



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 8473/1
Permit Holder:	City of Belmont
Duration of Permit:	14 November 2019 – 14 November 2024

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

PART I – CLEARING AUTHORISED

1. Purpose for which clearing may be done

Clearing for the purpose of managing *Typha orientalis* and *Typha domingensis*.

2. Land on which clearing is to be done

Lot 10030 on Plan 183770, Ascot
Lot 14174 on Diagram 93555, Ascot
Lot 14314 on Plan 26400, Ascot
Lot 2 on Diagram 24123, Ascot
Lot 302 on Plan 47452, Ascot
Lot 5 on Diagram 64041, Ascot
Lot 500 on Plan 56559, Ascot
Lot 501 on Plan 60812, Ascot
Lot 603 on Diagram 92724, Ascot
Lot 631 on Plan 66336, Ascot
Lot 53 on Plan 7671, Belmont
Lot 555 on Plan 58583, Belmont
Lot 634 on Plan 66338, Belmont
Lot 8000 on Plan 48774, Belmont
Lot 33 on Plan 1029, Cloverdale
Lot 53 on Plan 7804, Cloverdale
Lot 1000 on Plan 22003, Cloverdale
Lot 101 on Diagram 84515, Kewdale
Lot 12660 on Plan 192909, Kewdale
Lot 200 on Diagram 86405, Rivervale
Lot 800 on Plan 31953, Rivervale
Unallocated Crown Land PIN 11791206
Road Reserve PIN 11802572

3. Area of Clearing

The Permit Holder must not clear more than 0.624 hectares of native vegetation within the areas hatched yellow on attached Plans 8473/1A, 8473/1B and 8473/1C.

4. Application

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

5. Type of clearing authorised

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

PART II –MANAGEMENT CONDITIONS

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

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

- (a) avoid the clearing of native vegetation;
- (b) minimise the amount of native vegetation to be cleared; and
- (c) reduce the impact of clearing on any environmental value.

7. Dieback and weed control

When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds* and *dieback*:

- (a) clean earth-moving and any other machinery used to undertake the clearing 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 area to be cleared.

PART III - RECORD KEEPING AND REPORTING

8. Records to be kept

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

- (a) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
- (b) the date that the area was cleared;
- (c) the size of the area cleared (in hectares);
- (d) actions taken to avoid, minimise and reduce the impacts and the extent of clearing in accordance with condition 6 of this Permit; and
- (e) actions taken to minimise the introduction and spread of *weeds* and *dieback* in accordance with condition 7 of this Permit.

9. Reporting

The Permit Holder must provide to the *CEO* the records required under Condition 8 of this Permit, when requested by the *CEO*.

DEFINITIONS

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

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

dieback means the effect of *Phytophthora* species on native vegetation;

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

mulch means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

weed/s means any plant -

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*;
or
- (b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or
- (c) not indigenous to the area concerned.



Ryan Mincham

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Ryan Mincham
MANAGER
NATIVE VEGETATION REGULATION

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

15 October 2019

Plan 8473/1A



- Legend**
- CPS areas approved to clear
 - Local Government Authorities
 - LGA
 - BAYSWATER, CITY OF
 - BELMONT, CITY OF
 - PERTH, CITY OF
 - STIRLING, CITY OF
 - VICTORIA PARK, TOWN OF
 - VINCENT, CITY OF
 - BASSENDEAN, TOWN OF
 - CAMBRIDGE, TOWN OF
 - CANNING, CITY OF
 - CLAREMONT, TOWN OF
 - KALAMUNDA, CITY OF
 - MUNDARING, SHIRE OF
 - Roads - State Roads

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Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

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Plan 8473/1B



Legend

- CPS areas approved to clear
- Roads - State Roads
- Local Government Authorities
- LGA
- BAYSWATER, CITY OF
- BELMONT, CITY OF
- PERTH, CITY OF
- STIRLING, CITY OF
- VICTORIA PARK TOWN OF

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Officer with delegated authority under Section 20 of the Environmental Protection Act 1986.

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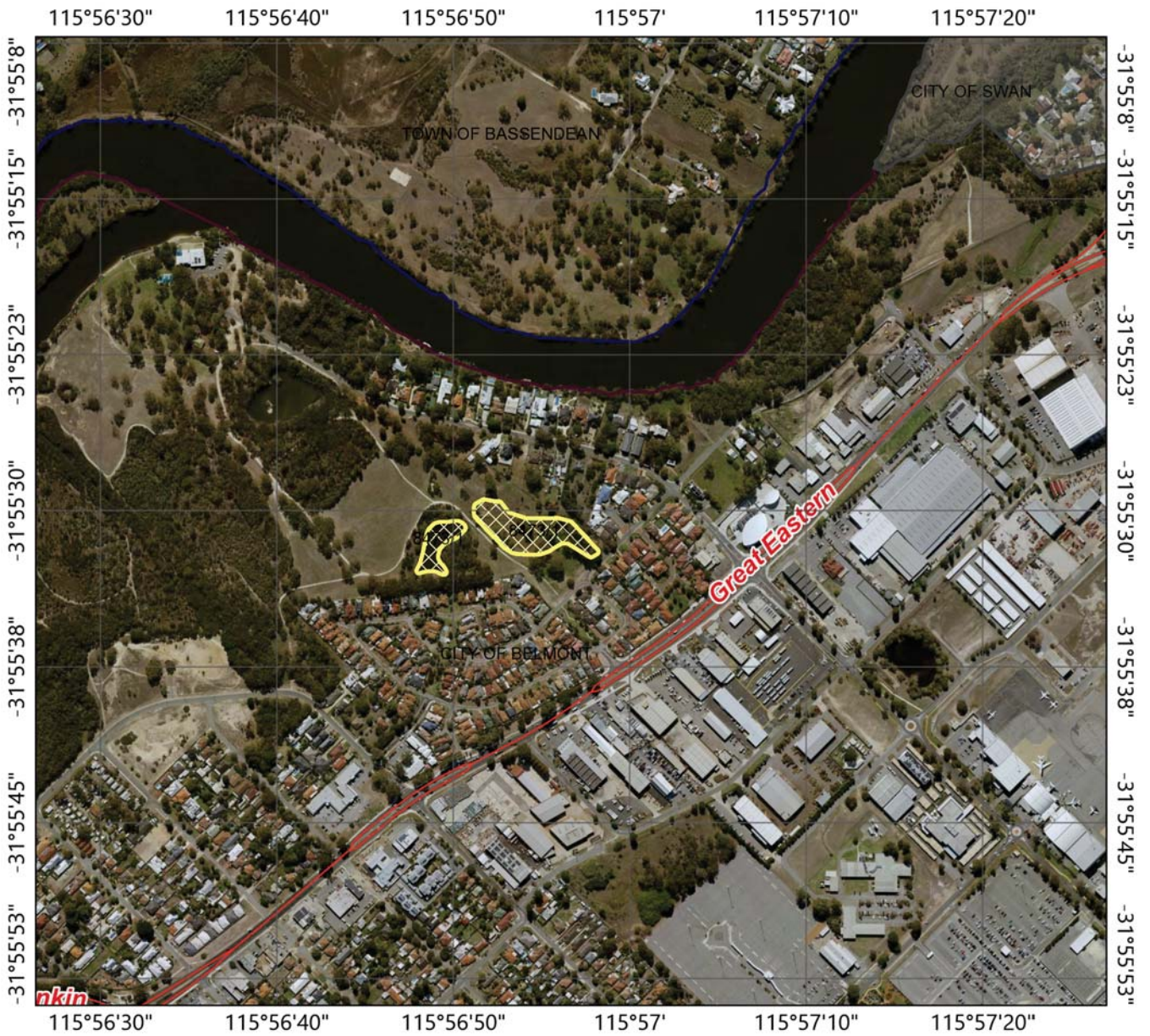
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Locality Map



Government of Western Australia
 Department of Water and Environmental Regulation

Plan 8473/1C



Legend

- CPS areas approved to clear
- Roads - State Roads

Local Government Authorities
LGA

- BAYSWATER, CITY OF
- BELMONT, CITY OF
- PERTH, CITY OF
- STIRLING, CITY OF
- VICTORIA PARK TOWN OF

0.3 0.13 0.3 Kilometers



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Locality Map



Government of Western Australia
Department of Water and Environmental Regulation



Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 8473/1
Permit type: Purpose Permit

1.2. Applicant details

Applicant's name: City of Belmont
Application received date: 18 April 2019

1.3. Property details

Property:
 Lot 10030 on Plan 183770, Ascot
 Lot 14174 on Diagram 93555, Ascot
 Lot 14314 on Plan 26400, Ascot
 Lot 2 on Diagram 24123, Ascot
 Lot 302 on Plan 47452, Ascot
 Lot 5 on Diagram 64041, Ascot
 Lot 500 on Plan 56559, Ascot
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 Lot 12660 on Plan 192909, Kewdale
 Lot 200 on Diagram 86405, Rivervale
 Lot 800 on Plan 31953, Rivervale
 Unallocated Crown Land PIN 11791206
 Road Reserve PIN 11802572
 Local Government Authority: City of Belmont
 Localities: Ascot, Belmont, Cloverdale, Kewdale and Riverdale

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	Purpose category:
0.624		Mechanical Removal and Hand Removal	Miscellaneous (Weed control)

1.5. Decision on Application

Decision on Permit Application: Granted
Decision Date: 15 October 2019

Reasons for Decision: The clearing permit application has been assessed against the clearing principles, planning instruments and other matters in accordance with section 51O of the *Environmental Protection Act 1986* (EP Act). It has been concluded that the proposed clearing is at variance to principle (f) and is not likely to be at variance to any of the remaining clearing principles.

Through the assessment, it was determined that the application area may increase the risk of weeds and dieback. A weed and dieback management condition has been placed on the clearing permit to minimise the risk of weeds and dieback spreading.

In determining to grant a clearing permit subject to conditions, the Delegated Officer found that the proposed clearing is unlikely to lead to an unacceptable risk to the environment.

2. Site Information

Clearing Description

The application is for the clearing of up to 0.624 hectares of native vegetation within various areas throughout the City of Belmont (Figures 1-3), for the purpose of managing *Typha orientalis* and *T. domingensis* (Typha) to maintain the quality and aesthetics of lakes and streams.

Vegetation Description

The application area is situated within the following mapped Swan Coastal Plain vegetation complexes (Hedde et al., 1980):

- Bassendean Complex – Central and South. Vegetation ranges from woodland of *Eucalyptus marginata* (Jarrah) - *Allocasuarina fraseriana* (Sheoak) - Banksia species to low woodland of Melaleuca species, and sedgeland on the moister sites. This area includes the transition of *Eucalyptus marginata* (Jarrah) to *Eucalyptus tottiana* (Pricklybark) in the vicinity of Perth;
- Guildford Complex, described as a mixture of open forest to tall open forest of *Corymbia calophylla* (Marri) - *Eucalyptus wandoo* (Wandoo) - *Eucalyptus marginata* (Jarrah) and woodland of *Eucalyptus wandoo* (Wandoo) (with rare occurrences of *Eucalyptus lane-poolei* (Salmon White Gum)). Minor components include *Eucalyptus rudis* (Flooded Gum) - *Melaleuca raphiophylla* (Swamp Paperbark); and
- Southern River Complex, 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.

Vegetation Condition

Very Good: Vegetation structure altered, obvious signs of disturbance;

to

Degraded: Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management (Keighery, 1994).

The vegetation condition was based on a review of available aerial imagery.

Soil type

The application area is mapped as occurring within the following mapped soil systems (DPIRD, 2017):

- Bassendean system – Sand dunes and sandplains with pale deep sand, semi-wet and wet soil; and
- Pinjarra system – Poorly drained coastal plain with variable alluvial and Aeolian soils.

Comments

The local area referred to in the below assessment is defined as the area within a 10 kilometre radius of the application area.



Fig 1: Application area (outlined in blue)

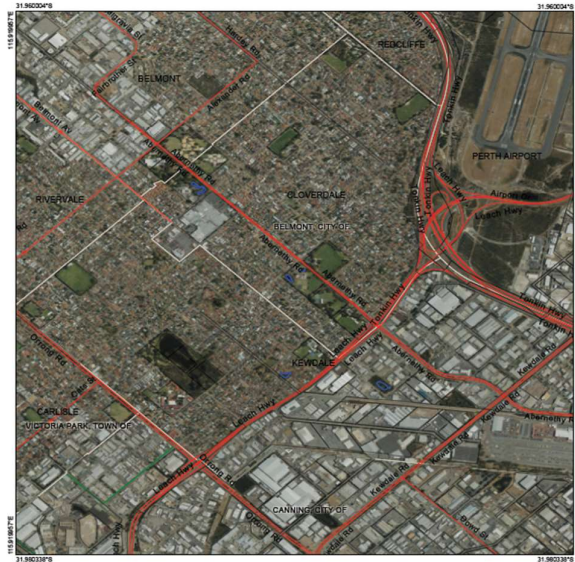


Figure 2: Application area (outlined in blue)

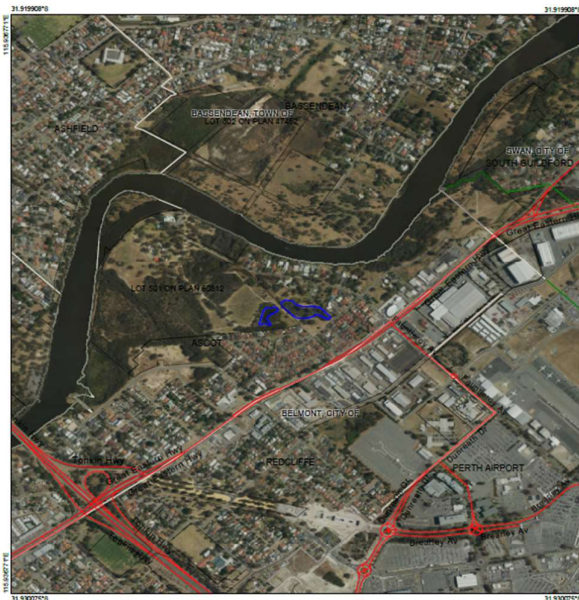


Figure 3: Application area (outlined in blue)

3. Assessment of application against clearing principles

A review of available databases determined that 111 flora species of conservation significance have been recorded in the local area, comprising 12 Priority 1 flora species, 13 Priority 2 flora species, 46 Priority 3 flora species, 19 Priority 4 flora species and 20 Threatened species (Western Australian Herbarium, 1998-). No occurrences of the above species have been recorded within the application area. While *Typha* is native to Western Australia, this species is capable of aggressive invasions that can transform wetland ecosystems unless it is actively managed (Western Australian Herbarium, 2019). When uncontrolled, *Typha* can develop quickly into a monoculture and cover an entire waterbody. Given the application area comprises of *Typha* and its tendency to colonise wetland ecosystems, it is not anticipated that the application area comprises suitable habitat for any conservation significant flora species.

Wetlands can provide an important refuge for native fauna among a predominantly urban landscape. Previous advice from Department of Biodiversity, Conservation and Attractions (DBCA) in relation to similar applications advised that *Typha* can choke up waterways and reduce the open mud flat habitat that is vital for wader and waterbird species, and while *Typha* may provide habitat for native fauna, this species can also provide habitat for non-native and feral animals which can predate on native waterbirds (DBCA, 2019). Considering this, while the proposed clearing may result in the loss of suitable habitat for some fauna species, the proposed clearing is not anticipated to result in the loss of significant habitat for fauna species.

The proposed clearing has the potential to introduce weed species into the wetlands, potentially degrading the ecological values of these wetlands. Potential impacts from the introduction of weed species may be mitigated by a weed management condition.

A review of available databases determined that the nearest State threatened ecological communities (TECs), '*Banksia attenuata* and/or *Eucalyptus marginata* woodlands of the eastern side of the Swan Coastal Plain' and 'Herb rich saline shrublands in clay pans', both occur approximately 2.7 kilometres east of the application area. Due to the distance of the TECs, the proposed clearing is not likely to have a significant impact to the TECs. The application area is located in close proximity to the 'Banksia Dominated Woodlands of the Swan Coastal Plain' and 'Subtropical and Temperate Coastal Saltmarsh' Priority 3 ecological communities (PECs). When consideration is given to the purpose and nature of the proposed clearing, no adverse impacts to these PECs are expected due to the localized clearing of *Typha*.

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). The application area is located within the mapped extent of the Perth Metropolitan Region Scheme and is situated within Swan Coastal Plain vegetation complexes Bassendean Complex – Central and South, Guildford Complex and Southern River Complex. These vegetation complexes retain approximately 26.87, 5.09 and 18.43 per cent of their respective pre-European clearing extents (Government of Western Australia, 2018). While the Guildford vegetation complex retains less than the EPA's recommended threshold for constrained areas, the proposed activities involves the removal of only species of *Typha*. Noting the nature of the proposed clearing, the native vegetation proposed to be cleared is not considered to be a significant remnant of native vegetation in an area that has been extensively cleared. Additionally, the applicant will only remove a maximum of 0.624 hectares of *Typha* (City of Belmont, 2019a).

The proposed clearing activities comprise the removal of *Typha* growing in association with wetlands and foreshore areas of the Swan River. As this vegetation comprises part of the riparian vegetation community growing in association with these wetlands and watercourse, the proposed clearing is at variance to principle (f). As discussed previously in this report, the proposed clearing is for the purpose of controlling the occurrence of *Typha* due to its invasive nature and adverse impacts on lakes and streams. Given the application area comprises monocultures of *Typha*, which are anticipated to regrow and require long-term

management to control, the proposed clearing is not anticipated to result in any long-term impact to the ecological values of the riparian vegetation communities associated with the wetlands and foreshore areas.

Given the nature of the proposed clearing activities, the most likely land degradation impacts anticipated to result from the proposed clearing would be wind and surface water erosion of the exposed wetland embankments. However, the applicant is only proposing to clear relatively small areas, and Typha regrowth which necessitates the control of Typha stands on a long-term basis would be expected to stabilise the cleared embankments. This regrowth is expected to ensure any erosion impacts resulting from the proposed clearing will not cause long-term impacts to the integrity of the banks of the wetland environments. Advice received from the DBCA (2019) advised that the biomass from crushed or slashed Typha has been found to assist in neutralising acidity on re-wetting in areas that are prone to acid sulphate soils (DBCA, 2019). The proposed clearing is not likely to be at variance to principle (g).

Parts of the application area are located within foreshore areas adjacent to the Swan River which fall under the Swan Canning Development Control Area managed by DBCA. Given the nature of the proposed clearing activities and that the proposed clearing is confined to the clearing of Typha, no adverse impacts to the ecological values of these areas are anticipated to result from the proposed clearing.

The removal of Typha has the potential to increase sedimentation and turbidity within the wetlands and foreshore areas, which may impact surface water quality. As discussed previously in this report, the regrowth of Typha in the cleared areas is anticipated to stabilise the cleared areas and consequently any impacts to surface water quality through sedimentation are expected to be short term in nature. Therefore it is unlikely to deteriorate the quality of surface water. According to available databases, the groundwater within the application area ranges from 250 to 1000 milligrams per litre of Total Dissolved Solids (TDS). It would not be expected that the proposed clearing would cause salinity levels within the application area or surroundings to alter. Noting the extent of the proposed clearing, it is unlikely to deteriorate the quality of groundwater. No adverse impacts to the flooding regime of the local area are anticipated to result from the proposed clearing.

Given the above, the proposed clearing is at variance to principle (f), and is not likely to be at variance to any of the remaining clearing principles.

Planning instruments and other relevant matters.

The application area includes a number of foreshore areas adjacent to the Swan River which are located within the Swan Canning Development Control Area (DCA). The proposed activities within these areas require a permit from DBCA in accordance with Regulation 21 (Protection of Vegetation) of the Swan and Canning Rivers Management Regulations 2007. The applicant provided DWER the DBCA permit on 11 October 2019, approving the removal of Typha within the Swan Canning DCA (City of Belmont, 2019b).

The clearing permit application was advertised on the DWER website on 22 May 2019 with a 14 day submission period. No public submissions have been received in relation to this application.

A review of available databases determined the application area is situated within registered Aboriginal Heritage sites. The applicant is advised to consult with the Department of Planning, Lands and Heritage to ensure their obligations under the *Aboriginal Heritage Act 1972* are met prior to undertaking the proposed clearing. It is the applicant's responsibility to obtain any other licences or approvals that may be required for the proposed works.

4. References

- City of Belmont (2019a) Clearing permit application and supporting documents for CPS 8473/1. DWER ref: A1782828.
- City of Belmont (2019b) DBCA Permit P12455 for removal of Typha within Swan Canning Development Control Area. DWER ref: DWERDT210918
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- Department of Biodiversity, Conservation and Attractions (2019) DBCA Wetlands advice in relation to CPS 8394/1. DWER ref: A1808046.
- Department of Primary Industries and Regional Development (DPIRD) (2017). NRInfo Digital Mapping. Accessed at <https://maps.agric.wa.gov.au/nrm-info/> Accessed July 2019. Department of Primary Industries and Regional Development. Government of Western Australia.
- Department of Water and Environmental Regulation (DWER) (2019). Correspondence to applicant regarding the requirement of additional permit from DBCA. DWER ref: A1799783.
- Environmental Protection Authority (EPA) (2008) Environmental Guidance for Planning and Development. Guidance Statement No. 33. Environmental Protection Authority. Western Australia.
- Government of Western Australia (2018) 2018 South West Vegetation Complex Statistics Report – Full Report. Current as of March 2019. Remote Sensing and Spatial Analysis Section. Geographic Information Services and Corporate Records Branch. Department of Biodiversity, Conservation and Attractions.
- Hedde, 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.
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Biodiversity, Conservation and Attractions. <http://florabase.dpaw.wa.gov.au/> (accessed September 2019).
- Western Australian Herbarium (2019) Florabase – The Western Australian Flora. *Typha orientalis*, Bulrush. Available from: <https://florabase.dpaw.wa.gov.au/browse/profile/99>.

GIS Databases:

- Aboriginal Sites of Significance
- Department of Biodiversity, Conservation and Attractions, Managed Tenure
- Geomorphic Wetlands Management Category
- Hydrography Linear – Linear
- Hydrography WA 250K – Surface Water Lines
- Perth Groundwater map
- SAC bio datasets
- TPFL March 2019
- Vegetation Complexes; pre – European Vegetation
- WA Herb Data March 2019
- WA TEC PEC Boundaries