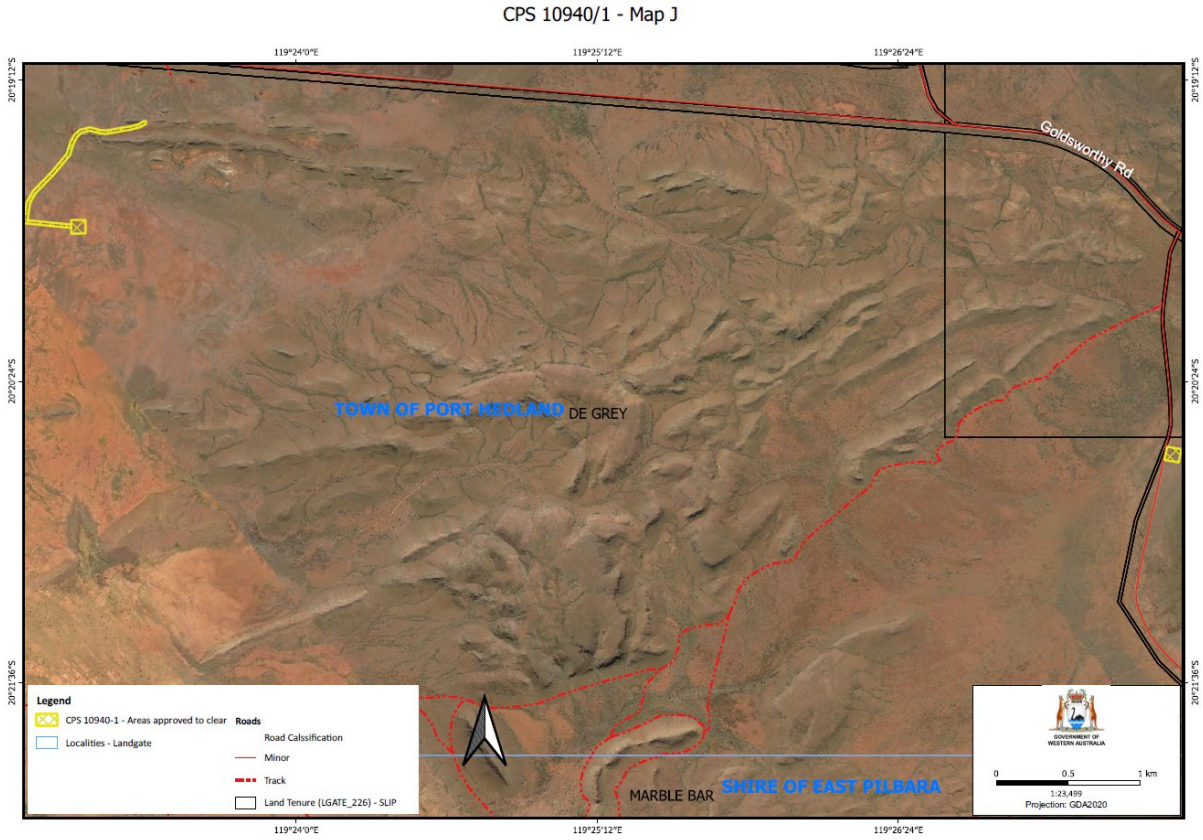


Figure 2-J. Site 18 and 19. Area crosshatched yellow indicates the area approved to be cleared

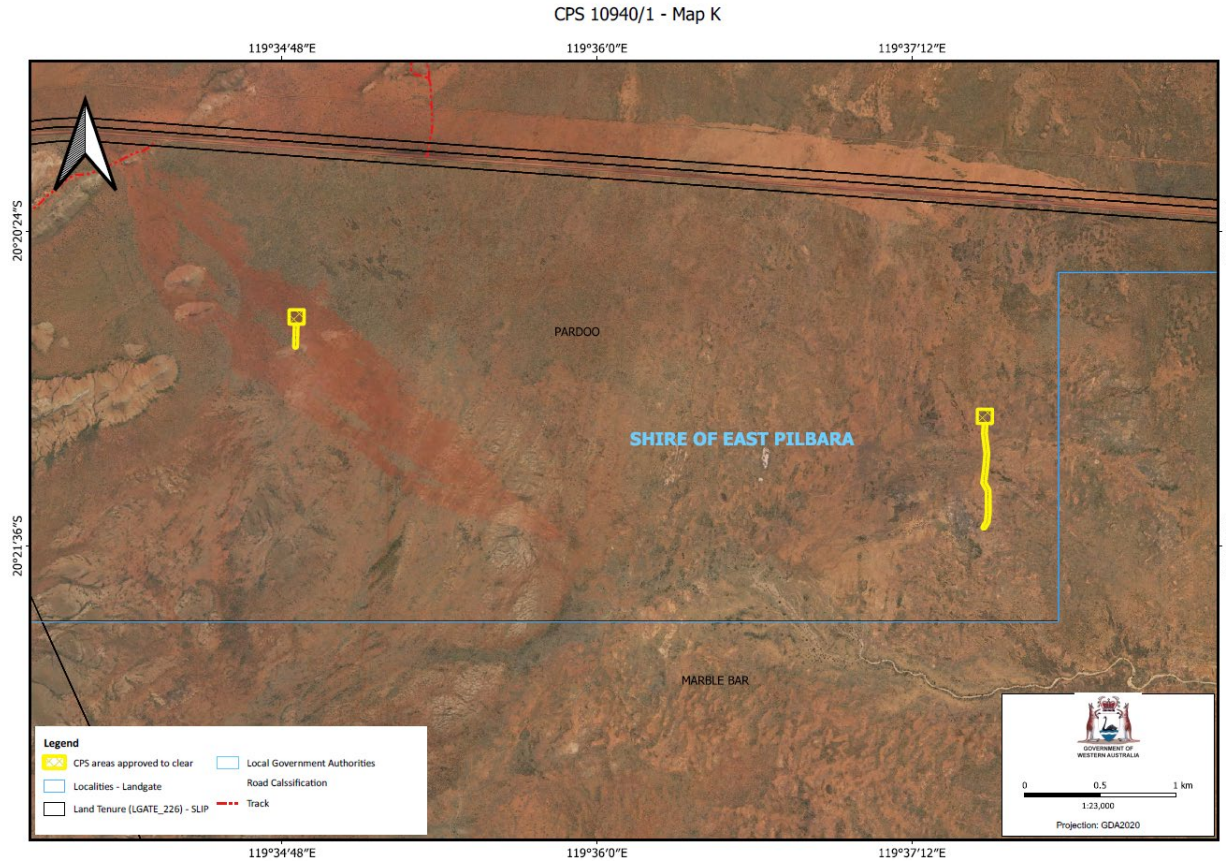


Figure 2-K. Sites 20 and 21. Areas crosshatched yellow indicate the area approved to be cleared

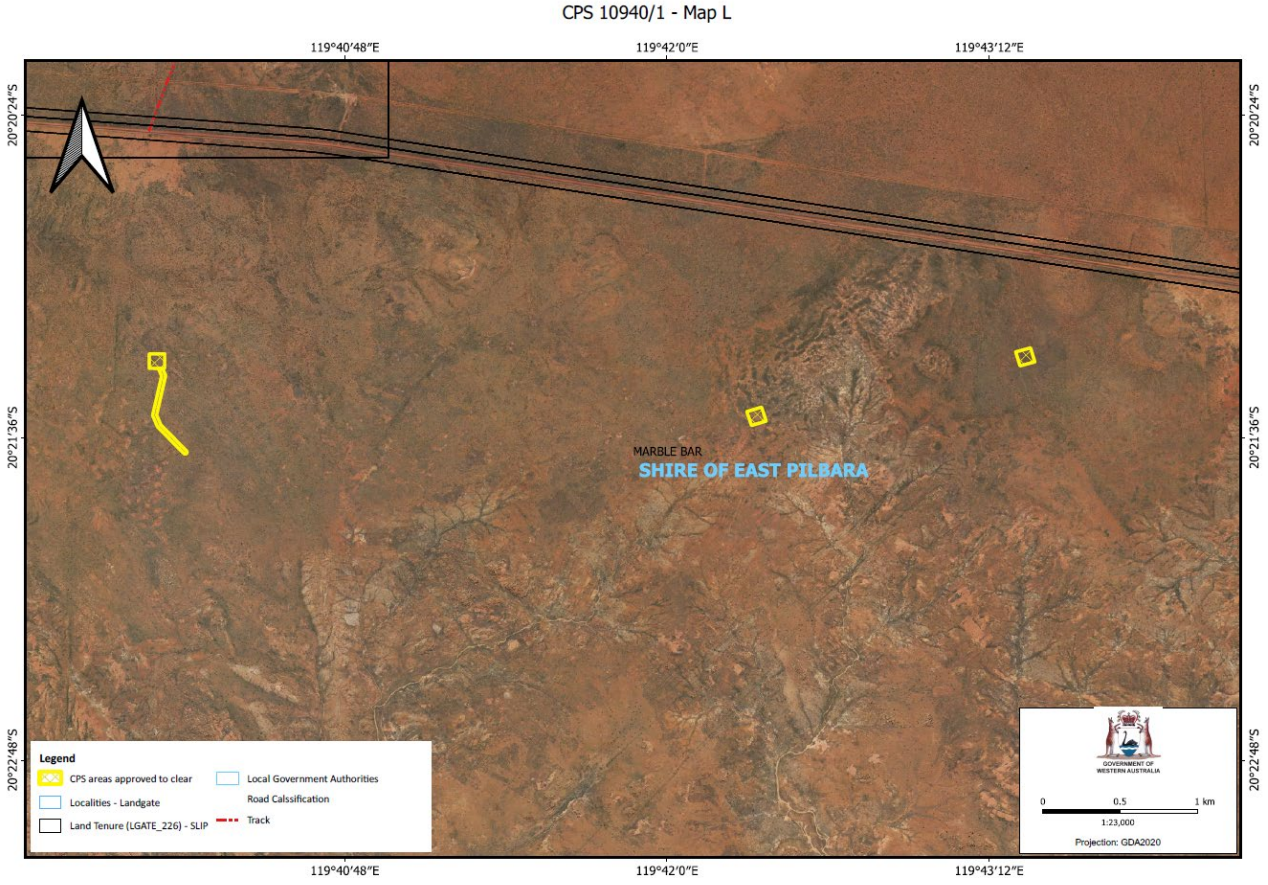


Figure 2-L. Sites 22, 23 and 24. Areas crosshatched yellow indicate the area approved to be cleared

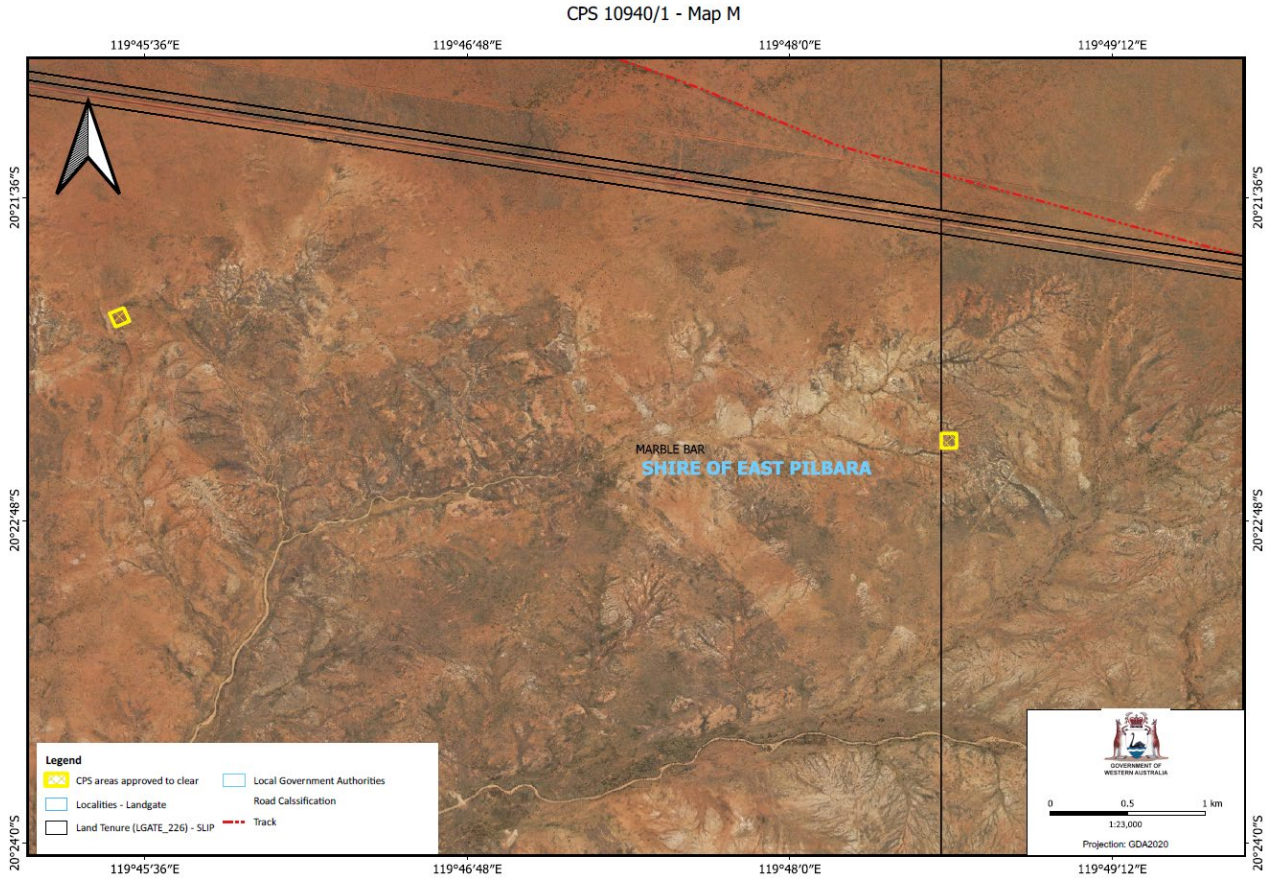


Figure 2-M. Sites 25 and 26. Areas crosshatched yellow indicate the area approved to be cleared

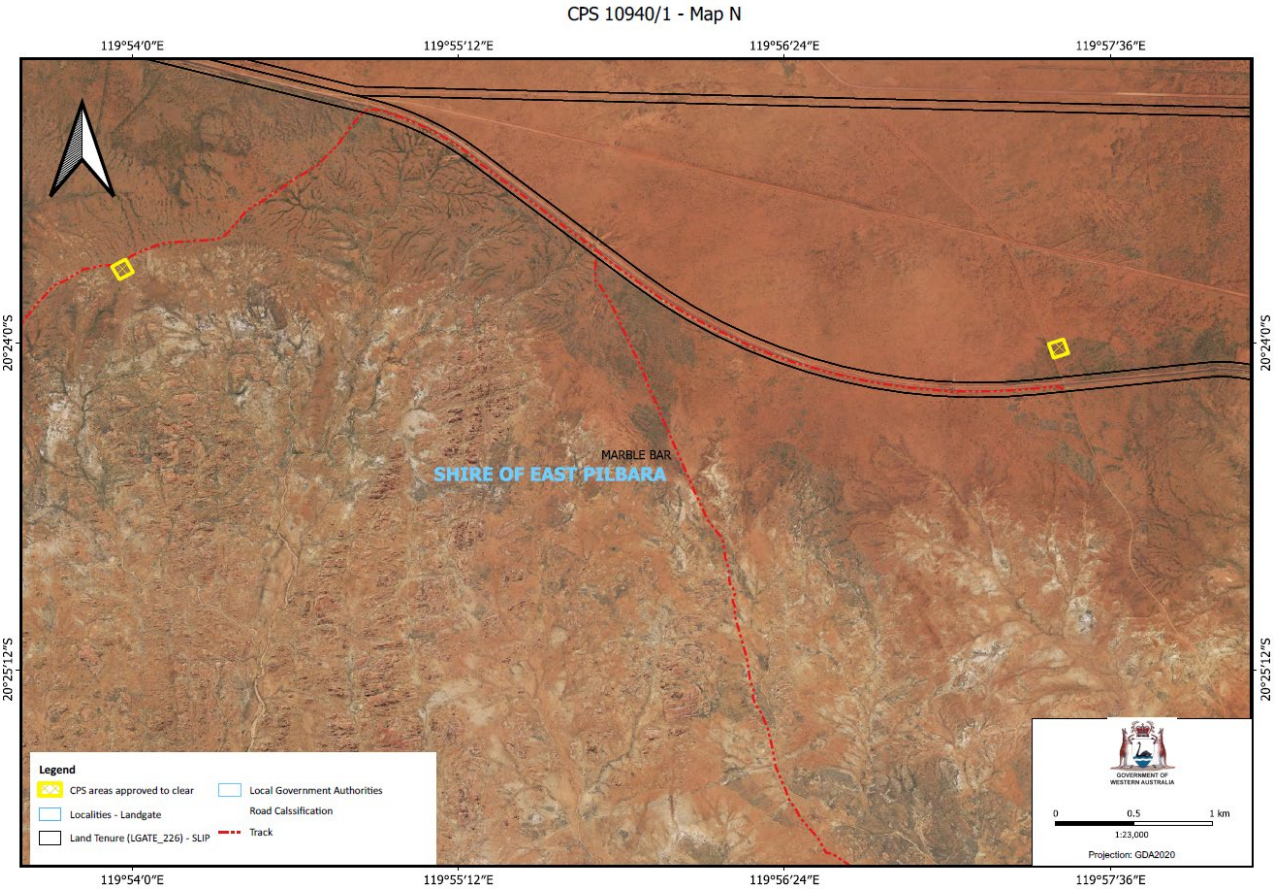


Figure 2-N. Sites 27 and 28. Areas crosshatched yellow indicate the area approved to be cleared

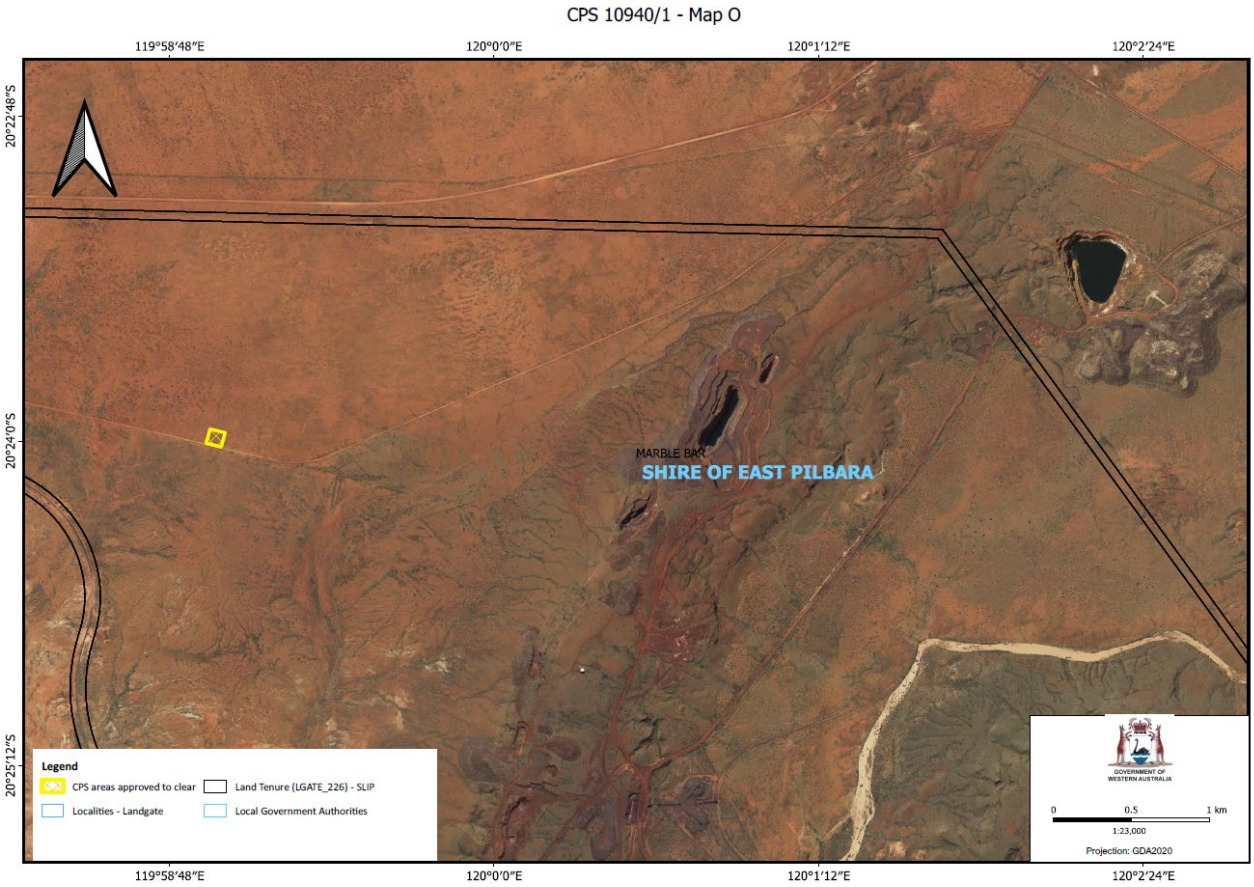


Figure 2-O. Site 29. Area crosshatched yellow indicates the area approved to be cleared

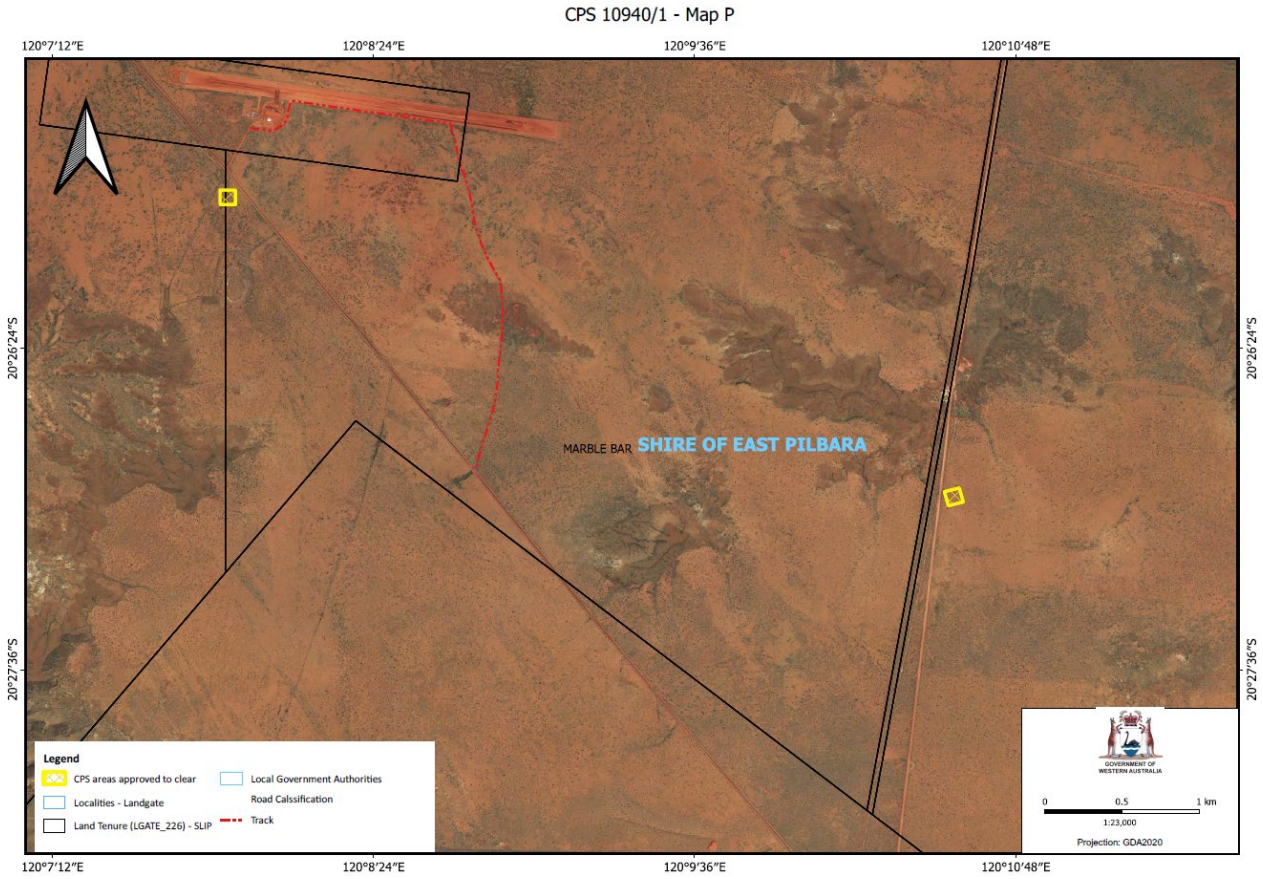


Figure 2-P. Sites 30 and 31. Areas crosshatched yellow indicate the area approved to be cleared

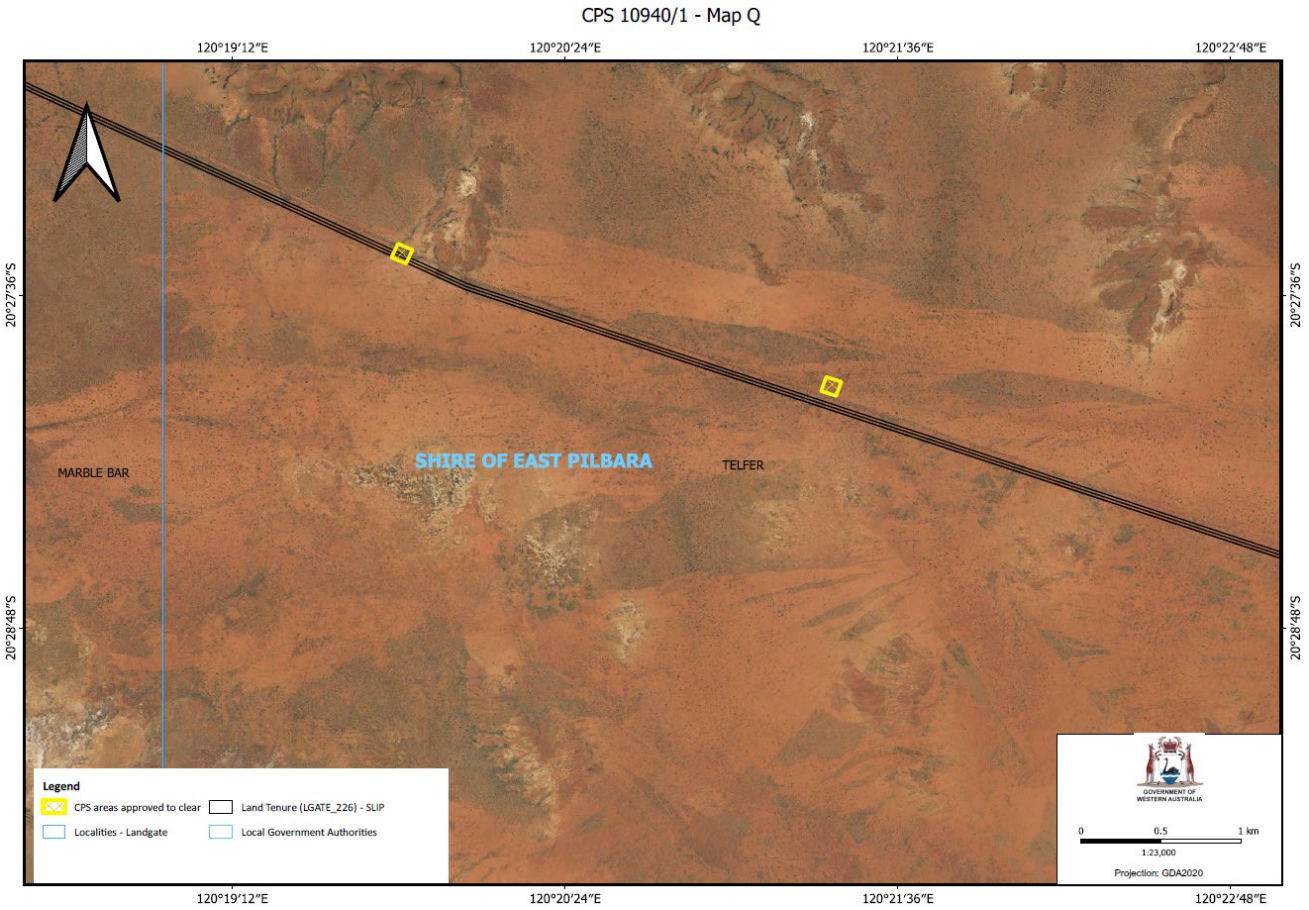


Figure 2-Q. Sites 32 and 33. Areas crosshatched yellow indicate the area approved to be cleared.

2 2 Legislative context

The clearing of native vegetation in Western Australia is regulated under the EP Act and the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* (Clearing Regulations).

In addition to the matters considered in accordance with section 51O of the EP Act (see Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

- the precautionary principle
- the principle of intergenerational equity
- the principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Rights in Water and Irrigation Act 1914* (RIWI Act)
- *Planning and Development Act 2005* (WA) (P&D Act)
- *Soil and Land Conservation Act 1945* (WA)
- *Energy Operators (Powers) Act 1979*

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2016)

3 3 Detailed assessment of application

3.1. Avoidance and mitigation measures

The applicant submitted that the avoid, minimise and mitigate measures have been applied throughout the design processes and will continue to be applied during the works (HP, 2025).
These measures include:

- optimised siting of project components that avoid and minimise impacts on Priority flora, environmentally sensitive areas (ESA) including wetlands of national significance, national park, heritage sites, critical fauna habitat and riparian vegetation (groundwater dependant vegetation) units;
- commitment to pruning and leaving rootstocks in place where feasible;
- commitment to stockpile topsoils and vegetative materials for progressive rehabilitation and rehabilitation of cleared areas no longer required for the project;
- utilise existing tracks and roads where possible. New tracks will be established using the shortest appropriate distance from an existing track;
- caping off boreholes and the cleared drill pad area;
- stockpiling topsoils and vegetative materials to be used in rehabilitation and promote ground stability;
- adherence to contractor prepared environmental management plan, incorporating clearing permit requirements and conditions, which has further minimisation and mitigation measures to follow during the life of project (PGL, 2025).
- the two water-dependent vegetation types (D1 and D2) will be avoided during investigation works and clearing to minimise impacts within the application area.
- disturbance to isolated rock or boulder outcrops, boulder fields, breakaways, caves and their immediate surroundings (within a 200m radius) as well as gorges and deep gullies will also be avoided (PGL, 2025).

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values.

3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix A) and the extent to which the impacts of the proposed clearing present a risk to biological, or land and water resource values.

The assessment against the clearing principles (see Appendix B) identified that the impacts of the proposed clearing present a risk to biological (fauna) and land and water resources. The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

3.2.1. Biological values – Biodiversity and Fauna - Clearing Principles (a) and (b)

Assessment

Vegetation

A flora and vegetation survey was conducted over the PGL project area approximately measuring 50,120 hectares or a 275km long and 2km wide (survey area) (Biota, 2024). The survey identified and mapped 24 vegetation types, within the survey area, representing six broad landforms of the region. None of the vegetation types represent a Threatened or Priority Ecological Community (TEC / PEC). However, two groundwater dependant vegetation types s (GDV); vegetation types D1 and D2; occurring within the survey area are considered significant. Noting their significance, the two GDVs have been avoided for the investigation works for which clearing is proposed to minimise impacts (Refer to Section 3.1).

No priority or threatened flora species were identified within the proposed clearing area of 23.88 hectares (PGL, 2025). The native vegetation within the survey area and sites proposed to be cleared is largely in ‘Very Good’ to ‘Excellent’ conditions (Trudgen, 1991). The proposed clearing area comprises a small fraction of the survey area, (<0.1% of the area surveyed), and the survey informed the siting of the 33 sites proposed to be cleared (Figure 1). As a result, the application areas selected by the applicant do not intersect any TEC, PEC, GDV, nor contain any conservation significant flora species.

Clearing will remove up to 23.88 ha of native vegetation within the context of an extensively vegetated area of similar condition. Limited clearing which avoids significant vegetation values is not expected to significantly impact the biodiversity or conservation values of the native vegetation in this context. Clearing, however, can spread and introduce weeds into the adjacent vegetation which in turn may reduce its quality and habitat values. Weed control and management measures can mitigate this potential impact and are required as conditions on the permit.

Fauna

A review of available databases (GIS Database) indicate that conservation significant fauna species have been recorded from the local area (50 km radius of the application area) (see Appendix A5). Biota Environmental Science (Biota, 2024) conducted a detailed fauna survey over the same areas surveyed for flora and vegetation, inclusive of the proposed clearing areas. The survey identified ten fauna habitats, with the Acacia shrubland on spinifex sandplain identified as the dominant habitat (approximately 65.3% of the survey areas). The following mapped habitat types are:

- Acacia shrubland on spinifex sandplain
- Granite boulders
- Gorges and gullies
- Claypan
- Minor/moderate drainage line
- Rocky outcrops
- Low stony rises
- Major drainage line
- Cleared areas, and
- Sand dunes (Biota, 2024).

None of the identified fauna habitats within the proposed clearing areas were considered critical habitat for any conservation significant species but may constitute broad foraging habitat for conservation significant fauna.

The survey identified through direct and indirect evidence that the following conservation fauna species may occur in the area and vicinity.

- *Dasyurus hallucatus* - northern quoll (EN under both the EPBC Act and the BC Act)
- *Macrotis lagotis* - bilby (VU under both the EPBC Act and the BC Act)
- *Rhinonicteris aurantia* (Pilbara form) - pilbara leaf-nosed bat (VU under both the EPBC Act and the BC Act)
- *Dasycercus blythi* - brush-tailed mulgara (P4 under the BC Act)
- *Pseudomys chapmani* - western pebble-mound mouse (P4 under the BC Act)

***Dasyurus hallucatus* - northern quoll**

Northern quolls are nocturnal, opportunistic foragers that use a variety of habitats including open, rocky outcrops and also occur along drainage lines, riparian zones and are known to travel long distances across their home ranges (HP, 2025). A review of available database indicate that the species has been recorded in the local area (50 km radius of the application area) frequently with over 1800 records.
The Biota (2024) field survey confirmed the presence of the species within the survey area through the detection of scats and tracks. Although no active dens were observed, suitable habitat is present within the survey area. This habitat is representative of the greater Pilbara region, where habitats area interconnected and extend 42,146 ha of suitable habitat are present within the survey area (Biota, 2024).

The placement of the application areas has avoided areas where Northern quolls were recorded (Biota, 2024). The proposed clearing areas, however, contain open rocky habitat and near to drainage lines which are considered suitable for denning, foraging and dispersal of young. There is a maximum of 16.45 ha of such habitats within the application area or approximately 0.04% of the combined suitable denning, foraging and dispersal habitats mapped within the surveyed area. Given the availability of similar habitat in excellent conditions surrounding the application areas and the extent of clearing in each site (see Figure 2A to 2Q), the overall connectivity between the habitats will not be severed by the clearing; and a loss of this proportion of habitat is unlikely to pose a significant risk to the survival of the local population. Mitigation measures, including pre-clearance surveys and limiting clearing and investigation works during the day can further reduce risks to individuals if present during clearing.

***Macrotis lagotis* – bilby**

Bilbies are nocturnal, omnivorous foragers that occupy extensive home ranges, often in sandy loam soils supporting spinifex and Acacia shrublands (Hill and Ward, 2010). The threatened fauna species has been well recorded in the region (PGL, 2025). During the Biota (2024) survey no bilby individuals were directly identified, but secondary evidence including fresh and old burrows indicated the likely occurrence of bilbies within the survey area. The survey also mapped 32,679 ha of suitable habitat for bilby in the form of the Acacia shrubland on spinifex sandplain within the survey area, of which 12.53 ha (0.04%) is within the application area.

The Recovery Plan for Greater Bilby suggests that habitat critical to the survival of bilby includes any area where the species is known or likely to occur as shown in the distribution map (DCCEEW, 2023). The definition of critical habitat in the recovery plan is noted as being interim, therefor requiring case-by-case analysis and consideration. The placement of the application areas has avoided the locations with recorded burrows and direct impact to bilby individuals is unlikely. It is recognised that the greater bilby is mobile, able to move between burrows up to 5km apart on a given night (DCCEEW, 2023) and this presents the risk of greater bilby entering vegetated areas proposed for clearing. Noting the limited scale of disturbance at each clearing site and the occurrence of similar vegetation surrounding them, clearing is unlikely to sever movement corridors and prevent access to habitat resources supporting the greater bilby population locally and regionally. The disturbance of 0.04% of suitable habitat for bilby within the surveyed area is considered unlikely to pose a significant risk to the survival of the local population. Mitigation measures including pre-clearance surveys to identify active burrows, avoidance of burrow areas, limiting timing of activities to daylight hours, and staged clearing to allow for natural dispersal can further minimise the potential impacts on bilby if present and when moving through the environment.

***Rhinonicteris aurantia* (Pilbara form) - pilbara leaf-nosed bat**

The Pilbara leaf-nosed bat typically roosts in caves, mines, or rocky crevices and forages over large areas of open woodland (PGL, 2025). The conservation advice for the species highlights the importance of protecting roost sites and managing foraging habitat (TSSC, 2016). While no individuals were identified during the Biota (2024) survey, ultrasonic recordings consistent with this species were detected, confirming likely use of the area for foraging. However, no roosting or breeding sites were identified. Within the survey area, there are 42,416 ha of suitable foraging habitat, of which only 0.04% (16.45 ha) will be impacted. Since no roosting sites were identified and the foraging habitat is widespread both within the PGL area and regionally, the proposed clearing is not expected to significantly impact the species. Mitigation measures including limiting clearing and work timings to daylight can further minimise potential impact to this nocturnal fauna species.

***Dasycercus blythi* - brush-tailed mulgara**

Brush-tailed mulgara has been widely recorded in the region(PGL, 2025). The species typically inhabits spinifex-dominated sandplains and is semi-nomadic in behaviour. The Biota (2024) field survey did not identify direct evidence of the occurrence of the species in the application area. Although no active burrows were recorded, suitable habitat for the species is widely distributed within the survey area. Of the 35,310 ha of suitable habitat available in the surveyed area, approximately 0.04% will be impacted by the proposed clearing (Biota, 2024). Given its wide regional distribution, the limited footprint of the proposed development, and availability of similar habitat in largely ‘Very Good’ to ‘Excellent’ condition (Trudgen, 1991) surrounding the proposed clearing areas, impacts of clearing on movement and ecological connectivity for the species are expected to be negligible. Mitigation measures including targeted pre-clearing surveys and staged clearing will further reduce the potential impact on individuals if present.

***Pseudomys chapmani* - western pebble-mound mouse**

Western pebble-mound mouse is well recorded and widespread in the Pilbara region including in the survey area (PGL, 2025). The species is well known for the extensive mounds of small stones it constructs, which are the most obvious indication of the species’ occurrence in an area. The Pebble-mound Mouse has limited mobility and a strong reliance on habitat structure, so any loss of active mound clusters could result in localised declines (Biota, 2024). No direct evidence of this species was recorded during the survey i.e. on camera or observed (Biota, 2024). However, a total of 35,680 ha of suitable habitat for the species occurs within the survey area with the proposed clearing affecting only 0.04% (12.95 ha). The proposed development areas were designed to avoid known mound locations, thereby significantly reducing potential impacts. Given the species widespread distribution in the Pilbara and Gascoyne, the limited extent of clearing, and the targeted avoidance, it is considered unlikely that the proposed clearing will have significant impact to the species and its conservation status. Pre-clearing survey and the presence of fauna specialist during clearing can further mitigate the potential impact on individuals, if present.

Short Ranged Endemic (SRE) Invertebrate Fauna

The fauna survey included a survey for SRE invertebrates, which identified 11 mygalomorph spiders, 17 camaenid snails, two buthid scorpions, two pseudoscorpions, 12 isopods, three centipedes and one Selenopid spider (Biota, 2024). Eight habitat types that contain various microhabitats that are prospective for SRE fauna were also identified in the survey. None of these habitats, however, were identified as being isolated to the survey area or specific sites including the proposed clearing sites (Biota, 2024). Clearing is considered unlikely to have significant impact on SRE fauna.

Impact of geotechnical investigation

Geotechnical investigation, as a part of the project, involves excavation of the ground for test pits. The pits may pose risks to the fauna species in the local area. Fauna species can fall into the pits and be trapped within. The potential impact can be mitigated by ensuring that test pits are covered during the process and backfilled after use.

Conclusion

Based on the above assessment and survey details (Biota 2024), the proposed clearing will remove some suitable habitat for conservation significant fauna species including the northern quoll, bilby, Pilbara leaf nosed bat, brush-tailed mulgara and western pebble-mound mouse. The impact, however, is considered unlikely to be significant, and can be managed to be environmentally acceptable through permit conditioning that will mitigate the potential impacts on conservation significant fauna. Having considered the above, the Delegated Officer determined that the proposed clearing does not constitute a significant residual impact to conservation significant fauna species.

Conditions

To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- weed control and management,
- slow and progressive one directional clearing to allow fauna to move into adjacent vegetation ahead of the clearing activity,
- undertake targeted pre-clearance surveys for bilby, brush-tailed mulgara, quoll, and western pebble-mound mouse prior to any clearing,
- a fauna specialist will monitor evidence of fauna to ensure avoidance of used burrows and allow independent movements of fauna away from habitat prior to clearing,
- a fauna specialist will relocate targeted fauna to suitable habitat that do not independently move away from habitat that cannot be avoided,
- restrict any clearing to daylight hours,
- backfilling or covering all the test pits and bore holes to prevent fauna access,
- revegetation and rehabilitation of areas cleared for temporary works.

3.2.2. Environmental values (Land and water resources, clearing riparian vegetation) - Clearing Principles (f), (g) and (i)

Assessment

Land resources

The soil systems mapped over the PGL project area are known to be resistant to degradation. However, two systems (the Mallina and the River systems) may be prone to water and wind erosions in the absence of ground covers over an extended period. Noting the dry climate of the semi-arid region, loose soils and dust lifted by the wind may be deposited on the adjacent vegetation which in turn may decrease its quality. However, given the mostly small size or linear shape of clearing in each site, the small proportion of clearing located within the Mallina and River systems, and the availability of intact native vegetation surrounding the clearing area, this impact is not expected to be significant. Land management measures can help further mitigate this potential impact. Management measures include limiting the time of soil exposure and rehabilitation of cleared areas no longer required for the purpose of the project works. This will be imposed on the permit as conditions.

Water Resources and Riparian Vegetation

The application areas area located within the Pilbara and Canning-Kimberly groundwater and the Pilbara surface water areas proclaimed under the *Rights in Water and Irrigation Act 1914* (PGL, 2025).

Pertinent to the Act, groundwater abstraction and disturbance to the bed and banks of a watercourse in the area require licences. The applicant indicated that groundwater will be required for dust suppression, concrete batching, and camp water supply for the future PGL project, but none will be required for the purpose of the investigation works for which the clearing permit is proposed.

The selection of all the clearing sites has avoided impact on the De Grey Water Reserve, a Public Drinking Water Source Area (PDWSA) assigned a 'Priority 1 (P1)' under the Water Source Protection Classification System (PGL, 2025). P1 areas are managed to ensure that no degradation of the quality of the drinking water source occurs due to disturbing activities that may provide a direct flow path for contaminated surface water to enter an aquifer, rivers, and river pools in the area. When operating in the P1 reserve, relevant Water Quality Protection Guidelines and Water Quality Protection Notes (WQPN) should be adhered to (DWER, 2025). The relevant WQPN's include:

- WQPN 6: Vegetation buffers to sensitive water resources
- WQPN 10: Contaminant spills – emergency response.
- WQPN 65: Toxic and hazardous substances – storage and use
- WQPN 83: Infrastructure corridors near sensitive water resources

Within the De Grey Water Reserve, the De Grey River wellfield, is drawing groundwater from the alluvial deposits of the Grey River and used to supply water for Port Hedland. Noting the nature of works required (e.g. geotechnical investigation), the relatively small amount of clearing in each site, and the conditions of vegetation surrounding the sites, it is unlikely that the proposed clearing will impact on the quality of the groundwater and surface water in the area. The activities for which the clearing is proposed will not involve the storage and use of toxic and hazardous substances. The DO sought advice from DWER water licencing experts for the region; advice supported the applicant's measures of avoidance of disturbance in areas around minor and major drainage habitats and protecting surface water channels where riparian vegetation is present with an exclusion buffer of 50m.

As discussed in Section 3.2.1, survey over the local area identified two groundwater dependent vegetation (GDV) types. These GDVs are likely to be associated with infrequent surface water caused by sporadic weather events like seasonal cyclones. The area proposed to be cleared avoids these two GDV including a buffer of 50 m.

Noting the limited extent of clearing and the nature of vegetation impacted, temporary nature of clearing, and the 50m buffer from ephemeral waterways and riparian vegetation, clearing is not expected to have impact on the riparian vegetation or lead to appreciable water quality and flow impacts at the local and regional extents. Rehabilitation will be a condition imposed on the permit to further mitigate potential impacts.

Conclusion

Based on the above assessment, the proposed clearing is considered unlikely to result in appreciable or long-term land and water degradation. The potential impacts of the proposed clearing can be managed to be environmentally acceptable by applying management measures which are required as conditions on the permit.

Conditions

To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- demarcation of clearing area to ensure that clearing does not intersect riparian vegetation
- commencement of associated works within two months of the authorised clearing
- rehabilitation and revegetation of temporary cleared area.

3.3. Relevant planning instruments and other matters

The proposed clearing areas are located on multiple land parcels not owned by the applicant. It is the permit holder's responsibility to comply with the requirements of the *Land Administration Act 1997* and to ensure that all relevant approvals, including land access, have been obtained prior to the native vegetation clearing activities being conducted. As an 'energy operator', the applicant (Horizon Power) will exercise the provisions under Sections 46 and 49 of the *Energy Operators (Powers) Act 1979* which allow access to and use of land for constructing, maintaining, and operating electricity infrastructure, including for the project. In accordance with the Act, a Notice of Entry will be issued to all relevant landowners or occupiers.

Comments and advice have been requested from the Shire of East Pilbara and Town of Port Hedland on the proposed clearing; however, no comments have not been provided to DWER.

The application area lies within the proclaimed Pilbara and Canning-Kimberly groundwater areas and Pilbara surface water area and is therefore subject to licensing requirements under the *Rights in Water and Irrigation* (RIWI) *Act 1914.* As discussed in Section 3.2.2, the proposed clearing will not require new groundwater bores nor interference with watercourses that it is unlikely to require the licences under the RiWi Act. However, the applicant stated that they are aware that any proposal involving the diversion of flows or disturbance to the bed and banks of a watercourse may require a bed and banks permit, consistent with internal DWER expert advice. Internal advice confirmed that that the applicant has been liaising with the Pilbara Water Licensing team on the potential approvals required to drill

groundwater bores and abstract groundwater for the PGL project. It is the permit holder's responsibility to comply with the legal requirements of the RIWI Act.

The application areas do not intersect any heritage sites; however, several Aboriginal Cultural Heritage Sites are mapped within the local area. The nearest Aboriginal site, Pyramid Hill Quarry 1 is located approximately 1 km from Application Area site 22 (Figure 2-L Map), while the Strelley site is approximately 2 km from Application Area site 10 (Figure 2-E Map). It is the permit holder's responsibility to comply with the *Aboriginal Heritage Act 1972* (WA) and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

End

4 Appendix A. Site characteristics

4.1. Site characteristics

<table>
<tr><th>Characteristic</th><th>Details</th></tr>
<tr><td>Local context</td><td>The proposed clearing area is surrounded by crown and pastoral leases and is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia. It is surrounded by rangeland grazing mining activities.

Aerial imagery indicates the local area (50-kilometre radius from the centre of the multiple development areas proposed to be cleared) retains approximately 99 per cent of the original native vegetation cover.</td></tr>
<tr><td>Ecological linkage</td><td>There are no formal linkages mapped across the proposed clearing development application area.</td></tr>
<tr><td>Conservation areas</td><td>There are no conservation areas within the 33 proposed clearing areas.</td></tr>
<tr><td>Vegetation description</td><td>The flora and vegetation survey (Biota 2024) depicts the proposed 33 application areas and identified 6 Pre-European Vegetation Association type as below:
93: Hummock grasslands, shrub steppe; kanji over soft spinifex (9.49 ha);
101: Hummock grasslands, shrub steppe; Acacia pachycarpa over soft spinifex (0.49 ha)
117: Hummock grasslands, grass steppe; soft spinifex (1.65 ha);
589: Mosaic: Short bunch grassland – savanna / grass plain (Pilbara) / Hummock grasslands, grass steppe; soft spinifex (10.29 ha);
619: Medium woodland; river gum (Eucalyptus camaldulensis) (0.02ha), and
647: Hummock grasslands, dwarf-shrub steppe; Acacia translucens over soft spinifex (1.94 ha)
This is consistent with the DPIRD (2019) mapped vegetation landforms consisting of:
Clay Plains
Plains
Low Stony Rises; and
Rocky Outcrops and Breakaways
The full survey descriptions and maps for the application area are available in Appendix D.</td></tr>
<tr><td>Vegetation condition</td><td>Supporting documents supplied by the applicant (Biota 2024) indicate that the vegetation within the proposed clearing development application areas is likely to range from Excellent to Poor (Trudgen 1991) condition based on the surveys undertaken for the PGL project, described in the table below.

<table>
<tr><th>Vegetation condition</th><th>Proposed development application area (ha)</th><th>Proposed development application area (%)</th><th>Proportion of the survey area (%)</th></tr>
<tr><td>Excellent</td><td>1.65</td><td>7</td><td><00.1</td></tr>
<tr><td>Very good to Excellent</td><td>9.92</td><td>41.5</td><td>0.02</td></tr>
<tr><td>Very Good</td><td>4.15</td><td>17.4</td><td>0.01</td></tr>
<tr><td>Good to Very Good</td><td>5.15</td><td>21.6</td><td>0.01</td></tr>
<tr><td>Good</td><td>0.23</td><td>1</td><td><0.01</td></tr>
<tr><td>Poor to Good</td><td>2.78</td><td>11.5</td><td>0.01</td></tr>
</table>
</td></tr>
</table>

Characteristic	Details
	The full Trudgen (1991) condition rating scale is provided in Appendix C. The full survey descriptions and mapping of the PGL project are available in Appendix D.
Climate and landform	The landforms of the study area are characterised of drainage areas, clay plains, sand dune, plains and low stony rises of the Great Sandy Desert and Pilbara bioregions. The Pilbara geographical region typically has very hot summers, mild winters and low rainfall year-round. Mean annual rainfall for Port Hedland and eastward located Mandora weather stations are 314 and 375 mm recorded by the Bureau of Meteorology(BoM, 2024 a&b).
Soil description	The soil within the PGL area consists of four zones, Great Sandy Desert, Nita Sandplain, Nullagine and De-Grey-Roebourne Lowlands (DPIRD, 2019,a&b) . The clearing development application areas insect two of these zones being Nita Sandplain (2.92 ha) and De Grey-Roebourne Lowlands Zones (20.95 ha). The landscape zones have been classified into 16 soil landscape systems (DPIRD, 2019b) consisting of: Billygoat, Boolaloo (281Bo), Boolgeeda (281Bg), Callawa (117Cl), Capricorn (281Cp), Gregory (281Gr), Horseflat (281Hf), Little Sandy (112Ls), Macroy (281Mc), Mallina (281Ma), Nita (117Nt), Paradise (281Pd), River, (281Ri), Robe (281Ro), Ruth (281Rt), and Uaroo (281Ua) systems.
Land degradation risk	Consisting mainly of sand and alluvial plains the clearing development application areas have moderate to high capacity for subsurface compaction and alkaline soils. The sandy soils are likely to have wind erosion risk.
Waterbodies	The desktop assessment and aerial imagery indicated that the application area spreads across five catchments- the De Grey River, Strelley River, Coastal, Southwest Creek and Sandy Desert Lake Dora. The 33 clearing sites mostly occur outside of defined waterways. .
Hydrogeography	The application area falls within the Pilbara Groundwater and Canning-Kimberley Groundwater Areas declared under the RIWI Act. Groundwater salinities vary between 1,000 to 3,000 mg/L. Part of the PGL intersects the De Grey River Water Reserve (Public Drinking Water Source Area) with two of the applications areas (sites) occurring within.
Flora	Some conservation significant flora species have been recorded in the local area, however, no declared rare or Threatened flora species are identified within the application area.
Ecological communities	One of the 33 sites proposed to be cleared occurs on the border of a mapped Gregory Land System, a Priority 3 ecological community. Survey over the application area (Biota, 2024) confirmed that the vegetation did not represent the PEC. No significant ecological communities occur within the application area or nearby.
Fauna	Several conservation significant fauna species including Threatened species have been recorded for the local area (50 km radius of the application area). Many of the records are from within 500 m of the application area. Surveys over the application area (Biota, 2024) identified five conservation significant fauna: one Endangered, two Vulnerable and two Priority 4 mammals. Ten (10) fauna habitats were identified during the survey, some of them are suitable for the conservation significant fauna.

A.1. Vegetation extent

	Pre-European extent (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current proportion (%) of pre-European extent in all DBCA managed land
IBRA bioregion*					
Pilbara	17,804,193	17,785,000	99.89	1,478,830	8.3
Great Sandy Desert	29,538,794	29,537,847	99.99	787,424	2.67

*Government of Western Australia (2019a)

**Government of Western Australia (2019b)

A.2. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix E.1), and biological survey information (Biota 2024), impacts to the following conservation significant flora required further consideration.

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Abutilon sp. *Pritzelianum* (S. van Leeuwen 5095)	P3	Y	Y	Y	<3	35	Y
Acacia monticola x tumida var. *kulparn*	P3	Y	Y	Y	<49	1	Y
Aponogeton queenslandicus	P1	Y	Y	Y	<25	2	Y
Atriplex eremitis	P1	Y	Y	Y	<25	3	Y
Bulbostylis burbidgeae	P4	Y	Y	Y	<2	12	Y
Corchorus sp. *Yarrie* (J. Bull & D. Roberts CAL 01.05)	P1	Y	Y	Y	<21	3	Y
Croton aridus	P3	Y	Y	Y	<2	11	Y
Eremophila maculata subsp. *filifolia*	P1	Y	Y	Y	<24	3	Y
Euphorbia clementii	P3	Y	Y	Y	<2	8	Y
Euphorbia inappendiculata var. *inappendiculata*	P3	Y	Y	Y	<33	2	Y
Euploca mutica	P3	Y	Y	Y	<1	41	Y
Euploca parviantrum	P1	Y	Y	Y	<13	2	Y
Fimbristylis sp. Shay Gap (K.R. Newbey 10293)	P1	Y	Y	Y	<7	1	Y
Gomphrena leptophylla	P3	Y	Y	Y	<11	1	Y
Gomphrena pusilla	P2	Y	Y	Y	<14	5	Y
Goodenia hartiana	P2	Y	Y	Y	<3	2	Y
Gymnanthera cunninghamii	P3	Y	Y	Y	<12	6	Y
Heliotropium murinum	P3	Y	Y	Y	<24	3	Y
Indigofera ammobia	P3	Y	Y	Y	<19	1	Y

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Nicotiana umbratica	P3	Y	Y	Y	<4	2	Y
Ptilotus mollis	P4	Y	Y	Y	<21	2	Y
Rothia indica subsp. *australis*	P3	Y	Y	Y	<4	15	Y
Tephrosia rosea var. *Port Hedland* (A.S. George 1114)	P1	Y	Y	Y	<5	34	Y
Triodia chichesterensis	P3	Y	Y	Y	<12	8	Y
Triodia degreyensis	P1	Y	Y	Y	<2	3	Y

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

A.3. Fauna analysis table

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Dasycercus blythi - brush-tailed mulgara	P4	Y	Y	<2	294	Y
Dasyurus hallucatus - northern quoll	EN	Y	Y	<1	1812	Y
Falco hypoleucos - grey falcon	VU	Y	Y	<2	12	Y
Liasis olivaceus barroni - pilbara olive python	VU	Y	Y	<7	6	Y
Macroderma gigas - ghost bat	VU	Y	Y	<1	807	Y
Macrotis lagotis - bilby	VU	Y	Y	<1	856	Y
Pseudomys chapmani - western pebble-mound mouse	P4	Y	Y	<2	125	Y
Rhinonicteris aurantia (Pilbara form) - pilbara leaf-nosed bat	VU	Y	Y	<2	242	Y

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

A.4. Ecological community analysis table

Community name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
Eighty Mile Land System	P3	Y	Y	Y	<21	15	Y
*Gregory Land System	P3	N	N	N	0	2	Y
Lime Land System	P3	Y	Y	Y	<42	1	Y

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority

* Post-field survey, the Gregory Land System classification was identified as a misclassification by DBCA. The area is instead classified as a non-listed Granitic Land System.

Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): *"Native vegetation should not be cleared if it comprises a high level of biodiversity."* Assessment: The proposed 33 clearing sites do not contain conservation significant flora, fauna, or assemblages of plants. One site was located with an area mapped as the Gregory Land System Priority 3 ecological community (PEC), however, survey over the application area (Biota, 2024) indicated that the area does not represent the PEC. The area proposed to be cleared does not contain habitat which is likely to be significant for priority flora. The application area, however, contain habitats that are suitable for foraging by several conservation significant fauna species.	May be at variance	Yes *Refer to Section 3.2.1, above.*
Principle (b): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."* Assessment: The area proposed to be cleared contain suitable habitat for several conservation significant fauna species, however, the habitat is not considered significant for any of these species. Further details are discussed in section 3.2.1 (see Appendix A.4).	May be at variance	Yes *Refer to Section 3.2.1, above.*
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: There are no records of threatened flora listed under the BC Act within the 33 development application areas, with no threatened flora species identified during the flora and vegetation survey (Biota, 2024).	Not likely to be at variance	No
Principle (d): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community."* Assessment: There were no records of threatened ecological communities mapped within the areas proposed to be cleared. The vegetation within the application area does not comprise any significant ecological community.	Not likely to be at variance	No
Environmental value: significant remnant vegetation and conservation areas		
Principle (e): *"Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."* Assessment: All vegetation associations are well represented across State, Interim Biogeographic Regionalisation for Australia (IBRA) regions (Pilbara and Great Sandy Desert), IBRA Subregion (Roebourne, Chichester, Pindaland and Mc Larty), and Local Government Area (LGA) with 99% or more of their pre-European extent remaining *(Government of Western Australia, 2019).*	Not at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
Principle (h): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area."* Assessment: The nearest conservation area from all application areas is Mungaroona Range Nature Reserve, located 20 km away. Clearing is not likely to have an impact on the environmental values of the nearby conservation area.	Not likely to be at variance	No
Environmental value: land and water resources		
Principle (f): *"Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."* Assessment: The area proposed areas to be cleared are not considered riparian vegetation. The	Not likely to be at variance	Yes *Refer to Section 3.2.2, above.*
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: The mapped soils for the application area have a very low land degradation risk except for a small portion of soil systems including the Mallina and River systems that are prone to degradation when vegetation is depleted.	May be at variance	Yes *Refer to Section 3.2.2, above.*
Principle (i): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."* Assessment: Three of the proposed clearing sites are located on the border of waterways. The application areas are also within the mapped De Grey River Water Reserve.	May be at variance	Yes *Refer to Section 3.2.2, above.*
Principle (j): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."* Assessment: The mapped soils and topographic contours in the surrounding area do not indicate the proposed clearing areas are likely to contribute to increased incidence or intensity of flooding.	Not likely to be at variance	No

Appendix C. Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation's ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from Trudgen, M.E. (1991) *Vegetation condition scale* in National Trust (WA) 1993 Urban Bushland Policy. National Trust of Australia (WA), Wildflower Society of WA (Inc.), and the Tree Society (Inc.), Perth.

Measuring vegetation condition for the Eremaean and Northern Botanical Provinces (Trudgen, 1991)

Condition	Description
Excellent	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.
Very good	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.
Good	More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds.
Poor	Still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.
Very poor	Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching good condition without intensive management. Usually with a number of weed species present including very aggressive species.
Completely degraded	Areas that are completely or almost completely without native species in the structure of their vegetation, i.e. areas that are cleared or 'parkland cleared' with their flora comprising weed or crop species with isolated native trees or shrubs.

Appendix D. Biological survey information excerpts (Biota, 2024)

Horizon Power engaged GHD to assist with the application for the clearing permit. GHD had engaged Biota Environmental Sciences Pty Ltd (Biota, 2024) to undertake biological surveys to inform the application. The biological surveys were conducted over the Link 1 corridor of the project which is approximately 2 km wide and 275 km long, measuring a total of 50,199.4 ha in area (See Figure 3. Below).

The scopes and timing of the surveys are:

- Reconnaissance and targeted flora and vegetation survey (2 – 13 May 2024)
- Basic and targeted fauna survey, with short-range endemic (SRE) fauna sampling (2 – 13 May 2024)

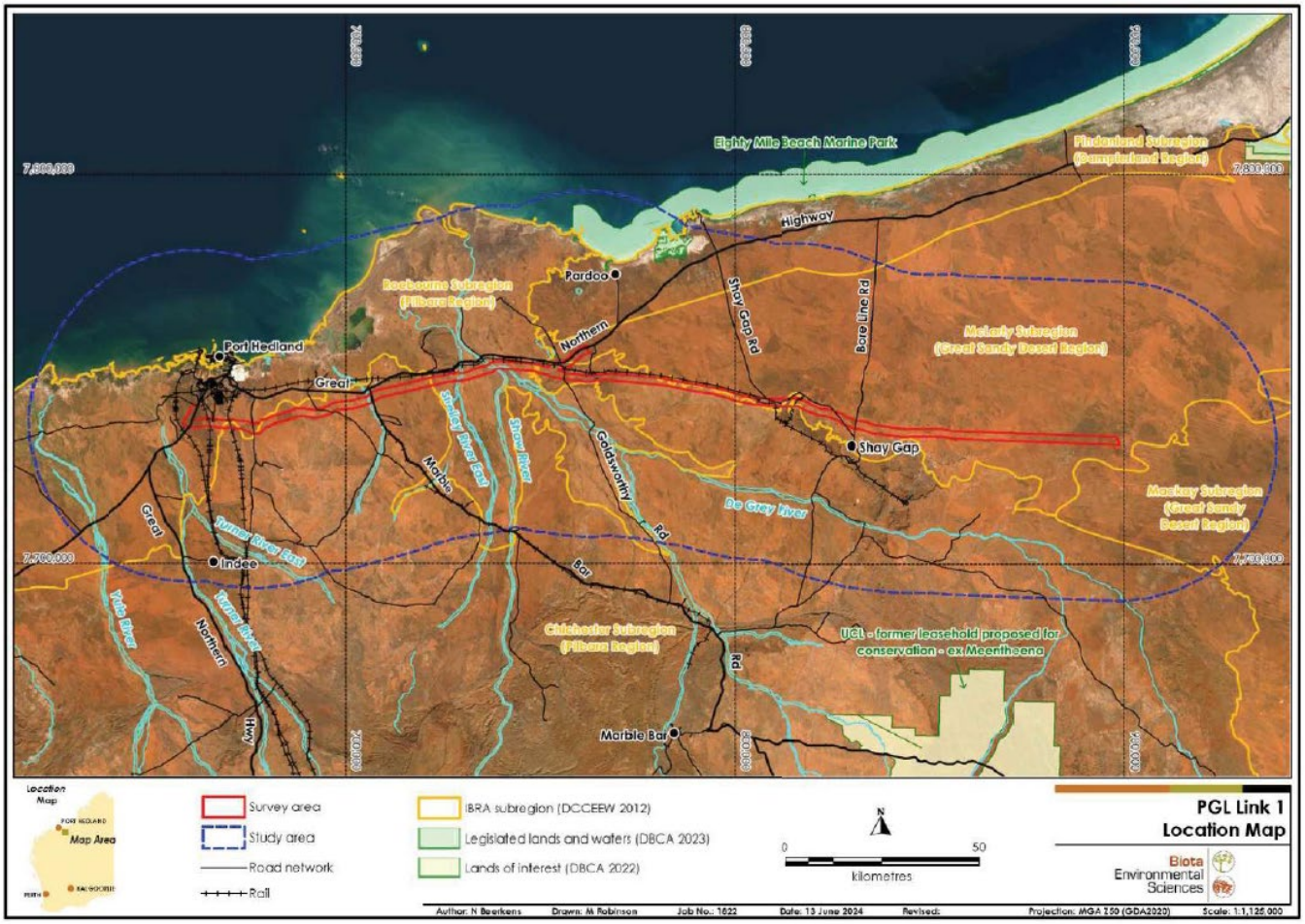


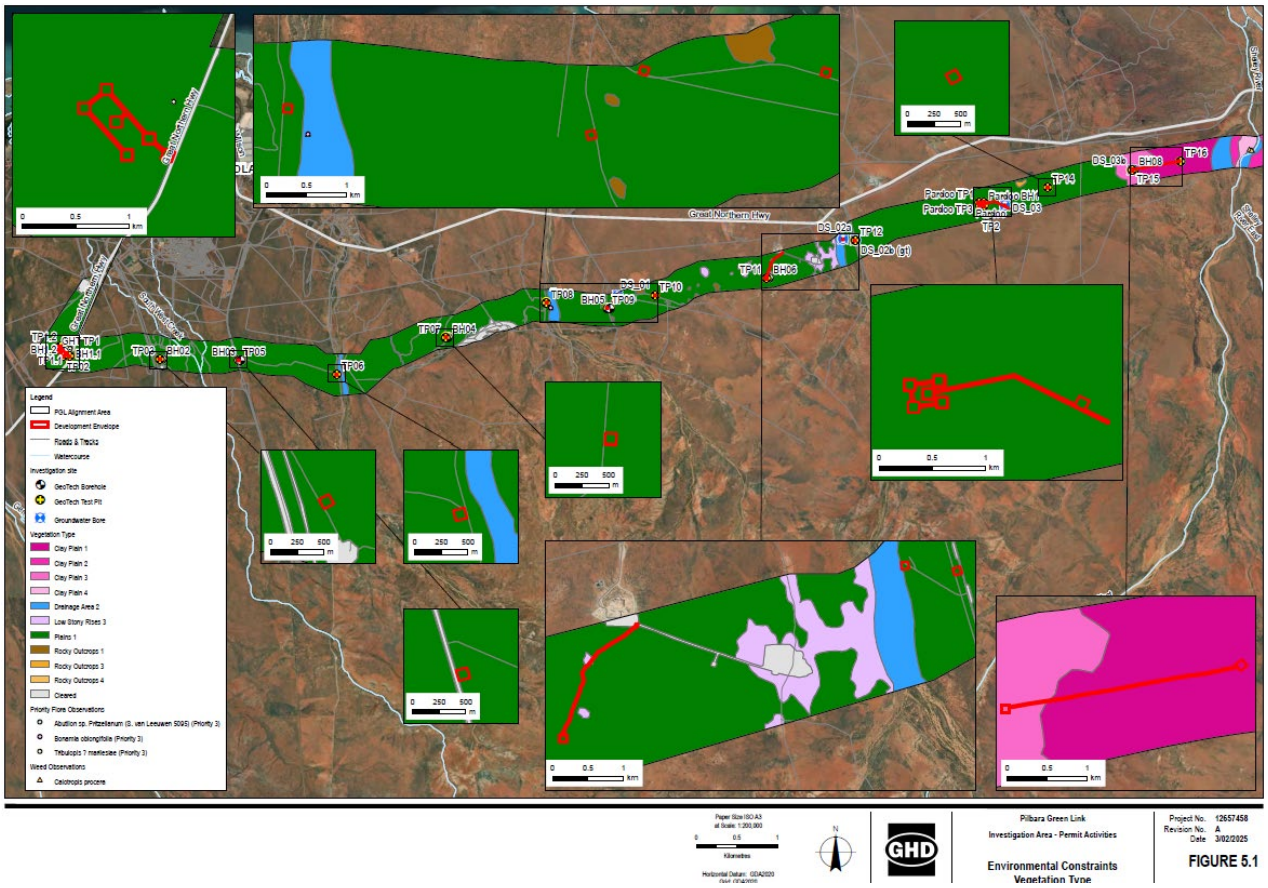
Figure 2.1: Location of the survey area and study area.

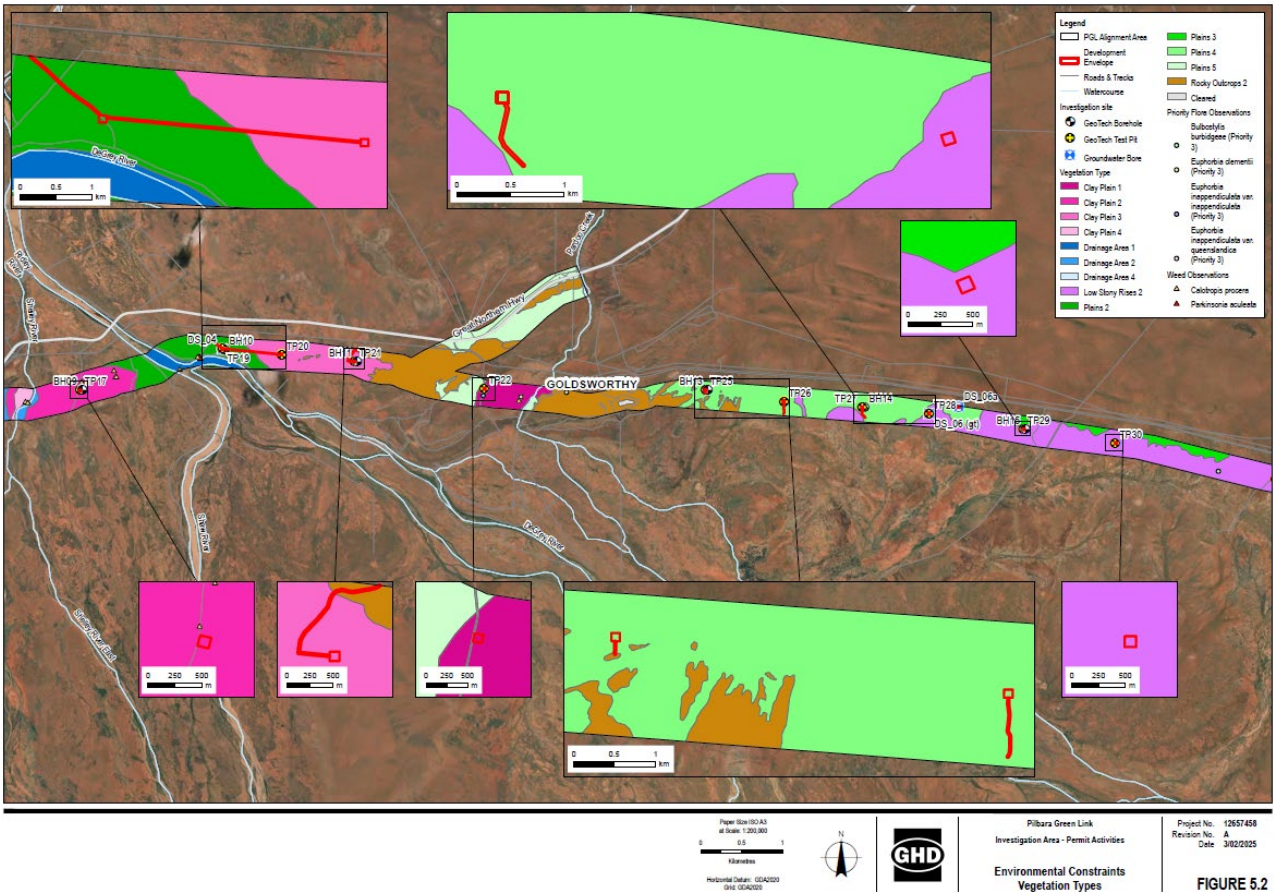
Figure 3. Location of the survey area and study area (Biota, 2024)

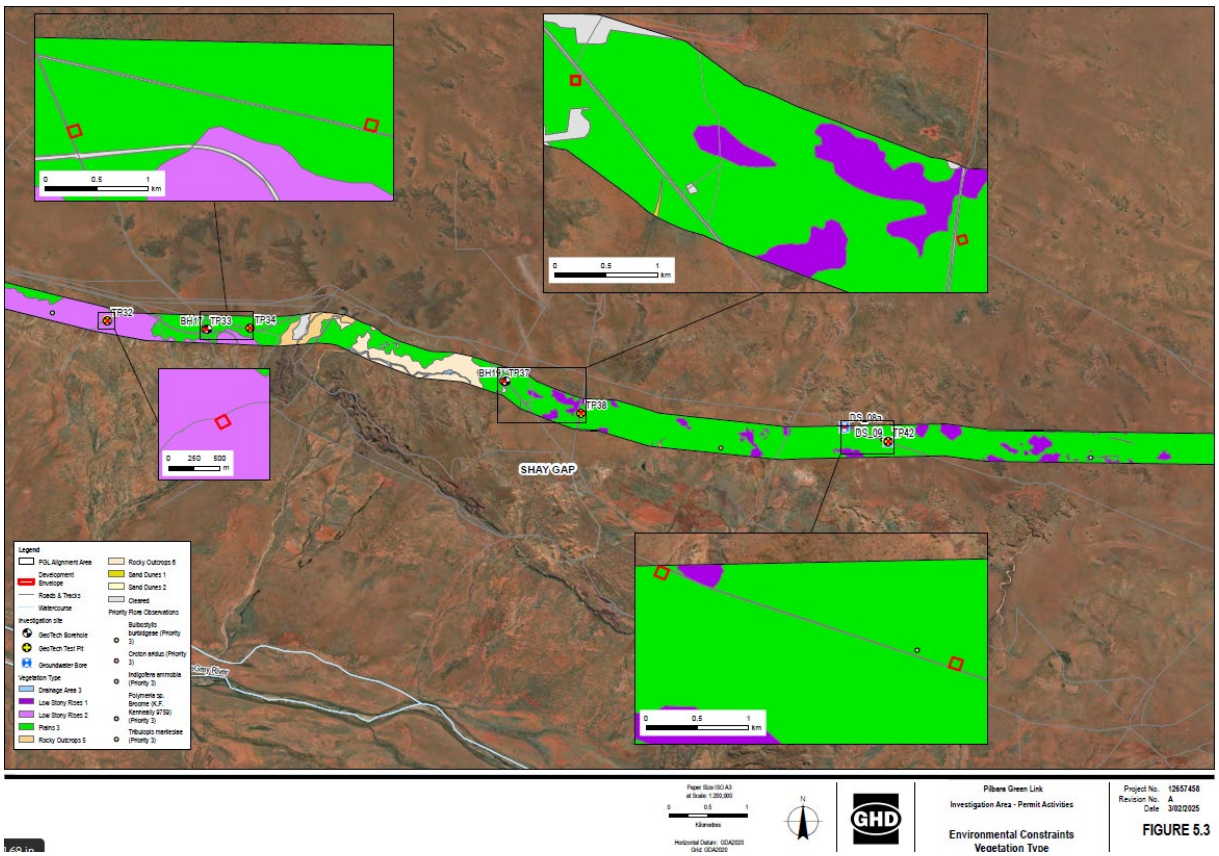
Results

Flora and vegetation survey

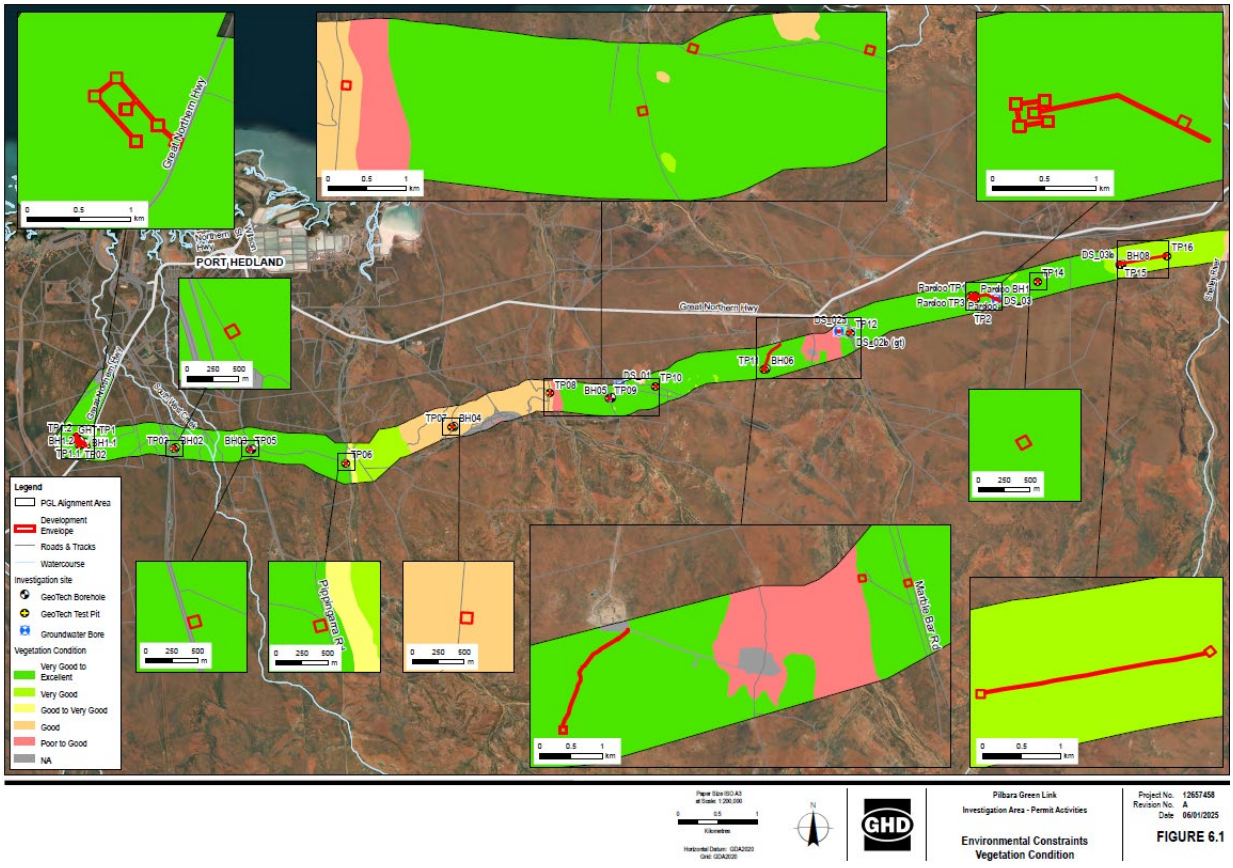
Vegetation types mapping for the survey area that covers the 33 application areas are as follows:

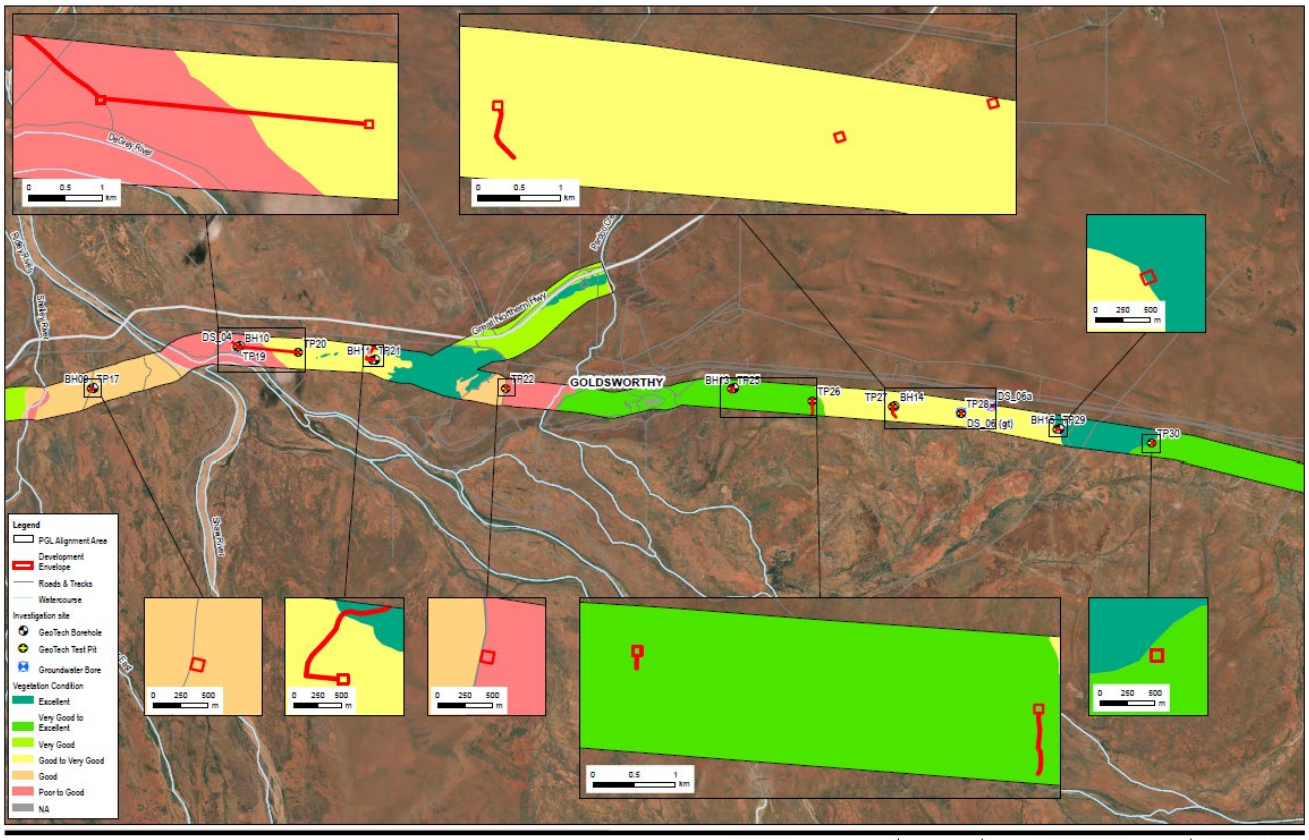

Great Northern Hwy
Legend
PGL Alignment Area
Development Envelope
Roads & Tracks
Watercourse
Investigation site
GeoTech Borehole
GeoTech Test Pit
Groundwater Bore
Vegetation Type
Clay Plain 1
Clay Plain 2
Clay Plain 3
Clay Plain 4
Drainage Area 2
Low Stony Rises 3
Plains 1
Rocky Outcrops 1
Rocky Outcrops 3
Rocky Outcrops 4
Cleared
Priority Flora Observations
Abutilon sp. Pritzelianum (S. van Leeuwen 5095) (Priority 3)
Boronia oblongifolia (Priority 3)
Tribulopis ? marlieslee (Priority 3)
Weed Observations
Calotropis procera
Pilbara Green Link
Investigation Area - Permit Activities
Environmental Constraints
Vegetation Type
Project No. 12657458
Revision No. A
Date 3/02/2025
FIGURE 5.1


Legend
PGL Alignment Area
Development Envelope
Roads & Tracks
Watercourse
Investigation site
GeoTech Borehole
GeoTech Test Pit
Groundwater Bore
Vegetation Type
Clay Plain 1
Clay Plain 2
Clay Plain 3
Clay Plain 4
Drainage Area 1
Drainage Area 2
Drainage Area 4
Low Stony Rises 2
Plains 2
Plains 3
Plains 4
Plains 5
Rocky Outcrops 2
Cleared
Priority Flora Observations
Bulbostylis burbidgeae (Priority 3)
Euphorbia clementii (Priority 3)
Euphorbia inappendiculata var. inappendiculata (Priority 3)
Euphorbia inappendiculata var. queenslandica (Priority 3)
Weed Observations
Calotropis procera
Parkinsonia aculeata
GOLDSWORTHY
Great Northern Hwy
Pilbara Green Link
Investigation Area - Permit Activities
Environmental Constraints
Vegetation Types
Project No. 12657458
Revision No. A
Date 3/02/2025
FIGURE 5.2



Vegetation condition mapping for the survey area that covers the 33 application areas are as follows:

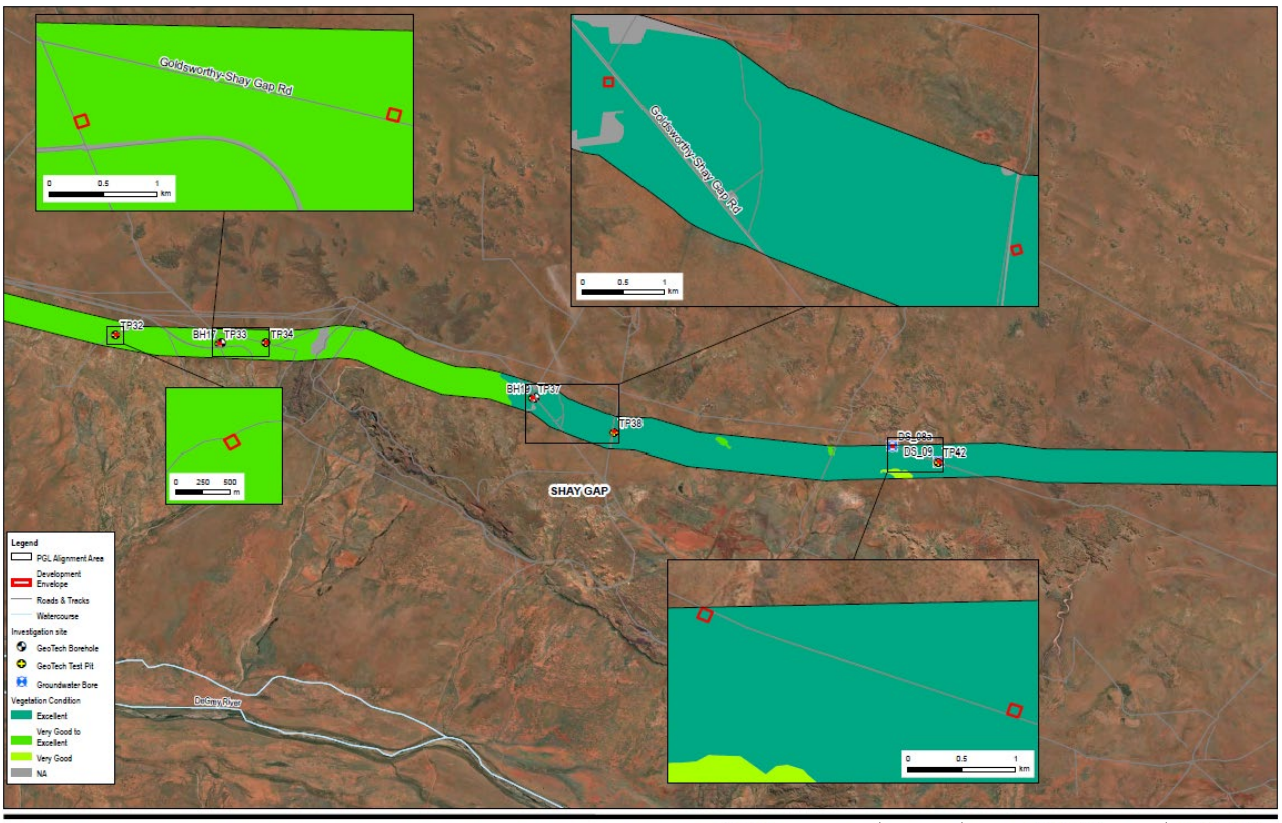




Pilbara Green Link
Investigation Area - Permit Activities
Environmental Constraints
Vegetation Condition

Project No. 12657458
Revision No. A
Date 06/01/2025

FIGURE 6.2



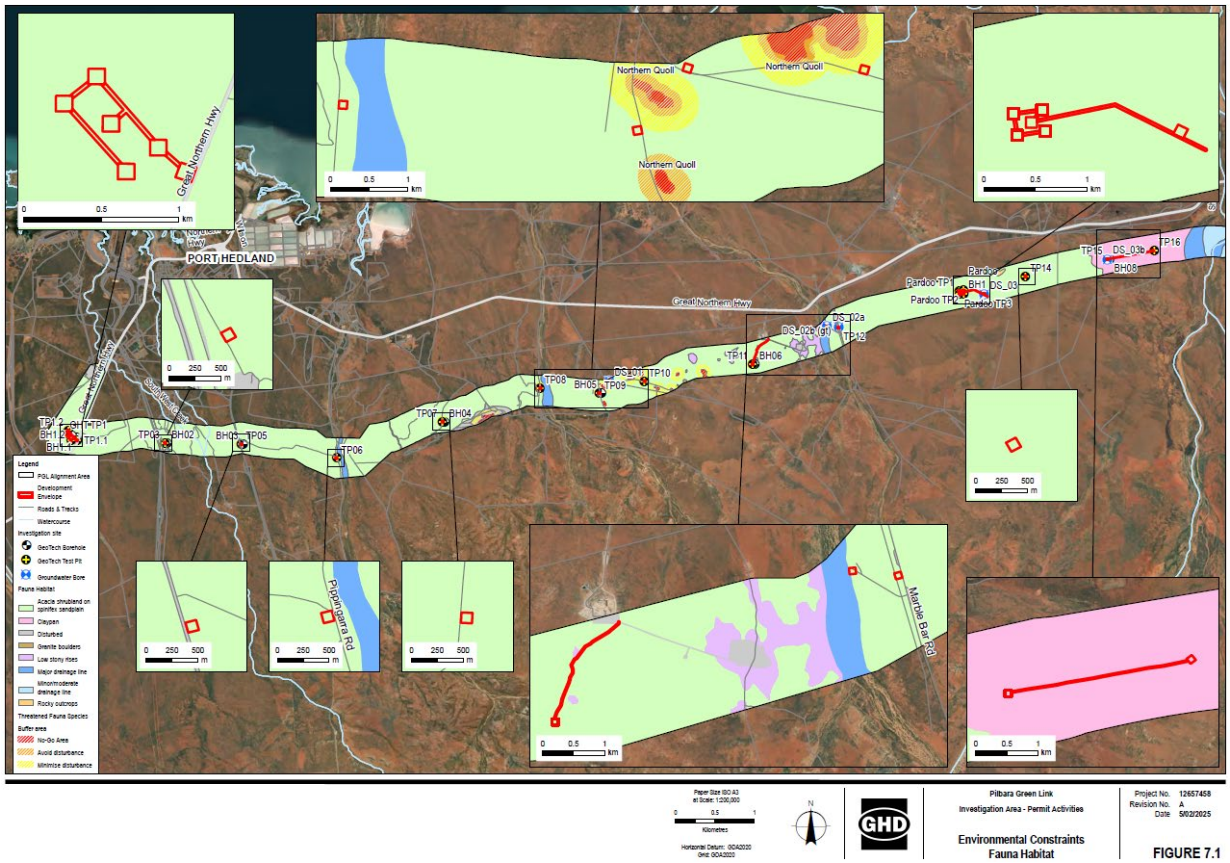
Pilbara Green Link
Investigation Area - Permit Activities
Environmental Constraints
Vegetation Condition

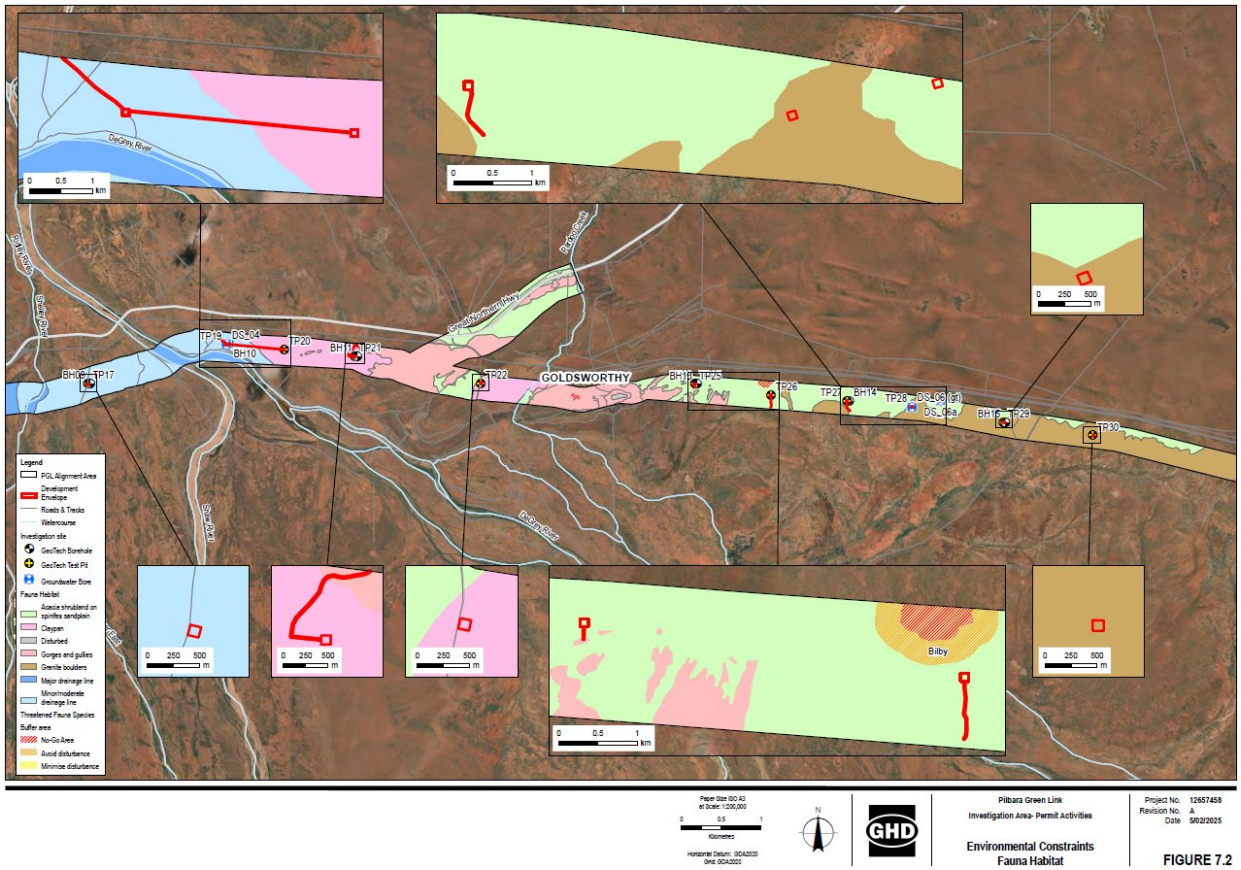
Project No. 12657458
Revision No. A
Date 3/02/2025

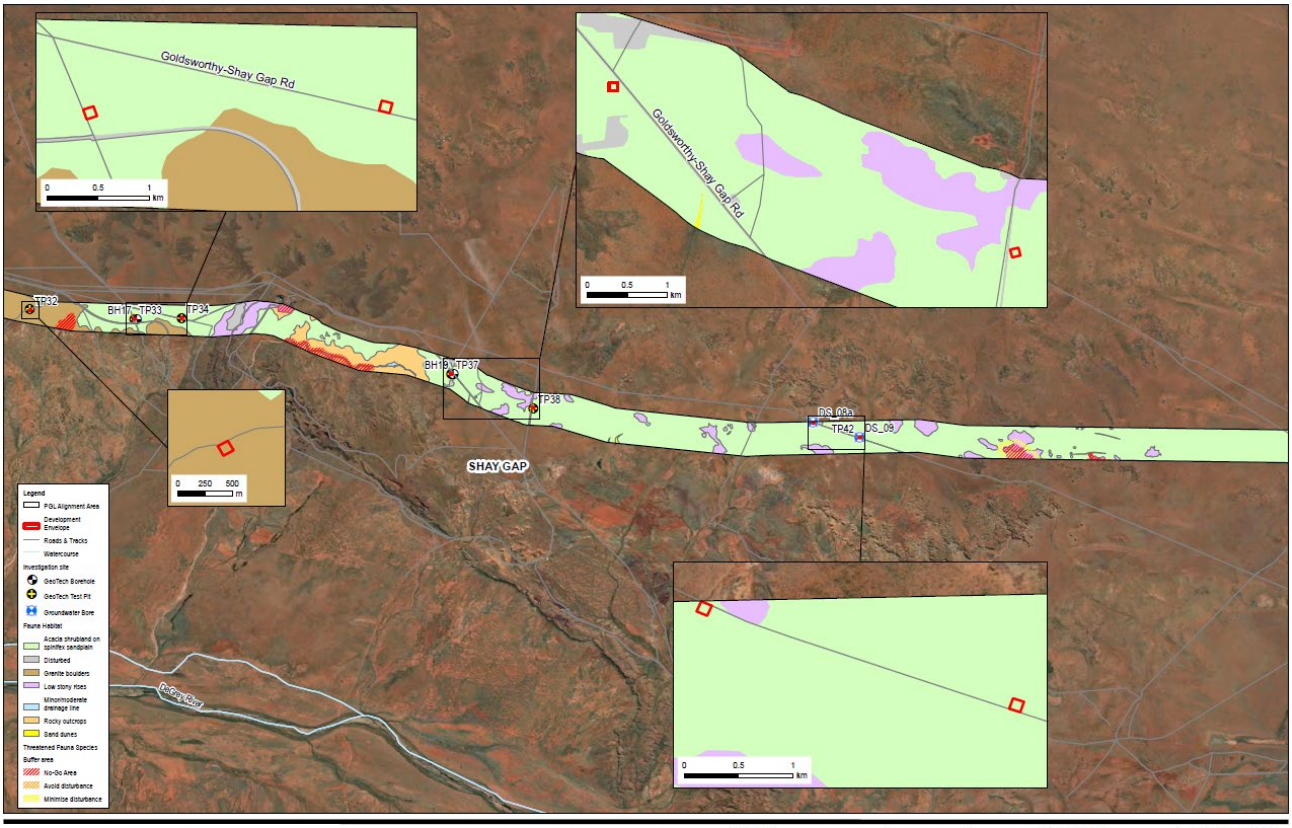
FIGURE 6.3

Fauna Survey

Fauna habitat types identified in the survey:






Goldsworthy-Shay Gap Rd
Goldsworthy-Shay Gap Rd
TP32
BH17
TP33
TP34
BH18
TP37
TP38
DS_09a
TP42
DS_09
SHAY GAP
Legend
PDL Alignment Area
Development Envelope
Roads & Tracks
Watercourse
Investigation site
GeoTech Borehole
GeoTech Test Pit
Groundwater Bore
Fauna Habitat
Acacia shrubland on spinifex sandplain
Disturbed
Granite boulders
Low stony rises
Minor/moderate drainage line
Rocky outcrops
Sand dunes
Threatened Fauna Species
Buffer area
No-Go Area
Avoid disturbance
Minimise disturbance
Pilbara Green Link
Investigation Area - Permit Activities
Environmental Constraints
Fauna Habitat
Project No. 12657458
Revision No. A
Date 5/02/2025
FIGURE 7.3

Appendix E. Sources of information

E.1. GIS databases

Publicly available GIS Databases used (sourced from www.data.wa.gov.au):

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems
- Wheatbelt Wetlands Stage 1 (DBCA-021)

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) – Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

4.2. References

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