



## CLEARING PERMIT

*Granted under section 51E of the Environmental Protection Act 1986*

### PERMIT DETAILS

Area Permit Number: CPS 9360/1  
File Number: DWERVT8286  
Duration of Permit: From 24 June 2022 to 24 June 2024

### PERMIT HOLDER

Stockland Developments Pty Ltd

### LAND ON WHICH CLEARING IS TO BE DONE

Lot 151 on Deposited Plan 63061, Piara Waters

### AUTHORISED ACTIVITY

The permit holder must not clear more than 0.02 hectares of native vegetation within the area cross-hatched yellow in Figure 1 of Schedule 1.

### CONDITIONS

#### 1. 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.

#### 2. Weed and dieback 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* and *dieback*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;

- (b) ensure that no known dieback or 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.

### 3. 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"> <li>(a) the species composition, structure, and density of the cleared area;</li> <li>(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;</li> <li>(c) the date that the area was cleared;</li> <li>(d) the size of the area cleared (in hectares); and</li> <li>(e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 1; and</li> <li>(f) actions taken to minimise the risk of the introduction and spread of weeds and dieback in accordance with condition 2.</li> </ul>

### 4. Reporting

The permit holder must provide to the *CEO* the records required under condition 3 of this permit when requested by the *CEO*.

## DEFINITIONS


In this permit, the terms in Table 2 have the meanings defined.

**Table 2: Definitions**

Term	Definition
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the <i>Environmental Protection Act 1986</i> .
clearing	has the meaning given under section 3(1) of the EP Act.
condition	a condition to which this clearing permit is subject under section 51H of the EP Act.
dieback	means the effect of <i>Phytophthora</i> species on native vegetation.
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)
fill	means material used to increase the ground level, or to fill a depression.
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.
weeds	means any plant – (a) that is a declared pest under section 22 of the <i>Biosecurity and Agriculture Management Act 2007</i> ; or (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.

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## END OF CONDITIONS

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Ryan Mincham  
MANAGER  
NATIVE VEGETATION REGULATION

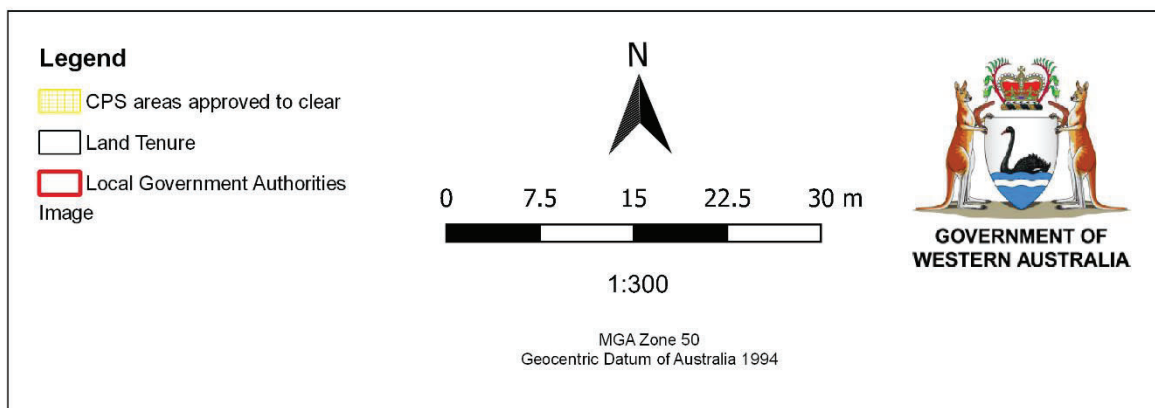
*Officer delegated under Section 20  
of the Environmental Protection Act 1986*

1 June 2022

# SCHEDULE 1

The boundary of the area authorised to be cleared is shown in the map below (Figure 1).

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





# Clearing Permit Decision Report

## 1 Application details and outcome

### 1.1. Permit application details

<b>Permit number:</b>	CPS 9360/1
<b>Permit type:</b>	Area permit
<b>Applicant name:</b>	Stockland Developments Pty Ltd
<b>Application received:</b>	21 July 2021
<b>Application area:</b>	0.02 hectares of native vegetation
<b>Purpose of clearing:</b>	To facilitate bulk earthworks associated with the construction of sewage and water infrastructure.
<b>Method of clearing:</b>	Mechanical
<b>Property:</b>	Lot 151 on Deposited Plan 63061
<b>Location (LGA area):</b>	City of Armadale
<b>Localities (suburb):</b>	Piara Waters

### 1.2. Description of clearing activities

The vegetation proposed to be cleared is 0.02 hectares is contained within one patch of native vegetation within Lot 151 on Deposited Plan 63061, Piara Waters (see Figure 1, Section 1.5). The purpose of the application is to facilitate bulk earthworks associated with the construction of sewage and water infrastructure.

### 1.3. Decision on application

<b>Decision:</b>	Granted
<b>Decision date:</b>	1 June 2022
<b>Decision area:</b>	0.02 hectares of native vegetation (revised), as depicted in Section 1.5, below.

### 1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Water and Environmental Regulation (DWER) advertised the application for public comment on 29 July 2021 for a 14-day period, with no public comments received.

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

The assessment identified that the proposed clearing may result in:

- the potential introduction and spread of weeds and dieback throughout the subject lot, which could impact on the quality of the adjacent vegetation and its habitat values.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined the proposed clearing can be managed to a degree that is unlikely to lead to an unacceptable risk to environmental values.

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

- avoid, minimise to reduce the impacts and extent of clearing; and
- take hygiene steps to minimise the risk of the introduction and spread of weeds and dieback.

## 1.5. Site map



**Figure 1:** Map of the application area. The area cross-hatched yellow indicates the area authorised to be cleared under the granted clearing permit.

## 2 Legislative context

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

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

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

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Planning and Development Act 2005* (WA) (P&D 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)

### **3 Detailed assessment of application**

#### **3.1. Avoidance and mitigation measures**

Information was submitted by the applicant, demonstrating that “the proposed clearing area was delineated to avoid clearing of a number of native trees and minimised as far as practicable to result in the clearing of one very small, highly degraded patch of native vegetation” (Strategen-JBS&G, 2021).

The Delegated Officer was satisfied that the applicant has undertaken reasonable measures to avoid and minimise potential impacts of the proposed clearing on environmental values.

#### **3.2. Assessment of impacts on environmental values**

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix B) and the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values.

The assessment against the clearing principles (see Appendix C) identified that the impact of the proposed clearing is unlikely to lead to an unacceptable risk to environmental values.

#### **3.3. Relevant planning instruments and other matters**

##### **Development approval**

The City of Armadale (the City) advised DWER that the application area in which the clearing is proposed is part of a larger area of future urban development (City of Armadale, 2021). This area was recently rezoned to ‘Urban’ under the Metropolitan Region Scheme and an Amendment (Amendment No.118) to rezone the land to ‘Urban Development’ under the City’s Town Planning Scheme No.4 (TPS No.4) has been undertaken (City of Armadale, 2021).

The applicant originally applied to clear 0.05 hectares of native vegetation at Lot 151 on Deposited Plan 63061, Piara Waters, for the purpose of facilitating bulk earthworks associated with the construction of sewage and water infrastructure. The application was advertised for public comment on 29 July 2021 for a 14-day period, with no public comments received. On 23 September 2021, the applicant received an Agreement in Principle (AIP) letter from DWER, which advised that a decision on the clearing permit had been deferred pending Development Approval (DA) being approved by the City of Armadale.

The applicant subsequently wrote to DWER requesting that the application area be revised to 0.11 hectares, which was re-advertised on 16 March 2022 for a 7-day period to reflect a change in the size of the application area (increase of 0.05 hectares). No public comments were received.

Following approval of the DA for Bulk Earthworks (10.2021.300.1), the applicant was advised by DWER that the revised application area of 0.11 hectares did not align with the area approved under the DA. On that basis, the application area was further revised down to 0.02 hectares to align with the area covered by the DA.

### **Contaminated sites**

DWER's Contaminated Sites Branch (CS) advised that Lot 151 on Deposited Plan 63061, Piara Waters and land that is immediately adjacent (Lots 13, 14, 15 and 150) were reported as known or suspected contaminated sites on 15 July 2021 and are currently awaiting classification under the *Contaminated Sites Act 2003* (CS Act) (DWER, 2022). It was reported that contamination was identified on Lot 151 associated with fuel storage such as minor spills and leaks associated with workshops and laydown areas. CS advised that advice was provided to the City of Armadale, which recommended contamination conditions and advice notes are applied to the approved DA and that ongoing investigations and the remediation of hydrocarbon-impacted soil are in progress to address the impacted areas. CS advised that the development comprises of bulk earthworks including the alteration of ground levels by the spreading of clean fill and the cutting of existing soil and the removal of vegetation to facilitate future residential development. Based on the information above, CS advised it does not appear that the proposed clearing would interfere with any contaminated sites-related remediation of the site and does not have any objections to the clearing proposal (DWER, 2022).

Further advice from CS advise that acid sulfate soil risk mapping indicates that portions of the site lie within an area identified as having a high to moderate risk of acid sulfate soils occurring within three metres of the natural soil surface. As the proposed development works have the potential to disturb acid sulfate soils, CS have advised the City to include an advice note within the DA to ensure that the applicant refers to DWER's acid sulfate soil guidelines for information to assist with the management of ground and/or groundwater disturbing works (DWER, 2022).

### **Groundwater area**

The application area is located within the Jandakot Groundwater Area proclaimed under the *Rights in Water and Irrigation Act 1914* (RIWI Act). Abstraction of groundwater or surface water will not be undertaken and additional permitting by the department under the RIWI Act will not be required (DWER, 2022).

### **Aboriginal sites**

It is the permit holder's responsibility to comply with the *Aboriginal Heritage Act 1972* (WA) and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

**End**



## Appendix A. Additional information provided by applicant

Information	Reference
A reconnaissance flora and vegetation survey to assess vegetation type and condition, habitat suitability and potential presence of conservation significant flora, fauna, and communities.	Strategen JBS&G (2021) (on behalf of the applicant)
Development Approval (DA) for Bulk Earthworks for Lots 13, 14, 15 & 150 Armadale Road and Lot 151 Warton Road, Piara Waters from the City of Armadale (ref: 10.2021.300.1)	Strategen JBS&G (2022a) (on behalf of the applicant)
Submission of other environmental assessments, forming part of the application: <ul style="list-style-type: none"> <li>- Environmental Assessment Report: Piara Waters. Unpublished report prepared for Stockland Developments Pty Ltd, June 2021. Strategen JBS&amp;G (2022);</li> <li>- Fauna Assessment West Piara Waters. Unpublished report prepared for CoTerra. Harewood, G. (2018); and</li> <li>- Flora and Vegetation Assessment West Piara Southern Development Precinct, Piara Waters. Unpublished report prepared for CoTerra Environment, on behalf of M Land Pty Ltd. Focus Vision Consulting (2021).</li> </ul> <p><b>Note:</b> these assessments were undertaken to support the Structure Plan submitted to the City of Armadale for Lots 13, 14, 15, 88, 99, 100, 150, 151, 603, 9001, 9005, 9600, 9800 on Deposited Plan 63061, Piara Waters (and did not solely concentrate on the application area)</p>	Strategen JBS&G (2022d) (on behalf of the applicant)

## Appendix B. Site characteristics

Characteristic	Details
Local context	<p>The area proposed to be cleared consists of an isolated and small patch of native vegetation within a predominantly cleared lot within the intensive land use zone of Western Australia.</p> <p>The subject lot is zoned urban and is adjacent to urban zoning to the south-east. Small urban residential lots are located south-east of the application areas. Largely cleared rural blocks are adjacent to the application area to the north and south-west and Warton Rd and rural residential lots are adjacent to the north. Remnant vegetation is mapped within the adjacent lot to the south-west and to the north-west.</p> <p>Spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 18.43 per cent of the original native vegetation cover.</p>
Conservation areas and ecological linkages	<p>A regional ecological linkage is mapped to the west and south of the application area, however, given the lack of remnant vegetation within the application area, the linkage value is limited (Strategen JBS&amp;G, 2022d).</p> <p>The application area is not located within any conservation areas, however, it is located east of Bush Forever Site 390, which is known as the 'Fraser Road Bushland, Banjup' and is approximately 280 metres south a Class C Unmanaged Reserve.</p>
Vegetation description	<p>The application area was subject to a flora and vegetation assessment in 2011 undertaken by Bennett Environmental Consulting (Strategen JBS&amp;G (2021)). This survey reported the vegetation within the application area as 'planted or non-native'. This classification was carried out prior to a subsequent flora and vegetation assessment by Focused Vision Consulting in 2021 (Strategen JBS&amp;G, 2022d), which did not re-assess the vegetation given the previous classification as non-native.</p> <p>To confirm the classification, a reconnaissance flora and vegetation assessment was undertaken by Strategen-JBS&amp;G in June 2021. This assessment found that the application area showed significant evidence of degradation over a long period of time. Weed invasion and historical clearing have removed any native understorey within both</p>

Characteristic	Details
	<p>patches. The reconnaissance survey (Strategen JBS&amp;G, 2021) found the patch of native vegetation to be classified as a small thicket of <i>Kunzea glabrescens</i> with a <i>Calothamnus</i> sp. and a conifer.</p> <p>This is inconsistent with the mapped vegetation type:</p> <ul style="list-style-type: none"> <li>• Southern River Complex (42) – described as open woodland of <i>Corymbia calophylla</i> (Marri) – <i>Eucalyptus marginata</i> (Jarrah) – Banksia species with fringing woodland of <i>Eucalyptus rudis</i> (Flooded Gum) – <i>Melaleuca rhapsiophylla</i> (Swamp Paperbark) along creek beds (Hedde et al. 1980).</li> </ul> <p>The mapped vegetation type retains approximately 18.43 per cent of the original extent (Government of Western Australia, 2019).</p>
Vegetation condition	<p>The reconnaissance survey (Strategen JBS&amp;G, 2021) indicated the vegetation within the application area to be in degraded to completely degraded (Keighery, 1994) condition, described as:</p> <ul style="list-style-type: none"> <li>• Degraded – Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.</li> <li>• Completely Degraded - The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.</li> </ul> <p>The full Keighery (1994) condition rating scale is provided in Appendix D.</p>
Climate	<p>The climate in of the proposed clearing area is warm and temperate. The annual mean rainfall for the application area is 900 millimetres. The evapotranspiration for the application area is 800 millimetres.</p>
Topography	<p>The topography of the application area is approximately 28-30 meters AHD.</p>
Soil description	<p>The soil is mapped as Bassendean B1 Phase (212Bs_B2) – Described as low to very low relief dunes, undulating sandplain and discrete sand rises with deep bleached grey sands sometimes with a pale yellow B horizon or a weak iron-organic hardpan at depths generally greater than 2 meters.</p>
Land degradation risk	<p>The application areas have the following land degradation risks:</p> <ul style="list-style-type: none"> <li>• &lt;3% of the map unit has a moderate to high flood risk</li> <li>• 30-50% of the map unit has a moderate to high flood risk</li> <li>• &gt;70% of the map unit has a high to extreme phosphorus export risk</li> <li>• &gt;70% of map unit has a high subsurface acidification risk or is presently acid</li> <li>• 3-10% of map unit has a moderate to very high risk of waterlogging risk</li> <li>• &gt;70% of map unit has a moderate to very high waterlogging risk</li> <li>• 3-10% of map unit has a high to extreme wind erosion risk</li> <li>• 10-30% of map unit has a high to extreme wind erosion risk</li> <li>• 30-50% of map unit has a high to extreme wind erosion risk</li> <li>• Groundwater Salinity (Total Dissolved Solids): &lt;500 mg/L</li> </ul> <p>Acid sulfate soil mapping indicates that there is a 'moderate to high' risk of disturbing acid-forming material within 3 metres of the soil surface.</p>
Waterbodies	<p>The desktop assessment and aerial imagery indicates that the application area is approximately 16 metres from a mapped multiple use wetland (UFI 6931). Vegetation in the application area is within a completely degraded to degraded (Keighery 1994) condition and its removal will not impact on the hydrological function of the nearby wetland.</p>

Characteristic	Details
	The nearest watercourse (minor tributary) to the clearing area is located 3.6 km southeast of the application area.
Hydrogeography	<p>The application area is located within the Priority 2 Jandakot Underground Water Pollution Control Area and the Jandakot Groundwater Area proclaimed under the <i>Rights in Water and Irrigation Act 1914</i>. The application area is also located within the proclaimed Southern River surface water area.</p> <p>Depth to groundwater is approximately 26 mAHD to 30 mAHD, which equates to approximately 0 m to 9 m below ground level based on regional topographic contours. The groundwater flow direction within the site is broadly towards the north-east (Strategen JBS&amp;G, 2022d)</p>
Flora	<p>There are 199 records from 61 flora species of conservation significance within the local area, 35 of which can be found on the same soil type as the application area. There are no records of priority or threatened flora species within 1 km of the application area.</p> <p>The application area is not likely to have any threatened or priority flora species for the following reasons:</p> <ul style="list-style-type: none"> <li>• Degraded to completely degraded condition of the application area,</li> <li>• Absence of native understorey in the application area,</li> <li>• Largely cleared nature of the subject lot,</li> <li>• Surrounding land use comprising residential dwellings, grazing, and rural residential; and</li> <li>• Previous surveys did not detect the presence of any priority or threatened species.</li> </ul>
Ecological communities	<p>There are 2,254 records of Threatened or Priority Ecological Communities within the local area. The most common is the Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region Threatened Ecological Community (TEC) with 2,195 records. The closest record of the Banksia Woodlands TEC is mapped approximately 60 metres west of the application area.</p> <p>The application area does not intersect any Threatened or Priority Ecological Communities. The species composition and condition of the application is not representative of any TECs or PECs.</p>
Fauna	<p>There are 4,792 records from 57 fauna species of conservation significance in the local area. The most common species is <i>Calyptorhynchus latirostris</i> (Carnaby's Cockatoo) with 1,916 records, followed by <i>Isoodon fusciventer</i> (Quenda) with 1,119 records.</p> <p>The closest record to the application area is of a Quenda located approximately 75 metres south-east.</p> <p>The closest confirmed breeding location is approximately 9 kilometres north-west of the application area. A confirmed Black Cockatoo roost is located approximately 1.3 kilometres south-west east of the application area. The area is not mapped as Black Cockatoo feeding habitat.</p> <p>A fauna assessment was undertaken by Harewood in 2019, during which no fauna habitat values were reported within the area (Strategen JBS&amp;G, 2022d). This was confirmed by the reconnaissance survey completed by Strategen-JBS&amp;G (2021).</p>

## B.1. 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*					
Swan Coastal Plain	1,501,221.93	579,813.47	38.62	222,916.97	14.85
Vegetation complex**					
Southern River Complex	58,781.48	10,832.18	18.43	940.36	1.60

\*Government of Western Australia (2019a)

\*\*Government of Western Australia (2019b)

## Appendix C. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
<b>Environmental value: biological values</b>		
<p><u>Principle (a):</u> "Native vegetation should not be cleared if it comprises a high level of biodiversity."</p> <p><u>Assessment:</u></p> <p>The proposed clearing area is not likely to contain locally or regionally significant fauna, flora or assemblages of plants. The application area:</p> <ul style="list-style-type: none"> <li>contains a small thicket of <i>Kunzea glabrescens</i> with a <i>Calothamnus sp.</i> in a degraded to completely degraded (Keighery, 1994) condition, which lacks native vegetation in the understorey, reflecting the extremely disturbed nature of the site;</li> <li>does not resemble habitat for conservation significant fauna;</li> <li>does not resemble habitat for threatened or priority flora; and</li> <li>does not contain native vegetation which represents a TEC or PEC.</li> </ul>	Not likely to be at variance	No
<p><u>Principle (b):</u> "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><u>Assessment:</u></p> <p>The area proposed to be cleared does not contain foraging, roosting, or breeding habitat for conservation significant fauna. The application area is in a degraded to completely degraded (Keighery, 1994) condition and with the absence of native understorey in each patch in conjunction with the surrounding land uses, means the vegetation is unlikely to provide significant habitat for fauna.</p>	Not likely to be at variance	No
<p><u>Principle (c):</u> "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."</p> <p><u>Assessment:</u></p> <p>The application area is unlikely to contain habitat for threatened flora species listed under the BC Act due to the degraded to completely degraded condition (Keighery, 1994) of the vegetation within the application area, comprising of a small thicket of <i>Kunzea glabrescens</i> with a <i>Calothamnus sp.</i>, which lacks native vegetation in the understorey (Strategen JBS&amp;G, 2022d).</p>	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
<p><u>Principle (d):</u> <i>“Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community.”</i></p> <p><u>Assessment:</u></p> <p>The proposed clearing area does not contain species representative of a TEC listed under the BC Act or EPBC Act.</p>	Not likely to be at variance	No
<b>Environmental value: significant remnant vegetation and conservation areas</b>		
<p><u>Principle (e):</u> <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p><u>Assessment:</u></p> <p>The local area retains approximately 18.43 per cent of the original native vegetation cover. The National Objectives and Targets for Biodiversity Conservation 2001-2005 include a target to have clearing controls in place that prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750 (Commonwealth of Australia 2001). In the Perth Metropolitan and Bunbury regions, the Environmental Protection Authority (EPA) has a modified objective to retain at least 10 per cent of the pre-clearing extent of vegetation complexes for defined constrained areas (intensely developed) (EPA, 2008).</p> <p>Given the vegetation in the application area is in a degraded to completely degraded (Keighery, 1994) condition, comprises limited environmental values and does not provide any ecological linkage function, it is not considered to represent significant remnant native vegetation in a local area context.</p>	Not likely to be at variance	No
<p><u>Principle (h):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.”</i></p> <p><u>Assessment:</u></p> <p>The application area occurs adjacent to Bush Forever Site 390, which is known as the ‘Fraser Road Bushland, Banjup’ however, the proposed clearing is physically separated from the Bush Forever site by Warton Road and associated the road reserve to the west. The application area is approximately 280 metres south a Class C Unmanaged Reserve.</p>	Not likely to be at variance	No
<b>Environmental value: land and water resources</b>		
<p><u>Principle (f):</u> <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment:</u></p> <p>There are no wetlands or watercourses mapped within the application area. The application area is approximately 16 metres away from a mapped multiple use wetland (UFI 6931), which is noted to be predominately cleared. The nearest watercourse (minor tributary) to the clearing area is located 3.6 km south-east of the application area.</p> <p>Vegetation in the application area is within a completely degraded to degraded (Keighery, 1994) condition. The lack of native vegetation growing in association with the wetland indicates it has limited environmental value and the very small extent of clearing proposed will not have a detrimental impact of the hydrological function of the mapped multiple use wetland.</p>	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
<p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u></p> <p>Portions of the mapped soils are highly susceptible to acidification, nutrient export and waterlogging. Acid sulfate soil mapping indicates that there is a ‘moderate to high’ risk of disturbing acid-forming material within 3 metres of the soil surface within the application area.</p> <p>Noting the very small extent of the application area, the condition of the vegetation, and the filling of the site to occur as part of the development approval, the proposed clearing is not likely to have an appreciable impact on land degradation.</p>	Not likely to be at variance	No
<p><u>Principle (i):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.”</i></p> <p><u>Assessment:</u></p> <p>There are no wetlands or watercourses mapped within the application area. Given the extent of the clearing, it is considered unlikely to result in impacts to the nearby wetland.</p> <p>The application area is located within a mapped Priority 2 drinking water source area (mapping to be updated to Priority 3), however, given the very small extent of the application area, the proposed clearing is not likely to have an appreciable impact on the water quality.</p>	Not likely to be at variance	No
<p><u>Principle (j):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</i></p> <p><u>Assessment:</u></p> <p>The application area is not located within a mapped floodplain area, and the mapped soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding.</p>	Not likely to be at variance	No

## Appendix D. Vegetation condition rating scale

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

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

### Measuring vegetation condition for the South West and Interzone Botanical Province (Keighery, 1994)

Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.

Condition	Description
Very good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.
Completely degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

**Appendix E. Biological survey information excerpts**

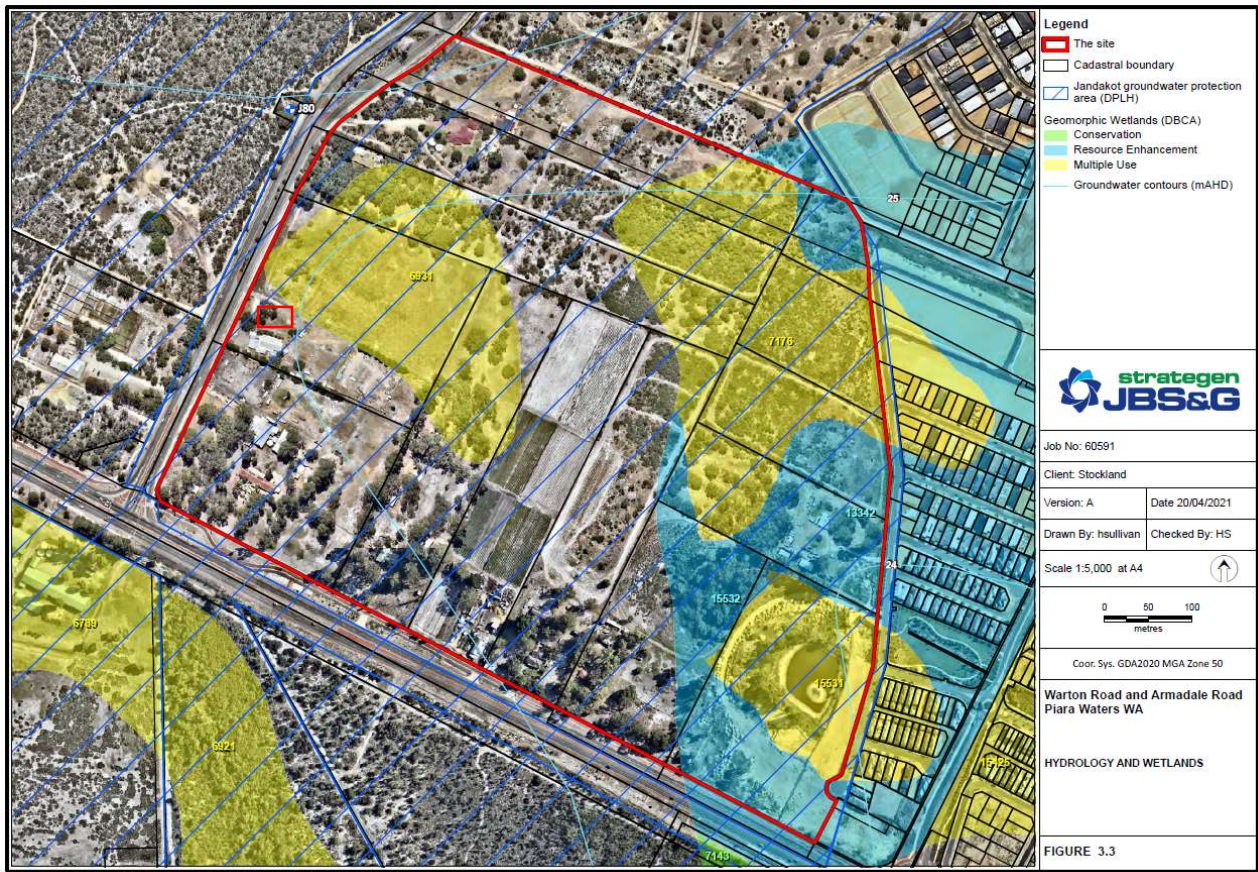
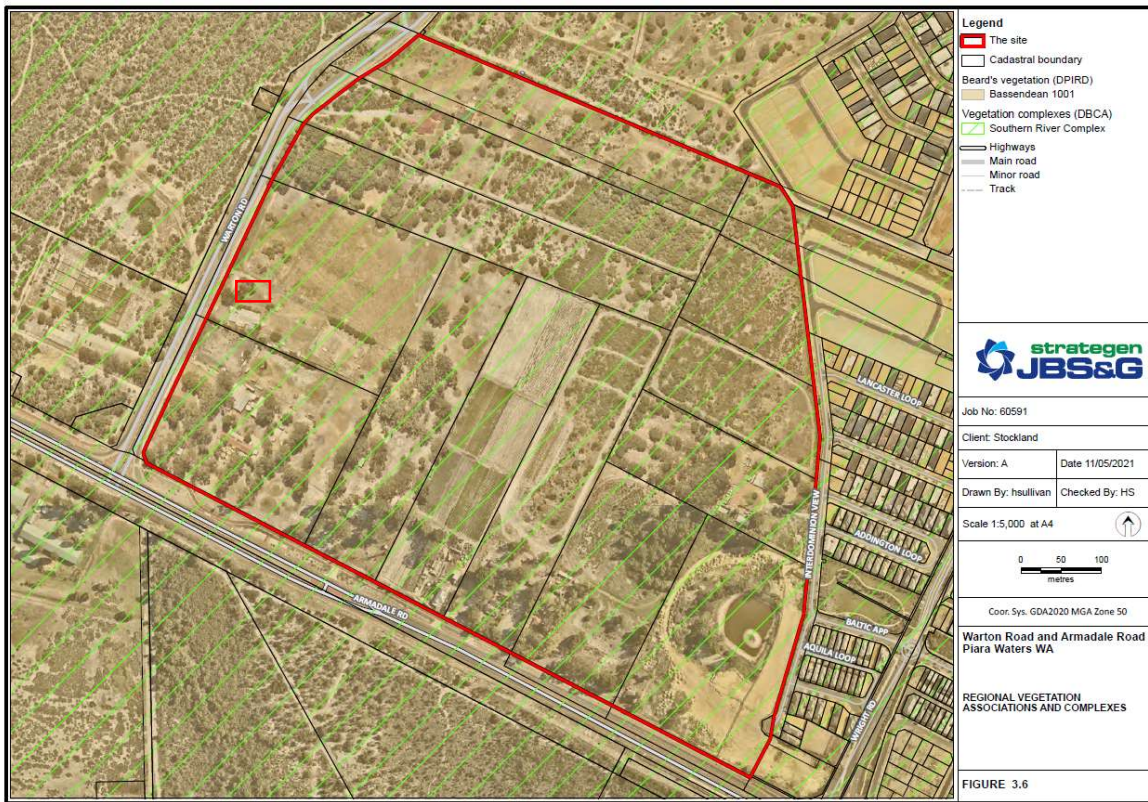


Figure 2: Hydrology and wetlands (Strategen-JBS&G, 2022d)

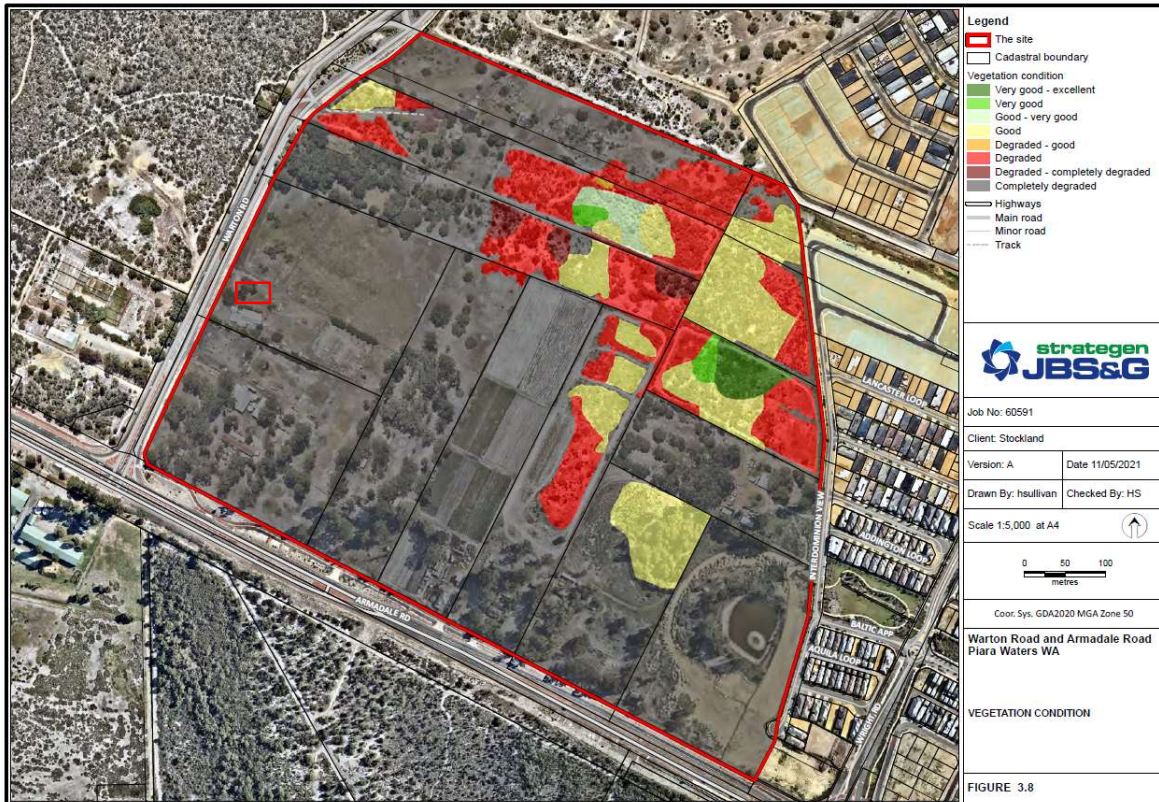


**Figure 3: Acid Sulfate Soils (Strategen-JBS&G, 2022d)**

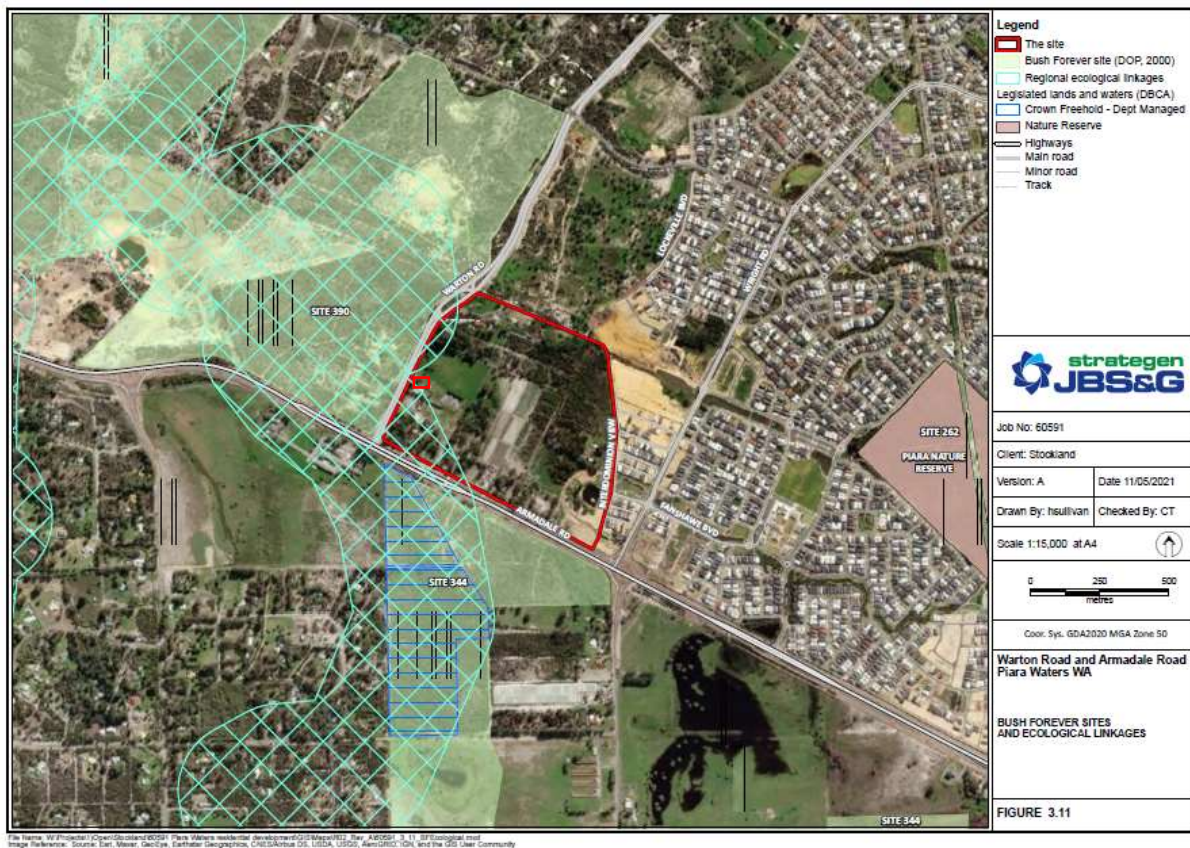


**Figure 4: Vegetation Associations and Complexes (Strategen-JBS&G, 2022d)**





**Figure 5: Vegetation Condition (Strategen-JBS&G, 2022d)**



**Figure 6: Bush Forever Sites and Ecological Linkages (Strategen-JBS&G, 2022d)**

## Appendix F. Sources of information

### F.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- 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 Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems
- Wheatbelt Wetlands Stage 1 (DBCA-021)

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) – Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)



## Clearing Permit Decision Report

### F.2 References

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- City of Armadale (2022a). *Further advice for clearing permit application CPS 9360/1 and Development Approval*, received 7 April 2022 (DWER Ref: DWERDT588132)
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