



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 9190/2
Permit Holder:	Chevron Australia Pty Ltd
Duration of Permit:	From 23 July 2021 to 22 July 2027

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

PART I – CLEARING AUTHORISED

1. Clearing authorised (purpose)

The permit holder is authorised to clear native vegetation for the purpose of removing infrastructure as part of the Thevenard Island Decommissioning Program.

2. Land on which clearing is to be done

Lot 350 on Deposited Plan 37322 (Crown Reserve 33174), Thevenard Island
Lot 134 on Deposited Plan 217262, Thevenard Island
Lot 142 on Deposited Plan 217262, Thevenard Island

3. Clearing authorised

The permit holder must not clear more than 1.063 hectares of native vegetation within the area cross-hatched yellow in Figures 1-4 of Schedule 1.

4. Period during which clearing is authorised

The permit holder must not clear any native vegetation after 22 July 2026.

PART II – MANAGEMENT CONDITIONS

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

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

- (a) avoid the clearing of native vegetation;
- (b) minimise the amount of native vegetation to be cleared; and
- (c) reduce the impact of clearing on any environmental value.

6. Weed management

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

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no known weed-affected soil, *mulch*, *fill*, or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

7. Fauna management – marine turtle habitat

No clearing within *suitable nesting habitat* for *marine turtle species* is to be undertaken during *turtle nesting season*.

8. Fauna management – nesting habitat for migratory and marine birds

- (a) Immediately prior to undertaking any clearing authorised under this permit within the combined areas cross-hatched yellow on Figures 1-4 of Schedule 1, the permit holder must engage a *fauna specialist* to inspect the permit area to identify *active nest/s* being utilised by *migratory and marine bird species* listed below:
 - (i) *Onychoprion anaethetus* (Bridled tern),
 - (ii) *Pandion cristatus* (Osprey),
 - (iii) *Sterna dougallii* (Roseate tern),
 - (iv) *Sternula albifrons* (Little tern),
 - (v) *Sternula nereis nereis* (Fairy tern), and
 - (vi) *Thalasseus bergii* (Crested tern).
- (b) Where *active nest/s* are identified under condition 8(a), the permit holder must engage a *fauna specialist* to monitor the *active nest/s* and determine when it is no longer in use for that breeding season.
- (c) Where possible, works should be rescheduled, and *active nest/s* should not be cleared whilst it is in use for that breeding season as determined by the fauna specialist under condition 8(b). If disturbance of *active nest/s* cannot be avoided, disturbance of *active nest/s* must be undertaken in accordance with a fauna taking license issued under the *Biodiversity Conservation Act 2016* and *Biodiversity Conservation Regulations 2018*.

9. Revegetation and rehabilitation (temporary works)

The permit holder must *revegetate* and *rehabilitate* areas cleared for *temporary works* by laying stockpiled vegetative material and topsoil on the cleared area(s) within six months of the area no longer being required for the purpose for which it was cleared, unless the *CEO*, in writing, advises the permit holder to the contrary.

10. Revegetation and rehabilitation (shipping marker track)

Within six months of the area no longer being required for the purpose for which it was

cleared, the permit holder must *revegetate* and *rehabilitate* the area cross-hatched red in Figure 3 of Schedule 1 by scarifying the track and redistributing topsoil from within the clearing permit area to the scarified area, excluding the area of the track that is located within the existing cleared airstrip.

PART III - RECORD KEEPING AND REPORTING

11. Records that must be kept

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

Table 1: Records that must be kept

No.	Relevant matter	Specifications
1.	In relation to the authorised clearing activities generally	<ul style="list-style-type: none"> (a) the species composition, structure, and density of the cleared area; (b) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings; (c) the date that the area was cleared; (d) the size of the area cleared (in hectares); (e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 5; (f) actions taken to minimise the risk of the introduction and spread of weeds in accordance with condition 6; and (g) actions taken to manage and mitigate impacts to marine turtle habitat in accordance with condition 7.
2.	In relation to nesting habitat for <i>migratory and marine bird</i> management pursuant to condition 8 of this Permit	<ul style="list-style-type: none"> (a) the time(s) and date(s) of inspection(s) by the <i>fauna specialist</i>; (b) the location of the <i>active nest/s</i> recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees; (c) the location of any fauna species listed in condition 8(a), if identified, recorded using a GPS unit set to GDA94, expressing the geographical coordinates in Eastings and Northings or decimal degrees; (d) the name and amount of each fauna species identified; (e) a description of the inspection methodology employed by the <i>fauna specialist</i>; (f) where <i>active nest/s</i> are determined by the

No.	Relevant matter	Specifications
		<p><i>fauna specialist</i> to be occupied by any fauna species listed in condition 8(a):</p> <p>(i) the time and date that it was determined to be no longer occupied; and</p> <p>(ii) a description of the evidence by which it was determined to be no longer occupied; and</p> <p>(g) the time and date that the <i>active nest/s</i> were cleared, once no longer in use for that breeding season.</p>
3.	In relation to the revegetation and rehabilitation of areas pursuant to conditions 9 and 10 of this Permit	<p>(a) the size of the area <i>revegetated</i> and <i>rehabilitated</i>;</p> <p>(b) the date(s) on which the <i>revegetation</i> and <i>rehabilitation</i> was undertaken; and</p> <p>(c) the boundaries of the area <i>revegetated</i> and <i>rehabilitated</i> (recorded digitally as a shapefile).</p>

12. Reporting

- (a) The permit holder must provide to the *CEO*, on or before 30 June of each calendar year, a written report containing:
- (i) the records required to be kept under condition 11; and
 - (ii) records of activities done by the permit holder under this permit between 1 January and 31 December of the preceding calendar year.
- (b) If no clearing authorised under this permit has been undertaken, a written report confirming that no clearing under this permit has been undertaken, must be provided to the *CEO* on or before 30 June of each calendar year.
- (c) The permit holder must provide to the *CEO*, no later than 90 calendar days prior to the expiry date of the permit, a written report of records required under condition 11, where these records have not already been provided under condition 12(a).

DEFINITIONS

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

Table 2: Definitions

Term	Definition
active nest/s	means nests of <i>migratory and marine bird species</i> with evidence of current use for nesting, including the presence of the species entering, brooding, or leaving the nest, and/or the presence of eggs, chicks or young.
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the <i>Environmental Protection Act 1986</i> .
clearing	has the meaning given under section 3(1) of the EP Act.

Term	Definition
condition	a condition to which this clearing permit is subject under section 51H of the EP Act.
direct seeding	means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species.
fauna specialist	means a person who holds a tertiary qualification specialising in environmental science or equivalent, and has a minimum of 2 years work experience in fauna identification and surveys of fauna native to the region being inspected or surveyed, or who is approved by the CEO as a suitable fauna specialist for the bioregion, and who holds a valid fauna licence issued under the <i>Biodiversity Conservation Act 2016</i> .
fill	means material used to increase the ground level, or to fill a depression.
department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
EP Act	<i>Environmental Protection Act 1986</i> (WA).
local provenance	means native vegetation seeds and propagating material from natural sources within 50 kilometres and the same IBRA subregion of the area cleared.
marine turtle species	means one or more of the following species: (a) <i>Chelonia mydas</i> (Green turtle); (b) <i>Eretmochelys imbricata</i> (Hawksbill turtle); and (c) <i>Natator depressus</i> (Flatback turtle).
migratory and marine bird species	means one or more of the following species: (a) <i>Onychoprion anaethetus</i> (Bridled tern); (b) <i>Pandion cristatus</i> (Osprey); (c) <i>Sterna dougallii</i> (Roseate tern); (d) <i>Sternula albifrons</i> (Little tern); (e) <i>Sternula nereis nereis</i> (Fairy tern); and (f) <i>Thalasseus bergii</i> (Crested tern).
mulch	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
rehabilitate/ed/ion	means actively managing an area containing native vegetation in order to improve the ecological function of that area.
revegetate/ed/ion	means the re-establishment of a cover of <i>local provenance</i> native vegetation in an area using methods such as natural regeneration, <i>direct seeding</i> and/or planting, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.
suitable nesting habitat	means habitat known to support nesting by <i>marine turtle species</i> within the known current distribution of the species. This often includes sandy beaches, intertidal zones and dune vegetation.
turtle nesting season	means the period between October and April, where <i>marine turtle species</i> are known to nest.
weeds	means any plant – (a) that is a declared pest under section 22 of the <i>Biosecurity and Agriculture Management Act 2007</i> ; or

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

END OF CONDITIONS



Meenu Vitarana
A/MANAGER
NATIVE VEGETATION REGULATION

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

8 March 2022

Schedule 1

The boundary of the area authorised to be cleared is shown in the maps below (Figures 1-4).

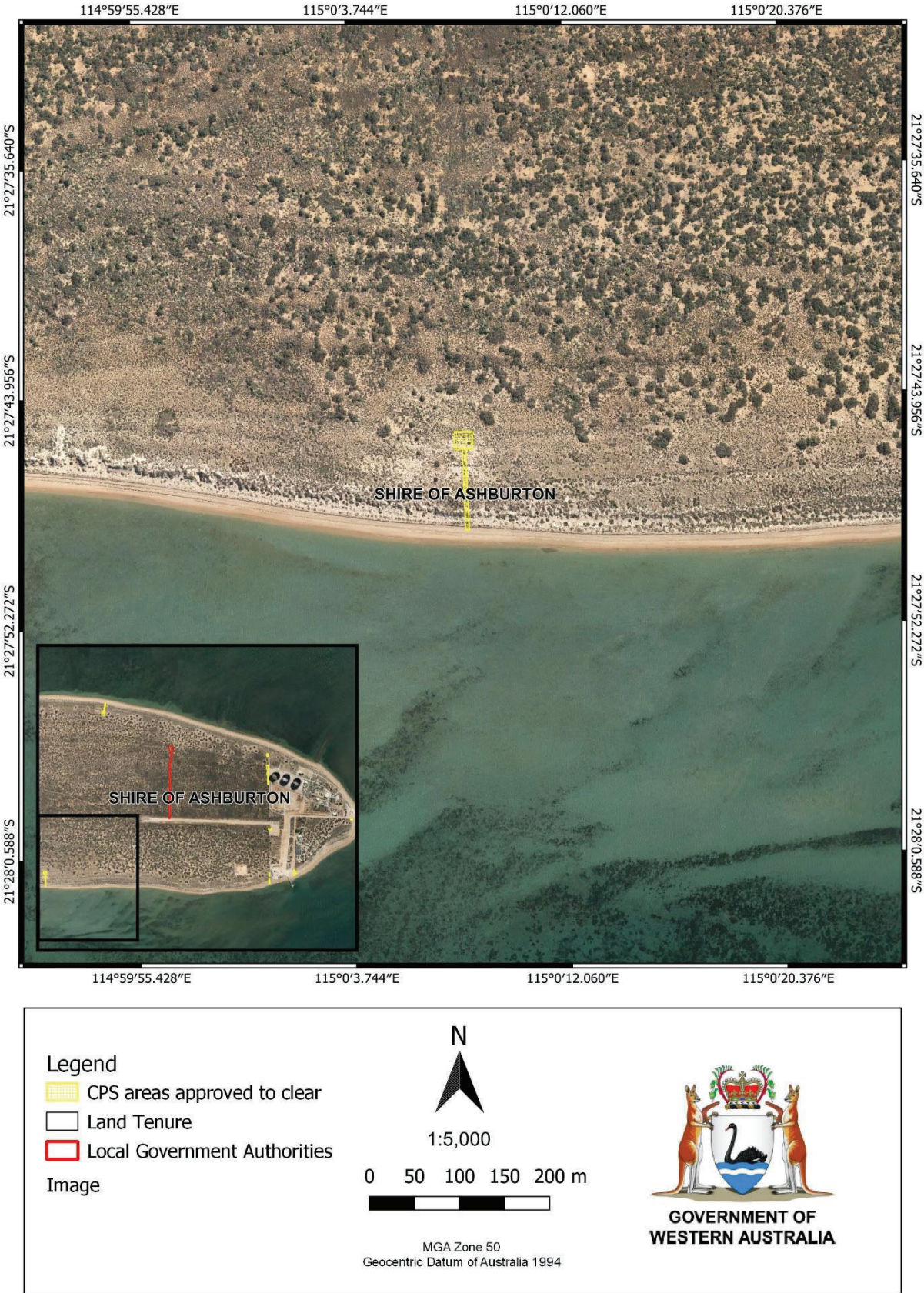


Figure 1: Map of the boundary of the area within which clearing may occur

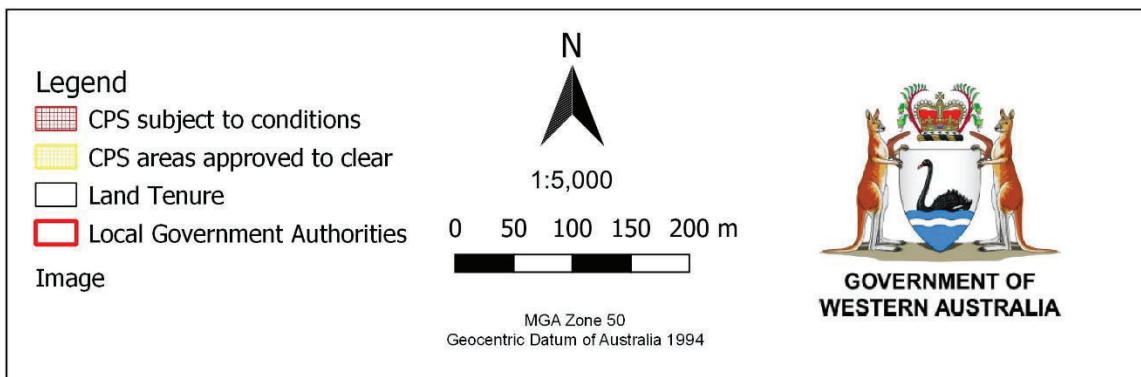
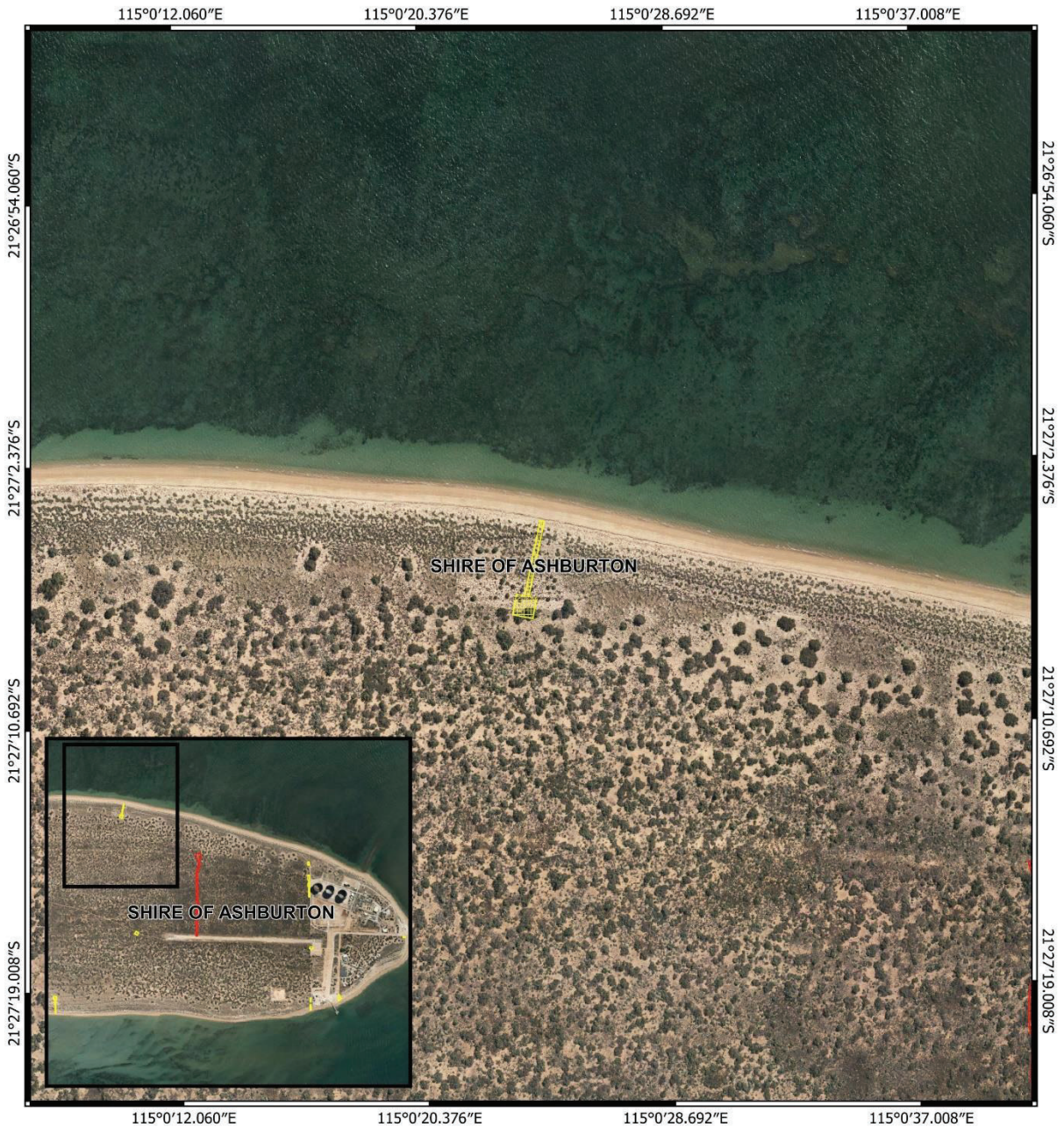


Figure 2: Map of the boundary of the area within which clearing may occur

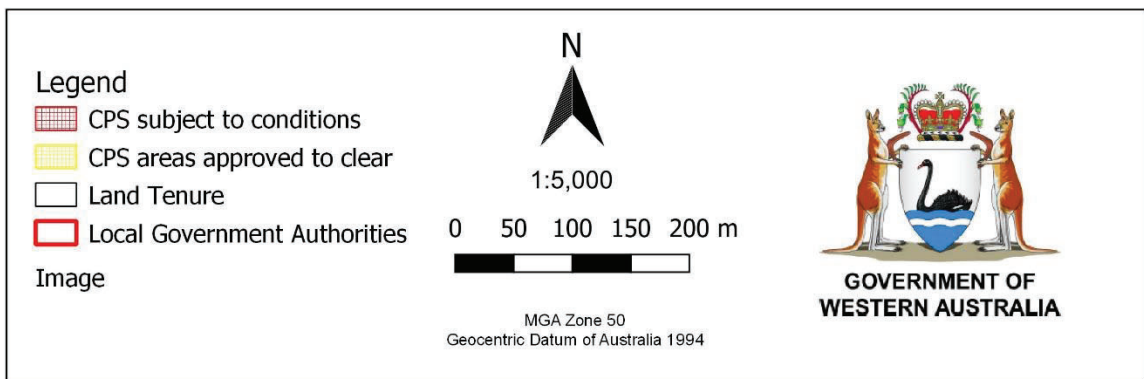
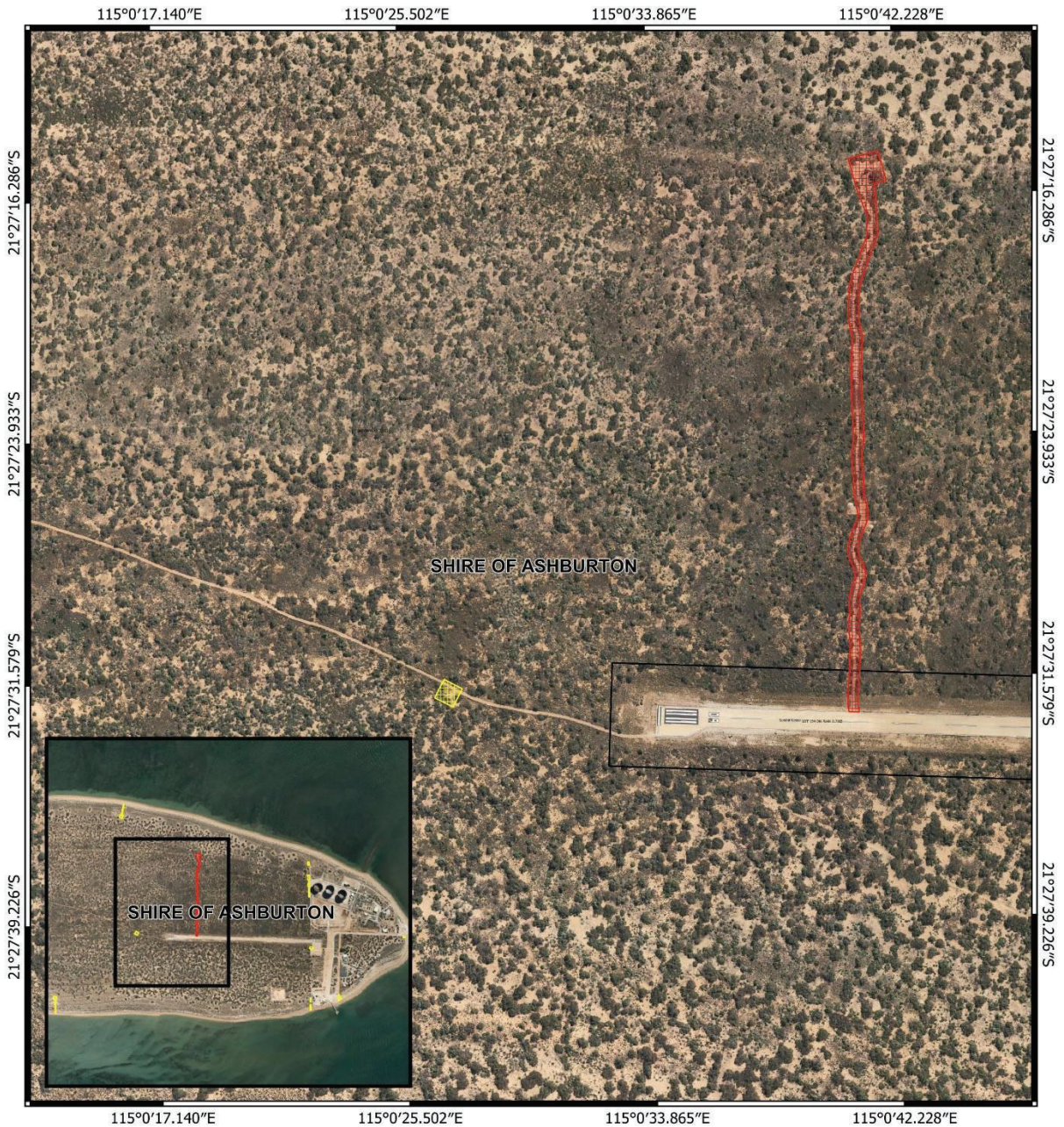


Figure 3: Map of the boundary of the area within which clearing may occur

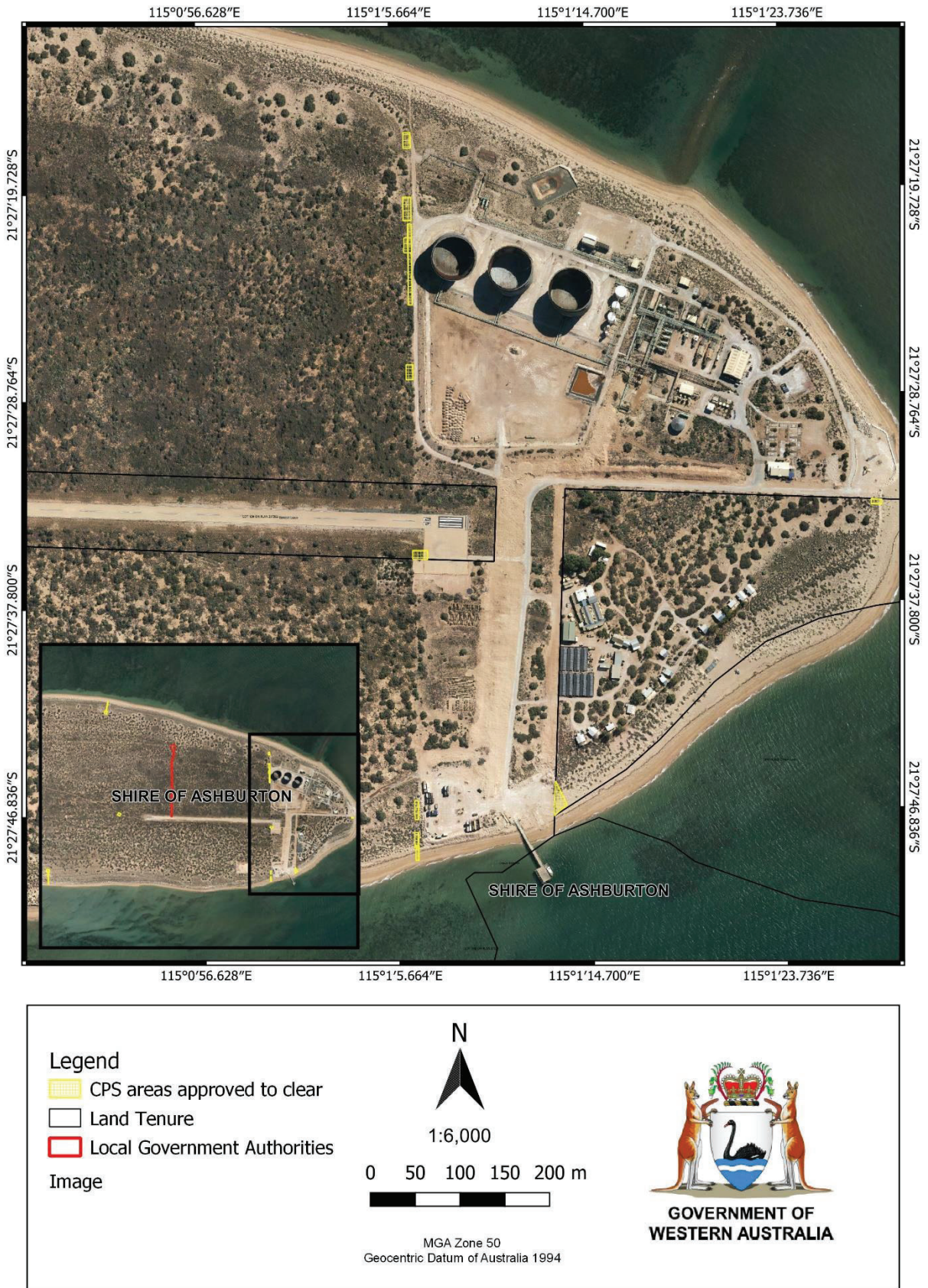


Figure 4: Map of the boundary of the area within which clearing may occur



Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 9190/2
Permit type:	Purpose permit
Applicant name:	Chevron Australia Pty Ltd
Application received:	30 November 2021
Application area:	1.063 hectares of native vegetation
Purpose of clearing:	Thevenard Island Decommissioning Program
Method of clearing:	Mechanical
Property:	Lot 350 on Deposited Plan 37322 (Crown Reserve 33174) Lot 134 on Deposited Plan 217262 Lot 142 on Deposited Plan 217262
Location (LGA area/s):	Shire of Ashburton
Localities (suburb/s):	Thevenard Island

1.2. Description of clearing activities

The proposed amendment to CPS 9190/1 is for the purpose of increasing the overall clearing footprint by 0.1123 hectares to include an additional five areas of infrastructure within Lot 350 on Deposited Plan 37322 (Crown Reserve 33174) and Lot 142 on Deposited Plan 217262, Thevenard Island, that require removal under the Thevenard Island Decommissioning Program. The additional infrastructure to be removed includes the steel casting of a cuttings well, a ground water monitoring bore, buried metal sheeting, areas of stabilised sand and gravel, and an additional area of shipping marker cable. The total area of clearing proposed under CPS 9190/2 is 1.063 hectares, to allow for clearing of the additional 0.1123 hectares. The vegetation proposed to be cleared under CPS 9190/2 is distributed across 11 separate areas throughout Thevenard Island (see Figure 1, Section 1.5).

CPS 9190/1 allowed for the clearing of no more than 0.95 hectares of native vegetation within Lot 350 on Deposited Plan 37322 (Crown Reserve 33174) and Lot 134 on Deposited Plan 217262, Thevenard Island, for the purpose of removing infrastructure as part of the Thevenard Island Decommissioning Program. The infrastructure proposed to be removed included a shipping marker, a buried firewater pipeline, groundwater monitoring bores and water source wells, where clearing footprints were delineated to account for the potential disturbance and clearing of vegetation that may result from the removal activities and vehicle access to removal sites.

Records indicate that 0.0611 hectares of clearing has been undertaken to date under CPS 9190/1.

1.3. Decision on application

Decision:	Granted
Decision date:	8 March 2022
Decision area:	1.063 hectares of native vegetation, as depicted in Section 1.5, below.

1.4. Reasons for decision

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

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix A), relevant datasets (see Appendix E.1), the findings of the Thevenard Island Terrestrial Ecological Monitoring Program (see Appendix D), the clearing principles set out in Schedule 5 of the EP Act (see Appendix B), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3). The Delegated Officer also took into consideration that the proposed amendment relates only to increasing the overall clearing footprint to include five additional areas totalling 0.1123 hectares and increasing the total area authorised to be cleared under the permit to 1.063 hectares to allow clearing within the additional areas. An assessment of current environmental information indicated that the additional areas are unlikely to contain environmental values in addition to those present within the existing permit area.

A review of current environmental information identified that the environmental values present within the permit area also remain largely unchanged from the previous assessments of the permit. The Delegated Officer considered that the existing permit area and additional areas may comprise suitable habitat for conservation significant flora and fauna species, and that the proposed clearing will result in the loss of vegetation within a conservation area and may facilitate wind erosion. The Delegated Officer determined that the existing permit conditions to undertake pre-clearing inspections for significant fauna habitat, adhere to hygiene protocols to avoid the introduction and spread of weeds, and revegetate and rehabilitate areas cleared for temporary works remain adequate to mitigate these impacts.

Given the extent of the proposed amendment, the abundance of adjacent suitable habitat within Thevenard Island Nature Reserve, and that the vegetation within the existing permit area and additional areas is well-represented throughout Thevenard Island, the proposed amendment to CPS 9190/1 was not considered likely to constitute a significant impact to the adjacent vegetation or any other biological, conservation, or land and water resource values.

In considering the above, the Delegated Officer determined that the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values remains unchanged from the original assessment and can be found in the Decision Report prepared for Clearing Permit CPS 9190/1. Noting the above, the Delegated Officer considered that, given the nature of the proposed amendment, the existing conditions under Clearing Permit CPS 9190/1 are sufficient to limit the impacts of the proposed clearing:

- Avoid, minimise and reduce the impacts and extent of clearing,
- Avoid clearing of suitable nesting habitat for marine turtle species during turtle nesting season,
- Undertake pre-clearing inspections for migratory bird nest sites and avoid the clearing of any active nests for the duration of the breeding season,
- Take hygiene steps to minimise the risk of the introduction and spread of weeds,
- Revegetate and rehabilitate areas cleared for temporary works by laying stockpiled vegetative material and topsoil on the cleared areas, and
- Revegetate and rehabilitate areas cleared for access and removal of a shipping marker by scarifying the existing track and redistributing topsoil on cleared areas.

1.5. Site maps



Legend		
<ul style="list-style-type: none"> CPS areas approved to clear Land Tenure Local Government Authorities 		
Image	<p>MGA Zone 50 Geocentric Datum of Australia 1994</p>	<p>GOVERNMENT OF WESTERN AUSTRALIA</p>

Figure 1 The areas crosshatched yellow indicate the areas authorised to be cleared under the granted clearing permit.

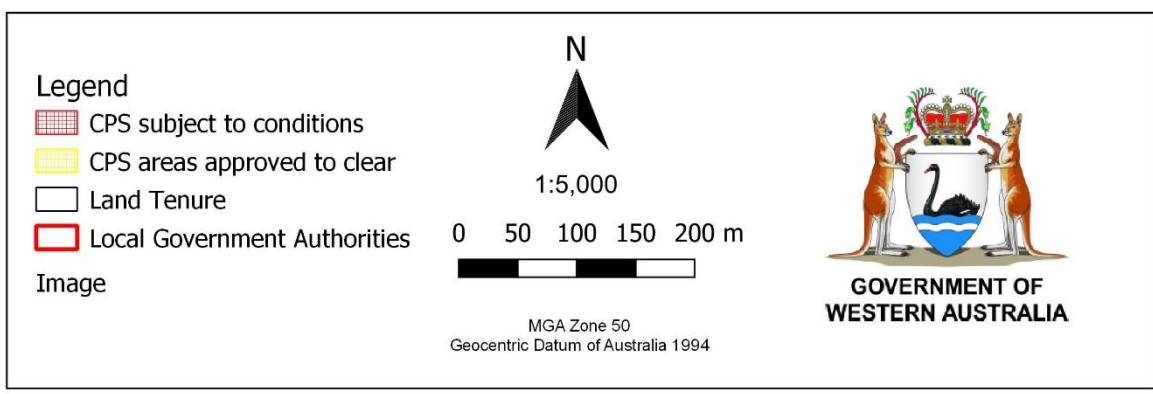
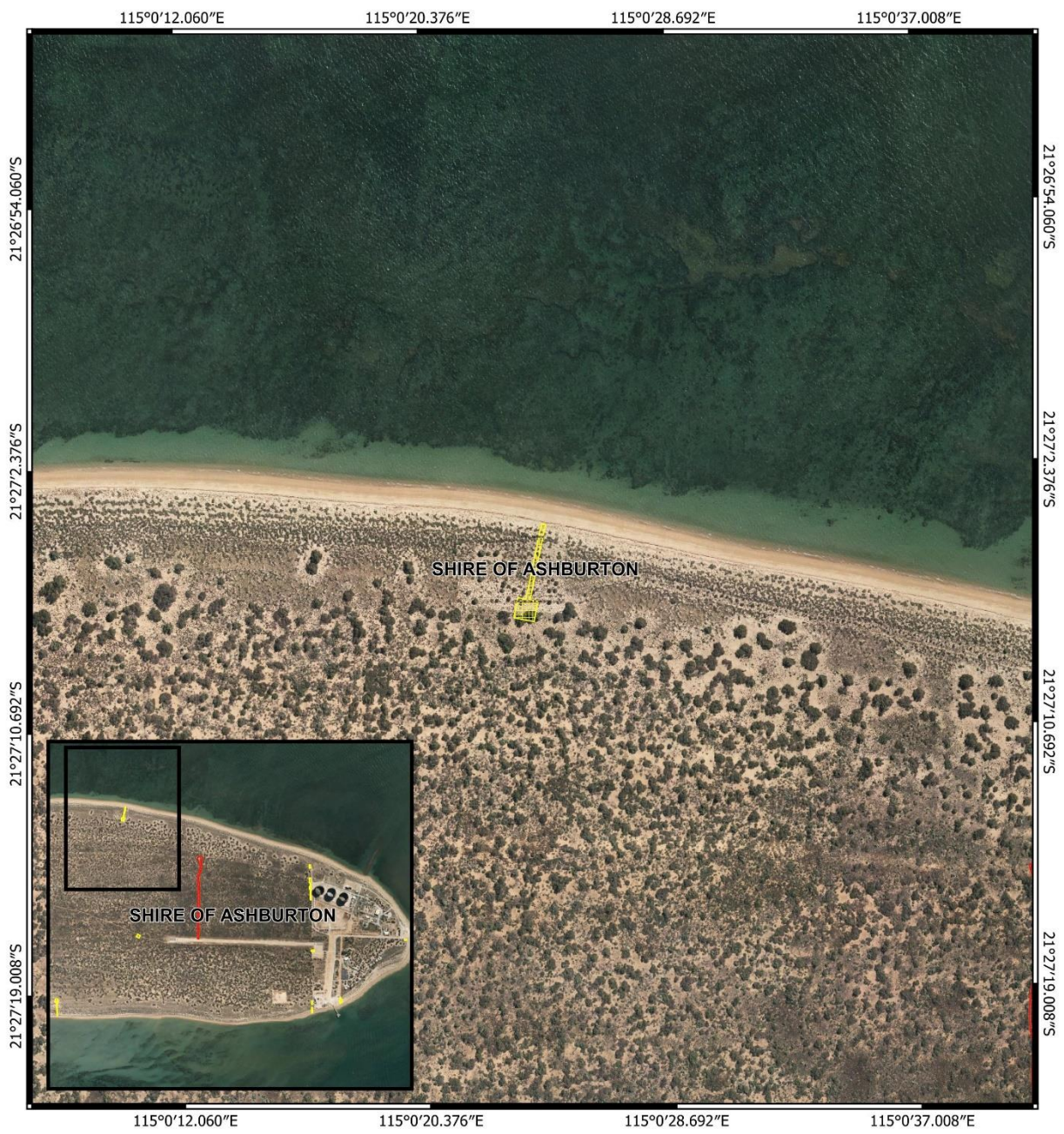
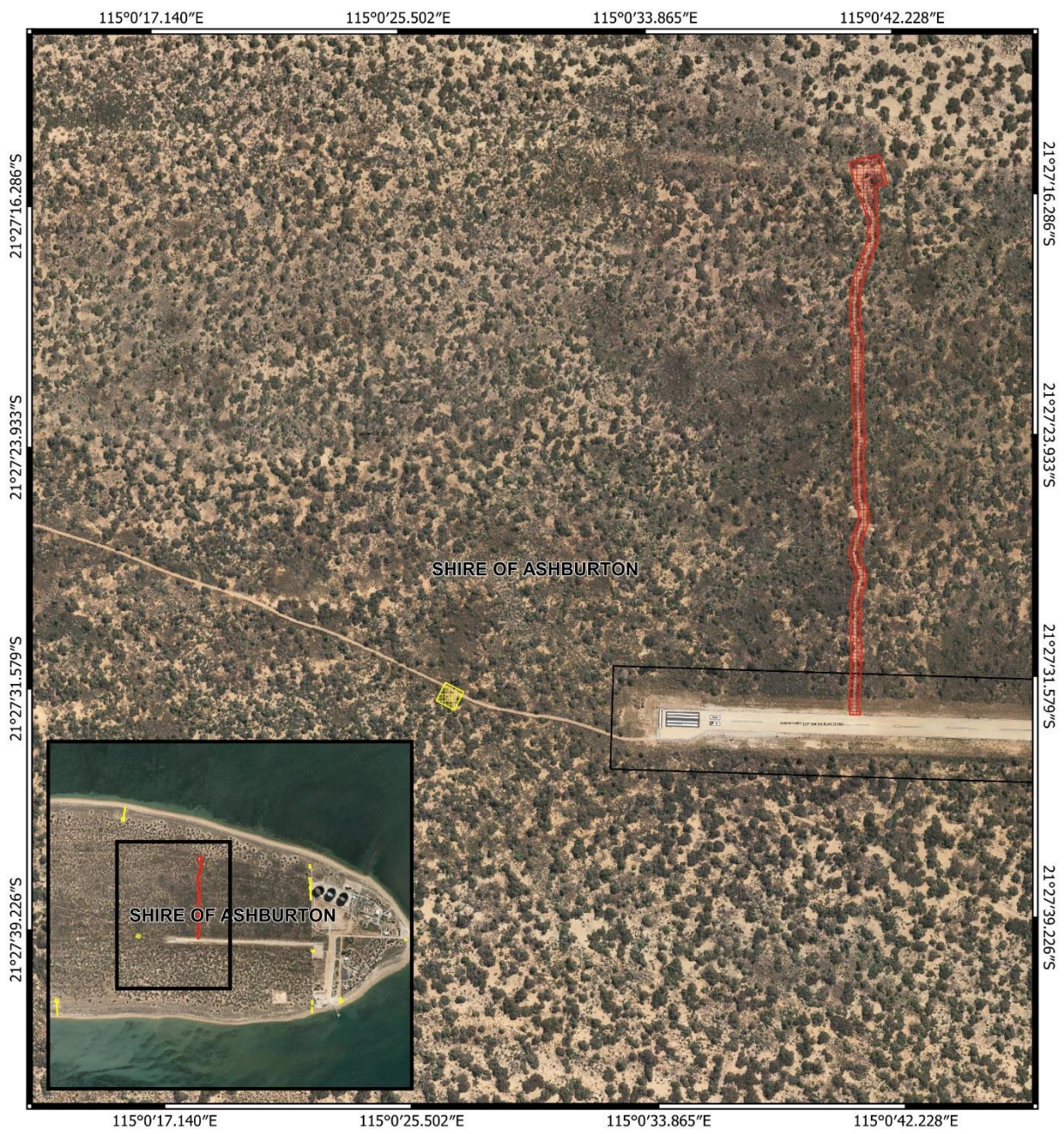







Figure 2 The areas crosshatched yellow indicate the areas authorised to be cleared under the granted clearing permit.



Legend

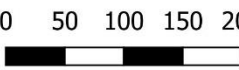
-  CPS subject to conditions
-  CPS areas approved to clear
-  Land Tenure
-  Local Government Authorities

Image




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1:5,000



0 50 100 150 200 m

MGA Zone 50
Geocentric Datum of Australia 1994



**GOVERNMENT OF
WESTERN AUSTRALIA**

Figure 3 The areas crosshatched yellow indicate the areas authorised to be cleared under the granted clearing permit. The area cross-hatched red indicates area within which specific revegetation conditions apply.

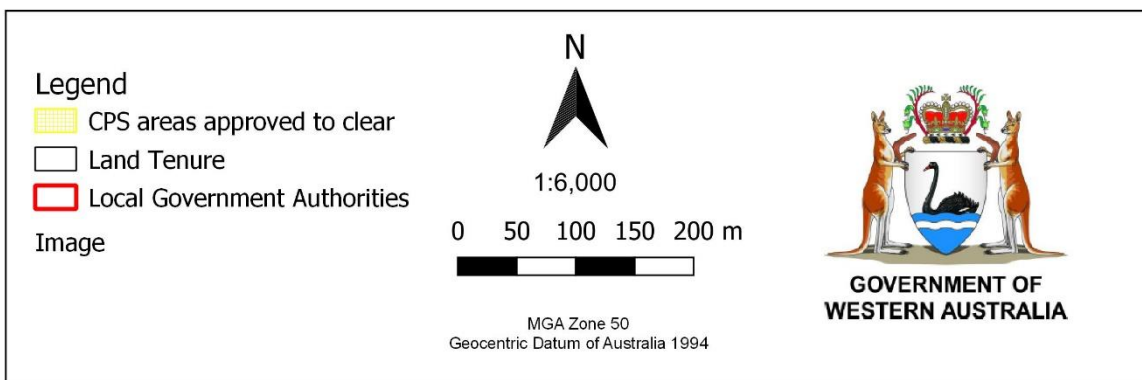


Figure 4 The areas crosshatched yellow indicate the areas authorised to be cleared under the granted clearing permit.

2 Legislative context

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

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

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

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Contaminated Sites Act 2003* (WA) (CS Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)

The key guidance documents which inform this assessment are:

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

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

Supporting documentation was submitted by the applicant, demonstrating that the proposed amendment to CPS 9190/1 is necessary to facilitate the removal of additional infrastructure in accordance with the *Thevenard Island Care and Maintenance / Retirement Phase Environment Plan* (Chevron, 2021). The applicant indicated that, at the time of the original clearing permit application, some infrastructure including the ground water monitoring bore, buried metal sheeting, areas of stabilised sand and gravel, and the additional area of shipping marker cable, had not yet been identified for removal and that the clearing permit amendment was necessary to allow for potential vegetation disturbance that may result from these removal activities themselves and vehicle access to the additional removal sites (Chevron, 2021). In the case of the steel casting of a cuttings well (CW2), the applicant indicated that removal was originally anticipated to be undertaken without the requirement for vegetation disturbance (Chevron, 2021). However, following an attempt to remove the upper section of CW2, the top section of the outer casing broke due to corrosion, meaning the well now sits higher than the cut off depth that was committed to in the *Thevenard Island Care and Maintenance / Retirement Phase Environment Plan* (Chevron, 2021). In order to remove the well, an area around the well is now required to be excavated which will result in disturbance to surrounding vegetation (Chevron, 2021).

The applicant has advised that disturbance to the additional areas will be minimised to only the extent necessary for removal activities themselves and vehicle access to the additional removal sites and that the total clearing area represents the worst-case extent of clearing (Chevron, 2021). The applicant has also advised that clearing of native vegetation in the additional areas will be undertaken in accordance with the existing permit conditions and the provisions of the *Thevenard Island Care and Maintenance / Retirement Phase Environment Plan* (Chevron, 2019), including requirements for managing the spread and introduction of weeds, fauna management including pre-clearing inspections for migratory birds and restriction of disturbance activities during marine turtle nesting seasons, and revegetation of temporarily cleared areas (Chevron, 2021).

The remaining avoidance and minimisation measures implemented by the Permit Holder are unchanged and can be found in the Decision Report prepared for Clearing Permit CPS 9190/1. The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values.

3.2. Assessment of impacts on environmental values

In assessing the amendment application, the Delegated Officer has had regard for the site characteristics (see Appendix A) and the extent to which the impacts of the proposed amendment present a risk to biological, conservation, or land and water resource values. The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

The existing clearing footprint for CPS 9190/1 is comprised of eight separate areas across Thevenard Island. The proposed amendment to CPS 9190/1 includes five additional disturbance areas totaling 0.1123 hectares in size and comprising four new areas and an extension to the existing shipping marker disturbance area (Figure 5).



- Legend**
-  CPS areas approved to clear
 -  Land Tenure
 -  CPS areas applied to clear
 -  Local Government Authorities
- Image

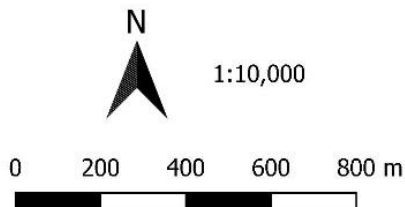


Figure 5. The areas crosshatched yellow indicate the areas authorised to be cleared under clearing permit CPS 9190/1. The areas crosshatched blue (and circled in red for clarity) indicate the additional areas applied to be cleared under clearing permit amendment application CPS 9190/2.

Assessment relating to current environmental values

A review of current environmental information indicates that the environmental values present within the existing permit area and greater Thevenard Island remain largely unchanged from the previous assessment of the permit and can be found in the Decision Report prepared for CPS 9190/1.

Conservation significant flora

In regard to conservation significant flora, a desktop assessment of current databases identified a total of 8 priority flora species have been recorded within the local area, comprising one Priority 1 (P1) flora and seven Priority 3 (P3) flora (Western Australian Herbarium, 1998-). No records of flora species listed as threatened under the state BC Act or Commonwealth EPBC Act were identified in the local area or are known to occur on Thevenard Island (DBCA, 2020), which is unchanged from the previous assessment of the permit. Of the eight priority species recorded within the local area, all were considered during the previous assessment of the permit, with the exception of *Corynotheca flexuosissima* (P3). However, from available databases, it appears that *Corynotheca flexuosissima* (compact zigzag lily) was not listed as a priority species by the Department of Biodiversity, Conservation and Attractions (DBCA), at the time of the previous assessment.

The compact zigzag lily is a rhizomatous, much-branched perennial herb with white flowers occurring in January, May or September and is associated with coastal sand dunes, usually in grassland of *Triodia* spp., *Eulalia fulva*, or *Spinifex longifolius* (Western Australian Herbarium, 1998-). Based on habitat preferences, the Coastal plain 2 (Cp2), Coastal plain 4 (Cp4), and Coastal foredune 1 (Cf1) vegetation types within the permit area are likely to provide suitable habitat for the compact zigzag lily. An additional vegetation type, Coastal plain 1 (Cp1) within one of the additional amendment areas may also provide suitable habitat for the compact zigzag lily (see assessment of additional areas below). Further, flora and vegetation monitoring undertaken as part of the Thevenard Island Terrestrial Ecological Monitoring Plan (TEMP) identified the compact zigzag lily in at least one transect in all monitoring years between 1987 to 2020 (Astron, 2020). Therefore, there is the potential for the compact zigzag lily to occur within the application area and for individuals to be impacted by the proposed clearing.

However, it is noted that no individuals are known to occur within the permit area itself and that the proposed clearing will result in the loss of 0.21 hectares of suitable habitat for the compact zigzag lily, according to available vegetation mapping. This will result in the clearing of approximately 0.22 per cent of all suitable habitat for the compact zigzag lily on Thevenard Island. However, it is acknowledged that any areas cleared for temporary decommissioning works will be revegetated through the respreading of topsoil and vegetative material, as per the conditions of CPS 9190/1. Therefore, the loss of suitable habitat for the compact zigzag lily in cleared areas is likely to be short term, and these areas are likely to provide suitable habitat for the species in the future, once revegetation activities have been completed. Further, the species is known to occur from 17 Western Australian Herbarium records including in dune areas on the mainland between Exmouth and Ashburton, and in sand dunes and coastal platforms on Long and Barrow Islands (Western Australian Herbarium, 1998-). Given the extent of the proposed clearing in the context of suitable habitat on Thevenard Island and the distribution and extent of existing records, while the vegetation within the application area may provide suitable habitat for the compact zigzag lily, it is not considered likely to provide significant habitat or to be essential for the continuation of the species.

According to available databases, there have been no new records of the remaining seven species within the local area since the previous assessment of the permit was undertaken in 2021. While it is acknowledged that the previous assessment identified that *Carpobrotus* sp. Thevenard Island (M. White 050) may occur within the permit area, the assessment of impacts to this species are considered unchanged given there have been no changes in known distribution, documented ecology, or conservation status since the previous assessment of the permit. Given the above, and that no significant changes to vegetation composition or condition within the permit area are known to have occurred since the previous assessment of the permit, the Delegated Officer determined that the assessment of impacts to conservation significant flora species remains unchanged and that the proposed clearing is unlikely to impact significant habitat that is critical for the continuation for any threatened or priority flora species.

Conservation significant fauna

In regard to fauna, a desktop assessment of current databases identified a total of 73 conservation significant fauna species recorded within the local area, including 22 threatened fauna species, 11 priority fauna species, 35 fauna species protected under international agreement, and five other specially protected fauna species (DBCA, 2007-). Of these species, all were considered during the previous assessment of the permit, with the exception of *Tringa stagnatilis* (marsh sandpiper or little greenshank).

The marsh sandpiper (listed as Migratory and protected under International Agreement) is a non-breeding migrant to Australia and is associated with permanent or ephemeral wetlands including intertidal mudflats (DAWE, 2022). Based on habitat preferences, the intertidal zone within the application area is likely to provide suitable foraging and roosting habitat for the marsh sandpiper. However, the Thevenard Island TEMP has not recorded an occurrence of

the marsh sandpiper on Thevenard Island since monitoring commenced in 1987 (Astron, 2020). Further, the total area of suitable foraging and roosting habitat proposed to be cleared is approximately 0.012 hectares, comprising approximately 0.04 per cent of all intertidal zone habitat on Thevenard Island. It is also noted that the marsh sandpiper is likely to utilise sandy beaches and coastal dune habitat on the mainland and other Pilbara inshore islands for foraging and roosting (DBCA, 2020). Noting the extent of the proposed clearing and that abundant suitable foraging and roosting habitat is available on Thevenard Island and nearby Pilbara inshore islands, it is not considered likely that the application area represents significant roosting or foraging habitat for the marsh sandpiper.

According to available databases, there have been no new records of the remaining 72 conservation significant fauna species within the local area since the previous assessment of the permit was undertaken in 2021. It is acknowledged that the previous assessment identified that the application area may provide suitable habitat for 32 conservation significant fauna species (see Appendix A.4). However, the assessment of impacts to these species is considered unchanged given there have been no changes in the known distribution, documented ecology, or conservation status of these species since the previous assessment of the permit, and that habitat values within the permit area and greater Thevenard Island remain largely unchanged. Further, the existing permit includes conditions requiring pre-clearance inspections for marine and migratory bird nesting sites and the avoidance of clearing during marine turtle nesting seasons, to mitigate direct impacts to migratory and marine bird or marine turtle nest sites or nesting individuals that may be present during clearing. Given the above, the Delegated Officer determined that the assessment of impacts to fauna species remains unchanged from the previous assessment of the permit and that the existing fauna management conditions on the permit are still adequate to mitigate any potential impacts to conservation significant fauna.

Threatened and priority ecological communities

A desktop assessment of current databases identified no new records of threatened or priority ecological communities (TECs and PECs) in the local area since the previous assessment of the permit. Further, no changes in the composition, mapping, or condition of the vegetation within the permit area or greater Thevenard Island are known to have occurred since the previous assessment of the permit. Given the above, the Delegated Officer determined that the assessment of impacts to TECs and PECs remains unchanged from the previous assessment of the permit and that the proposed clearing is unlikely to result in significant impacts to any state or federally listed TEC or PEC.

Conservation areas and significant remnant vegetation

As the permit area is located within the Thevenard Island Nature Reserve, the proposed clearing will impact on vegetation within a conservation area. However, given the existing permit conditions, the extent of the proposed clearing within a 450-hectare continuous tract of native vegetation in Thevenard Island Nature Reserve, and that the purpose of the clearing remains consistent with the provisions of the *Pilbara inshore islands nature reserves and proposed additions draft management plan* (DBCA, 2020), the proposed clearing is not considered likely to significantly impact on the environmental values present within Thevenard Island Nature Reserve. Accordingly, the Delegated Officer considers that the assessment of impacts to conservation areas is unchanged from the previous assessment of the permit and that the existing conditions for weed management, revegetation and rehabilitation are sufficient to mitigate any indirect impacts to the environmental values of Thevenard Island Nature Reserve.

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001). The extent of native vegetation in the Carnarvon Bioregion, the mapped Beard vegetation type within the application area, and the local area remain consistent with the national objectives and targets for biodiversity conservation in Australia (see Appendix A.2). The Delegated Officer considers that the permit area does not occur within an extensively cleared landscape and impacts to significant remnant vegetation remain unchanged from the previous assessment of the permit.

Land and water resources

In regard to water resources, current databases do not indicate any changes in hydrological mapping and no water courses or wetlands are known to occur within Thevenard Island. Therefore, the assessment of impacts to water resources is considered unchanged from the previous assessment of the permit and the proposed clearing is not considered likely to impact vegetation is growing in, or in association with, an environment associated with a watercourse or wetland, surface or underground water quality, or the incidence or intensity of flooding.

No changes to soil mapping have occurred since the previous assessment of the permit in 2021. The coastal, sandy soils present within the permit area remain susceptible to wind erosion, however the extensively vegetated reserve and existing permit conditions requiring revegetation and rehabilitation of temporarily cleared areas are expected to mitigate any localised occurrences of wind erosion. The Delegated Officer considers that the assessment of land

degradation risk is unchanged from the previous assessment of the permit and that the proposed clearing is unlikely to result in appreciable land degradation.

Assessment relating to additional areas

The additional areas proposed to be cleared under CPS 9190/2 relate to:

- The disturbance area for the removal of CW2 and a groundwater monitoring bore (MB05B), totalling approximately 0.01 hectares (Figure 6a),
- The disturbance area for the removal of buried metal sheeting, totalling approximately 0.038 hectares (Figure 6b),
- The disturbance area for the removal of stabilised sand and gravel, totalling approximately 0.054 hectares (Figure 6c), and
- The disturbance area associated with the shipping maker cable, totalling approximately 0.01 hectares (Figure 6d).

FIGURE 1: ESTIMATED DISTURBANCE FOR THE REMEDIATION OF CW2 AND MB05B ON THEVENARD ISLAND



FIGURE 2: ESTIMATED DISTURBANCE FOR THE REMEDIATION OF JETTY SHEET PILES ON THEVENARD ISLAND



FIGURE 3: ESTIMATED DISTURBANCE FOR THE REMEDIATION OF BLUE MATAI AND STABILISED SAND ON THEVENARD ISLAND



FIGURE 4: ESTIMATED DISTURBANCE FOR THE ACCESS AND REMOVAL OF THE SHIPPING MARKER ON THEVENARD ISLAND



Figure 6a-d. Additional areas proposed to be cleared under CPS 9190/2 (Chevron, 2021).

According to flora and vegetation monitoring undertaken in 2020 as part of the Thevenard Island Terrestrial Ecological Monitoring Plan (TEMP), the vegetation associations within the additional areas are consistent with the existing permit areas, with the exception of the areas at Figure 6c (Astron, 2020). The areas at Figure 6c also intersect the Coastal plain 1 (Cp1) vegetation association, described as *Eulalia aurea* tussock grassland with *Spinifex longifolius* over *Carpobrotus* sp. Thevenard Island (M White 050) open ground creeper, but can also be scattered *Acacia coriacea* and *Cynanchum viminale* subsp. *australe* (Astron, 2020). Although the Cp1 vegetation association does not occur within the existing permit area and was not considered during the previous assessment of the permit, it is acknowledged that the characteristic species of Cp1 are present and well-represented in other mapped vegetation types on Thevenard Island and are not unique to the Cp1 vegetation type. Therefore, the inclusion of the Cp1 vegetation association within the additional areas at Figure 6c is not expected to significantly alter vegetation composition within the clearing area or to result in the inclusion of any unique floristic or habitat values that were not considered during the previous assessment of the permit. According to available databases, the vegetation condition and soil type within the additional areas is also consistent with that of the existing permit area. Given the above, it is considered that the habitat values of the additional areas are aligned with those present in the existing permit area.

A review of current environmental information indicates that the additional areas may provide suitable habitat for two priority flora species and 73 conservation significant fauna species, being the same species that have the potential to occur within the greater permit area under CPS 9190/1 (see Appendix A.3 and A.4). Given the additional areas will result in the clearing of an additional 0.1123 hectares of suitable habitat for these species and do not include unique habitat values additional to the existing permit area, it is not considered likely that the proposed amendment to CPS 9190/1 will significantly increase the extent of the impact on these species, noting the extent and distribution of these species and the extent of suitable habitat on Thevenard Island. Therefore, the assessment of impacts to conservation significant flora and fauna species is considered consistent with the assessment of the existing permit area (see assessment above).

The additional areas do not transect any mapped TEC or PEC. It is acknowledged that the previous assessment noted that the Coastal dune native tussock grassland dominated by *Whiteochloa airoides* (Tussock grassland of *Whiteochloa airoides*) PEC had been identified in a small, isolated area in the western extent of Thevenard Island during the 2017 TEMP. However, the additional areas all occur to the east of this known PEC and the mapped vegetation associations within the additional areas are not consistent with the description of the Tussock grassland

of *Whiteochloa airoides* PEC. Given the above, the additional areas are not considered likely to comprise part of, or be necessary for the maintenance of, a threatened or priority ecological community and the assessment of impacts to conservation significant ecological communities is considered consistent with the assessment of the existing permit area (see assessment above).

As the additional areas are located within Thevenard Island Nature Reserve and is mapped within the same bioregion, Beard vegetation type, and local area, the assessment of impacts to conservation areas and significant remnant vegetation is considered consistent with the assessment of the existing permit area (see assessment above). Given the extent of the additional area in the context of Thevenard Island, it is not considered likely that the clearing of an additional 0.1123 hectares will significantly increase the impacts to the environmental values within Thevenard Island Nature Reserve. In regard to land and water resources, a review of current environmental information indicates that the additional areas are located within the same soil type as the existing permit area and do not intersect any wetlands, natural sources of surface water, or proclaimed surface or groundwater areas. The potential for impacts to riparian vegetation, surface and groundwater, land degradation, and flooding is therefore, also considered consistent with the assessment for the existing permit area (see assessment above).

Conclusion

The proposed amendment to CPS 9190/1 is for the purpose of increasing the overall clearing footprint by 0.1123 hectares to include an additional five areas of infrastructure. Based on a review of available information, it is not considered likely that the clearing of an additional 0.1123 hectares will significantly alter the impacts of the clearing approved under CPS 9190/1. A review of current environmental databases also indicates that the environmental values within Thevenard Island remain largely unchanged since the previous assessment of the permit in 2021 and that the environmental values within the five additional areas are consistent with those of the existing permit area. Given the above, the extent of the proposed clearing, and the abundance of adjacent suitable habitat within Thevenard Island Nature Reserve, the Delegated Officer determined that the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values remains unchanged from the previous assessment of the permit and can be found in the Decision Report prepared for CPS 9190/1.

3.3. Relevant planning instruments and other matters

The clearing permit amendment application was advertised on the Department of Water and Environmental Regulation's website on 9 February 2022, inviting submissions from the public within a 7-day period. No submissions were received in relation to this application.

The Shire of Ashburton (the Shire) advised that it had no concerns in relation to the proposed clearing of an additional 0.1123 hectares of vegetation within Thevenard Island (Shire of Ashburton, 2022). Pursuant to the Shire of Ashburton Local Planning Scheme No. 7 and the Deemed Provisions of the *Planning and Development (Local Planning Schemes) Regulations 2015*, the Shire advised that no Development Application or other local government approvals are required for the proposed clearing (Shire of Ashburton, 2022). The Shire provided the following comments for the Department's consideration:

- Prior to the commencement of works and clearing, measures should be undertaken to identify any vegetation within the impacted areas worthy of retention, including any potential habitat or foraging trees for threatened fauna species, and protection measures implemented to ensure such vegetation is not impacted by proposed works and clearing,
- Revegetation of the impacted areas is suggested to mitigate any possible wind erosion, and
- The proposal impacts Aboriginal Heritage place 11403 and requires referral to the relevant departments, if not already done so (Shire of Ashburton, 2022).

The Department considers that the existing permit conditions for fauna management and revegetation of temporarily cleared areas are sufficient to satisfy the Shire's comments. The Department also notes that it is the permit holder's responsibility to comply with the *Aboriginal Heritage Act 1972 (WA)* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

The remaining assessment against planning instruments and other matters is unchanged and can be found in the Decision Report prepared for Clearing Permit CPS 9190/1.

End

Appendix A. Site characteristics

A.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is part of an expansive tract of native vegetation within Thevenard Island in the extensive land use zone of Western Australia. It is surrounded by remnant vegetation within the greater Thevenard Island Nature Reserve and is adjacent to previously cleared areas including an airstrip, tourist accommodation and an oil and gas processing facility which is in the process of being decommissioned. The proposed clearing area includes 11 separate areas ranging in size from 0.019 to 0.622 hectares, which all comprise part of an approximately 450-hectare area of native vegetation within the Thevenard Island Nature Reserve. Spatial data indicates that the local area (50-kilometre radius from the centre of the area proposed to be cleared) retains approximately 97.54 per cent of the original native vegetation cover.
Ecological linkage	The application area is not mapped within any formal or informal ecological linkages. Noting that the application area includes eight separate areas of less than one hectare in size within an approximately 450-hectare expansive tract of native vegetation, the application area is not considered to comprise a significant ecological linkage within Thevenard Island.
Conservation areas	The majority of the application area is located within Thevenard Island Nature Reserve (Crown Reserve 33174), which is vested in the conservation estate of Western Australia and managed in perpetuity by the Department of Biodiversity Conservation and Attractions (DBCA).
Vegetation description	<p>Vegetation within the Thevenard Island Nature Reserve has been historically mapped as consisting of three major vegetation associations:</p> <ul style="list-style-type: none"> • <i>Spinifex longifolius</i> coastal grassland on dunes, • <i>Acacia coriacea</i> central shrubland on ridge system, and • Mixed low shrubland and mixed grassland on coastal shelf (LeProvost et al., 1987). <p>As part of the Thevenard Island Terrestrial Ecological Monitoring Program (TEMP), vegetation mapping on Thevenard Island has been categorised into 13 detailed vegetation associations by correlating the aforementioned historical vegetation associations, landform units and the findings of ongoing ecological monitoring (Astron, 2020). The Thevenard Island Retirement Project Terrestrial Ecological Monitoring Report (Astron, 2020) indicates that the vegetation within the proposed clearing area consists of the following vegetation associations:</p> <ul style="list-style-type: none"> • Inland ridge 1 (Ir1), described as <i>Acacia coriacea</i> tall open shrubland over <i>Acacia sclerosperma</i> shrubland to open heath with mixed shrubs over <i>Cenchrus ciliaris</i> tussock grassland, • Coastal plain 1 (Cp1), described as <i>Eulalia aurea</i> tussock grassland with <i>Spinifex longifolius</i> over <i>Carpobrotus</i> sp. Thevenard Island (M White 050) open ground creeper, and can be scattered <i>Acacia coriacea</i> and <i>Cynanchum viminalis</i> subsp. <i>australe</i>, • Coastal plain 2 (Cp2), described as <i>Scaevola crassifolia</i> and <i>Scaevola cunninghamii</i> low shrubland to low open heath over <i>Eulalia aurea</i> very open tussock grassland, • Coastal plain 4 (Cp4), described as <i>Acacia coriacea</i> subsp. <i>coriacea</i> tall open shrubland over <i>Olearia</i> sp. Kennedy Range (B. Byrne 66), <i>Cynanchum viminalis</i> subsp. <i>australe</i>, <i>Rhagodia preiseii</i> subsp. <i>obovata</i> low open to low shrubland over <i>Eulalia aurea</i> tussock grassland and <i>Carpobrotus</i> sp. Thevenard Island ground creeper,

Characteristic	Details
	<ul style="list-style-type: none"> • Coastal foredune 1 (Cf1), described as <i>Spinifex longifolius</i> tussock grassland, sometimes with small populations of <i>Whiteochloa airoides</i> and <i>Eulalia aurea</i>, • Disturbed areas (D1), described as <i>Cenchrus ciliaris</i> (buffel grass) closed tussock grassland over open <i>Ipomoea pes-caprae</i>, <i>Canavalia rosea</i> liane, and • Intertidal zone (Astron, 2020). <p>The full survey descriptions, mapping and representative photographs are available in Appendix D.</p> <p>This is broadly consistent with the mapped Beard vegetation association 117, which is described as hummock grasslands, grass steppe; soft spinifex (Shepherd et al, 2001).</p>
Vegetation condition	<p>Vegetation association descriptions and monitoring photographs contained within the Thevenard Island Retirement Project Terrestrial Ecological Monitoring Report (Astron, 2020) indicate that the vegetation within the proposed clearing area ranges from Very Good to Poor (Trudgen, 1991) condition:</p> <ul style="list-style-type: none"> • Very Good, described as some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks, • Good, described as more obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds, and • Poor, described as still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds (Trudgen, 1991). <p>The full Trudgen (1991) condition rating scale is provided in Appendix C.</p> <p>Representative photographs are available in Appendix D.</p>
Climate and landform	<p>The climate of Thevenard Island is described as an arid, summer rainfall, sub-tropical zone, where climate is primarily controlled by the sub-tropical high-pressure belt that migrates southward from winter to summer. Mean annual rainfall is 308.4 mm, but seasonal and annual variability is high. The mean annual maximum temperature is 32.1°C and the mean annual minimum temperature is 19.2°C.</p>
Soil description and land degradation risk	<p>Thevenard Island is considered to have formed from the accumulation of Holocene sandy sediment and coral reefs resting on a Pleistocene limestone foundation (LeProvost et al., 1987). Soil on Thevenard Island consists of undulating dune systems with two predominant soil types:</p> <ul style="list-style-type: none"> • medium to coarse grainstone of skeletal quartz with some lithoclastic sand on fore dunes, and • muddy grainstone on ridges and coastal plain, with the coastal plain having a higher content of sand (Astron, 2020). <p>The sandy soils present within the greater Thevenard Island and the application area are vulnerable to wind erosion, particularly if surface vegetation is removed (DBCA, 2020). The soils are not expected to be susceptible to land degradation resulting from water erosion, salinity, subsurface acidification, phosphorus export, waterlogging or flooding.</p>
Waterbodies and hydrogeography	<p>The desktop assessment and aerial imagery indicated that there are no natural waterbodies or mapped wetlands present on Thevenard Island. The closest mapped wetland to the application area is the Exmouth Gulf East, located approximately 46.7 kilometres south-east, along the mainland.</p>

Characteristic	Details
	<p>The application area is not mapped within any water resources proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> (the RIWI Act), the <i>Country Areas Water Supply Act 1947</i> (the CAWS Act) or the <i>Metropolitan Water Supply, Sewerage, and Drainage Act 1909</i>.</p>
Flora	<p>The desktop assessment identified that a total of 8 priority flora species have been recorded within the local area, comprising one Priority 1 (P1) flora and seven Priority 3 (P3) flora (Western Australian Herbarium, 1998-). None of these existing records occur within the application area, with the closest record being an occurrence of <i>Carpobrotus</i> sp. Thevenard Island (M. White 050) (P3) approximately 0.1 kilometres from the application area.</p> <p>With consideration for the site characteristics set out above, relevant datasets (see Appendix E.1), the habitat preferences of the aforementioned species, and ecological monitoring information (Astron, 2020), the application area may provide suitable habitat for two priority flora species and impacts to these species required further consideration (see Appendix A.3).</p> <p>The desktop assessment did not identify records of any threatened flora species occurring within the local area. No flora species listed as threatened under the state BC Act or the Commonwealth EPBC Act are known to occur on Thevenard Island (Astron, 2020; DBCA, 2020). With consideration for the site characteristics set out above, relevant datasets (see Appendix E.1), and the distribution and extent of existing records, impacts to threatened flora species or significant habitat for these species were not considered likely to result from the proposed clearing and did not require further consideration.</p>
Ecological communities	<p>The desktop assessment identified that the closest state-listed threatened ecological community (TEC) is an occurrence of the Cameron's Cave Troglitic Community TEC, which occurs approximately 106.8 kilometres south-west of the application area, on the mainland.</p> <p>The desktop assessment identified that the closest mapped state-listed priority ecological community (PEC) is an occurrence of the Tanpool Land System PEC, approximately 66.6 kilometres south-east of the application area, on the mainland. However, the Thevenard Island TEMP identified a small, isolated occurrence of the Coastal dune native tussock grassland dominated by <i>Whiteochloa airoides</i> (Tussock grassland of <i>Whiteochloa airoides</i>) PEC within Thevenard Island Nature Reserve in 2017 (Astron, 2020). The occurrence of the Tussock grassland of <i>Whiteochloa airoides</i> PEC is located approximately 2.6 kilometres west of the application area and no other occurrences of the PEC have been recorded within Thevenard Island or the application area (Astron, 2020).</p>
Fauna	<p>The desktop assessment identified that a total of 73 conservation significant fauna species have been recorded within the local area, including 22 threatened fauna species, 11 priority fauna species, 35 fauna species protected under international agreement, and five other specially protected fauna species (DBCA, 2007-). None of these records occur within the application area, with the closest record being a fairy tern (<i>Sternula nereis nereis</i>) occurring approximately 50 metres from the application area.</p> <p>With consideration for the site characteristics set out above and relevant datasets (see Appendix E.1), the application area may provide suitable habitat for 32 of the aforementioned conservation significant fauna species and impacts to these species required further consideration (see Appendix A.4).</p>

A.2. Vegetation extent

	Pre-European extent (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current proportion (%) of pre-European extent in all DBCA managed land
IBRA bioregion*					
Carnarvon	8,382,890.35	8,360,801.46	99.74	1,020,434.08	12.17
Vegetation complex					
Beard vegetation association 117*	897,107.77	883,704.60	98.51	129205.67	14.4
Vegetation complex in IBRA bioregion					
Beard vegetation association 117 (Carnarvon)*	12,424.35	10,907.99	87.80	2,997.21	24.12
Local area					
50km radius	172,702.71	168,448.51	97.54	-	-

*Government of Western Australia (2019)

A.3. Flora analysis table

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

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Suitable soil type? [Y/N]	Distance of closest record to application area (km)	Number of known records (total)	Are surveys adequate to identify? [Y, N, N/A]
<i>Carpobrotus</i> sp. Thevenard Island (M. White 050)	P3	Y	Y	Y	0.1	12	Y
<i>Corynotheca flexuosissima</i>	P3	Y	Y	Y	0.4	6	Y

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

A.4. Fauna analysis table

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

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	Number of known records in local area (total)	Are surveys adequate to identify? [Y, N, N/A]
<i>Calidris canutus</i> (Red knot)	EN	Y	Y	0.5	3	Y
<i>Calidris ferruginea</i> (Curlew sandpiper)	CR	Y	Y	15.5	5	Y
<i>Calidris tenuirostris</i> (Great knot)	CR	Y	Y	0.5	6	Y
<i>Charadrius leschenaultii</i> (Greater sand plover)	VU	Y	Y	0.5	102	Y
<i>Charadrius mongolus</i> (Lesser sand plover)	EN	Y	Y	8.1	27	Y
<i>Chelonia mydas</i> (Green turtle)	VU	Y	Y	0.3	593	Y

Species name	Conservation status	Suitable habitat features? [Y/N]	Suitable vegetation type? [Y/N]	Distance of closest record to application area (km)	Number of known records in local area (total)	Are surveys adequate to identify? [Y, N, N/A]
<i>Eretmochelys imbricata</i> (Hawksbill turtle)	VU	Y	Y	0.6	72	Y
<i>Leggadina lakedownensis</i> (Lakeland Downs mouse)	P4	Y	Y	0.2	348	Y
<i>Limosa lapponica menzbieri</i> (Bar-tailed godwit)	CR	Y	Y	21.1	4	Y
Migratory waterbirds (20 species)	MI	Y	Y	>0.5	-	Y
<i>Natator depressus</i> (Flatback turtle)	VU	Y	Y	0.6	413	Y
<i>Numenius madagascariensis</i> (Eastern curlew)	CR	Y	Y	0.5	27	Y
<i>Sternula nereis nereis</i> (Fairy tern)	VU	Y	Y	<0.1	49	Y
<i>Tringa brevipes</i> (Grey-tailed tattler)	P4	Y	Y	0.5	92	Y

T: threatened, CR: critically endangered, EN: endangered, VU: vulnerable, P: priority, MI: migratory birds protected under an international agreement.

Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
<p>Principle (a): "Native vegetation should not be cleared if it comprises a high level of biodiversity."</p> <p>Assessment: The area proposed to be cleared may contain locally significant flora, fauna, habitats, and assemblages of plants.</p>	<p>May be at variance</p> <p>(as per CPS 9190/1)</p>	<p>Yes</p> <p>Refer to Section 3.2, above.</p>
<p>Principle (b): "Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna."</p> <p>Assessment: The area proposed to be cleared contains potential foraging, roosting, and nesting habitat for conservation significant fauna.</p>	<p>May be at variance</p> <p>(as per CPS 9190/1)</p>	<p>Yes</p> <p>Refer to Section 3.2, above.</p>
<p>Principle (c): "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."</p> <p>Assessment: No flora species listed as threatened under the state BC Act or the Commonwealth EPBC Act are known to occur on Thevenard Island or in the local area.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 9190/1)</p>	<p>No</p>
<p>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."</p> <p>Assessment: The area proposed to be cleared consists of predominantly shrubland and heath over hummock grassland that is well-represented across Thevenard Island and does not contain species that can indicate a threatened ecological community listed under the BC Act. Given the distance and separation from the closest TEC, the proposed clearing is not likely to impact or be necessary for the maintenance of any state-listed TEC.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 9190/1)</p>	<p>No</p>

Environmental value: significant remnant vegetation and conservation areas

<p><u>Principle (e):</u> <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p><u>Assessment:</u> The extent of the mapped vegetation type and native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia. The vegetation proposed to be cleared includes several small areas within an expansive tract of remnant vegetation and is not considered to be part of a significant ecological linkage in the local area.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 9190/1)</p>	<p>No</p>
<p><u>Principle (h):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.”</i></p> <p><u>Assessment:</u> The application area occurs within Thevenard Island Nature Reserve. The proposed clearing will result in the loss of vegetation within a conservation area and has the potential to impact on its environmental values.</p>	<p>At variance</p> <p>(as per CPS 9190/1)</p>	<p>Yes</p> <p>Refer to Section 3.2, above.</p>

Environmental value: land and water resources

<p><u>Principle (f):</u> <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment:</u> Given no water courses or wetlands are recorded within Thevenard Island and the closest natural source of surface water occurs on the mainland approximately 20 kilometres south of the application area, the proposed clearing is unlikely to impact on- or off-site hydrology and water quality.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 9190/1)</p>	<p>No</p>
<p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u> The sandy, coastal soils within the application are susceptible to wind and water erosion. However, noting the extent and location of the application area, the proposed clearing is not likely to have an appreciable impact on land degradation.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 9190/1)</p>	<p>Yes</p> <p>Refer to Section 3.2, above.</p>
<p><u>Principle (i):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.”</i></p> <p><u>Assessment:</u> Given no water courses, wetlands or proclaimed water resources are recorded within Thevenard Island or within 20 kilometres of the application area, the proposed clearing is unlikely to impact surface or ground water quality.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 9190/1)</p>	<p>No</p>
<p><u>Principle (j):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</i></p> <p><u>Assessment:</u> The surveyed soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding. Given no water courses are recorded within Thevenard Island and noting the extent and location of the application area, the proposed clearing is unlikely to cause, or exacerbate, the incidence or intensity of flooding or to contribute to waterlogging.</p>	<p>Not likely to be at variance</p> <p>(as per CPS 9190/1)</p>	<p>No</p>

Appendix C. Vegetation condition rating scale

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

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

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

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

Appendix D. Biological survey information excerpts

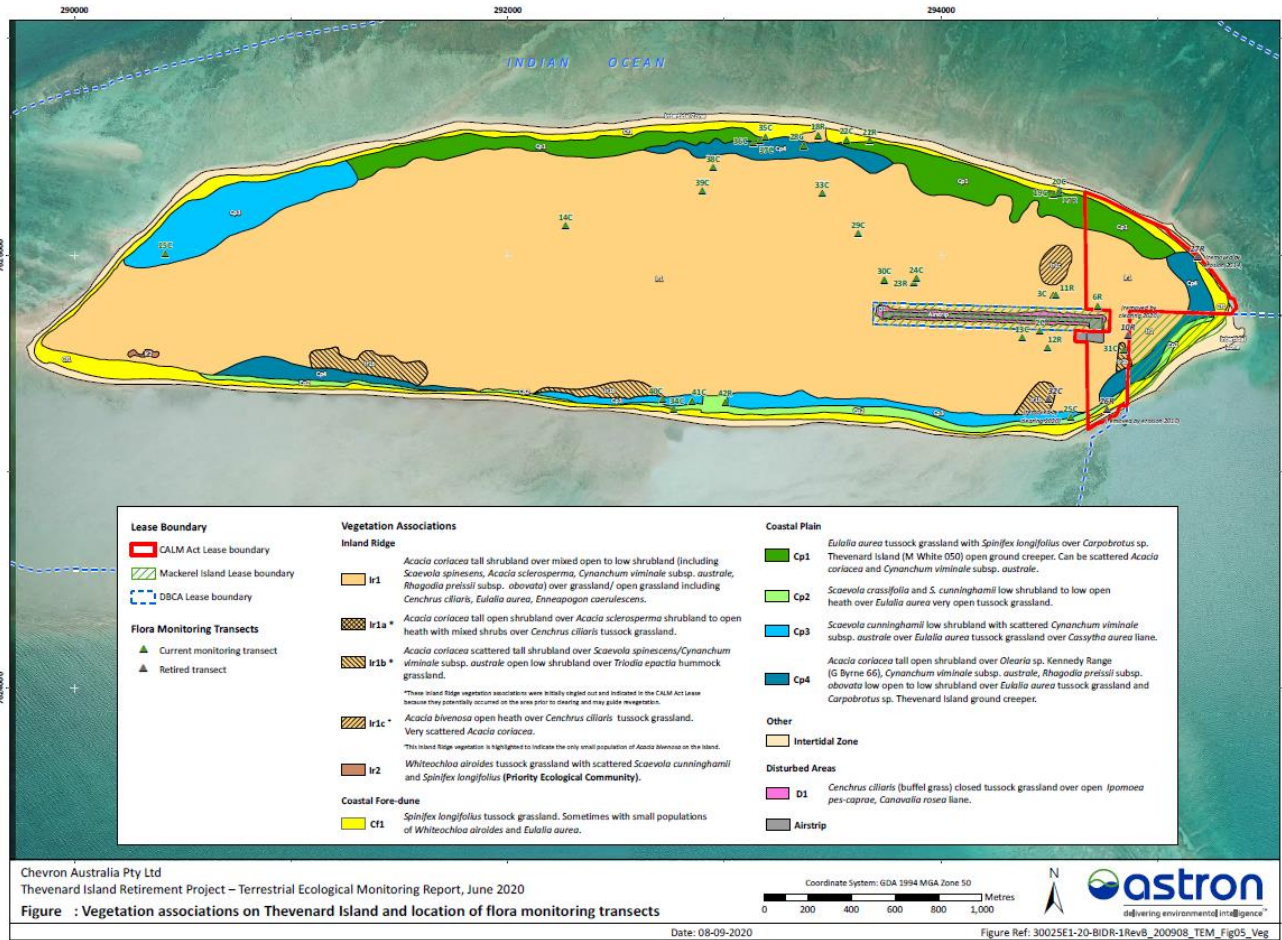




Figure 9. Photographs of vegetation representative of the Coastal plain 2 (Cp2) vegetation association, adjacent to the application area (Astron, 2020).



Figure 10. Photographs of vegetation representative of the Coastal plain 4 (Cp4) vegetation association, adjacent to the application area (Astron, 2020).



Figure 11. Photographs of vegetation representative of the Coastal foredune 1 (Cf1) vegetation association, adjacent to the application area (Astron, 2020).

Appendix E. Sources of information

E.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)

- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems

Restricted GIS Databases used:

- Conservation Covenants Western Australia (DPIRD-023)
- Contaminated Sites Database - Restricted (DWER-073)
- ICMS (Incident Complaints Management System) – Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

E.2. References

- Astron Environmental Services Pty Ltd (Astron) (2020) *Thevenard Island Retirement Project Terrestrial Ecological Monitoring Report*, prepared for Chevron Australia Pty Ltd (DWER Ref: A2001517).
- Chevron Australia Pty Ltd (Chevron) (2019) *Thevenard Island Care and Maintenance / Retirement Phase Environment Plan Summary*. Available from: <https://ace.dmp.wa.gov.au/ACE/Public/PetroleumProposals/ViewPlanSummary?registrationId=82714>.
- Chevron Australia Pty Ltd (Chevron) (2021) *Clearing permit application CPS 9190/2 and supporting information*, received 30 November 2021 (DWER Ref: DWERDT533114).
- Commonwealth of Australia (2001) *National Objectives and Targets for Biodiversity Conservation 2001-2005*, Canberra.
- Department of Biodiversity, Conservation and Attractions (DBCA) (2007-) *NatureMap: Mapping Western Australia's Biodiversity*. Department of Parks and Wildlife. Available from: <http://naturemap.dpaw.wa.gov.au/> (accessed January 2022).
- Department of Environment Regulation (DER) (2013) *A guide to the assessment of applications to clear native vegetation*. Perth. Available from: https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf.
- Department of Water and Environmental Regulation (DWER) (2019) *Procedure: Native vegetation clearing permits*. Joondalup. Available from: https://dwer.wa.gov.au/sites/default/files/Procedure_Native_vegetation_clearing_permits_v1.PDF.

- Department of Water and Environmental Regulation (DWER) (Contaminated Sites) (2021) *Contaminated Sites Act 2003 advice for clearing permit application CPS 9190/1*, received 11 March 2021 (DWER Ref: A1987803).
- Environmental Protection Authority (EPA) (2016) *Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment*. Available from: http://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/EPA%20Technical%20Guidance%20-%20Flora%20and%20Vegetation%20survey_Dec13.pdf.
- Environmental Protection Authority (EPA) (2016) *Technical Guidance – Terrestrial Fauna Surveys*. Available from: https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/Tech%20guidance-%20Terrestrial%20Fauna%20Surveys-Dec-2016.pdf.
- Government of Western Australia (2019) *2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report)*. Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) *Native Vegetation in Western Australia, Extent, Type and Status*. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
- Shire of Ashburton (2022) *Advice for clearing permit application CPS 9190/2*, received 23 February 2022 (DWER Ref: DWERDT568274 and DWERDT568310).
- Trudgen, M.E. (1991) *Vegetation condition scale* in National Trust (WA) 1993 Urban Bushland Policy. National Trust of Australia (WA), Wildflower Society of WA (Inc.), and the Tree Society (Inc.), Perth.
- Western Australian Herbarium (1998-). *FloraBase - the Western Australian Flora*. Department of Biodiversity, Conservation and Attractions, Western Australia. <https://florabase.dpaw.wa.gov.au/> (accessed January 2022).