



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 10438/1
Permit Holder:	Element Zero Port Hedland Pty Ltd
Duration of Permit:	From 11 June 2026 to 11 June 2032

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 geotechnical and hydrogeological investigative works, including monitoring bores, temporary access tracks, associated drill pads and laydown areas.

2. Land on which clearing is to be done

Lot 701 on Deposited Plan 400624, Boodarie

3. Clearing authorised

The permit holder must not clear more than 5 hectares of *native vegetation* within the area 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 June 2031.

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:

- avoid the clearing of *native vegetation*;
- minimise the amount of *native vegetation* to be cleared; and
- reduce the impact of clearing on any environmental value.

6. Weed management

When undertaking any clearing authorized under this permit, the permit holder must take the following measures to minimize 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. Directional clearing

The permit holder must:

- (a) conduct *clearing* activities in a slow, progressive manner towards adjacent remnant *native vegetation*; and
- (a) allow reasonable time for fauna present within the area being cleared under this permit to move into adjacent *native vegetation* ahead of the *clearing* activity.

8. Flora management – pre-clearance survey

- (a) Prior to undertaking any clearing authorised under this permit within the area cross-hatched yellow in Figure 1 of Schedule 1, the permit holder must engage a *botanist* to conduct a *targeted flora survey* of the areas to be cleared to identify possible occurrences of the following *priority flora* species:
 - *Tephrosia rosea* var. Port Hedland (A.S. George 1114) (Priority 1);
 - *Abutilon* sp. Pritzelianum (S. van Leeuwen 5095) (Priority 3);
 - *Euploca mutica* (priority 3); and
 - *Rothia indica* subsp. *australis* (priority 3).
- (b) Where *priority flora* are identified in relation to condition 8(a) of this permit, the permit holder must ensure that:
 - (i) no clearing occurs within 50 metres of identified Priority 1 flora, unless approved by the *CEO* in writing;
 - (ii) no clearing occurs within 20 metres of identified Priority 2, 3 and 4 flora, unless approved by the *CEO* in writing; and
 - (iii) no clearing of identified *priority flora* occurs unless approved by the *CEO* in writing.
- (c) The permit holder must provide the results of the *targeted flora survey* in a report to the *CEO* prior to undertaking any clearing authorised under this permit within the area cross-hatched yellow in Figure 1 of Schedule 1.
- (d) If any of the abovementioned *priority flora* are identified within the area cross-hatched yellow in Figure 1 of Schedule 1, the *targeted flora survey* report must include the following:
 - (i) the location of each *priority flora*, identified under condition 8(a), either as the location of individual plants, or where this is not practical, the areal extent of the population and an estimate of the number of plants, 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;

- (ii) the species name of each *priority flora* species identified under condition 8(a); and
- (iii) the methodology used to survey the permit area.

9. Fauna management – Greater bilby

- (a) Within seven (7) days prior to undertaking any clearing authorised under this permit, for the areas to be cleared within the cross hatched yellow areas in Figure 1 of Schedule 1, the permit holder must engage a *fauna specialist* to:
 - (i) undertake surveys using transects spaced at 100 metres on average, to identify evidence of use by the greater bilby (*Macrotis lagotis*); and
 - (ii) where evidence of greater bilby use is identified under *condition 9(a)(i)*, undertake surveys using transects spaced at 20 metres on average, to identify evidence of burrows that may be suitable for greater bilby use.
- (b) Where greater bilby burrow/s are identified under *condition 9(a)*, the permit holder must engage a *fauna specialist* to:
 - (i) flag the location of the burrow/s;
 - (ii) inspect the burrow/s and determine whether the burrow/s are *occupied*.
- (c) If the flagged greater bilby burrows identified under condition 9(b) cannot be avoided in accordance with condition 5 of this permit, the permit holder must engage a *fauna specialist* to:
 - (i) monitor burrow/s with remote cameras for greater bilby use for a minimum of three (3) consecutive nights for greater bilby activity;
 - (ii) where no evidence of greater bilby activity is identified under *condition 9(c)(i)*, the burrow shall be deemed as *un-occupied* and the permit holder must engage a *fauna specialist* to:
 - (A) carefully excavate the burrow/s by hand, and remove and relocate any native vertebrate fauna found within the burrow/s; and
 - (B) collapse and fill the burrow/s immediately after the *fauna specialist* has confirmed that no native vertebrate fauna are present within the burrow/s.
 - (iii) where evidence of greater bilby activity is identified under *condition 9(c)(i)*, the permit holder must engage a *fauna specialist* to:
 - (A) continue to monitor the burrow/s for greater bilby activity;
 - (B) implement displacement techniques such as deliberate disturbance of the burrow entrance, while ensuring the disturbance does not prevent greater bilby from exiting the burrow/s; and
 - (C) once greater bilby displacement from the burrow/s is confirmed, stop monitoring, and undertake the actions required under *condition 9(c)(ii)(A)* and *condition 9(c)(ii)(B)*.
- (d) If the greater bilby has not moved on from an *occupied* burrow under *condition 9(c)(iii)*, the permit holder must, no earlier than 7 days prior to clearing, engage a *fauna specialist* to remove and relocate the identified greater bilby to an area of *greater bilby suitable habitat*, in consultation with the Department of Biodiversity, Conservation and Attractions.
- (e) Immediately after the greater bilby has been relocated under *condition 9(d)*, the permit holder must engage a *fauna specialist* to undertake the actions required under *condition 9(c)(ii)(A)* and *condition 9(c)(ii)(B)*.

- (f) Within 24 hours prior to undertaking clearing authorised under this permit, the permit holder must engage a *fauna specialist* to re-inspect the flagged burrow/s identified under *condition* 9(b)(i) for evidence of re-excavation by greater bilby.
- (g) Where re-excavated greater bilby burrow/s are identified under *condition* 9(f), the permit holder must engage a *fauna specialist* to:
 - (i) flag the location of the burrow/s;
 - (ii) inspect the burrow/s and determine whether the burrow/s are *occupied*.
- (h) Where an *occupied* burrow is identified under *condition* 9(g)(ii), the permit holder must engage a *fauna specialist* to:
 - (i) remove and relocate any identified greater bilby from the burrow to an area of *suitable habitat*, in consultation with the Department of Biodiversity, Conservation and Attractions; and
 - (ii) immediately after the greater bilby has been relocated under *condition* 9(h)(i), undertake the actions required under *condition* 9(c)(ii)(A) and *condition* 9(c)(ii)(B).
- (i) Where an *un-occupied* burrow is identified under *condition* 9(g)(ii), the permit holder must engage a *fauna specialist* to undertake the actions required under *condition* 9(c)(ii)(A) and *condition* 9(c)(ii)(B).
- (j) Where any greater bilby burrows are identified under *condition* 9(a) or 9(f), and any greater bilby is relocated under *condition* 9(d) or 9(h), the permit holder must include the following in a report to be submitted to the *CEO* within two (2) months of undertaking any clearing authorised under this permit:
 - (i) the location of any burrow identified including a description of whether the burrow was occupied, 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) a description of the remote camera monitoring actions undertaken under *condition* 9(c);
 - (iii) the date and time that burrows have been excavated and collapsed under *conditions* 9(c), 9(e), 9(h) and 9(i);
 - (iv) the date and time greater bilby are recorded as independently moving on from an *occupied* burrow under *condition* 9(c);
 - (v) the gender of each greater bilby captured and relocated under *condition* 9(d) or 9(h);
 - (vi) the location of any greater bilby captured under *condition* 9(d) or 9(h), using a GPS unit set to GDA2020, expressing the geographical coordinates in Eastings and Northings or decimal degrees;
 - (vii) the date, time and vegetation type at each location where greater bilby are captured under *condition* 9(d) or 9(h);
 - (viii) the location of any greater bilby relocated under *condition* 9(d) or 9(h), using a GPS unit set to GDA2020, expressing the geographical coordinates in Eastings and Northings or decimal degrees;
 - (ix) the date, time and vegetation type at each location where greater bilby are relocated under *condition* 9(d) or 9(h);
 - (x) the name of the *fauna specialist* that relocated greater bilby under *condition* 9(d) or 9(h); and
 - (xi) a copy of the relevant authorisations for the relocation of greater bilby under *condition* 9(d) or 9(h).

10. Fauna management – pre-clearance survey

- (a) Within seven (7) days prior to undertaking any clearing authorised under this permit, the permit holder shall engage a *fauna specialist* to undertake clearance surveys within any areas to be cleared within the areas cross-hatched yellow on Figure 1 of Schedule 1 for the following fauna species:
- (i) Brush-tailed mulgara (*Dasyercus blythi*)
 - (ii) Crest-tailed mulgara (*Dasyercus cristicauda*)
- including the identification and inspection of burrow/s, and determination of whether burrow/s are being utilised.
- (b) Where evidence of recent burrow/s use is identified under *condition* 10(a) of this permit, the permit holder must:
- (i) engage a *fauna specialist* to flag the location of the burrow/s showing signs of recent use;
 - (ii) engage a *fauna specialist* to monitor with cameras, the flagged burrow/s for a minimum of three (3) days, or until such time that the fauna species listed under *condition* 10(a) have been observed to independently move on from the burrow/s; and
 - (iii) within 24 hours prior to clearing, engage a *fauna specialist* to re-inspect any flagged burrow/s for the presence of the fauna species listed under *condition* 10(a).
- (c) If species listed under *condition* 10(a) of this permit are utilising any flagged burrow/s identified under *condition* 10(b) and cannot be avoided in accordance with condition 5 of this permit, the permit holder must engage a *fauna specialist* to remove and relocate the individual/s identified to an area of *suitable habitat*.
- (d) Where active burrow/s for species listed under *condition* 10(a) of this permit are identified and/or individual/s of species listed under *condition* 10(a) of this permit are relocated in accordance with *condition* 10(c), the permit holder must 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 burrow/s 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* 10(c) of this permit;
 - (iii) the dates, times, vegetation types and weather conditions at each location where species listed under *condition* 10(a) of this permit are captured from and relocated to under *condition* 10(c)(ii) of this permit; and
 - (iv) the name of the *fauna specialist* that relocated fauna under *condition* 10(c) of this permit.

11. Fauna management – backfilling

- (a) The permit holder must:
- (i) backfill all test pits on the day of drilling/excavating with excavated material; or
 - (ii) fence all test pits on the day of drilling/excavating with fine mesh to prevent fauna access; or
 - (iii) cover all test pits on the day of drilling/excavating with a cover which prevents entry to the pits by fauna species;

- (iv) cover all bore holes at the end of each day and backfill upon completion.

12. 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 six (6) months following clearing authorised under this permit, *revegetate* and *rehabilitate* the areas that are no longer required for geotechnical and hydrogeological investigative works 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;
 - (iii) laying the vegetative material and topsoil retained under *condition 12(a)* on the cleared areas; and
 - (iv) 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*.

PART III - RECORD KEEPING AND REPORTING

13. 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	<ul style="list-style-type: none"> (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 Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings; (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 <i>condition 5</i>; and (f) actions taken to minimise the risk of the introduction and spread of <i>weeds</i> accordance with <i>condition 6</i>.
2.	In relation to flora management pursuant to <i>condition 8</i>	<ul style="list-style-type: none"> (a) the name and location of each <i>priority flora</i> species identified, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings; (b) the number of individuals of each <i>priority</i>

No.	Relevant matter	Specifications
		<p><i>flora</i> species recorded;</p> <p>(c) actions taken to demarcate each <i>priority flora</i> species recorded and their relevant buffers; and</p> <p>(d) actions taken to avoid the clearing of <i>priority flora</i> species.</p>
3.	In relation to greater bilby fauna management pursuant to <i>condition 9</i>	<p>(a) results of the pre-clearance surveys undertaken in accordance with <i>condition 9</i>, including photographic records demonstrating the method and number of remote camera monitoring nights; and</p> <p>(b) a copy of the <i>fauna specialist's</i> report in accordance with <i>condition 9</i>.</p>
4.	In relation to fauna management pursuant to <i>condition 10</i>	<p>(a) results of the pre-clearance surveys undertaken; and</p> <p>(b) a copy of the <i>fauna specialist's</i> report in accordance with <i>condition 10</i>.</p>
5.	In relation to fauna management pursuant to <i>condition 11</i>	<p>(a) actions taken to cover or backfill all boreholes and test pits.</p>
6.	In relation to the <i>revegetation</i> and <i>rehabilitation</i> of areas pursuant to <i>condition 12</i>	<p>(a) the location of any <i>revegetated</i> and <i>rehabilitated</i> areas, recorded using 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;</p> <p>(b) a description of the <i>revegetation</i> and <i>rehabilitation</i> activities undertaken;</p> <p>(c) the size of the area <i>revegetated</i> and <i>rehabilitated</i>;</p> <p>(d) the date(s) on which the area <i>revegetation</i> and <i>rehabilitation</i> was undertaken; and</p> <p>(e) any <i>weed</i> control activities undertaken within the area <i>revegetated</i> and <i>rehabilitated</i>.</p>

14. Reporting

The permit holder must provide to the *CEO* the records required under *condition 13* 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
botanist	means a person who holds a tertiary qualification specialising in environmental science or equivalent, and has a minimum of two (2) years work experience in Western Australian flora identification and undertaking flora surveys native to the bioregion being inspected or

Term	Definition
	surveyed, or who is approved by the CEO as a suitable environmental specialist for the bioregion, and who holds a valid flora licence issued under the <i>Biodiversity Conservation Act 2016</i>
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the <i>Environmental Protection Act 1986</i> .
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.
department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
EP Act	<i>Environmental Protection Act 1986</i> (WA).
fauna habitat features	habitat known to support the greater bilby (<i>Macrotis lagotis</i>), the brush-tailed mulgara (<i>Dasyercus blythi</i>), and the crest-tailed mulgara (<i>Dasyercus cristicauda</i>).
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 <i>Biodiversity Conservation Act 2016</i> .
fill	means material used to increase the ground level, or to fill a depression.
greater bilby suitable habitat	means habitat known to support the greater bilby (<i>Macrotis lagotis</i>) within the known current distribution of the species.
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.
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
planting	means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species.
priority flora	means those flora taxa described as priority flora classes 1, 2, 3, or 4 in the Department of Biodiversity, Conservation and Attractions' <i>Threatened and Priority Flora List for Western Australia</i> (as amended).
occupied	means any greater bilby burrow that is open (i.e. round entrance and depth characteristics adequate to house a greater bilby), with or without a sand apron, and/or there are fresh greater bilby sign/s present at the site.
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 brush-tailed mulgara (<i>Dasyercus blythi</i>) or crest-tailed mulgara (<i>Dasyercus cristicauda</i>) within the known current distribution of the species.
targeted flora survey	means a field-based investigation, including a review of established literature, of the biodiversity of flora and vegetation of the permit area,

Term	Definition
	focusing on habitat suitable for flora species that are being targeted and carried out during the optimal time to identify those species. Where target flora are identified in the permit area, the survey must also include a minimum of a 10 metre radius of the surrounding areas to place the permit area into local context.
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.
unoccupied	means any greater bilby burrow that – (a) has begun to collapse and no longer has a round entrance or cavity and would not enable a greater bilby to enter without additional digging, and there is no evidence that other vertebrates are making use of the burrow; or (b) has vegetation in the entrance and cob webs across the entrance and there is no evidence that any vertebrates are making use of the burrow.
weeds	means any plant – (c) that is a declared pest under section 22 of the <i>Biosecurity and Agriculture Management Act 2007</i> ; or (d) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or (e) not indigenous to the area concerned.

END OF CONDITIONS

J. Burton

 Jessica Burton
 MANAGER
 NATIVE VEGETATION REGULATION

*Officer delegated under Section 20
 of the Environmental Protection Act 1986*

19 May 2026

Schedule 1

The boundary of the area authorized to be cleared is shown in the map below.

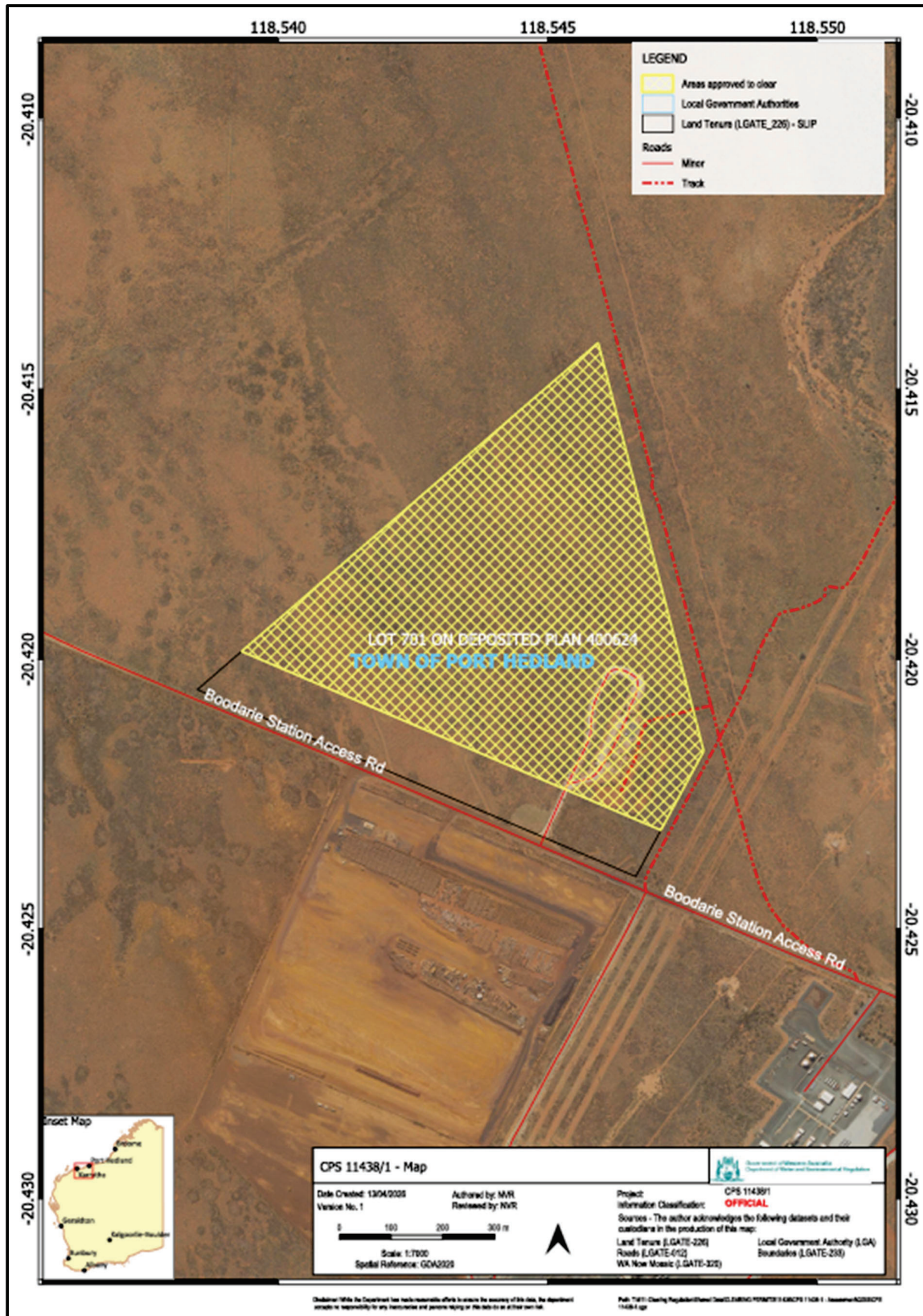


Figure 1: Map of the boundary of the area within which clearing may occur



Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 11438/1
Permit type:	Purpose permit
Applicant name:	Element Zero Port Hedland Pty Ltd
Application received:	28 January 2026
Application area:	Five (5) hectares of native vegetation within a 43.5-hectare footprint
Purpose of clearing:	Geotechnical and hydrogeological investigative works, including monitoring bores, temporary access tracks, associated drill pads and laydown areas
Method of clearing:	Mechanical
Property:	Lot 701 on Deposited Plan 400624
Location (LGA area/s):	Town of Port Hedland
Localities (suburb/s):	Boodarie

1.2. Description of clearing activities

The vegetation proposed to be cleared is contained within a single contiguous area (see Figure 1, Section 1.5). The proposed clearing is for the site investigation work to inform the development of a new metals processing facility (GHD, 2025).

The facility will employ an innovative process driven by low-carbon electricity to transform iron ore and other future-focused metals into high-purity metal products. This approach substantially reduces energy requirements and eliminates the carbon emissions typically associated with conventional smelting. The initial development phase is designed for an annual processing capacity of approximately 260,000 tonnes, with potential to expand to around 2.6 million tonnes per year as operations scale (GHD, 2025).

The proposed activities under this application include the following (GHD, 2026a):

- Geotechnical investigations, such as test pits and/or geotechnical boreholes
- Hydrogeological investigations, including groundwater monitoring or test bores
- Temporary access tracks to safely access investigation locations
- Associated drill pads, turning areas and minor laydown, where required for equipment operation.

1.3. Decision on application

Decision:	Granted
Decision date:	19 May 2026
Decision area:	5 hectares of native vegetation within a 43.5-hectare 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 and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix B), relevant datasets (see Appendix F.1), the supporting information provided by the proponent, the clearing principles set out in Schedule 5 of the EP Act (see Appendix C), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3).

The assessment identified that the proposed clearing will result in:

- the loss of native vegetation that is suitable habitat for conservation significant fauna species (greater bilby, brush-tailed mulgara and crest-tailed mulgara).
- impacts to individual fauna if present at the time of clearing and impacts to individual fauna if test pits are left exposed.
- impacts on priority flora species that potentially occur within the application area.
- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values.

After consideration of the available information, as well as the applicant's mitigation measure (see Section 3.1), the Delegated Officer determined the proposed clearing is unlikely to have long-term adverse impacts on environmental values of flora, fauna and their habitat; and can be minimised and managed to unlikely lead to an unacceptable risk to environmental values.

The Delegated Officer decided to grant a clearing permit subject to conditions to:

- avoiding, minimising to reduce the impacts and extent of clearing.
- slow directional clearing to allow fauna to move into adjacent vegetation.
- take hygiene steps to minimise the risk of the introduction and spread of weeds.
- conducting pre-clearance surveys for conservation significant fauna (greater bilby, brush-tailed mulgara and crest-tailed mulgara) and priority flora.
- securing of any test pits at the end of each day.
- revegetation and rehabilitation of any temporary works.

1.5. Site map

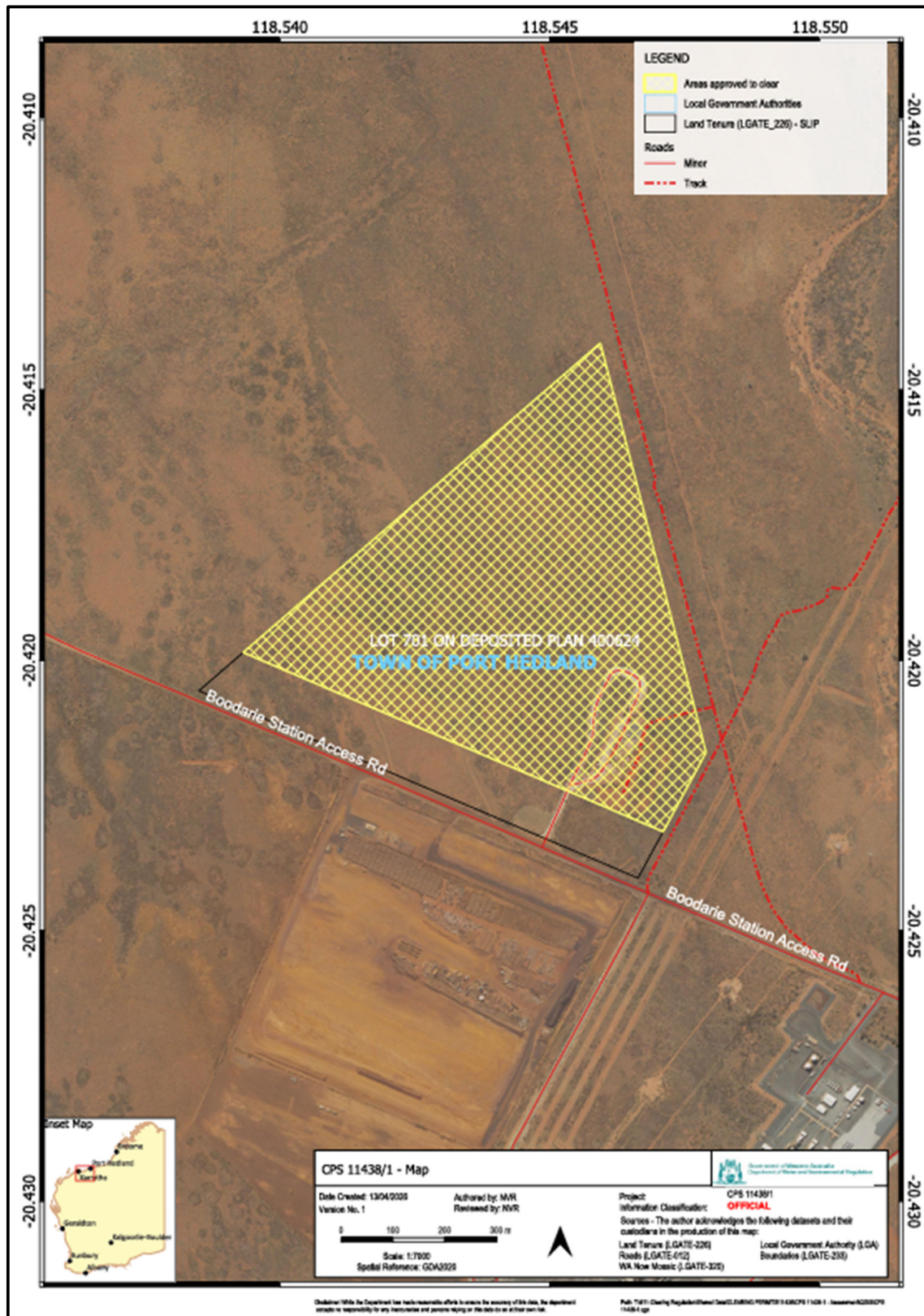


Figure 1 Map of the application area

The area crosshatched yellow indicates the area authorised to be cleared under the granted clearing permit.

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)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Rights in Water and Irrigation Act 1914* (RIWI Act)

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 Detailed assessment of application

3.1. Avoidance and mitigation measures

In their application form (Element Zero, 2025a and 2026a), the applicant has committed that the following measure would be undertaken to minimise the impacts on native vegetation:

- All vehicles will be cleaned before entering site to mitigate the risk of weed spread.

In consideration of the purpose of the proposed clearing and noting that potential impacts on the environmental values can be managed through permit's conditions (if granted), the Delegated Officer was satisfied that the applicant's proposed minimisation measure is reasonable to 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 B) and the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values.

The assessment against the clearing principles (see Appendix C) identified the impacts of the proposed clearing present a risk to fauna and flora. 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 (fauna and biodiversity) - Clearing Principles (a) and (b)

Assessment

The desktop assessment identified that there are 61 conservation significant fauna species recorded in the local area (50-kilometre radius from the application area), including 46 bird species, ten mammal species and five reptile species. Of which, 44 of these species are migratory bird species or shorebird species associated with coastal habitats which are not represented within the application area; and an additional three species are species only found in marine environments.

A flora and fauna survey of the application area identified that majority (91.4 per cent) of the application area footprint comprises of one fauna habitat, described as isolated to sparse shrubland of *Acacia* spp. and *Grevillea* spp. over stony clay plain (Eco Logical, 2021). The survey did not observe any evidence of conservation significant fauna species within the survey area.

Based on the analysis on suitability on habitat, distance of closest mapped records and number of known records in the local area, five fauna species have potential to occur in the application area (See B.3 for fauna analysis table), including:

- Greater bilby (*Macrotis lagotis*) (VU)
- Grey falcon (*Falco hypoleucos*) (VU)

- Peregrine falcon (*Falco peregrinus*) (OS)
- Brush-tailed mulgara (*Dasyercus blythi*) (P4)
- Crest-tailed mulgara (*Dasyercus cristicauda*) (P4)

Greater Bilby

Greater Bilbies (*Macrotis lagotis*) (Vulnerable) are nocturnal marsupials known from the Gibson Desert, Little Sandy Desert, Great Sandy Desert and parts of the Pilbara and southern Kimberley in Western Australia and are associated with open tussock grassland on uplands and hills, *Acacia aneura* (mulga) woodland/shrubland growing on ridges and rises, and hummock grassland in plains and alluvial areas (TSSC, 2016). This species utilises complex burrow systems up to three metres deep for diurnal refuge, rest, and shelter (TSSC, 2016). The Greater Bilby is highly mobile and can have large foraging ranges, with adult males recorded moving up to five kilometres between burrows on consecutive days (DCCEEW, 2023).

Historically, the Greater Bilby occupied more than three-quarters of the Australian continent; however, its geographic range has since declined by over 80%. Central and northern Western Australia now comprise part of the species' remaining confirmed distribution. Predation by invasive species, particularly feral animals, together with habitat loss and fragmentation, are regarded as the primary drivers of population decline (DCCEEW, 2023). The National Recovery Plan for the Greater Bilby (DCCEEW, 2023) aims to enhance the species' long-term persistence in the wild through the maintenance and expansion of population sizes and occupied habitat, the conservation of genetic diversity, and the active participation of Indigenous peoples in recovery and management initiatives.

The proposed clearing area is located within the known distribution of the Greater Bilby (DCCEEW, 2023). A total of 108 Greater Bilby occurrence records has been mapped within the local area, with the nearest record approximately 2.3 kilometres from the application area. Habitat within the proposed clearing area comprises sand plain environments, which are considered as suitable breeding and foraging habitat for the species. Based on the presence of suitable habitat and documented records in the surrounding area, the Greater Bilby is considered likely to occur within the application area.

However, the proposed clearing is unlikely to result in a significant impact on Greater Bilby habitat given the extensive availability of comparable habitat within adjacent remnant vegetation and the temporary nature of the clearing activities. Application of pre-clearing survey for the Greater Bilby and slow directional clearing would further reduce the risk of direct impacts on individuals present at the time of clearing.

Mulgaras

The brush-tailed mulgara (*Dasyercus blythi*) (Priority 4) is a carnivorous marsupial associated with *Triodia spinifex* grasslands with medium to dense cover, while the crest-tailed mulgara typically occurs on sand dunes with a sparse cover of vegetation or in sparse herb lands and grasslands bordering salt lakes (CALM, 2002). The species utilises extensive burrow systems with multiple entrances on sand dunes, typically at the base of grass clumps or bushes (CALM, 2002). There are 306 records of brush-tailed mulgaras mapped within the local area with the closest record 1.6 kilometres from the application area

The crest-tailed mulgara (*Dasyercus cristicauda*) (Priority 4) is similar but larger and more brightly coloured than the brush-tailed mulgara. This species is often associated with a sparse cover of vegetation (such as *Zygochloa paradoxa* (cane grass), or in herblands and sparse grasslands bordering salt lakes with *Nitraria billardieri* (nitre bush) (TSSC, 2019). There are three records of crest-tailed mulgaras mapped within the local area with one record mapped within the application area footprint.

Based on the proximity of existing records and the suitability of available habitat, mulgara species are considered likely to occur within the proposed clearing area. However, given the relatively small footprint of the proposed clearing and the presence of extensive suitable habitat in surrounding areas, the activity is unlikely to result in significant impacts on these species. The implementation of pre-clearing surveys and slow, one-directional clearing practices would further reduce the potential for impacts on individuals present at the time of clearing.

Grey falcon and Peregrine falcon

The grey falcon (*Falco hypoleucos*) (Vulnerable) occurs in arid and semi-arid inland Australia and is associated with timbered lowland plains such as tussock grassland, open woodland, and particularly *Acacia* shrublands that are crossed by tree-lined watercourses (TSSC, 2020). The grey falcon roosts and nests in the tallest trees along watercourses, particularly river red gum (*Eucalyptus camaldulensis*) and coolibah (*Eucalyptus coolabah*) (TSSC, 2020). Considering there is no watercourses within the application area footprint and the distance from the closest record (more than 8 kilometres away), the proposed clearing area may not be a preferable foraging habitat of this species.

The peregrine falcon (*Falco peregrinus*) (Other Specially Protected Fauna) is found Australia-wide and occurs in a range of habitats including woodlands, grasslands and coastal cliffs, usually near watercourses (DAWE, 2020).

Preferred roosting and breeding habitat for the peregrine falcon includes granite outcrops and coastal cliffs, but in the absence of these habitats, the species has been known to utilise the nests of other bird species or tree hollows for breeding (Marchant et al., 1993). It is considered that the habitat present within the application area may also provide suitable transient foraging habitat for this species as individuals migrate through the landscape. However, noting that the peregrine falcon is a highly mobile species with a large home range that does not rely on special niche habitats, the peregrine falcon is likely to be transient in the application area, and it is unlikely that the application area represents significant habitat for the species.

Conclusion

Based on the above assessment, the proposed clearing may impact on habitat of greater bilbies and mulgaras. It is considered that the some of the purposes to clear may have secondary impacts to individuals also, particularly the test pits to be dug have the potential to trap fauna.

For the reasons set out above, it is considered that the impacts of the proposed clearing on bilbies and mulgaras can be managed by undertaking pre-clearance surveys to avoid clearing the identified habitat of these species, slow directional clearing to allow fauna to move into adjacent vegetation, covering test pits at the end of each day and backfilling once complete to avoid trapping fauna.

Given the possibility of greater bilby (threatened species and Matter of National Environmental Significance) being within the application area, an authorisation under section 40 of the *Biodiversity Conservation Act 2016* and a referral under the *Environment Protection and Biodiversity Conservation Act 1999* may be required.

Conditions

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

- undertake pre-clearance surveys for the greater bilby, brush-tailed mulgara and crest-tailed mulgara by qualified personnel and avoid clearing these species and their habitat as required.
- slow directional clearing to allow fauna to move into adjacent vegetation.
- covering test pits at the end of each day and backfilling once complete to avoid trapping fauna.
- implement weed control measures to minimise the risk of the introduction and spread of weeds into adjacent fauna habitat.

3.2.2. Biological values (flora and biodiversity) - Clearing Principles (a) and (c)

Assessment

No threatened flora species are mapped within the local area. A biological survey undertaken for the application area in 2020 did not record any conservation-significant flora species (Eco Logical, 2021). However, noting that the survey was undertaken more than five years ago, it may not adequately reflect the current condition of the vegetation proposed to be cleared. On this basis, there is potential for priority flora species to occur within the application area (refer to Appendix B.2 for the flora analysis table). This potential is based on the presence of soil types, vegetation associations and habitat characteristics within the proposed clearing footprint that are consistent with those known to support these species. These species include:

- *Tephrosia rosea* var. Port Hedland (A.S. George 1114) (P1)
- *Abutilon* sp. Pritzelianum (S. van Leeuwen 5095) (P3)
- *Euploca mutica* (P3)
- *Rothia indica* subsp. *australis* (P3).

Conclusion:

Given the potential for the priority flora species listed above to occur within the application area, the proposed clearing has the potential to impact these species should they be present. As no recent biological survey has been provided to confirm the presence or absence of these species or their habitats within the proposed clearing footprint, there is a level of uncertainty regarding potential impacts.

To manage the risk of significant impacts to priority flora, it is considered appropriate to impose a condition requiring a pre-clearance survey for the flora species listed above. Where such species are identified, clearing is to be avoided in areas supporting these species.

Conditions

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

- undertake pre-clearance survey for the above listed priority flora species by qualified personnel and avoid clearing these species as required.

- implement weed control measures to minimise the risk of the introduction and spread of weeds into adjacent remnant vegetation.

3.3. Relevant planning instruments and other matters

The Town of Port Hedland advised that it supports the proposed works, noting that the subject site is located within the Boodarie Strategic Industrial Center Structure Plan (Town of Port Hedland, 2026).

The applicant currently holds an Access Licence for Part Lot 701 on Deposited Plan 200624 in the Boodarie Strategic Industrial Area, issued by the Western Australian Land Authority, valid until 23 July 2026 (GHD, 2026b). A long term lease is expected to be obtained by the Applicant by July 2026.

DWER's North West Regional Planning Advice team advised that the proposed activities occur within the proclaimed Pilbara groundwater and surface water areas and are therefore subject to licensing requirements under the *Rights in Water and Irrigation (RIWI) Act 1914* (DWER, 2026). The advice indicated that the proposed hydrological investigations (excluding monitoring bores) are likely to require licences under the RIWI Act. It was also noted that should the permit holder require groundwater or surface water for construction or any other purposes, they will need to apply for a 5C licence to take water and a 26D licence to construct any new water supply bores (DWER, 2026). The applicant acknowledged this advice and confirmed that any RIWI Act approvals will be discussed and sought separately before undertaking the relevant works (GHD, 2026b).

No Aboriginal sites of significance have been mapped within the application area. 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

Appendix A. Additional information provided by applicant

Summary of comments	Consideration of comment
Letter from Development WA to extend the Access Licence over Part Lot 701 until 23 July 2026 (GHD, 2026c).	This information has been considered and presented in Section 3.3 of the Decision Report.
Request to amend the Permit Holder name from L701 Pty Ltd to Element Zero Port Hedland Pty Ltd, with the ABN and ACN remaining unchanged (GHD, 2026b).	The permit holder's name has been updated as requested.

Appendix B. Site characteristics

B.1. Site characteristics

The information provided below describes the key characteristics of the area proposed to be cleared and is based on the best information available to DWER at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix C.

Characteristic	Details
Local context	The area proposed to be cleared is part of an expansive tract of native vegetation in the extensive land use zone of Western Australia. It is located approximately 11 kilometres southeast of the Port Hedland Town, and approximately eight kilometres from the ocean on its north. The proposed clearing area is part of a large area of native vegetation. Aerial imagery indicates the local area (50-kilometre radius from the centre of the area proposed to be cleared, except the ocean) retains more than 90 per cent of the original native vegetation cover.
Ecological linkage	The application area is not within any mapped linkages and is unlikely to be part of any local ecological linkage.
Conservation areas	The application area is not within a conservation area. In addition, there are no conservation areas adjacent to the application area and no conservation areas within the local area.

Characteristic	Details
Vegetation description	<p>Flora and fauna survey (Eco Logical, 2021) indicates the vegetation within the proposed clearing area consists of one vegetation type:</p> <ul style="list-style-type: none"> • AcAsTe: <i>Acacia colei</i>, <i>Hakea lorea</i>, <i>Acacia sericophylla</i> tall sparse shrubland over <i>Acacia stellaticeps</i>, <i>Pluchea ferdinandi-muelleri</i>, <i>Corchorus walcottii</i> mid sparse shrubland over <i>Triodia epactia</i>, <i>Triodia schinzii</i> low open hummock grassland and <i>Sorghum timorense</i> low open tussock grassland. <p>Representative photo and survey descriptions are available in Appendix E.</p> <p>This is consistent with the mapped vegetation type: Beard vegetation association 589 which is described as short bunch-grass savanna / Grass-steppe (Shepherd et al, 2001).</p> <p>The mapped vegetation types retain approximately 99 per cent of the original extent (Government of Western Australia, 2019).</p>
Vegetation condition	<p>Flora and fauna survey (Eco Logical, 2021) indicates the vegetation within the proposed clearing area is in Excellent (Trudgen, 1991) condition.</p> <p>The full Trudgen (1991) condition rating scale is provided in Appendix D. Representative photo and survey descriptions are available in Appendix E.</p>
Climate	<p>Mean maximum temperature: 33.4 °C</p> <p>Mean maximum temperature: 19.6 °C</p> <p>The annual average rainfall is 313.0 millimetres (taken from Port Hedland Airport) (BOM, 2026).</p>
Soil and landform description	<p>The soil is mapped as the Uaroo System 281Ua, which is described as broad sandy plains, pebbly plains and drainage tracts supporting hard and soft spinifex hummock grasslands with scattered acacia shrubs.</p> <p>The landform is described as depositional surfaces; level sandy plains up to 10 kilometres or more in extent with little organised through drainage; pebbly surfaced plains and plains with calcrete at shallow depth; broad, mostly unchanneled, tracts receiving more concentrated sheet flow (DPIRD, 2022).</p>
Land degradation risk	<p>Land degradation risks for the mapped soil type include (DPIRD, 2022):</p> <ul style="list-style-type: none"> • Soil erosion: 1% of map unit has a slight risk, 99% of map unit has no risk • Acidification: 23% of map unit has a low risk, 77% of map unit has moderate risk • Salinity: 100% of map unit has a slight to no risk.
Waterbodies	<p>The desktop assessment and aerial imagery indicated that no watercourses intersect the application area. The closest watercourse is a minor nonperennial river located approximately 350 metres away from the east of the application area.</p>
Hydrogeography	<p>The application area is within the Pilbara Groundwater area and the Pilbara Surface Water area as proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> (RiWI Act). The mapped groundwater salinity is 1000-3000 milligrams per litre total dissolved solids which is described as brackish to saline.</p>
Flora	<p>According to available databases, there are 12 conservation significant flora species within the local area. The most frequently recorded species is <i>Euploca mutica</i> (P3). The closest recorded species is <i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114) (P1) which is mapped 1.4 kilometres away from the application area footprint.</p> <p>A flora survey conducted in 2020 could not identify any conservation significant flora species within the application area (Eco Logical, 2021).</p>
Ecological communities	<p>The application area is not within any mapped conservation significant ecological communities. There are no mapped conservation significant ecological communities within the local area.</p>
Fauna	<p>According to available databases, 61 species of conservation significant fauna species have been recorded within the local area, including 17 threatened fauna species, seven priority fauna species, and 37 specially protected fauna species. The species recorded include 36 migratory bird species.</p> <p>Crest-tailed mulgara (<i>Dasyercus cristicauda</i> - Priority 4) was recorded within the application area.</p>

Characteristic	Details
	A fauna survey conducted in 2020 could not identify any evidence of conservation significant fauna species within the application area (Eco Logical, 2021).

B.2. Flora analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix F.1), and biological survey information (Eco Logical, 2021), 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]
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)	P1	Y	Y	Y	1.4	32	N/A
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)	P3	Y	Y	Y	6.9	36	N/A
<i>Euploca mutica</i>	P3	Y	Y	Y	10.1	37	N/A
<i>Rothia indica</i> subsp. <i>australis</i>	P3	Y	Y	Y	16.0	5	N/A

T: threatened, P: priority

B.3. Fauna analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix F.1), and biological survey information (Eco Logical, 2021), impacts to the following conservation significant fauna required further consideration.

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]
Bilby (<i>Macrotis lagotis</i>)	VU	Y	Y	2.3	103	N/A
Grey falcon (<i>Falco hypoleucos</i>)	VU	Y	Y	13.2	9	N/A
Peregrine falcon (<i>Falco peregrinus</i>)	OS	Y	Y	4.3	3	N/A
Brush-tailed mulgara (<i>Dasycercus blythi</i>)	P4	Y	Y	1.6	306	N/A
Crest-tailed mulgara (<i>Dasycercus cristicauda</i>)	P4	Y	Y	0.0	3	N/A

VU: vulnerable, OS: other specifically protected species, P: priority

Appendix C. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
<p><u>Principle (a):</u> "Native vegetation should not be cleared if it comprises a high level of biodiversity."</p> <p><u>Assessment:</u></p> <p>Majority of the area proposed to be cleared is sandplain which is suitable habitat for some specific fauna and flora species. Although the vegetation proposed to be cleared is in Excellent (Trudgen, 1991) condition, noting the extensive remnant vegetation, the proposed clearing area is considered unlikely to comprise of a high level of biodiversity compared with its surrounding area.</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.1 and 3.2.2, above.</i>

Assessment against the clearing principles	Variance level	Is further consideration required?
<p><u>Principle (b):</u> <i>“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.”</i></p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared contains suitable habitat for conservation significant fauna such as Bilby (<i>Macrotis lagotis</i>), Brush-tailed mulgara (<i>Dasyercus blythi</i>, crest-tailed mulgara (<i>Dasyercus cristicauda</i>) with a known record mapped within the application area footprint.</p>	May be at variance	Yes <i>Refer to Section 3.2.1, above.</i>
<p><u>Principle (c):</u> <i>“Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</i></p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared is unlikely to contain habitat for threatened flora species listed under the BC Act.</p>	Not likely to be at variance	Yes <i>Refer to Section 3.2.2, above.</i>
<p><u>Principle (d):</u> <i>“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.”</i></p> <p><u>Assessment:</u></p> <p>The area proposed to be cleared does not contain species that can indicate a threatened ecological community.</p>	Not likely to be at variance	No
Environmental value: significant remnant vegetation and conservation areas		
<p><u>Principle (e):</u> <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p><u>Assessment:</u></p> <p>The extent of the mapped vegetation type and native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia. The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area.</p>	Not at variance	No
<p><u>Principle (h):</u> <i>“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.”</i></p> <p><u>Assessment:</u></p> <p>Given no conservation areas mapped within the local area, the proposed clearing is not likely to have an impact on the environmental values of conservation areas.</p>	Not at variance	No
Environmental value: land and water resources		
<p><u>Principle (f):</u> <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment:</u></p> <p>Given no water courses or wetlands are recorded within the application area footprint, the proposed clearing is unlikely to impact an environment associated with a watercourse or wetland.</p>	Not at variance	No
<p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u></p>	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
The mapped soils are not susceptible forms of land degradation. Noting the location of the application area, the condition of the surrounding vegetation, the proposed clearing is not likely to have an appreciable impact on land degradation.		
<p><u>Principle (i):</u> <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.”</i></p> <p><u>Assessment:</u></p> <p>Given no water courses are recorded within the application area footprint, the proposed clearing is unlikely to impact surface or ground water quality.</p>	Not likely to be at variance	No
<p><u>Principle (j):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</i></p> <p><u>Assessment:</u></p> <p>The mapped soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding.</p> <p>Given no water courses are recorded within the application area footprint, the proposed clearing is unlikely to contribute to waterlogging.</p>	Not likely to be at variance	No

Appendix D. 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.

Condition	Description
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 E. Biological survey information excerpts / photographs of the vegetation / DWER site inspection report

Table E.1. Vegetation types recorded within the application area (Eco Logical, 2021).


Image	Vegetation type description	Quadrats	Extent within the Project Area (ha)	Portion of the Project Area (%)
	AcAsTe: <i>Acacia coleii</i> , <i>Hakea lorea</i> , <i>Acacia sericophylla</i> tall sparse shrubland over <i>Acacia stellaticeps</i> , <i>Pluchea ferdinandi-muelleri</i> , <i>Corchorus walcottii</i> mid sparse shrubland over <i>Triodia epactia</i> , <i>Triodia schinzii</i> low open hummock grassland and <i>Sorghum timorense</i> low open tussock grassland.	ELA A01, ELA A02, ELA A03, ELA A04, ELA A05	48.6	91.4
Tracks, cleared areas and cleared areas with regrowth			4.6	8.6
Total			53.2	100





Figure E.1. Representative photographs of vegetation within the application area (Element Zero, 2025b)

Appendix F. Sources of information

F.1. GIS databases

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

- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Contours (DPIRD-073)
- 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)
- 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

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

F.2. References

- Bureau of Meteorology (BOM) (2026). *Climate statistics for Australian locations – Port Hedland Airport*. Available from: http://www.bom.gov.au/climate/averages/tables/cw_004032.shtml (Accessed in March 2026)
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- Department of Conservation and Land Management (CALM) (2002). *Mulgara (Dasycercus cristicauda and Dasycercus blythi)*. Government of Western Australia, Perth, WA.
- Department of Climate Change, Energy, the Environment and Water (DCCEEW) (2023). *Recovery Plan for the Greater Bilby (Macrotis lagotis)*, Department of Climate Change, Energy, the Environment and Water, Canberra. Available at <https://www.dcceew.gov.au/environment/biodiversity/threatened/publications/recovery/greater-bilby-2023>
- Department of Environment Regulation (DER) (2013). *A guide to the assessment of applications to clear native vegetation*. Perth. Available from: https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf.
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- Department of Water and Environmental Regulation (DWER) (2019). *Procedure: Native vegetation clearing permits*. Joondalup. Available from: https://dwer.wa.gov.au/sites/default/files/Procedure_Native_vegetation_clearing_permits_v1.PDF.
- Department of Water and Environmental Regulation (DWER) (North West Regional Planning Advice) (2026) *Rights in Water and Irrigation Act 1914 advice for clearing permit application CPS 11438/1*, received 08 April 2026 (DWER Ref: DWERDT1321612).
- Eco Logical Australia (Eco Logical) (2021). *Flora and Fauna Survey of Lot1 701-704 Boodarie Strategic Industrial Area, Port Headland. Prepared for Hastings Technology Metals Ltd. - Support Information for CPS 11438/1*. IBSA number IBSA-2021-0044.
- Element Zero (2025a) *Clearing referral application REF 11381/1*, received 05 December 2025 (DWER Ref: DWERTV20658~1).
- Element Zero (2025b) *Response to DWER's request for further information for the clearing referral application REF 11381/1*, received 23 December 2025 (DWER Ref: DWERDT1252849).
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