



## CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

<b>Purpose Permit number:</b>	CPS 8427/1
<b>Permit Holder:</b>	City of Cockburn
<b>Duration of Permit:</b>	7 September 2019 – 7 September 2029

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*.

**2. Land on which clearing is to be done**

Lot 9000 on Plan 75198, Atwell  
Lot 24 on Plan 13599, Banjup  
Lot 13 on Plan 2795, South Lake  
Lot 259 on Plan 33071, South Lake  
Lot 288 on Plan 107760, South Lake  
Lot 4392 on Plan 219862, South Lake  
Road Reserve PIN 1207728, South Lake  
Lot 2519 on Plan 12368, Spearwood  
Lot 3000 on Plan 48468, Success

**3. Area of Clearing**

The Permit Holder must not clear more than 0.66 hectares of native vegetation within the areas hatched yellow on attached Plans 8427/1A, 8427/1B, 8427/1C, 8427/1D and 8427/1E.

**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.



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Mathew Gannaway  
MANAGER  
NATIVE VEGETATION REGULATION

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

8 August 2019

# Plan 8427/1A



## Legend

- CPS areas approved to clear
- Land Tenure (LGATE\_226) - SLIP

0.0                      0.02                      0.0 Kilometers



WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

Mathew Gannaway  
2019.08.08 14:27:17  
+08'00'

Officer

Date

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

Disclaimer: This map is used as a generic static output for reference purposes. Information on this map may or may not be accurate, current, or otherwise reliable. While the Department of Water and Environmental Regulation, has made all reasonable efforts to ensure the accuracy of this data, the department accepts no responsibility for any inaccuracies and persons relying on this data do so at their own risk.

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## Locality Map



Government of Western Australia  
Department of Water and Environmental Regulation

# Plan 8427/1B

115°50'24.000"E

115°50'42.000"E

32°00'54.922"S

32°05'54.000"S

32°00'12.000"S




32°07'12.000"S

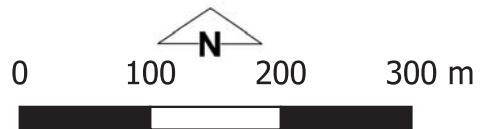



115°50'24.000"E

115°50'42.000"E

## Legend

-  CPS areas approved to clear
-  Local Government Authorities
-  Road Centrelines
- Cadastre - LGATE 218



  
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Officer delegated under section 20 of the Environmental Protection Act 1986



GOVERNMENT OF WESTERN AUSTRALIA

# Plan 8427/1C

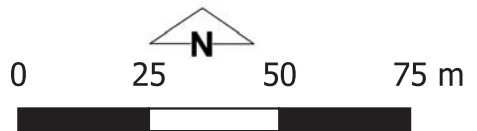
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## Legend

- CPS areas approved to clear
- Local Government Authorities
- Road Centrelines
- Cadastre - LGATE 218



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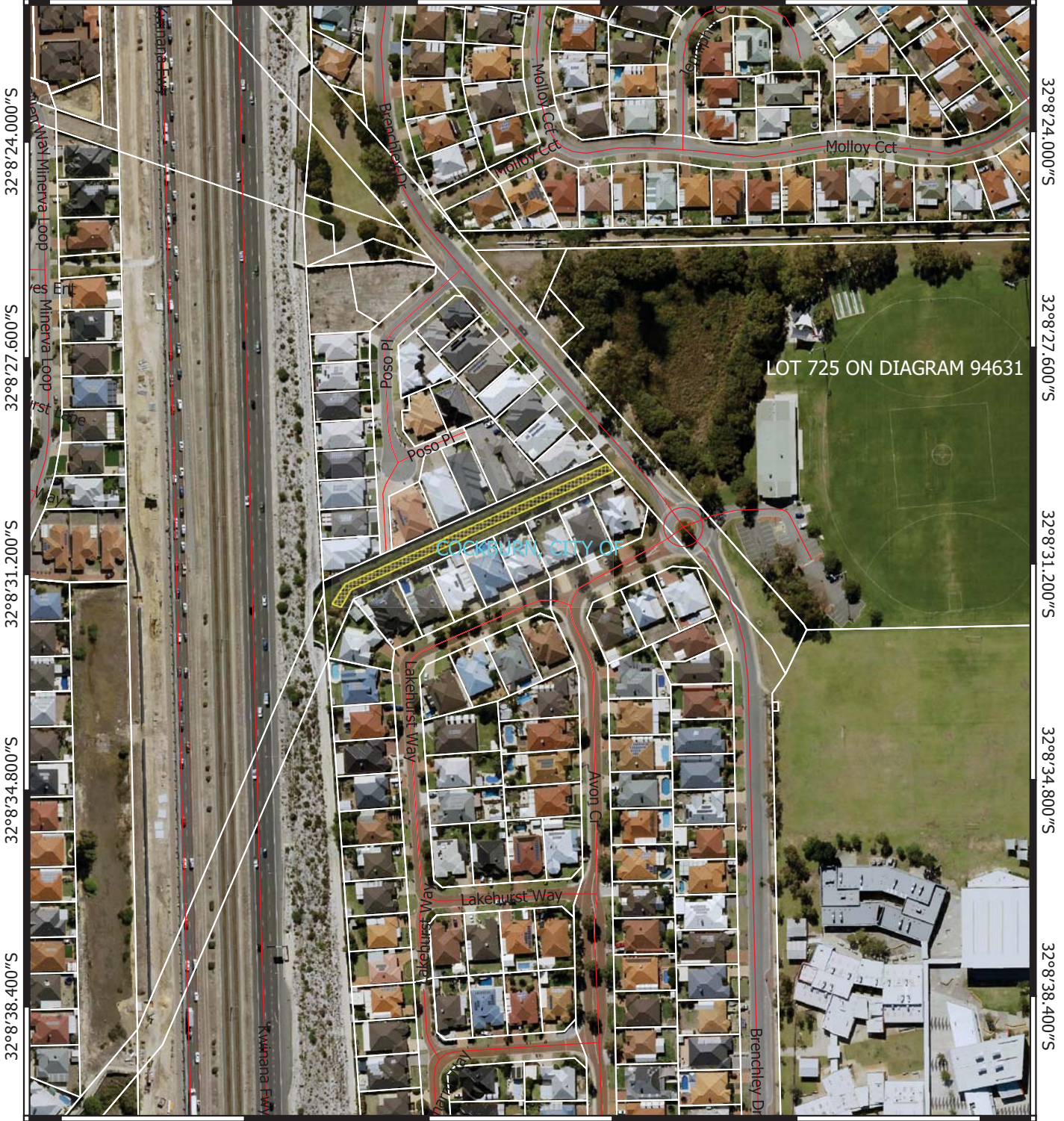
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Environmental Protection Act 1986



GOVERNMENT OF  
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# Plan 8427/1D

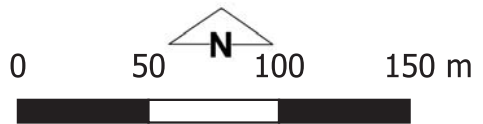
115°51'32.400"E    115°51'36.000"E    115°51'39.600"E    115°51'43.200"E    115°51'46.800"E    115°51'50.400"E




115°51'32.400"E    115°51'36.000"E    115°51'39.600"E    115°51'43.200"E    115°51'46.800"E    115°51'50.400"E

## Legend

-  CPS areas approved to clear
-  Local Government Authorities
-  Road Centrelines
- Cadastre - LGATE 218



  
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Officer delegated under section 20 of the Environmental Protection Act 1986



GOVERNMENT OF WESTERN AUSTRALIA

# Plan 8427/1E

115°50'42.000"E

115°51'0.000"E

115°51'18.000"E

32°8'42.000"S

32°8'42.000"S

32°9'0.000"S

32°9'0.000"S



115°50'42.000"E

115°51'0.000"E


115°51'18.000"E



## Legend

-  CPS areas approved to clear
-  Local Government Authorities
-  Road Centrelines
- Cadastre - LGATE 218



  
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Officer delegated under section 20 of the Environmental Protection Act 1986



GOVERNMENT OF WESTERN AUSTRALIA





## 1. Application details

### 1.1. Permit application details

Permit application No.: 8427/1  
Permit type: Purpose Permit

### 1.2. Applicant details

Applicant's name: City of Cockburn  
Application received date: 21 March 2019

### 1.3. Property details

Property: Lot 9000 on Plan 75198, Atwell  
Lot 24 on Plan 13599, Banjup  
Lot 13 on Plan 2795, South Lake  
Lot 259 on Plan 33071, South Lake  
Lot 288 on Plan 107760, South Lake  
Lot 4392 on Plan 219862, South Lake  
Road Reserve PIN 1207728, South Lake  
Lot 2519 on Plan 12368, Spearwood  
Lot 3000 on Plan 48468, Success

Local Government Authority: City of Cockburn  
Localities: Atwell, Banjup, South Lake, Spearwood, and Success

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	Purpose category:
0.66		Mechanical Removal	Drainage

### 1.5. Decision on application

Decision on Permit Application: Granted  
Decision Date: 8 August 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 the remaining 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 to clear 0.66 hectares of native vegetation within Lot 13 on Plan 2795, Lot 4392 on Plan 219862, Lot 259 on Plan 33071, Lot 288 on Plan 107760, Road Reserve PIN 1207728, Lot 24 on Plan 13599, Lot 9000 on Plan 75198, Lot 3000 on Plan 48468, Lot 2519 on Plan 12368, in Atwell, Banjup, South Lake, Spearwood and Success, for the purpose of *Typha orientalis* management within drainage infrastructure (Figures 1-5).

**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 system 44 woodland to low woodland and sedgelands; and
- Cottesloe Complex – Central and South system 52 mosaic of woodland of *Eucalyptus gomphocephala* (Tuart) and open forest of *Eucalyptus gomphocephala* (Tuart) – *Eucalyptus marginata* (Jarrah) – *Corymbia calophylla* (Marri); closed heath on the limestone outcrops.

**Vegetation Condition** As the proposed clearing occurs within drainage infrastructure, the vegetation condition of the application area is considered to be in 'Completely Degraded' condition, described as:

- Completely Degraded – The structure of the vegetation is no longer intact and the area is completely or almost completely without native species (Keighery, 1994).

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

- Bassendean B2 Phase: Flat to very gently undulating sandplain with well to moderately well drained deep bleached grey sands with a pale yellow B horizon or a weak iron-organic hardpan 1-2 m;
- Bassendean B3 Phase: Closed depressions and poorly defined stream channels with moderately deep, poorly to very poorly drained bleached sands with an iron-organic pan, or clay subsoil. Surfaces are dark grey sand or sandy loam;
- Bassendean B4 Phase: Broad poorly drained sandplain with deep grey siliceous sands or bleached sands, underlain at depths generally greater than 1.5 m by clay or less frequently a strong iron-organic hardpan;
- EnvGeol LS1 Phase: limestone – light, yellowish brown, fine to coarse-grained, sub-angular to well rounded, quartz, trace of feldspar, shell debris, variably lithified, surface kankar, of eolian origin. Minor heavy minerals;
- EnvGeol S8 Phase: sand – very light grey at surface, yellow at depth, fine to medium-grained, sub-rounded quartz, moderately well sorted of eolian origin; and
- EnvGeol S10 Phase: sand – as S8 as relatively thin veneer over sandy clay to clayey sand. Of eolian origin.

**Local area**

The local area referred to in the assessment of this application is defined as a 10 kilometre radius measured from the perimeter of the application area.

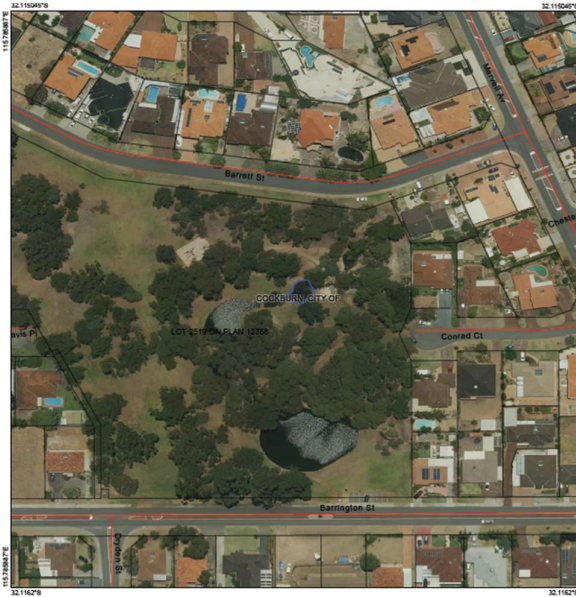


Fig 1: Application area (outlined in blue)



Fig 2: Application area (outlined in blue)



Fig 3: Application area (outlined in blue)



Fig 4: Application area (outlined in blue)



Fig 5: Application area (outlined in blue)

### 3. Assessment of application against clearing principles

*Typha orientalis* is a type of sedge that is native to Western Australia. However, this species is capable of aggressive invasions that can transform ecosystems unless it is actively managed (Western Australian Herbarium, 2019). Without management, *T. orientalis* can develop quickly into a monoculture and cover an entire waterbody. Given the application area comprises of *T. orientalis* and its tendency to colonise ecosystems, in this case drainage swales, it is not anticipated that the application area comprises suitable habitat for any conservation significant flora species. While *T. orientalis* is problematic and invasive, it may also provide habitat for fauna such as native frogs and waterbirds. However, *T. orientalis* may also provide habitat for non-native and feral animals which can predate on native fauna (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 and the application area is not likely to comprise a high level of biodiversity.

The application area is not likely to include, or be necessary for the continued existence of, Threatened flora. As discussed earlier, it is not anticipated that the application area comprises suitable habitat for any conservation significant flora species as *T. orientalis* develops into a monoculture when left uncontrolled. Additionally, there are no records of conservation significant flora species within the application area.

A review of available databases determined that the nearest State threatened ecological community (TEC), '*Callitris preissii* (or *Melaleuca lanceolata*) forests and woodlands, Swan Coastal Plain', occurs approximately two kilometres west of the application area. Due to the distance of the TEC, the proposed clearing is not likely to have a significant impact to the TEC. Parts of the application area are located adjacent to the 'Banksia Dominated Woodlands of the Swan Coastal Plain' Priority 3 ecological community (PEC) and federally listed TEC. When consideration is given to the purpose and nature of the proposed clearing, no adverse impacts to this PEC are expected due to the localized clearing of *T. orientalis*.

Due to the proposed clearing of *T. orientalis* being located within drainage infrastructure, the application area is not considered as a significant remnant of native vegetation in an area that has been extensively cleared.

The proposed clearing activities comprise the removal of *T. orientalis* growing in association with drainage swales. As this vegetation comprises part of the riparian vegetation community growing in association with these swales which are considered a 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 *T. orientalis* due to its invasive nature and adverse impacts on waterways. Given the application area comprises monocultures of *T. orientalis*, 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 ecological values that the swales may provide.

Given that *T. orientalis* will not be completely removed and the City of Cockburn plans to take a targeted approach and remove only small areas at any given time to help reduce the rate of its spread and allow natural recruitment of native vegetation (City of Cockburn, 2019), the proposed clearing is not likely to cause appreciable land degradation.

According to available databases, the application area is located adjacent to conservation estate managed by Department of Biodiversity, Conservation and Attractions (DBCA) such as Beeliar Regional Park and Thomsons Lake Nature Reserve. Given the nature of the proposed clearing activities and that the proposed clearing is confined to the clearing of *T. orientalis*, no adverse impacts to the ecological values of the reserves are anticipated to result from the proposed clearing.

The removal of *T. orientalis* has the potential to increase sedimentation and turbidity within the swales where water is present, thereby possibly impacting surface water quality. However, the purpose of the proposed clearing is to ensure free flow of water by removing *T. orientalis*. Noting this and that the proposed clearing of 0.66 hectares is dispersed over a number of areas, it is not likely that the proposed clearing will cause deterioration in the quality of surface or underground water.

The proposed clearing activities comprise the removal of *T. orientalis* growing as a monoculture within the City of Cockburn's drainage swales. Wide spread flooding may occur if *T. orientalis* is not managed correctly, therefore the proposed clearing would prevent flooding rather than cause, or exacerbate, the incidence or intensity of flooding.

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

#### Planning instruments and other relevant matters.

The clearing permit application was advertised on the DWER website on 4 April 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 the registered Aboriginal Heritage Site Yangebup Lake, known for its value as a ceremonial, historical, mythological, plant resource and water source site. 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 Cockburn (2019) Clearing permit application and supporting documents for CPS 8427/1. DWER ref: A1774147.
- Department of Biodiversity, Conservation and Attractions (DBCA) (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.
- 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.
- 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
- SAC bio datasets
- TPFL March 2019
- Vegetation Complexes; pre – European Vegetation
- WA Herb Data March 2019
- WA TEC PEC Boundaries