Clearing Assessment Report & Vegetation Management Plan

MR014217 - MSS Feeder Works Secret Harbour

June 2025

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Vegetation Clearing Desktop Report / Clearing Assessment Report
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Document Control

Document version history

Version	Date	Amendment
1	21/05/2025	Initial version
2	03/06/2025	Western Power Reviewed
3	09/06/2025	Final Version
4	18/08/2025	Western Power Revised based on DWER assessment & approval.

1. Project Information

Project Area		
Project name: MR014217 - MSS Feeder Works Secret Harbour		**Contract/Work Order No:** 08085745
Main purpose of clearing	**Permanent/Temporary**	**Clearing area (ha)**
New overhead transmission line	Permanent ☒	0.06 ha
	Temporary ☐	
Proposed start date: 1/09/2025		**Expected completion date: 30/12/2025**
Method of clearing: Mechanical.		**Machinery to be used:** Directional drill & 1.5 tonne excavator.
Project details: A total of 0.06 hectares of vegetation will be cleared from the overall project for the installation of 5.1 km high voltage HV feeder network through the Secret Harbour and Golden Bay region. This clearing is required at nine specific locations within roadside vegetation between Mandurah Road and adjacent private property (within the development envelope) to facilitate installation of the necessary infrastructure.		
Guardian Permit ID reference number: PER-0001594		**Permit/Exemption number:** CPS 1918/11

2. Map/photos

Figure 1: Project location

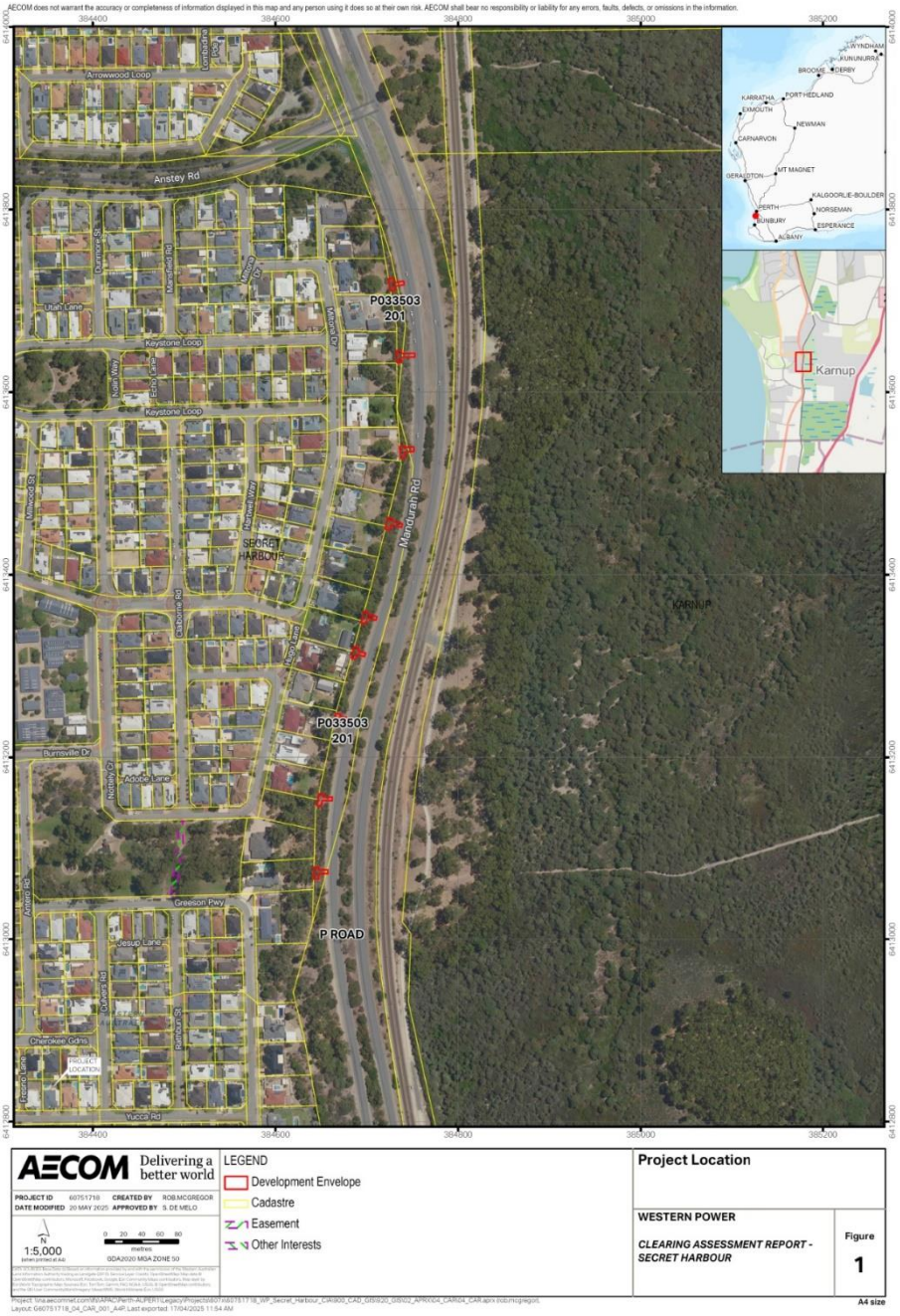

Figure 2: Clearing areas

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PROJECT ID	60751718
CREATED BY	ROB.MCGREGOR
DATE MODIFIED	20 MAY 2025
APPROVED BY	S. DE MELO

1:1,500 (when printed at A4)

0 10 20 30 metres

GDA2020 MGA ZONE 50

LEGEND

Development Area and Survey Area (AECOM, 2025a)

Clearing Area

Vegetation Community	Vegetation Condition
AsEc	Degraded
Cleared	Cleared

Clearing Area

WESTERN POWER

CLEARING ASSESSMENT REPORT - SECRET HARBOUR

Figure **2.1**

Project: \\na.aecomnet.com\fs\APAC\Perth-AUPER1\Legacy\Projects\60751718_WP_Secret_Harbour_CIA\600_CAD_GIS\620_GIS\02_APR\04_CAR\04_CAR.aprx (rob.mcgregor)
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A4 size


AECOM
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LEGEND
Development Area and Survey Area (AECOM, 2025a)
Clearing Area
Vegetation Community
AsEc
Cleared
Vegetation Condition
Degraded
Cleared
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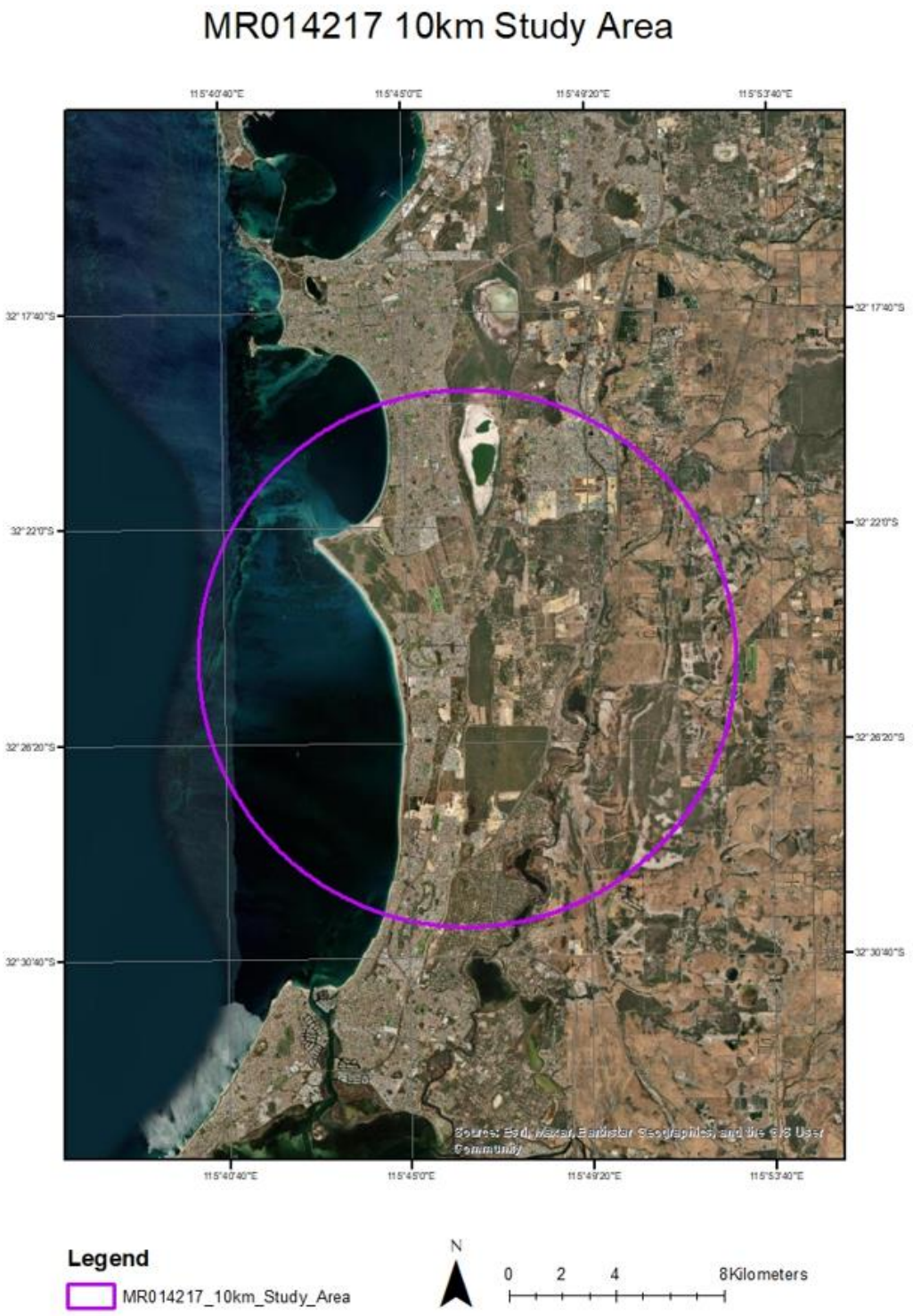
Clearing Area
WESTERN POWER
CLEARING ASSESSMENT REPORT - SECRET HARBOUR
Figure
2.2
A4 size

Figure 3: Tuart TEC extent

Figure 4: Study Area



Plates 1 -3: Images of vegetation types

Plate 1: Mixed Open Shrubland, AsEc

Plate 2*:* Rubbish, disturbance and clearing recorded within the survey area

Plate 3: Mixed Modified Shrubland

3. Avoid, minimise and reduce extent and impact of clearing

Alternatives to clearing considered during the development of this project are outlined in Table 1:

Alternative to Clearing	Applicable	Discussion
Directional drilling of underground cables instead of open trenching	*Yes*	The proposed methodology involves installing the cables via directional drilling to minimise environmental impact and avoid unnecessary vegetation clearing. Clearing will be confined strictly to the machinery footprint.
existing tracks are utilised where possible	*Yes*	Access will be via existing roads (Mandurah Road)
utilising previously cleared areas where possible	*Yes*	Clearing areas include previously cleared road batter in degraded condition.
consideration of alternative engineering and design options	*Yes*	Approval of an alternative alignment change was sought by MRWA; however, this was rejected as the Melville-Mandurah Highway is designated as a "Control of Access" reservation, subsequently the introduction of new services along these road reservations are generally not permitted. Western Power also considered an alternative route along the adjacent road; however, this was deemed non-constructable due to the presence of the existing rail infrastructure.
Other	*No*	

Table 1: Alternatives to clearing

4. Site context

4.1 Land Tenure (Cadastral Information)

The development envelope spans across nine distinct locations along a one-kilometre (km) segment of Mandurah Road in Secret Harbour. All nine areas are situated within the road reserve or TYP-01 land, between Mandurah Road and the residential property line (Figure 1).

Property:

1. Lot 201 on Plan P033503

2. Public Road (Land ID 3781199)

Conservation Estates:

No conservation areas intersect the development envelope. The project is located approximately 70 metres (m) west of a managed wetland and Bush Forever Site (Site 379), Anstey Swamp, Karnup owned by the

State Government and Managed by DEC (Rockingham Lakes Regional Park) (DPHL-019), separated by Mandurah Road.

Local Government:

1. City of Rockingham

4.2 Vegetation description

The largest regional vegetation classification scheme recognised by Environmental Protection Authority (EPA) is the Interim Biogeographical Region of Australia (IBRA). The IBRA regions provide the planning framework for the systematic development of a comprehensive, adequate, and representative (CAR) national reserve system. The project is located within the Swan Coastal Plain IBRA region, specifically in the Swan Coastal Plain 2 (SWA02) subregion.

One pre-European vegetation unit is mapped over the development envelope, Vegetation Association 1001, and the Spearwood System (Beard et al. 2013). This association is described as medium very sparse woodland, Jarrah, with low woodland, *Banksia* and *Casuarina*. At the State and IBRA region levels, 22.05% of Vegetation Association 1001 remains, while 38.48% remains at the local government level (City of Rockingham) (Government of WA 2019).

One Heddle vegetation complex intersects the development envelope, the Cottesloe Complex-Central and South (52). This complex is described as a mosaic of *Eucalyptus gomphocephala* (Tuart) woodland and open forest of Tuart - *Eucalyptus marginata* (Jarrah) - *Corymbia calophylla* (Marri), closed heath on the Limestone outcrops (Heddle et al. 1980).

A summary of survey results is described below.

4.3 Summary of results of surveys

AECOM (2025a) conducted a biological survey of the development envelope (0.1 ha), which included a comprehensive desktop assessment, an out-of-season flora and vegetation survey, a basic fauna survey and a targeted black cockatoo assessment. The field survey was completed on 10 March 2025.

AECOM (2025b) undertook a second site investigation to confirm the presence or absence of the Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain Threatened Ecological Community (TEC). The survey encompassed 5.94 ha of vegetation, extending from the development envelope into surrounding parklands and reserves.

4.3.1 Vegetation

AECOM (2025a) recorded one vegetation type within the development envelope, 0.08 ha of Mixed Open Shrubland (AsEc) (

). The community was considered to be in a Degraded condition due to the lack of native understorey and the presence of weeds. The community is described as *Acacia saligna*, *Melaleuca lanceolata* and *Acacia rostellifera* tall open shrubland over**Ehrharta calycina*, **Lagurus ovatus* and *Hibbertia hypericoides* subsp. *hypericoides* mixed low sparse herbland and grassland. Additionally, scattered individuals of *Eucalyptus gomphocephala* (as overhang), *Eucalyptus marginata* and *Agonis flexuosa* were also recorded.

The remaining 0.02 ha had been cleared, and primarily consisted of roadside vegetation dominated by weed species, mainly grasses from *Poaceae* sp., growing over sandy soil.

4.3.2 Threatened and Priority Ecological Communities

AECOM (2025a) identified eight TECs and/or Priority Ecological Communities (PECs) that occur within 10 km of the development envelope through the desktop assessment.

One community boundary intersected the development envelope, the Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain (Tuart Woodlands TEC). This community is classified as P3 Priority Ecological Community (PEC) in Western Australia (WA) and is listed as Critically Endangered under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act).

An additional two communities were identified as potentially occurring within the development envelope, listed below:

- Banksia Woodlands of the Swan Coastal Plain ecological community (Priority 3 in WA and Endangered under the EPBC Act)
- Northern Spearwood shrublands and woodlands ('floristic community type 24') (Priority 3 in WA and Endangered under the EPBC Act).

Due to access restrictions and the size of the AECOM (2025a) survey area (0.1 ha development envelope), it was not possible to confirm the presence or absence of the Tuart Woodlands TEC. AECOM (2025b) therefore conducted a second site visit, specifically to confirm the presence or absence of the TEC. AECOM (2025b) confirmed that the patch size extends at least 5 ha, including the 0.1 ha development envelope, meeting the Commonwealth criteria to be considered the TEC. The patch is likely to extend beyond the assessed area. The extent of the Tuart TEC is shown in Figure 3.

The Banksia Woodlands TEC and the Northern Spearwood shrublands TEC were not recorded within the development envelope.

4.3.3 Flora

Through the desktop assessment, AECOM (2025a) identified 30 significant flora species that occur within 10 km of the development envelope. Of these, five were considered to have a high likelihood of occurring within the development envelope, listed below:

- *Thelymitra variegata* (Critically Endangered under the BC Act, not listed under EPBC Act)
- *Beyeria cinerea* subsp. *cinerea* (P3)
- *Lasiopetalum membranaceum* (P3)
- *Conostylis pauciflora* subsp. *pauciflora* (P4)
- *Jacksonia Sericea* (P4).

A total of 12 native flora and 12 weed species were recorded during the field survey. Weeds were the dominant groundcover species. No significant flora species listed under the EPBC or BC Act, or Priority flora were recorded during the survey (AECOM 2025a).

Due to the lack of suitable habitat and Degraded condition of the vegetation, all significant flora species were downgraded to a low or negligible likelihood of occurrence post-survey.

4.3.4 Fauna

AECOM (2025a) identified 77 Threatened, Priority and Migratory fauna species through the desktop assessment as occurring within 10 km of the development envelope. Of these, eleven species were considered to have a high likelihood of occurrence within the development envelope, due to the presence of suitable habitat and recent records in proximity.

One native fauna habitat was recorded within the development envelope through the fauna survey Mixed Modified shrubland habitat (0.08 ha) (AECOM, 2025). This habitat is described as modified and disturbed roadside vegetation on sloped sandy soils. The vegetation consists of native Acacia and Melaleuca shrubland, with scattered Tuart overhang and immature Jarrah trees. The understory was predominantly weeds and contained a high level of leaf litter, providing habitat for small mammals, reptiles and invertebrates. The habitat was considered potentially suitable for eight significant fauna species, listed below:

- Threatened fauna
  - *Calyptorhynchus banksii naso* (Forest Red-tailed Black Cockatoo) (Vulnerable under the EPBC Act and BC Act)
  - *Zanda baudinii* (Baudin's Cockatoo) (Endangered under the EPBC Act and BC Act)
  - *Zanda latirostris* (Carnaby's Cockatoo) (Endangered under the EPBC Act and BC Act)
- Priority fauna
  - *Ctenotus gemmule* (Jewelled Sandplain Ctenotus) (P3)
  - *Lerista lineata* (Perth Slider) (P3)
  - *Neelaps calonotos* (Black-striped Snake) (P3)
  - *Idiosoma sigillatum* (Swan Coastal Plain Shield-backed Trapdoor Spider) (P4)
  - *Isoodon fusciventer* (Quenda) (P4).

The habitat serves as a transitional or marginal area for species, enhancing ecological connectivity between larger, intact patches of native vegetation, such as Rockingham Lakes National Park to the east) and Thomas peel Junior Park to the south as well as bordering higher quality habitat. During the field survey, one notable significant fauna species, the Forest Red-tailed Black Cockatoo, was observed and heard flying overhead.

4.3.5 Black Cockatoos

The development envelope is within the known distribution range of the three threatened black cockatoo species. As the area is less than 1 ha, AECOM (2025a) applied only the Bamford (2024) scoring tool to assess habitat quality. The DAWE (2022) foraging quality scoring tool only applies to areas equal to or larger than 1 ha in size.

The 0.08 ha of Mixed Modified shrubland, was evaluated as low quality (rating 2) for all three species, primarily due to the absence of key food sources. No potential breeding trees were recorded inside the development envelope. Juvenile Jarrah trees were scattered unevenly throughout; however, these trees did not meet the minimum 500 mm Diameter as Breast Height (DBH) requirement (AECOM 2025a).

No roosting habitat was recorded within the development envelope (AECOM 2025a).

5. Spatial assessment (SPIDA View)

Western Power's online risk GIS database was analysed, and the following layers are indicated as having the potential for clearing impacts within a local area search radius of 1m.

DBCA managed tenure	☐	Bush Forever	☐	CAWS Act Area	☐	Native Vegetation Clearing Regs ESAs	☒
Conservation listed fauna	☐	Conservation listed flora	☐	Western Power ESA sites	☐	Native vegetation remaining	☒
Threatened ecological communities	☒	Acid Sulfate Soils	☒	PDWSA	☐	Ramsar or Important Wetlands	☐
Geomorphic or other mapped wetlands	☐	Disease Risk Areas	☐	Erosion risk	☐	Offset areas	☐
Watercourses	☐	Land Degradation	☐		☐		
Other ☐ Details:							

6. Assessment of vegetation clearing impacts

The proposed clearing has been assessed against each of the clearing principles in accordance with the Department of Water and Environmental Regulation guideline "*A guide to the assessment of applications to clear native vegetation under Part V Division 2 of the Environment Protection Act 1986"* (DER, 2014).

Clearing permit principles full assessment	
a) Native vegetation should not be cleared if it comprises a high level of biodiversity.	**Not likely to be at variance**
Assessment:	

The project requires clearing of 0.06 ha of native vegetation across nine discrete locations along Mandurah Road

(clearing area,).
The entire development envelope is 0.1 ha.

AECOM (2025a) undertook a biological survey of the development envelope (0.1 ha). This included a comprehensive desktop assessment, an out-of-season flora and vegetation survey, a basic fauna survey and a targeted black cockatoo assessment. AECOM (2025b) returned to the project area to assess the presence of the Tuart Woodlands TEC (classified as Priority 3 PEC in WA and listed as Critically Endangered under the EPBC Act).

The survey timing (May 2025) was outside the ideal period for the Swan Coastal Plain which is the Spring. This was not considered a limitation, as the reconnaissance out-of-season survey focussed on verifying the presence of TECs,

assessing vegetation condition, fauna habitats and black cockatoo values. No other survey limitations were identified.

Vegetation

One Beard et. al (2013) pre-European vegetation association intersects the clearing area, Vegetation Association 1001, the Spearwood System. This system is characterised as Medium very sparse woodland, Jarrah, with low woodland, *Banksia* and *Casuarina*.

AECOM (2025a) recorded one vegetation type within the 0.1 ha development envelope, 0.08 ha of Mixed Open Shrubland (AsEc) in a Degraded condition (

, Plate 1: Mixed

Open Shrubland, AsEc). This community is described as *Acacia saligna*, *Melaleuca lanceolata* and *Acacia rostellifera* tall open shrubland over**Ehrharta calycina*, **Lagurus ovatus* and *Hibbertia hypericoides* subsp. *hypericoides* mixed low sparse herbland and grassland. Additionally, unevenly scattered individuals of *Eucalyptus gomphocephala* (as overhang), *Eucalyptus marginata* and *Agonis flexuosa* were also recorded. The remaining 0.02 ha was cleared, representing roadside weeds over sand.

The development envelope interests the mapped buffer of the Tuart Woodlands and Forests of the Swan Coastal Plain TEC, classified as Priority 3 in WA and listed as Critically Endangered under the EPBC Act. To meet the diagnostic criteria of the TEC, the patch size needs to be greater than 0.5 ha (condition dependent) or greater than 5 ha (no minimum condition) (DoEE 2019). AECOM (2025b) confirmed the entire 0.1 ha development envelope is part of a patch greater than 5 ha, and surveyed an area of approximately 5.94 ha. It was noted that the patch likely extends beyond the surveyed extent (Figure 3).

Flora

A total of 12 native flora and 12 weed species were recorded within the development envelope, none were listed as Threatened and or Priority.

Through the desktop assessment AECOM (2025a) identified 30 significant flora species with potential to occur within 10 km of the development envelope. Of these, one threatened species, *Thelymitra variegata* (Critically Endangered) and four Priority species, *Beyeria cinerea* subsp. *cinerea* (P3), *Lasiopetalum membranaceum* (P3), *Conostylis pauciflora* subsp. *pauciflora* (P4) and *Jacksonia Sericea* (P4) were considered likely to occur within the development envelope.

Due to the lack of suitable habitat and Degraded condition of the vegetation, all significant flora species were downgraded to a low or negligible likelihood of occurrence post-survey.

Fauna

One native fauna habitat was recorded within the development envelope, 0.08 ha Mixed Modified shrubland habitat, described as modified and disturbed roadside vegetation on sloped sandy soils.

Through the desktop assessment AECOM (2025a) identified 77 Threatened, Priority and Migratory fauna species which occur within 10 km of the development envelope. Of these 11 were considered likely to occur pre-survey. The post-survey assessment determined the habitat (Mixed Modified Shrubland) was suitable for eight significant species, listed below:

- Threatened fauna
  - *Calyptorhynchus banksii naso* (Forest Red-tailed Black Cockatoo) (Vulnerable under the EPBC Act and BC Act)
  - Zanda baudinii (Baudin's Cockatoo) (Endangered under the EPBC Act and BC Act)
  - *Zanda latirostris* (Carnaby's Cockatoo) (Endangered under the EPBC Act and BC Act)
- Priority fauna
  - *Ctenotus gemmule* (Jewelled Sandplain Ctenotus) (P3)
  - *Lerista lineata* (Perth Slider (P3)
  - *Neelaps calonotos* (Black-striped Snake) (P3)
  - *Idiosoma sigillatum* (Swan Coastal Plain Shield-backed Trapdoor Spider) (P4)
  - *Isoodon fusciventer* (Quenda) (P4).

The habitat serves as a transitional or marginal habitat for species, enhancing ecological connectivity between larger, intact patches of native vegetation. During the field survey, one significant fauna species, the Forest Red-tailed Black Cockatoo, was observed and heard.

AECOM (2025a) conducted a targeted black cockatoo assessment of the 0.1 ha development envelope. As this area was less than 1 ha, only the Bamford (2024) scoring tool was applied.

AECOM (2025a) assessed the fauna habitat, Mixed Modified shrubland, as low quality (rating 2) foraging habitat for all three threatened black cockatoo species. This rating was attributed to the absence of primary foraging plant species within the development envelope.

No breeding trees or roosting habitat was recorded within the development envelope.

Summary

The clearing area consists of 0.06 ha of native vegetation in a degraded condition, dominated by native Acacia/Melaleuca shrubland and a mostly weedy understorey. The development envelope forms part of a patch of the Tuart Woodlands federally listed TEC/State listed PEC. The vegetation was not considered significant habitat for any native fauna species. One significant fauna species, the Forest Red-Tailed Black Cockatoo (Vulnerable) was recorded flying over the development envelope; however, no direct or indirect observations were made within the clearing area.

No Tuart trees were recorded within the development envelope, half of the flora species recorded during the field survey were classified as weeds. Additionally, the proposed clearing would not cause fragmentation of the TEC patch. Therefore, the area does not exhibit high biodiversity value and the clearing is not likely to be at variance with this principle.

b) Native vegetation should not be cleared if it comprises whole or part of, or is necessary for the maintenance of, a significant habitat for fauna.	**Not likely to be at variance**

Assessment:

A total of 77 Threatened, Priority and Migratory fauna species were identified within 10 km of the development envelope through the desktop assessment AECOM (2025a). Of these, eleven species were considered to have a high likelihood of occurrence, due to the presence of suitable habitat and recent nearby records.

One fauna habitat was recorded within the clearing area, Mixed Modified shrubland habitat (0.08 ha). This habitat is described as predominantly shrubland (Acacia and Melaleuca species) over weedy understorey. Scattered overhang from Tuart and immature Jarrah trees were also noted.

The habitat was considered suitable for eight significant fauna species. This included the three threatened black cockatoos, Baudin's Cockatoo (Endangered), Carnaby's Cockatoo (Endangered) and the Forest Red-tailed Black Cockatoo (Vulnerable), three Priority 3 species, Black-striped Snake, Jewelled Sandplain Ctenotus and Perth Slider, and two Priority 4 species, the Swan Coastal Plain Shield-backed Trapdoor Spider and Quenda.

One significant species was observed flying overhead during the survey, a flock of approximately ten Forest Red-tailed Black Cockatoo. The habitat serves as a transitional or marginal habitat for species, enhancing connectivity between larger, intact patches of native vegetation. No significant fauna species were observed within the vegetation during the survey (direct or indirect).

AECOM (2025a) also conducted a targeted black cockatoo assessment. The habitat was assessed as low quality (rating 2) for all three threatened black cockatoo species. No potential breeding or suitable roost sites were recorded within the development envelope.

Summary:

The clearing area contains 0.06 ha of native fauna habitat, which may be suitable for eight significant fauna species although the habitat was considered to be transitional or marginal. This habitat is not restricted and will not be fragmented by clearing.

None of the habitat was considered significant to any native fauna. The proposal is not likely to be at variance to this principle.

c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.	**Not likely to be at variance**

Assessment:

AECOM (2025) identified 14 threatened flora that occur within 10 km of the development envelope through the desktop assessment. Of these, it was determined that one species had a high likelihood of occurring within the development envelope, *Thelymitra variegata* (Critically Endangered) and one species had a moderate likelihood, *Drakaea elastica* (Critically Endangered). The remaining 12 species were assessed as low to negligible due to the lack of recent records and habitat preference.

No threatened flora species were recorded within the development envelope (AECOM 2025a). Due to the degraded vegetation condition and presence of weed species, none were considered likely or moderately likely to occur post-survey.

The proposal will not impact on any threatened flora individuals or suitable habitat and therefore is not likely to be at variance to this principle.

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

Assessment:

Three significant ecological communities were identified in the desktop assessment as potentially occurring within the development envelope. One community boundary intersects the development envelope, the Tuart Woodlands TEC, classified as a Priority 3 PEC in WA and as Critically Endangered under the EPBC Act. The other two communities include the Banksia Woodland TEC and the Northern Spearwood shrublands and woodlands TEC, both classified as a Priority 3 PEC in WA and as Endangered under the EPBC Act.

AECOM (2025b) confirmed the development envelope forms part of a larger patch of the Tuart Woodlands TEC. The Banksia Woodlands TEC and the Northern Spearwood shrublands TEC were not recorded within the development envelope.

AECOM (2025b) surveyed an area of approximately 5.94 ha, consisting of roadside vegetation, parklands and reserved. The Tuart Woodlands TEC was noted to be in a Completely Degraded to Good condition throughout this area, with the patch likely extending beyond the extent of surveyed area. Within the development envelope, vegetation was assessed as Degraded, due to the lack of native understorey.

While most of the clearing areas are not located directly beneath the Tuart trees that form part of the TEC patch, the conservation advice issued under section 266B of the EPBC Act defines the boundary of a Tuart Woodlands TEC patch as extending 30m from the outer edge of the Tuart tree canopy (Figure 3). As a result, all proposed clearing areas fall within the mapped extent of the TEC.

Clearing will not remove any Tuart trees, vegetation in good or better condition or cause fragmentation of the TEC patch. However, as the vegetation comprises part of the Tuart Woodland TEC, the proposal is at variance to this principle. Given the small size of the clearing area, the 'degraded' vegetation condition, and the minimal impact to the Tuart Woodland TEC, Western Power will obtain an exemption from seeking submissions and submitting an offset proposal.

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.	Not likely to be at variance

Pre-European Vegetation Association	Scale	Pre-European extent (ha)	Current extent (ha)	Percent remaining	% Current Extent remaining in DBCA reserves (proportion of Current extent)
Vegetation Association No. 1001	**Statewide**	57,410.23	12,660.76	22.05	2.80
	IBRA Bioregion Swan Coastal Plain	57,410.23	12,660.76	22.05	2.80
	IBRA Sub-region SWA02 (Perth)	57,410.23	12,660.76	22.05	2.80
	Local Government Authority City of Rockingham	3,010.32	1,153.53	38.32	0

Heddle/Mattiske Vegetation Complex	Pre-European extent (ha)	Current extent (ha)	Percent remaining
Cottesloe Complex-Central and South (52)	45,299.61	14,567.87	32.16

The National Objectives and Targets for Biodiversity Conservation have set a threshold of 30% of the pre-European extent for biological diversity protection. However, in constrained areas like the Swan Coastal Plain, this threshold may be adjusted to 10% (Commonwealth of Australia 2021, DER 2014).

Vegetation association 1001 has more than 10% remaining at all levels, state (22.05%), IBRA bioregion (SWA, 22.05%), IBRA Sub-region scales (SWA-02, 22.05%) and local government area (38.32%) (Gov. of WA 2019a). The clearing (0.06 ha) will reduce the overall extent by 0.0001%. The clearing is also not located within any Bush Forever Areas or other conservation estates.

Cottesloe Complex-Central and South (52) has more than 30% remaining across the south-west extent (Gov. of WA 2019b).

Given the above, the proposal is not likely to be at variance to this principle.

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

Assessment:

No mapped wetlands or watercourses intersect the development envelope (DBCA 2025). The closest wetland is the Anstey Swamp (6414), classified as a Conservation Category Wetland (CCW), approximately 100 m east. The proposed clearing is minor (0.06 ha) and will not have any direct or in-direct impacts to this wetland.

The vegetation type (Mixed Open Shrubland) recorded within the development envelope is not representative of wetland or riparian vegetation.

The vegetation within the clearing area is not growing in or in association with a watercourse or wetland. Therefore, this clearing is not likely to be at variance with this Principle.	
g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	**Not likely to be at variance**
Assessment: The development envelope intersects two Spearwood soil systems, Spearwood S1b Phase system and the Spearwood S2a Phase system. Spearwood S1b Phase system is described as dune ridges with deep siliceous yellow brown sands or pale sands with yellow-brown subsoil and slopes up to 15%. Spearwood S2a Phase system is described as Lower slopes (1-5%) of dune ridge with moderately deep to deep siliceous yellow-brown sands or pale sands with yellow-brown subsoils and minor limestone outcrop. The majority of the development envelope is within the S2a system. The seven of the nine discrete clearing areas are mapped as high risk for acid sulfate soils (ASS) occurring (DWER 2017). The two most northern clearing areas have no potential ASS risk mapped. The depth to groundwater within the development envelope varies between 5-7m below ground level. Clearing of 0.06 ha vegetation is not likely to trigger dewatering or require excavation greater than 100 m^3. The risk of ASS occurring from clearing is unlikely. The project involves removal of 0.06 ha of native vegetation, consisting predominantly of native shrublands and weedy understory. Vegetation will not cause fragmentation or cause a significant reduction in remnant native vegetation of the local area. Given the small area of clearing, it is unlikely to result in appreciable land degradation. The proposal is not likely to be at variance to this principle.	
h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.	**Not likely to be at variance**
Assessment: No conservations areas or managed lands intersect the development envelope. The closest conservation area is the Rockingham Lakes Regional Park, located 70 metres (m) east. This park is also mapped as a CCW (Anstey Swamp) and Bush Forever Area (Site 379). The proposed clearing is minor (0.06 ha) and the park is buffered by Mandurah Road and the rail corridor. No direct or indirect impacts to the conservation area are expected. Given the distance to the nearest conservation area and small scale of clearing, no impacts (direct or indirect) as are result of clearing are anticipated. The proposal is not likely to be at variance to this principle.	
i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.	**Not at variance**
Assessment: No mapped watercourses or surface water bodies, protected groundwater areas or Public Drinking Water Source Areas intersect the development envelope. Groundwater is mapped as being 5-7m below ground level. The nearest wetland is the Anstey Swamp, which is made of six DBCA registered wetlands (DBCA 2025). These are listed below with approximate distances from the development envelope: • UFI 6414, CCW, 0.1 km east • UFI 15526, Multiple Use Wetland (MUW), 0.2 km south • UFI 15528, CCW, 0.5 km south • UFI 15720, MUW, 0.6 km south	

- UFI 6427, MUW, 1 km south
- UFI 15611, MUW, 1.5 km south

The nearest river is the Serpentine River 3.5 km east of the development envelope and the coastline is approximately 3 km west.

Summary

Given the small scale of the proposed clearing (0.06 ha) and its distance from the nearest surface water bodies, no impacts to surface water quality are anticipated. Groundwater depth within the Development Envelope is mapped at being between 5-7m below ground level. Therefore, the proposed clearing is not likely to trigger dewatering or result in any significant impact on groundwater quality. The proposal is not at variance to this principle.

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

Assessment:

The development envelope does not intersect any mapped surface water bodies or floodplain risk areas (DWER 2024). The clearing is adjacent to existing developed and hardstand areas (Mandurah Road, rail corridor and residential properties) and will not significantly reduce the extent of remnant native vegetation in the local area.

The clearing is not likely to cause, or exacerbate, the incidence or intensity of flooding. The proposal is not at variance to this principle.

7. Planning instrument or other relevant matters

The development envelope is located entirely within a Main Roads Western Australia (MRWA) primary regional road reserve and spans across two separate land parcels, Lot 201 on Plan P033503 (TYP-01) and Public Road (Land ID 3781199). The TYP-01 land is likely under the ownership and/or control of Main Roads, and may be a Crown Grant, Freehold Land or owned under a Certificate of Title.

An initial notification of works in writing must be submitted to MRWA outlining the proposed works that will result in the need to access a road reserve under MRWA control. Prepare an initial Notification letter to MRWA using the template (EDM 42754865). In general, MRWA Approval to access must be obtained in writing at least 15 working days before starting work. If stipulated, ensure the approved and final design drawings are sent to MRWA at the completion of the works.

Prior to execution and in addition to the notification of works, the Project Manager must also submit to MRWA:

- An application form for Utility Service Providers
- A traffic management plan
- Site photos.

8. Clearing Permit Details

Western Power manages impacts of clearing through the implementation of an internal Vegetation Clearing Permit. The Western Power Vegetation Clearing Permit outlining the relevant clearing conditions is available in Volt: ID98-750882832-33835.

9. Post assessment requirements

Post assessment	Outcome	Justification / Further Action Required
Are submissions required?	Exemption granted from DWER	The vegetation within the clearing area is representative of the Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain (Tuart Woodlands TEC). This community is classified as a Priority 3 PEC in WA and is listed as Critically Endangered under the EPBC Act. The clearing is not likely to have a significant impact on this TEC, as clearing is minor (0.08 ha), will not cause fragmentation of the patch and will not result in removal of any Tuart trees.
Could the area be affected by dieback?	Yes	Clearing is located south of the 26th parallel and receives over 400mm annual rainfall.
Has advice been received from DWER or an environmental specialist that the area may be susceptible to a pathogen other than dieback?	No	

Is a Vegetation Management Plan required?	Yes	A CAR must always include a VMP in accordance with CPS 1918/11.
Is rehabilitation/revegetation required?	No	Not applicable permanent clearing
Is a Dieback Management Plan required?	Yes	Annual rainfall >400 mm. A consultant has been engaged to prepare a Dieback Management Plan (DMP) for these works.
Is an offset required?	Exemption granted from DWER	As the project is at variance with Principle (d), an offset proposal is required. An offset exemption was sought and granted from DWER.
What is the clearing risk rating?	High risk	Clearing intervention is required and PM has been advised of requirements.

10. References

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Appendix A Stakeholder consultation

In accordance with Condition 7 of CPS 1918/11, Western Power will publish the Clearing Assessment Report on its website and invite submissions from the public (unless exempted by DWER). Responses to public submissions will be published on the website.

Western Power has identified the following parties as having an interest in aspects of the proposed clearing that are at variance or may be at variance to the clearing principles.

Stakeholders	Invited to make submissions?	Date sent	Submission received?	Date received
Office of the Commissioner of Soil and Land Conservation within Department of Primary Industries and Regional Department (DPIRD)	Yes ☐ Not required ☒	Click here to enter a date.	Yes ☐ No ☐	Click here to enter a date.
Department of Water and Environmental Regulation Drainage and Waterways Branch	Yes ☐ Not required ☒	Click here to enter a date.	Yes ☐ No ☐	Click here to enter a date.
Conservation Council of WA	Yes ☐ Not required ☒	Click here to enter a date.	Yes ☐ No ☐	Click here to enter a date.
Department of Biodiversity, Conservation and Attractions	Yes ☐ Not required ☒	Click here to enter a date.	Yes ☐ No ☐	Click here to enter a date.
Local Government where the clearing is proposed	Yes ☐ Not required ☒	Click here to enter a date.	Yes ☐ No ☐	Click here to enter a date.
Owner or occupier of the land on which clearing is proposed	Yes ☐ Not required ☒	Click here to enter a date.	Yes ☐ No ☐	Click here to enter a date.
Any other party that may have an interest	Yes ☐ Not required ☒	Click here to enter a date.	Yes ☐ No ☐	Click here to enter a date.

Responses to all submissions will be published on the Western Power website (if required).

Appendix B Vegetation Management Plan

1.1 Introduction

The Vegetation Management Plan (VMP) has been prepared in accordance with condition 6 of CPS 1918/11.

1.2 Scope of the Project Activities

This VMP has been prepared to guide the proposed clearing of 0.06 ha to support the MSS Feeder Works along Mandurah Road, Secret Harbour.

1.3 Scope of the Vegetation Management Plan

The VMP highlights the project management issues and provides actions required to be undertaken before, during and following project completion. The aim of the VMP is to provide management actions to avoid, mitigate and/or manage the clearing impacts, to allocate areas of responsibility required for the implementation of management actions identified and to provide timeframes for completion and monitoring actions.

1.4 Non-Compliance

All non-compliances related to this VMP will follow Western Power's incident management procedure and will be logged in Guardian.

Table 1 Management actions

Project Component	Management Action	Evidence Action completed	Responsible Person	Completion Timeframe
Standard Actions				
Clearing	At the pre-start meeting provide clear maps indicating the areas approved to be cleared to the crew undertaking the works	Record sheet to be signed at pre-start meeting by all personnel.	Site Supervisor	Prior to clearing commencing
	All access and laydown areas will be clearly delineated on plans	Plans to be captured in the Volt.	Site Supervisor	Prior to clearing commencing
	Have a copy (electronic or hard copy) of the VMP on site during the clearing activities	One compliance inspection will occur prior to clearing.	Site Supervisor	Once clearing has been completed
	Clearing of vegetation shall not exceed the approved limits of clearing. All vegetation to be cleared will be demarcated on site prior to the commencement of project activities	One compliance inspection will occur prior to clearing. Representative photos will be taken.	Site Supervisor	Prior to clearing commencing
	Any vegetation cleared beyond the extent of approvals shall be rehabilitated to the pre-clearing condition	Clearing incident reported	Site Supervisor	Within 24 months
	Cleared vegetation will be respread in the neighbouring areas after project activities are completed	One compliance inspection will occur after clearing.	Site Supervisor	Once clearing has been completed
Specific Actions				

Principle d	Tuart Woodland TEC extent to be retained - will be demarcated and the importance of protecting this area will be communicated to the crew during the pre-start	One compliance inspection will occur prior to clearing. Representative photos will be taken.	Site Supervisor	Prior to clearing activities.
Standard Record Keeping				
Record Keeping-Clearing	Maintain the following records for the cleared area: • Location of clearing area as a shapefile • Size of clearing (ha) • Date(s) on which clearing was done	Clearing data via CPS 1918/11 Condition 12a submitted to Environment team.	WP Project Owner	Data to be submitted within 30 days of project clearing activities being completed
Record Keeping - Clearing	Copies of all Vehicle Environmental Inspection Registers used to check that clearing machinery is free of soil and vegetative material must be maintained	Copies of completed registers submitted to WP Project Owner	Site Supervisor	Copies of completed registers are to be submitted within 30 days of project clearing activities being completed
Record Keeping-Other	Maintain the other records in accordance with Condition 12b (VMP).	Data via CPS 1918/11 Condition 12b managed by Environment team.	SHE	Data to be submitted within 30 days of project activities being completed

Appendix C – Surveys

12. AECOM (2025a) Secret Harbour Biological Report

12.1 Summary

AECOM Australia Pty Ltd (AECOM) was engaged by Western Power to undertake an out-of-season flora, vegetation, fauna habitat and targeted black cockatoo assessment at nine locations in roadside vegetation between Mandurah Road and private property (the survey area) to enable installation of the necessary infrastructure. The survey area encompassed approximately 0.10 ha, of which 0.02 ha represented cleared areas (road, verge).

A desktop assessment was undertaken to verify potential significant environmental values present. The results implicated the likely presence of three significant communities, black cockatoo foraging, breeding and roosting habitat as well as habitat for multiple federal and state listed flora and fauna.

A reconnaissance flora and vegetation, basic fauna assessment and targeted black cockatoo survey was undertaken on 10 March 2025.The survey area was traversed on foot and data collected from mapping notes, relevés and habitat sites.

The field survey determined:

- Native vegetation was represented 0.08 ha and characterised by Mixed Open Shrubland (AsEc) on slopes of grey/brown sandy soils.
- The survey area was included within a mapped Department of Biodiversity Conservation and Attractions (DBCA) buffer for representing Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain TEC. No Priority Ecological Communities (PECs) were mapped by DBCA within the survey area.
- All native vegetation was mapped as Degraded. No significant flora species were recorded, none are considered likely to occur post-survey.
- One native fauna habitat was recorded (Mixed Modified Shrubland), representing 0.08 ha of roadside vegetation along Mandurah Road. This habitat is unlikely to represent significant habitat within the region but has the potential to provide marginal or transitional habitat as a habitat connectivity corridor, particularly for;
  - Swan Coastal Plain Shield-backed Trapdoor Spider (*Idiosoma sigillatum*), P3
  - Perth Slider (*Lerista lineata),* P3
  - Black Striped Snake (*Neelaps calonotos*), P3
  - Jewelled Sandplain Ctenotus, (*Ctenotus gemmula* (Swan Coastal Plain subpopulation)), P3
  - Quenda (*Isoodon fusciventer*), P4.
- One significant fauna species, the Forest Red-tailed Black-Cockatoo (*Calyptorhynchus banksii naso*) was seen and heard during the field survey.
- The habitat contains ‘Low’ value foraging habitat for all three species of black cockatoos, due to the presence of exclusively juvenile Jarrah trees (*Eucalyptus marginata*), with marginal overhang Tuart (*Eucalyptus gomphocephala*) and scattered secondary food sources.

- The survey area does not represent suitable roosting or breeding habitat for the three Threatened black cockatoo species.

It is recommended that the exact boundary of the Tuart woodlands be mapped to determine if it is classified as a TEC and to better inform planning and approvals decisions.

13. AECOM (2025b) Tuart Woodland of the Swan Coastal Plain TEC Assessment

13.1 Introduction

AECOM recently (March 2025) undertook a Vegetation and Flora assessment of the site to support some minor clearing required for future MSS feeder works by Western Power into adjacent private property. This included a desktop assessment and field survey which found that there is potentially Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain Threatened Ecological Community (TEC) within and adjacent to the proposed clearing areas.

The Tuart Woodland TEC is formally protected under the *Environmental Protection and Biodiversity Conservation 1999* (EPBC Act).

According to the approved Tuart Woodland conservation advice under s266B of the EPBC Act, a patch of Tuart Woodland TEC is characterised by the presence of at least 2 living established Tuart trees in the upper canopy. There cannot be a gap of greater than 60 m between the outer edges of the canopies of adjacent trees. The TEC 'patch' is inclusive of a 30 m boundary beyond the edge of the outer canopy of the established Tuart trees.

To inform reporting and vegetation management requirements under Western Power's Clearing Permit (CPS 1918/11) it was necessary to confirm whether the area met the key diagnostic criteria to be considered a TEC.

13.2 Results

The survey encompassed approximately 5.94 ha of vegetation which extends into several parklands and reserves. The entire patch extent beyond the surveyed area is approximately 15-20 ha. Once it was clear that the patch represented more than 5 ha, no further assessments were undertaken.

Condition varied from parkland cleared with large mature Tuart trees, to regenerated roadside vegetation comprising largely *Acacia rostellifera* and *Agonis flexuosa* (common species associated with the TEC).

The vegetation along Mandurah Road represents a vegetated corridor that connects several named and unnamed reserves to one another. More than 191 mature Tuart trees were counted, none of which were more than 60 m apart along the road corridor. The area, including the adjacent mature reserves, spans over 5 ha.

The conservation advice under s266B of the EPBC Act stipulates that if the 'patch' of Tuart woodland is:

- Less than 0.5ha then it is not part of the nationally protected ecological community.
- Between 0.5 to 5ha then it will depend on the condition of the understorey as to whether it is considered to be part of the nationally protected ecological community
- Greater than 5ha then it is considered to be part of the nationally protected ecological community.

As a result given the patch is greater than 5 ha, the entire survey area is representative of the federally listed community.

13.3 Conclusion

Native vegetation within the nine survey areas comprising 0.82 ha is considered representative of the Tuart Woodland TEC. The federal protection of the TEC aims to focus on areas that remain in at least moderate condition and retain natural composition and ecological function to a certain degree (DEE 2019). Condition varied from parkland cleared with large mature Tuart trees, to regenerated roadside vegetation and degraded, presumably remnant, native vegetation.