

Clearing Desktop Report CPS 818

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Minilya Exmouth Road - [REDACTED] SLK:
Material Pit Expansion Area
Minilya Exmouth Road (H048)
Region: Midwest Gascoyne
EOS: 2827

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Document Control *(for the Report)*

Report Compilation & Review	Name and Position	Document Revision	Date
Author:	[REDACTED] Environment Officer	Draft v1	08/04/2026
Reviewer:	[REDACTED]Senior Environment Officer	Draft v1	16/04/2026
Author:	[REDACTED]Environment Officer	Rev 0	20/04/2026
Reviewer:	[REDACTED]Senior Environment Officer	Rev 0	23/04/2026

1 PROPOSAL

1.1 Purpose and Justification

Main Roads Western Australia (Main Roads) proposes to clear up to 150 hectares (ha) of native vegetation for the extraction of road-building materials. The area proposed for clearing is adjacent to a pre-existing Material Pit Area situated on Minilya-Exmouth Road (H048) at the [REDACTED] Straight Line Kilometre (SLK) mark, approximately 30 km south of Coral Bay in the Shire of Carnarvon. This proposal will result in the expansion of the existing material pit that will provide road building materials for the future road works in the vicinity that will improve road user safety.

1.1.1 Main Roads Approach to Road Safety and the Environment

Main Roads is committed to minimising the environmental impacts of all of its activities and manages the State road network to achieve balanced economic, social, safety and environmental benefits for the community. Main Roads recognises that Western Australia's environment is significant from a global perspective and the unique conservation values that are contained within its road reserve. Main Roads road network often adjoins natural areas and, in some locations, the reserve itself hosts remnant vegetation with high environmental values. Although the reserves were not established for this purpose, Main Roads recognises that it has a responsibility to conserve the environmental values that occur within the State's road network and minimise the impact its proposals have on the environment. In addition to providing a safe and efficient road network for all people using the roads under its control, Main Roads is also committed to protecting the natural environment.

In accordance with National and State Government road safety policies, Main Roads is also committed to substantially reducing road trauma on the road network through Safe System principles. The Safe System approach acknowledges that more than two thirds of all serious crashes are due to human error rather than deliberate risk taking (e.g. speeding or drink driving) and seeks to improve behaviour through education and enforcement while managing the safety of vehicles, speeds and the road and road infrastructure. It is shown that improving sub-optimal road formation will substantially reduce the likelihood and severity of road crashes. For example, according to the Road Safety Management Guideline, increasing the sealed shoulder from 0.5 m to 2 m will reduce Killed and Seriously Injured numbers by more than 50%.

As the statutory authority responsible for providing and managing a safe and efficient main road network in Western Australia, Main Roads focuses on improving road safety by thoroughly considering all environmental, economic and community benefits and impacts. It operates on a hierarchy of avoiding, minimising, reducing and then, if required, offsetting our environmental impacts. This has been achieved through changes in proposal scope and design. Main Roads regularly reduces its clearing footprint by restricting earthworks limits for proposals, steepening batters, installing barriers, establishing borrow pits in cleared paddocks and avoiding temporary clearing for storage, stockpiles and turn around bays to avoid and minimise its impacts.

Further details on measures to avoid, minimise and reduce are provided in Section 1.5.

1.2 Proposal Scope

Main Roads WA proposes to clear 150 ha of native vegetation for the expansion of an existing material pit on Minilya-Exmouth Road (H048) at the [REDACTED] SLK mark, approximately 30 km south of Coral Bay in the Shire of Carnarvon. Following clearing, road building material will be extracted and stockpiled for future use in road construction and maintenance works.

Test pitting will be undertaken to determine the presence of suitable material to avoid any unnecessary clearing where no material is present.

1.3 Proposal Location

The Clearing Area is located on Minilya-Exmouth Road (H048) at the [REDACTED] SLK mark approximately 30 km south of Coral Bay in the Shire of Carnarvon.

Figure 1 displays the Development Envelope (DE) in reference to the Minilya-Exmouth Road and the 20 km Study Area.

The central coordinate of the proposal is:

- Latitude: 23.3072754° S
- Longitude: 113.9496197° E

1.4 Clearing Details

Proposed Clearing to be undertaken using CPS 818:

Clearing of 150 ha of native vegetation from a 268 ha DE is proposed.

Areas of Native Vegetation Clearing:

The DE is shown in Figure 2.

Type of Native Vegetation:

The DE covers an area of 268 ha and consists of three vegetation types (VT06, VT07 and VT08) as outlined in Table 1.

Table 1: Vegetation Types, Descriptions and extents in hectares and percentage cover (GHD, 2022)

Vegetation Type	Description	Development Envelope (ha and %)
VT06	Isolated clumps of native shrubs over <i>*Cenchrus ciliaris</i> closed grassland	7.63 ha (3%)
VT07	<i>Acacia tetragonophylla</i> , <i>Melaleuca cardiophylla</i> and <i>Acacia startii</i> mid open shrubland over <i>Grevillea variifolia</i> subsp. <i>bundera</i> , <i>Halgania cyanea</i> var. Allambi Stn (B.W. Strong 676), <i>Scaevola pulchella</i> low sparse shrubland over <i>Ptilotus polystachyus</i> , <i>Goodenia tenuiloba</i> sparse herbland with <i>Triodia epactia</i> tussock grassland	213.28 ha (82%)
VT08	<i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> , <i>Stylobasium spathulatum</i> and <i>Eremophila</i> spp. Mid open shrubland over <i>Solanum lasiophyllum</i> , <i>Indigofera occidentalis</i> and <i>Enchylaena tomentosa</i> var. <i>tomentosa</i> low sparse shrubland	38.84 ha (15%)

Vegetation Type	Description	Development Envelope (ha and %)
	over * <i>Cenchrus ciliaris</i> , <i>Aristida holathera</i> var. <i>holathera</i> and <i>Eriachne aristidea</i> grassland	

[REDACTED]

Figure 1. 20 km Study Area and Development Envelope

[REDACTED]

Figure 2: Development Envelope

1.5 Alternatives to Native Vegetation Clearing Considered During Proposal Development

The following alternatives to clearing were considered during the development of the proposal:

- Exploring for material in unvegetated areas, however there are no areas in the vicinity available that contain suitable material.
- Outsourcing material from a commercial provider, which would be uneconomical.
- Main Roads retains frangible vegetation where a clear zone is to be established for road projects. For this project, however, clearing will only be required for extraction of materials, with no clear zone being established. Accordingly, the retention of frangible vegetation does not apply to this proposal.
- Reducing the speed limit to minimise clearing requirements, while still balancing safety (driver fatigue) and freight efficiency. Speed Limits are an essential mechanism to ensure the safe and efficient operation of road networks. The application of appropriate speed limits and other traffic management measures is a key mechanism in managing vehicle speeds to achieve desired safety, mobility, traffic management, local amenity, and road user expectations. There are several factors involved in road safety, including road conditions, driver behaviour and overall road design. Except in special situations, reducing speed limits below national standards on state and national roads is not typically supported as it has the potential to contribute to driver frustration, impatience, tiredness and recklessness. The environmental values protected by reducing the speed limit, do not justify the impacts on freight efficiencies nor road user safety. As this proposal relates to the expansion of an existing material pit, the reduction of speed limits to avoid clearing of native vegetation for this proposal is not proposed.

1.6 Measures to Avoid, Minimise, Reduce and Manage Proposal Clearing Impacts

The design and management measures implemented to avoid and minimise the potential clearing impacts of the Proposal are provided in Table 2.

Table 2. Measures Undertaken to Avoid, Minimise, Reduce and Manage the Proposal Clearing Impacts

Design or Management Measure	Discussion and Justification
Use of existing cleared areas for access tracks, construction storage and stockpiling	• The proposal will utilise existing cleared and disturbed areas where practicable. This includes utilising existing access tracks and material pit areas.
Material Investigation Check	• Material investigations will be undertaken prior to any substantial clearing occurring. If an area does not contain appropriate material, no further clearing will take place.
Revised clearing area footprint	• The DE has been significantly reduced to avoid potential impacts on environmental sensitivities. •
Brush-tailed Mulgara	• Prior to clearing, the area will be traversed in search of any Brush-tailed Mulgara burrows. If any active burrows are found, a 50 m exclusion zone will be applied around the burrow to avoid potential impacts on this species.

1.7 Approved Policies and Planning Instruments

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, Main Roads has also had regard to the below instruments where relevant.

Other Legislation potentially relevant for assessment of clearing and planning/other matters:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Country Areas Water Supply Act 1947* (WA) (CAWS Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Planning and Development Act 2005* (WA) (P and D Act)
- *Soil and Land Conservation Act 1945* (WA)
- *Rights in Water and Irrigation Act 1914*
- *Aboriginal Heritage Act 1972* (WA).

Environmental Protection Policies:

- Environmental Protection (Peel Inlet - Harvey Estuary) Policy 1992
- Environmental Protection (Western Swamp Tortoise Habitat) Policy 2011.

Other relevant policies and guidance documents:

- Environmental Offsets Policy (Government of Western Australia, 2011)
- A guide to the assessment of applications to clear native vegetation (Government of WA, December 2014)
- Procedure: Native vegetation clearing permits (Government of WA, October 2019)
- Environmental Offsets Guidelines (Government of Western Australia, 2014)
- Technical guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (EPA, 2016)
- Technical guidance – Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment (EPA, 2020)
- Approved conservation advice under section 266B of the EPBC Act for threatened flora/fauna/vegetation communities.

2 SCOPE AND METHODOLOGY ASSESSMENT OF CLEARING

Native vegetation will be cleared to accommodate this Proposal. This clearing will be undertaken using the Main Roads Statewide Clearing Permit CPS 818.

To comply with CPS 818, Main Roads must prepare a Clearing Desktop Report (CDR).

The CDR outlines the key activities associated with the Proposal, the existing environment and an assessment of native vegetation clearing. This assessment provides an evaluation of the vegetation clearing impacts associated with the Proposal using the ten Clearing Principles listed under s51 of the *Environmental Protection Act 1986* (EP Act) and strategies used to manage vegetation clearing.

2.1 Report Terminology and Sources

The following terms are used in this Clearing Report

- **Development Envelope (DE)** – The maximum extent within which clearing will be located. This envelope larger than the clearing proposed to allow for minor changes to the clearing footprint as the design process continues, and to account for minor and unexpected changes that may occur during construction, such as working to avoid a large tree or encountering buried boulders or services. This flexibility allows the site personnel to make modifications to the Proposal to avoid areas that may contain better environmental values. The CDR has assessed all environmental values within the Development Envelope as though all of these values will be impacted, up to the amount specified for clearing. The DE for this proposal is 268 ha.
- **Survey Area** – The Area covered by the Biological Survey. This involves six locations which constitute a combined survey area of 930.05 ha.
- **Survey Area 5:** A 269.81 ha area surveyed over and around the proposed material pit area that includes the proposed Clearing Area under this scope of works.
- **Study Area** – Area covered by the Desktop Assessment. The Study Area for the Proposal is confined to a local area of a 20 km radius.

2.2 Desktop Assessment

A desktop assessment of the DE was undertaken by viewing internal datasets and other government agency managed databases, and consulting with relevant stakeholders where necessary. Results from searches can be found in Appendix 1.

GIS layer viewing and mapping is done using ArcMap and/or Main Roads corporate mapping system known as iMaps. Referencing of the GIS layers accessed is done under the relevant methodology section of each clearing principle. Government managed databases were searched to locate additional information, which are found under References in Section 9.

2.3 Surveys and Assessments

The following surveys/assessments (presented within the same report) were undertaken to inform this CDR:

- Detailed flora and vegetation and Targeted Flora surveys (2022) - (GHD, 2022); and
- Basic fauna survey (2022) - (GHD, 2022).

Biological and targeted surveys conducted for the proposal are outlined in Table 3 and a summary of the findings in these reports are presented in Sections 3.1 to 3.2

Table 3. Summary of Biological and Targeted Surveys Relevant to the Proposal

Consultant and Survey Name	Survey Details
GHD (2022) Minilya-Exmouth Road Biological Survey Technical Report.	Survey Area: The Survey Area comprised approximately 930.05 ha. This included sections of the Minilya – Exmouth Road, and five potential basic raw material extraction areas with associated tracks and bore locations. One of the potential material extraction locations included the proposed material pit at Minilya-Exmouth Road 56 SLK. Type: Three main assessments were carried out: 1. Desktop assessment; 2. Flora and Vegetation surveys – This included a combination of Detailed, Targeted, and Opportunistic sampling techniques; an assessment of vegetation types and vegetation condition; and a significant ecological communities assessment. Assessments were undertaken in accordance with the Environmental Protection Authority (EPA) Guidelines (Environmental Protection Authority (EPA), 2016); 3. Basic Fauna Survey – This included Opportunistic fauna searches and fauna habitat assessment documenting the type, value and connectivity. Mapping was produced based upon vegetation units in accordance with EPA guidance (EPA, 2020) Timing: The field work component for both the Flora and Vegetation and Basic Fauna Surveys was conducted from 23 – 30 May and 27 – 29 July 2022. Survey Results Shapefile TRIM Ref: D22#1323152 Document TRIM Ref: D22#1323156

3 SURVEY RESULTS

The Biological Survey was undertaken by GHD (2022) between 23 to 30 May and 27 to 29 July 2022. The Biological Survey consisted of multiple locations which constitute a combined survey area of 930.05 ha.

The Survey Areas 1, 2, 3, 5, 6 (A and B) and 7 consisted of a linear strip either side of the Minilya-Exmouth Road to several proposed material pits that extend from Exmouth to ~67 km southeast of Coral Bay.

The location of the Material Pit on Minilya-Exmouth Road at 54 SLK is Survey Area 5. This Survey Area comprised of a total area of 269.81 ha.

The key findings of the Biological field survey for the Survey Area, and specifically Survey Area 5 (containing the DE) are detailed below.

3.1 Summary and Analysis of Flora and Vegetation Surveys

- Nine Vegetation Types were identified within the Survey Area, with only three vegetation types identified within Survey Area 5:
 - VT06: *Cenchrus ciliaris* closed grassland is a highly modified area that was mapped on sandy clay flats
 - VT07: *Acacia* spp. and *Melaleuca* spp. low open shrubland
 - VT08: *Acacia sclerosperma* subsp. *sclerosperma*, *Stylobasium spathulatum* and *Eremophila* spp. open shrubland on sandy low rises.
- Vegetation condition of the Survey Area ranges from Excellent to Completely Degraded (Completely Degraded areas representing historically cleared areas). Four vegetation conditions were mapped within Survey Area 5.
 - Very Good (36.08 ha / 13.44%);
 - Good (199.05 ha / 74.17%);
 - Degraded (17.06 ha / 6.36%) and;
 - Completely Degraded (7.75 ha / 2.89%);
 - The remaining 8.45 ha (3.15%) is described as roads or cleared areas.
- No Threatened Ecological Communities listed under the EPBC Act or BC Act or Priority Ecological Communities listed by DBCA were identified within the Survey Area during the field survey.
- No Ramsar Wetlands of International Importance are located within the Survey Area.
- Two hundred and one flora taxa (including subspecies and varieties) representing 45 families and 119 genera were recorded from the Survey Area during the field survey. This total is comprised of 192 native taxa and nine introduced flora taxa.
 - 54 taxa (51 native and three introduced taxa) from 36 genera were recorded across seven quadrats in Survey Area 5.

- No EPBC Act or BC Act listed Threatened flora were recorded within the Survey Area. Seven DBCA Priority listed flora species were identified within the Survey Area during the field survey. Two Priority listed flora species were recorded in Survey Area 5.
 - *Tephrosia* sp. North West Cape (G. Marsh 81) (P2); and
 - *Acacia startii* (P3).
- Nine introduced flora taxa were recorded in the survey area. One is listed as a Declared Pest under the *Biosecurity and Management Act 2007*, **Prosopis pallida* (Mesquite). No Weeds of National Significance (WoNS) were recorded during the survey. The remaining eight introduced flora have been recorded in the study area before.
 - No species listed as a Declared Pest or WoNS were identified within Survey Area 5.

3.2 Summary and Analysis of Fauna Surveys

- Nine broad Fauna Habitat types (including cleared and disturbed areas) were identified during field investigations in the Survey Area. Two of the nine Fauna Habitats are present within Survey Area 5:
 - Scattered Natives Regrowth / Buffel / Modified Areas (VT06); and
 - Mixed Open Shrubland Over Triodia Hummock or Tussock Grasslands on Sandplains (VT07 and VT08).
- One hundred and twenty-three fauna species, including 75 birds, 33 reptiles, 12 mammals and three frogs were recorded in the Survey Area. Of these, four species are introduced: dingo/dog, cow, cat and rabbit. The species recorded during the survey are typical for the habitats they were found in and are generally well represented in the region.
- Five significant fauna listed under the EPBC Act and/or BC Act or Priority fauna listed by the DBCA were recorded in the Survey Area. One Priority fauna species was identified during the Basic Fauna Survey in Survey Area 5:
 - Brush-tailed Mulgara (*Dasyercus blythi*) (P4) – 14 indications (six primary and secondary burrows and eight foraging markers).

4 DESKTOP ASSESSMENT OF VEGETATION

4.1 Desktop Vegetation Description

Three Beard (1979) vegetation associations (VA 345, VA 658, and VA 662) occur within the DE (DBCA, 2019). The National Objectives and Targets for Biodiversity Conservation recognise that it is important that ecological communities are maintained above the threshold level of 30% of pre-European extent for each community and therefore ecological communities with levels below 30% should be fully retained (Commonwealth of Australia, 2001). All three vegetation associations exceed the 30% retention threshold at State, Regional and Local contexts.

Table 4 and Table 5 provide details of the vegetation types and their condition within the DE and the remaining extents of the vegetation associations.

Table 4. Summary of Vegetation Types within the Development Envelope

Vegetation Type	Extent within Development Envelope (ha)	Total Extent Mapped (ha) within Survey Area
VT06: <i>*Cenchrus ciliaris</i> closed grassland was a highly modified area that was mapped on sandy clay flats	7.63 ha	34.51 ha
VT07: <i>Acacia spp.</i> and <i>Melaleuca spp.</i> low open shrubland	213.28 ha	224.89
VT08: <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i> , <i>Stylobasium spathulatum</i> and <i>Eremophila spp.</i> open shrubland on sandy low rises	38.84 ha	49.02 ha

Table 5. Pre-European Vegetation Representation

Pre-European Vegetation Association	Scale	Pre-European Extent (ha)	Current Extent (ha)	% Remaining	% Current Extent in DBCA Managed Land (proportion of pre-European Extent)
Veg Assoc No. 345 Mosaic: Shrublands; Acacia <i>sclerosperma</i> & <i>A. victoriae</i> patchy scrub, barren / Succulent steppe; saltbush & bluebush	Statewide	~57, 166	~57, 166	100	0.03
	IBRA Bioregion <i>Carnarvon</i>	~57, 166	~57, 166	100	0.03
	IBRA Sub-region <i>Cape Range</i>	~57, 166	~57, 166	100	0.03
	Local Government Authority <i>Shire of Carnarvon</i>	~57, 166	~57, 166	100	0.03
Veg Assoc No. 658 Shrublands; Acacia	Statewide	~200, 281	~200, 281	100	22.05
	IBRA Bioregion <i>Carnarvon</i>	~200, 281	~200, 281	100	22.05

Pre-European Vegetation Association	Scale	Pre-European Extent (ha)	Current Extent (ha)	% Remaining	% Current Extent in DBCA Managed Land (proportion of pre-European Extent)
sclerosperma & snakewood scrub (also with some waterwood)	IBRA Sub-region <i>Cape Range</i>	~133, 266	~133, 266	100	33.14
	Local Government Authority <i>Shire of Carnarvon</i>	~131, 767	~131, 767	100	0
Veg Assoc No. 662 Hummock grassland; shrub steppe; mixed acacia scrub & dwarf scrub with soft spinifex & Triodia basedowii	Statewide	~284, 795	~282, 125	99.06	7.58
	IBRA Bioregion <i>Carnarvon</i>	~282, 709	~281, 679	~99	7.44
	IBRA Sub-region <i>Cape Range</i>	~282, 709	~281, 679	~99	7.44
	Local Government Authority <i>Shire of Carnarvon</i>	~490, 385	~88, 529	~98	8.95

5 ASSESSMENT AGAINST THE TEN CLEARING PRINCIPLES

In assessing whether the Proposal’s proposed clearing is likely to have a significant impact on the environment, the Proposal was assessed against the ten Clearing Principles (EP Act, Schedule 5).

Each principle has been assessed in accordance with the former Department of Environment Regulation (now Department of Water and Environmental Regulation (DWER) ‘*A Guide to the Assessment of Applications to Clear Native Vegetation*’ (Department of Environment Regulation, 2014) and other relevant clearing permit application decision reports prepared by DWER.

The proposed clearing is not at or not likely to be at variance with the ten Clearing Principles.

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Proposed clearing is not likely to be at variance to this Principle

According to GHD (2022), the DE is composed of three vegetation types (Table 1).

The desktop study undertaken by GHD (2022) has categorised the vegetation associations in the DE as VA 345, VA 658 and VA 662. The vegetation associations remain well represented, with over 98% of pre-European extent remaining at the state and LGA levels (Shire of Exmouth) (Table 5). The proposed clearing of 150 ha from the DE will not significantly reduce the extent of any of the vegetation associations at either regional or local levels.

During the Detailed Flora Survey, GHD (2024) conducted a vegetation condition assessment of the DE. Based on the assessment, the vegetation ranged from Very Good to Completely Degraded Condition. Full details are shown in Table 6.

Table 6: Vegetation Condition and extents in hectares and percentage cover (GHD, 2022)

Vegetation Condition	Development Envelope (ha and %)
Very Good	36.08 ha (14%)
Good	199.05 ha (77%)
Degraded	16.87ha (6%)
Completely Degraded	7.75 ha (3%)

The DBCA spatial data (DBCA-038) and the EPBC Act PMST Report (DCCEEW, 2026) indicates no listed Threatened Ecological Communities (TEC) or Priority Ecological Communities (PEC) occur within 20 km of the DE.

According to GHD (2022), there are no Threatened or Priority Ecological Communities present in the DE .

According to the DBCA Threatened and Priority flora spatial data (DBCA-036), the Western Australian Herbarium (WAHerb) and Main Roads Flora data, seven conservation significant flora species were identified within the 20 km Desktop Study Area. These include two Priority 1 species, three Priority 2 species and two Priority 3 species. No species were listed in the EPBC Act Protected Matters (PMST) Report (DCCEEW, 2026).

GHD (2022) conducted a Detailed and Targeted Flora Survey of the DE and two conservation significant species were recorded:

- *Tephrosia* sp. North West Cape (G. Marsh 81) (P2); and
- *Acacia startii* (P3).

Following the field survey and flora identification, GHD (2024) conducted a post-survey likelihood of occurrence assessment and identified 13 species that may occur within the DE. This assessment considered the pre-survey assessment, survey efficacy, previous records and habitat requirements through vegetation observed in the field.

Although 13 species may occur, the Detailed and Targeted Flora survey identified only 2 of the 13 species within the DE. Given the survey was undertaken at the appropriate time to identify the species and adequate survey effort was applied, these species are considered unlikely to occur (see Table 7).

Table 7: Assessment of clearing impact on conservation significant flora species occurring within the Development Envelope.

Species	Information
<i>Acacia startii</i> (P3)	<i>Acacia startii</i> is a dense, rounded, multi-branched shrub that grows up to 2 m high and 3 m wide. It produces green-yellow flowers from July to August. This species is commonly found on calcareous loam soils with limestone pebbles, on stony hills and along watercourses (Western Australian Herbarium (WAH), 1998 -). The known distribution lies within the Cape Range and Wooramel IBRA Subregions (WAH, 1998 -). According to GHD (2022), a total of 1,036 individuals were recorded within the DE, of which 933 are likely to be cleared. DBCA (TPFL) and the Western Australian Herbarium historical data identified 16 populations located outside of the DE. Two populations are situated within conservation areas, specifically Giraqlia and Warnangura National Parks. A further six more populations are dominant or locally abundant in numbers. Given the vegetation and soil type in which this species is located is relatively common throughout the region, and records are expansive, it is likely that more individuals would be present outside of the DE. The proposed clearing will not significantly impact this species.
<i>Tephrosia</i> sp. North West Cape (G. Marsh 81) (P2)	<i>Tephrosia</i> sp. North West Cape (G. Marsh 81) is a low perennial shrub that grows up to 0.3 m high and 0.1 m wide. The taxon has been recorded growing on sandy to loamy orange soils over exposed limestone and is currently known from the Carnarvon IBRA bioregions, with populations found only in the Exmouth Gulf (WAH, 1998 -). GHD (2024), identified 2 individuals within the broader Survey Area, one in <i>Acacia</i> spp. low shrubland on undulating dunes/swales (VT05) and one in <i>Acacia</i> spp. and <i>Melaleuca</i> spp. low open shrubland (VT07) which is located within the DE. To avoid impacting this species, a 20 m buffer will be applied around the single individual identified within the DE. No clearing will be permitted within the 20 m buffer therefore, no impact on this species is proposed.

The DE is comprised of two fauna habitat types GHD (2022) (Table 8).

Table 8: Fauna Habitat Types, Description and extent within the Development Envelope (GHD, 2022)

Fauna Habitat	Information	Development Envelope (ha and %)
Scattered Natives Regrowth / Buffel / Modified Areas	Native vegetation at various stages of maturity within a modified area. Some areas no species dominated, in others <i>Buffel</i> has colonised. dominated with little upper storey coverage. Areas lack structural diversity with large patches devoid of vegetation. Scattered shrubs provide food resources and refugia for birds and reptiles and linkages to vegetated areas.	7.63 ha (3%)
Mixed Open Shrubland Over <i>Triodia</i> Hummock or Tussock Grasslands on Sandplains	Sandplains of mixed low open shrubs over dominant <i>Triodia</i> hummock grassland with scattered areas of Buffel tussock grasslands. Soils comprise primarily of deep sands with areas of silty clays and sand. Litter and woody debris were common and associated to areas of shrublands. In areas where the shrubland is denser, this vegetation would provide suitable habitat for a variety of fauna species, in particular foraging opportunities, breeding habitat and refugia for bush birds and small mammals. Litter build up was present and would provide habitat to fossorial species. Dominant <i>Triodia</i> areas would support small mammals and abundance of reptiles.	252.12 ha (97%)

Based on the DBCA Threatened and Priority Fauna spatial data (DBCA-037), three conservation significant fauna species were identified within the 20 km Desktop Study Area.

Following the Basic Fauna Survey, GHD (2024) conducted a post-survey Likelihood of Occurrence (LOO) assessment and concluded twenty conservation significant fauna species may occur within the Survey Area.

Sixteen of the 20 species identified in the LOO assessment are birds. Given these species utilise vast extents of the landscape and can easily fly over the terrain and egress away from disturbance areas, they are unlikely to be impacted by the proposed clearing.

Three species were unlikely to occur as the DE does not contain habitat to support these species:

- Ningaloo Worm Lizard (*Aprasia rostrata*);
- Cape Range Stone Gecko (*Diplodactylus capensis*) and;
- Western Pebble-mound Mouse - *Pseudomys chapmani*).

The remaining species is the Brush-tailed Mulgara which is addressed in detail in Principle (b) (Table 9). The DE is representative of the species preferred habitat type, and evidence of the species occurring in the DE was recorded. To avoid potential impact on this species, a pre-clearing check will be undertaken in the Clearing Area within the DE and any active burrows found will be protected by a 50 m exclusion zone.

Based on the above, the DE does not comprise a high level of biological diversity.

The proposed clearing is not likely to be at variance to this Principle.

Methodology

- Atlas of Living Australia (ALA, 2026)
- Biological Survey (GHD, 2022)
- Statewide Vegetation Statistics (DBCA, 2019)
- DCCEEW Protected Matters Search Tool Report (DCCEEW, 2026)
- Government GIS Shapefiles:
 - DBCA Threatened and Priority flora database search (DBCA-036, Accessed: February 2026)
 - DBCA Threatened and Priority fauna database search (DBCA-037, Accessed: February 2026)
 - DBCA TEC and PEC database search (DBCA-038, Accessed: February 2026)
 - DPIRD Pre-European Vegetation spatial data (DPIRD-006, Accessed: February 2026)
 - DPIRD Rangelands spatial data (DPIRD-063, Accessed: February 2026)
- The mammals of Australia (van Dyck & Strahan, 2008)

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna .

Proposed clearing is not likely to be at variance to this Principle.

GHD (2022) conducted a Basic Fauna Survey of the DE, in which a two fauna habitats were mapped (Table 8).

Based on the DBCA Threatened and Priority Fauna spatial data (DBCA-037) and the Main Roads Fauna data, six conservation significant fauna species were identified within the 20 km Desktop Study Area.

Following the Basic Fauna Survey, GHD (2022) conducted a post-survey Likelihood of Occurrence (LOO) assessment and concluded twenty conservation significant fauna species may occur within the Survey Area.

Sixteen of the twenty species identified in the Likelihood-of-Occurrence assessment are Birds. Given these species utilise vast extents of the landscape and can easily fly over the terrain and egress from disturbance areas, it is unlikely they will be impacted by the proposed clearing.

Three species were unlikely to occur as the DE does not contain habitat to support these species:

- Ningaloo Worm Lizard (*Aprasia rostrata*);
- Cape Range Stone Gecko (*Diplodactylus capensis*) and;
- Western Pebble-mound Mouse - *Pseudomys chapmani*).

The remaining species is addressed in Table 9.

Table 9: Assessment of clearing impact on conservation significant fauna species that occurs within the Development Envelope

Fauna Species	Information
Brush-tailed Mulgara (<i>Dasycercus blythi</i>) (P4)	The Brush-tailed Mulgara is primarily a nocturnal species which shelters in burrows and feeds on insects, other arthropods, and small vertebrates. This species inhabits spinifex grasslands and, in central Australia, lives in burrows that it digs on the flats between low sand dunes (van Dyck & Strahan, 2008). This habitat type is quite widespread throughout the region, According to Atlas of Living Australia (2026) the species is widely distributed, having been observed during different expeditions in the north-western, central, and south-western areas of the arid zone of Australia. During the Basic Fauna Survey of Survey Area 5, 14 indications of the species occurrence was identified within the DE. Records include six active and secondary burrows and eight foraging markers. The DBCA (DBCA-037) records show the species is not present in the 20 km Study Area. The DE is representative of the species preferred habitat type. To avoid potential impact on this species, a pre-clearing check will be undertaken in the DE and any active burrows found will be protected by applying a 50 m exclusion zone around the burrow.

Based on the above, the DE does not comprise the whole or a part of and is not necessary for the maintenance of a significant habitat for fauna.

The proposed clearing is not likely to be at variance to this Principle.

Methodology

- Biological Survey (GHD, 2022)
- DCCEEW Protected Matters Search Tool Report (DCCEEW, 2026)
- Government GIS Shapefiles:
 - DBCA Threatened and Priority fauna database search (DBCA-037, Accessed: February 2026)

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.

Proposed clearing is not at variance to this Principle.

Based on the DBCA Threatened and Priority Flora spatial data (DBCA-036) and the EPBC Act Protected Matters Report (DCCEEW, 2026) no Threatened flora taxa occur within a 20 km radius of the DE.

No Threatened Flora species were recorded within the DE during the Biological Survey (GHD, 2022).

The proposed clearing is not at variance to this Principle.

Methodology

- Biological Survey (GHD, 2022)
- DCCEEW Protected Matters Search Tool Report (DCCEEW, 2026)
- Government GIS Shapefiles:
 - DBCA Threatened and Priority flora database search (DBCA-036, Accessed: February 2026)

(d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

Proposed clearing is not at variance to this Principle.

Desktop searches identified there are no Threatened Ecological Communities listed under the EPBC Act or *Biodiversity Conservation Act 2016* that occur within the 20 km Study Area (DCCEEW, 2026)

According to GHD (2022), no occurrences of Threatened ecological communities were recorded during the field survey.

Based on the above, the DE does not comprise the whole or a part of and is not necessary for the maintenance of a Threatened ecological community.

The proposed clearing is not at variance to this Principle.

Methodology

- Biological Survey (GHD, 2022)
- DCCEEW Protected Matters Search Tool Report (DCCEEW, 2026)
- Government GIS Shapefiles:
 - DBCA Threatened and Priority Ecological Community database search (DBCA-038, Accessed: February 2026)

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

Proposed clearing is not at variance to this Principle.

The National Objectives and Targets for Biodiversity Conservation recognise that the retention of 30% or more of the pre-clearing extent of each ecological community is necessary if Australia's biological diversity is to be protected (Commonwealth of Australia, 2001).

The DE is representative of three vegetation associations, VA 345, VA 658 and VA 662 (DPIRD-006). These vegetation associations all retain greater than 99% of pre-European extent at all scales and therefore, exceed the 30% retention national objectives and targets for biodiversity conservation in Australia (Table 6).

The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area and is contained within a broad landscape of relatively undisturbed vegetation within the IBRA region. The proposed clearing of 150 ha of vegetation within the DE will not significantly reduce the availability of vegetation remaining at a local or regional level.

Based on the above, the proposed clearing is not at variance to this Principle.

Methodology

- National Objective Targets for Biodiversity Conservation (Commonwealth of Australia, 2001)
- Biological Survey (GHD, 2022)
- Government GIS shapefiles:
 - DPIRD Pre-European Vegetation spatial data (DPIRD-006, Accessed: February 2026)
- Statewide Vegetation Statistics (DBCA, 2019)

(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

Proposed clearing is not at variance to this Principle.

GHD (2022) identified three vegetation types (VT06, VT07 and VT08) within the DE. Based on the vegetation type descriptions (Table 1) none of these are representative of riparian species.

The DE is not located within and does not intersect:

- a Geomorphic Wetland (DBCA 013-016);
- an Internationally Important Wetland (RAMSAR) (DBCA-010);
- a Nationally Important Wetland (DBCA-045);
- any minor or major watercourse areas (DWER-031); or
- rivers (DWER-036).

Based on the Surface HydroLines (Region) (Geoscience Australia) dataset the closest watercourse area is located 20 m southeast of the DE. The vegetation proposed for clearing is not growing in or in association with an environment associated with a watercourse or wetland.

The proposed clearing is not at variance to this Principle.

Methodology

- Biological Survey (GHD, 2022)
- Government GIS shapefiles:
 - Geomorphic Wetlands (DBCA 013-016, Accessed: February 2026)
 - Ramsar Wetlands (DBCA 013-016, Accessed: February 2026)
 - Important Wetlands (DBCA-045, Accessed: February 2026)
 - Surface HydroLines (Region) (Geoscience Australia.dataset) (Accessed: February 2026)

(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

Proposed clearing is not at variance to this Principle.

Based on the DPIRD Soil landscape spatial data (DPIRD-017), the DE is located within Zone 204 (Cape Giralia Coastal Zone). The area is described as Sandy plains, alluvial plains and hills and ranges on Cainozoic deposits and marine limestone over sedimentary rocks of the Carnarvon Basin with Red deep sands and Red loamy earths.

The land zone has been further classified as the Donovan system (204Dn), described as Gently sloping outwash plains and minor stony plains with alkaline loamy and clayey soils supporting tall shrublands of snakewood and other acacias and low shrublands of bluebush (DPIRD-064).

DPIRD (2026) mapping indicates the land degradation risk in the DE to be extremely low (Table 10).

Table 10: Soil Landscape System Description (DPIRD, 2026)

Risk Percentage	Information
1 %	Very poor to poor drainage potential
1 %	Very high to extreme water erosion hazard
1 %	High to extreme wind erosion hazard
1 %	Moderate salinity hazard
0 %	Has pHCa <4.5 surface acidity
1 %	Moderate to very high waterlogging risk
1 %	Moderate to high flood hazard

The CSIRO Australian Soil Resource System (ASRIS) has been used to determine the DE is in an area of 'extremely low probability of occurrence' of Acid Sulfate Soil (ASS) occurring.

Based on the above, the proposed clearing is not at variance to this Principle.

Methodology

- Government GIS Shapefiles:
 - Acid Sulphate Soil Risk Map (Accessed: February 2026)
 - Soil landscape land quality – Water Erosion Risk (DPIRD-013) (Accessed: February 2026)
 - Soil landscape land quality – Wind Erosion Risk (DPIRD-016) (Accessed: February 2026)
 - Soil landscape land quality – Salinity Risk (DPIRD-009) (Accessed: February 2026)
 - Soil landscape land quality – Waterlogging Risk (DPIRD-015) (Accessed: February 2026)
 - Soil landscape land quality – Flood Risk (DPIRD-007) (Accessed: February 2026)
- Department of Primary Industries and Regional Development Natural Resource Management System maps (DPIRD, 2026)

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

Proposed clearing is not at variance to this Principle

Based on the DBCA Legislated Lands and Waters spatial data (DBCA-011) and the EPBC Act Protected Matters Report (DCCEEW, 2026) no Nature Reserves, Conservation Areas or Bush Forever Areas are located within 20 km of the DE. The proposed clearing will not impact on the environmental values of any conservation areas.

The proposed clearing is not at variance to this Principle.

Methodology

- DCCEEW Protected Matters Search Tool Report (DCCEEW, 2026)
- Government GIS Shapefiles:
 - DBCA Legislated Lands and Waters & Lands of Interest (Accessed: February 2026)

(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.

Proposed clearing is not likely to be at variance to this Principle.

The DWER spatial data indicates the DE is located within the Gascoyne Groundwater Area (DWER-034), and the Pilbara Surface Water Area ((DWER-037), both proclaimed under the RIWI Act.

The DE is not located within and does not intersect any watercourses or wetlands.

The proposed clearing is not likely to cause deterioration in the quality of surface or groundwater when vegetation in areas surrounding the DE will remain intact.

The proposed clearing is not likely to be at variance to this Principle.

Methodology

- Government GIS Shapefiles:
 - CAWSA Part 2A Clearing Control Catchments (DWER-004; Accessed: February 2026)
 - RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037; Accessed: February 2026)
 - RIWI Act, Groundwater Areas (DWER-034; Accessed: February 2026)

(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

Proposed clearing is not at variance to this Principle.

According to the Bureau of Meteorology (2026) the average annual rainfall in Warroora, located approximately 22.50 km south from DE is 267 mm. The topography for the land system area (204Dni) is described as Gently sloping outwash plains and minor stony plains with alkaline loamy and clayey soils supporting tall shrublands of snakewood and other acacias and low shrublands of bluebush (DPIRD- 064).

Given the low rainfall rate and the low flood potential, the minor clearing proposed is not likely to cause or exacerbate the incidence or intensity of flooding.

The proposed clearing is not at variance to this Principle.

Methodology

- BoM Website (Accessed: February 2026)
- Government GIS Shapefiles:
 - Soil Mapping (Accessed: February 2026)
 - Soil landscape land quality - Waterlogging Risk (Accessed: February 2026)
 - Soil landscape land quality - Flood Risk (Accessed: February 2026)

6 VEGETATION MANAGEMENT

Main Roads will avoid clearing native vegetation where possible. Where clearing cannot be avoided then this clearing is kept to a minimum.

7 REHABILITATION, REVEGETATION AND OFFSETS

7.1 Revegetation and Rehabilitation

No temporary clearing will be undertaken as part of the Proposal activities and therefore no revegetation or rehabilitation will be conducted under CPS 818.

8 COMPLIANCE WITH CPS 818

The clearing associated with the proposal is not at or not likely to be at variance with the Clearing Principles.

Additional management actions under CPS 818 are detailed in Table 11.

Table 11. Summary of Additional Management Actions Required by CPS 818

Impact of Clearing	Yes/No or NA	Further Action Required
1. The CDR indicates that the clearing is 'At Variance' or 'May be at Variance' with one or more of the Clearing Principles.	No	No further action required.
2. Clearing is at variance or may be at variance with Clearing Principle (g) land degradation, (i) surface or underground water quality or (j) the incidence of flooding.	No	No further action required.
3. Clearing is at variance with Clearing Principle (g) land degradation, (i) surface or underground water quality and (j) the incidence of flooding.	No	No further action required.
4. The Proposal involves clearing for temporary works (as defined by CPS 818).	No	No further action required.
5a. Proposal is within a Region that: - has rainfall greater than 400mm; and, - is South of the 26th parallel; and, - works are necessary in 'Other than dry conditions'; and, - works have potential for uninfested areas to be impacted.	No	Standard Vehicle and Plant management actions from Annexure 204B (TABLE 204B.9.1), <u>Hygiene Checklists (D17#859669)</u> and <u>Vehicle, Plant and Machinery Hygiene Register Template (D23#179551)</u> will be applied
5b. Do the proposed works require clearing within or adjacent to DBCA managed lands in non-dry conditions?	No	No further action required.
6. Main Roads has been notified by DWER or an environmental specialist that the area to be cleared is susceptible to a pathogen other than dieback.	No	No further action required.

Impact of Clearing	Yes/No or NA	Further Action Required
7. Weeds are likely to spread to and result in environmental harm to adjacent areas of native vegetation that are in good or better condition.	No	No further action required.
8. Did an environmental specialist conduct the survey or field assessment?	Yes	The Environmental Specialist undertaking the biological assessments was suitably qualified and had more than three years' experience.
9. Did an environmental specialist prepare the Assessment Report and any other associated documentation including the VMP, Dieback Management Plan or Offset Proposal?	Yes	The Environmental Specialist preparing the Assessment Report and any other associated documentation including the VMP, Dieback Management Plan or Offset Proposal was suitably qualified and had more than three years' experience.

9 REFERENCES

- Atlas of Living Australia (ALA). (2026). *Atlas of Living Australia*. Retrieved from <https://www.ala.org.au/>
- Bureau of Meteorology (BoM). (2026). Climate Data Online. Bureau of Meteorology (BoM). Retrieved from <http://www.bom.gov.au/climate/data/?ref=fr>
- Commonwealth of Australia. (2001). *National Objective and Targets for Biodiversity Conservation*. Canberra: Natural Heritage Trust and Biodiversity Policy Branch Environment Australia. Retrieved from <https://library.dbca.wa.gov.au/static/FullTextFiles/020395.pdf>
- Department of Climate Change, Energy, the Environment and Water (DCCEEW). (2026). *Protected Matters Search Tool*. Retrieved from <https://www.dcceew.gov.au/environment/epbc/protected-matters-search-tool>
- Department of Primary Industries and Regional Development (DPIRD). (2024). *Department of Primary Industries and Regional Development Natural Resource Management System maps*. Retrieved from <https://www.agric.wa.gov.au/resource-assessment/nrinfo-natural-resource-information-western-australia>
- Department of Primary Industries and Regional Development (DPIRD). (2026). Retrieved from Department of Primary Industries and Regional Development Natural Resource Management System maps: <https://www.dpiird.wa.gov.au/environment-and-sustainability/nrinfo-for-western-australia/>
- Department of Primary Industries and Regional Development (DPIRD). (2026). *Department of Primary Industries and Regional Development Natural Resource Management System maps*. Retrieved from <https://www.agric.wa.gov.au/resource-assessment/nrinfo-natural-resource-information-western-australia>
- Environmental Protection Authority (EPA). (2016). *Environmental Factor Guideline: Flora and Vegetation*. Environmental Protection Authority. Perth: Government of Western Australia. Retrieved from https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/Guideline-Flora-Vegetation-131216_4.pdf
- Environmental Protection Authority (EPA). (2016). *Flora and Vegetation Surveys for Environmental Impact Assessment*. Office of the Environmental Protection Authority. Perth, Western Australia: Government of Western Australia.
- Environmental Protection Authority (EPA). (2020). *Technical Guidance – Sampling methods for terrestrial vertebrate fauna*. Environmental Protection Authority. Perth: Environmental Protection Authority. Retrieved from <https://www.epa.wa.gov.au/policies-guidance/technical-guidance-terrestrial-vertebrate-fauna-surveys-environmental-impact>
- GHD Pty Ltd (GHD). (2022). *Minilya-Exmouth Road Biological Survey*. Perth: GHD.
- Government of Western Australia (GoWA). (2019). Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Perth, Western Australia, Australia: Government of Western Australia. Retrieved from <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>
- van Dyck, S., & Strahan, R. (2008). *The Mammals of Australia* (Third ed.). (S. van Dyck, Ed.) Sydney, New South Wales, Australia: Reed New Holland.
- Western Australian Herbarium (WAH). (1998 -). WA Herbarium. Perth, Western Australia, Australia: Department of Biodiversity, Conservation and Attractions. Retrieved from <https://www.dbca.wa.gov.au/science/research-tools-and-repositories/western-australian-herbarium>

10 APPENDICES

Appendix 1: Desktop searches for conservation significant flora and fauna

[REDACTED]

Figure 3: Conservation Significant Flora Species within the 20 km Study Area

[REDACTED]

Figure 4: Conservation Significant Species (Fauna) within the 20 km Study Area