



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

| | |
|-------------------------------|---|
| Purpose Permit number: | CPS 10200/1 |
| Permit Holder: | Home Fire Creative Industries Pty Ltd |
| Duration of Permit: | From 16 September 2023 to 16 September 2033 |

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 bulk earthworks associated with construction of Home Fire Creative Industries studio development.

2. Land on which clearing is to be done

Lot 811 on Deposited Plan 405371, Whiteman

3. Clearing authorised

The permit holder must not clear more than 2.48 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

4. Period during which clearing is authorised

The permit holder must not clear any *native vegetation* after 16 September 2028.

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:

- avoid the clearing of *native vegetation*;
- minimise the amount of *native vegetation* to be cleared; and
- reduce the impact of clearing on any environmental value.

6. 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.

7. Directional clearing

The permit holder must conduct clearing activities in a slow, progressive manner in one direction towards adjacent *native vegetation* to allow fauna to move into adjacent *native vegetation* ahead of the clearing activity.

8. Revegetation and rehabilitation

- (a) The permit holder shall plant and maintain two (2) marri (*Corymbia calophylla*) trees within Lot 811 on Deposited Plan 405371, Whiteman, in Figure 2 of Schedule 2 with the following conditions:
 - (i) ensuring only *local provenance* seeds and propagating material are used to *revegetate* and *rehabilitate*;
 - (ii) ensure planting is undertaken at the *optimal time*;
 - (iii) undertake *weed* control and watering of *plantings* for at least two years post *planting*;
 - (iv) the *revegetation* is to commence no later than 16 September 2028.
- (b) Within 24 months of undertaking *revegetation* in accordance with condition 8(a) of this permit, the permit holder must:
 - (i) engage an *environmental specialist* to make a determination on whether two (2) planted marri (*Corymbia calophylla*) trees will survive;
 - (ii) where, in the opinion of an *environmental specialist* the two (2) planted marri (*Corymbia calophylla*) trees will not survive, the permit holder must undertake additional planting of marri (*Corymbia calophylla*) to achieve this outcome; and
 - (iii) where additional planting of marri (*Corymbia calophylla*) trees is undertaken in accordance with condition 8(b)(ii), the permit holder must repeat the activities required by conditions 8(a)(i-iv) and 8(b)(i-ii) of this permit.

PART III - RECORD KEEPING AND REPORTING

9. 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 GDA2020, expressing the geographical coordinates in Eastings and Northings; (c) the date that the area was cleared; (d) the direction of clearing; (e) the size of the area cleared (in hectares); (f) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 5; and (g) actions taken to minimise the risk of the introduction and spread of <i>weeds</i> and <i>dieback</i> in accordance with condition 6. |
| 2. | In relation to the required <i>revegetation</i> activities in accordance with condition 8 | <ul style="list-style-type: none"> (a) the location where the marri (<i>Corymbia calophylla</i>) trees were planted, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA20), expressing the geographical coordinates in Eastings and Northings; (b) the date that the area was planted; (c) the number of marri (<i>Corymbia calophylla</i>) trees planted; (d) the size (in mm) of the marri (<i>Corymbia calophylla</i>) trees planted; (e) dates of the <i>weed</i> and watering actions undertaken in accordance with condition 8(b)(iii); (f) a copy of the <i>environmental specialist's</i> report; (g) a description of the <i>revegetation</i> activities undertaken; and (h) any remedial actions required to be undertaken. |

10. Reporting

The permit holder must provide to the *CEO* the records required under condition 9 of this permit when requested by the *CEO*.

DEFINITIONS

In this permit, the terms in Table 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. |
| environmental specialist | means a person who holds a tertiary qualification specialising in environmental science or equivalent, and has a minimum of 2 years work experience relevant to the type of environmental advice that an environmental specialist is required to provide under the permit, or who is approved by the CEO as a suitable <i>environmental specialist</i> . |
| fill | means material used to increase the ground level, or to fill a depression. |
| 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) |
| local provenance | means native vegetation seeds and propagating material from natural sources within 50 kilometres and the same IBRA subregion of the area cleared. |
| 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. |
| optimal time | means the period from May to June for undertaking planting or seeding |
| planting/s | means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species |
| rehabilitate | means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species |
| revegetate/ion | means actively managing an area containing native vegetation in order to improve the ecological function of the area. |
| weeds | means any plant – <ol style="list-style-type: none"> (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. |

END OF CONDITIONS



Mathew Gannaway
MANAGER
NATIVE VEGETATION REGULATION

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

23 August 2023

Schedule 1

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

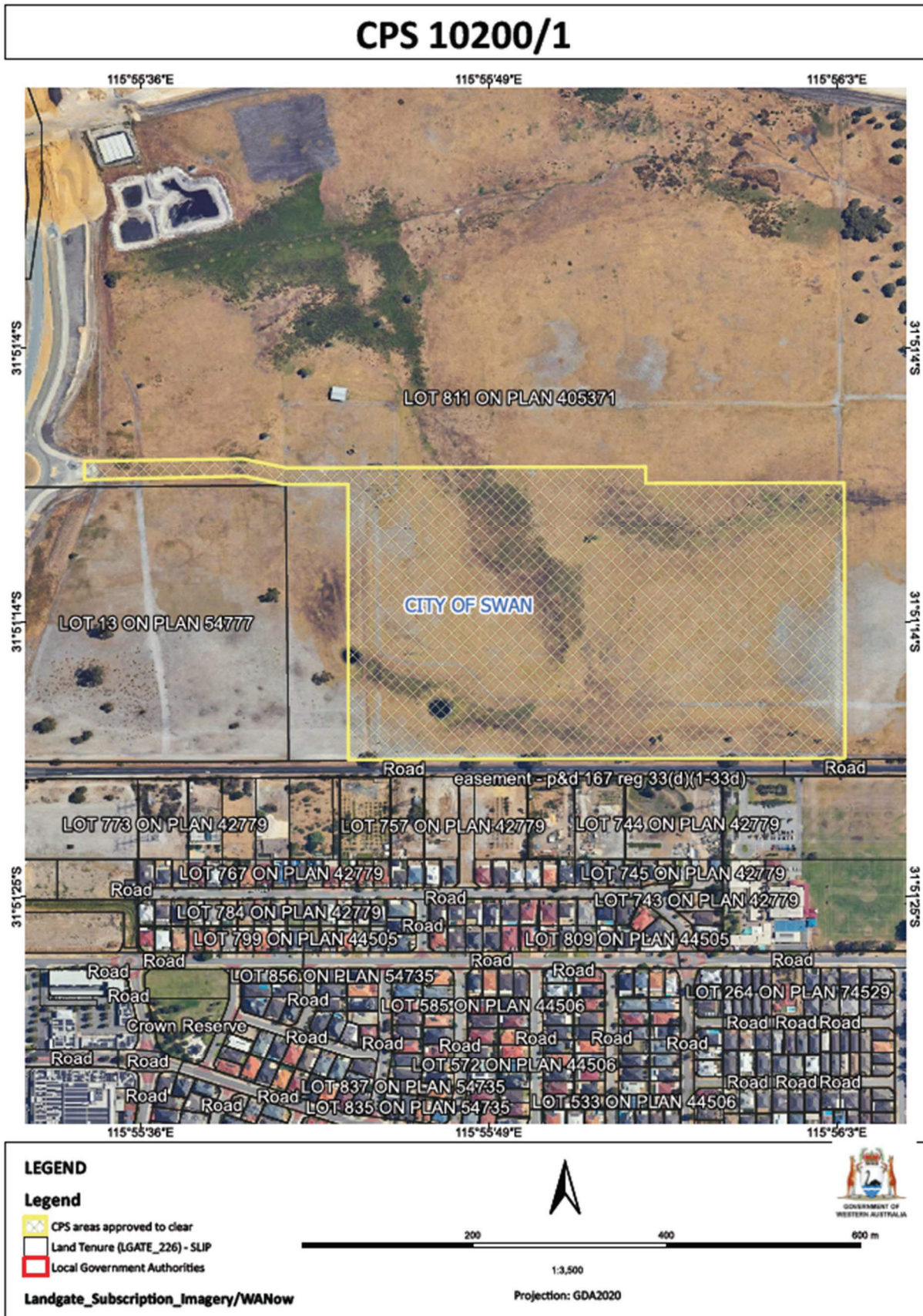


Figure 1: Map of the boundary of the area within which clearing may occur

Schedule 2

The boundary of the area within which planting is to occur is shown in hatched red in the map below (Figure 2)

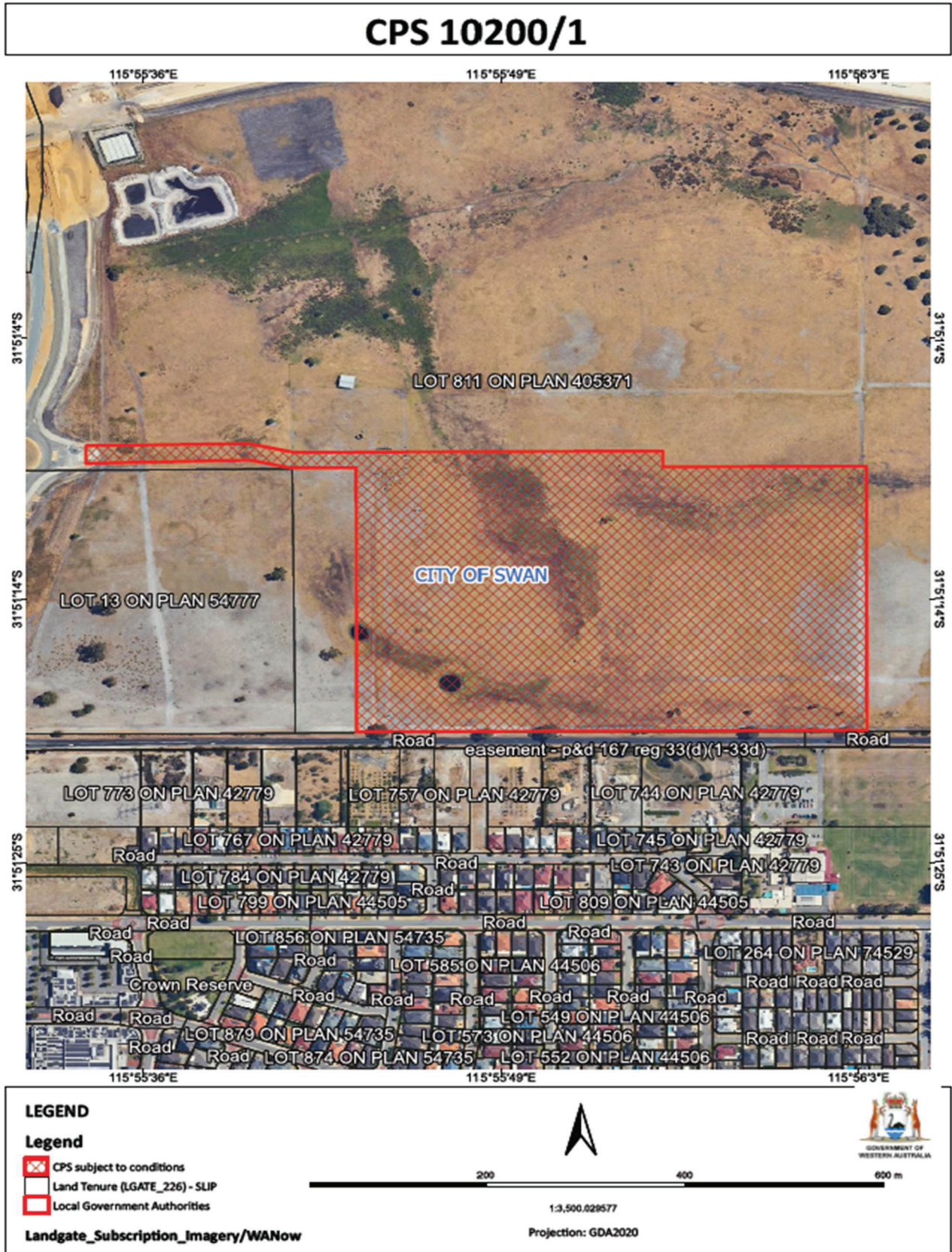


Figure 2: Map of the boundary of the area within which planting must occur



Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

| | |
|-------------------------------|--|
| Permit number: | CPS 10200/1 |
| Permit type: | Purpose permit |
| Applicant name: | Home Fire Creative Industries Pty Ltd |
| Application received: | 17 May 2023 |
| Application area: | 2.48 hectares of native vegetation within a 17.1-hectare footprint |
| Purpose of clearing: | To facilitate bulk earthworks associated with construction of Home Fire studios development. |
| Method of clearing: | Mechanical |
| Property: | Lot 811 on Deposited Plan 405371 |
| Location (LGA area/s): | City of Swan |
| Localities (suburb/s): | Whiteman |

1.2. Description of clearing activities

The application is to clear native vegetation and undertake bulk earthworks to develop a screen production facility within the western portion of Lot 811, 233 Drumpellier Drive, Whiteman. The vegetation proposed to be cleared is 2.48 hectares contained within a single contiguous area (see Figure 1, Section 1.5).

1.3. Decision on application

| | |
|-----------------------|--|
| Decision: | Granted |
| Decision date: | 23 August 2023 |
| Decision area: | 2.48 hectares of native vegetation, 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 21 days and no submissions were received.

In making this decision, the Delegated Officer had regard for 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 C), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3). The Delegated Officer also took into consideration that the purpose of the clearing is a State Government initiative project for the Metropolitan Region Scheme and will support the local economy.

The assessment identified that the proposed clearing would result in:

- the loss of one native tree that is suitable foraging habitat for the forest red-tailed black cockatoo, Baudin's cockatoo and Carnaby's cockatoo (black cockatoos) and is significant as a remnant of native vegetation in an area that has been extensively cleared,

- the potential loss of habitat for quenda, peregrine falcon, black-striped burrowing snake and Tammar wallaby,
- the potential introduction and spread of weeds and dieback into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values and
- potential land degradation in the form of subsurface acidification.

To minimise impacts to fauna, progressive one directional clearing is required to allow individuals present at the time of clearing to move to adjacent vegetation. The planting of species suitable for black cockatoo foraging and breeding habitat will be undertaken to reduce impacts to black cockatoos. The likelihood of impact from weeds and dieback can be minimised by applying weed and dieback management measures. If any Acid Sulphate Soil (ASS) material is brought up to the surface, the permit holder will adhere to a ASS Management Plan.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined that the applicant has suitably demonstrated avoidance and minimisation measures and that the impacts of the proposed clearing can be minimised and managed to unlikely 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,
- a minimum of two marri (*Corymbia calophylla*) trees will be required to be planted and maintained within Lot 811, as mitigation measures for the clearing of the one native tree that provides habitat value and significant remnant vegetation in an extensively cleared landscape,
- take hygiene steps to minimise the risk of the introduction and spread of weeds and dieback,
- undertake slow, progressive one directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity.

1.5. Site map

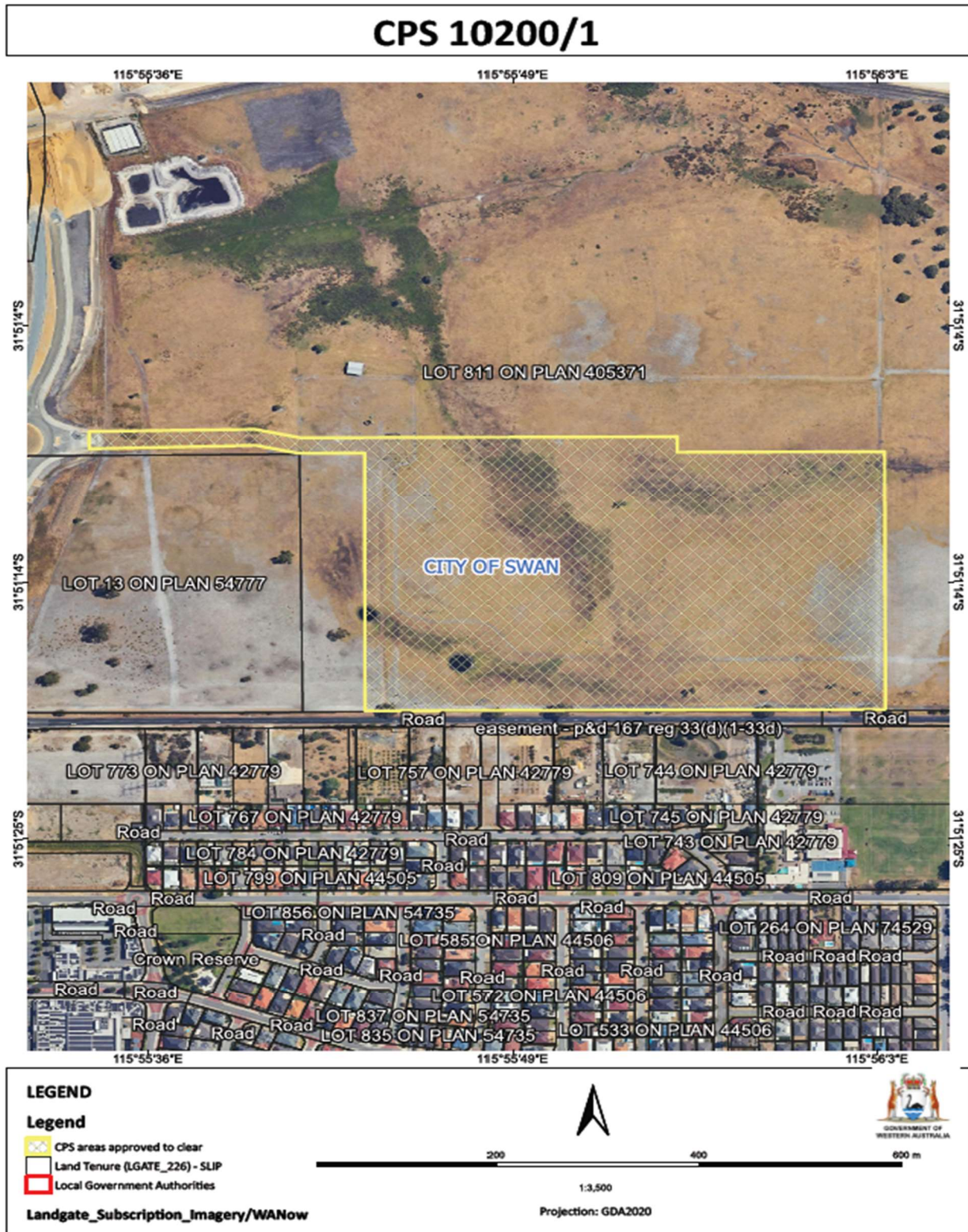


Figure 1 Map of the application area

The area crosshatched 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 polluter pays principle
- 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)
- *Rights in Water and Irrigation Act 1914* (RiWI Act)
- *Soil and Land Conservation Act 1945* (WA)

Relevant policies considered during the assessment include:

- *Environmental Offsets Policy* (2011)

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)
- *Environmental Offsets Guidelines* (August 2014)

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

The applicant has proposed the clearing will be undertaken in a manner that effectively manages dust and hygiene, and that will avoid impacts to retained vegetation and fauna in the surrounding area (JBS&G, 2023). Management actions will include:

- stabilise cleared areas with methods such as wetting, mulching or other sealed material,
- ensure vehicles and machinery are clean prior to clearing,
- clearly marking the vegetation required to be cleared,
- clearing of the site is proposed to be undertaken as one event,
- all personnel will be inducted and made aware of the fauna values adjacent to the site and applicable management actions,
- vehicle speed limits will be clearly signposted throughout the site in the event that fauna is struck by a vehicle and report the incident immediately to the Site Supervisor,
- any injured fauna shall be left alone and observed until a suitably qualified person can attend to the animal,
- a fauna interaction register is to be maintained to capture observations and interactions with fauna,
- all domestic waste will be disposed of in designated bins; and
- no domestic animals will be permitted to be brought into the site by construction personnel.

DWER have identified that the planting and maintaining of two marri (*Corymbia calophylla*) trees, would be required to ensure a significant residual impact to fauna habitat does not remain after the proposed clearing. Home Fire Industries Pty Ltd have agreed to the planting of two trees within Lot 881.

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 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 CC) identified the impacts of the proposed clearing present a risk to fauna, remnant vegetation and land and water resources. 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.

3.2.1. Biological values (fauna) - Clearing Principles (a) and (b)

Assessment

The application area is located within the Swan Coastal Plain IBRA region. According to available databases, a total of 16 conservation significant fauna species have been recorded in the local area (10-kilometre radius of the application area). These consist of six mammals, seven birds, one reptile and two invertebrates. The nearest record is a Carnaby's cockatoo (*Zanda latirostris*) located 0.2 kilometres from the application area.

Of the conservation significant fauna species recorded in the area, the following have the potential to be found within the application area based on habitat preferences:

- *Calyptorhynchus banksii naso* (forest red-tailed black cockatoo) (VU)
- *Zanda baudinii* (Baudin's cockatoo) (EN)
- *Zanda latirostris* (Carnaby's cockatoo) (EN)
- *Falco peregrinus* (peregrine falcon) (OS)
- *Isoodon fusciventer* (quenda, southwestern brown bandicoot) (P4)
- *Neelaps calonotos* (black-striped burrowing snake) (P3)

This assumption is based on the habitat requirements, distribution, mapped vegetation types and condition of the vegetation.

Black cockatoos

Black cockatoos generally breed in woodland or forest but may also breed in former woodland or forest now present as isolated trees (Commonwealth of Australia, 2022). Black cockatoo species are noted to forage on a range of plant species, with the primary foraging resources varying between species (Commonwealth of Australia, 2012). Carnaby's cockatoos forage on the seeds, nuts, and flowers of a variety of plants, including Proteaceous species (*Banksia spp.*, *Hakea spp.*, and *Grevillea spp.*), as well as *Allocasuarina* and *Eucalyptus* species, marri, and a range of introduced species (Valentine and Stock, 2008). Forest red-tailed black cockatoos feed predominantly on the seeds of marri and jarrah, which comprise approximately 90 per cent of their diet (DEC, 2008). Baudin's cockatoos primarily feed on the seeds of marri, but may also forage on the seeds of jarrah and Proteaceous species (DEC, 2008). Given the application area contains marri and occurs within the predicted occurrence range for all three black cockatoo species, the application area is likely to provide suitable foraging habitat for black cockatoos. Marri (*Corymbia calophylla*) trees present within the application area provide suitable foraging habitat for black cockatoos.

Food resources within the range of roost and breeding sites are important to sustain populations of black cockatoos, and foraging resources should therefore be viewed in the context of the proximity to the known roosting and breeding sites to the application area. Available databases show that there are 14 roost sites (the closest is 1.8 kilometres away) and six breeding sites within 12 kilometres (the closest is 11.5 kilometres away) of the application area. Black cockatoos will generally forage up to 12 kilometres from an active breeding site. Following breeding, they will flock in search of food, usually within six kilometres of a night roost (Commonwealth of Australia, 2012). Given the presence of suitable foraging habitat within the known foraging distance to multiple roosting and breeding locations in an extensively cleared landscape (approximately 13.7 percent native vegetation remaining), the clearing of marri trees is significant.

Quenda

Quenda are known to inhabit scrubby, often swampy vegetation with dense cover, often feeding in adjacent forest and woodland that is burnt on a regular basis and in areas of pasture and cropland lying close to dense cover. On the Swan Coastal Plain, quenda are often associated with wetlands. Quendas will thrive in more open habitat subject to exotic predator control. Quenda have become abundant in Lake Magenta Nature Reserve (Western Australia) in Mallee scrub and woodland following fox control (Department of Environment and Conservation, 2012). Given the Completely Degraded (Keighery, 1994) nature of the application area and the lack of connectivity between remnant vegetation it is unlikely that the application area will comprise of significant habitat for the species. However, noting the presence of wetland vegetation nearby, quenda may traverse the application area in search of food.

Peregrine falcon

The peregrine falcon typically nests on rocky ledges in tall, vertical cliff faces and gorges, or in tall trees associated with drainage lines. They can hunt in a range of habitat types including timbered watercourses, riverine environments, wetlands, plains, open woodlands, and pylons and spires of buildings (Australian Museum, 2019). This species occupies a wide range of habitats including woodlands, wetlands, open country, and built-up areas and are highly mobile. The peregrine falcon may occur in the application area as a foraging visitor but is unlikely to breed as there is no suitable breeding habitat. They may opportunistically occur over the application area for short periods or fly over the application area on commute while searching for prey. The application area will not provide core habitat for this species.

Black-striped burrowing snake

Black-striped burrowing snake (*Neelaps calonotos*) is one of five species of small burrowing elapids in the Perth region. The species is more abundant north of the Swan River, whereas records are comparatively scarcer to the south. *N. calonotos* typically occupy Banksia woodlands atop soft calcareous sand and, to a lesser extent, coastal heathlands and shrublands. Although relatively abundant in both habitats, scientists recorded higher capture rates of *N. calonotos* in Banksia woodlands which are also the preferred habitat for skinks, such as *Aprasia* and *Lerista* spp., which are exclusive food resources for *N. calonotos*. *N. calonotos* is rarely found in small urban bushland remnants as these are more susceptible to weed infestation, bushfires, and predation by feral species, with weeds having an adverse effect on the composition of microhabitats required by fossorial species (He, 2021). Whilst the Black-striped burrowing snake may traverse the application area, the habitat being cleared is not considered significant habitat for the continuation of this species.

Conclusion

Based on the above assessment, the proposed clearing includes significant foraging habitat for black cockatoos. Due to the degraded landscape and lack of understorey, the application area is not considered to provide permanent habitat for ground dwelling fauna species, such as quenda and black-striped burrowing snake. Slow directional clearing will mitigate impacts to individuals that may be present at the time of clearing.

The planting and maintenance of black cockatoo foraging habitat would be required to ensure a significant residual impact to black cockatoos does not remain after the proposed clearing. The mitigation planting proposed was input into the WA Environmental Offsets Metric Calculator to determine the ratio required to mitigate the loss of one *Corymbia calophylla* (marri) tree. From this, two *Corymbia calophylla* (marri) trees are required to be planted to mitigate the loss. Home Fire Creative Industries will be required to ensure the survival of at least two trees. The proposed planting was determined to be a suitable mitigation measure. A significant residual impact does not remain following the mitigation planting. DWER considers the mitigation planting aligns with the WA Environmental Offsets Policy (2011) and WA Environmental Offsets Guideline (2014).

For the reasons set out above, it is considered that the impacts of the proposed clearing on biological values can be managed through the avoidance, minimisation and mitigation measures committed to by the applicant including conditions specified in the permit.

Conditions

To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- slow directional clearing to allow fauna to disperse ahead of the clearing activity should they occur on the site at time of clearing,
- planting and maintaining of a minimum of two *Corymbia calophylla* (marri) trees to ensure a significant residual impact to black cockatoo habitat does not remain after the proposed clearing.

3.2.2. Significant remnant vegetation – Clearing Principle (e)

Assessment

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 application area is located within the Swan Coastal Plain bioregion as described by Thackway and Cresswell (1995). The Swan Coastal Plain bioregion as a whole retains approximately 38.6 per cent of its pre-European vegetation extent (Government of Western Australia, 2019a). Heddl et al. (1980) as updated by Webb et al (2016) mapped the vegetation complexes of the Swan Coastal Plain, with one vegetation complex mapped over the application area- the Southern River vegetation complex 42 which is described as open woodland of *Corymbia calophylla* (Marri) - *Eucalyptus marginata* (Jarrah) - *Banksia* species with fringing woodland of *Eucalyptus rudis* (Flooded Gum) - *Melaleuca raphiophylla* (Swamp Paperbark) along creek beds. This vegetation unit is below the 30 per cent threshold of Commonwealth of Australia (2001), with the Southern River Complex (SCP 42) at 18.43 per cent retention (government of Australia, 2019b) (See Appendix C). The application area is a completely degraded representation of this complex. At the local scale of a ten-kilometre radius of the application area, approximately 13.7 per cent native vegetation cover remains.

Whilst the percentage cover of the local area and vegetation complex are below the recommended 30 per cent threshold, the Environmental Protection Authority (EPA) recognises the Perth Metropolitan Area as a constrained area, which provides for the reduction of vegetation complexes to a minimum of ten per cent of their pre-European extent (EPA, 2008). Noting the application area does not contain conservation significant flora or ecological communities, the application area is not considered significant as a remnant of native vegetation in an extensively cleared landscape.

Conclusion

For the reasons set out above, it is considered that the native vegetation within the application area is not significant as a remnant of native vegetation in an extensively cleared area. Notwithstanding the above, given that native vegetation remains surrounding the application area, a weed and dieback condition will be required to assist in mitigating impacts to surrounding vegetation.

Conditions

To address the above potential impacts, the following management measure will be required as a condition on the clearing permit:

- weed and dieback management measures to assist in mitigating impacts to surrounding vegetation.

3.2.3. Land and water resources – Wetland and water quality- Clearing Principles (f) and (i)

Assessment

Given the application area intersects a small section of a 'Multiple use' palusplain (wetland) (UFI 15752), it contains vegetation that is growing in, or in association with, an environment associated with a wetland. There are no other permanent, perennial wetlands or watercourses mapped within the application area. 'Multiple use' wetlands are defined as wetlands with few remaining important attributes and functions (DEC, 2007). Within the wetland management category 'Multiple use', wetlands can be used, developed, and managed in the context of water, town, and environmental planning (WAPC, 2005).

The vegetation within the proposed clearing area is in a completely degraded condition (Keighery, 1994), therefore the clearing of this vegetation is unlikely to impact water quality.

In addition to the above, the applicant has prepared a District Water Management Plan and Site Stormwater and Drainage Management Plan which addresses potential impacts to water quality. The plans include the management of surface water during clearing and construction to prevent offsite impacts on surrounding wetland areas and road design and stormwater controls to ensure water quality is maintained (Hyd2o Hydrology, 2023). The applicant has advised that the proposed clearing activities will not require ground or surface water extraction (BG&E, 2023).

Conclusion

Clearing of a completely degraded multiple use wetland will not result in a significant residual impact to wetland values.

Conditions

No conditions are proposed in relation to this value.

3.2.4. Land and water resources – Land degradation- Clearing Principle (g)

Assessment

The mapped soils within the application area are highly susceptible to subsurface acidification. The applicant has advised that they expect negligible ASS material to be brought up to the surface during the bulk earthworks. However, if any ASS material is brought up to the surface, they will implement the ASS Management Plan. Noting the extent of the application area and the management plan in place, the proposed clearing is not likely to have an appreciable impact on land degradation (Western Environmental, 2023).

The mapped soils do not have a high risk for any other form of land degradation occurring. Noting the condition of the vegetation, the proposed clearing is not likely increase the occurrence of salinity, waterlogging, nutrient export, water erosion or wind erosion.

Conclusion

Based on the above assessment, the proposed clearing is not likely to lead to appreciable land degradation.

Conditions

No conditions are proposed in relation to this value.

3.3. Relevant planning instruments and other matters

The applicant has advised that the proposed clearing activities will not require ground or surface water extraction (BG&E, 2023). No licences under the *Rights in Water and Irrigation Act 1914* are required.

The City of Swan did not have any objections to the proposed clearing and advised DWER that local government approvals are not required. The City noted that the proposed clearing is consistent with the City's Local Planning Scheme No. 17, Local Planning and Local biodiversity guidelines (City of Swan, 2023).

Several Aboriginal sites of significance have been mapped within the application area. It is the permit holder's responsibility to ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

End

Appendix A. Additional information provided by applicant

| Summary of comments | Consideration of comment |
|--|---|
| Additional supporting information for clearing permit application 10200/1, <i>Home Fire Creative Industries Native Vegetation Clearing Permit Supporting Document</i> . Received 17 May 2023 (DWERVT12666) | This information has been taken into consideration by the Delegated Officer in determining the outcome of this application. |

Appendix B. Site characteristics

The information provided below describes the key characteristics of the area proposed to be cleared and is based on the best information available to DWER at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix B.

B.1. Site characteristics

| Characteristic | Details |
|------------------------|--|
| Local context | <p>The area proposed to be cleared is a 2.8-hectare patch of native vegetation in the intensive land use zone of Western Australia. Whiteman Park is located to the north and housing and commercial buildings are located to the south of the application area. The proposed clearing area is predominately cleared grassland with remnant scattered trees, shrubs and herbs in a highly cleared landscape.</p> <p>Spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 13.7 per cent of the original native vegetation cover.</p> |
| Ecological linkage | Ecological Linkage 22 is located 0.3 kilometres from the application area. Noting the scattered nature of the vegetation being cleared, the proposed clearing is not likely to impact this linkage. |
| Conservation areas | <p>The application area is 0.6 kilometres from a bush forever site associated with Whiteman Park.</p> <p>The Gngangara-Moore River State Forest is approximately 6.4 kilometres from the application area.</p> |
| Vegetation description | <p>A flora and vegetation survey was undertaken by RPS (2020). It described isolated remnant <i>Corymbia calophylla</i>, <i>Melaleuca preissiana</i> and/or <i>Eucalyptus rudis</i> over pasture/weeds - previously cleared.</p> <p>A site visit conducted by JBS&G (2022) as well as photographs supplied found degraded patches of rushes and isolated paddock trees. The site inspection identified nine native flora taxa occurring on site.</p> <ul style="list-style-type: none"> • <i>Centella asiatica</i>; • <i>Corymbia calophylla</i>; • <i>Euphorbia australis</i> (naturalised); • <i>Juncus pallidus</i>; • <i>Melaleuca preissiana</i>; • <i>Melaleuca raphiophylla</i>; • <i>Podotheca gnaphalioides</i>; • <i>Portulaca oleracea</i> (naturalised); and • <i>Xanthorrhoea brunonis</i>. <p>Photographs and vegetation surveys supplied by the applicant indicate the vegetation within the proposed clearing area consists of grassland with remnant scattered trees. Representative photos are available in Appendix E.</p> <p>This is a degraded representation of the mapped vegetation type:</p> |

| Characteristic | Details |
|------------------------|--|
| | <ul style="list-style-type: none"> Southern River (42), which is described as open woodland of <i>Corymbia calophylla</i> (Marri)- <i>Eucalyptus marginata</i> (Jarrah)- <i>Banksia</i> species with fringing woodland of <i>Eucalyptus rudis</i> (Flooded Gum)- <i>Melaleuca raphiophylla</i> (Swamp Paperbark) along creek beds. <p>The mapped vegetation type retains approximately 18.43 per cent of the original extent (Government of Western Australia, 2019).</p> |
| Vegetation condition | <p>A RPS (2020) vegetation survey and a site visit conducted by JBS&G (2022) described the vegetation within the proposed clearing area is in a completely degraded condition (Keighery, 1994).</p> <p>The full Keighery (1994) condition rating scale is provided in Appendix D. Representative photos are available in Appendix E.</p> |
| Climate and landform | <p>The climate of the Swan Coastal Plain is generally described as Warm Mediterranean with winter precipitation of 600–1000 millimetres, and with 5–6 dry months per year (Beard 1990).</p> |
| Soil description | <p>The soil is mapped as:</p> <ul style="list-style-type: none"> Bassendean, Jandakot Phase (212Bs_Ja) Jandakot low dunes. Slopes <10% and generally more than 5m relief. Grey sand over pale yellow sands generally underlain by humic and iron podsols; <i>Banksia spp.</i> open low woodland with a dense shrub layer. Bassendean Yanga Phase (212BsYa) Flat, poorly drained complex landscape; soils include shallow sand over limestone or ferruginous pan, deep leached sand, and saline soils; dense <i>Melaleuca spp.</i> along drainage lines. |
| Land degradation risk | <ul style="list-style-type: none"> Water Erosion: <3% of the map unit has a high to extreme water erosion risk Wind Erosion: 10-30% of the map unit has a high to very high wind erosion risk Salinity: 25% of the map unit has a moderate to high salinity risk or is presently saline Flood: <3% of the map unit has moderate to high flood risk Waterlogging: 40-60% of the map unit has a moderate to high waterlogging risk Subsurface Acidification: 100% of the map unit has a high subsurface acidification risk or is presently acid Phosphorus Export: 10-30% of the map unit has a high to very high phosphorus export risk. |
| Waterbodies | <p>The desktop assessment and aerial imagery indicated that a minor nonperennial tributary of the Swan River intersects the application area.</p> <p>The application area is located inside recently reclassified UFI 15752 from Resource Enhancement to Multiple Use Wetland by DBCA (2023)</p> |
| Hydrogeography | <p>Groundwater salinity: 500-1000mg/L TDS</p> <p>The application area is mapped within the Swan Canning Estuary Catchment Surface Water Area, and the Beechboro Groundwater sub-area of the Mirrabooka Groundwater Area as proclaimed under the <i>Rights in Water and Irrigation Act 1914</i>.</p> |
| Flora | <p>There are records of 21 threatened and priority flora within 10 kilometres of the application area. None of these are located within the area applied to be cleared.</p> <p>Spring surveys conducted by RPS in 2017, 2018 and 2019, including targeted searches for threatened and priority flora, did not find any to be present on site (JBS&G, 2022).</p> |
| Ecological communities | <p>Several priority and endangered ecological communities (TEC/PEC) are mapped within the 10km radius of the application area.</p> <p>The Banksia Woodlands of The Swan Coastal Plain intersects the application area, however due to the highly degraded nature of the site, this is not representative of the community.</p> |

| Characteristic | Details |
|----------------|---|
| Fauna | There are records of 16 fauna of conservation significance within the local area. There are 14 known black cockatoo roost sites (the closest 1.8 kilometres away) and six breeding sites within 12 kilometres (the closest 11.5 kilometres away). |

B.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* | | | | | |
| Swan Coastal Plain | 1501221.93 | 579813.47 | 38.62 | 222916.97 | 38.45 |
| Vegetation Complex | | | | | |
| Southern River 42 | 58781.48 | 10832.18 | 18.43 | 940.36 | 1.6 |
| Local area | | | | | |
| 10km radius | 33368.46 | 4570.82 | 13.70 | - | - |

*Government of Western Australia (2019)

B.3. Fauna analysis table

| 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 (total) | Are surveys adequate to identify? [Y, N, N/A] |
|---|---------------------|----------------------------------|---------------------------------|---|---------------------------------|---|
| <i>Bettongia penicillata ogilbyi</i> (woylie, brush-tailed bettong) | CR | Y | Y | 2.5 | 95 | N/A |
| <i>Cacatua pastinator pastinator</i> (Muir's corella) | CD | Y | Y | 5.6 | 7 | N/A |
| <i>Calyptorhynchus banksii naso</i> (forest red-tailed black cockatoo) | VU | Y | Y | 1 | 27 | Y |
| <i>Zanda baudinii</i> (Baudin's cockatoo) | EN | Y | Y | 3.6 | 11 | Y |
| <i>Zanda latirostris</i> (Carnaby's cockatoo) | EN | Y | Y | 0.2 | 1248 | Y |
| <i>Zanda sp. 'white-tailed black cockatoo'</i> (white-tailed cockatoo) | EN | Y | Y | 1.8 | 87* | Y |
| <i>Dasyurus geoffroii</i> (chuditch, western quoll) | VU | Y | Y | 6.5 | 13 | N/A |
| <i>Falco peregrinus</i> (peregrine falcon) | OS | Y | Y | 2.3 | 43 | N/A |
| <i>Falsistrellus mackenziei</i> (western false pipistrelle, western falsistrelle) | P4 | Y | Y | 6.5 | 1 | N/A |
| <i>Idiosoma sigillatum</i> (Swan Coastal Plain shield-backed trapdoor spider) | P3 | Y | Y | 2.7 | 26 | N/A |
| <i>Isoodon fusciventer</i> (quenda, southwestern brown bandicoot) | P4 | Y | Y | 1.2 | 393 | N/A |
| <i>Neelaps calonotos</i> (black-striped burrowing snake) | P3 | Y | Y | 1.2 | 65 | N/A |
| <i>Notamacropus eugenii derbianus</i> (Tamar wallaby) | P4 | Y | Y | 2.6 | 6 | N/A |
| <i>Notamacropus Irma</i> (western brush wallaby) | P4 | Y | Y | 3.7 | 10 | N/A |
| <i>Oxyura australis</i> (blue-billed duck) | P4 | Y | Y | 3 | 105 | N/A |

| 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 (total) | Are surveys adequate to identify? [Y, N, N/A] |
|--|---------------------|----------------------------------|---------------------------------|---|---------------------------------|---|
| <i>Synemon gratiosa</i> (graceful sunmoth) | P4 | Y | Y | 6 | 80 | N/A |
| <i>Tyto novaehollandiae novaehollandiae</i> (masked owl) | P3 | Y | Y | 9.4 | 1 | N/A |

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

* An additional 87 records of *Zanda* sp. 'white-tailed black cockatoo' (White-tailed black cockatoo) were recorded in the local area, which may comprise either of these species.

B.4. Ecological community analysis table

| Community 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] |
|---|---------------------------|----------------------------------|---------------------------------|---------------------------|---|---------------------------------|---|
| Banksia Woodlands of the Swan Coastal Plain | P3 | Y | Y | Y | Intersects | 1 | Y |
| Southern wet shrublands, Swan Coastal Plain (floristic community type 2 as originally described in Gibson et al. 1994) | BCA Critically Endangered | N | N | Y | 0.4km | 1 | Y |
| Banksia attenuata woodlands over species rich dense shrublands (floristic type 20a as originally described in Gibson et al. 1994) | BCA Critically Endangered | N | N | Y | 0.3km | 1 | Y |

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

Appendix C. Assessment against the clearing principles

| Assessment against the clearing principles | Variance level | Is further consideration required? |
|---|------------------------------|--|
| Environmental value: biological values | | |
| <p><u>Principle (a):</u> <i>“Native vegetation should not be cleared if it comprises a high level of biodiversity.”</i></p> <p><u>Assessment:</u> The area proposed to be cleared may contain habitat for conservation significant fauna including black cockatoo species.</p> <p>No conservation significant flora or vegetation communities have been recorded within the application area (JBS&G, 2022).</p> | May be at variance | Yes <i>Refer to Section 3.2.1, above.</i> |
| <p><u>Principle (b):</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 significant habitat for fauna.”</i></p> <p><u>Assessment:</u> Several conservation significant fauna have been recorded within the local area. The application area comprises of marri trees that provide habitat for black cockatoo species</p> | At variance | Yes <i>Refer to Section 3.2.1, above.</i> |
| <p><u>Principle (c):</u> <i>“Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</i></p> <p><u>Assessment:</u> The area proposed to be cleared is unlikely to contain threatened flora species. No threatened flora have been recorded within the application area (JBS&G, 2022).</p> | Not at variance | No |
| <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> The area proposed to be cleared does not contain species that can indicate a threatened ecological community. Given the distance and separation from the nearest occurrence, the proposed clearing is unlikely to comprise, or be necessary for the maintenance of a, TEC.</p> | Not likely to be at variance | No |
| 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 native vegetation in the local area is inconsistent with the national objectives and targets for biodiversity conservation in Australia, with approximately 13.7 per cent retention.</p> | At variance | Yes <i>Refer to Section 3.2.2, above.</i> |
| <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> Given the distance to the nearest conservation area, the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.</p> | Not likely to be at variance | No |
| 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 the application area intersects a section of a ‘Multiple use’ palusplain (UFI 15752), it contains vegetation that is growing in, or in</p> | At variance | Yes <i>Refer to Section 3.2.3, above</i> |

| Assessment against the clearing principles | Variance level | Is further consideration required? |
|---|--------------------|---------------------------------------|
| association with an environment associated with a wetland. | | |
| <p><u>Principle (g):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</p> <p><u>Assessment:</u> The mapped soils are highly susceptible to subsurface acidification. Noting the extent of the application area and the management plan in place, the proposed clearing is not likely to have an appreciable impact on land degradation (Western Environmental, 2023).</p> | May be at variance | Yes Refer to Section 3.2.4, above. |
| <p><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.”</p> <p><u>Assessment:</u> While the application area intersects a small section of a ‘Multiple use’ palusplain (UFI 15752). The applicant has advised that the proposed clearing activities will not require ground or surface water extraction and have prepared a DWMP, which includes the standard and staged construction methodologies which will be implemented (Hyd2o Hydrology, 2023).</p> <p>Given the above, the proposed clearing is unlikely to impact surface or ground water quality.</p> | May be at variance | Yes Refer to Section 3.2.3, above. |
| <p><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.”</p> <p><u>Assessment:</u> 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 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. |
| 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. |

| Condition | Description |
|---------------------|--|
| 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 / photographs of the vegetation



Figure 2. Patches of *Juncus pallidus* in the west of the site (JBS&G, 2023)



Figure 3. Isolated marri (*Corymbia calophylla*) and cropped *Xanthorrhoea brunonis* in the south west of the site facing north east (JBS&G, 2023)

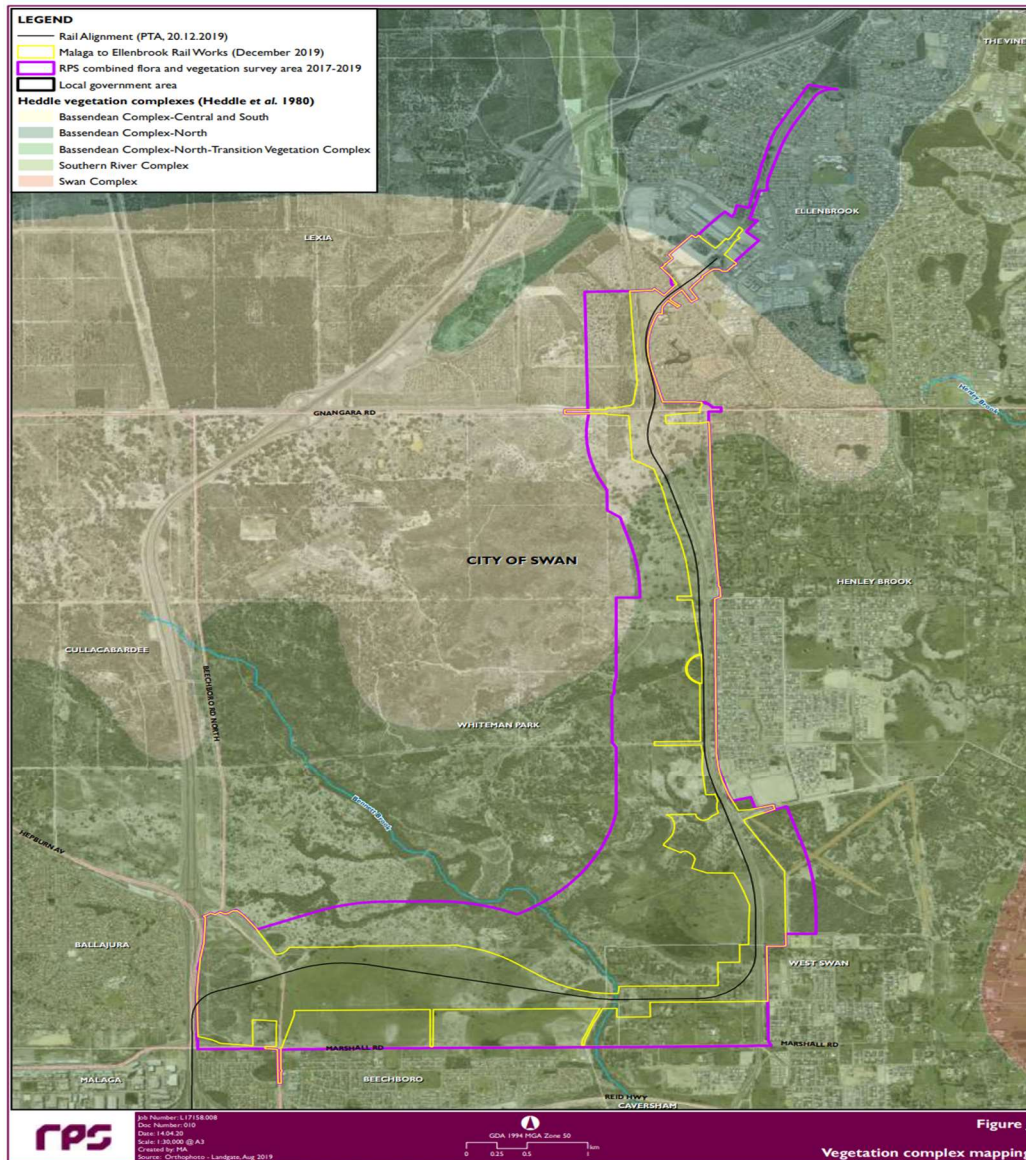


Figure 4. Vegetation mapping of the area for the proposed Metronet Project, including the application area CPS 10200/1 (RPS, 2020)

Appendix F. Sources of information

F.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 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

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)

F.2. References

Australian Museum (2019) Peregrine Falcon (*Falco peregrinus*). The Australian Museum, New South Wales. Available from <https://australian.museum/learn/animals/birds/peregrine-falcon/> (accessed July 2023).

Beard JS. (1990) *Plant Life of Western Australia*. Kangaroo Press, Kenthurst, New South Wales.

BG&E (2023) *Site Stormwater and Drainage Management Plan*. Received July 2023. (DWERVT12666)

City of Swan (2023) *Advice for clearing permit application CPS 10200/1*, received 28 July 2023 (DWER Ref: DWERDT813238).

Commonwealth of Australia (2001) *National Objectives and Targets for Biodiversity Conservation 2001-2005*, Canberra.

Department of Biodiversity, Conservation and Attractions (DBCA) (2017). *A methodology for the evaluation of wetlands on the Swan Coastal Plain Western Australia*, (the 'Methodology') available DBCA Parks and Wildlife Service dpaw.wa.gov.au

Department of Biodiversity, Conservation and Attractions (DBCA) (2017). *Wetlands- Wetlands mapping- Swan Coastal Plain (What do the wetland management categories mean?)* Available via dpaw.wa.gov.au

Department of Biodiversity, Conservation and Attractions (DBCA) (2020) *Species and Communities Branch Wetland evaluation advice for clearing permit application CPS 10200/1*, received 29 May 2023. Department of Biodiversity, Conservation and Attractions, Western Australia (DWER Ref: DWERVT12666).

Department of Biodiversity, Conservation and Attractions (DBCA). (2022). Threatened and Priority Flora Database Search. Accessed in July 2023. Prepared by the Species and Communities Program for DWER for the assessment of clearing permit application CPS 10200/1

- Department of Environment and Conservation. (2012). *Quenda (Isoodon obesulus). Fauna profiles*. Get to know Western Australia's fauna. Retrieved from https://www.dpaw.wa.gov.au/images/documents/conservationmanagement/pests-diseases/quenda_2012.pdf
- 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 Primary Industries and Regional Development (DPIRD) (2019). *NRInfo Digital Mapping. Department of Primary Industries and Regional Development*. Government of Western Australia. URL: <https://maps.agric.wa.gov.au/nrm-info/> (accessed June 2023).
- 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) (Regulatory Services – Water) (2020) *Rights in Water and Irrigation Act 1914 advice for clearing permit application CPS 10200/1*, received 3 July 2023 (DWER Ref: DWERDT805870).
- 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 South West Vegetation Complex Statistics. Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions, Perth, <https://catalogue.data.wa.gov.au/dataset/dbca>
- He, Forrest. (2021). *The distribution of the threatened Black-striped Burrowing Snake (Neelaps calonotos) in the Perth region, Western Australia*. Journal of the Royal Society of Western Australia, 104: 85–90, 2021. Retrieved from <https://www.rswa.org.au/publications/journal/104/RSWA%20104%20p85-90%20He.pdf>
- Heddle, E. M., Loneragan, O. W., and Havel, J. J. (1980) *Vegetation Complexes of the Darling System, Western Australia*. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.
- Home Fire Creative Industries Pty Ltd (2023) *Clearing permit application information CPS 10200/1*, received 17 May 2023 (DWER Ref: DWERVT12666).
- Hyd2o Hydrology (2023) *District Water Management Strategy*. Received July 2023 (DWERVT12666)
- JBS&G, (2023) *Supporting information for clearing permit application CPS 10200/1*, received 29 May 2023 (DWER Ref: DWRVT12666).
- Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Molloy, S., Wood, J., Hall, S., Wallrodt, S. and Whisson, G. (2009) *South West Regional Ecological Linkages Technical Report*, Western Australian Local Government Association and Department of Environment and Conservation, Perth.
- Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68) *Atlas of Australian Soils*, Sheets 1 to 10, with explanatory data. CSIRO and Melbourne University Press: Melbourne.

- RPS Group (2020) Detailed Flora and Vegetation Assessment- METRONET Morley-Ellenbrook Line. Available from: [Report \(ala.org.au\)](https://www.ala.org.au)
- Schoknecht, N., Tille, P. and Purdie, B. (2004) *Soil-landscape mapping in South-Western Australia – Overview of Methodology and outputs* Resource Management Technical Report No. 280. Department of Agriculture.
- Shah, B. (2006) *Conservation of Carnaby's Black-Cockatoo on the Swan Coastal Plain, Western Australia*. December 2006. Carnaby's Black-Cockatoo Recovery Project. Birds Australia, Western Australia.
- 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.
- Thackway and Cresswell (1995) *An interim biogeographic regionalisation for Australia: a framework for setting priorities in the National Reserves System Cooperative Program*
- 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.
- Valentine, L.E. and Stock, W. (2008) *Food Resources of Carnaby's Black Cockatoo (Calyptorhynchus latirostris) in the Gnarara Sustainability Strategy Study Area*. Edith Cowan University and Department of Environment and Conservation. December 2008.
- Western Australian Herbarium (1998-). *FloraBase - the Western Australian Flora*. Department of Biodiversity, Conservation and Attractions, Western Australia. <https://florabase.dpaw.wa.gov.au/> (Accessed 15 July 2023)
- Western Australian Planning Commission (WAPC) (2005) *Guideline for the Determination of Wetland Buffer Requirements*. Prepared for the Department for Planning and Infrastructure on behalf of the Western Australian Planning Commission.
- Western Environmental (2023) *Acid Sulphate Soil and Dewatering Management Plan* Received 26 July 2023. (DWER Ref: DWERDT812402)