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PORT HEDLAND GREEN STEEL PROJECT

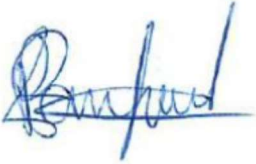


ACCOMMODATION INVESTIGATIONS

**NATIVE VEGETATION CLEARING PERMIT REFERRAL
SUPPORTING INFORMATION**

14 March 2024

**PREPARED FOR PORT HEDLAND GREEN STEEL PTY LTD
BY PRESTON CONSULTING PTY LTD**

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1 INTRODUCTION

1.1 PROJECT BACKGROUND

Port Hedland Green Steel Pty Ltd (PHGS) is progressing the development of a large-scale downstream iron ore processing capability known as the Port Hedland Green Steel Project (Project). The Project is defined in the Referral Document submitted to the Environmental Protection Authority (EPA) on 9 October 2023.

Construction of the Project will require a large workforce; approximately 2,400 people at the peak of construction (Stage 1) and 400 permanent operational staff. PHGS is investigating workforce accommodation options and in consultation with the Town of Port Hedland and the Department of Lands, Planning, and Heritage (DPLH), has identified Lot 331 and Lot 506 Hamilton Road South Hedland as the preferred site for long-term workforce accommodation.

Geotechnical investigations are required over Lot 331 and Lot 506, herein referred to as the Permit Area, to determine soil structure, composition and stability of the Permit Area, as it will be required to support the construction of in-situ and modular buildings. Additional investigations are required to inform a Development Application for the accommodation facilities and may require minor ground disturbance. Additional clearing for the whole accommodation facility is to be carried out under a separate clearing permit.

1.2 PURPOSE

The purpose of this Native Vegetation Clearing Permit (NVCP) application is to seek permission to clear up to 5 hectares (ha) of native vegetation within a proposed 28.2 ha Permit Area (Figure 1).



665000E

666000E

667000E

668000E

7746000N

7745000N

7744000N

7743000N

7742000N

7746000N

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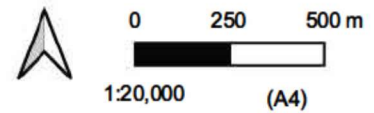


Legend

- Permit Area
- Local Cities & Towns
- Freeways & Highways (LGATE-195)

Imagery: Google Satellite

GDA 2020 / MGA Zone 50



1:20,000 (A4)



POSCO_0408_009

Figure 1: Permit Area

2 PERMIT AREA

The Permit Area will provide flexibility for test pit and drilling locations and access during the geotechnical investigation program. A number of environmental surveys have been undertaken within, and in the vicinity of, the Permit Area and have been used to inform this referral application.

2.1 BOUNDARY

Clearing is to be conducted entirely within the boundaries of the Permit Area as shown in Figure 1. Investigations will focus on the areas required to support significant infrastructure. Key environmental values were identified in the baseline studies as outlined in Section 4.

2.2 TENURE AND LAND ACCESS

The Permit Area lies entirely within Section 91 (S91) Licence No. 00602-2010/2024_A13137389, which was obtained to enable land access for technical investigations for the accommodation facility. The tenure that underlies the S91 Licence within the Permit Area is Unallocated Crown Land.

2.3 NATIVE TITLE

All vegetation disturbance will occur within the Determined Claim Area WAD 6169/1998 of the Kariyarra People. PHGS is currently undertaking consultation and intends to undertake site avoidance Heritage surveys and utilise monitors during clearing, as part of its ground disturbance procedure.



3 PROPOSED ACTIVITIES

Clearing is required to facilitate geotechnical work to inform the design of the accommodation facility. The clearing is proposed to be conducted by track rolling rather than blade clearing. Only areas where a safe working area for excavations will be cleared entirely of above ground vegetation components. Geotechnical work will involve the following clearing activities:

- Clearing of drill pads (typically 20 m x 20 m) to allow boreholes to be drilled with a geotechnical site investigation drilling rig;
- Clearing to allow the excavation of test pits across the site to depths of up to 3 m (or shallower if restricted by refusal or collapsing);
- Clearing to allow pile testing (typically 10 m x 10 m). Pile test locations to be determined by PHGS / contractor. The pile test shall be carried out in accordance with AS2159; and
- Access tracks associated with the site activities outlined above.



4 ENVIRONMENTAL CHARACTERISTICS

Environmental characteristics of the Permit Area relevant to this NVCP referral are detailed in the following sections.

4.1 SURVEY DETAILS

Phoenix Environmental Sciences Pty Ltd (Phoenix) conducted desktop assessments for flora and vegetation and a detailed survey for terrestrial fauna within the Permit Area (Phoenix, 2024a&b). The fauna survey was completed in January 2024.

4.2 BIOGEOGRAPHIC REGIONS

The Permit Area lies entirely within the Pilbara Bioregion, specifically within the Roebourne IBRA Subregion. Subregions have been described in the *Biodiversity Audit of Western Australia's 53 Biogeographical Subregions* (Kendrick & Stanley, 2001). The Roebourne subregion covers 2,008,983 ha, and is characterised as:

- Quaternary alluvial and older colluvial coastal and sub-coastal plains with a grass savannah of mixed bunch and hummock grasses, and dwarf shrub steppe of *Acacia stellaticeps* or *A. pyrifolia* and *A. inaequilatera*. Uplands are dominated by *Triodia* hummock grasslands. Ephemeral drainage lines support *Eucalyptus victrix* or *Corymbia hamersleyana* woodlands. Samphire, *Sporobolus* and mangal occur on marine alluvial flats and river deltas;
- Resistant linear ranges of basalts occur across the coastal plains, with minor exposures of granite. Islands are either Quaternary sand accumulations, or composed of basalt or limestone, or combinations of any of these three; and
- Climate is arid (semi-desert) tropical with highly variable rainfall, falling mainly in summer. Cyclonic activity is significant, with several systems affecting the coast and hinterland annually (May & McKenzie 2003).

4.3 LAND SYSTEMS

The Permit Area lies entirely within the Uaroo System (Phoenix, 2024b). The Uaroo System is characterised by broad sandy plains, pebbly plains and drainage tracts supporting hard and soft spinifex hummock grasslands with scattered *Acacia* shrubs (Schoknecht & Payne 2011). According to the Surface Geology of Australia 1:1,000,000 scale, Western Australian database, the Permit Area is found exclusively on one geological formation representing alluvium 38485. This is described as 'Channel and flood plain alluvium; gravel, sand, silt, clay, locally calcreted.'

4.4 PRE-EUROPEAN VEGETATION

Regional scale vegetation mapping by Shepherd *et al.* (2002) mapped one vegetation association within the Permit Area; vegetation association 647 (Table 1; Figure 5; Phoenix, 2024a).

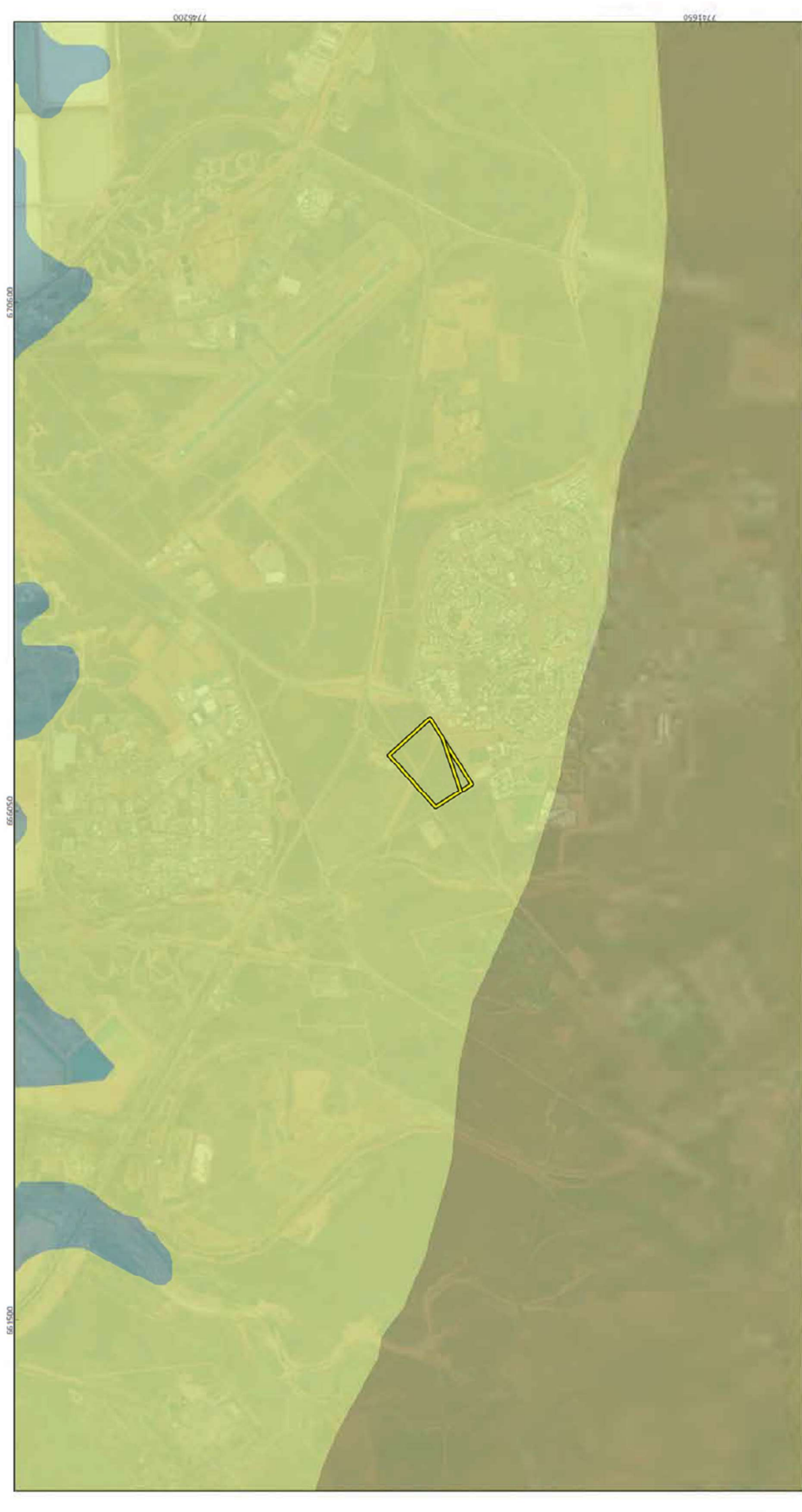
The remaining pre-European extent of vegetation association 647 exceeds 97% and is therefore considered of Least Concern (DBCA, 2018). Table 1 describes the pre-European and current extent of vegetation association 647.



Table 1: State-wide extent of pre-European vegetation associations present in the Permit Area

Vegetation association	Pre-European extent (ha)	Current extent (ha)	Remaining (%)	Current extent in DBCA lands (%)	% of Permit Area
647 – Hummock grasslands, dwarf shrub steppe; <i>Acacia translucens</i> over soft Spinifex. .	195,859.95	191,710.92	97.88	0	100





Port Hedland Green Steel Pty Ltd
Hedland Accommodation

Project No 1643
Date 6/02/2024
Drawn by JL
Map author NR



1:45,500(at A4) GDA 1994 MGA Zone 50



Study area

Vegetation association

- 127, Bare areas; mud flats
- 589, Mosaic: Short bunch grassland - savanna / grass plain (Pilbara) / Hummock grasslands, grass steppe; soft spinifex
- 647, Hummock grasslands, dwarf-shrub steppe; *Acacia translucens* over soft spinifex

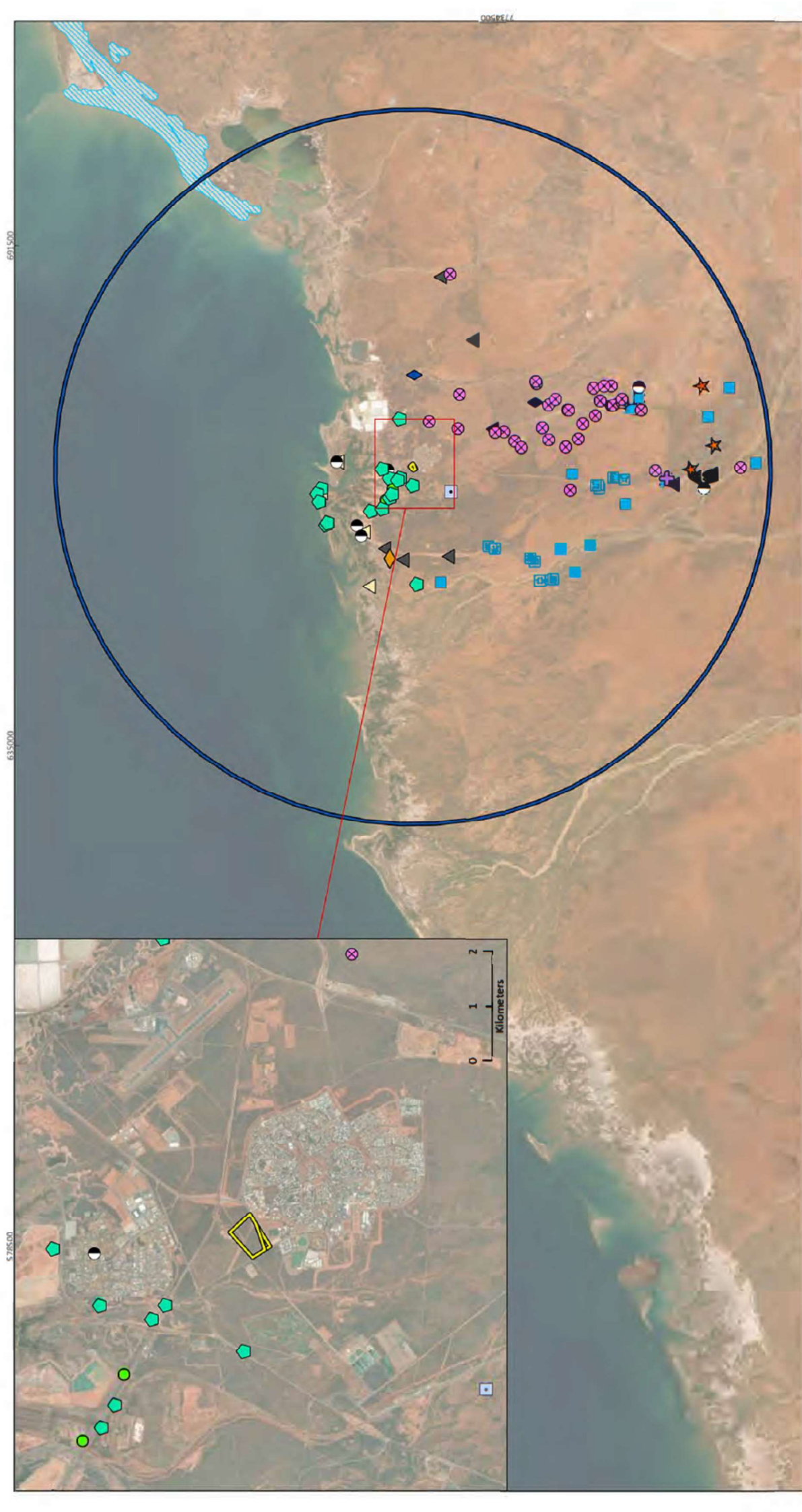
Figure 2: Pre-European vegetation

4.5 FLORA AND VEGETATION

4.5.1 SIGNIFICANT FLORA

Significant flora species are defined as species listed under the *Biodiversity Conservation Act 2016* (WA) (BC Act) and/or the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act). Species listed on the Department of Biodiversity, Conservation and Attractions (DBCA) Priority list are also considered significant. Phoenix reviewed nine survey reports in the vicinity of the Permit Area as part of the desktop assessment (Phoenix, 2024a). Based on a literature review no significant flora have previously been recorded within the Permit Area (Figure 3).





Port Hedland Green Steel Pty Ltd Hedland Accommodation		
Project No	1643	
Date	6/02/2024	
Drawn by	JL	
Map author	NR	
0	12.5	25
Kilometers		
GDA 1994 MGA Zone 50		

- | | | |
|--|--|---|
| <ul style="list-style-type: none"> Study area 40 km buffer Eighty Mile Land System, Priority 3 Species, status <i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095), P3 (DBCA list) <i>Bulbosyllis burbiidgeae</i>, P4 (DBCA list) | <ul style="list-style-type: none"> <i>Eragrostis crateriformis</i>, P3 (DBCA list) <i>Euploca mutica</i>, P3 (DBCA list) <i>Gomphrena leptophylla</i>, P3 (DBCA list) <i>Gomphrena pusilla</i>, P2 (DBCA list) <i>Gymnanthera cunninghamii</i>, P3 (DBCA list) <i>Phyllanthus sp.</i> 'Port Hedland Solar Farm' <i>Ptilotus mollis</i>, P4 (DBCA list) | <ul style="list-style-type: none"> <i>Rothia indica</i> subsp. <i>australis</i>, P3 (DBCA list) <i>Tephrosia rosea</i> var. <i>Port Hedland</i> (A.S. George 1114), P1 (DBCA list) <i>Triodia chichesterensis</i>, P3 (DBCA list) |
|--|--|---|

Figure 3: Significant flora records in the vicinity of the Permit Area

4.5.3 INTRODUCED FLORA SPECIES

A desktop review identified records of 45 introduced flora (weed) species that are considered likely or possible to occur based on previous surveys within, and in the vicinity of, the Permit Area (Phoenix, 2024a). Of these, five are a declared pest and three are also a Weed of National Significance (WoNS).

Table 2: Desktop records of significant weeds

Species	Declared pest	WoNS
<i>Coccinia grandis</i>	✓	
<i>Jatropha gossypifolia</i>	✓	✓
<i>Indigofera hochstetteri</i>	✓	
<i>Parkinsonia aculeata</i>	✓	✓
<i>Andropogon gayanus</i>	✓	✓

4.5.4 VEGETATION TYPE

ENV Australia (2011) identified 42 vegetation types, one of which was identified within the Permit Area. Sandplain B (ENV, 2011) accounts for up to 25.9 ha of the Permit Area. The remaining area is considered to be cleared sandplain (Phoenix, 2024a). The vegetation type and its relative extent across the Permit Area is presented in Table 3 and shown in Figure 8.

Table 3: Vegetation types recorded within the Permit Area

Vegetation type	Description	Area within Permit Area (ha)
Sandplain B	An open <i>Acacia colei</i> var. <i>colei</i> shrublands over low <i>Acacia stellaticeps</i> shrublands over <i>Triodia epactia</i> and <i>Triodia secunda</i> hummock grasslands/low <i>Acacia stellaticeps</i> shrublands over <i>Triodia epactia</i> and <i>Triodia secunda</i> hummock grasslands mosaic.	25.9
Cleared sandplain		2.3
	TOTAL	28.2

4.5.5 VEGETATION CONDITION

Regional vegetation condition mapping was undertaken by ENV Australia (2011) based on the appropriate condition scale for the Eremaean Botanical Province (Keighery, 1994). Vegetation in the Permit Area was recorded to have 25.9 ha (92%) in Very Good condition and the remaining 2.3 ha in Completely Degraded condition (Phoenix, 2024a).

4.5.6 THREATENED AND PRIORITY ECOLOGICAL COMMUNITIES

No Threatened or Priority Ecological Communities (TECs or PECs) are known to occur within the Permit Area (Phoenix, 2024a).



4.6 FAUNA

4.6.1 FAUNA HABITAT

Phoenix (2024b) identified four broad fauna habitats within the Permit Area, comprising *Acacia* shrubland on sandplain, cleared sandplain and an artificial drainage line (Table 4; Figure 4). The majority of the Permit Area (85%) is comprised of *Acacia* shrubland on sandplain.

Table 4: Fauna habitat recorded within the Permit Area

Vegetation type	Description	Area within Permit Area (ha)
<i>Acacia</i> shrubland on sandplain	Open <i>Acacia</i> shrubland over spinifex hummock grassland over herbs. Occasional <i>Eucalyptus</i> trees. Orange, sandy sandplain substrate.	24.0
Cleared sandplain	Orange sandy substrate that has been heavily influenced by human disturbances. Occasional scattered low shrubs.	2.3
Artificial drainage line	An artificial drainage line surrounded by degraded remnant vegetation. Occasional <i>Eucalyptus</i> trees over small grasses and weeds atop an orange sandy substrate.	1.9
TOTAL		28.2

4.6.2 SIGNIFICANT FAUNA

Seventy significant fauna species were identified in the desktop review (Phoenix, 2024b; Figure 5). None have previously been recorded in the Permit Area. The likelihood of occurrence assessment determined that four were likely to occur, two may possibly occur and 64 are unlikely to occur in the Permit Area.

The four species considered likely to occur include:

- Grey Falcon, *Falco hypoleucos* – Vulnerable (EPBC & BC Acts);
- Fork-tailed Swift, *Apus pacificus* - Migratory (EPBC & BC Acts);
- Bilby, *Macrotis lagotis* – Vulnerable (EPBC & BC Acts); and
- Brush-tailed Mulgara, *Dasymercus blythi* - Priority 4- (DBCA).

The two species considered possible to occur include:

- Peregrine Falcon, *Falco peregrinus* – Specially Protected (BC Act);and
- Barn Swallow (*Hirunda rustica*) – Migratory (EPBC & BC Acts).





Port Hedland Green Steel Pty Ltd
 Hedland Accommodation

Project No	1642
Date	8/03/2024
Drawn by	JL
Map author	EB

0 125 250
Meters

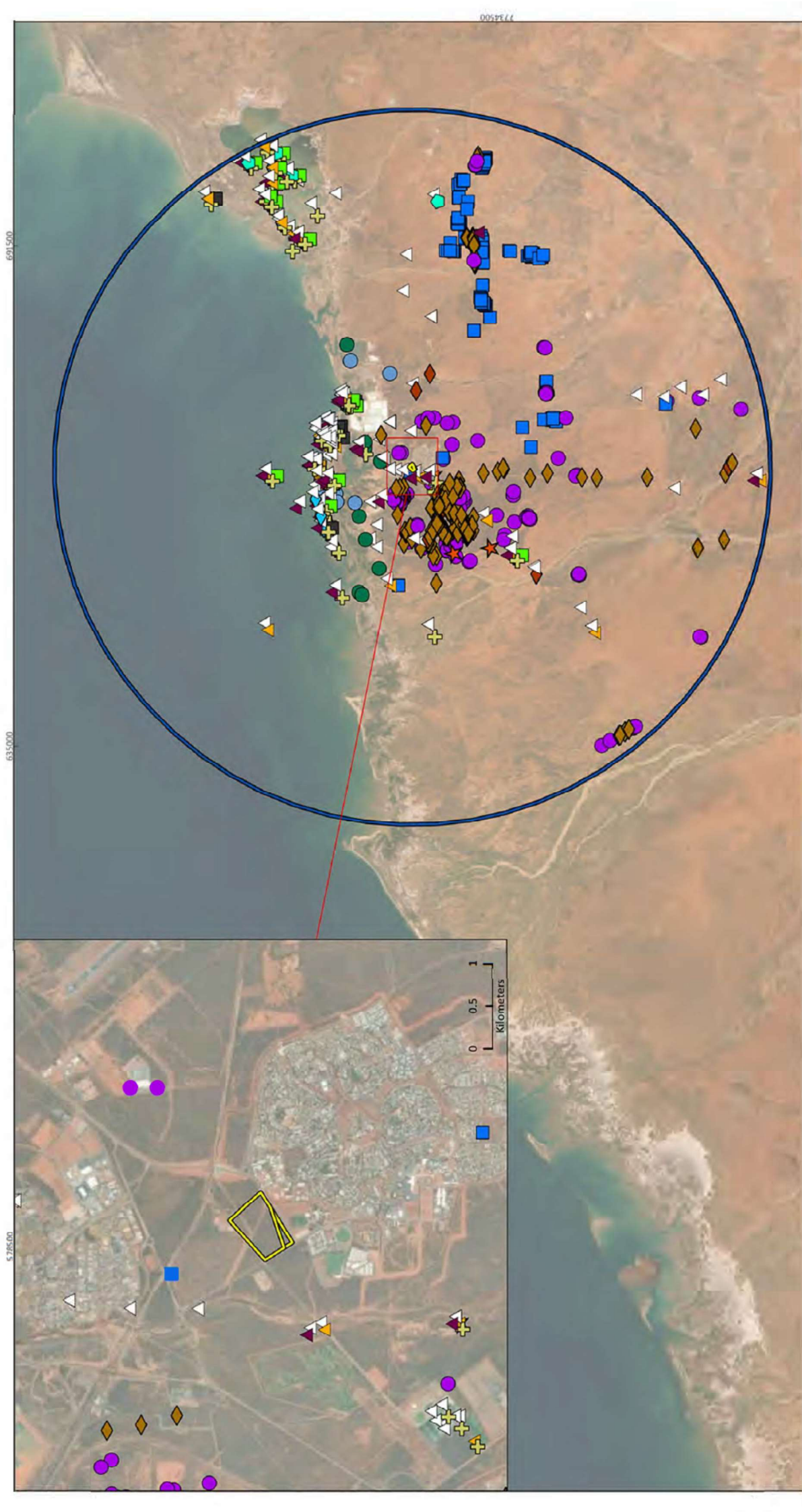
1:5,300 (at A4) GDA 1994 MGA Zone 50

Study area

Habitat

- Acacia* shrubland on sandplain
- Artificial drainage line
- Cleared sandplain

Figure 4: Fauna habitat



Port Hedland Green Steel Pty Ltd
Hedland Accommodation

Project No 1642
Date 1/03/2024
Drawn by JL
Map author EB

0 12.5 25
Kilometers

1:574,900(at A4) GDA 1994 MGA Zone 50

- Study area**
- Study area
 - 40 km buffer
- Status**
- CR/Mig./CR (EPBC Act; BC Act)
 - CR/Mig./VU/Mig. (EPBC Act; BC Act)
 - EN (EPBC & BC Acts)
 - EN/Mig. (EPBC & BC Acts)
 - EN/Mig./EN (EPBC Act; BC Act)
 - Mar/Mig. (EPBC Act; BC Act)
 - Mig. (BC Act)
 - Mig. (EPBC & BC Acts)
 - Mig. EPBC and BC Acts; P4
 - DBCA list
 - OS (BC Act)
- DBCA list**
- P1 (DBCA list)
 - P3 (DBCA list)
 - P4 (DBCA list)
 - VU (BC Act)
 - VU (EPBC & BC Acts)
 - VU/Mig./VU (EPBC Act; BC Act)

Figure 5: Significant fauna records in the vicinity of the Permit Area

4.7 WATER AND DRAINAGE

The Permit Area is located within the Port Hedland Coast Basin which itself lies within the Pilbara Surface Water Area (TPG, 2012). No natural watercourse traverses the site; however, two constructed drainage channels converge at the junction in the central area of Lot 331 (TPG, 2012). The larger of the two drainage channels run in a south-east to north-west direction across the site, ultimately discharging into the South Creek (TPG, 2012). Each drain is approximately 2 - 3 m deep and the base width varies between an estimated 2 - 4 m (TPG, 2012).



5 STAKEHOLDER CONSULTATION

PHGS has consulted with the following key stakeholders regarding the accommodation facility:

- Minister for Planning; Lands; Housing; Homelessness;
- Member for Pilbara (Australian Labor Party);
- Department of Planning, Lands, and Heritage;
- Department of Jobs, Tourism, Science and Innovation;
- DevelopmentWA;
- CEO, Mayor, Planning Manager, and Councillors of the Town of Port Hedland;
- Kariyarra People (Prescribed Body Corporate - Kariyarra Aboriginal Corporation); and
- Service providers and local industry.



6 CLEARING REFERRAL CRITERIA ASSESSMENT

The proposed clearing has been reviewed against the criteria specified in the DWER (2021) Guideline – Native vegetation clearing referrals.

Criterion 1 - the area proposed to be cleared is small relative to the total remaining vegetation:

- Extent of clearing is to be no more than 10 ha – Yes, 5 ha of clearing is proposed;
- More than 30% of native vegetation association is remaining – Yes, 98% of the vegetation association is currently remaining;
- More than 30% of native vegetation with a surrounding 10 km buffer is remaining – Yes, the extent of native vegetation remaining exceeds 30%;

Criterion 2 - there are no known or likely significant environmental values within the area:

- Vegetation condition – the Permit Area contains vegetation in Degraded or Very Good condition, which is consistent with the broad vegetation condition in the surrounding area;
- Significant fauna – the Permit Area does not contain any known records of significant fauna. Broad-scale fauna habitat exists within the Permit Area, however this habitat is well represented in the area;
- Fauna habitat – the Permit Area does not contain critical habitat for any significant fauna species;
- Significant ecological linkage - the Permit Area is surrounded by native vegetation and does not contain habitat typically used for ecological linkages by fauna species (such as creeklines);
- Mapped ecological community - the Permit Area does not contain any mapped ecological communities;
- Significant flora - the Permit Area does not contain any known records of significant flora;
- Mapped wetland - the Permit Area does not contain any mapped wetlands;
- Water resources – the proposed clearing will not have impacts on water resources;
- Conservation reserves - the Permit Area does not contain any conservation reserves;
- Land and soil quality - the Permit Area is currently predominantly native vegetation and is not in an area with high risk of land and/or soil degradation; and
- Heritage-related values and native title matters – the clearing areas will be surveyed for Aboriginal heritage sites prior to clearing and any sites will be avoided.

Criterion 3 - the state of scientific knowledge of native vegetation within the region is adequate:

- The Permit Area is located in an area that has had a large number of ecological surveys, and a fauna survey has been completed over the site. The data used is therefore adequate to assess the referral application.

Criterion 4: Conditions will not be required to manage environmental impacts:

- The proposed works are short-term, with simple, low impact clearing methods proposed. It is unlikely that any conditions would provide greater environmental outcomes.



In the case that DWER determine that a permit is required, the proposed vegetation disturbance has been assessed against the ten clearing principles described within *A Guide to the Assessment of Applications to Clear Native Vegetation* (DER, 2014; Table 5).



Table 5: Assessment of proposed vegetation disturbance against the ten clearing principles

Relevant Information	Assessment of Potential Impacts	Proposed Control Measures	Outcome – Assessment of Variance with Clearing Principle
<p>1. Native Vegetation should not be cleared if it comprises a high level of biological diversity</p> <p>No Threatened or Priority flora species were identified within the Permit Area during desktop studies and review of past surveys. The vegetation in the Permit Area is identified as Vegetation Association 647. Vegetation Association 647 has over 97% of pre-European extent remaining and is classed as Least Concern.</p>	<p>The Permit Area is not located within a known biodiversity hotspot in WA. Previous studies have not recorded high counts of native flora species in and around the Permit Area. No Threatened or Priority flora species are known to occur within the boundary of the Permit Area. The proposed clearing will result in the removal of up to 5 ha of native vegetation, this clearing represents:</p> <ul style="list-style-type: none"> <0.01% of the remaining extent of Vegetation Association 647; Disturbance to 17% of the Very Good vegetation within the Permit Area (if all 5 ha occurred within Very Good vegetation) Disturbance to 20% of Acacia shrubland on sandplain habitat within the Permit Area (if all 5 ha of disturbance occurs within this habitat type) 	<p>To minimise the impact of clearing on the environment, PHGS proposes the following control measures:</p> <ul style="list-style-type: none"> All clearing will be managed under a clearing contractor’s Ground Disturbance Permit (or similar); The total extent of vegetation clearing is limited to 5 ha; The clearing areas will be identified using GPS coordinates; All clearing kept to a minimum within the proposed Permit Area and completed only when required; and All vehicles, equipment and personnel will be inspected and cleaned as required to prevent the incidental spread of weeds. 	<p>The proposed clearing is not likely to be at variance with this principle.</p>
<p>2. Native vegetation should not be cleared if it comprises the whole, or part of, or is necessary for the maintenance of a significant habitat for fauna indigenous to WA</p> <p>Acacia shrubland on sandplain habitat was the primary fauna habitat identified within the Permit Area (Figure 4). The Permit Area has been identified as containing suitable habitat for Bilby, Grey Falcon, Brush-tailed Mulgara, Fork-tailed Swift, Barn Swallow and the Peregrine Falcon. None of these species have previously been recorded within the Permit Area. Survey work undertaken by Phoenix for Alinta’s Port Hedland Solar Project indicates that the core range of the Bilby population was west of Great Northern Highway given the widespread locations of old scats recorded in the targeted survey (Phoenix, 2022).</p>	<p>The proposed clearing will occur within habitat that could potentially be utilised by wide-ranging significant fauna. Bilby and Brush-tailed Mulgara were identified as likely to occur within the Permit Area, though no evidence of the species was detected during the reconnaissance field survey. Given that the Permit Area has undergone some human disturbance and is adjacent to large areas of cleared land and infrastructure, it is unlikely that the Permit Area represents a core part of the species range. Grey Falcon and Peregrine Falcon may forage throughout the Permit Area. For both species,</p>	<p>Implement control measures described above.</p>	<p>The proposed clearing is not likely to be at variance with this principle.</p>



Relevant Information	Assessment of Potential Impacts	Proposed Control Measures	Outcome – Assessment of Variance with Clearing Principle
	<p>the Permit Area would only comprise a small fraction of the foraging home range.</p> <p>Fork-tailed Swift and Barn Swallow were not detected during the reconnaissance survey, though they are wide-ranging migrant species that feed aerially and are not limited by terrestrial habitat type.</p>		
3. Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora			
<p>No Threatened or Priority flora were recorded in the Permit Area based on desktop searches (Figure 3).</p>	<p>No known records of Threatened or Priority Flora will be impacted by the clearing.</p> <p>While it is possible that significant flora may occur within the Permit Area, the clearing of 5 ha of habitat for these species is unlikely to affect the continued existence of any significant flora.</p>	<p>Implement control measures described above.</p>	<p>The proposed clearing is not likely to be at variance with this principle.</p>
4. Native vegetation should not be cleared if it comprises the whole or part of, or is necessary for the maintenance of, a Threatened Ecological Community			
<p>None of the vegetation previously recorded within the Permit Area was considered to represent a TEC.</p>	<p>Not applicable</p>	<p>Not applicable</p>	<p>The proposed clearing is not at variance with this principle.</p>
5. Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared			
<p>The Permit Area lies entirely within the Pilbara Bioregion, specifically located on the Roebourne IBRA Subregion. The Roebourne subregion covers 2,008,983 ha.</p> <p>The vegetation in the Permit Area is identified as Vegetation Association 647. Vegetation Association 647 has over 97% of pre-European extent remaining and is classed as Least Concern.</p>	<p>The Permit Area does not represent a significant remnant of native vegetation in an extensively cleared area.</p> <p>The proposed clearing will result in the removal of up to 5 ha of native vegetation, this clearing represents:</p> <ul style="list-style-type: none"> <0.01% of the remaining extent of Vegetation Association 647; and Up to 17% ha of Very Good vegetation within the Permit Area. 	<p>Implement control measures described above.</p>	<p>The proposed clearing is not at variance with this principle.</p>
6. Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland			
<p>The Permit Area is located within the Pilbara Surface Water Area.</p>	<p>No watercourses or permanent wetlands are present within the Permit Area.</p>	<p>Not applicable.</p>	<p>The proposed clearing is not at variance with this principle.</p>



Relevant Information	Assessment of Potential Impacts	Proposed Control Measures	Outcome – Assessment of Variance with Clearing Principle
<p>An artificial drainage line intersects the Permit Area and is surrounded by degraded remnant vegetation.</p>			
<p>7. Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation</p>			
<p>The Permit Area is situated north of South Hedland and South of Wedgefield. The area surrounding the Permit Area has largely been cleared for residential and industrial purposes. The area within Permit Area remains mostly uncleared with disturbance limited to that caused by the artificial drainage line and access tracks.</p> <p>Five declared pests, three of which are also WoNS, were considered possible to occur within the Permit Area (Phoenix, 2024a).</p>	<p>Land degradation will be limited to the 5 ha of proposed land clearing required for geotechnical investigations. This represents clearing of up to 5 ha of Very Good vegetation, no Excellent vegetation will be cleared.</p> <p>The proposed clearing will impact a relatively small area of Very Good vegetation and is not likely to cause significant land degradation.</p>	<p>Implement control measures described above</p>	<p>The proposed clearing is not likely to be at variance with this principle.</p>
<p>8. 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</p>			
<p>The proposed clearing area does not occur within or adjacent to any conservation areas. The nearest mainland conservation reserves are Eighty Mile Beach and Mungarooona Range Nature Reserve Marine Park, located approximately 100 km north-east and 111 km south-southwest from the Permit Area boundary.</p>	<p>Not applicable</p>	<p>Not applicable</p>	<p>The proposed clearing is not at variance with this principle.</p>
<p>9. Native vegetation should not be cleared if the clearing is likely to cause deterioration in the quality of surface or underground water</p>			
<p>The Permit Area is located within the Pilbara Surface Water Area. An artificial drainage line intersects the Permit Area and is surrounded by degraded remnant vegetation.</p>	<p>The proposed clearing is not expected to cause deterioration in the quality of surface or underground water.</p> <p>No activities will intersect the water table or occur in any drainage lines.</p>	<p>Implement the control measures described above.</p>	<p>The proposed clearing is not likely to be at variance with this principle.</p>
<p>10. Native vegetation should not be cleared if the clearing is likely to cause, or exacerbate, the incidence or intensity of flooding</p>			
<p>The region is generally dry, with occasional significant rainfall events often associated with cyclones.</p>	<p>The proposed vegetation clearing is small in scale and is not expected to cause, or exacerbate, the incidence or intensity of flooding within the Permit Area or surrounding landscape.</p>	<p>Implement the control measures described above.</p>	<p>The proposed clearing is not likely to be at variance with this principle.</p>



SUMMARY AND CONCLUSIONS

The purpose of this NVCP Referral Application is to allow the clearing of up to 5 ha of native vegetation within a 28.2 ha Permit Area for geotechnical investigations described in Section 3.

The following key points are noted:

- The area has been extensively surveyed for a number of different projects within the region and the results of these surveys have been used to assess the impacts of clearing; and
- The proposed clearing will not result any significant impacts to the following:
 - Threatened and Priority Flora;
 - TECs or PECs;
 - Wetlands / surface water; or
 - Conservation areas.

PHGS has also identified a number of control measures to minimise the impacts to native vegetation. These measures include the following:

- All clearing to be managed under a clearing contractor's Ground Disturbance Permit (or similar);
- The total extent of vegetation clearing is limited to up to 5 ha of disturbance;
- The clearing areas will be identified using GPS coordinates;
- All clearing kept to a minimum within the Permit Area and completed only when required; and
- All vehicles, equipment and personnel will be inspected and cleaned as required to prevent the incidental spread of weeds.

This NVCP referral application assessed the proposed vegetation clearing against the against the criteria specified in the DWER (2021) Guideline – Native vegetation clearing referrals. Based on this assessment, the clearing is expected to meet the requirements of a NVCP referral.



GLOSSARY

Term	Meaning
BC Act	<i>Biodiversity Conservation Act 2016</i>
Cth	Commonwealth
DBCA	Department of Biodiversity, Conservation and Attractions
DER	Department of Environmental Regulation
DPLH	Department of Lands, Planning, and Heritage
ENV Australia	ENV Australia Pty Ltd
EPA	Environmental Protection Authority
EPBC Act	<i>Environmental Protection and Biodiversity Conservation Act 1999</i> (Commonwealth)
ha	Hectares
IBRA	Interim Biographical Regionalisation for Australia
km	Kilometres
m	Metre
NVCP	Native Vegetation Clearing Permit
PEC	Priority Ecological Community
Permit Area	Boundary for clearing proposed in this NVCP Figure 1
PHGS	Port Hedland Green Steel Pty Ltd
Phoenix	Phoenix Environmental Sciences Pty Ltd
Project	Port Hedland Green Steel Project
s91	Section 91
SIA	Strategic Industrial Area
Significant Flora/Fauna	Species listed under the <i>Biodiversity Conservation Act 2016</i> and/or <i>Environmental Protection and Biodiversity Conservation Act 1999</i> or listed as Priority species by the Department of Biodiversity, Conservation and Attraction.
TEC	Threatened Ecological Community
WA	Western Australia
Weed	Introduced flora species
WoNS	Weed of National Significance



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ATTACHMENTS

