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Attention: Native Vegetation Regulation
Department of Water and Environmental Regulation
Locked Bag 10
JOONDALUP WA 6919

Delivered by email to: info@dwer.wa.gov.au

Dear Sir/Madam

CLEARING PERMIT (PURPOSE PERMIT) APPLICATION TO DEVELOP THE STATE FOOTBALL CENTRE WITHIN A PORTION OF THE QUEENS PARK REGIONAL OPEN SPACE

Overview

The Department of Local Government, Sport and Cultural Industries (DLGSC) ('the applicant') through the Department of Finance – Building, Management and Works has engaged Emerge Associates (Emerge) to provide environmental consultancy services to support the development of the State Football Centre ('the Centre') within a portion of the Queens Park Regional Open Space (herein referred to as 'the application area').

The Centre will provide a location for high-performance training, community programs and house Football West's administration facilities. The development will include playing fields capable of high-performance and high-intensity usage, supporting infrastructure such as change rooms, strength and conditioning spaces, spectator amenity as well as reconfiguration of an existing surface drainage network and landscaped public open spaces areas (integrating retained vegetation with water sensitive urban design features and enhancement of natural features on the site).

This clearing permit has been lodged to facilitate the construction of the Centre as the site chosen for its development contains native vegetation. The exact footprint for the works to support the development (i.e. construction and clearing) is currently being finalised, and is expected to extend across several lots, as specified below:

- Lot 501 on Deposited Plan 416666 (305 Welshpool Road, Queens Park) (Western Australian Planning Commission (WAPC) landholding)
- Lot 22 on Diagram 64644 (343 Wharf Street, Queens Park) (City of Canning landholding)
- Unnamed road reserve - Land ID: 3848050 (under City of Canning control)
- Welshpool road reserve – Land ID: 4423461 (under City of Canning control)

The application area as shown in **Figure 1**, corresponds to the boundary of the development application for the Centre and is approximately 16 hectares (ha) in size. It is not proposed that all vegetation within the application area will be removed to facilitate future development. Accordingly, an application is being made for a clearing permit to remove only the native vegetation that has the potential to be affected by the works based on the development masterplan. The amount of native

vegetation that may be cleared is currently calculated at 4.19 ha. The extent of vegetation that is proposed to be cleared and vegetation that will not be cleared within the application area is shown in **Figure 2**.

The applicant is looking to minimise clearing of native vegetation wherever possible and the ultimate extent of clearing is likely to be smaller than that proposed.

As the applicant is not the land owner, and the application extends over multiple lots, an application is being made for a purpose permit. There remains some uncertainty surrounding the exact extent of clearing required as part of future works and so a purpose permit is also considered appropriate as it will provide greater flexibility regarding vegetation retention once the extent of works is confirmed.

The following letter is provided in support of a clearing permit application (purpose permit) pursuant to Part V of the *Environmental Protection Act 1986* (EP Act) and includes the following attachments required by the Department of Water and Environmental Regulation (DWER):

- **Attachment 1** – Signed clearing permit application form (Form C2).
- **Attachment 2** – Certificates of Title for Lot 501 on Deposited Plan 416666 and Lot 22 on Diagram 64644.
- **Attachment 3** – Letters of Authority from WAPC and City of Canning.
- **Attachment 4** – Flora and Vegetation Assessment (GHD 2020).
- **Attachment 5** – Basic Fauna and Targeted Black Cockatoo Habitat Assessment (Emerge Associates 2020).
- **Attachment 6** – Photographs of Vegetation Within Application Area
- **Email attachments** – a .shp file of the application area has been submitted to DWER as part of the application.

1 INTRODUCTION AND BACKGROUND

The applicant is intending to develop the State Football Centre within the application area, to provide a football centre-of-excellence, to cater for all levels of football from high performance games through to grassroots community football programs. The Centre is proposed to be operational in time for the FIFA Women's World Cup in 2023 when it will be used as a training base for visiting teams. The project is jointly funded by the Commonwealth and State Governments. The Centre will include playing fields capable of high-performance and high-intensity usage, supporting infrastructure such as change rooms, strength and conditioning spaces, spectator amenity as well as reconfiguration of an existing surface drainage network and landscaped public open spaces areas (integrating retained vegetation with water sensitive urban design features and enhancement of natural features on the site).

The proposed layout for the Centre will integrate with a broader Queens Park Regional Open Space Masterplan, that is being prepared in partnership by the DLGSC and the City of Canning.

The application area is reserved 'parks and recreation' under the Metropolitan Region Scheme (MRS) and the City of Canning Local Planning Scheme (LPS) No. 42. It is approximately 16 ha in size, and is predominantly located within Lot 501 on Deposited Plan 416666. In addition to Lot 501, the application area extends over the following landholdings:

- Lot 22 on Diagram 64644 (343 Wharf Street, Queens Park) (City of Canning landholding)
- Unnamed road reserve - Land ID: 3848050 (under City of Canning control)
- Welshpool road reserve – Land ID: 4423461 (under City of Canning control)

The applicant has received letters of authority from both the WAPC and the City of Canning to allow the clearing to be undertaken within the relevant landholdings.

The application area is located within a portion Bush Forever Site No. 283, which extends to the east and west. The application area is bound by remnant vegetation within Bush Forever Site No. 283 to the west, industrial land uses to the north-west, remnant vegetation within Bush Forever Site No. 424 to the north-east, residential land to the south-east and Maniana Park to the south. Welshpool Road is located to the north of the application area and Gibbs Street to the east.

A flora and vegetation assessment was undertaken in October 2019 (GHD 2020), to the standard required of a 'reconnaissance survey' in accordance with the Environmental Protection Authority's (EPA's) *Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA 2016a). A level 1 fauna assessment (desktop assessment and targeted black cockatoo assessment) was also undertaken in accordance with the EPA's *Technical Guidance – Terrestrial fauna Surveys* (EPA 2016b) across the application area in July 2020 (Emerge Associates 2020). These technical reports are provided as provided as **Attachment 4 and Attachment 5**, respectively.

In addition to the GHD and Emerge surveys, additional information has been referred to refine mapping and provide additional supporting information, as listed below:

- *Flora and Fauna Assessment for Queens Park Regional Open Space* (Ecoscape 2010)
- *Queens Park Targeted Flora Survey* (Ecoscape 2014)
- Multiple site visits undertaken by Emerge, which have included vegetation assessment, as documented in this letter.

2 SUMMARY OF ENVIRONMENTAL CONDITIONS

The application area boundary reflects the extent of the likely development footprint required to facilitate the development of the Centre and the associated works, including drainage upgrades. Whilst the application area is approximately 16 ha in size, the amount of native vegetation proposed to be removed within it is significantly less, currently calculated at 4.19 ha. It is noted that the amount of vegetation to be cleared as part of future development is likely to be less than the identified amount, however this will be determined once detailed planning and design is finalised. The area identified to be cleared excludes the vegetation with the greatest environmental significance, identified in the north-eastern and south-eastern portions of the application area. Vegetation retention is discussed below in relation to the mitigation hierarchy.

Figure 1 illustrates the boundary of the application area and its location relative to the broader area. **Figure 2** shows the areas of vegetation within the application that are proposed to be cleared, approximately 4.19 ha of native vegetation.

Plant communities within the application area have been referred to from the GHD (2020) survey, although this survey did not extend to the north-western portion of the application area. In order to reconcile the plant communities within this portion, Emerge have undertaken multiple site visits to determine the plant communities within this area. To support the clearing permit, the plant community mapping has been refined, as discussed in **Section 2.2**. The condition of vegetation within the application area was described using the methodology described in the *Bushland Plant Survey: A guide to plant community survey for the community* (Keighery 1994), which identifies the vegetation within the application area as ranging from 'very good' to 'completely degraded'.

Figure 2 further defines areas of vegetation that will not be cleared.

2.1 Historical clearing

A review of publicly available historical aerial imagery indicates the majority of the application area was cleared prior to 1953 (Landgate 2020). Since this time, native vegetation regrowth has predominantly been restricted to the north-eastern and south-eastern portions of the application area. Small areas of regrowth have occurred in the north-western portion of the application area. The remainder of the application area has remained predominantly devoid of native vegetation.

2.2 Flora and vegetation values

The vegetation within the application area includes remnant vegetation, which is predominantly located in the south-eastern and north-eastern and lesser extent north-western portions of the application area, and non-native vegetation that is either co-located or present *in lieu* of native vegetation. Several plant communities have been identified within the application area, as shown in **Figure 3**, and described in **Table 1** below. Representative photos of the plant communities are provided in **Attachment 6**.

Table 1: Plant communities, adapted from GHD (2020) and Emerge data from site visits

Plant community	Description
<i>Corymbia calophylla</i> woodland (VT1)	<i>Corymbia calophylla</i> tall woodland over <i>Jacksonia floribunda</i> tall open shrubland over <i>Xanthorrhoea preissii</i> and <i>X. gracilis</i> low open shrubland over <i>Dasypogon bromeliifolius</i> and <i>Phellobocarya ciliata</i> herbland.
<i>Banksia</i> low woodland (VT2)	<i>Banksia menziesii</i> and <i>Eucalyptus marginata</i> low woodland over <i>Scholtzia involucrata</i> low sparse shrubland over mixed open sedgeland and/ or herbaceous weeds.
<i>Melaleuca preissiana</i> low woodland (VT3)	<i>Melaleuca preissiana</i> low woodland over <i>Xanthorrhoea preissii</i> sparse shrubland over introduced herbland.
Mixed, introduced trees and shrubs (VT4)	Mostly introduced, planted or naturalised species of tall trees and tall shrubs including: <i>Eucalyptus cladocalyx</i> , <i>Eucalyptus</i> sp., <i>Ficus</i> sp., <i>Melia azedarach</i> , <i>Erythrina indica</i> , <i>Lantana camera</i> , <i>Leptospermum laevigatum</i> and <i>Callistemon</i> sp., over <i>Typha</i> dense tall shrubland and introduced grasses and herbs.
Scattered natives over weeds (VT5)	Mixed native species such as <i>Macrozamia reidleyi</i> , <i>Acacia saligna</i> , <i>Agonis flexuosa</i> over introduced grasses and herbs.
Mixed shrubs and sedges/grasses (VT6)	Isolated <i>Melaleuca preissiana</i> over <i>Cortaderia selloana</i> (Pampas grass) and <i>Typha</i> dense tall shrubland over <i>Juncus pallidus</i> and <i>Baumea articulata</i> closed low sedgeland with <i>Azolla rubra</i> and <i>Lemna disperma</i> water plants associated with an artificial/modified wetland.
<i>Adenanthos cygnorum</i> tall shrubland (VT7)	<i>Adenanthos cygnorum</i> tall shrubland with isolated <i>Allocasuarina fraseriana</i> over closed introduced herbs and grasses.
<i>Eucalyptus rudis</i> forest (VT8)	<i>Eucalyptus rudis</i> tall forest and scattered <i>Melaleuca preissiana</i> and <i>Kunzea glabrescens</i> over scattered introduced herbs. Understorey mostly absent, potentially winter wet.
Cleared areas	Areas with only isolated native shrubs and trees and with a groundcover of weedy grasses and herbs.
Revegetation	Mixed juvenile native species, recently planted as tubestock. Species planted include <i>Corymbia calophylla</i> and <i>Banksia</i> spp.

The flora surveys undertaken within the application area (Ecoscape 2010; GHD 2020), did not identify any threatened flora within the application area. During site visits undertaken by Emerge the threatened flora species, *Macarthuria keigheryi*, was recorded within the north-eastern portion of the application area. Eight individuals were recorded in 2020. A threatened species report form has been completed and submitted to DBCA. Historical records from DBCA database searches identified an occurrence of this species within the north-eastern portion of the application area from 2009 and a record from 2014 in a similar location to the population recorded in 2020. The survey associated with the Ecoscape (2014) record was provided to the applicant in August 2020 and reviewed as part of this application.

The Ecoscape (2010) survey also recorded two individuals of priority flora species, *Conostylis bracteata* in the north-eastern portion. However, Ecoscape (2014) acknowledge that this was likely a mis-identification, as *C. bracteata* has only been recorded in the northern Perth suburbs.

Additionally, *Jacksonia sericea* (P4) may occur in the application area, based on specimens obtained on recent visits by Emerge personnel. The occurrence of this species is as yet unconfirmed subject to vouchering at the WA herbarium.

Vegetation community **VT1** as recorded by GHD (2020) has the potential to represent floristic community type (FCT) SCP3a. This FCT is identified as TEC, at both state and federal level '*Corymbia calophylla* - *Kingia australis* woodlands on heavy soils of the Swan Coastal Plain'. Spring surveys are currently being undertaken by Emerge to confirm the presence of this community, however for the purpose of this application, it has been assumed that the vegetation in the north-eastern portion is representative of the TEC and will therefore be retained. The **VT1** community in the north-western portion of the application area is unlikely to represent the TEC due to the degraded nature of vegetation in this area, and has therefore not been considered to represent the TEC. Should the future surveys determine that this area represents the TEC, the vegetation mapping will be updated accordingly and this area will not be impacted by future earthworks and clearing.

Vegetation condition within the application area was assessed as ranging from 'very good' to 'completely degraded' using methods from Keighery (1994). Vegetation condition within the application area is shown in **Figure 4**.

The most intact native vegetation was identified within the north-eastern portion of the application area, where plant community **VT1** was recorded. This vegetation was classified as being in 'very good' condition, whilst the small patch of banksia vegetation to the west (**VT2**) was classified as being in as 'good' condition. The **VT8** plant community classified as being in 'good' condition, whilst the remainder of the application area was classified as being in either 'degraded' or 'completely degraded' condition, due to the historical clearing and significant weed invasion across the application area.

2.3 Fauna values

A basic fauna assessment and targeted black cockatoo habitat assessment was completed by Emerge in July 2020 (**Attachment 5**). Fauna habitat within the application area has been degraded by historical clearing and disturbance. The highest value fauna habitat is likely restricted to areas where vegetation is in good or better condition and retains some level of understorey, which includes microhabitats including native soils, logs and leaf litter. Overall, the application area mainly provides habitat for common and widespread fauna species, with the species recorded in the application area being generally common and widespread on the Swan Coastal Plain.

The targeted black cockatoo habitat assessment identified that some vegetation within the application area represents foraging habitat for threatened species of black cockatoo species, namely Carnaby's cockatoo and the forest red-tailed black cockatoo (FRTBC). Approximately 1.57 ha of primary foraging habitat for Carnaby's cockatoo and approximately 1.4 ha of primary foraging habitat for FRTBC was identified within the application area. The targeted black cockatoo assessments also identified 46 potential black cockatoo breeding habitat trees within the application area, none of which contain suitable nesting hollows. No evidence of roosting activity such as droppings, feathers or branch clippings were observed during the black cockatoo habitat assessments. The location of the trees and the potential foraging habitat are shown in **Figure 5** to **Figure 8**.

3 APPLICATION OF MITIGATION HIERARCHY

In accordance with *A guide to the assessment of applications to clear native vegetation* (DER 2014), the impact mitigation sequence has been considered in order to ensure the environmental impact from the proposed clearing for the project was kept to a minimum.

3.1 Avoidance

As part of the development process, the footprint of the proposed development and associated earthworks has been revised multiple times, with the key constraining factor for the layout being the requirement for the pitches to be orientated no more than 15 degrees off a north-south axis.

Avoidance measures taken include:

- Locating the development within an area that has been previously cleared of native vegetation, and where it impacts native vegetation, ensuring that it impacts lower quality vegetation.
- Avoidance of the majority of the *Macarthuria keigheryi* individuals within the application area.
- Ensuring no clearing of the potential TEC vegetation in the north-eastern portion of the application area, in addition to the vegetation within the south-east, which is associated with a wetland feature.
- Locating the development so that 35 of the 46 black cockatoo habitat trees will definitely be retained, with the potential to retain a further 10 trees (noting that none of the habitat trees within the application area currently contain suitable hollows for black cockatoo breeding). This will also ensure the retention of the majority of the black cockatoo foraging habitat within the application area.
- Ongoing liaison with the architects and civil engineers, to ensure that areas of clearing are minimised. This includes in the north-western portion, where patches of plant community VT1 are present, and where the revegetation areas are located. These areas are likely to be impacted only minimally as part of future works, however efforts will be made to avoid these areas entirely where possible.

3.2 Mitigation

As part of the proposed development of the Centre, vegetation removed from the application area will be salvaged where possible. This will include the salvaging of plants for transplanting, or if vegetation cannot be transplanted, harvesting the seeds or vegetative material to allow for reestablishment of native species where possible. Where vegetation is cleared from the application area, large wood may also be moved to adjacent areas of vegetation (notably to the south-west of application area, or within the vegetation in the north-eastern portion of the application area) to provide fauna habitat for these areas.

In addition to the transplanting of vegetation, once construction within the application area is finalised, revegetation of the public open space will occur where appropriate. This will occur particularly around the drainage areas, and will enhance the environmental values of the application area.

3.3 Offset

Whilst avoidance and mitigation measures have been explored and implemented as part of this application, the applicant is aware that an offset may be required to counterbalance any significant residual impact(s) of a project.

The applicant will seek advice from the Department of Water and Environmental Regulation and the Department of Biodiversity, Conservation and Attractions through the clearing permit application process regarding any offset requirements.

4 PLANNING INSTRUMENTS AND OTHER ENVIRONMENTAL APPROVALS

A 'development application' will be prepared to facilitate the construction of the Centre, which will be referred to the WAPC as a State significant development. No further planning approvals are required to support the construction of the Centre, excluding this application.

The proposed clearing will be referred to the federal Department of Agriculture, Water and the Environment (DAWE) for assessment under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) due to the impacts on black cockatoo habitat values, and *Macarthuria keigheryi* which are identified as 'matters of national environmental significance' (MNES). This will be lodged with DAWE subsequent to the clearing permit application, and is not intended to be assessed as a bilateral agreement.

5 PROPOSED CLEARING OF NATIVE VEGETATION

As outlined above, the proposed clearing is sought to facilitate the development of the application area for the State Football Centre. A breakdown of the vegetation proposed to be cleared within the application area, grouped by plant community and vegetation condition, is shown in **Table 2**.

Table 2: Vegetation proposed to be cleared within the application area

Plant community	Vegetation condition	Area (ha)
<i>Corymbia calophylla</i> woodland (VT1)	'Very good'	0.90
	'Good'	0.07
	'Degraded'	0.23
<i>Banksia</i> low woodland (VT2)	'Good'	0.13
	'Degraded'	0.20
<i>Melaleuca preissiana</i> low woodland (VT3)	'Degraded'	0.41
Mixed, introduced trees and shrubs (VT4)	'Degraded'	0.09
	'Degraded – completely degraded'	0.29
	'Completely degraded'	0.56
Scattered natives over weeds (VT5)	'Completely degraded'	0.42
Mixed shrubs and sedges/grasses (VT6)	'Degraded – completely degraded'	0.45
	'Completely degraded'	1.04
<i>Adenanthos cygnorum</i> tall shrubland (VT7)	'Degraded'	0.15
<i>Eucalyptus rudis</i> forest (VT8)	'Good'	0.42
Cleared areas	'Completely degraded'	9.95
Revegetation	Not applicable	0.69
Total		16

6 RESPONSE TO EP ACT CLEARING PRINCIPLES

Under Section 51C of the EP Act, clearing of native vegetation is an offence unless a clearing permit has been obtained or an exemption applies. When assessing clearing permit applications, DWER has regard to the ten clearing principles contained in Schedule 5 of the EP Act so far as they are relevant to the matter under consideration.

In support of this area permit clearing application, we have considered and responded to the ten clearing principles in the following sections.

Principle (a) – Native vegetation should not be cleared if it comprises a high level of biological diversity.

The application area is located on the Swan Coastal Plain, which is recognised as an area of high biological diversity (EPA 2007). As discussed above, the **VT1** plant community was considered representative of FCT SCP 3a. However, it is noted that the portion of this vegetation that is in better condition is excluded from the application area, and will therefore not be impacted by the proposed clearing. No other vegetation within the application area was considered representative of a FCT, due to the degraded condition of the vegetation.

The GHD survey identified that plant community **VT2** as recorded by GHD (2020) represents the state listed 'Banksia woodlands of the Swan Coastal Plain' priority ecological community (PEC). Noting however, that the patches of this vegetation that are present are small, and identified as

being in 'good' and 'degraded' condition. This community is well reserved locally outside of the application area within the broader Bush Forever Site No. 283, in addition to Bush Forever Site No. 424. Where, this PEC is present in large contiguous patches that are not fragmented in the same manner as per the vegetation within the application area.

Similarly, due to the level of historical disturbance, the small size of the application area, the majority of vegetation being in a 'degraded' or 'completely degraded' condition, and the limited fauna habitat present within the application area, the application area does not support a high level of biological diversity. The proposed clearing is therefore not considered to be at variance with Principle (a).

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 indigenous to Western Australia.

As discussed above, fauna values within the application area are limited due to the historical clearing, vegetation degradation, and the presence of weeds. Vegetation within the application area is likely to represent the greatest habitat for avian fauna species, including for two black cockatoo species (Carnaby's cockatoo and the forest red-tailed black cockatoo), and potentially represents habitat for Baudin's cockatoo, although it is noted that it is on the edge of the habitat range for this species.

Overview of habitat values

The application area contains 46 potential black cockatoo habitat trees (native *Eucalyptus* and *Corymbia* species with diameter at breast height (DBH) ≥ 50 cm). Of these 46 potential breeding habitat trees, none were identified as containing hollows that were potentially suitable for use by breeding black cockatoos. Secondary foraging evidence attributed to Carnaby's cockatoo and FRTBC were observed within the application area. As part of the proposed clearing of the application area, 35 of the potential breeding habitat trees will be retained, with the potential to retain a further 10 trees, based on the final earthwork requirements. The locations of these trees are shown in **Figure 5**.

The application area supports 1.57 ha primary and 0.23 ha secondary foraging habitat for Carnaby's cockatoo, 1.4 ha primary and 0.33 ha secondary foraging habitat for Baudin's cockatoo and 1.4 ha primary and 0.39 ha secondary foraging habitat for FRTBC. Primary foraging habitat refers to vegetation with historical and contemporary records of regular consumption by black cockatoos and includes native and non-native species. Secondary foraging plants are defined as plants that black cockatoos have occasionally been recorded consuming, or that based on their limited extent or agricultural origin, should not be considered a sustaining resource. The foraging habitat within the application area is shown in **Figure 6** to **Figure 8**. Whilst the above totals of foraging habitat were recorded across the application area, it is pertinent to note that not all vegetation within the application area is being removed. **Table 3** details the amount of vegetation that will be retained and removed within the application area. Overall, the majority of the foraging habitat for each species within the application area will be retained as part of future development.

Table 3: Foraging habitat within the application area to be removed

Cockatoo species	Primary foraging habitat		Secondary foraging habitat		Total foraging habitat	
	To be retained (ha)	To be cleared ha)	To be retained (ha)	To be cleared ha)	To be retained (ha)	To be cleared ha)
Baudin's cockatoo	0.9	0.5	0.07	0.26	0.97	0.76
Carnaby's cockatoo	0.92	0.65	0.01	0.22	0.93	0.87
FRTBC	0.91	0.49	0	0.39	0.91	0.88

In addition to quantifying the amount of the foraging habitat and the number of potential breeding habitat trees, an assessment of the overall quality of black cockatoo habitat was made by Emerge. The habitat within the application area was identified as being 'moderate' for all three species.

As the application area contains potential black cockatoo breeding habitat trees and foraging habitat, the clearing may be at variance to Principle (b). Further consideration of potential impacts on foraging and breeding habitat is provided below.

Foraging habitat

Overall, the foraging habitat within the application does not represent significant habitat for the three black cockatoo species. The foraging habitat within the application area that will be cleared extends over a small area, and there are larger contiguous patches of potential foraging habitat located to the immediate south-west and north-east of the application area. Due to the existing fragmentation of the vegetation within the application area and the small amount of vegetation to be removed, it is unlikely that the removal of the vegetation will fragment an existing foraging source for the species.

Due to the presence of adjoining vegetation within Bush Forever Site No. 283, both to the immediate south-west and to the east of Gibbs Street, and to the north-east within Bush Forever Site No. 424, it is unlikely that the vegetation within the application area represents an important local or regional foraging resource for black cockatoos. In addition, it is noted that, the majority of the foraging habitat within the application area is being retained. Therefore, the extent of foraging habitat being removed is minimal.

Whilst the application area supports 1.57 ha primary and 0.23 ha secondary foraging habitat for Carnaby's cockatoo, 1.4 ha primary and 0.33 ha secondary foraging habitat for Baudin's cockatoo and 1.4 ha primary and 0.39 ha secondary foraging habitat for FRTBC, not all of this vegetation will be removed as part of future development, the majority of each cockatoo species habitat will be retained as part of the proposed works.

Whilst vegetation within the application area provides foraging habitat for Carnaby's cockatoo, Baudin's cockatoo and FRTBC, there is no evidence that the application area serves as habitat for a metapopulation, particularly as black cockatoo species are highly mobile.

Potential breeding and roosting habitat

The number of potential breeding habitat trees within the application area is 46 native trees with a DBH \geq 50 cm. Of these 46 trees, none were identified as containing hollows potentially suitable for use by black cockatoo species. Of the 46 trees identified within the application area, it is noted that 35 of the trees will be retained as part of future development, whilst efforts will be made to retain a further 10 trees, dependent on the earthworks requirements. The location of these trees is shown in **Figure 5**. Therefore, the proposed clearing is unlikely to have a significant impact on habitat significant for the breeding purposes of the black cockatoo species.

There are no known Carnaby's cockatoo breeding locations within 12 km of the application area. The forest red-tailed black cockatoo are also less likely to breed on the Swan Coastal Plain, with the preferred breeding habitat located in the south-west forests (DoEE 2008), and the application area is located outside of the Baudin's cockatoo's known and predicted breeding range. As there are no known breeding locations within the vicinity of the application area, it is not considered to support breeding habitat significant to any of the black cockatoo species.

In addition to the above, there is no evidence of roosting within the application area and given that there are large areas of better-quality vegetation located immediately adjacent to the south-west and further to the north-east and east, the application area is not considered to support a significant habitat for a metapopulation.

Summary

There is the potential for populations of black cockatoos to occur in the broader area, with 43 known roost sites within 12 km of the application area, in addition to a separate population that breed outside of the Perth metropolitan area and forage on the Swan Coastal Plain. Whilst populations of black cockatoos exist within the broader area, the vegetation within the application area is not considered necessary for the maintenance of habitat for these populations, given the vegetation proposed to be cleared does not represent habitat necessary for breeding or roosting.

The removal of this vegetation is unlikely to result in a significant residual impact to black cockatoo species on the basis that there is approximately 828 ha of similar Carnaby's cockatoo habitat and approximately 840 ha of similar forest red-tailed black cockatoo foraging habitat within 6 km of the application area (Glossop *et al.* 2011). Clearing of vegetation within the application area represents 0.1% of these areas respectively.

Given that significant areas of foraging habitat located within 6 km of the application area, it is not likely that cumulative impacts would result in significant local impacts to the extent that the occurrence of the species locally would be affected.

It is also unlikely that the application area would provide important fauna habitat to other conservation significant fauna species given the small size of the application area, and its highly modified and fragmented environment. There are also areas of better-quality contiguous vegetation located to the south-west of the application area, and the north-east of the application area within Bush Forever Site No. 424, which are likely to be preferred by native fauna.

Therefore, clearing within the application area is not considered to be at variance with Principle (b). Based on the small extent of vegetation proposed to be cleared, the removal of vegetation within the application area is unlikely to have a significant impact on a habitat for fauna indigenous to Western Australia.

Principle (c) – Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

Eight occurrences of the threatened flora species, *Macarthuria keigheryi*, have been recorded within the north eastern portion of the application area. Due to constraints on adjusting the layout of the Centre, three of these occurrences are located within vegetation that is proposed to be cleared.

The proposed clearing is therefore at variance with Principle (c).

The applicant seeks to discuss further options as to mitigate impacts to the threatened species as part of a Section 40 application to take threatened flora submitted concurrently with this application. The applicant is committed to working with the Department of Water and Environmental Regulation and the Department of Biodiversity, Conservation and Attractions to ensure appropriate mitigation can occur through the construction of the centre.

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.

The GHD survey identified that plant community **VT2** as recorded by GHD (2020) represents the state listed 'Banksia woodlands of the Swan Coastal Plain' priority ecological community (PEC), which has the potential to represent the Commonwealth 'banksia woodlands of the Swan Coastal Plain' TEC (banksia woodland TEC). However, the vegetation within the application area does not meet the condition or size thresholds required under the diagnostic criteria (DoEE 2016). Therefore, these areas of vegetation are not representative of the federally listed banksia woodland TEC.

Vegetation community **VT1** as recorded by GHD (2020) in the north-eastern portion of the application area was identified as potentially aligning with floristic community type (FCT) SCP3a. This FCT is identified as TEC, at both state and federal level 'Corymbia calophylla - Kingia australis woodlands on heavy soils of the Swan Coastal Plain'. Spring surveys are currently being undertaken by Emerge to confirm the presence of this community, however for the purpose of this application, it has been assumed that the vegetation is representative of the TEC. Whilst this TEC has been identified within the application area, this area will not be impacted as part of the future clearing within the application area. The **VT1** vegetation in the north-west of the application area is considered unlikely to represent this TEC, due to the degraded nature of the vegetation. However, all efforts will be made to retain this vegetation as part of future works regardless.

The vegetation across the remainder of the application area is predominantly in a degraded or worse condition, and not aligned to any floristic community types, and therefore not identified as representing any state or federally-listed TECs.

As no state-listed threatened ecological communities have been identified within the application area that will be impacted by future works, the proposed clearing is not considered to be at variance with Principle (d).

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.

Vegetation complex mapping for the Swan Coastal Plain undertaken by Heddle *et al.* (1980) indicates that the application area occurs within an area mapped as the 'Southern River complex'. This is described as 'Open woodland of *Corymbia calophylla* - *Eucalyptus marginata* - *Banksia* species with fringing woodland of *Eucalyptus rudis* - *Melaleuca raphiophylla* along creek beds'.

The Southern River complex has 18.43% of its pre-European extent remaining on the Swan Coastal Plain with 1.18% under formal protection (Government of Western Australia 2018). Within the City of Canning, 9.14% of the original extent of the Southern River complex is remaining (Government of Western Australia 2018).

The Environmental Protection Authority's (EPA) (2006) *Guidance Statement No. 10. Guidance for the Assessment of Environmental Factors – Level of Assessment for Proposals Affecting Natural Areas Within the System 6 Region and Swan Coastal Plain Portion of the System 1 Region* identified a standard level of native vegetation retention of at least 10% of the pre-clearing extent of the vegetation complex in 'constrained areas' such as the Swan Coastal Plain portion of the Perth Metropolitan Region.

It is acknowledged that whilst over 10% of the Southern River complex remains on the Swan Coastal Plain, there is currently very low levels of this complex retained in formal protection.

The majority of the vegetation contained within the application area has been assessed as being in a 'degraded' or 'completely degraded' condition. Due to this degradation, the vegetation therefore does not represent significant vegetation of the Southern River complex. In addition, the vegetation within the application area is not located within an identified ecological linkage (as shown in **Figure 9**), and due to the quality and extent of vegetation, and distance from the nearest linkage, is unlikely to contribute to the linkage located further to the east.

Based on the small amount of vegetation proposed to be removed, the degraded condition of the vegetation and it not being a constituent of an ecological linkage, the proposed clearing is not considered to be at variance with Principle (e).

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.

The flora surveys undertaken within the application area (Ecoscape 2010; GHD 2020) identified that vegetation in the southern portion of the application area is growing in association with a constructed compensating basin. In addition, vegetation in the western and northern portions of the application area were identified by Emerge as growing in association with two constructed drainage channels which convey drainage from the north of the application area to the compensating basin.

The compensating basin is a constructed feature used to control stormwater flows, entering the application area from the surrounding area. Vegetation within the drainage channels and the compensating basin ranges in condition from 'degraded' to 'completely degraded', and includes a number of non-native tree species and weedy grass species. Whilst this vegetation is associated with watercourses within the application area, these watercourses are not natural features, and the vegetation within these areas are predominantly in degraded or worse condition.

A review of the *Geomorphic Wetlands of the Swan Coastal Plain* dataset (DBCA 2020) indicates that the majority of the southern and western portions of the application area are mapped as occurring within a multiple use wetland (MUW) unique feature identifier (UFI) 7490. The vegetation within the majority of this mapped wetland is not representative of wetland vegetation, with the vegetation associated with the drainage channels and basin the only riparian vegetation. Therefore, no vegetation within the application area is considered to be associated with the MUW. A resource

enhancement wetland (REW) 15819 is located in the south-eastern portion of the application area, however no vegetation associated with this wetland will be cleared as part of the works within the application area. The location and extent of these wetlands are shown in **Figure 10**.

It is noted that the north-south drainage channel and portion of the east-west drainage channel, in addition to the compensating basin will be removed as part of the development of the State Football Centre. As part of the works within the application area, the western portion of the drainage channel will be retained, and works undertaken to improve the condition and function of the drainage channel, which will involve revegetation works within the drainage channel. In addition, the drainage basin will be reconfigured and landscaped with native species to provide a connectivity to the larger patch of vegetation to the west and the REW to the east of the future basin.

Whilst the vegetation within the application area to be cleared is not associated with a wetland, due to the presence of the watercourses within the application area, the proposed clearing is considered to be at variance with Principle (f). However, due to the watercourses being reconfigured, and the vegetation within the watercourses being in a predominantly degraded condition, the removal of vegetation is unlikely to impact on the values of the water courses. In addition, the future revegetation and landscaping works will enhance the ecological values of the retained wetland within the application area. Therefore, the clearing is unlikely to have a significant impact on the wetlands and watercourses within the application area.

Principle (g) – Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

An examination of broad scale mapping places the application area within the Southern River association (Churchward and McArthur 1980). The Southern River association comprises ‘sandplain with low dunes and many intervening swamps; iron and humus podzols, peats and clays.’ Soil landscape mapping indicates that the majority of the application area is identified as sand (DPIRD 2019). Due to the features of these soils, the key risk for land degradation is wind erosion.

The proposed clearing of vegetation is unlikely to cause substantial wind erosion within the application area, given the small amount of vegetation to be cleared, and mitigation measures to be employed during clearing, including dust suppression and surface stabilisation where required. Exposed surfaces within the application area will be sealed post-clearing, including for the carpark and the building, playing turf across a significant portion of the application area will be installed and landscaped gardens will be mulched and revegetated.

The proposed clearing is therefore not at variance to Principle (g).

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.

The application area is located within Bush Forever Site No. 283 ‘Queens Park Bushland, Queens Park’. Bush Forever Site No. 283 includes vegetation within the application area and larger contiguous patches of vegetation to the immediate west of the application area and to the east of Gibbs Street. The vegetation within Bush Forever Site No. 283 provides an ecological linkage with remnant vegetation to the north of the application within Bush Forever Site No. 424. No other conservation areas occur within or adjacent to the application area. The location of these conservation areas is shown in **Figure 9**.

The proposed clearing will involve the removal of a small amount of native vegetation associated with Bush Forever Site No. 283. However, as discussed above, the vegetation within the application area is predominantly in a ‘degraded’ or ‘completely degraded’ condition. In addition, it is noted that there are existing extensively cleared areas within Bush Forever Site No. 283. The applicant has also worked to minimise impacts through the proposed salvaging of plant material for use in the application area and other projects, as well as retaining the better-quality vegetation, notably to the west and within the north-eastern portion of the application area.

The removal of vegetation may indirectly impact the Bush Forever site through the introduction of weeds or dieback within the broader Bush Forever site. However, it is noted that the vegetation within the application area is predominantly in a degraded or worse condition already, with a number of weed species recorded. Weed and dieback management will be controlled through the clearing process, including ensuring that all vehicles are washed down prior to entering the application area and ensuring that no dieback infected mulch, soil or fill is used.

The proposed clearing is at variance to Principle (h). However, based on the existing condition of the vegetation proposed to be cleared, the management measures that will be implemented through the clearing process, and the proposed salvage and retention of vegetation, the clearing is unlikely to have a significant impact on the surrounding conservation area.

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.

Deterioration in quality of surface water or underground water can occur as a result of activities that result in sedimentation, increased nutrient levels, changes to pH (through acid sulphate soils), salinity or changes in water regimes of groundwater dependent ecosystems. As outlined above, given the small amount of vegetation to be cleared; mitigation measures to be employed during clearing (dust suppression and surface stabilisation where required); and the long-term management of exposed surfaces post-clearing (surface sealing for the carpark and the building, installation of playing turf and mulching and revegetation of public open space areas), clearing is not likely to cause a deterioration in water quality. Further, the reconfiguring works associated with the drainage basin and the works required to increase the drainage capacity for the channel in the north-western portion of the application area will result in the function and condition of the surface water bodies improving, thereby also improving the quality of the surface water within the application area.

Acid sulphate soil (ASS) risk mapping prepared by DWER (2020) indicates that the entire application area has been identified as having a moderate to low risk of ASS occurring within 3 m of the natural soil surface. A *Geotechnical Factual and Interpretive Report* (Arup 2020) was undertaken within the north-eastern portion of the application area, whilst an *Acid Sulfate Soil Investigation* (GHD 2010) was undertaken across the north-western portion of the application area. Soil sampling identified that potential ASS (PASS) material was identified within the samples for both investigations.

Whilst PASS was identified within the application area, the risk associated with ASS can be managed through the construction process, through the treatment of any ASS onsite. It should be noted however that the clearing of vegetation is unlikely to directly result in ASS occurring within the application area. The broader development, including installation of pipes to carry stormwater underneath the development, and installation of the sewer, is where ASS issues will arise, and these are associated with earthworks in areas that are predominantly cleared. ASS can be dealt with through the development process separately.

It is therefore unlikely that the proposed clearing will cause ASS or other issues that could cause a deterioration in water quality within or surrounding the application area, and therefore the proposed clearing is not at variance with Principle (i).

Principle (j) – Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

The application area is located within an area that is mapped as having predominantly sandy, free-draining soils.

A review of publicly available data and site-specific investigations did not identify any environmental factors that would increase the incidence of flooding, as discussed below:

- The water table below the application area is between approximately 1.7 to at least 3.1 m below the natural surface level (Arup 2020).

- The application area is not mapped as occurring within a floodplain area (DWER 2020).

Based on the above factors, the proposed removal of native vegetation within the application area will not cause or exacerbate an incidence of flooding. The proposed clearing is not considered to be at variance with Principle (j).

7 SUMMARY AND CLOSING

The application area is approximately 16 hectares (ha) in size, and contains:

- Eight native plant communities, ranging in condition from ‘very good’ to ‘completely degraded’
- Current and historical records for the threatened flora species *Macarthuria keigheryi*
- 1.57 ha primary and 0.23 ha secondary foraging habitat for Carnaby’s cockatoo
- 1.4 ha primary and 0.33 ha secondary foraging habitat for Baudin’s cockatoo
- 1.4 ha primary and 0.39 ha secondary foraging habitat for forest red-tailed black cockatoo
- Potentially a state and federally listed threatened ecological community, ‘*Corymbia calophylla* - *Kingia australis* woodlands on heavy soils of the Swan Coastal Plain’
- 46 potential breeding habitat trees for black cockatoo species. No potentially suitable nesting hollows were identified within the trees.

Overall, the majority of native vegetation within the application area is in ‘completely degraded’ or ‘degraded’ condition.

Emerge believe that the proposed clearing is consistent with the EP Act Clearing Principles, except for Principles (c) and (h), as detailed in this letter.

It is noted that the proposed clearing may not be consistent with Principle (h). However, based on the small amount of clearing, the degraded condition of vegetation and the weed invasion, the clearing is not considered to have a significant impact on the Bush Forever site.

A summary of response to clearing principles is provided in **Table 4**.

Table 4: Summary of response to each clearing principle

Clearing principle	Response to clearing permit principle
Principle (a)	The majority of native vegetation within the application area has been assessed as being in a ‘degraded’ or ‘completely degraded’ condition. Due to the degraded nature of vegetation, the small size of the clearing, the impact of weeds and that no threatened flora were identified within the application area, the application area is not considered to represent a high level of flora diversity. In addition, due to the degraded nature of vegetation and small size of the application area, the vegetation provides only limited fauna habitat. Therefore, this vegetation does not represent a high level of biological diversity.
Principle (b)	<p>Within the application area, there is 1.57 ha primary and 0.23 ha secondary foraging habitat for Carnaby’s cockatoo, 1.4 ha primary and 0.33 ha secondary foraging habitat for Baudin’s cockatoo and 1.4 ha primary and 0.39 ha secondary foraging habitat for FRTBC. This vegetation does not provide significant foraging habitat for these two species, particularly as the broader area (6 km radius from the application area) supports 828 ha of Carnaby’s cockatoo and 840 ha of forest red-tailed black cockatoo foraging habitat. Additionally, the majority of the foraging habitat will be retained as part of future development. Due to the amount of foraging habitat in the broader area, including the broader Bush Forever Site No. 283, and the adjacent Bush Forever Site No. 424, it is unlikely these species are reliant on vegetation within the clearing permit area.</p> <p>In addition, it is noted that 35 large trees will be retained within the application area, which will ensure that there is the retention of foraging and potential breeding habitat for the black cockatoo species</p>

Table 4: Summary of response to each clearing principle (continued)

Clearing principle	Response to clearing permit principle
Principle (c)	Due to the presence of three individuals of <i>Macarthuria keigheryi</i> that were recorded within the vegetation that is proposed to be cleared, the clearing is at variance to Principle (c).
Principle (d)	One state and federal listed threatened ecological community was identified as potentially occurring within the north-eastern portion of the application area, ' <i>Corymbia calophylla</i> - <i>Kingia australis</i> woodlands on heavy soils of the Swan Coastal Plain'. This vegetation will not be impacted as part of the proposed clearing. No other vegetation within the application was representative of a state or federal TEC.
Principle (e)	Based on the small amount of vegetation proposed to be removed, the degraded condition of the vegetation and it not being a constituent of an ecological linkage, the vegetation within the application area is not representative of a significant constituent of a vegetation complex.
Principle (f)	Due to the watercourses being reconfigured, and the vegetation within the watercourses being in a predominantly degraded condition, the removal of vegetation is unlikely to impact on the values of the water courses. In addition, the future revegetation and landscaping works will enhance the ecological values of the retained wetland within the application area. Therefore, the clearing is unlikely to have a significant impact on the wetlands and watercourses within the application area.
Principle (g)	The proposed clearing will not cause appreciable land degradation. Wind erosion is the main risk for the application area, and the proposed management measures will reduce potential for this to occur.
Principle (h)	The proposed clearing of vegetation is within Bush Forever Site No. 283 and is therefore at variance to Principle (h). However, based on the existing condition of the vegetation proposed to be cleared, and the management measures that will be implemented through the clearing process, the clearing is unlikely to have a significant impact on the surrounding conservation area.
Principle (i)	The proposed clearing is not considered to pose a risk in terms of the deterioration of surface or groundwater.
Principle (j)	The proposed clearing is not likely to cause or exacerbate a risk of flooding

The location and the design of the Centre has ensured minimal impact to the environmental values of the surrounding area, through the utilisation of existing degraded areas, retaining the most significant environmental values, and seeking to revegetate the areas of public open space post-construction.

In addition to the above avoidance options that have been utilised, mitigation of the proposed clearing will occur through the salvage and transplanting of plants and collection of seed, where possible. Native vegetation will be replanted within the public open space surrounding the Centre, and at least 35 of the 46 potential breeding habitat trees will be retained in the application area.

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cc: Clint Klymovich

Encl: Figure 1: Application Area Location
Figure 2: Proposed Vegetation Clearing
Figure 3: Plant Communities
Figure 4: Vegetation Condition
Figure 5: Black Cockatoo Habitat Trees
Figure 6: Potential Baudin's Cockatoo Foraging Habitat
Figure 7: Potential Carnaby's Cockatoo Foraging Habitat
Figure 8: Potential Forest Red-tailed Black Cockatoo Foraging Habitat
Figure 9: Environmental Features
Figure 10: Wetlands and Waterways
Attachment 1: Signed Clearing Permit Application Form (C2)
Attachment 2: Certificates of Title for Lot 501 on Deposited Plan 416666 and Lot 22 on Diagram 64644
Attachment 3: Letters of Authority from WAPC and City of Canning
Attachment 4: Flora and Vegetation Assessment (GHD 2020)
Attachment 5: Basic Fauna and Targeted Black Cockatoo Habitat Assessment (Emerge Associates 2020)
Attachment 6: Photographs of Vegetation Within Application Area

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