

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number: CPS 8696/2

Permit Holder: City of Swan

Duration of Permit: 26 September 2020 to 26 September 2025

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

PART I -CLEARING AUTHORISED

1. Purpose for which clearing may be done

Clearing for the purpose of upgrading and the extension of Stock Road.

2. Land on which clearing is to be done

Lot 7 on Diagram 55166, Bullsbrook

Lot 6 on Diagram 58220, Bullsbrook

Lot 6 on Diagram 55166, Bullsbrook

Lot 55 on Diagram 69135, Bullsbrook

Lot 45 on Plan 23177, Bullsbrook

Lot 44 on Plan 23177, Bullsbrook

Lot 43 on Plan 23177, Bullsbrook

Lot 42 on Plan 23177, Bullsbrook

Lot 3054 on Plan 143778, Bullsbrook

Lot 300 on Plan 33215, Bullsbrook

Lot 2 on Diagram 61074, Bullsbrook

Lot 1 on Diagram 61074, Bullsbrook

Lot 188 on Plan 4804, Bullsbrook

Lot 187 on Plan 6225, Bullsbrook

Lot 186 on Plan 6225, Bullsbrook

Lot 184 on Plan 4804, Bullsbrook

Lot 1361 on Plan 248504, Bullsbrook

Lot 127 on Plan 406021, Bullsbrook

Lot 101 on Plan 27953, Bullsbrook

Lot 800 on Plan 419737, Bullsbrook

Lot 801 on Plan 419737, Bullsbrook

Lot 802 on Plan 419737, Bullsbrook

Lot 803 on Plan 419737, Bullsbrook

Lot 1001 on Plan 25292, Bullsbrook

Lot 1000 on Plan 25292, Bullsbrook

Almeria Parade Road Reserve (PIN 11720343), Bullsbrook

Easement (PIN 12357649), Bullsbrook

Moolicar Road Reserve (PIN 11720299), Bullsbrook

Great Northern Highway Road Reserve (PINs 1255799; 1255800; 1268974; 11720279; 11720295; 11720296), Bullsbrook

Railway Parade Road Reserve (PIN 11727300), Bullsbrook

Railway Reserve (PIN 11523665), Bullsbrook

Stock Road Reserve (PINs 1268973; 1343303; 11720307; 11720308), Bullsbrook

CPS 8696/2, 24 May 2022 Page 1 of 4

3. Area of Clearing

The Permit Holder must not clear more than 4.57 hectares of native vegetation within the area shaded yellow on attached Plan 8696/2a.

4. Application

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

5. Type of clearing authorised

This Permit authorises the Permit Holder to clear native vegetation for the activities described in condition 1 of this Permit to the extent that the Permit Holder has the power to carry out works involving clearing for those activities under the *Local Government Act 1995* or any other written law.

PART II - MANAGEMENT CONDITIONS

6. Avoid, minimise and reduce the impacts and extent of clearing

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in 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.

7. Weed and dieback control

When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the 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 *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.

8. State Planning Policy 2.8 Offset

The Permit Holder shall plant and maintain 1180 native trees, comprising a 50/50 ratio of *Eucalyptus Rudis* and *Melaleuca rhaphiophylla* tubestock within the offset area cross-hatched red on Plan 8696/2b, within Lot 6 on Diagram 55166, Bullsbrook.

The Permit Holder must implement the following activities in relation to the offset:

- (a) install a fence of 1.8 metres high around the offset area;
- (b) undertake weed management prior to planting within the offset area;
- (c) undertake annual weed management for a period of three (3) years post-planting within the offset area by;
 - (i) spraying weeds with the use of herbicides at a distance of no less than 1.5 metres from seedlings planted; and
 - (ii) hand weeding at a distance of no less than 1.5 metres from seedlings planted.
- (d) undertake annual monitoring of the offset area for a period of three (3) years post-planting; and
- (e) implement further planting as required to ensure the designated native tree survival rate of 25 per cent is achieved within three years of the initial planting within the offset area.

9. Offsets – agreement to reserve

The Permit Holder shall:

- (a) provide evidence within 12 months of the permit commencement date that an agreement to reserve under section 30B of the *Soil and Land Conservation Act 1945* has been placed over the *agreement area* for the protection and management of vegetation; and
- (b) provide to the CEO a copy of the executed agreement to reserve.

PART III - RECORD KEEPING AND REPORTING

10. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit, in relation to the clearing of native vegetation authorised under this Permit:

- (a) 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 or decimal degrees;
- (b) the date that the area was cleared;
- (c) the size of the area cleared (in hectares);
- (d) actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 6 of this Permit:
- (e) actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with condition 7 of this Permit; and
- (f) actions taken to implement the State Planning Policy 2.8 offset in accordance with condition 8 of this Permit.

11. Reporting

- (a) The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:
 - (i) of records required under condition 10 of this Permit; and
 - (ii) concerning 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 was undertaken between 1 January to 31 December of the preceding calendar year, a written report confirming that no clearing under this permit has been carried out, must be provided to the CEO on or before 30 June of each year.
- (c) Prior to 26 June 2025 the Permit Holder must provide to the CEO a written report of records required under condition 10 of this Permit where these records have not already been provided under condition 11(a) of this Permit.

DEFINITIONS

The following meanings are given to terms used in this Permit:

CEO means the Chief Executive Officer of the Department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*;

agreement area means the area of land cross-hatched red on attached Plan 8696/2b;

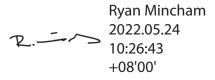
dieback means the effect of Phytophthora species on native vegetation;

fill means material used to increase the ground level, or fill a hollow;

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;

weed/s means any plant -

- (a) that is a declared pest under section 22 of the Biosecurity and Agriculture Management Act 2007; 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.

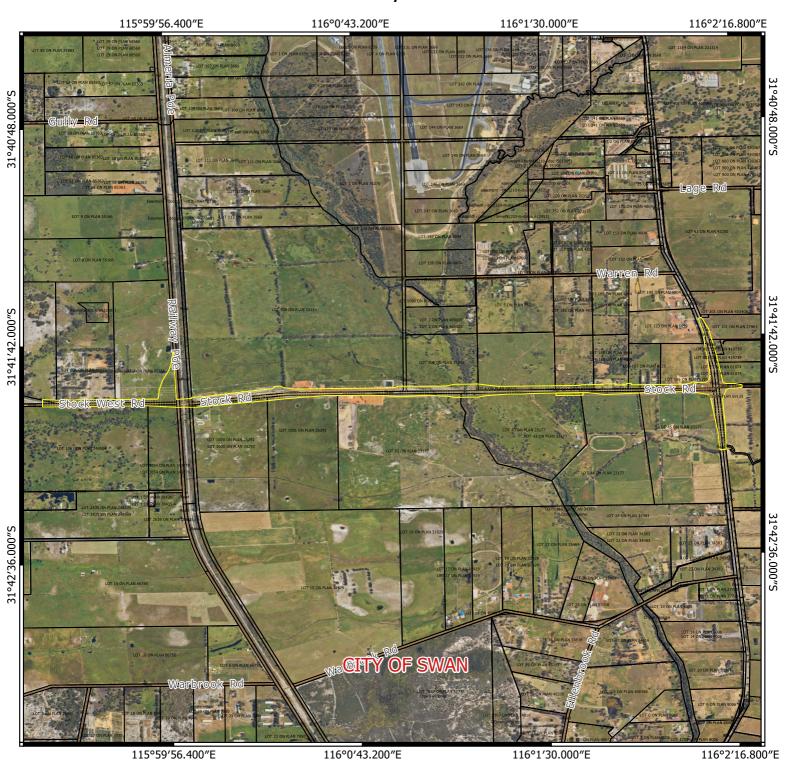


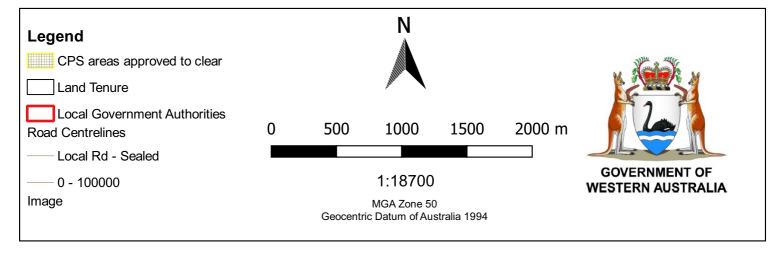
Ryan Mincham MANAGER NATIVE VEGETATION REGULATION

Officer delegated under Section 20 of the Environmental Protection Act 1986

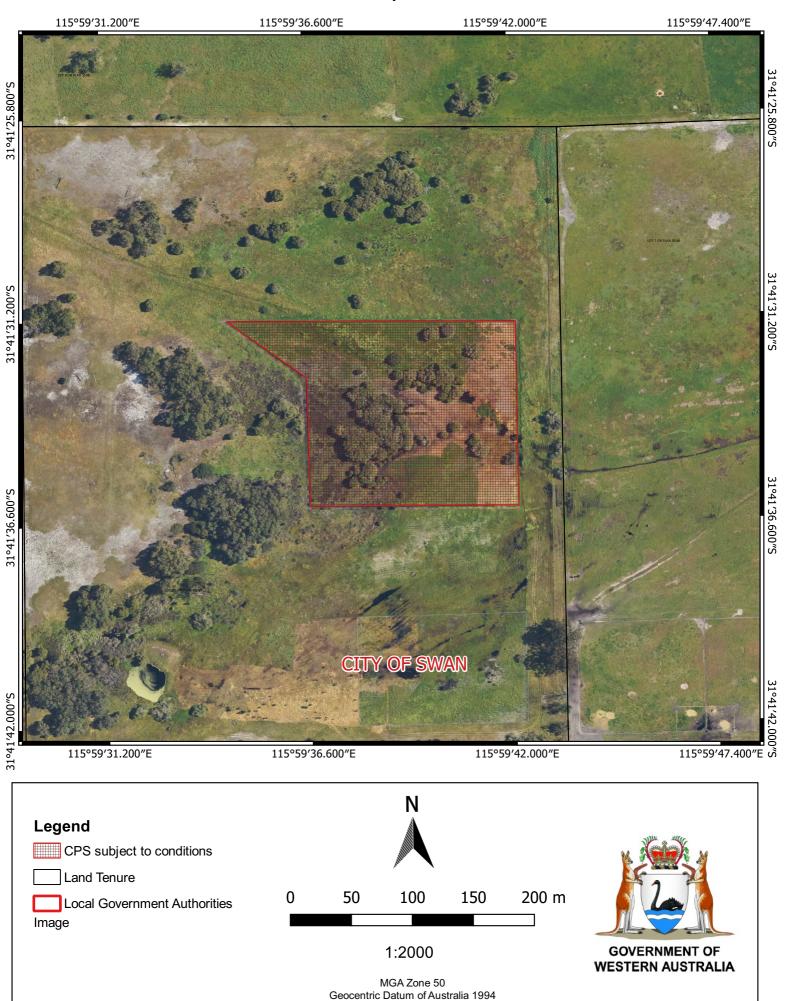
24 May 2022

CPS 8696/2a - Plan





CPS 8696/2b - Plan





Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number: CPS 8696/2

Permit type: Purpose permit

Applicant name: City of Swan

Application received: 5 January 2022

Application area: 4.57 hectares (ha) of native vegetation

Purpose of clearing: Road construction or upgrades

Method of clearing: Mechanical Removal

Property: Lot 187 on Diagram 6225

Lot 186 on Diagram 6225 Lot 7 on Diagram 55166

Lot 6 on Diagram 58220 Lot 2 on Diagram 61074

Lot 55 on Diagram 69135 Lot 188 on Plan 4804

Lot 184 on Plan 4804

Lot 45 on Plan 23177

Lot 44 on Plan 23177

Lot 43 on Plan 23177

Lot 42 on Plan 23177

Lot 1001 on Plan 25292

Lot 1000 on Plan 25292

Lot 101 on Plan 27953

Lot 300 on Plan 33215

Lot 127 on Plan 406021

Lot 3054 on Plan 143778

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Lot 801 on Plan 419737

Lot 802 on Plan 419739

Lot 803 on Plan 419739

Almeria Parade Road Reserve (Pin 11720343)

Easement (PIN 12357649)

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11720295; 11720296)

Moolicar Road Reserve (PIN 11720299)

Railway Parade Road Reserve (PIN 11727300)

Railway Reserve (PIN 11523665)

Stock Road Reserve (PINS 1268973; 1343303; 11720307; 11720308)

Location (LGA area/s): City of Swan

Localities (suburb/s): Bullsbrook

1.2. Description of clearing activities

This application is to amend Clearing Permit CPS 8696/1, which was granted on 4 September 2020. This amendment is to increase the amount of proposed clearing area from 4.41 ha to 4.57 ha (an increase of 0.16 ha), within an increased clearing footprint of 38.02 ha (an increase of 0.36 ha). The amendment is required to accommodate a modification to road design and fencing since the original clearing permit was issued.

The permit holder advised that approximately 3.2 ha of clearing has been undertaken under CPS 8696/1, since the commencement of the permit (approximately 1.6 ha in 2020 and approximately 1.6 ha in 2021). A review of annual reports submitted by the permit holder under CPS 8696/1, indicates that the permit holder has complied with all reportable conditions to date.

1.3. Decision on application

Decision: Granted

Decision date: 24 May 2022

Decision area: 4.57 hectares (ha) of native vegetation, as depicted in Section 1.5, below.

1.4. Reasons for decision

This clearing permit amendment application was made in accordance with section 51E of the Environmental Protection Act 1986 (EP Act) and was received by the Department of Water and Environmental Regulation (DWER) on 25 January 2022. DWER advertised the application for public comment for a period of 14 days, and no submissions were received.

In undertaking the assessment, and in accordance with section 51O of the EP Act, the Delegated Officer has considered the site characteristics, the Clearing Principles set out in Schedule 5 of the EP Act (Appendix A), the findings of a Detailed Flora and Vegetation Assessment (see excerpts in Appendix C) and a Basic Fauna and Targeted Black Cockatoo Assessment, relevant datasets (See Appendix D.1), relevant planning instruments, and any other pertinent matters they deemed relevant to the assessment (see Section 3).

Although the assessment determination has not changed since the assessment for CPS 8696/1, the assessment has considered environmental values of the additional area applied for under the amendment. The Delegated Officer determined that the proposed additional clearing of 0.16 hectares is not likely to lead to an unacceptable risk to environmental values and that no significant residual environmental impacts will result from the clearing.

1.5. Site map

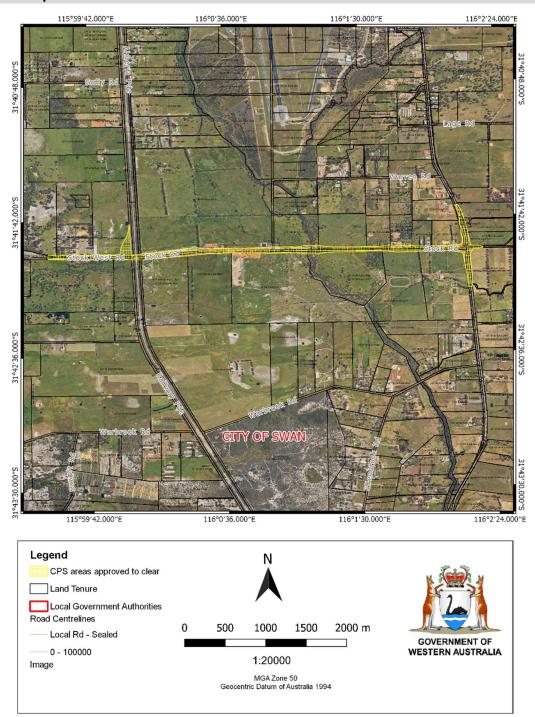


Figure 1 Map of the application area

The area cross-hatched yellow indicates the overall area authorised to be cleared under the amended clearing permit.

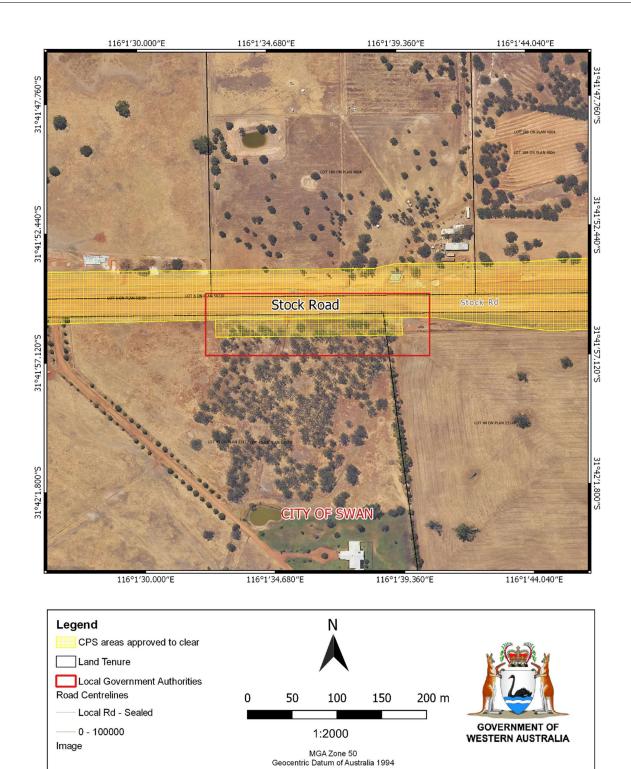


Figure 2 Amendment area

The area within the red box and cross-hatched yellow indicates the amendment area.

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 510 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)

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

Evidence was submitted by the applicant, demonstrating that avoidance and mitigation measures have been considered. 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.

Evidence provided by the applicant advised that as outlined in the original approved clearing permit proposal (CPS 8696/1), the alignment and extent of the road widening works is dictated by the location of the existing road reserve, thus consideration of alternative alignments (and any resulting opportunities to strategically avoid environmental impacts) has not been possible (Emerge Associates, 2022).

Notwithstanding, impact avoidance opportunities were still considered through the road widening design process, primarily through efforts to reduce the clearing footprint wherever possible along the road alignment to reduce the magnitude of clearing required to facilitate the widening works (Emerge Associates, 2022). Similarly, opportunities to avoid impacts within the amendment area are limited due to the fixed location of the road widening works and the new boundary fence alignment. Further, the City of Swan hopes to opportunistically retain any *Casuarina obesa* trees within the amendment area where practical and where their removal is not necessary for completion of the fence installation or road widening works. It is anticipated that a number of trees may be suitable for opportunistic retention in this respect (Emerge Associates, 2022).

Due to the nature of the road upgrade project and the absence of alternative alignment options, there are no opportunities to avoid impacts, however the residual impacts to native vegetation within the wetland are not considered to be significant given its current composition and condition (see section 3.2.1 for further details) (Emerge Associates, 2022). Further the applicant advised the appointed civil contractor is implementing a Construction Environmental Management Plan (CEMP) during construction, which contains a range of environmental management measures to minimise environmental impacts (Emerge Associates, 2022).

Based on the composition, condition and extent of native vegetation proposed to be impacted through the proposed amendment, in addition to the impact mitigation measures outlined above, the proposed amendment is not anticipated to result in a significant residual impact. As such, no offsets are required for the additional clearing area. It is noted that a State Planning Policy (SPP) 2.8 offset has already been approved for the project through CPS 8696/1, associated with impacts to native vegetation in proximity to Ellen Brook. The additional clearing impacts proposed within the amendment area are unrelated to this offset requirement.

3.2. Assessment of impacts on environmental values

The proposed amendment to CPS 8696/1 is to increase the proposed clearing area from 4.41 ha to 4.57 ha (an increase of 0.16 ha clearing area), within an increased clearing footprint of 38.02. Based on a review of available information, it is not considered likely that the clearing of an additional 0.16 hectares will significantly alter the impact

of the clearing approved under CPS 8696/1. In assessing the application, the Delegated Officer has had regard for the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values.

The amendment area comprises of an active pasture used for grazing, with native vegetation limited to approximately 25 *Casuarina obesa* trees (Emerge Associates (2022). No threatened or priority flora, nor any threatened or priority ecological communities, are known or considered likely to occur within the amendment area.

Fauna habitat values within the amendment area are similar to the remainder of the project area, in that fauna habitat values are generally limited, primarily providing habitat that is suitable for common and widespread native species with non-specific habitat requirements. The fauna assessment also determined that habitat values are compromised by the removal of most of the native vegetation and impacts of historical degradation. The amendment area does not contain any foraging, roosting or breeding habitat for black cockatoos (Emerge Associates, 2022).

A review of current environmental information (Appendix D) reveals that the assessment against the clearing principles has not changed from the Clearing Permit Decision Report CPS 8696/1. The additional area of proposed clearing contains similar values to those assessed within Clearing Permit Decision Report CPS 8696/1. The assessment against environmental values is unchanged and can be found in the Decision Report prepared for Clearing Permit CPS 8696/1.

The assessment of the environmental value (water resources) in the additional area required further consideration and is detailed below.

3.2.1. Environmental value: water resources

In regard to water resources, current databases indicate the amendment area intersects part of a Conservation Category Wetland (CCW) mapped in the Department of Biodiversity, Conservation and Attractions (DBCA) Geomorphic Wetlands of the Swan Coastal Plain database (UFI 12433), see Figure 2 on the page below.

Emerge Associates (2022) inspected CCW UFI 12433, noting aspects such as hydrology, vegetation and landform, which was later assessed against the DBCA (2017) "A methodology for the evaluation of specific wetland types on the Swan Coastal Plain, Western Australia" to determine the appropriate management category for the wetland. Based on this assessment, Emerge Associates (2022) determined CCW UFI 12433 represents a 'resource enhancement' wetland (REW), rather than a CCW. Emerge Associates (2022) noted that CCW 12433 had been subject to historical and ongoing disturbance from agricultural land use.

In terms of hydrological function, the wetland is mapped as a palusplain (a seasonally waterlogged flat). This is consistent with observations made onsite by Emerge Associates (2022), as it comprises a flat area of paddock that becomes waterlogged during winter months. Overall, observations from the road reserve indicates that the wetland does not support 'a high level of attributes and functions' typically associated with CCWs (Emerge Associates, 2022). It is likely the wetland aligns with a lower wetland management category (REW or MUW), due to the high level of vegetation disturbance and modification (Emerge Associates, 2022).

The CCW is situated within private property and forms part of an active paddock, which was observed to be used for sheep and horse grazing and the vegetation within the CCW appears to be limited to *Casuarina obesa* trees over non-native paddocks grasses, and was determined to be in 'degraded' condition (Emerge Associates, 2022). Emerge Associates (2022) noted likely due to the significant grazing pressures, native understorey, midstorey or overstorey species were not observed, including foliage around the base of *C. obesa trees* within reach of feeding sheep, with no other wetland vegetation observed. Other vegetation is limited to non-native paddock grasses and overall, native vegetation within the wetland was determined to be in 'degraded' condition and there is a high level of vegetation disturbance and modification within the wetland, such that it no longer represents an intact wetland vegetation community (Emerge Associates, 2022).

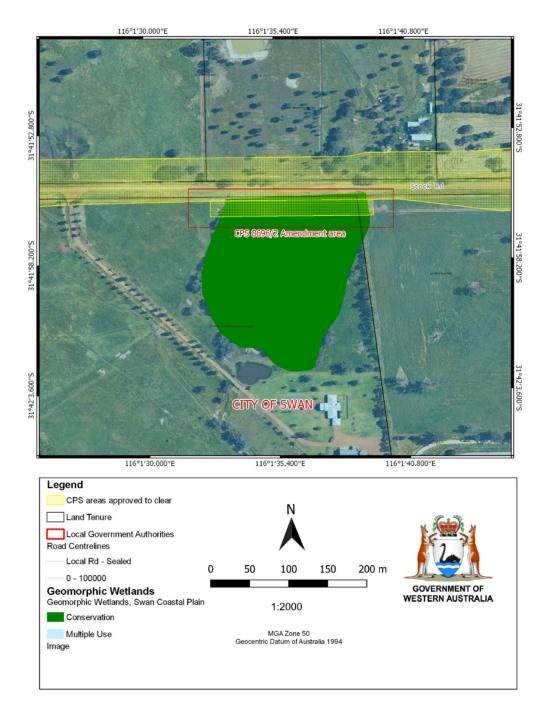


Figure 3: Aerial imagery showing the application area (yellow cross-hatched lines) located within a mapped multiple use wetland (light blue area) and a conservation category wetland (solid green area)

The amendment area is located within the Ellen Brook (Swan River System) Surface Water Area proclaimed under the *Rights in Water and Irrigation Act 1914* (RIWI Act). The permit holder holds a Bed and Banks Permit under the RIWI Act (Instrument No. PMB204474(2)) for Ellen Brook and/or its tributaries.

The amendment area is not located within or adjacent to any conservation areas. Bush Forever (BF) Site 296 (Ellen Brook) occurs approximately 550 m to the west, however, project impacts to BF 296 have been addressed through a SPP 2.8 offset, required under the existing clearing permit conditions. No additional impacts to BF 296 will occur as a result of the clearing permit amendment (Emerge Associates, 2022).

A review of current environmental databases also indicates that the environmental values within CPS 8696/1 remain largely unchanged since the previous assessment of the permit and that the environmental values within the additional area are consistent with those of the existing permit area.

Given the above and the small extent of the additional proposed clearing, 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 8696/1.

3.3. Relevant planning instruments and other matters

The amendment area (and the greater application area) is located within the Swan Groundwater Area and the Ellen Brook (Swan River System) Surface Water Area proclaimed under the *Rights in Water and Irrigation Act 1914* (RIWI Act). No rivers proclaimed under the RIWI Act intersect the amendment area. The amendment area is not located in any Public Drinking Water Source Areas.

Advice received from DWER (2022) (Regulatory Services – Water branch) advised that the amendment area would not be subject to an additional requirement to obtain, or amend a permit to obstruct or interfere with a watercourse under the RIWI Act. Lot 43 on Plan 23177 has a permit, which was issued on 12 May 2021 (Instrument No. PMB204474(2)), which was assessed under CPS 8696/1. This permit is noted to authorise activities with minimal disturbance that fall within the Ellen Brook water resource and is noted to expire on 30 June 2024.

The remaining assessment against planning instruments and other matters is unchanged and can be found in the Decision Report prepared for Clearing Permit CPS 8696/1.

Appendix A. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?		
Environmental value: biological values				
Principle (a): "Native vegetation should not be cleared if it comprises a high level of biodiversity." Assessment:	Not likely to be at variance	No		
Native vegetation within the amendment area is limited to a monoculture of <i>Casuarina obesa</i> trees over non-native pasture grasses and as such, the amendment area proposed to be cleared does not contain locally or regionally significant flora, fauna, habitats, assemblages of plants (Emerge Associates, 2022).	As per CPS 8696/1			
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."	Not likely to be at variance	No		
Assessment: Native vegetation within the amendment area provides limited fauna habitat values, which have been compromised by the removal of most of the native vegetation and impacts of historical degradation. The amendment area proposed to be cleared does not contain foraging, roosting and breeding habitat for conservation significant fauna (Emerge Associates, 2022).	As per CPS 8696/1			
Principle (c): "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora." Assessment:	Not likely to be at variance	No		
Site specific surveys have confirmed that the amendment area does not contain any threatened flora species listed under the BC Act (Emerge Associates, 2022).	As per CPS 8696/1			

Assessment against the clearing principles	Variance level	Is further consideration required?
<u>Principle (d):</u> "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."	Not likely to be at variance	No
Assessment:	As per CPS	
Site specific surveys have confirmed that the amendment area proposed to be cleared, does not contain vegetation assemblages that are representative of any known or mapped state listed threatened ecological communities (TEC) Emerge Associates, 2022).	8696/1	
Environmental value: significant remnant vegetation and conservation are	eas	
Principle (e): "Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."	Not likely to be at variance	No
Assessment:	variance	
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, 2015; EPA, 2003; Government of Western Australia, 2000). The extent of the native vegetation in the local area is consistent with EPA's modified objectives for biodiversity conservation within constrained areas.	As per CPS 8696/1	
The amendment area is located within the Beermullah vegetation complex, however given the 'degraded' condition of vegetation and the absence of other native flora species besides <i>Casuarina obesa</i> trees, the native vegetation is not considered to represent an intact occurrence of the Beermullah vegetation complex and therefore is not considered to be a significant remnant of native vegetation in the area.		
Principle (h): "Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area."	Not likely to be at variance	No
Assessment:		
The amendment area is not located within or adjacent to any conservation areas. Bush Forever Site 296 (Ellen Brook) occurs approximately 550 m to the west, however, project impacts to Bush Forever 296 have been addressed through a SPP 2.8 offset, required under the existing clearing permit conditions. No additional impacts to Bush Forever 296 will occur as a result of the clearing permit amendment.		
Environmental value: land and water resources		
Principle (f): "Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."	May be at variance	Yes, see section 3.2.1 above
Assessment:	A = = = ODO	
The amendment area intersects a mapped CCW (UFI 12433), which site-specific surveys determined to be representative of a REW and transverses the Ellen Brook (mapped as a CCW). Native vegetation within with the mapped wetland is limited to <i>Casuarina obesa</i> trees, with no other native riparian vegetation (understorey, midstorey or overstorey) species occurring. Other vegetation is limited to non-native paddock grasses. Overall, native vegetation within the wetland was determined to be in 'degraded' condition and there is a	As per CPS 8696/1	

Assessment against the clearing principles	Variance level	Is further consideration required?
high level of vegetation disturbance and modification within the wetland, such that it no longer represents an intact wetland vegetation community (Emerge Associates, 2022).		
Principle (g): "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."	Not likely to be at variance	No
Assessment:		
The mapped soil type has a moderate to high susceptibility to wind erosion, nutrient export, salinity, subsurface acidification and has a high to extreme risk to water erosion. However, noting the small extent of the amendment area and the condition of the vegetation, the proposed clearing is not likely to have an appreciable impact on land degradation.	As per CPS 8696/1	
<u>Principle (i):</u> "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."	Not likely to be at variance	Yes, see section 3.2.2 above
Assessment:		
Approximately 0.03 hectares of the amendment area is noted to transverse the Ellen Brook (Swan River System) Surface Water Area, proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> (RIWI Act). The permit holder holds a Bed and Banks Permit under the RIWI Act Instrument No. PMB204474(2) for Ellen Brook and/or its tributaries. Noting the small extent of the amendment area, the proposed clearing is unlikely to impact surface water quality.	As per CPS 8696/1	
The amendment area is also located within the Swan Groundwater Area, however, given the distance to groundwater (approximately 34 metres) (DWER, 2022), the proposed clearing is unlikely to impact on groundwater quality.		
<u>Principle (j):</u> "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."	Not likely to be at variance	No
Assessment:		
The amendment area extends across a highly cleared and modified local area, which supports rural and agricultural land uses, with extensive areas of cleared land used for pasture. The area is already subject to significant land degradation processes as a result of historical and existing land uses, and existing vegetation is highly disturbed from its natural state. The small scale of the proposed clearing is unlikely to cause, or exacerbate, the incidence or intensity of flooding.	As per CPS 8696/1	

Appendix B. 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.

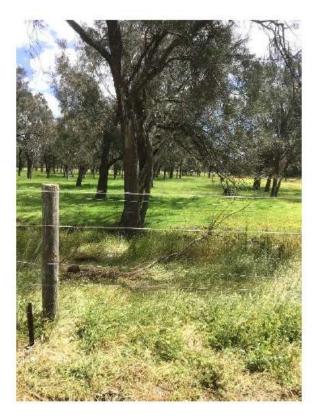
Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western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

The following photographs and figures were provided in support of the application (Emerge Associates, 2022).





Photographs 1 and 2: Casuarina obesa trees over non-native pasture grasses within the amendment area



Figure 4: Clearing permit amendment area (above)

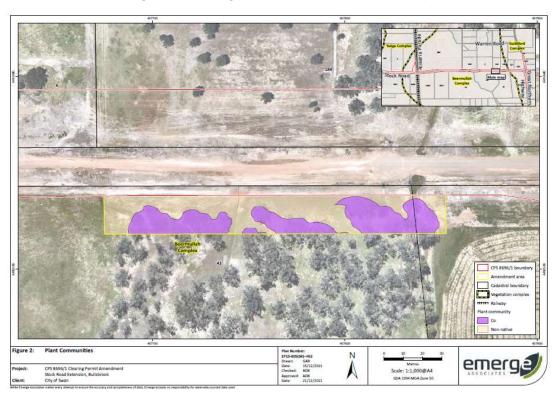


Figure 5: Plant communities within the amendment area (above)

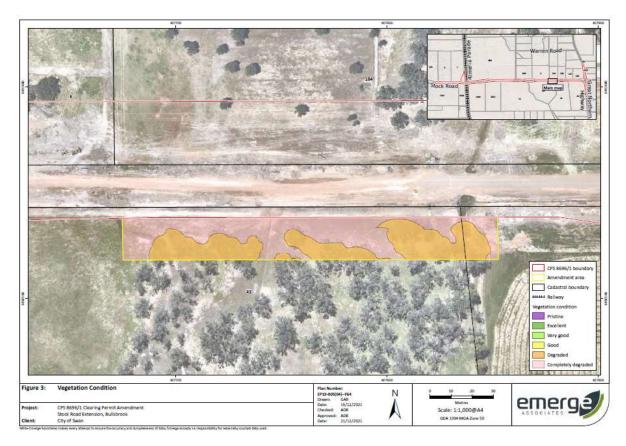


Figure 6: Vegetation condition within the amendment area (above)



Figure 7: Hydrological features within the amendment area (above)

Appendix D. Sources of information

D.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)
- 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

D.2 References

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