GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 10373/1
Permit Holder:	City of Swan
Duration of Permit:	From 12/06/2025 to 12/06/2035

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 road upgrades.

2. Land on which clearing is to be done

Lot 13 on Diagram 54777, Whiteman

Marshall Road reserve (PINs 1150738 and 11821531), Bennet Springs and Whiteman

Unnamed Road reserve (PIN 1165363), Bennett Springs

3. Clearing authorised

The permit holder must not clear more than 0.07 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 12 June 2030.

PART II – MANAGEMENT CONDITIONS

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

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

(a) avoid the clearing of *native vegetation*;

(b) minimise the amount of *native vegetation* to be cleared; and

(c) reduce the impact of clearing on any environmental value.

6. Weed 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. Demarcation of the clearing area

Prior to undertaking any clearing authorised under this permit, the permit holder must:

(a) demarcate the clearing area to avoid inadvertent removal of adjacent vegetation,

(b) within one (1) month of installing the above demarcation, the permit holder must notify the *CEO* in writing that the demarcation has been completed.

8. Rehabilitation – Mitigation planting

Within 12 months of the commencement of *clearing* authorised under this permit, and no later than 6 June 2031, the permit holder must:

(a) undertake deliberate *planting* of at least 14 (fourteen) *Corymbia calophylla* (marri) trees within the areas cross-hatched red in Figure 2 of Schedule 1.

(b) In undertaking the *planting* required under condition 8(a) of this permit, the permit holder must:

  (i) ensure only *local provenance* seeds and propagating material is used;

  (ii) undertake *planting* at an *optimal time*;

  (iii) undertake *weed* control activities and watering of *plantings* for at least three years post *planting;*

  (iv) ensure marri trees are not *planted* within 7.5 metres of powerline infrastructure.

(c) Within 24 months of *planting* the 14 marri trees in accordance with condition 8(a) of this permit, the permit holder must engage an *environmental specialist* to make a determination as to whether the 14 marri trees will survive;

(d) If the determination made by the *environmental specialist* under condition 8(c) is that less than 14 marri trees will survive, the permit holder must undertake additional *planting* that will result in a total of 14 marri trees persisting within the areas cross-hatched red in Figure 2 of Schedule 1.

(e) Where additional *planting* of marri trees is undertaken in accordance with condition 8(d), the permit holder must repeat the activities required by condition 8(a), 8(b) and 8(c) 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	(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 size of the area cleared (in hectares); (e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 5; (f) actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with condition 6; and (g) actions taken to demarcate the clearing area in accordance with condition 7.
2.	In relation to *planting* pursuant to condition 8	(a) the date(s) on which *planting* was undertaken; (b) the boundaries of the areas *planted*, using a Global Positioning System (GPS) unit set to GDA2020, expressing the geographical coordinates in Eastings and Northings; (c) a description of the *planting* activities undertaken, including actions taken to implement *weed* control and watering; (d) a copy of the *environmental specialist*'s monitoring report and determination; and (e) a description of any remedial actions undertaken pursuant to conditions 8(c), 8(d) and 8(e), where the *environmental specialist* indicated that *planted* trees will not survive.

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 2 have the meanings defined.

Table 2: Definitions

Term	Definition
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*.
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.
department	means the department established under section 35 of the *Public Sector Management Act 1994* (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
dieback	means the effect of *Phytophthora* species on native vegetation.
environmental specialist	means a person who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this permit, or who is approved by the CEO as a suitable environmental specialist.
EP Act	*Environmental Protection Act 1986* (WA)
fill	means material used to increase the ground level, or to fill a depression.
local provenance	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.
planting	means the re-establishment of vegetation by creating favourable soil conditions and establishing seedlings of the desired species.
weeds	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.

END OF CONDITIONS

Caron Robertson
A/ Manager
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

19 May 2025

Schedule 1

Figure 1: Map of the boundary of the areas within which clearing may occur (cross-hatched yellow)

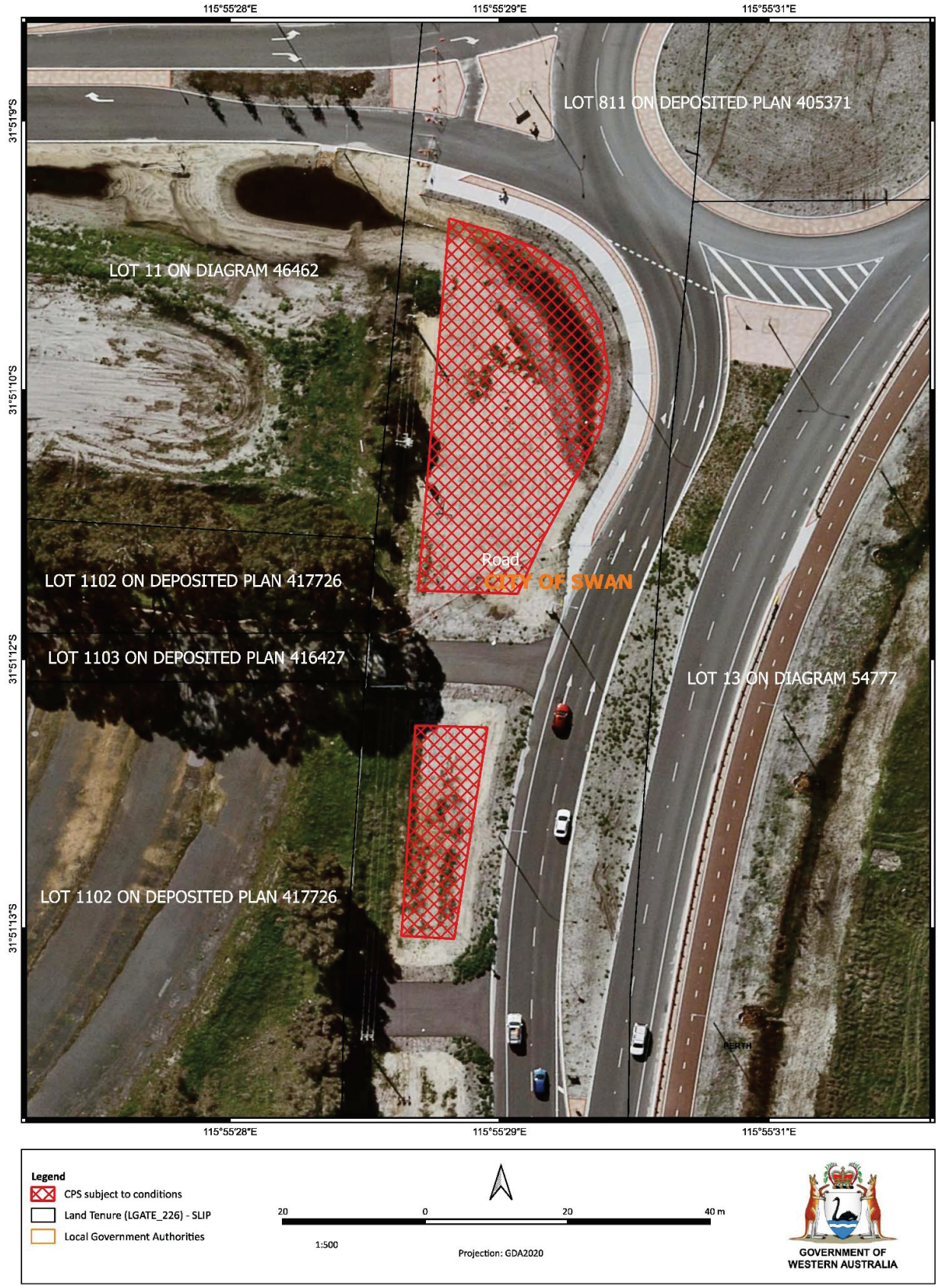

Figure 2: Map of the boundary of the areas subject to condition 8 (cross-hatched red)

Government of Western Australia
Department of Water and Environmental Regulation

Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 10373/1
Permit type:	Purpose permit
Applicant name:	City of Swan
Application received:	12 October 2023
Application area:	0.07 hectares of native vegetation
Purpose of clearing:	Road upgrades
Method of clearing:	Mechanical
Property:	Lot 13 on Diagram 54777 Marshall Road Reserve (PINs 1150738 and 11821531) Unnamed Road Reserve (PIN 1165363)
Location (LGA area/s):	City of Swan
Localities (suburb/s):	Bennett Springs Whiteman

1.2. Description of clearing activities

The vegetation proposed to be cleared comprises small patches of remnant vegetation along a 450-metre section of Marshall Road (see Figure 1, Section 1.5).

The purpose of the application is to construct a dual-lane roundabout at the intersection of Marshall Road and Beechboro Road North to replace existing traffic signals. The roundabout has been designed to manage increased traffic associated with the new Malaga train station. The applicant advised traffic modelling found the current traffic signals will not provide an adequate level of service for the train station (City of Swan, 2024).

1.3. Decision on application

Decision:	Granted
Decision date:	19 May 2025
Decision area:	0.07 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 A),
- the clearing principles set out in Schedule 5 of the EP Act (see Appendix B),

- relevant datasets (see Appendix D.1),
- the findings of a vegetation survey (PGV Environmental, 2023),
- relevant planning instruments and any other matters considered relevant to the assessment (see Section 3).

The Delegated Officer took into consideration the purpose of the clearing is for public road upgrades related to increased traffic associated with the Malaga train station which provide a benefit to the public.

The assessment identified the proposed clearing will result in:

- the loss of native vegetation that is suitable foraging habitat for *Zanda latirostris* (Carnaby's cockatoo), *Zanda baudinii* (Baudin's cockatoo) and *Calyptorhynchus banksia naso* (forest red-tailed black cockatoo),
- the loss of significant remnant native vegetation in an area that has been extensively cleared,
- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined impacts to the above environmental values can be appropriately managed through conditions on the clearing permit.

The Delegated Officer considered the extent of environmental impact, the necessity of clearing, and the applicant's adherence to the mitigation hierarchy, and determined it was appropriate to grant a clearing permit subject to conditions requiring the applicant to:

- undertake avoid and minimise measures to reduce the impacts and extent of clearing,
- take hygiene steps to minimise the risk of the introduction and spread of weeds and dieback,
- demarcate the clearing area to avoid inadvertent clearing of adjacent native vegetation,
- undertake mitigation planting of 14 *Corymbia calophylla* (marri) trees in Beechboro Road North Road Reserve (PIN 11844043).

1.5. Site map

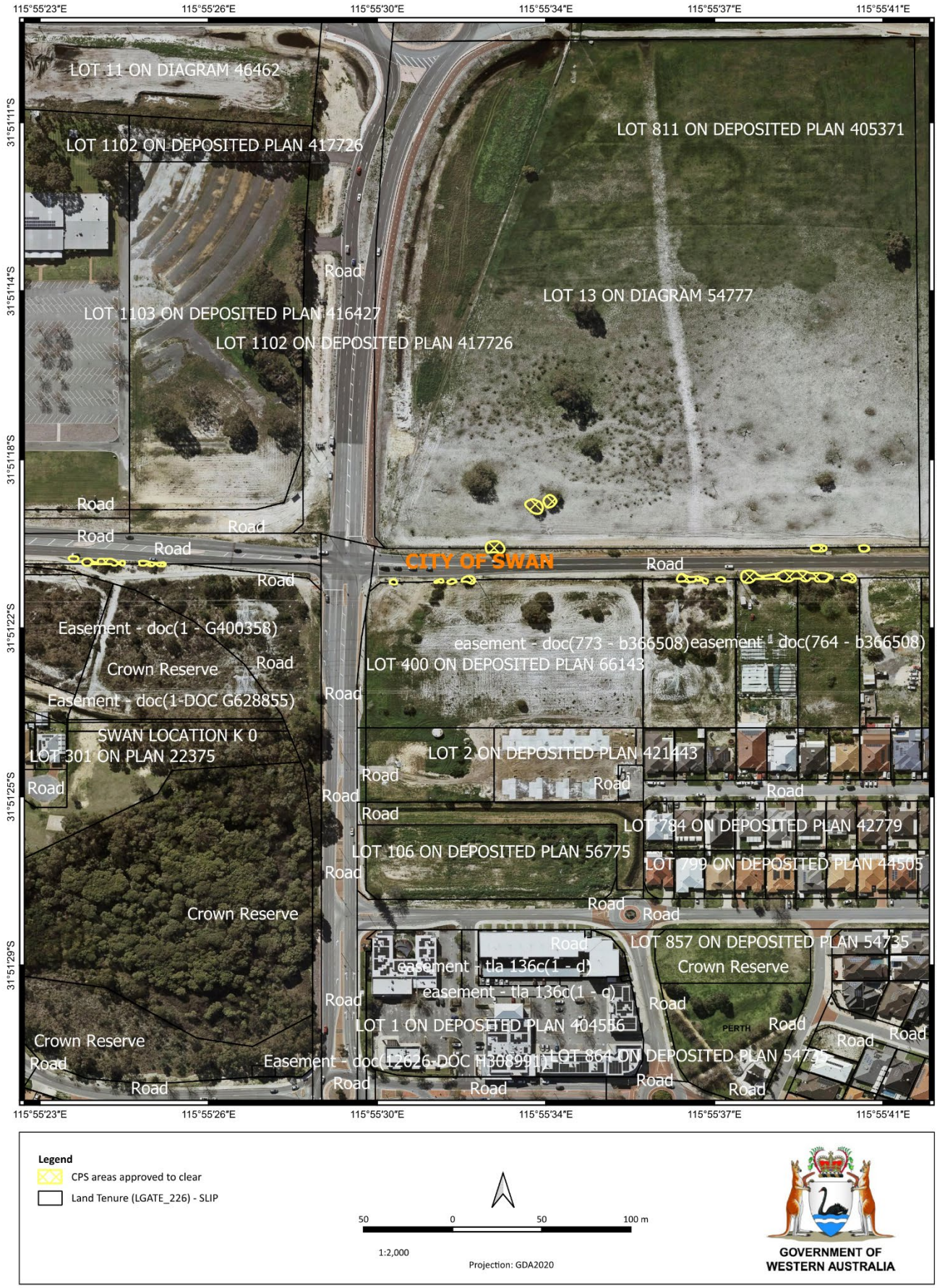

Figure 1 Map of the application area

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

Figure 2 Map of the mitigation planting area

The areas crosshatched red indicate the areas where mitigation planting is to be undertaken.

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)

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)
- 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

The applicant submitted supporting information (City of Swan, 2024), demonstrating actions taken to avoid and minimise the impacts of the proposed clearing, including:

- reducing the application area from 0.09 hectares to 0.07 hectares, removing areas adjacent to a mapped Banksia Woodlands threatened ecological community occurrence,
- moving the roundabout designs further north, minimising clearing of native vegetation.

The assessment identified the proposed clearing will result in the loss of 0.05 hectares of native vegetation that provides suitable foraging habitat for black cockatoos and 0.07 hectares of native vegetation that is a significant remnant in an extensively cleared landscape (see Section 3.2). The applicant committed to mitigate this impact through local mitigation revegetation (City of Swan, 2025).

The City will plant 14 (fourteen) *Corymbia calophylla* (marri) trees in Beechboro Road North Road Reserve (PIN 11844043), 250 metres north of the application area (see Figure 2, Section 1.5). Based on aerial imagery and photographs of the area, it currently comprises bare ground. The proposed revegetation will provide foraging habitat for black cockatoos local to the impact site. It adds habitat linkage between areas of remnant native vegetation in a highly fragmented landscape.

The adequacy of the proposed revegetation was assessed for consistency with the WA Environmental Offsets Calculator. The clearing permit contains conditions that require contingency measures for the proposed revegetation planting. Additionally, trees will not be planted within 7.5 metres of powerline infrastructure. This will allow maintenance of a suitable clearance area from infrastructure while supporting canopy growth.

The Delegated Officer is satisfied the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values. The Delegated Officer determined the proposed revegetation appropriately mitigates significant impacts in accordance with the mitigation hierarchy to the extent that significant residual impacts do not remain and an offset is not required.

3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix A) 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 B) identified the impacts of the proposed clearing present a risk to biological values (fauna, adjacent flora and vegetation) and significant remnant vegetation. 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 Principle (a) and (b)

Assessment

A site inspection conducted by the department (DWER, 2024) and the vegetation survey (PGV Environmental, 2023) identified that the application area is in completely degraded (Keighery, 1994) condition and consists of:

- scattered *Eucalyptus todtiana*, *Banksia menziesii* and *Allocasuarina fraseriana* trees,
- scattered *Acacia saligna* and *Adenanthos cygnorum* shrubs, and
- *Allocasuarina humilis* shrubland.

The desktop assessment identified 43 conservation significant fauna species recorded in the local area (10-kilometre radius from the centre of the application area). In determining the likelihood of each species to occur in the application area, the following was considered:

- the preferred habitat and vegetation types of the species,
- their recorded proximity to the application, and
- date of record (see Appendix A.3).

The likelihood analysis identified six conservation significant fauna species which may occur in the application area (see Appendix A.3). Of these, three species are likely to occur: *Zanda latirostris* (Carnaby's cockatoo; EN), *Zanda baudinii* (Baudin's cockatoo; EN), and *Calyptorhynchus banksii naso* (forest red-tailed black cockatoo; VU).

Black cockatoos

The application area is in the known distribution of Carnaby's cockatoo, Baudin's cockatoo, and forest red-tailed black cockatoo (referred to as black cockatoos). According to available databases, the closest recorded confirmed breeding site is about15 kilometres from the application area. There are 36 known roost sites in the local area; the closest is about two kilometres from the application area.

The referral guideline for threatened black cockatoos specifies that habitat critical for the recovery of black cockatoos includes foraging habitat (including remnant patches of vegetation), night roosting habitat and nesting trees for breeding (DAWE, 2022). Suitable breeding habitat for black cockatoos includes trees with a suitable nest hollow or of a suitable diameter at breast height (DBH) to develop a nest hollow (DAWE, 2022). Night roosting sites are often located near food and water resources.

According to available databases, evidence of Carnaby's cockatoo has been recorded in the application area. Based on the department's site inspection (DWER, 2024) and the vegetation survey (PGV Environmental, 2023), the application area contains approximately 0.05 hectares of suitable black cockatoo foraging habitat, including *Banksia menziesii*, *Allocasuarina fraseriana, Eucalyptus todtiana* and *Acacia saligna*. Given there are no large trees in the application area, it is not considered to provide suitable roosting or breeding habitat.

Given the above, the application area is considered to provide suitable foraging habitat for black cockatoos. As the application area is in an extensively fragmented landscape, the proposed clearing will have a cumulative impact on black cockatoo foraging habitat in the local area (see section 3.2.3).

Other fauna

Other fauna which may be transient visitors to the application area are listed in Appendix A.4. Given the lack of dense understorey, extent and condition of the vegetation, and that it comprises isolated, linear patches of vegetation along a road, the vegetation within the application area is not likely to provide habitat features critical to the continuance of conservation significant fauna locally.

Ecological linkage

The application area is in an extensively fragmented landscape (see Section 3.2.3) as the local area is highly fragmented and the vegetation contributes to a linear corridor, the application area is considered significant as an ecological linkage for fauna moving through the landscape.

Conclusion

Based on the above assessment, application area is considered to provide significant foraging habitat for black cockatoos and significant linkage value for fauna in a highly fragmented landscape. Revegetation planting of 14 (fourteen) *Corymbia calophylla* (marri) trees near the application area is sufficient to mitigate the impact of clearing in accordance with the mitigation hierarchy (see Section 3.1).

Conditions

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

- avoidance and minimisation to reduce the impacts and extent of clearing,
- demarcation of the clearing area to avoid inadvertent clearing of adjacent native vegetation,
- revegetation planting of 14 *Corymbia calophylla* (marri) trees in Beechboro Road North Road Reserve (PIN 11844043) as detailed in Section 3.1.

3.2.2. Biological values (flora and threatened ecological communities) - Clearing Principles (a) and (d)

Assessment

A site inspection conducted by the department (DWER, 2024) and the vegetation survey (PGV Environmental, 2023) indicates the application area is in completely degraded (Keighery, 1994) condition and consists of:

- scattered *Eucalyptus todtiana*, *Banksia menziesii* and *Allocasuarina fraseriana* trees,
- scattered *Acacia saligna* and *Adenanthos cygnorum* shrubs, and
- *Allocasuarina humilis* shrubland.

A flora likelihood assessment was conducted based on habitat and soil preferences, vegetation in the application area, and known species distribution.

According to available databases, *Cyathochaeta teretifolia* (P3) has been recorded approximately 50 metres from the western end of the application area. Given *C. teretifolia* is a perennial herb that grows to 2 metres high, it is considered likely to have been identifiable in the vegetation survey (PGV Environmental, 2023) if present. Given this, and the extent and condition of the vegetation, this species is considered unlikely to occur in the application area.

Threatened ecological community (TEC)

The western part of the application area is in the recommended minimum buffer zone (Department of the Environment and Energy, 2016) of a nearby mapped patch of Banksia Woodlands on the Swan Coastal Plain TEC (Banksia Woodlands TEC). The vegetation survey (PGV Environmental, 2023) did not identify banksia individuals in this part of the application area. Given this, this area is not considered representative of the Banksia Woodlands TEC.

DBCA advised the department that small and fragmented mapped Banksia Woodland TEC patches are likely already impacted by a large edge to area ratio, increased public access, weeds and rubbish (DBCA, 2023). The proposed clearing will reduce the vegetation in the buffer zone of this patch, which may exacerbate existing impacts. Given the narrow, linear nature of the vegetation in the application area and that it is separated from the mapped TEC by a sealed footpath, the proposed clearing is considered unlikely to significantly alter the functioning of the adjacent Banksia Woodlands TEC patch.

The eastern part of the application area contains *Banksia menziesii* individuals. Given these are present in small, degraded patches of roadside vegetation which lack diverse understorey, this area does not meet the Banksia Woodlands TEC diagnostic characteristics (Department of the Environment and Energy, 2016). Given this, the area is not considered representative of, or necessary for the maintenance of Banksia Woodlands TEC.

Conclusion

Given the above, the proposed clearing is not likely to be part of, or necessary for the maintenance of, nearby Banksia Woodlands TEC. Indirect impacts to adjacent vegetation are considered manageable, subject to the below conditions.

Conditions

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

- avoidance and minimisation to reduce the impacts and extent of clearing,
- take hygiene steps to minimise the risk of the introduction and spread of weeds and dieback to adjacent vegetation,
- demarcation of the clearing area to avoid inadvertent clearing of adjacent native vegetation.

3.2.3. 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 (i.e., pre-European settlement), below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).

The application area is in the Swan Coastal Plain IBRA Bioregion which retains about 39 per cent of the pre-European vegetation extent (Government of Western Australia, 2019). According to available databases, the vegetation extent in the local area falls below national targets, with about 14 per cent of the pre-European vegetation remaining (see Appendix A.2).

The Environmental Protection Authority (EPA) recognises the Perth Metropolitan Region to be a constrained area, in which a minimum 10 per cent representation threshold for ecological communities is recommended (EPA, 2008). The current vegetation extent for the Swan Coastal Plain IBRA Bioregion and the local area are above the 10 per cent threshold for constrained areas.

These thresholds do not consider the effect of habitat fragmentation and in heavily fragmented landscapes representation levels may need to be increased above standard thresholds (DER, 2013). Given the application area is in a heavily fragmented landscape, the vegetation extent in the local area is close to the 10 per cent threshold and the vegetation is considered to provide significant habitat for threatened fauna (see section 3.2.1), the application area is considered significant as a remnant of native vegetation in a fragmented and extensively cleared landscape.

Conclusion

Based on the above assessment, the application area is significant as a remnant of native vegetation in an extensively cleared landscape. Revegetation planting of 14 (fourteen) *Corymbia calophylla* (marri) trees near the application area is considered sufficient to mitigate this impact in accordance with the mitigation hierarchy (see Section 3.1).

Conditions

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

- avoidance and minimisation to reduce the impacts and extent of clearing,
- take hygiene steps to minimise the risk of the introduction and spread of weeds and dieback to adjacent vegetation,
- demarcation of the clearing area to avoid inadvertent clearing of adjacent native vegetation,
- undertake planting of 14 *Corymbia calophylla* (marri) trees in Beechboro Road North Road Reserve (PIN 11844043; as detailed in Section 3.1).

3.3. Relevant planning instruments and other matters

A related clearing permit was granted to Laing O'Rourke Australia Construction Pty Ltd (CPS 10348/1) adjacent to the application area for CPS 10373/1. The cumulative impact of the clearing proposed under this application has been accounted for during the assessment of CPS 10373/1.

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

End

Appendix A. 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.

A.1. Site characteristics

Characteristic	Details
Local context	The application area comprises isolated patches of native vegetation in the intensive land use zone of Western Australia. It is located along a major road and surrounded by areas cleared for residential use. Spatial data indicates the local area (10-kilometre radius from the centre of the application area) retains approximately 14 per cent of the original native vegetation cover.
Ecological linkage	The application area does not intersect a formal ecological linkage. The closest mapped ecological linkages are the Gnangara Conceptual Ecological Linkage and the Perth Regional Ecological Linkage located about 25 metres and 300 metres from the application area, respectively.
Conservation areas	The application area does not intersect a mapped conservation area. The closest mapped conservation area is a reserve for the purpose of Conservation of Flora and Fauna (Orchid Park; R44853) vested with the Conservation Commission of Western Australia, about 100 metres from the application area.
Vegetation description	A site inspection conducted by the department (DWER, 2024) and the vegetation survey (PGV Environmental, 2023) indicates the vegetation in the application area consists of: • scattered *Eucalyptus todtiana*, *Banksia menziesii* and *Allocasuarina fraseriana* trees, • scattered *Acacia saligna* and *Adenanthos cygnorum* shrubs, • *Allocasuarina humilis* shrubland. This is inconsistent with the mapped vegetation type: • Southern River Complex (system 42) described as open woodland of *Corymbia calophylla* (Marri) - *Eucalyptus marginata* (Jarrah) - *Banksia* species with fringing woodland of *Eucalyptus rudis* (Flooded Gum) - *Melaleuca rhaphiophylla* (Swamp Paperbark) along creek beds. *The mapped vegetation type retains approximately 18 per cent of the original extent (Government of Western Australia, 2019).*
Vegetation condition	The vegetation survey (PGV Environmental, 2023) identified vegetation in the application area in completely degraded (Keighery, 1994) condition. The full Keighery (1994) condition rating scale is provided in Appendix C.
Climate and landform	The average annual rainfall received over the application area from 1991 to 2020 was 600 to 1000 millimetres (Commonwealth of Australia, 2024). The application area is at an altitude of 30 to 35 meters above sea level.
Soil description	The soil is mapped as Bassendean, Jandakot Phase (212Bs__Ja), described as Jandakot low dunes. Slopes of the site are less than 10% and generally more than 5m relief. Soils within the application area are grey sand over pale yellow sands generally underlain by humic and iron podsols with *Banksia* spp. low open woodland with a dense shrub layer (DPIRD, 2019).
Land degradation risk	Land degradation risks are summarised in Table A.5. The application area is mapped as moderate to low acid sulfate soils disturbance risk.
Waterbodies	The desktop assessment and aerial imagery indicate the application area does not intersect a mapped waterbody. The closest mapped waterbodies are a multiple use palusplain (seasonally waterlogged flat), and a multiple use sumpland (seasonally inundated basin), 30 metres and 70 metres from the application area, respectively.
Hydrogeography	The application area falls within the Swan River System Surface Water Area and Mirrabooka Groundwater Area as proclaimed under the *Rights in Water and Irrigation*

Characteristic	Details
	Act 1914 (RiWI Act). The groundwater salinity level (total dissolved solids) is mapped as 500-1000 milligrams per litre.
Flora	The desktop assessment identified 46 conservation significant flora species in the local area, comprised of six threatened flora and 40 priority flora species. The nearest record is a Priority 3 species, *Cyathochaeta teretifolia*, 50 metres from the application area.
Ecological communities	The application area is in the mapped buffer of a Banksia Woodlands of the Swan Coastal Plain TEC patch.
Fauna	The desktop assessment identified 43 conservation significant fauna species in the local area. One fauna species, *Zanda latirostris* (Carnaby's cockatoo), has been recorded in the application area. The application area is within Baudin's cockatoo, Carnaby's cockatoo and forest red-tailed black cockatoo known distribution zones. There are 36 known black cockatoo roost sites in the local area, the closest recorded roost site is 2 kilometres from the application area.

A.2. Vegetation extent

	Pre-European extent (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current proportion (%) of pre-European extent in all DBCA managed land
IBRA bioregion*					
Swan Coastal Plain	1,501,221.93	579,813.47	38.62	222,916.97	17.98
Vegetation complex**					
Southern River Complex (system 42)	58,781.48	10,832.18	18.43	940.36	1.60
Local area					
5km radius	32,094.00	4,518.19	14.08	-	-

*Government of Western Australia (2019a)

**Government of Western Australia (2019b)

A.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)
Zanda latirostris (Carnaby's cockatoo)	EN	Y	Y	0.00
Isoodon fusciventer (quenda)	P4	Y	Y	0.73
Calyptorhynchus banksii naso (forest red-tailed black cockatoo)	VU	Y	Y	1.22
Zanda baudinii (Baudin's cockatoo)	EN	Y	Y	2.78
Notamacropus irma (western brush wallaby)	P4	Y	Y	4.25
Hylaeus globuliferus (woolybush bee)	P3	Y	Y	8.49

A.4. Land degradation risk table

Risk categories	*Land Unit 1*
Phosphorus export risk	H2: >70% of map unit has a high to extreme phosphorus export risk
Subsurface Acidification	H2: >70% of map unit has a high subsurface acidification risk or is presently acid
Water repellence	H2: >70% of map unit has a high water repellence risk
Wind erosion	H1: 50-70% of map unit has a high to extreme wind erosion risk
Water erosion	L1: <3% of map unit has a high to extreme water erosion risk
Salinity	L1: <3% of map unit has a moderate to high salinity risk or is presently saline
Flood risk	L1: <3% of the map unit has a moderate to high flood risk
Water logging	L1: <3% of map unit has a moderate to very high waterlogging risk

Appendix B. 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: Given the size, condition and location of the application area, it is not likely to comprise a high level of biodiversity. *Cyathochaeta teretifolia (P3)* is known locally but was not recorded within the application area with an appropriately timed survey. Surveys of the application area do not identify high levels of biological diversity within the application area.	Not likely to be at variance	Yes *Refer to Section 3.2.1 and 3.2.2, above.*
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."* Assessment: The application area contains suitable foraging habitat for black cockatoos.	At variance	Yes *Refer to Section 3.2.1, above.*
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: A flora likelihood assessment was conducted based on habitat and soil preferences, vegetation in the application area, and known species distribution. Surveys of the application area do not identify any known threatened flora or suitable habitat for threatened flora within the application area.	Not likely to be at variance	No
Principle (d): *"Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community."* Assessment: The application area is in the buffer of a mapped occurrence of the Banksia Woodlands TEC. Given the size and condition of the application area, it is not part of, or necessary for the maintenance of the TEC patch. Clearing within the buffer of a known TEC may cause indirect impacts.	May be at variance	Yes *Refer to Section 3.2.2, above.*
Environmental value: significant remnant vegetation and conservation areas		
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."* Assessment: The extent of native vegetation in the local area is marginally above the minimum threshold for constrained areas (EPA, 2008). Given the application area is in a highly fragmented landscape and provides significant habitat for threatened fauna, it is considered significant as a remnant in an extensively cleared landscape.	At variance	Yes *Refer to Section 3.2.3, above.*
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."* Assessment: Given the distance to the nearest conservation area, and the small extent and degraded condition of vegetation in the application area, the proposed clearing	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
is not likely to have an impact on the environmental values of nearby conservation areas.		
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."* Assessment: The application area is likely hydrologically connected to the nearby mapped palusplain. It is likely hydrological flows in the application area have been significantly altered by existing road infrastructure. Given this, the proposed clearing is unlikely to significantly increase existing impacts to hydrology and water quality.	Not likely to be at variance	No
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: The mapped soils are highly susceptible to wind erosion, water repellence, subsurface acidification and phosphorous export. Noting the extent and condition of the vegetation in the application area, the proposed clearing is not likely to have an appreciable impact on land degradation.	Not likely to be at variance	No
Principle (i): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water."* Assessment: The application area is likely hydrologically connected to the nearby mapped palusplain. It is likely hydrological flows in the application area have been significantly altered by existing road infrastructure. Given this, the proposed clearing is unlikely to significantly increase existing impacts to surface or ground water quality.	Not likely to be at variance	No
Principle (j): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."* Assessment: According to available mapping, the application area is within a low flood risk area. Given this, and the small extent and degraded condition of vegetation proposed to be cleared, it is unlikely that the proposed clearing with cause or exacerbate flooding.	Not likely to be at variance	No

Appendix C. Vegetation condition rating scale

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

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from 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 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)

D.2. References

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