GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: CPS 10560/1

File Number: DWERVT14848

Duration of Permit: From 31 August 2024 to 31 August 2026

PERMIT HOLDER

City of Belmont

LAND ON WHICH CLEARING IS TO BE DONE

The Esplanade road reserve (PIN 1288509), Ascot

Lot 302 on Deposited Plan 47452, Ascot

AUTHORISED ACTIVITY

The permit holder must not *clear* more than 0.04 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

CONDITIONS

1. Period during which clearing is authorised

The permit holder must not *clear* any *native vegetation* after 31 August 2026.

2. 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.

3. 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*.

4. Erosion Management

The permit holder must ensure that landscaping works commence within two (2) months of the authorised *clearing* being undertaken to reduce the risk of soil erosion by minimising the exposure time of soils.

5. 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* 2; and (f) actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with *condition* 3.

6. Reporting

The permit holder must provide to the *CEO* the records required under *condition* 5 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.
fill	means material used to increase the ground level, or to fill a depression.
dieback	means the effect of *Phytophthora* species on native vegetation.
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.
EP Act	*Environmental Protection Act 1986* (WA)
mulch	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
weeds	means any plant – (a) that is a declared pest under section 22 of the *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

Mathew Gannaway
MANAGER
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

7 August 2024

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

Government of Western Australia
Department of Water and Environmental Regulation

Clearing Permit Decision Report

Application details and outcome

Permit application details

Permit number:	CPS 10560/1
Permit type:	Area permit
Applicant name:	City of Belmont
Application received:	15 March 2024
Application area:	0.04 hectares of native vegetation (revised)
Purpose of clearing:	Landscaping
Method of clearing:	Mechanical
Property:	The Esplanade road reserve (PIN 1288509) Lot 302 on Deposited Plan 47452
Location (LGA area/s):	City of Belmont
Localities (suburb/s):	Ascot

Description of clearing activities

The vegetation proposed to be cleared are selected parcels of native shrubs distributed along the bank of the Swan River (see Figure 1, Section 1.5) for the purpose of mitigating foreshore erosion, revegetating areas and formalising public access (Natural Area, 2024).

The application was revised during the assessment process to only reflect the strip of rushes/sedges along the water's edge required to be removed for the remediation works. The changes resulted in the reduction of proposed clearing area from 0.14 to 0.4 hectares (City of Belmont, 2024d).

Decision on application

Decision:	Granted
Decision date:	7 August 2024
Decision area:	0.04 hectares of native vegetation (revised), as depicted in Section 1.5, below.

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.1.), relevant datasets (see Appendix F.1.), the findings of a flora, fauna and black cockatoo survey and an environmental management plan (see Appendix E), 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 to stabilise the riverbank, mitigate foreshore erosion and formalise public access.

The assessment identified that the proposed clearing will result in:

- the loss of 0.04 hectares of native vegetation
- 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 wind erosion and acid sulphate soils.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined the proposed clearing is unlikely to lead to appreciable land degradation or significantly impact the adjacent Swan River.

The Delegated Officer determined that the proposed clearing is unlikely to have any long-term adverse impacts on the environment, and that management and mitigation measures conditioned on the permit will mitigate any potential impacts. The Delegated Officer decided to grant a clearing permit subject to conditions including to:

- avoid, minimise and reduce the impacts and extent of clearing;
- take steps to minimise the risk of the introduction and spread of weeds and dieback; and
- begin landscaping activities within two months of the cessation of clearing to minimise the risk of wind erosion and acid sulphate soils.

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.

Legislative context

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

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

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

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Rights in Water and Irrigation Act 1914* (RIWI Act)
- *Swan and Canning Rivers Management Act 2006* (SC Act)

The key guidance documents which inform this assessment are:

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

Detailed assessment of application

3.1. Avoidance and mitigation measures

Evidence was submitted by the applicant, demonstrating that avoidance and mitigation measures have been considered in the planning of this application and the project, namely:

- Development of the 'Construction Environmental Management Plan' (CEMP) (Natural Area, 2023) (see Figure 6 in Appendix E)
    - Installation and maintenance of a silt curtain, during and after the works, to mitigate the risk of deleterious materials entering the waterway and increasing the turbidity levels.
    - Installation of temporary fencing, signs, lights and barriers around site to prevent public access and ensure public safety.
    - Establishment and protection of Tree Protection Zones (TPZ) with temporary fencing.
    - All existing native sedge that will potentially be impacted by construction works or marked for removal will be carefully removed and placed in geobags, to be relocated and stored at Natural Area's (Nursery Industry Accreditation Scheme Australia) NIASA accredited Nursery for preservation until they can be replanted within the works site following the completion of the rock revetment construction works.
    - Weed control prior to, during and post construction.
    - Dewatering and acid sulphate soils management procedure developed to ensure acid sulphate soils will be uncovered during the construction process.
    - Maintenance of application area post construction, including revegetation, weed control, watering, infill planting, monthly monitoring for 12 months post project completion.
- Application area was minimised during the assessment to exclude any areas devoid of any native vegetation (paths/grass/mulched areas). The revised area only reflects the strip of native rushes/sedges along the water's edge. The total revised application area was reduced to 0.041 hectares.
- Potential black cockatoo habitat trees within the clearing areas will not be removed (City of Belmont, 2024d).

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 C) identified that the impacts of the proposed clearing present a risk to biological values, significant remnant vegetation and conservation areas, 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. Environmental value (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 Environmental Protection Authority (EPA) recognises the Perth Metropolitan Region to be a constrained area, within which a minimum 10 per cent representation threshold for ecological communities is recommended (EPA, 2008).

According to available databases, the application area is mapped as the Bassendean Complex-Central and South which is described as vegetation ranging from woodland of *Eucalyptus marginata* (jarrah) - *Allocasuarina fraseriana* (sheoak) - Banksia species to low woodland of Melaleuca species, and sedgelands on the moister sites. This area includes the transition of *Eucalyptus marginata* (jarrah) to *Eucalyptus todtiana* (pricklybark) in the vicinity of Perth. This is inconsistent with vegetation surveys undertaken within the application area, which found that the vegetation within the application area only contained one vegetation type which was Completely Degraded (Keighery, 1994) and comprised of isolated trees over introduced grassland (Natural Area, 2024).

According to available mapping, the remnant vegetation in the local area only retains approximately 5.94 percent of its pre-European native vegetation cover. However, as the location does not contain high biodiversity and habitat values for flora and fauna, it is unlikely to represent an area of significant remnant vegetation.

Conclusion

Noting the extent and purpose of the proposed clearing, and the lack of environmental values of the application area, it is considered that the impact of the proposed clearing is unlikely to sever connectivity within the surrounding area and does not constitute a significant residual impact.

Condition

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

- Avoid and minimise native vegetation clearing.
- Take hygiene steps to minimise the risk of the introduction and spread of weeds and dieback.

3.2.2. Environmental value (conservation area, watercourse, surface water) - Clearing Principles (h), (f) and (i)

Assessment

The application area is located directly adjacent to the Swan River, a basin, estuary-waterbody and Geographic Conservation Category Wetland (UFI - 13316). Proposed clearing is within the Swan River Reserve R48325, vested for management in the Swan River Trust for the purpose of *'protection and enhancement of the ecological and community benefits and amenity of the Swan and Canning Rivers'* and as a result within the Swan Canning Development Control Area.

The proposed clearing may cause deterioration in the quality of the adjacent conservation area and surface water quality. These potential impacts have been identified and mitigated through a comprehensive CEMP complied for the works (Natural Area, 2023) as well as two permits issued by the Department of Biodiversity, Conservation and Attractions (DBCA) obtained by the City (City of Belmont, 2024c) ensuring the implementation of the Management Plan.

Conclusion

For the reasons set out above, it is considered that the impacts of the proposed clearing on the adjacent conservation area can be managed by the existing permits and CEMP. As a result it does not constitute a significant residual impact.

Conditions

Nil conditions

3.2.3. Environmental value (land degradation) - Clearing Principle (g)

Assessment

According to available databases, the soils within the area proposed to be cleared may be at an increased risk of wind erosion, acid sulphate soils, sub-surface acidification, waterlogging and water repellence. This is due to the sandy nature of the topsoil across the application area, in combination with the foreshore location. If appropriate management measures such as ground cover or adequate dust suppression on exposed surfaces are put in place, the environmental impacts caused by wind erosion can be managed. Ensuring works commence within two months of clearing will minimise exposure to bare soils.

Due to majority of the area requiring excavation falls outside of the low water level mark, it is not envisioned that acid sulphate soils will be uncovered. Excavation works required in areas that may have the potential to be acid sulphate soils will not be excavating in excess of 100 metre cubed of potential acid sulphate soils and therefore will not require an acid sulphate soils management plan. In the unlikely event acid sulphate soils are identified at the project site, a management protocol has been outlined in the CEMP for the project (Natural Area, 2023).

Although the soil types within the application areas indicate that there may be an increased risk of wind erosion, acid sulphate soils, sub-surface acidification, waterlogging and water repellence, due to the extent and location of the proposed clearing, the purpose of the clearing and the detailed CEMP (Natural Area, 2023) that has been developed for the project, these risks are unlikely to be increased as a result of the clearing.

Conclusion

Based on the above assessment, the proposed clearing may cause land degradation through wind erosion. Ensuring works commence within two months of the clearing will minimise any potential risks of land degradation.

Conditions

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

- Begin landscaping activities within two months of the cessation of clearing to minimise the risk of wind erosion and acid sulphate soils.

3.3. Relevant planning instruments and other matters

The application area is within the RIWI Perth groundwater area as proclaimed under the RIWI Act. An exemption applies for the works, as they will be authorised under section 21A(1) and the SC Act administered by DBCA (City of Belmont, 2024a).

The application area falls within the Swan River Development Control Area managed by DBCA. The City of Belmont have obtained the required permits under Part 4 (Regulation 29) of the *Swan and Canning Rivers Management Regulations 2007* for the landscaping, foreshore stabilisation and erosion control works (City of Belmont, 2024c).

The application area is located within the boundary of the registered Native Title (Indigenous Land Use Agreement) (LGATE-067) Whadjuk People Indigenous Land Use Agreement WI2017/015. The application area partially overlaps with the Swan River Aboriginal Cultural Heritage Site ACH-00003536 - Creation / Dreaming Narrative. Several Aboriginal Cultural Heritage Sites have been mapped within the local area. It is the permit holder's responsibility to comply with the *Aboriginal Heritage Act 1972* (WA) and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

End

Appendix A. Additional information provided by applicant

Summary of comments	Consideration of comment
Applicant provided required DBCA permit (City of Belmont, 2024c).	This information was considered in Section 3.3: Relevant planning instruments and other matters of this report.
Applicant provided shapefiles of reduced application area and confirmation that potential black cockatoo habitat trees within the clearing areas will not be removed (City of Belmont, 2024d)	This information was considered in Section 3.1: Avoidance and mitigation measures and Section 3.2.1: Impacts on environmental values - Biological Values – clearing principle (b) (fauna)

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 C.

B.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is a combined area of 0.4 hectares of native vegetation in the intensive land use zone of Western Australia, within a highly cleared landscape, approximately 7.5 kilometres from the Perth Central Business District (CBD). It is located within the southern bank of the Swan River foreshore area, adjacent to recreational parkland and residential area to the south and the Swan River to the north. Aerial imagery indicates the local area (10 kilometre radius from the centre of the area proposed to be cleared) retains approximately 5.94 per cent of the original native vegetation cover.
Ecological linkage	The application area includes part of a fringing corridor along the Swan River, and this portion of the application area is likely to function as part of an ecological corridor. Gnangara Ecological Linkage (Object ID – 113, Link ID – 24 and 44) – Conceptual Linkage dataset is mapped over the application area. These are proposed ecological linkages based on past studies and new linkages across the landscapes with less than 60% native vegetation retained or on core landscapes that are predominately over private property. The Perth Regional Ecological Linkage (Link and Object ID – 35) dataset is also mapped over the application area, which aims to identify regional ecological linkages which broadly represent a link between patches of remnant vegetation, and may act as stepping stones to form the Regional Ecological Linkages, judged to be of regional significance in the Perth Metropolitan Region (PMR) Scheme Area. Noting the minimal clearing required, the mapped ecological linkages will not be severed.
Conservation areas	Adjacent to R 48325 vested for management with the Swan River Trust, land use - 'Landscape protection'. The application area is classified as a Geographic Conservation Category Wetland due to it's close proximity to the Swan River Estuary (UFI - 13316.
Vegetation description	Surveys supplied by the City indicate the vegetation within the proposed clearing area consists of one vegetation type, which was recorded as isolated trees over introduced grassland (Natural Area, 2024). This is not consistent with the mapped vegetation complex: • Bassendean Complex – Central and South – which is described as vegetation ranges from woodland of *Eucalyptus marginata* (Jarrah) - *Allocasuarina fraseriana* (Sheoak) - *Banksia* species to low woodland of *Melaleuca* species,

Characteristic	Details
	and sedgelands on the moister sites. This area includes the transition of *Eucalyptus marginata* (Jarrah) to *Eucalyptus todtiana* (Pricklybark) in the vicinity of Perth. The mapped Bassendean Vegetation Complex – Central and South retain approximately 16.40 and 26.87 per cent within respectively of their original extent (Government of Western Australia, 2019).
Vegetation condition	Vegetation survey (Natural Area, 2024) indicate the vegetation within the proposed clearing area is in a Completely Degraded (Keighery, 1994) condition. The full Keighery (1994) condition rating scale is provided in Appendix D. The survey descriptions and mapping are available in Appendix E.
Climate and landform	The nearest weather station is the Perth Airport approximately 3.9 kilometres from application area (BOM, 2024). The mean maximum temperature is highest in February at 32 degrees Celsius and lowest at 18 degrees Celsius in July. The mean minimum temperature is highest in February at 17.6 degrees Celsius and lowest at 8.1 degrees Celsius in July and August. The annual rainfall is 759.3 millimetres.
Soil description	The soil within the application areas are mapped as: • 213Pj - Pinjarra System - Swan Coastal Plain from Perth to Capel. Poorly drained coastal plain with variable alluvial and aeolian soils. Variable vegetation includes jarrah, marri, wandoo, paperbark sheoaks and *rudis*. • 212Bs - Bassendean System - Swan Coastal Plain from Busselton to Jurien. Sand dunes and sandplains with pale deep sand, semi-wet and wet soil. Banksia-paperbark woodlands and mixed heaths.
Land degradation risk	See Table B.6. in Appendix B for details of land degradation risks for each soil system mapped within the application area.
Waterbodies	The application area is located directly adjacent to the Swan River classified as a Geographic Conservation Category Wetland, basin, estuary-waterbody (UFI - 13316).
Hydrogeography	The application area is within the Perth Groundwater Area (UFI – 35), proclaimed under the RIWI Act.
Flora	There were no conservation significant flora species found on site at the time of the survey (Natural Area, 2024). Although the flora surveys were not completed during optimal timing for the Swan Coastal Plain, further desktop analysis was completed. During the desktop assessment, it was identified that eight conservation significant flora species potentially occur in the survey area. None are likely to occur in the application area due to the 'Completely Degraded' condition of the area and lack of suitable habitat.
Ecological communities	Thirteen types of conservation significant ecological communities have been recorded in the local area (10 kilometre radius from the application area). Only seven Threatened Ecological Communities (TEC's) were identified as potentially occurring within the application area, however, the vegetation type identified during the field survey undertaken by Natural Areas (2023) was not consistent with the presence of any TEC's due to the lack of associated dominant species (Table 1 in Appendix E) (Natural Areas, 2023).
Fauna	Fifty-two conservation significant fauna species have been recorded within a 10 kilometre radius of the application area. The 52 records comprise of 37 species on the BC Act Threatened Species List and and 15 species identified as Priority by DBCA. The closest being *Zanda latirostris* (Carnaby's black cockatoo), which has been recorded approximately 180 metres from the application area. The survey also found no evidence of black cockatoos utilising the area (Natural Area, 2024). No habitat trees are proposed to be cleared as a part of this application (City of Belmont, 2024d). Of all the conservation fauna species recorded in the local area, none are likely to utilise the application area as a critical habitat, due to the 'Completely Degraded' condition and lack of suitable habitat within the application area.

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	1,501,221.93	579,813.47	38.62	222,916.97	14.85
Swan Coast Plain Vegetation Complex in IBRA Bioregion*					
Bassendean Vegetation Complex – Central and South	87,476.26	23,508.66	26.87	4,377.36	5.00
Local area					
10km radius from application area	31,217.96	1,853.26	5.94	-	-

*Government of Western Australia (2019a)

**Government of Western Australia (2019b)

B.3. Land degradation risk table

Risk factor	Bassendean System - 212Bs	Pinjarra System - 213Pj
Wind erosion	H1: 50-70% of map unit has a high to extreme wind erosion risk	M2: 30-50% 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	M1: 10-30% of map unit has a high to extreme water erosion risk
Water logging	M1: 10-30% of map unit has a high to extreme water erosion risk	H1: 50-70% of map unit has a moderate to very high waterlogging risk
Water Repellence	H1: 50-70% of map unit has a moderate to very high waterlogging risk	M1: 10-30% of map unit has a high water repellence risk
Sub-surface Acidification	H2: >70% of map unit has a high subsurface acidification risk or is presently acid	
Phosphorous export	M2: 30-50% of map unit has a high to extreme phosphorus export risk	
Salinity	L1: <3% of map unit has a moderate to high salinity risk or is presently saline	M1: 10-30% of map unit has a moderate to high salinity risk or is presently saline
Flooding	L1: <3% of the map unit has a moderate to high flood risk	M2: 30-50% of the map unit has a moderate to high flood risk
Groundwater salinity	500-1000 tds/mg/L	
Acid Sulphate Soils	High to moderate risk	

Appendix C. 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: The area proposed to be cleared in unlikely to contain locally or regionally significant flora or assemblages of plants. The application area is in 'Completely Degraded' condition and is unlikely to comprise high biodiversity.	Not likely to be at variance	No
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 area proposed to be cleared does not contain critical habitat for conservation significant fauna.	Not likely to be at variance	No
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: The area proposed to be cleared does not contain habitat for threatened flora species.	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 area proposed to be cleared does not contain species that can indicate a threatened ecological community.	Not at variance	No
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 the native vegetation in the local area is inconsistent with the national objectives and targets for biodiversity conservation in Australia. The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area. Proposed clearing area does not contain a high biodiversity or critical habitat for fauna and is not considered a significant remnant.	Not likely to be at variance	Yes *Refer to Section 3.2.1, 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, the proposed clearing may have an impact on the environmental values of adjacent conservation area.	May be at variance	Yes *Refer to Section 3.2.2, above.*
Environmental value: land and water resources		

Assessment against the clearing principles	Variance level	Is further consideration required?
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: Given one watercourse is located adjacent the application area and the areas being cleared contain riparian vegetation, the proposed clearing is in an environment associated with a watercourse.	At variance	Yes *Refer to Section 3.2.2, above.*
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 moderately to highly susceptible to wind erosion, water logging, water repellence, sub-surface acidification and acid sulphate soils. Noting the location of the application area, the proposed clearing may cause land degradation without appropriate management.	May be at variance	Yes *Refer to Section 3.2.3, above.*
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: Given a water course is directly adjacent to the application area, the proposed clearing may impact surface water quality.	May be at variance	Yes *Refer to Section 3.2.2, above.*
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: 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.	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.

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

Appendix E. Biological survey information excerpts / photographs of the vegetation

Figure 2: Vegetation type recorded across survey site (Natural Areas, 2024)

Table 1: Threatened Ecological Communities likely to occur at site, however, not recorded during survey (Natural Area, 2024)

Threatened Ecological Community	Occurrence	Rationale
Banksia Woodlands of the Swan Coastal Plain ecological community	Unlikely to occur	The site location does not conform with the location or structure of this community. Species recorded in this survey do not associate with this community.
Clay Pans of the Swan Coastal Plain	Unlikely to occur	The site is not seasonally inundated with rainwater and dry in the summer so does not conform with this community.
Corymbia calophylla – Kingia australis woodlands on heavy soils of the Swan Coastal Plain	Unlikely to occur	Species recorded during the survey do not associate with this community.
Empodisma peatlands of southwestern Australia	Unlikely to occur	Species recorded during the survey do not associate with this community.
Shrublands and Woodlands of the eastern Swan Coastal Plain	Unlikely to occur	Species recorded during the survey do not associate with this community.
Subtropical and Temperate Coastal Saltmarsh	Unlikely to occur	The site does not meet the location criteria for this ecological community.
Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain ecological community	Unlikely to occur	Species recorded during the survey do not associate with this community.

Casuarina obesa (Swamp Sheoak)

Salicornia quinqueflora (Beaded Samphire)

Figure 3: Flora species observed within the application area (Natural Area, 2024)

Figure 4: Potential black cockatoo habitat trees recorded across survey site (Natural Areas, 2024)

Figure 5: Vegetation condition across survey site (Natural Areas, 2024)

Figure 6: Detailed site map (Natural Areas, 2023)

Table 2: Black Cockatoo Habitat Assessment - Data collected during the black cockatoo habitat assessment is presented below, including the species of each tree, DBH, height, number of hollows and the approximate entrance size of each hollow Natural Area (2024).

Tree ID	Species	DBH (mm)	Height (m)	Number of Hollows	Approximate Entrance Size (cm)
1	*Eucalyptus rudis*	940	10	0	-
2	*Eucalyptus rudis*	550	7	0	-
3	*Eucalyptus rudis*	390	14	0	-
4	*Eucalyptus rudis*	820	12	1	8 x 5
5	*Casuarina obesa*	441	8	0	-
6	*Eucalyptus sp.*	490	9	0	-
7	*Eucalyptus rudis*	1,108	10	2	15 x 10
8	*Eucalyptus rudis*	1,702	15	7	10 x 8 15 x 10 5 x 5 25 x 15 20 x 15 10 x 10 30 x 30
9	*Eucalyptus rudis*	1,102	7	0	-
10	**Melaleuca quinquenervia*	480	14	0	-
11	**Melaleuca quinquenervia*	520	12	0	-
12	**Melaleuca quinquenervia*	400	12	0	-
13	*#Eucalyptus leucoxylon*	480	8	0	-
14	*Melaleuca viminalis*	380	10	0	-
15	*Casuarina obesa*	680	10	0	-
16	*Melaleuca viminalis*	300	7	0	-
17	*#Eucalyptus leucoxylon*	640	15	0	-
18	**Melaleuca quinquenervia*	540	9	0	-
19	*Eucalyptus rudis*	1,140	14	2	30 x 25 5 x 5
20	*#Eucalyptus leucoxylon*	390	7	0	-
21	*#Callistemon sp.*	440	8	0	-
22	*Casuarina obesa*	306	7	0	-
23	*Eucalyptus rudis*	1,170	15	3	10 x 10 15 x 15 15 x 15

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)
- 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

Bureau of Meterology (BOM) (2024) Climate statistics for Australian locations, summary statistics for Perth Airport. Available from: http://www.bom.gov.au/climate/averages/tables/cw_009021.shtml (accessed 28 June 2024).

City of Belmont (2024a) *Clearing permit application CPS 10560/1*, received 15 March 2024 (DWER Ref: DWERDT921134).

City of Belmont (2024b) *Supporting information for clearing permit application CPS 10560/1*, received 15 March 2024 (DWER Ref: DWERDT921133).

City of Belmont (2024c) *Shapefiles for application area and DBCA permit for clearing permit application CPS 10560/1*, received 9 April 2024 (DWER Ref: DWERDT932292).

City of Belmont (2024d) *Revised shapefiles for reduced application area and further information provided for clearing permit application CPS 10560/1*, received 22 May 2024 (DWER Ref: DWERDT952061).

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

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 (accessed 28 June 2024).

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 28 June 2024).

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 (accessed 28 June 2024).

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 (accessed 28 June 2024).

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 (accessed 28 June 2024).

Government of Western Australia (2019a) *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 (accessed 28 June 2024).

Government of Western Australia. (2019b) *2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019.* WA Department of Biodiversity, Conservation and Attractions. https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics (accessed 28 June 2024).

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.

Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Natural Area Consulting Management Services (Natural Area) (2023) *City of Belmont: The Esplanade Foreshore Civic and Landscaping Works: Construction & Environmental Management Plan,* Malaga, Western Australia. (DWER Ref: DWERDT921133).

Natural Area Consulting Management Services (Natural Area) (2024) *Natural Area Consulting Management Services: City of Belmont Esplanade Foreshore Environmental Assessment,* Malaga, Western Australia. (DWER Ref: DWERDT921133).

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.

Schoknecht, N., Tille, P. and Purdie, B. (2004) *Soil-landscape mapping in South-Western Australia – Overview of Methodology and output*s 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.

Valentine, L.E. and Stock, W. (2008) *Food Resources of Carnaby's Black Cockatoo (Calyptorhynchus latirostris) in the Gnangara 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 28 June 2024).